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PATENT COOPERATION TREATY (PCT)

ADMINISTRATIVE INSTRUCTIONS UNDER THE PATENT COOPERATION TREATY:

ANNEX F, APPENDIX I
XML DTDS FOR THE E-PCT STANDARD

as in force from July 1, 2022

1. This document contains the text of Appendix I of Annex F of the Administrative Instructions under the Patent Cooperation Treaty (PCT) as in force from July 1, 2022. It has been established under Article 58(4) and Rule 89.2(a), and modified under Rule 89.2(b) and in accordance with the change procedure provided for in section 2.5 of Annex F.

2. The text of the Administrative Instructions as in force from July 1, 2022, with the exception of Annexes A and F (available separately), is contained in document PCT/AI/21 dated October 26, 2021 as modified by PCT/AI/22 ADD. dated February 9, 2022. The text of Annex F of the Administrative Instructions as in force from July 1, 2022, with the exception of its Appendix I, is contained in document PCT/AI/ANF/7 dated February 25, 2022. This document is to be read, subject to any subsequent additions or revisions, with these texts.

3. This document is published on WIPO's website at www.wipo.int/pct/en/texts/index.htm; paper copies are available from the International Bureau of WIPO upon request.

ANNEX F
STANDARD FOR THE ELECTRONIC FILING AND PROCESSING
OF INTERNATIONAL APPLICATIONS

APPENDIX I
XML DTDS FOR THE E-PCT STANDARD

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1. INTRODUCTION

This document presents the XML DTDs used for the electronic exchange of international application documents as defined in Annex F. It also contains details of the methodology adopted in drafting these DTDs.[1]

2. DTDS FOR XML DOCUMENTS

2.1 Strategy for further development of DTDs

This specification is expected to expand in scope over time to include subsequent formal exchanges between the parties involved. Included below are some of the DTDs required for the initial phase of electronic submission of an electronic application, and for some communications in the Office-to-Office PCT communication sector. Other DTDs will be required for later phases of the processing of an electronic PCT application (E-PCT).

While the immediate goal of this specification is to support E-PCT applications, national Offices intended to use it as the basis for their own national electronic applications for a variety of industrial-property types and recommend that it would be the basis for an eventual WIPO standard for use by other Offices.

With that in mind, the DTDs created for E-PCT will be constructed in components for element definitions and from which Offices can derive elements and DTDs for their needs in a consistent and compatible manner. The other DTDs that will eventually be required will also be based on the component DTD architecture. The XML name-space facility (XMLNS) will be used to support the distinction of sub-component names in this specification and those produced by other Offices.

As an aid to understanding the DTDs and the component-based architecture, an HTML-based documentation has been constructed of the elements and structures in the sources of the proposed DTDs, that will illustrate their relationships. This HTML documentation is available on the PCT Electronic Filing web-site.

2.2 Future DTDs

(a) Post-application, procedural and formal communications of various types

(b) RO to IB

(c) RO to ISA

(d) IB to ISA

(e) IB to IPEA

(f) ISA to IB

(g) IPEA to IB

(h) IB to RO

(i) DTDs required by other types of industrial property

---

[1] Words and expressions used in this Appendix have the same meanings as in the main body of Annex F; see the Glossary and abbreviations section at the end of that main body.

2.3 Reusable components

Given the large number of international application document exchange DTDs, they will be built using a number of reusable standard components combined with transaction specific components.

These components are defined as XML Schemas (a W3C Recommendation); each element definition is a reusable component and a valid schema in itself; parent elements include the child element components needed to complete their definitions, thus making each component a possible ‘root element’ or document type. These components are then assembled into a complete XML Schema file, which is translated into DTD syntax .

These element definition components will be stored in a repository available via the internet in order to allow Offices to rapidly create DTDs for their specific needs; since many common components have already been defined, new document types can be created in minutes by including pre-defined element definitions, and these element definitions will be consistent across all DTDs.

The complete XML Schemas will also be available via the ePCT Schema repository for use in software development, validation of documents, etc. An XML document instance created with an XML Schema will conform to and can be validated against the DTD as well.

Details on the ePCT Schema repository will be published in future revisions of this document, once it has been tested and implemented.

2.4 XSL Stylesheets

Standard XSL stylesheets are being created by WIPO for the following purposes:

(a) conversion of XML data to HTML to permit viewing of PCT data using web browser software, and

(b) conversion of XML data to support the fee calculation method based on the number of sheets in the international application were it to be in paper form, and to enable printing of PCT data.

These stylesheets will be hosted in the ePCT Schema repository along with the PCT element definitions, and published in future versions of this document.

2.5 DTD Versioning

The file name of a DTD shall indicate its version. The file name with a version number shall be a string resulting from concatenating the document type followed by a hyphen followed by the literal ‘v’ followed by a digit signifying the major version followed by an optional section consisting of a dash followed by a minor revision number digit.

- Example: request-v1-2.dtd

2.6 XML Document Prolog

XML document instances shall begin with a prolog section. The prolog shall contain an XML processing instruction that specifies the version of XML and the encoding scheme. The prolog shall also contain a document type declaration, also known as a DOCTYPE statement. The document type declaration may optionally include a public identifier (prefaced with the keyword 'PUBLIC') and must contain a system identifier (prefaced by the keyword 'SYSTEM', unless a PUBLIC keyword has been used), which specifies a URI (Uniform Resource Identifier) referencing the DTD that the document instance can be validated against. Public identifiers may be found in the comments at the start of each DTD file.

- Example of a prolog with 'PUBLIC' identifier:

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE request PUBLIC "-//WIPO//DTD REQUEST 1.1//EN" "request-v1-1.dtd">

- Example of a prolog with 'SYSTEM' identifier:

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE request SYSTEM "request-v1-1.dtd">

3. DTDS FOR NEW PCT APPLICATIONS (E-PCT)

The DTDs listed below are the latest released versions. They are available in a public Web repository at *http://www.wipo.int/pct-safe/en/resources/xml_dtd.html*.

3.1 Package data

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  package-data v1.8     2021  JULY                                           *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD PACKAGE DATA 1.8//EN" "package-data-v1-8.dtd"         *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/package-data-v1-8.dtd      *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yukako SHIBA: 01/01/2021 incorporated changes from PFC
..changed version number from v1.7 to v1.8
..added an element "earlier-search-letter" to :"package-data
..changed an attribute  "seq-file-type" from "ST.25" to "(ST.25 | ST.26)"
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.6 to v1.7
..added an element "written-opinion" to :"package-data
```

```
..changed an attribute "ref-number" of copy-general-power-of-attorney optional
MO: 01/07/09 incorporated changes from PFC
..changed version number from v1.5 to v1.6
..added attribute 'electronic-format-type' to sequence-list (PFC09/001)
..added attribute 'part-of-application' to sequence-list (PFC09/001)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added element 'xmit-receipt-doc' to package-data (PFC08/004)
..added element 'ro-request-receiving-info-doc' to package-data (PFC08/004)
..added element 'pre-conversion-files-package' to package-data (PFC08/004)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'restore-rights-reason' to package-data (PFC06/004)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
..added attribute 'subset' to protection-request (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..added attribute 'id' to application-reference, publication-reference
..added attribute 'seq-file-type' to sequence-list
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added element 'address' to first-named-applicant
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 Incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'sup2' and 'sub2' to sup and sub
..added attribute 'external-type' to table-external
JD: 03/02/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'notice-info', 'request-for-dispatch-info' to office-to-applicant
content model
..added element 'table-external' to root content model
..added element 'other-filing' to transmittal-info content model
..added (last-name | orgname) to %name_group;
..made postcode optional within address
..removed br from b, i, smallcaps
2001/12/01
..released version number as v1.0
*****************************************************************************

Root Element 'package-data'

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  produced-by   = creator of this document
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  country       = st.3 code

%document-attributes group entity:

lang     = language code of attached document, ISO639 language code, e.g, en,de,ja,
file     = attached document file name, e.g, "request.xml"
status   = attached document status, e.g, new, replace,
carriers =
  internal = This WAD contains the referenced electronic document
```

```
  external = Outside electronic carrier containes the referenced electronic document
  paper    = The referenced document is paper form


-->
<!ELEMENT package-data (transmittal-info , signatories , dtext? , (application-
request | application-body-doc | table-external | chapter2-demand | fee-calculation-
sheet | declaration-doc | lack-of-signature | biological-material | separate-power-
of-attorney | general-power-of-attorney | copy-general-power-of-attorney | bib-
changes | notification | amendment | priority-document | translation-of-application
| search-report-doc | written-opinion | trans-search-report | preliminary-
examination-report | trans-preliminary-examination-report | published-application |
sequence-list | correspondence | other-documents | wrapped-document | restore-
rights-reason | xmit-receipt-doc | ro-request-receiving-info-doc | pre-conversion-
files-package | earlier-search-letter)+)>

<!ATTLIST package-data  lang          CDATA  #REQUIRED
                        dtd-version   CDATA  #IMPLIED
                        file          CDATA  #IMPLIED
                        produced-by           (applicant |
                                       RO |
                                       ISA |
                                       IPEA |
                                       IB |
                                       DO |
                                       EO |
                                       national-office |
                                       regional-office )  #REQUIRED
                        date-produced CDATA  #IMPLIED
                        country       CDATA  #IMPLIED
                        status        CDATA  #IMPLIED >

<!--
  Other documents; specify with sub-elements

-->
<!ELEMENT other-doc (document-name | document-code | dtext)+>

<!ATTLIST other-doc  id        ID     #IMPLIED
                     file      CDATA  #REQUIRED
                     lang      CDATA  #IMPLIED
                     carriers         (internal-electronic |
                                external-electronic |
                                paper )  #IMPLIED
                     file-type        (xml | pdf | txt | tif | zip | jpg )
#REQUIRED
                     status    CDATA  #IMPLIED >

<!--
Applicant letter to ISA concerning earlier search ('PCT Direct')

-->
<!ELEMENT earlier-search-letter  EMPTY>

<!ATTLIST earlier-search-letter  id       ID     #IMPLIED
                                 file     CDATA  #REQUIRED
                                 lang     CDATA  #IMPLIED
                                 carriers        (internal-electronic |
                                           external-electronic |
                                           paper )  #IMPLIED
                                 status   CDATA  #IMPLIED >

<!--

-->
<!ELEMENT pre-conversion-files-package EMPTY>

<!ATTLIST pre-conversion-files-package  id       ID     #IMPLIED
                                        file     CDATA  #REQUIRED
```

```
                                        lang     CDATA  #IMPLIED
                                        status   CDATA  #IMPLIED
                                        carriers        (internal-electronic |
                                                  external-electronic |
                                                  paper )  #IMPLIED >
<!--

-->
<!ELEMENT ro-request-receiving-info-doc EMPTY>

<!ATTLIST ro-request-receiving-info-doc  id       ID     #IMPLIED
                                         file     CDATA  #REQUIRED
                                         lang     CDATA  #IMPLIED
                                         status   CDATA  #IMPLIED
                                         carriers        (internal-electronic |
                                                   external-electronic |
                                                   paper )  #IMPLIED >
<!--

-->
<!ELEMENT xmit-receipt-doc EMPTY>

<!ATTLIST xmit-receipt-doc  id       ID     #IMPLIED
                            file     CDATA  #REQUIRED
                            lang     CDATA  #IMPLIED
                            status   CDATA  #IMPLIED
                            carriers        (internal-electronic |
                                      external-electronic |
                                      paper )  #IMPLIED >

<!--


-->
<!ELEMENT restore-rights-reason EMPTY>

<!ATTLIST restore-rights-reason  id       ID     #IMPLIED
                                 file     CDATA  #REQUIRED
                                 lang     CDATA  #IMPLIED
                                 carriers        (internal-electronic |
                                           external-electronic |
                                           paper )  #IMPLIED
                                 status   CDATA  #IMPLIED >

<!--
  Wrapped document referenced; e.g.record copy, certified priority document.

-->
<!ELEMENT wrapped-document EMPTY>

<!ATTLIST wrapped-document  id           ID     #IMPLIED
                            file         CDATA  #REQUIRED
                            lang         CDATA  #IMPLIED
                            package-type        (wad | wasp | sep )  #REQUIRED
                            status       CDATA  #IMPLIED >

<!--
  Correspondence from applicant
    it is possible to use corr(espondence)-type attribute for correspondence title

-->
<!ELEMENT correspondence EMPTY>

<!ATTLIST correspondence  id        ID     #IMPLIED
                          file      CDATA  #REQUIRED
                          lang      CDATA  #IMPLIED
                          carriers        (internal-electronic |
                                    external-electronic |
                                    paper )  #IMPLIED
```

```
                              status    CDATA  #IMPLIED
                              corr-type CDATA  #REQUIRED >

<!--
  SEQUENCE LISTING
    According to WIPO ST.25: STANDARD FOR THE PRESENTATION OF NUCLEOTIDE AND
    AMINO ACID SEQUENCE LISTINGS IN PATENT APPLICATIONS:
      see http://www.wipo.int/scit/en/index.html
    "The sequence listing as defined in paragraph 2(i) shall, where it is filed
    together with the application, be placed at the end of the description
    part of the application. This part shall be entitled Sequence Listing,
    begin on a new page and preferably have independent page numbering.
    The sequence listing forms an integral part of the description; it is therefore
    unnecessary, subject to paragraph 36, to describe the sequences elsewhere
    in the description." Therefore we create here a separate sub-document for
    sequence listings, it should follow any drawings or the claims.
    It should follow the format of Annex C/ST.25 and be an external file
    Or According to WIPO ST.26: RECOMMENDED STANDARD FOR THE PRESENTATION OF
NUCLEOTIDE AND AMINO ACID SEQUENCE LISTINGS
     USING XML (EXTENSIBLE MARKUP LANGUAGE)
    See https://www.wipo.int/standards/en/pdf/03-26-01.pdf


-->
<!ELEMENT sequence-list EMPTY>

<!ATTLIST sequence-list  id                      ID     #IMPLIED
                           file                    CDATA  #REQUIRED
                           lang                    CDATA  #IMPLIED
                           carriers                       (internal-electronic |
                                                     external-electronic |
                                                     paper )  #IMPLIED
                           seq-file-type           (ST.25 | ST.26) #REQUIRED
                           electronic-format-type         (text | other )  #IMPLIED
                           status                  CDATA  #IMPLIED
                           part-of-application             (yes | no )  #IMPLIED >

<!--
  Published application, e.g. PCT Art.20 communication

-->
<!ELEMENT published-application EMPTY>

<!ATTLIST published-application  id       ID     #IMPLIED
                                  file     CDATA  #REQUIRED
                                  lang     CDATA  #IMPLIED
                                  carriers        (internal-electronic |
                                            external-electronic |
                                            paper )  #IMPLIED
                                  status   CDATA  #IMPLIED >

<!--
  English translation of International Preliminary Examination Report

-->
<!ELEMENT trans-preliminary-examination-report EMPTY>

<!ATTLIST trans-preliminary-examination-report  id       ID     #IMPLIED
                                                  file     CDATA  #REQUIRED
                                                  lang     CDATA  #IMPLIED
                                                  carriers        (internal-
electronic |
                                                            external-electronic |
                                                            paper )  #IMPLIED
                                                  status   CDATA  #IMPLIED >

<!--
  International Preliminary Examination Report (IPER) (Article 35)
```

```
-->
<!ELEMENT preliminary-examination-report EMPTY>

<!ATTLIST preliminary-examination-report  id       ID     #IMPLIED
                                          file     CDATA  #REQUIRED
                                          lang     CDATA  #IMPLIED
                                          carriers        (internal-electronic |
                                                    external-electronic |
                                                    paper )  #IMPLIED
                                          status   CDATA  #IMPLIED >

<!--
  English translation of search report

-->
<!ELEMENT trans-search-report EMPTY>

<!ATTLIST trans-search-report  id       ID     #IMPLIED
                              file     CDATA  #REQUIRED
                              lang     CDATA  #IMPLIED
                              carriers        (internal-electronic |
                                        external-electronic |
                                        paper )  #IMPLIED
                              status   CDATA  #IMPLIED >

<!--
  Search report

-->
<!ELEMENT search-report-doc EMPTY>

<!ATTLIST search-report-doc  id       ID     #IMPLIED
                             file     CDATA  #REQUIRED
                             lang     CDATA  #IMPLIED
                             carriers        (internal-electronic |
                                       external-electronic |
                                       paper )  #IMPLIED
                             status   CDATA  #IMPLIED >

<!--
  Translation of international application

-->
<!ELEMENT translation-of-application EMPTY>

<!ATTLIST translation-of-application  id       ID     #IMPLIED
                                      file     CDATA  #REQUIRED
                                      lang     CDATA  #IMPLIED
                                      carriers        (internal-electronic |
                                                external-electronic |
                                                paper )  #IMPLIED
                                      status   CDATA  #IMPLIED >

<!--
  A copy of the earlier application for which priority is being claimed (Rule 17)

-->
<!ELEMENT priority-document EMPTY>

<!ATTLIST priority-document  id       ID     #IMPLIED
                             file     CDATA  #REQUIRED
                             lang     CDATA  #IMPLIED
                             carriers        (internal-electronic |
                                       external-electronic |
                                       paper )  #IMPLIED
                             status   CDATA  #IMPLIED >

<!--
  Amendment request document (PCT Art 19, Art 34)
```

```
-->
<!ELEMENT amendment EMPTY>

<!ATTLIST amendment  id       ID     #IMPLIED
                     file     CDATA  #REQUIRED
                     lang     CDATA  #IMPLIED
                     status   CDATA  #IMPLIED
                     carriers        (internal-electronic | external-electronic |
paper )  #IMPLIED >

<!--
  Notification form among applicant and offices

-->
<!ELEMENT notification EMPTY>

<!ATTLIST notification  id        ID     #IMPLIED
                       file      CDATA  #REQUIRED
                       lang      CDATA  #IMPLIED
                       carriers         (internal-electronic |
                                  external-electronic |
                                  paper )  #IMPLIED
                       notf-type CDATA  #REQUIRED
                       status    CDATA  #IMPLIED >

<!--
  Changes to bibliographic material; e.g. name, address

-->
<!ELEMENT bib-changes EMPTY>

<!ATTLIST bib-changes  id       ID     #IMPLIED
                       file     CDATA  #REQUIRED
                       lang     CDATA  #IMPLIED
                       status   CDATA  #IMPLIED
                       carriers        (internal-electronic |
                                 external-electronic |
                                 paper )  #IMPLIED >

<!--
  Copy of general power of attorney; PCT/RO/101 Box IX Check-box 4

-->
<!ELEMENT copy-general-power-of-attorney EMPTY>

<!ATTLIST copy-general-power-of-attorney  id         ID     #IMPLIED
                                          file       CDATA  #REQUIRED
                                          lang       CDATA  #IMPLIED
                                          carriers          (internal-electronic |
                                                      external-electronic |
                                                      paper )  #IMPLIED
                                          ref-number CDATA  #IMPLIED
                                          status     CDATA  #IMPLIED >

<!--
  Original general power of attorney;
  PCT/RO/101 Box IX, Check-box 3

-->
<!ELEMENT general-power-of-attorney EMPTY>

<!ATTLIST general-power-of-attorney  id       ID     #IMPLIED
                                     file     CDATA  #REQUIRED
                                     lang     CDATA  #IMPLIED
                                     carriers        (internal-electronic |
                                               external-electronic |
                                               paper )  #IMPLIED
                                     status   CDATA  #IMPLIED >
```

```
<!--
  Original separate power of attorney

-->
<!ELEMENT separate-power-of-attorney EMPTY>

<!ATTLIST separate-power-of-attorney  id       ID     #IMPLIED
                                      file     CDATA  #REQUIRED
                                      lang     CDATA  #IMPLIED
                                      carriers        (internal-electronic |
                                                external-electronic |
                                                paper )  #IMPLIED
                                      status   CDATA  #IMPLIED >

<!--
  Separate indications concerning deposited microorganism
  or other biological material

-->
<!ELEMENT biological-material EMPTY>

<!ATTLIST biological-material  id       ID     #IMPLIED
                               file     CDATA  #REQUIRED
                               lang     CDATA  #IMPLIED
                               status   CDATA  #IMPLIED
                               carriers        (internal-electronic |
                                         external-electronic |
                                         paper )  #IMPLIED >

<!--
  Statement explaining lack of signature

-->
<!ELEMENT lack-of-signature EMPTY>

<!ATTLIST lack-of-signature  id       ID     #IMPLIED
                             file     CDATA  #REQUIRED
                             lang     CDATA  #IMPLIED
                             carriers        (internal-electronic |
                                       external-electronic |
                                       paper )  #IMPLIED
                             status   CDATA  #IMPLIED >

<!--
  Declarations under PCT

  Attribute values of "dec-type":
   "1" = Declaration as to the identity of the inventor
   "2" = Declaration as to the applicant's entitlement, as at the international
filing date, to apply for and be granted a patent
   "3" = Declaration as to the applicant's entitlement, as at the international
filing date, to claim the priority of the earlier application
   "4" = Declaration of inventorship (only for the purposes of the designation of
the United States of America)
   "5" = Declaration as to non-prejudicial disclosures or exceptions to lack of
novelty


-->
<!ELEMENT declaration-doc EMPTY>

<!ATTLIST declaration-doc  id       ID     #IMPLIED
                           file     CDATA  #REQUIRED
                           lang     CDATA  #IMPLIED
                           carriers        (internal-electronic |
                                     external-electronic |
                                     paper )  #IMPLIED
                           dec-type        (1 | 2 | 3 | 4 | 5 | combined )
```

```
#REQUIRED
                              status   CDATA  #IMPLIED >

<!--
  Reference to an attached fee-calculation sheet

-->
<!ELEMENT fee-calculation-sheet EMPTY>

<!ATTLIST fee-calculation-sheet  id       ID     #IMPLIED
                                   file     CDATA  #REQUIRED
                                   lang     CDATA  #IMPLIED
                                   status   CDATA  #IMPLIED
                                   carriers        (internal-electronic |
                                             external-electronic |
                                             paper )  #IMPLIED >

<!--
  Chapter2-demand form (IPEA401)

-->
<!ELEMENT chapter2-demand EMPTY>

<!ATTLIST chapter2-demand  id       ID     #IMPLIED
                             file     CDATA  #REQUIRED
                             lang     CDATA  #IMPLIED
                             status   CDATA  #IMPLIED
                             carriers        (internal-electronic |
                                       external-electronic |
                                       paper )  #IMPLIED >

<!--
  Table external document:

-->
<!ELEMENT table-external EMPTY>

<!ATTLIST table-external  id       ID     #IMPLIED
                            file     CDATA  #REQUIRED
                            lang     CDATA  #IMPLIED
                            carriers        (internal-electronic |
                                      external-electronic |
                                      paper )  #IMPLIED
                            status   CDATA  #IMPLIED >

<!--
  Application Body document:
    (ST32: PATDOC)
  description, claims, drawings and abstract

-->
<!ELEMENT application-body-doc EMPTY>

<!ATTLIST application-body-doc  id       ID     #IMPLIED
                                  file     CDATA  #REQUIRED
                                  lang     CDATA  #IMPLIED
                                  status   CDATA  #IMPLIED
                                  carriers        (internal-electronic |
                                            external-electronic |
                                            paper )  #IMPLIED >

<!--
  PCT request form (PCT/RO/101)

-->
<!ELEMENT application-request EMPTY>

<!ATTLIST application-request  id       ID     #IMPLIED
                                file     CDATA  #REQUIRED
```

```
                                  lang     CDATA  #IMPLIED
                                  status   CDATA  #IMPLIED
                                  carriers        (internal-electronic |
                                            external-electronic |
                                            paper )  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                 place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Information regarding notice

-->
<!ELEMENT notice-info (response-term? , applicant-name* , agent-info? , reason-for-
rejection-info? , drafting-document-info?)>

<!ATTLIST notice-info  notice-id-ref CDATA  #REQUIRED >

<!--
  Response term of invitation.

  Attributes:
    term     = period of time
    division = discernment of month or day

-->
<!ELEMENT response-term EMPTY>

<!ATTLIST response-term  unit-of-time CDATA  #REQUIRED
                          value        CDATA  #REQUIRED >

<!--
  Publication reference information: publication number, date, etc
    (INID 11, ST.32:B110)

-->
<!ELEMENT publication-reference (document-id)>

<!ATTLIST publication-reference  id ID  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
```

```
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Reference to an appealed application

-->
<!ELEMENT appeal-reference (doc-number , date?)>

<!ATTLIST appeal-reference  appeal-type CDATA  #REQUIRED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                           lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Holder for other documents that do not conform to one of the DTDs published in
  Appendix I of Annex F.

-->
<!ELEMENT other-documents (other-doc*)>


<!--
  Descriptive text
```

```
-->
<!ELEMENT dtext (#PCDATA)>


<!--
  The name of the other-doc(ument) referenced

-->
<!ELEMENT document-name (#PCDATA)>


<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
```

```
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Transmittal information

-->
<!ELEMENT transmittal-info (new-application | subsequent-filing | office-to-office |
office-to-applicant)>


<!--
  Document transfer information from office to applicant

-->
<!ELEMENT office-to-applicant (from , invention-title? , confirmation-number? ,
receipt-list-info? , file-reference-id? , (application-reference+ | (patent-
reference , application-reference+)) , notice-info* , total-number-of-
notifications?)>


<!--
  The total number of cases ready for notice

-->
<!ELEMENT total-number-of-notifications (#PCDATA)>


<!--
  A list of the receipts produced by the Office in response to query
  "what did I send you?"

-->
<!ELEMENT receipt-list-info (applicant-name? , receipt-number*)>


<!--
  Notification to the applicant of the document code of the object to draft

-->
<!ELEMENT drafting-document-info (document-code? , (receipt-number | dispatch-id))>


<!--
  Dispatch identifier

-->
<!ELEMENT dispatch-id (#PCDATA)>


<!--
  Receipt number

-->
<!ELEMENT receipt-number (#PCDATA)>


<!--
```

```
  The Japanese applicant is demanding the notice of the reason for rejection

-->
<!ELEMENT reason-for-rejection-info (reason-code , text)>


<!--
  Code of the reason for rejection

-->
<!ELEMENT reason-code (#PCDATA)>


<!--
  Information regarding the agent (without address information)

-->
<!ELEMENT agent-info (agent-name+ | customer-number)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  The name of the agent (without address information)

-->
<!ELEMENT agent-name (%name_group;)>


<!--
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Document transfer information between offices.

-->
<!ELEMENT office-to-office (invention-title? , first-named-applicant? ,
confirmation-number? , application-reference , publication-reference? , file-
reference-id? , from? , to?)>


<!--
  The office that sends the document

-->
<!ELEMENT from (country)>


<!--
  Subsequent filing information, before Issue Date

-->
<!ELEMENT subsequent-filing (invention-title? , first-named-applicant ,
confirmation-number? , file-reference-id? , appeal-reference? , (application-
reference+ | (patent-reference , application-reference+)) , document-code* , to)>


<!--
  Patent reference information: patent number, date, etc
```

```
-->
<!ELEMENT patent-reference (document-id)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Confirmation number from office

-->
<!ELEMENT confirmation-number (#PCDATA)>


<!--
  New application information from applicant to office

-->
<!ELEMENT new-application (invention-title? , first-named-applicant? , file-
reference-id? , document-code* , to)>


<!--
  The office that receives the document

-->
<!ELEMENT to (country)>


<!--
  For reference to non-PCT document from national office;
  code defined by national office

-->
<!ELEMENT document-code (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  First applicant name in applicant group

-->
<!ELEMENT first-named-applicant (%name_group; , address?)>
```

```
<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
```

```
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>
```

```
<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>
```

```
<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>

<!--  bio = stub; not same as element (yet)  -->

<!--
  Writen Opinion of a searching authority

-->
<!ELEMENT written-opinion EMPTY>
<!ATTLIST written-opinion  id       ID     #IMPLIED
                           file     CDATA  #REQUIRED
                           lang     CDATA  #IMPLIED
                           carriers        (internal-electronic |
                                    external-electronic |
                                    paper )  #IMPLIED
                           status   CDATA  #IMPLIED >
```

3.2 Request form

```
<?xml version='1.0' encoding='UTF-8' ?>
```

```
<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  Request v1.9     2017  JULY                                                *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD REQUEST 1.9//EN" "request-v1-9.dtd"                  *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/request-v1-9.dtd          *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.8 to v1.9
..added an attribute "id" to signatory and us-rights
..added an element " earlier-search-authorization" to search-authority
..added an element "figures-in-color" to "request"
SY: 01/07/12 incorporated changes from PFC:
..changed version number from v1.7 to v1.8
..added attribute 'priority-doc-access-code' to priority-doc-from-library
(PFC12/001)
SY: 01/04/10 incorporated changes from PFC:
..changed version number from v1.6 to v1.7
..added element 'priority-doc-from-library' to priority-claim (PFC09/005)
..added element 'store-in-digital-library' to request (PFC09/005)
MO: 01/07/09 incorporated changes from PFC:
..changed version number from v1.5 to v1.6
..added attribute 'carriers-type' to cl-sequence-listing (PFC09/001)
..added attribute 'carriers-quantity' to cl-sequence-listing (PFC09/001)
..added attribute 'size' to cl-sequence-listing (PFC09/001)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added element 'substantially-equivalent' to earlier-search-request (PFC08/003)
..added element 'earlier-search-document' to earlier-search-request (PFC08/003)
..added element 'cl-earlier-search-document' to check-list (PFC08/003)
..added attribute 'email-purpose' to email (PFC08/006)
..added attribute 'for-search-only' to cl-sequence-listing-table (PFC08/007)
..added attribute 'additional-copies-including-search-copy' to cl-sequence-listing-
table (PFC08/007)
..added attribute 'with-identifying-statement' to cl-sequence-listing-table
(PFC08/007)
..added attribute 'for-search-only' to cl-sequence-listing (PFC08/007)
..added attribute 'additional-copies-including-search-copy' to cl-sequence-listing
(PFC08/007)
..added attribute 'with-identifying-statement' to cl-sequence-listing (PFC08/007)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'incorporation-by-reference' to priority-claims (PFC06/004)
..added element 'restore-rights' to priority-claim (PFC06/004)
..added element 'cl-restore-rights-reason' to checklist (PFC06/004)
```

```
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
..added attribute 'subset' to protection-request (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'id' to addressbook, priority-claim
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added attribute 'legal-representative', 'administrator', 'administratrix',
   'legal-representatives', 'heirs', 'executors', 'legal-heirs' to us-right
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..changed element request from 'dtext?' to 'dtext*'
..changed element designation-of-states
   from '(precautionary-designation-statement, exclusion-from-designation?)?)'
   to '(precautionary-designation-statement?, exclusion-from-designation?))'
..added element 'sup2' and 'sub2' to sup and sub
..added element 'cl-sequence-listing-table to check-list
..added attribute 'ppf' and 'ppl' to cl-abstract, cl-claims, cl-description
..added attribute 'fig-count' to cl-drawings
..added attribute 'carriers' to cl-sequence-listing
JD: 03/02/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..changed element inventors from '(inventor+, deceased-inventor*)' to '(inventor |
deceased-inventor)+'
..changed element protection-request from '?' to '*' in national, regional
..added element 'any-other-state' to regional
..added attribute 'total-page-count' to check-list
..added attribute 'page-count' to cl-sequence-listing
..added attribute 'lang', 'sequence' attributes to deceased-inventor
..added attribute 'orientation' to doc-page
..added (last-name | orgname) option to %name_group;
..made postcode optional within address
..removed 'br' from b, i, smallcaps
December 2001
..released version number as v1.0
********************************************************************************

PCT REQUEST FORM : RO101 (root element)

attributes for request

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ro            = Receiving office name, country code ST.3
  produced-by   = creator of this document

-->
<!ELEMENT request ((file-reference-id? , request-petition , invention-title? ,
parties , designation-of-states? , priority-claims? , search-authority? ,
declarations? , check-list? , figure-to-publish? , figures-in-color? ,  language-
of-filing? , signatories? , store-in-digital-library? , dtext* , office-specific-
data*) | doc-page+)>

<!ATTLIST request  lang          CDATA  #REQUIRED
                   dtd-version   CDATA  #IMPLIED
                   file          CDATA  #IMPLIED
                   produced-by          (applicant |
                                 RO |
                                 ISA |
                                 IPEA |
                                 IB |
```

```
                                    DO |
                                    EO |
                                    national-office |
                                    regional-office )  #REQUIRED
                      date-produced CDATA  #IMPLIED
                      ro            CDATA  #REQUIRED
                      status        CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  Office is the ST.3 country code, including the regional authorities.
  Office-dtd is the file which contains the DTD for the office-specific elements.

-->
<!ELEMENT office-specific-data EMPTY>

<!ATTLIST office-specific-data  office     CDATA  #REQUIRED
                                  office-dtd CDATA  #REQUIRED
                                  file       CDATA  #REQUIRED
                                  id         ID     #IMPLIED
                                  lang       CDATA  #IMPLIED
                                  status     CDATA  #IMPLIED >

<!--
    Indicator used to flag request to store this application in digital library for
later use as a priority document.
  In the case of PCT this will be the WIPO DAS for Priority documents
  The Indicators presence implies the request and absence implies no request

-->
<!ELEMENT store-in-digital-library EMPTY>

<!ATTLIST store-in-digital-library  id ID  #IMPLIED >

<!--
  A signature represented by electronic means

-->
```

```
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Request (PCT/RO/101) BOX No.IX Check list, figure number to publish and language
  of International Application check-list

-->
<!ELEMENT check-list (cl-request? , cl-description? , cl-claims? , cl-abstract? ,
cl-drawings? , cl-sequence-listing? , cl-sequence-listing-table? , cl-fee-
calculation? , cl-separate-power-of-attorney? , cl-general-power-of-attorney? , cl-
copy-general-power-of-attorney? , cl-lack-of-signature? , cl-priority-document? ,
cl-translation-of-application? , cl-biological-material? , cl-restore-rights-
reason? , cl-earlier-search-document? , cl-other-document*)>

<!ATTLIST check-list  total-page-count CDATA  #IMPLIED >

<!--
  Checklist; an additional document is being furnished

-->
<!ELEMENT cl-other-document (#PCDATA)>

<!ATTLIST cl-other-document  page-count CDATA  #IMPLIED >
<!--
     Checklist; an earlier-search report is being furnished

-->
<!ELEMENT cl-earlier-search-document EMPTY>

<!ATTLIST cl-earlier-search-document  quantity CDATA  #REQUIRED >

<!--


-->
<!ELEMENT cl-restore-rights-reason EMPTY>

<!ATTLIST cl-restore-rights-reason  quantity CDATA  #REQUIRED >

<!--
  Includes the PCT/RO/134 or any separate sheet containing
  Indications that is not included as part of the description

-->
<!ELEMENT cl-biological-material EMPTY>

<!ATTLIST cl-biological-material  quantity CDATA  #REQUIRED >

<!--
  Check-list; a translation of application  is being furnished

-->
<!ELEMENT cl-translation-of-application EMPTY>

<!ATTLIST cl-translation-of-application  quantity CDATA  #REQUIRED
                                        lang     CDATA  #IMPLIED >

<!--
```

```
  Checklist; a priority document is being furnished

-->
<!ELEMENT cl-priority-document (sequence-number+)>

<!ATTLIST cl-priority-document  quantity CDATA  #REQUIRED >

<!--
  Checklist; a statement explaining lack of signature is being furnished

-->
<!ELEMENT cl-lack-of-signature EMPTY>

<!ATTLIST cl-lack-of-signature  quantity CDATA  #REQUIRED >

<!--
  Checklist; a copy of the general power of attorney is being furnished

-->
<!ELEMENT cl-copy-general-power-of-attorney (ref-number+)>

<!ATTLIST cl-copy-general-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a general power of attorney is being furnished

-->
<!ELEMENT cl-general-power-of-attorney EMPTY>

<!ATTLIST cl-general-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a separate power of attorney is being furnished

-->
<!ELEMENT cl-separate-power-of-attorney EMPTY>

<!ATTLIST cl-separate-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a sequence listing table is being furnished

-->
<!ELEMENT cl-sequence-listing-table EMPTY>

<!ATTLIST cl-sequence-listing-table  quantity                                CDATA
#REQUIRED
                                    for-search-only
(yes |
                                                                            no
)  #IMPLIED
                                    additional-copies-including-search-copy
(yes |
                                                                            no
)  #IMPLIED
                                    with-identifying-statement
(yes |
                                                                            no
)  #IMPLIED
                                    page-count
CDATA  #IMPLIED
                                    carriers
(internal-electronic |

external-electronic |

paper )  #IMPLIED >

<!--
```

```
  Checklist; a sequence listing or sequence listings is/are being furnished
  For carrier-type the listed values represent:
    FD    - Floppy Disc
    CD    - Compact Disc
    BD    - Blu-Ray Disc
    DVD   - Digital Versatile Disc
    Other - Other media types

-->
<!ELEMENT cl-sequence-listing EMPTY>

<!ATTLIST cl-sequence-listing  quantity                                  CDATA
#REQUIRED
                               for-search-only
(yes |
                                                                           no )
#IMPLIED
                               additional-copies-including-search-copy
(yes |
                                                                           no )
#IMPLIED
                               with-identifying-statement
(yes |
                                                                           no )
#IMPLIED
                               page-count                                CDATA
#IMPLIED
                               carriers
(internal-electronic |

external-electronic |
                                                                           paper )
#IMPLIED
                               carriers-type                                    (FD
|
                                                                           CD |
                                                                           BD |
                                                                           DVD |
                                                                           other )
#IMPLIED
                               carriers-quantity                         CDATA
#IMPLIED
                               size                                      CDATA
#IMPLIED >

<!--
  Checklist; drawings are being furnished
    (ST32:B598)

-->
<!ELEMENT cl-drawings EMPTY>

<!ATTLIST cl-drawings  page-count CDATA  #IMPLIED
                         fig-count  CDATA  #IMPLIED>

<!--
  Checklist; the abstract is being furnished

-->
<!ELEMENT cl-abstract EMPTY>

<!ATTLIST cl-abstract  page-count CDATA  #IMPLIED
                        ppf        CDATA  #IMPLIED
                        ppl        CDATA  #IMPLIED >

<!--
  Checklist; claims are being furnished

-->
```

```
<!ELEMENT cl-claims EMPTY>

<!ATTLIST cl-claims  page-count CDATA  #IMPLIED
                       ppf        CDATA  #IMPLIED
                       ppl        CDATA  #IMPLIED >

<!--
  Checklist; a description is being furnished

-->
<!ELEMENT cl-description EMPTY>

<!ATTLIST cl-description  page-count CDATA  #IMPLIED
                            ppf        CDATA  #IMPLIED
                            ppl        CDATA  #IMPLIED >

<!--
  Checklist; the request is being furnished

-->
<!ELEMENT cl-request EMPTY>

<!ATTLIST cl-request  page-count CDATA  #IMPLIED >

<!--
  Declaration as to non-prejudical disclosures or exceptions to lack of novelty
  (Rules 4.17(v) and 51bis.1(a)(v))

-->
<!ELEMENT declaration5 EMPTY>

<!ATTLIST declaration5  quantity CDATA  #REQUIRED >

<!--
  Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes
  of the designation of the United States of America

-->
<!ELEMENT declaration4 EMPTY>

<!ATTLIST declaration4  quantity CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  claim the priority of the earlier application, where the applicant is not the
  applicant who filed the earlier application or where the applicant's name has
  changed since the filing of the earlier application
  (Rules 4.17(iii) and 51bis.1(a)(iii))

-->
<!ELEMENT declaration3 EMPTY>

<!ATTLIST declaration3  quantity CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case
  where the declaration under Rule 4.17(iv) is not appropriate

-->
<!ELEMENT declaration2 EMPTY>

<!ATTLIST declaration2  quantity CDATA  #REQUIRED >

<!--
  Declaration as to the identity of the inventor
  (Rules 4.17(i) and 51bis.1(a)(i))

-->
```

```
<!ELEMENT declaration1 EMPTY>

<!ATTLIST declaration1  quantity CDATA  #REQUIRED >
<!--
-->
<!ELEMENT earlier-search-documents EMPTY>

<!ATTLIST earlier-search-documents  results-of-earlier-search
(yes |

no )  #IMPLIED
                                    earlier-application
(yes |

no )  #IMPLIED
                                    translation-of-earlier-application
(yes |

no )  #IMPLIED
                                    translation-of-results-of-earlier-search
(yes |

no )  #IMPLIED
                                    documents-cited-in-earlier-search-results
(yes |

no )  #IMPLIED
                                    available-at-isa
(yes |

no )  #IMPLIED
                                    request-ro-to-transmit-to-isa
(yes |

no )  #IMPLIED >

<!--
  Priority claim (PCT Rule 4.10)
    (INID 32/33/34, ST.32:B320/B330/B340)

-->
<!ELEMENT priority-claim (country , doc-number? , date , office-of-filing? ,
(priority-doc-requested | priority-doc-attached | priority-doc-from-library)? ,
restore-rights?)>

<!ATTLIST priority-claim  id       ID     #IMPLIED
                          sequence CDATA  #REQUIRED
                          kind            (national | regional | international )
#REQUIRED >

<!--
  library-identifier  attribute intended as an identifying code for the library
containing the document ? to be used where offices support the access of documents
from many such libraries

  action-by  attribute would indicate the office requested to retrieve the document
(for PCT this can be the RO or IB, default IB)

  priority-doc-access-code indicates, when present, the access code that the Office
(or applicable Offices) should use to obtain the priority document from the
specified digital library

-->
<!ELEMENT priority-doc-from-library EMPTY>

<!ATTLIST priority-doc-from-library  library-identifier       CDATA  #IMPLIED
                                     action-by                 CDATA  #IMPLIED
                                     priority-doc-access-code CDATA  #IMPLIED >
```

```
<!--
  Protection request for the designated office.

-->
<!ELEMENT protection-request (kind-of-protection , document-id?)>

<!ATTLIST protection-request  subset   (yes | no )  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Agent or common representative (Rules 90.1, 90.2)

-->
<!ELEMENT agent (addressbook+)>

<!ATTLIST agent  sequence CDATA  #REQUIRED
                   rep-type        (agent | attorney | common-representative )
#REQUIRED >

<!--
  Deceased inventor name

-->
<!ELEMENT deceased-inventor (%name_group;)>

<!ATTLIST deceased-inventor  sequence CDATA  #IMPLIED
                               lang     CDATA  #IMPLIED >

<!--
  The individual or entity responsible for creating the matter that protection is
  sought for.
    (ST.32:B721)

-->
<!ELEMENT inventor (addressbook+ , designated-states?)>

<!ATTLIST inventor  sequence    CDATA  #REQUIRED
                      designation        (all | all-except-us | us-only | as-
indicated )  #IMPLIED >

<!--
  Applicant information:
    (INID 71, ST.32:B710)

  attributes for applicant
    sequence   : sequence number of each applicant
                 e.g, sequence="1"
    app-type   : applicant type
                 app-type="applicant" : the applicant is only applicant
                 app-type="applicant-inventor" : the applicant is also inventor
    designation: This person is applicant for the purpose of:
                 designation="all"          : all designated states
                 designation="all-except-us": all designated states except US
                 designation="us-only"      : US only
                 designation="as-indicated" : the states indicated in
                                              designated-states element
                                              under applicant element

-->
<!ELEMENT applicant (addressbook+ , nationality , residence , us-rights* ,
designated-states? , designated-states-as-inventor?)>
```

```
<!ATTLIST applicant  sequence    CDATA  #REQUIRED
                       app-type           (applicant | applicant-inventor )
#REQUIRED
                       designation        (all | all-except-us | us-only | as-
indicated )  #REQUIRED >

<!--
  This person is successor to the rights of an inventor who is deceased, insane, or
  legally incapacitated, for the purposes of the designation of the United States
  of America

-->
<!ELEMENT us-rights (#PCDATA)>

<!ATTLIST us-rights  to-dead-inventor CDATA  #REQUIRED
                       kind                    (heir |
                                               heiress |
                                               executor |
                                               executrix |
                                               estate |
                                               legal-representative |
                                               administrator |
                                               administratrix |
                                               legal-representatives |
                                               heirs |
                                               executors |
                                               legal-heirs )  #REQUIRED
                       id  ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
```

```
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                            lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>
```

```
<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Filing language, ISO639 language code, e.g, en,de,ja, etc.
    (INID 25, ST.32:B250)

-->
<!ELEMENT language-of-filing (#PCDATA)>


<!--
  Figure of the drawings which should accompany the abstract

-->
<!ELEMENT figure-to-publish (fig-number+)>


<!--
  PCT/RO/101 Box IX: the number of the figure which should accompany the abstract.
    (ST.32:B598)

-->
<!ELEMENT fig-number (#PCDATA)>


<!--
```

```
  Sequential identification of priority documents.  PCT/RO/101 Box VI.

-->
<!ELEMENT sequence-number (#PCDATA)>


<!--
  Reference number of general power of attorney.

-->
<!ELEMENT ref-number (#PCDATA)>


<!--
  Checklist; a fee calculation sheet is being furnished

-->
<!ELEMENT cl-fee-calculation EMPTY>


<!--
  PCT/RO/101  Box No. VIII: DECLARATIONS
  (Rules 4.1(c)(iii) and 4.17)

-->
<!ELEMENT declarations (declaration1? , declaration2? , declaration3? ,
declaration4? , declaration5?)>


<!--
  PCT/RO/101 Box No.VII :International Searching Authority

-->
<!ELEMENT search-authority (isa , earlier-search-request?,  earlier-search-
authorization*)>


<!--
  Request to use results of earlier search; reference to that search

-->
<!ELEMENT earlier-search-request (document-id , substantially-equivalent? ,
earlier-search-documents?)+>

<!--
-->
<!ELEMENT substantially-equivalent EMPTY>


<!--
  International Search Authority; international search to be carried out by

-->
<!ELEMENT isa (country)>


<!--
  PCT/RO/101 BOX No.VI Priority Claim (PCT Rule 4.10)
    (INID 30, ST.32:B300)

-->
<!ELEMENT priority-claims (priority-claim+ , incorporation-by-reference?)>


<!--
     where an element  of the international application referrred to in Article
11(1)(iii)(d) or (e) or a part of the description, claims or drawings referred to
in Rule 20.5(a) is not otherwise contained in this international application but is
completely contained in an earlier application whose priority is claimed on the
```

```
date on which one or more elements referred to in Article 11(1)(iii) were first
received by the receiving Office, that element or part is, subject to confirmation
under Rule 20.6, incorporated by reference in this international application for
the purposes of Rule 20.6

-->
<!ELEMENT incorporation-by-reference EMPTY>


<!--
  The priority document is attached to the application

-->
<!ELEMENT priority-doc-attached EMPTY>


<!--
  The receiving office is requested to prepare and transmit to the IB a certified
  copy of the earlier application

-->
<!ELEMENT priority-doc-requested EMPTY>


<!--
     This element is made when the receiving Office is requested to restore the
right of priority.

-->
<!ELEMENT restore-rights EMPTY>


<!--
  Where the earlier application is an ARIPO application,indicate at least one
  country party to the PARIS convention for the protection of industrial property
  or one member of the WTO for which that earlier application was filed.

-->
<!ELEMENT office-of-filing ((region , country?) | country)>


<!--
  PCT/RO/101 Box No.V Designation Of States (PCT Rule 4.9)

-->
<!ELEMENT designation-of-states (designation-pct , (precautionary-designation-
statement? , exclusion-from-designation?))>


<!--
  Rule 4.9(b),(c)
    In addition to the designations made above [i.e, designation-of states], the
    applicant also makes under Rule 4.9(b) all other designations which would be
    permitted under the PCT except any designation(s) indicated in the Supplemental
    Box [i.e., exclusion-from-designation] as being excluded form the scope of this
    statement. The applicant declares that those additional designations are
    subject to confirmation and that any designation which is not confirmed before
    the expiration of 15 months from the priority date is to be regarded as
    withdrawn by the applicant at the expiration of that time limit.

-->
<!ELEMENT precautionary-designation-statement (#PCDATA)>


<!--
  State(s) excluded from precautionary designations under Rule 4.9(b)

-->
<!ELEMENT exclusion-from-designation (regional* , national?)>
```

```
<!--
  The Contracting States in which protection is desired
  (Rules 4.1(a)(iv) and 4.9(a))

-->
<!ELEMENT designation-pct (regional* , national? , new-designation-country*)>


<!--
  New PCT member country states (e.g., not yet published in WIPO ST.3, joined after
  PCT electronic filing software published)

-->
<!ELEMENT new-designation-country (#PCDATA)>


<!--
  The States for which protection or exclusion (depending upon context) is desired

-->
<!ELEMENT national (country , protection-request*)+>


<!--
  Regional (as opposed to national) protection being sought

-->
<!ELEMENT regional (region , (country , protection-request*)+ , any-other-state?)>



<!--
  Any other state in which protection is being sought

-->
<!ELEMENT any-other-state EMPTY>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Kind of protection; e.g., patent, utility model

-->
<!ELEMENT kind-of-protection (#PCDATA)>
```

```
<!--
  PCT/RO/101 Box No.II, III and IV APPLICANTS, FURTHER APPLICANT(S)
  AND/OR (FURTHER) INVENTOR(S)AGENT OR COMMON REPRESENTATIVE;
  OR ADDRESS FOR CORRESPONDENCE (PCT Rule 4.5, 4.6, 4.7, 4.8)
    (INID 70, ST.32:B700)

-->
<!ELEMENT parties (applicants , inventors? , correspondence-address? , agents?)>


<!--
  Information regarding Agents or common representatives

-->
<!ELEMENT agents (customer-number | agent+)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Inventors information:
    If the US is designated, all of the inventors must also be named as applicants
    for purposes of that designation.

-->
<!ELEMENT inventors (inventor | deceased-inventor)+>


<!--
  Applicants information:
    At least one of the applicants named must be a resident or national of a PCT
    Contracting State for which the receiving Office acts.

-->
<!ELEMENT applicants (applicant+)>


<!--
  Rule 4.6(c):
   "The request may, for different designated states, indicate different persons
    as inventors where, in this respect, the requirements of the national laws of
    the designated States are not the same.  In such a case, the request shall
    contain a separate statement for each designated State or group of States in
    which a particular person, or the same person, is to be considered the
    inventor, or in which particular persons, or the same persons, are to be
    considered the inventors."

-->
<!ELEMENT designated-states-as-inventor (country* , (region , country+)*)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
```

```
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  Country of residence

-->
<!ELEMENT residence (country)>


<!--
  Country of nationality

-->
<!ELEMENT nationality (country)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
```

```
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>
```

```
<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>
```

```
<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
```

```
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  (PCT Rule 4.1(a)):
    "The request shall contain: (i) a petition,"
  (PCT Rule 4.2):
    "The petition shall be to the following effect and shall preferably be worded
     as follows: 'The undersigned requests that the present international
     application be processed according to the Patent Cooperation Treaty.'"

-->
<!ELEMENT request-petition (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>

<!--
  Authorization to RO to transmit  earlier search
-->
<!ELEMENT earlier-search-authorization (document-id )>
<!ATTLIST earlier-search-authorization  request-ro-not-transmit
(yes |

no )  #IMPLIED
                                       applicant-authorizes-ro-transmit
(yes |

no )  #IMPLIED >
```

```
<!--
    Indicator used to flag the fact that the drawings of the application have been
furnished as color images
  The indicators presence implies the drawings are in color format and absence
implies that they are black and white

-->

<!ELEMENT figures-in-color EMPTY>
```

3.3 Application body

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  application-body v1.8     2021  JULY                                       *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD APPLICATION BODY 1.8//EN" "application-body-v1-8.dtd"  *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/application-body-v1-8.dtd   *
*****************************************************************************
* contacts:                                                                  *
*   WIPO:  Yukako SHIBA; yukako.shiba@wipo.int                               *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yukako SHIBA incorporated changes from PFCs:
..changed version number from v1.7 to v1.8
..added an element "additional-info" to "rel-passage".
Asahi HASEBE incorporated changes from PFCs:
..changed version number from v1.6 to v1.7
..added an attribute "color" to "figure".
MO: 01/01/09 incorporated changes from PFC
..changed version number from v1.5 to v1.6
..added element 'summary-of-invention' to description (PFC08/008)
..added element 'description-of-embodiments' to description (PFC08/008)
..added element 'reference-signs-list' to description (PFC08/008)
..added element 'reference-to-deposited-bioligical-material' to description
(PFC08/008)
..added element 'citation-list' to description (PFC08/008)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
```

```
..changed element nplcit from '(text | (article , book , online , othercit)*)' to
'(text | article | book | online | othercit)'
..changed element othercit from '(#PCDATA)' to '(#PCDATA | b | i | u | sup | sub)*'
..changed element rel-passage from (text | (passage+ , category? , rel-claims?)) to
(text | (passage+ , category* , rel-claims*)+)
..changed attribute he, wi of doc-page, img from 'NMTOKEN' to 'CDATA'
..changed value of attribute idref of crossref from 'CDATA' to 'IDREF'
..changed value of attribute tsize of dl from 'NMTOKEN' to 'CDATA'
..changed value of attribute num of patcit, nplcit from '#REQUIRED' to 'IMPLIED'
..changed value of attribute xml:space of pre from '#FIXED 'preserve'' to
'(preserve | default #IMPLIED)'
..changed value name of attribute listing-type of pre from 'software-code' to
'program-listing'
..added element 'pre' to claim-text, dd, li
..added attribute 'id' to addressbook
..added attribute 'chem-type' to chem
..added attribute 'claim-type' to claim, claims
..added attribute 'class-type' to class
..added attribute 'ocr' to doc-page
..added value 'other-subname-type' to attribute 'subname-type' of subname
..removed attribute 'lang', 'status', 'dtd-version' from chem
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..changed element article, online, serial from 'subname?' to 'subname*'
..changed element chemistry from '(img)' to '(img|(chem,img?))'
..changed element maths from '(img|math)' to '(img|(math,img?))'
..changed element rel-passage from 'category?, rel-claims?' to 'category*, rel-
claims*'
..added element 'figref' to claim-text, dd, li
..added element 'b', 'i', 'u', 'sup', 'sub', 'smallcaps' to crossref
..added attribute 'num' to li
..added attribute 'subname-type' to subname
..added value 'chem', table'', math'', 'program-listing', 'flowchart' to attribute
img-content of img
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
..removed attribute 'class-type' from nplcit
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'pre' to p content model
..added element 'sup2' and 'sub2' to sup and sub
..added attribute 'lang' and 'class-type' to nplcit
..added attribute 'external-type' to table-external
..added attribute 'figure-labels' to figure
JD: 03/02/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added attribute 'file-reference-id' to root
..added attribute 'orientation' to doc-page, img
..added attribute 'inline' to img
..added attribute 'ol-style' to ol
..added attribute 'dnum-type' to patcit
..added TABLE-EXTERNAL to p content model
..made postcode optional within address
..added (last-name | orgname) choice to %name_group;
..removed br from b, i , smallcaps
2001/12/01
..released version number as v1.0
************************************************************************

  ********************************************************************
  *  XML VERSION FOR FILING OF PCT APPLICATIONS:                     *
  *  description, claims, abstract, drawings -                       *
  *  it may be utilised by other offices as required -               *
  *  but it is NOT recommended to add or change element and          *
  *  attribute names                                                 *
  *  see: http://pcteasy.wipo.int/efiling_standards/EFPage.htm       *
  *                                                                  *
  *  It is intended for a) Online Filing b) (later) publication, etc *
  *  within the context of a new version of ST.32 (ST.32X)           *
```

```
  *  In developing this DTD we have taken into consideration:        *
  *  - earlier versions of this dtd                                  *
  *  - ST32 version 3                                                *
  *  - Variations of ST.32 in: WIPO, USPTO, MIMOSA, etc              *
  *  - USPTO EFS dtd                                                 *
  *  - Trilateral Common data dictionary                             *
  *  - ISO 12083 dtds, etc                                           *
  ******************************************************************

  ************************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                    *
  ************************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
  ************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL           *
  ************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->
<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">

<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
```

```
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                 | patcit | nplcit | bio-deposit | crossref | img
                 | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "soextblx.dtd">
%calstblx;
<!--
  ************************************************************************
  * SECTION II - DTD                                                     *
  ************************************************************************

APPLICATION-BODY

PCT Art 3(2) states
"(2) An international application shall contain, as specified in this Treaty and
the Regulations, a request, a description, one or more claims, one or more drawings
(where required), and an abstract."
The Request is dealt with by a separate DTD since it will be handled by form
filling software and requires different processing later.
The main application will be authored by the applicant as one word processor file,
the order follows general practice today.
The sequence list (although part of the description) is a separate sub-document
which will reference an ST.25 compliant file.

Attributes:
  lang              =  language of application  - use ISO639 language code
  dtd-version       =  dtd version number
  file              =  filename of the whole application
  id                =  unique id for this application - could be file name
  status            =  status of the application; values: new = new application
  id                =  an identifier for this application (could be filename)
  country           =  WIPO ST.3 code for application
  file-reference-id = applicant's or agent's file reference, if any

-->
<!ELEMENT application-body (doc-page+ | (description , claims , abstract? ,
drawings?))>

<!ATTLIST application-body  id                ID     #IMPLIED
                            lang              CDATA  #REQUIRED
                            dtd-version       CDATA  #IMPLIED
                            file              CDATA  #IMPLIED
                            file-reference-id CDATA  #IMPLIED
                            country           CDATA  #REQUIRED
                            status            CDATA  #IMPLIED >

<!--
  Drawings: PCT Article 7 / Rule 7
  Drawings shall be required when they are necessary for the understanding of the
  invention.

  Recommended id = 'draw'

-->
<!ELEMENT drawings (doc-page+ | figure+)>

<!ATTLIST drawings  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  A drawing (figure), necessary for the understanding of the invention

  Recommended id = f0001, f0002, etc.

-->
<!ELEMENT figure (img)>
```

```
<!ATTLIST figure  id            ID     #IMPLIED
                  num           CDATA  #REQUIRED
                  figure-labels CDATA  #IMPLIED
                  color (color | bw) #IMPLIED>

<!--
  ABSTRACT: PCT Rule 8
    (INID 57, ST.32:B570)
  A concise summary of the disclosure, 50-150 words.

  Recommended id = 'abst' or 'abst0001' for multiple abstracts

-->
<!ELEMENT abstract (doc-page+ | (abst-problem , abst-solution) | p+)>

<!ATTLIST abstract  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  The solution to the alleged problem that the invention  purports to solve.

  Recommended id = 'abss'

-->
<!ELEMENT abst-solution (p+)>

<!ATTLIST abst-solution  id ID  #IMPLIED >

<!--
  The alleged problem that the invention purports to solve

  Recommended id = 'absp'

-->
<!ELEMENT abst-problem (p+)>

<!ATTLIST abst-problem  id ID  #IMPLIED >

<!--
  Claims:
  the claims shall define the matter sought for patent and be supported by the
  description.

  Recommended id = 'claim' or 'claim0001' for multiple claims

-->
<!ELEMENT claims (doc-page+ | claim+)>

<!ATTLIST claims  id         ID     #IMPLIED
                  lang       CDATA  #IMPLIED
                  claim-type CDATA  #IMPLIED
                  status     CDATA  #IMPLIED >

<!--
  Defines the matter for which protection is sought
  See PCT Rule 6:
    6.1.a: 'the number of claims shall be reasonable in consideration of what is
            being claimed.'
    6.1.b: 'if there are several claims, they shall be numbered consecutively in
            Arabic numerals.'

  Recommended id values
    If parent element is claims and there is only ONE set of claims:
      id = c0001, c0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there is only ONE set then;
      id = ac0001, ac0002, etc.;num = 0001, 0002, etc.
    If parent element is claims and there are MULTIPLE sets of claims then:
```

```
      id = c01.0001, c01.0002, etc.;num = 0001, 0002, etc.
      id = c02.0001, c02.0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there are MULTIPLE sets of
    amended-claims then:
      id = ac01.0001, ac01.0002, etc.;num = 0001, 0002, etc.

-->
<!ELEMENT claim (claim-text+)>

<!ATTLIST claim  id         ID     #IMPLIED
                 num        CDATA  #REQUIRED
                 claim-type CDATA  #IMPLIED >

<!--
  Reference to a claim

-->
<!ELEMENT claim-ref (#PCDATA)>

<!ATTLIST claim-ref  idref IDREFS  #REQUIRED >

<!--
  Description:
  The description must disclose the invention in a manner sufficiently clear and
  complete for it to be carried out by a person skilled in the art (Rule 5).

  Recommended id = 'desc'

-->
<!ELEMENT description (doc-page+ | (invention-title? , (technical-field |
background-art | disclosure | summary-of-invention | description-of-drawings |
description-of-embodiments | best-mode | mode-for-invention | industrial-
applicability | reference-signs-list | reference-to-deposited-biological-material |
sequence-list-text | citation-list | (heading* , p+)+)+))>

<!ATTLIST description  id     ID     #IMPLIED
                       lang   CDATA  #IMPLIED
                       status CDATA  #IMPLIED >
<!--
-->
<!ELEMENT citation-list (patent-literature | non-patent-literature | (heading* ,
p*)+)+>

<!ATTLIST citation-list  id ID  #IMPLIED >
<!--
-->
<!ELEMENT non-patent-literature (heading* , p+)+>

<!ATTLIST non-patent-literature  id ID  #IMPLIED >
<!--
-->
<!ELEMENT patent-literature (heading* , p+)+>

<!ATTLIST patent-literature  id ID  #IMPLIED >

<!--
  Sequence listing free text
  WIPO ST.25:
  "36. Where the sequence listing part of the description contains free text,
       any such free text shall be repeated in the main part of the description
       in the language thereof.
       It is recommended that the free text in the language of the main part of the
       description be put in a specific section of the description called "Sequence
       Listing Free Text".

  Recommended id = 'seqt'

-->
<!ELEMENT sequence-list-text (heading* , p+)+>
```

```
<!ATTLIST sequence-list-text  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-to-deposited-biological-material (heading* , p+)+>

<!ATTLIST reference-to-deposited-biological-material  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-signs-list (heading* , p+)+>

<!ATTLIST reference-signs-list  id ID  #IMPLIED >

<!--
  Article 33(4): "For purposes of the international preliminary examination,
  a claimed invention shall be considered industrially applicable if, according to
  its nature, it can be made or used (in the technological sense) in any kind of
  industry.

  Recommended id = 'inap'

-->
<!ELEMENT industrial-applicability (heading* , p+)+>

<!ATTLIST industrial-applicability  id ID  #IMPLIED >

<!--
  PCT Rule 5.1(a)(vi): "The description shall...indicate explicitly, when it is not
  obvious from the description or nature of the invention, the way in which the
  invention is capable of exploitation in industry and the way in which it can be
  made and used..."

  Recommended id = 'mode'

-->
<!ELEMENT mode-for-invention (heading* , p+)+>

<!ATTLIST mode-for-invention  id       ID     #IMPLIED
                              mode-num CDATA  #IMPLIED >

<!--
  The best mode contemplated by the applicant for carrying out the invention
  claimed.

  Recommended id = 'bmod'

-->
<!ELEMENT best-mode (heading* , p+)+>

<!ATTLIST best-mode  id ID  #IMPLIED >
<!--
-->
<!ELEMENT description-of-embodiments (embodiments-example | (heading* , p*)+)+>

<!ATTLIST description-of-embodiments  id ID  #IMPLIED >
<!--
-->
<!ELEMENT embodiments-example (heading* , p+)+>

<!ATTLIST embodiments-example  id     ID     #IMPLIED
                               ex-num CDATA  #IMPLIED >

<!--
  Brief description of the drawings (Rule 5.1(a)(iv)

  Recommended id = 'desd'

-->
<!ELEMENT description-of-drawings (heading* , p+)+>
```

```
<!ATTLIST description-of-drawings  id ID  #IMPLIED >
<!--
-->
<!ELEMENT summary-of-invention (tech-problem | tech-solution | advantageous-effects
| (heading* , p*)+)+>

<!ATTLIST summary-of-invention  id ID  #IMPLIED >

<!--
  Disclosure of the invention with sub-headings:
    technical problem;
    technical solution;
    advantageous effects (of the invention);

  Recommended id = 'disc'

-->
<!ELEMENT disclosure ((tech-problem | tech-solution | advantageous-effects)* |
(heading* , p+)+)>

<!ATTLIST disclosure  id ID  #IMPLIED >

<!--
  advantageous effects of the invention (PCT Rule 5.1(a)(iii)

  Recommended id = 'adve'

-->
<!ELEMENT advantageous-effects (heading* , p+)+>

<!ATTLIST advantageous-effects  id ID  #IMPLIED >

<!--
  The solution to the problem that the invention purports to solve.
  (PCT Rule 5.1(a)(iii)

-->
<!ELEMENT tech-solution (heading* , p+)+>

<!ATTLIST tech-solution  id ID  #IMPLIED >

<!--
  The problem the invention purports to solve (Rule 5.1(a)(iii)

-->
<!ELEMENT tech-problem (heading* , p+)+>

<!ATTLIST tech-problem  id ID  #IMPLIED >

<!--
  Background art, background of the invention.

  Recommended id = 'bart'

-->
<!ELEMENT background-art (heading* , p+)+>

<!ATTLIST background-art  id ID  #IMPLIED >

<!--
  PCT Rule 5.1:
    (a) The description shall first state the title of the invention as appearing
       in the request and shall:
      (i) specify the technical field to which the invention relates

-->
<!ELEMENT technical-field (heading* , p+)+>
```

```
<!ATTLIST technical-field  id ID  #IMPLIED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.

  Note: paragraphs may occur in sections other than the description and at
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.

-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
               num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
                              carriers             (internal-electronic |
                                external-electronic |
                                paper )  #IMPLIED
                              external-type        (math |
                                chemistry |
                                program-listing |
                                other )  #IMPLIED
                              status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>

<!ATTLIST tables  id  ID     #IMPLIED
                    num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
              compact        (compact )  #IMPLIED
              id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>
```

```
<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
               list-style     (bullet | dash | none )  'bullet'
               compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
               num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                  num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                      num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                 file      CDATA  #REQUIRED
                 chem-type CDATA  #IMPLIED >

<!--
```

```
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arabic numbers     1, 2, 3, ...
    a   lower alpha        a, b, c, ...
    A   upper alpha        A, B, C, ...
    i   lower roman        i, ii, iii, ...
    I   upper roman        I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
                compact         (compact )  #IMPLIED
                ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
                he          CDATA  #REQUIRED
                wi          CDATA  #REQUIRED
                file        CDATA  #REQUIRED
                alt         CDATA  #IMPLIED
                img-content        (drawing |
                                    photograph |
                                    character |
                                    dna |
                                    undefined |
                                    chem |
                                    table |
                                    math |
                                    program-listing |
                                    flowchart |
                                    graph )  'drawing'
                img-format         (jpg | tif | st33 | st35 )  #REQUIRED
                orientation        (portrait | landscape )  'portrait'
                inline             (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                    num   CDATA   #IMPLIED >
```

```
<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                       num  CDATA  #REQUIRED
                       url  CDATA  #IMPLIED
                       dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                  num      CDATA  #IMPLIED
```

```
                    lang     CDATA  #IMPLIED
                    file     CDATA  #IMPLIED
                    npl-type CDATA  #IMPLIED
                    medium   CDATA  #IMPLIED
                    url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number

-->
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
```

```
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                  num       CDATA  #IMPLIED
                  dnum      CDATA  #IMPLIED
                  dnum-type CDATA  #IMPLIED
                  file      CDATA  #IMPLIED
                  url       CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >
```

```
<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
                xml:space        (preserve | default )  #IMPLIED
                listing-type     (sequence | program-listing | other )  #REQUIRED
>

<!--
  Heading text; see Rule 5.  Recommended id = h0001, h0002, etc.

-->
<!ELEMENT heading (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST heading  level     (1 | 2 | 3 )  #IMPLIED
                     id    ID  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                            lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >
```

```
<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
                    pp          CDATA  #IMPLIED
                    ppf         CDATA  #IMPLIED
                    ppl         CDATA  #IMPLIED
                    file        CDATA  #REQUIRED
                    ocr         CDATA  #IMPLIED
                    color              (color | bw )  #IMPLIED
                    orientation        (portrait | landscape )  'portrait' >

<!--
 The text of the claim; also used for for sub-para indentation

-->
<!ELEMENT claim-text (#PCDATA | claim-text | claim-ref | b | i | u | o | sup | sub
| smallcaps | br | pre | crossref | figref | img | chemistry | maths | tables)*>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)
```

```
-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
```

```
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? , datecit?
, srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document
```

```
-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
```

```
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
```

```
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
, line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>
```

```
<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
```

```
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>
```

```
<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>


<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
```

```
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal
```

```
-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>
```

```
<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>
```

```
<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>
```

```
<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>

<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
```

```
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>
```

```
<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>
```

3.4 Declarations (Rules 4.17 and 51bis.1(a))

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
************************************************************************
*  declaration v1.6     2017  JULY                                      *
************************************************************************
*  PUBLIC "-//WIPO//DTD DECLARATION 1.6//EN" "declaration-v1-6.dtd"    *
************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/declaration-v1-6.dtd *
************************************************************************
* contact:                                                             *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                          *
************************************************************************
* revision history                                                     *
************************************************************************
Asahi HASEBE: 01/07/17 incorporated changes from PFCs:
..changed version number from v1.5 to v1.6
..added attribute 'id' to lack-of-novelty, entitlement-to-claim-priority,
entitlement-to-be-granted-patent, signatory and matter-name
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..changed element '(all-designations | all-designations-except-us | designated-
status)'
```

```
  to '(all-designations | all-designations-except-us | designated-status)?'
  in identity-of-inventor (PFC06/002)
..changed element '(all-designations | all-designations-except-us | designated-
status)'
  to '(all-designations | all-designations-except-us | designated-status)?'
  in matter (PFC06/002)
..changed element '(all-designations | designated-status)'
  to '(all-designations | designated-status)?' in lack-of-novelty (PFC06/002)
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
MO: 29/09/05 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..changed occurrence of 'addressbook' in 'inventor-info' from '+' to '*'.
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'id' to addressbook, application-reference
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..changed attribute lang of addressbook from '#REQUIRED' to '#IMPLIED'
JD: 03/02/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added attribute 'file-reference-id' to root
..added attribute 'orientation' to doc-page
..added attribute 'lang', 'sequence' to lack-of-novelty
..added attribute 'tense' to matter
..added (last-name | orgname) option to %name_group;
..made postcode optional within address
December 2001
..released version number as v1.0

*****************************************************************************

DECLARATION

Attributes:
  lang              = language of application - use ISO639 language code
  dtd-version       = dtd version number
  file              = filename of the whole application
  status            = status of the application; values: new = new application
  date-produced     = date this document was produced
  file-reference-id = applicant's or agent's file reference, if any

-->
<!ELEMENT declaration (identity-of-inventor | entitlement-to-be-granted-patent |
entitlement-to-claim-priority | inventorship | lack-of-novelty)+>

<!ATTLIST declaration  lang              CDATA  #REQUIRED
                       dtd-version       CDATA  #IMPLIED
                       file              CDATA  #IMPLIED
                       date-produced     CDATA  #IMPLIED
                       file-reference-id CDATA  #IMPLIED
                       status            CDATA  #IMPLIED >

<!--
  Declaration as to non-prejudical disclosures or exceptions to lack of novelty
  (PCT Rules 4.17(v) and 51bis.1(a)(v))

-->
<!ELEMENT lack-of-novelty (doc-page+ | (application-reference? , %name_group; ,
```

```
((date | address | title-of-disclosure | method-of-disclosure | dtext)+ , (all-
designations | designated-states)?)))>

<!ATTLIST lack-of-novelty  sequence CDATA  #REQUIRED
                           lang     CDATA  #IMPLIED
                           id     ID  #IMPLIED >

<!--
  Declaration of inventorship.  For purposes of the United States the declaration
  shall be worded with the original and first inventor clause.

-->
<!ELEMENT inventorship (doc-page+ | (application-reference? , earlier-app-
reference* , inventor-info+ , signatories? , dtext?))>

<!ATTLIST inventorship  sequence CDATA  #REQUIRED
                         lang     CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  claim the priority of the earlier application, where the applicant is not the
  applicant who filed the earlier application or where the applicant's name has
  changed since the filing of the earlier application.
  (Rules 4.17(iii) and 51bis.1(a)(iii))

-->
<!ELEMENT entitlement-to-claim-priority (doc-page+ | (application-reference? ,
%name_group; , earlier-app-reference , matter+))>

<!ATTLIST entitlement-to-claim-priority  sequence CDATA  #REQUIRED
                                         lang     CDATA  #IMPLIED
                                         id     ID  #IMPLIED>

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case
  where the declaration under Rule 4.17(iv) is not appropriate

-->
<!ELEMENT entitlement-to-be-granted-patent (doc-page+ | (application-reference? ,
%name_group; , matter+))>

<!ATTLIST entitlement-to-be-granted-patent  sequence CDATA  #REQUIRED
                                            lang     CDATA  #IMPLIED
                                            combined        (yes | no )  #IMPLIED
                                            id     ID  #IMPLIED>

<!--
  Section 212, 213.
  Attribute 'item':  reason for entitlement.  See Sections 212, 213 for values.
    i)   (name) of (address) is the inventor of the subject matter for which
          protection is sought by way of [the] [this] international application
```

```
    ii)  (name) [is] [was] entitled as employer of the inventor, (inventor's name)
    iii)  an agreement between... (name) and ... (name), dated...
    iv)  an assignment from ... (name) to ...(name), dated...
    v)   consent from ... (name) in favor of ...(name), dated...
    vi)  a court order issued by ... (name of court), effecting a transfer from
          ... (name) to...(name), dated...
    vii)  transfer of entitlement from ...(name) to ...(name) by way of (specify
          kind of transfer), dated ...
    viii) the applicant's name changed from ...(name) to ...(name) on ...(date)

-->
<!ELEMENT matter ((date | matter-name | addressbook | court-name | kind-of-
transfer)+ , (all-designations | all-designations-except-us | designated-states)?)>

<!ATTLIST matter  item    (i | ii | iii | iv | v | vi | vii | viii | ix )  #IMPLIED
                    tense   (is | was )  #IMPLIED >

<!--
  Declaration as to the identity of the inventor
  (Rules 4.17(i) and 51bis.1(a)(i))

-->
<!ELEMENT identity-of-inventor (doc-page+ | (application-reference? , addressbook+
, (all-designations | all-designations-except-us | designated-states)?))>

<!ATTLIST identity-of-inventor  sequence CDATA  #REQUIRED
                                lang     CDATA  #IMPLIED
                                combined        (yes | no )  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.
```

```
-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Method by which prior art was disclosed to the public

-->
<!ELEMENT method-of-disclosure (international-exhibition | publication | abuse |
other)>


<!--
  Other method by which prior art was disclosed to the public

-->
```

```
<!ELEMENT other (#PCDATA)>



<!--
  Exceptions to lack of novelty resulting from abuse;
  Rule 51bis.1(a)(v)

-->
<!ELEMENT abuse (#PCDATA)>


<!--
  A publication was used as the method of disclosure

-->
<!ELEMENT publication (#PCDATA)>


<!--
  An international exhibition was used as the method of disclosure

-->
<!ELEMENT international-exhibition (#PCDATA)>


<!--
  Title of what is being disclosed under PCT Rule 51bis.1(a)(v)

-->
<!ELEMENT title-of-disclosure (#PCDATA)>


<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type
```

```
-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Information regarding inventor(s)
    (INID 72, ST.32:B720)

-->
<!ELEMENT inventor-info (addressbook* , us-residence , authority-applicant?)>


<!--
  Identifies the authority for the applicant. In certain circumstances an inventor
  is unable to file his/her own patent application and an authorized individual
must do so

-->
<!ELEMENT authority-applicant (#PCDATA)>


<!--
  Identifies the residence of a U.S. inventor

-->
<!ELEMENT us-residence (military-service | (us | non-us))>


<!--
  Identifies the residence of a U.S. inventor that does not reside in the U.S.

-->
<!ELEMENT non-us (city , country , citizenship?)>


<!--
  Identifies the residence of a US inventor that resides in the US

-->
```

```
<!ELEMENT us (city , state , country , citizenship?)>


<!--
  A person's status as a citizen of a country

-->
<!ELEMENT citizenship (#PCDATA)>


<!--
  Military address where the applicant is considered to reside

-->
<!ELEMENT military-service (#PCDATA)>


<!--
  Section 212(a)(vii): kind of transfer of entitlement

-->
<!ELEMENT kind-of-transfer (#PCDATA)>


<!--
  Name of court; e.g., U.S. Supreme Court

-->
<!ELEMENT court-name (#PCDATA)>


<!ELEMENT matter-name (%name_group;)>

<!ATTLIST matter-name
                  id ID #IMPLIED>



<!--
  Earlier application identification group

-->
<!ELEMENT earlier-app-reference (document-id)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  Designated states for which indications are made: all except United States

-->
<!ELEMENT all-designations-except-us EMPTY>


<!--
```

```
  All designations permitted by the Treaty are made  (Rule 4.9(b))

-->
<!ELEMENT all-designations EMPTY>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>
```

```
<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
```

```
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)
```

```
-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

3.5 Power of attorney

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
```

```
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  power-of-attorney v1.6     2017  JULY                                      *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD POWER OF ATTORNEY 1.6//EN" "power-of-attorney-v1-6.dtd"*
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/power-of-attorney-v1-6.dtd  *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.5 to v1.6
..added an attribute "id" to signatory
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..multiple addressbook allowed in attorney-or-agent (PFC08/001)
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'id' to addressbook, application-reference
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'sup2' and 'sub2' to sup and sub
JD: 03/02/03 Incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added attribute 'orientation' to doc-page
..added (last-name | orgname) option in %name_group;
..made postcode optional within address
..removed br from b, i, smallcaps
2001/12/01
..released version number as v1.0
*****************************************************************************

This DTD is based on PCT-EASY power of attorney

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
```

```
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum

-->
<!ELEMENT power-of-attorney (((customer-number? , attorney-or-agent*) , represent-
before , (invention-title | file-reference-id | application-reference)* , ro ,
payor , signatories) | doc-page+)>

<!ATTLIST power-of-attorney  lang          CDATA  #REQUIRED
                             dtd-version   CDATA  #IMPLIED
                             file          CDATA  #IMPLIED
                             date-produced CDATA  #IMPLIED
                             title                (power-of-attorney | general-
power-of-attorney )  #REQUIRED
                             status        CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Attorney or agent has the power to make or receive payments on behalf of the
  applicant (yes| no)

-->
<!ELEMENT payor EMPTY>

<!ATTLIST payor  role   (yes | no )  #REQUIRED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
                    pp          CDATA  #IMPLIED
                    ppf         CDATA  #IMPLIED
                    ppl         CDATA  #IMPLIED
                    file        CDATA  #REQUIRED
```

```
                      ocr         CDATA  #IMPLIED
                      color               (color | bw )  #IMPLIED
                      orientation         (portrait | landscape )  'portrait' >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                           lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Applicant's legal representative
    (INID 74, ST.32:B740)

-->
<!ELEMENT attorney-or-agent (addressbook+ , range-of-authority*)>

<!ATTLIST attorney-or-agent  rep-type   (agent | attorney | common-representative )
#REQUIRED >
```

```
<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>
```

```
<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Receiving Office

-->
<!ELEMENT ro (country)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>
```

```
<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  The body(ies) which the attorney or agent is appointed to represent the applicant
  before

-->
```

```
<!ELEMENT represent-before (all-authorities | isa-only | ipea-only)>


<!--
  Representative has power to represent before International Preliminary
  Examination Authority only

-->
<!ELEMENT ipea-only EMPTY>


<!--
  Representative has power to represent before International Search Authority only

-->
<!ELEMENT isa-only EMPTY>


<!--
  Attorney or agent may represent before all authorities

-->
<!ELEMENT all-authorities EMPTY>


<!--
  The type of authority held by the attorney or agent

-->
<!ELEMENT range-of-authority (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
```

```
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>
```

```
<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
```

```
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Customer number for agents by office
```

```
-->
<!ELEMENT customer-number (#PCDATA)>
```

3.6 Fee sheet

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  fee-sheet v1.9     2019  APRIL                                             *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD FEE SHEET  1.9//EN"  "fee-sheet-v1-9.dtd"             *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/fee-sheet-v1-9.dtd         *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yuya USHIDA : 01/04/19 incorporated changes from PFC
..changed version number from v1.8 to v1.9
..added element 'reimbursement-deposit-account' to fee-sheet
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.7 to v1.8
..added an attribute "id" to signatory
AH: 01/04/15 incorporated changes from PFC
 .. added element 'automatic-debit' to 'authorization'
SY: 01/04/10 incorporated changes from PFC
..changed version number from v1.5 to v1.6
..added element 'payment-contact' to fee-sheet (PFC09/007)
..added element 'credit-card' to payment-mode (PFC09/007)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..add element 'earlier-search-document-fee' to prescribed-fees (PFC08/003)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
..added element 'restoration-fee' to prescribed-fees (PFC07/001)
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added element 'later-payment' to payment-mode
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 Incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..changed element international-fee from 'designation-fee' to 'designation-fee?'
..changed element international-fee from 'fee-reduction?' to 'fee-reduction*'
..added attribute 'reduction-type' to fee-reduction
JD: 03/02/03 Incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'dtext' to root content model
..added attribute 'orientation' to 'doc-page'
..added 'last-name | orgname' option in %name_group;
```

```
..made 'postcode' optional within 'address'
2001/12/01
..released version number as v1.0
*****************************************************************************

Fee calculation sheet annex to the PCT request

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  produced-by   = creator of this document
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ro            = Receiving office name, country code ST.3

-->
<!ELEMENT fee-sheet ((file-reference-id? , applicant-name , prescribed-fees ,
amount-grand-total+ , deposit-account? , dtext* , payment-contact?, reimbursement-
deposit-account*) | doc-page+)>

<!ATTLIST fee-sheet  lang          CDATA  #REQUIRED
                     dtd-version   CDATA  #IMPLIED
                     file          CDATA  #IMPLIED
                     produced-by          (applicant |
                                    RO |
                                    ISA |
                                    IPEA |
                                    IB |
                                    DO |
                                    EO |
                                    national-office |
                                    regional-office )  #REQUIRED
                     date-produced CDATA  #IMPLIED
                     ro            CDATA  #REQUIRED
                     status        CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings
```

```
  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
                    pp          CDATA  #IMPLIED
                    ppf         CDATA  #IMPLIED
                    ppl         CDATA  #IMPLIED
                    file        CDATA  #REQUIRED
                    ocr         CDATA  #IMPLIED
                    color              (color | bw )  #IMPLIED
                    orientation        (portrait | landscape )  'portrait' >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  The total amount of all fees.  Note that more than one grand total amount may be
  permitted, as there may be multiple currencies in which payment is due.

-->
<!ELEMENT amount-grand-total (#PCDATA)>

<!ATTLIST amount-grand-total  currency CDATA  #REQUIRED >

<!--
  Calculation of prescribed fees
  designation-fee-paid: whether the designation fee has been paid or not

-->
<!ELEMENT prescribed-fees (transmittal-fee , search-fee , international-fee , pdoc-
fee? , restoration-fee? , earlier-search-document-fee?)>

<!ATTLIST prescribed-fees  designation-fee-paid   (yes | no )  #IMPLIED >
<!--
     Fee for supply of earlier search documents from the RO

-->
<!ELEMENT earlier-search-document-fee (earlier-search-document-quantity , amount-
each , amount-total , payment-mode)>

<!ATTLIST earlier-search-document-fee  currency CDATA  #REQUIRED >

<!--
     Fee for restoration of rights

-->
```

```
<!ELEMENT restoration-fee (restoration-quantity , amount-total , payment-mode)>

<!ATTLIST restoration-fee  currency CDATA  #REQUIRED >

<!--
  Fee for priority document

-->
<!ELEMENT pdoc-fee (pdoc-quantity , amount-each , amount-total , payment-mode)>

<!ATTLIST pdoc-fee  currency CDATA  #REQUIRED >

<!--
  International fee:
  The designation fee may be paid at the time of filing the international
  application.  However, if the international application contains a priority
  claim, the designation fee must be paid within one year from the priority date or
  within one month from the date of receipt of the international application,
  whichever expires first, but where the international application does not
  contain a priority claim, the designation fee must be paid within one year
  from the date of receipt of the international application.
  (Rule 15.1)

-->
<!ELEMENT international-fee (basic-fee , designation-fee? , fee-reduction* ,
amount-total , payment-mode)>

<!ATTLIST international-fee  currency CDATA  #REQUIRED >

<!--
  Fee reduction; applicable where PCT electronic filing software is used or where
  the applicant is a national and natural person who resides in a State whose per
  capita income is less than 3,000 US dollars

-->
<!ELEMENT fee-reduction (amount-each)>

<!ATTLIST fee-reduction  reduction-type CDATA  #IMPLIED >

<!--
  Search fee  (PCT Rule 16.1)

-->
<!ELEMENT search-fee (amount-total , payment-mode , isa?)>

<!ATTLIST search-fee  currency CDATA  #REQUIRED >

<!--
  Transmittal fees  (PCT Rule 14)

-->
<!ELEMENT transmittal-fee (amount-total , payment-mode)>

<!ATTLIST transmittal-fee  currency CDATA  #REQUIRED >

<!--
  Credit card used as payment method

-->
<!ELEMENT credit-card EMPTY>

<!ATTLIST credit-card  number      CDATA  #REQUIRED
                       expires     CDATA  #REQUIRED
                       name        CDATA  #IMPLIED
                       postal-code CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
```

```
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  payment-contact element for use as container for an email that can be used as the
contact point for payment processing

-->
<!ELEMENT payment-contact (%name_group; , email)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Authorization to charge or credit deposit account

-->
<!ELEMENT deposit-account (authorization , ro , account-no , date , %name_group; ,
signatories?)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Deposit account number

-->
<!ELEMENT account-no (#PCDATA)>


<!--
  Receiving Office

-->
<!ELEMENT ro (country)>


<!--
  Type(s) of authorization

-->
<!ELEMENT authorization (total-fee? , deficiency-credit? , fee-for-pdoc?,
automatic-debit?)>


<!--
  Authorization to charge the fee for priority document

-->
<!ELEMENT fee-for-pdoc EMPTY>


<!--
  Authorization to charge any deficiency or credit any overpayment
```

```
-->
<!ELEMENT deficiency-credit EMPTY>


<!--
  Authorization to charge the total fees indicated above

-->
<!ELEMENT total-fee EMPTY>

<!--
    Instruction to reimburse to a deposit account
-->

<!ELEMENT reimbursement-deposit-account (ip-office, account-no, date,
%name_group;)>

<!--
  IP Office code (ST.3 country code, including the regional authorities)

-->
<!ELEMENT ip-office (#PCDATA)>

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>
```

```
<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
```

```
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>
```

```
<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>

<!--
     Quantity of earlier search documents furnished

-->
<!ELEMENT earlier-search-document-quantity (#PCDATA)>


<!--


-->
<!ELEMENT restoration-quantity (#PCDATA)>


<!--
  Quantity of priority document requested

-->
<!ELEMENT pdoc-quantity (#PCDATA)>


<!--
  Designation fee (Rule 15.1)

-->
<!ELEMENT designation-fee (number-of-designation , designation-fee-payable ,
amount-each , amount-total)>


<!--
  Number of designation fees payable, maximum 8.
  See PCT Applicant's guide, paragraph 197(c)(ii).

-->
<!ELEMENT designation-fee-payable (#PCDATA)>


<!--
  Number of designations contained in international application

-->
<!ELEMENT number-of-designation (#PCDATA)>


<!--
  Basic fee  (Rule 15.1(i)

-->
<!ELEMENT basic-fee (amount-each , additional-amount? , additional-component? ,
amount-total)>


<!--
  If sequence listing part of description is filed in computer readable form

-->
<!ELEMENT additional-component (amount-each)>


<!--
  Additional amount

-->
```

```
<!ELEMENT additional-amount (sheets-over-30 , amount-each , total-additional-
amount)>


<!--
  Total additional amount = # of sheets over 30 * amount each

-->
<!ELEMENT total-additional-amount (#PCDATA)>


<!--
  Number of pages in excess of 30

-->
<!ELEMENT sheets-over-30 (#PCDATA)>


<!--
  The amount of each of the fees

-->
<!ELEMENT amount-each (#PCDATA)>


<!--
  International Search Authority; international search to be carried out by

-->
<!ELEMENT isa (country)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Mode of payment

-->
<!ELEMENT payment-mode (charge | postal-order | cash | coupons | cheque | bank-
draft | stamps | other | later-payment | credit-card)>


<!--
  Authorization to later payment

-->
<!ELEMENT later-payment EMPTY>


<!--
  Other method by which prior art was disclosed to the public

-->
<!ELEMENT other (#PCDATA)>


<!--
  Revenue stamps  used as mode of payment

-->
<!ELEMENT stamps EMPTY>
```

```
<!--
  Bank draft to be used as mode of payment

-->
<!ELEMENT bank-draft EMPTY>


<!--
  Cheque used as payment method

-->
<!ELEMENT cheque EMPTY>


<!--
  Coupons used as mode of payment

-->
<!ELEMENT coupons EMPTY>


<!--
  Cash used as payment method

-->
<!ELEMENT cash EMPTY>


<!--
  Postal money order used as mode of payment

-->
<!ELEMENT postal-order EMPTY>


<!--
  Authorization to charge deposit account

-->
<!ELEMENT charge EMPTY>


<!--
  The total amount due for each fee group;
  e.g., search fees, transmittal fees, etc.

-->
<!ELEMENT amount-total (#PCDATA)>


<!--
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
```

```
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum
```

```
-->
<!ELEMENT file-reference-id (#PCDATA)>



 <!--
  The Office in its capacity as receiving Office (RO),
  as International Searching Authority (ISA), and, where applicable,
  in its capacity as International Preliminary Examining Authority (IPEA)
  is authorized to automatically debit the identified account with any fees
  due in the processing of this International Application.


-->
<!ELEMENT automatic-debit EMPTY>
```

3.7 Biological deposit

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  indication-bio-deposit v1.3     2012  JULY                                *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD INDICATION BIO DEPOSIT 1.3//EN"                      *
*                                              "indication-bio-deposit-v1-3.dtd"*
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/                          *
*                                               indication-bio-deposit-v1-3.dtd *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..implementation of PFC06/001
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'id' to application-reference
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
JD: 03/02/03 Incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added 'orientation' attribute to 'doc-page'
..made 'postcode' optional within 'address'
..changed content of root from ((application-reference?,file-reference-id?,
    indications,(bio-deposit,additional-indication?,(all-designations|
    designated-states),separate-indications?)+)|doc-page+)
    to "((application-reference?,file-reference-id?,indications+)|doc-page+)"
..changed content of 'indications' from "(para-number+)"
    to (para-number, (bio-deposit,additional-indication?,(all-designations|
    designated-states),separate-indications?))
    to better encapsulate information regarding to deposits
2001/12/01
..released version number as v1.0
*****************************************************************************

Attributes:
  lang          = language of application - use ISO639 language code
```

```
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = date this document was produced
  produced-by   = creator of this document
  ro            = Receiving office name, country code ST.3

-->
<!ELEMENT indication-bio-deposit ((application-reference? , file-reference-id? ,
indications+) | doc-page+)>

<!ATTLIST indication-bio-deposit  lang          CDATA  #REQUIRED
                                  dtd-version   CDATA  #IMPLIED
                                  file          CDATA  #IMPLIED
                                  produced-by           (applicant |
                                                 RO |
                                                 ISA |
                                                 IPEA |
                                                 IB |
                                                 DO |
                                                 EO |
                                                 national-office |
                                                 regional-office )  #REQUIRED
                                  date-produced CDATA  #IMPLIED
                                  ro            CDATA  #REQUIRED
                                  status        CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
```

```
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                       num  CDATA  #REQUIRED
                       url  CDATA  #IMPLIED
                       dnum CDATA  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  indications relate to the bio-deposit in the application body

-->
<!ELEMENT indications (para-number , (bio-deposit , additional-indication? , (all-
designations | designated-states) , separate-indications?))>


<!--
  Separate furnishing of indications

-->
<!ELEMENT separate-indications (#PCDATA)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  All designations permitted by the Treaty are made  (Rule 4.9(b))
```

```
-->
<!ELEMENT all-designations EMPTY>


<!--
  Additional indication information for the deposit

-->
<!ELEMENT additional-indication (#PCDATA)>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.
```

```
-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
```

```
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Indications relate to the bio-deposit in the application body at paragraph number

-->
<!ELEMENT para-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

3.8 Receiving Office information

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  ro-request-receiving-info v1.4     2017  JULY                              *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD RO REQUEST RECEIVING INFO 1.4//EN"                   *
*                                          "ro-request-receiving-info-v1-4.dtd"*
*****************************************************************************
*   https://www.wipo.int/pct-safe/en/resources/1.18/                        *
*                                           ro-request-receiving-info-v1-4.dtd *
*****************************************************************************
* contacts:                                                                 *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                               *
*****************************************************************************
* revision history                                                          *
*****************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.3 to v1.4
..added an attribute "id" to signatory
HT: 14/12/04 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added attribute 'id' to application-reference
JD: 03/02/03 Incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added (last-name | orgname) choice to %name_group;
..made postcode optional within address
December 2001
..released version number as v1.0
*****************************************************************************

PCT receiving office filing information for PCT request

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ro            = Receiving office name, country code ST.3

-->
<!ELEMENT ro-request-receiving-info (application-reference , ro-info ,
signatories?)>

<!ATTLIST ro-request-receiving-info  lang          CDATA  #REQUIRED
                                     dtd-version   CDATA  #IMPLIED
                                     file          CDATA  #IMPLIED
                                     date-produced CDATA  #IMPLIED
                                     ro            CDATA  #REQUIRED
                                     status        CDATA  #IMPLIED >

<!--
  A signature represented by electronic means
```

```
-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>
```

```
<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.
```

```
-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
```

```
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>
```

```
<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  PCT receiving office information for PCT application

-->
<!ELEMENT ro-info (date-of-actual-receipt , drawings-not-received? , corrected-
date-receipt? , receipt-pct11-2? , isa? , search-copy-delayed?)>


<!--
  Transmittal of search copy delayed until search fee is paid

-->
<!ELEMENT search-copy-delayed EMPTY>


<!--
  International Search Authority; international search to be carried out by

-->
<!ELEMENT isa (country)>


<!--
  Date of timely receipt of the required corrections under
  PCT Article 11(2)

-->
<!ELEMENT receipt-pct11-2 (date)>


<!--
  Corrected date of actual receipt due to later but timely received documents or
  drawings completing the purported international application
```

```
-->
<!ELEMENT corrected-date-receipt (date)>


<!--
  The presence of this empty tag signifies that drawings were not received

-->
<!ELEMENT drawings-not-received EMPTY>


<!--
  Date of actual receipt of the purported international application.
    (ST.32:B234)
  The date of receipt will be determined according to the usual principles
  applicable to the filing of applications on paper, including filing by electronic
  means (such as by facsimile transmission), that is, based on the date
  prevailing at the location of the Office at the time when the complete
  transmission of the application has been received.

-->
<!ELEMENT date-of-actual-receipt (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

3.9 Table

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
```

```
 XML EXCHANGE TABLE MODEL DECLARATION MODULE

*****************************************************************************
*  table-external v1.5     2021  JULY                                       *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD TABLE EXTERNAL 1.5//EN" "table-external-v1-5.dtd"   *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/table-external-v1-5.dtd  *
*****************************************************************************
* contacts:                                                                 *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                               *
*****************************************************************************
* revision history                                                          *
*****************************************************************************
Yukako SHIBA incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added an element "additional-info" to "rel-passage".
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..changed element nplcit from '(text | (article , book , online , othercit)*)' to
'(text | article | book | online | othercit)'
..changed element othercit from '(#PCDATA)' to '(#PCDATA | b | i | u | sup | sub)*'
..changed element rel-passage from (text | (passage+ , category? , rel-claims?)) to
(text | (passage+ , category* , rel-claims*)+)
..changed attribute he, wi of img from 'NMTOKEN' to 'CDATA'
..changed value of attribute idref of crossref from 'CDATA' to 'IDREF'
..changed value of attribute tsize of dl from 'NMTOKEN' to 'CDATA'
..changed value of attribute num of patcit, nplcit from '#REQUIRED' to 'IMPLIED'
..added element 'pre' to dd, li
..added attribute 'id' to addressbook
..added attribute 'chem-type' to chem
..added attribute 'class-type' to class
..added value 'other-subname-type' to attribute 'subname-type' of subname
..removed attribute 'lang', 'status', 'dtd-version' from chem
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..changed element article, online, serial from 'subname?' to 'subname*'
..changed element chemistry from '(img)' to '(img|(chem,img?))'
..changed element maths from '(img|math)' to '(img|(math,img?))'
..changed element rel-passage from 'category?, rel-claims?' to 'category*, rel-
claims*'
..changed element nplcit from '(text | (article | book | online | othercit)*)' to
'(text | article | book | online | othercit)'
..changed attribute lang of addressbook from '#REQUIRED' to '#IMPLIED'
..added element 'figref' to claim-text, dd, li
..added element 'b', 'i', 'u', 'sup', 'sub', 'smallcaps' to crossref
..added attribute 'num' to li
..added attribute 'subname-type' to subname
..added value 'chem', table'', math'', 'program-listing', 'flowchart' to attribute
'img-content' of img
..removed attribute 'class-type' from nplcit
2003/06/01
```

```
..released version number as v1.0
********************************************************************************

************************************************************
  WIPO PCT E-Filing project modifications: parameter entities
************************************************************
  DTD OASIS Open XML Exchange Table Model.
  Maintained by OASIS; download from:
    http://www.oasis-open.org/specs/soextblx.dtd
  Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
  That convention has been followed here.

-->
<!--
  override OASIS Exchange <entry> model

-->
<!--
ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                 | patcit | nplcit | bio-deposit | crossref | img
                 | dl | ul | ol | chemistry | maths)* ">

-->
<!--
  create content for title element in table

-->
<!--
ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* > ">
%title;

-->
<!--
************************************************************
  End WIPO PCT E-Filing project modifications; include
     OASIS Exchange Table Model DTD
************************************************************

-->
<!--
  import OASIS Exchange model

-->
<!--
ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
"soextblx.dtd">
%calstblx;

-->
<!--
  DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

   If using nsgmls-based parser (SP, Near & Far Designer, etc.)
   uncomment 'mathml-charent-module' switch below or replace the
   referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

  This notice copied from: http://www.w3.org/Math/DTD/

  "DTD for nsgmls
  Some systems (including the popular nsgmls parser) may not be able
  to process files using 'plane 1' characters which have Unicode
  numbers higher than #xFFFF. The versions of the DTD provided here
  incoprorate the modifications mentioned above, but the high
  characters are replaced by the equivalent mchar construct
  <mchar name='...'></mchar> this allows the DTD to be read and for MathML files to
  be validated using such sytems."
```

```
-->
<!--
ENTITY % mathml-charent.module "IGNORE" >
ENTITY % MATHML.prefixed "IGNORE">
ENTITY % MATHML.xmlns "">

-->
<!--
  import MathML2 dtd

-->
<!--
ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

-->
<!--
*********************************************************************
  WIPO PCT Efiling project modifications: Elements and Attributes
*********************************************************************

-->
<!ELEMENT table ANY>

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
              compact        (compact )  #IMPLIED
              id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
              list-style     (bullet | dash | none )  'bullet'
              compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>
```

```
<!ATTLIST li  id  ID     #IMPLIED
              num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                 num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                     num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                file      CDATA  #REQUIRED
                chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arablic numbers     1, 2, 3, ...
    a   lower alpha         a, b, c, ...
    A   upper alpha         A, B, C, ...
    i   lower roman         i, ii, iii, ...
    I   upper roman         I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
              compact         (compact )  #IMPLIED
              ol-style CDATA  #IMPLIED >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                  num   CDATA   #IMPLIED >
```

```
<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
                xml:space        (preserve | default )  #IMPLIED
                listing-type     (sequence | program-listing | other )  #REQUIRED
>

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
                he          CDATA  #REQUIRED
                wi          CDATA  #REQUIRED
                file        CDATA  #REQUIRED
                alt         CDATA  #IMPLIED
                img-content        (drawing |
                             photograph |
                             character |
                             dna |
                             undefined |
                             chem |
                             table |
                             math |
                             program-listing |
                             flowchart |
                             graph )  'drawing'
                img-format         (jpg | tif | st33 | st35 )  #REQUIRED
                orientation        (portrait | landscape )  'portrait'
                inline             (yes | no )  'no' >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
```

```
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                       num  CDATA  #REQUIRED
                       url  CDATA  #IMPLIED
                       dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                  num      CDATA  #IMPLIED
                  lang     CDATA  #IMPLIED
                  file     CDATA  #IMPLIED
                  npl-type CDATA  #IMPLIED
                  medium   CDATA  #IMPLIED
                  url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number

-->
<!ELEMENT refno (#PCDATA)>
```

```
<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>
```

```
<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                  num       CDATA  #IMPLIED
                  dnum      CDATA  #IMPLIED
                  dnum-type CDATA  #IMPLIED
                  file      CDATA  #IMPLIED
                  url       CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Underscore: style - single is default
```

```
-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!-- xsd:include schemaLocation = "../elementTypes/figref.xsd"/ -->

<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
```

```
   'Online' is taken to mean any kind of electronic documentation:
     databases, internet, CD-Roms, DVD, email, etc

EXAMPLES:;

  Kirk-Othmer Encyclopedia of Chemical Technology [online].
  3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
  Available from: DIALOG Information Services, Palo Alto (Calif.).

    <nplcit id='ncit1' num='0001' type='E' medium='online'>
      <online>
        <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
        </online-title>
        <edition>3rd ed.</edition>
        <imprint>
          <address>
            <text>New York</text>
          </address>
          <name>John Wiley</name>
          <pubdate>19840000</pubdate>
        </imprint>
        <avail>dialog information services, palo alto (calif.).</avail>
        <datecit>
          <date>19900103</date>
        </datecit>
      </online>
    </nplcit>

* Article on Internet:
  Clark, Carol. On the Threshold of a Brave New World.
  In Blueprint of the Body [online].
  CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
  Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

    <nplcit id='ncit1' num='0002' type='E' medium='online'>
      <online>
        <author>
          <name>Clark, Carol</name>
        </author>
        <online-title>On the Threshold of a Brave New World</online-title>
        <imprint>
          <name>CNN.com, 2000</name>
        </imprint>
        <series>
          <text>In-depth specials</text>
        </series>
        <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
        <datecit>
          <date>20000824; 10:25 est</date>
        </datecit>
      </online>
    </nplcit>

* Personal communication (e-mail)

  Thacker, Jane. MPEG-21 project stream on digital item identification [online].
  Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
  October 2000; 13:10 EST].
  Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

    <nplcit id='ncit3' num='0003' type='E' medium='online'>
      <online>
        <author>
          <name>Thacker, Jane</name>
        </author>
        <online-title>MPEG-21 project stream on digital item identification
        </online-title>
        <subname>
          <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
```

```
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? , datecit?
, srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
```

```
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
```

```
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
```

```
, line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers
```

```
-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
```

```
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
```

```
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>


<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>
```

```
<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
```

```
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>
```

```
<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
```

```
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)
```

```
-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>

<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>
```

```
<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text
```

```
-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>
```

3.10 Ex-officio correction

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!--
*****************************************************************************
*  ex-officio-correction v1.3     2012  JULY                                  *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD EX OFFICIO CORRECTION 1.3//EN"                        *
*                                        "ex-officio-correction-v1-3.dtd" *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/                           *
*                                         ex-officio-correction-v1-3.dtd  *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
HT: 14/12/04 incorporated changes from PFCs:
..added attribute 'id' to application-reference
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'tel', 'fax', 'email' to authorized-officer
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
2003/06/01
..released version number as v1.0
*****************************************************************************
Ex officio correction data in electronic record copy

-->
<!ELEMENT ex-officio-correction (application-reference , correction-note+ ,
authorized-officer?)>

<!ATTLIST ex-officio-correction  lang          CDATA  #REQUIRED
                                  dtd-version   CDATA  #IMPLIED
                                  file          CDATA  #IMPLIED
                                  status        CDATA  #IMPLIED
                                  date-produced CDATA  #IMPLIED
                                  produced-by          (applicant |
                                                 RO |
                                                 ISA |
                                                 IPEA |
                                                 IB |
                                                 DO |
                                                 EO |
```

```
                                                national-office |
                                                regional-office )  #REQUIRED
                                    ro            CDATA  #REQUIRED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                  place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Note of ex-officio correction:

-->
<!ELEMENT correction-note (original-content , corrected-content , action)>

<!ATTLIST correction-note  location-xpath CDATA  #IMPLIED
                             sequence       CDATA  #REQUIRED >

<!--
  Content after ex-officio correction

-->
<!ELEMENT action EMPTY>

<!ATTLIST action  type-action   (delete | add | replace )  #REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >
```

```
<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Authorized Officer.

-->
<!ELEMENT authorized-officer (%name_group; , phone? , fax? , email? , electronic-
signature?)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>
```

```
<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
```

```
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Content after ex-officio correction

-->
<!ELEMENT corrected-content (#PCDATA)>


<!--
  Original content before ex-officio correction

-->
<!ELEMENT original-content (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

4. DTDS FOR USE IN DOCUMENT PACKAGING AND TRANSMISSION

4.1 Package header

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  pkgheader v1.4     2012  JULY                                              *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD PKGHEADER 1.4//EN" "pkgheader-v1-4.dtd"               *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/pkgheader-v1-4.dtd         *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..added attribute 'id' to application-reference, publication-reference
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added element 'address' to first-named-applicant
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'sup2' and 'sub2' to sup and sub
JD: 03/02/03 Incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'filelist' to root content model
..added element 'other-filing' to transmittal-info
..added (last-name | orgname) option to %name_group;
..removed br from b, i, smallcaps
2001/12/01
..released version number as v1.0
*****************************************************************************

Root element, pkgheader

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application

-->
<!ELEMENT pkgheader (wad-message-digest , transmittal-info , ip-type , filelist? ,
application-software? , transmission-type? , payment?)>
```

```
<!ATTLIST pkgheader  lang        CDATA  #REQUIRED
                     dtd-version CDATA  #IMPLIED
                     file        CDATA  #IMPLIED
                     status      CDATA  #IMPLIED >

<!--
  Contents of the file received.  See Section 704(a):
  'and may, at the option of the Office, also indicate or contain such information
  as
     (v)  the names and sizes of the electronic files received;
     (vi) the dates of creation of the electronic files received;..."

  attributes:
    doc-name      = name of the document
    file-name     = name of the electronic file
    size          = size of the file
    date-produced = date of creation of the file

-->
<!ELEMENT file-content EMPTY>

<!ATTLIST file-content  doc-name               CDATA  #REQUIRED
                        file-name                CDATA  #REQUIRED
                        size                     CDATA  #IMPLIED
                        date-produced            CDATA  #IMPLIED
                        number-of-notification CDATA  #IMPLIED >

<!--
  Credit card used as payment method

-->
<!ELEMENT credit-card EMPTY>

<!ATTLIST credit-card  number      CDATA  #REQUIRED
                       expires     CDATA  #REQUIRED
                       name        CDATA  #IMPLIED
                       postal-code CDATA  #IMPLIED >

<!--
  Deposit account information

-->
<!ELEMENT account EMPTY>

<!ATTLIST account  number       CDATA  #REQUIRED
                   account-type CDATA  #REQUIRED
                   name         CDATA  #IMPLIED >

<!--
  Total amount of fees due

-->
<!ELEMENT fee-total EMPTY>

<!ATTLIST fee-total  amount CDATA  #REQUIRED >

<!--
  Amount due

-->
<!ELEMENT fee EMPTY>

<!ATTLIST fee  fee-code CDATA  #REQUIRED
               amount   CDATA  #REQUIRED
               quantity CDATA  #IMPLIED
               currency CDATA  #REQUIRED >

<!--
  Information regarding notice
```

```
-->
<!ELEMENT notice-info (response-term? , applicant-name* , agent-info? , reason-for-
rejection-info? , drafting-document-info?)>

<!ATTLIST notice-info  notice-id-ref CDATA  #REQUIRED >

<!--
  Response term of invitation.

  Attributes:
    term     = period of time
    division = discernment of month or day

-->
<!ELEMENT response-term EMPTY>

<!ATTLIST response-term  unit-of-time CDATA  #REQUIRED
                         value        CDATA  #REQUIRED >

<!--
  Publication reference information: publication number, date, etc
    (INID 11, ST.32:B110)

-->
<!ELEMENT publication-reference (document-id)>

<!ATTLIST publication-reference  id ID  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Reference to an appealed application

-->
<!ELEMENT appeal-reference (doc-number , date?)>

<!ATTLIST appeal-reference  appeal-type CDATA  #REQUIRED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)
```

```
  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                            lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  List of files received

-->
<!ELEMENT filelist (file-content+)>


<!--
  Wrapped Application Documents message digest

-->
<!ELEMENT wad-message-digest (#PCDATA)>


<!--
  Payment method

-->
<!ELEMENT payment (fee+ , fee-total , (account | credit-card | other-method))>


<!--
  Other payment method.  Specify

-->
<!ELEMENT other-method (#PCDATA)>


<!--
  Transmission type; e.g., submission or dispatch, etc.

-->
<!ELEMENT transmission-type (#PCDATA)>
```

```
<!--
  The software used to generate the XML document instance

-->
<!ELEMENT application-software (software-name , software-version , software-
message?)>


<!--
  Any message (e.g., parser response text) returned by the software used to create
  the document

-->
<!ELEMENT software-message (#PCDATA)>


<!--
  The version of the software used to create the document

-->
<!ELEMENT software-version (#PCDATA)>


<!--
  The name of the software used to create the document

-->
<!ELEMENT software-name (#PCDATA)>


<!--
  Intellecutal Property type

-->
<!ELEMENT ip-type (#PCDATA)>


<!--
  Transmittal information

-->
<!ELEMENT transmittal-info (new-application | subsequent-filing | office-to-office
| office-to-applicant)>


<!--
  Document transfer information from office to applicant

-->
<!ELEMENT office-to-applicant (from , invention-title? , confirmation-number? ,
receipt-list-info? , file-reference-id? , (application-reference+ | (patent-
reference , application-reference+)) , notice-info* , total-number-of-
notifications?)>


<!--
  The total number of cases ready for notice

-->
<!ELEMENT total-number-of-notifications (#PCDATA)>


<!--
  A list of the receipts produced by the Office in response to query
  "what did I send you?"

-->
<!ELEMENT receipt-list-info (applicant-name? , receipt-number*)>
```

```
<!--
  Notification to the applicant of the document code of the object to draft

-->
<!ELEMENT drafting-document-info (document-code? , (receipt-number | dispatch-id))>


<!--
  Dispatch identifier

-->
<!ELEMENT dispatch-id (#PCDATA)>


<!--
  Receipt number

-->
<!ELEMENT receipt-number (#PCDATA)>


<!--
  The Japanese applicant is demanding the notice of the reason for rejection

-->
<!ELEMENT reason-for-rejection-info (reason-code , text)>


<!--
  Code of the reason for rejection

-->
<!ELEMENT reason-code (#PCDATA)>


<!--
  Information regarding the agent (without address information)

-->
<!ELEMENT agent-info (agent-name+ | customer-number)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  The name of the agent (without address information)

-->
<!ELEMENT agent-name (%name_group;)>


<!--
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Document transfer information between offices.

-->
```

```
<!ELEMENT office-to-office (invention-title? , first-named-applicant? ,
confirmation-number? , application-reference , publication-reference? , file-
reference-id? , from? , to?)>


<!--
  The office that sends the document

-->
<!ELEMENT from (country)>


<!--
  Subsequent filing information, before Issue Date

-->
<!ELEMENT subsequent-filing (invention-title? , first-named-applicant ,
confirmation-number? , file-reference-id? , appeal-reference? , (application-
reference+ | (patent-reference , application-reference+)) , document-code* , to)>


<!--
  Patent reference information: patent number, date, etc

-->
<!ELEMENT patent-reference (document-id)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Confirmation number from office

-->
<!ELEMENT confirmation-number (#PCDATA)>


<!--
  New application information from applicant to office

-->
<!ELEMENT new-application (invention-title? , first-named-applicant? , file-
reference-id? , document-code* , to)>


<!--
  The office that receives the document

-->
```

```
<!ELEMENT to (country)>


<!--
  For reference to non-PCT document from national office;
  code defined by national office

-->
<!ELEMENT document-code (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  First applicant name in applicant group

-->
<!ELEMENT first-named-applicant (%name_group; , address?)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>
```

```
<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>
```

```
<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
```

```
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text
```

```
-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>
```

4.2 Transmission receipt

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  xmit-receipt v1.4     2012  JULY                                           *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD XMIT RECEIPT 1.4//EN" "xmit-receipt-v1-4.dtd"         *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/xmit-receipt-v1-4.dtd      *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added element 'address' to first-named-applicant
..added element 'account' to xmit-receipt
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'sup2' and 'sub2' to sup and sub
JD: 03/02/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added (last-name | orgname) choice to %name_group;
..removed 'br' from b, i, smallcaps
2001/12/01
..released version number as v1.0
*****************************************************************************

TRANSMISSION RECEIPT

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application

-->
<!ELEMENT xmit-receipt ((document-id | receipt-id)+ , received-on , from , wad-
message-digest , response+ , filing-type? , wasp-signer? , invention-title? ,
```

```
first-named-applicant? , file-reference-id? , filelist? , application-copy? ,
receipt-copy? , account*)>

<!ATTLIST xmit-receipt  lang        CDATA  #REQUIRED
                        dtd-version CDATA  #IMPLIED
                        file        CDATA  #IMPLIED
                        status      CDATA  #IMPLIED >

<!--
  Deposit account information

-->
<!ELEMENT account EMPTY>

<!ATTLIST account  number       CDATA  #REQUIRED
                   account-type CDATA  #REQUIRED
                   name         CDATA  #IMPLIED >

<!--
  A rendered version of this transmittal receipt

-->
<!ELEMENT receipt-copy EMPTY>

<!ATTLIST receipt-copy  file CDATA  #REQUIRED >

<!--
  A copy of the original application received

-->
<!ELEMENT application-copy EMPTY>

<!ATTLIST application-copy  file CDATA  #REQUIRED >

<!--
  Contents of the file received.  See Section 704(a):
  'and may, at the option of the Office, also indicate or contain such information
  as
     (v)  the names and sizes of the electronic files received;
     (vi) the dates of creation of the electronic files received;..."

  attributes:
    doc-name      = name of the document
    file-name     = name of the electronic file
    size          = size of the file
    date-produced = date of creation of the file

-->
<!ELEMENT file-content EMPTY>

<!ATTLIST file-content  doc-name               CDATA  #REQUIRED
                        file-name                CDATA  #REQUIRED
                        size                     CDATA  #IMPLIED
                        date-produced            CDATA  #IMPLIED
                        number-of-notification CDATA  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
```

```
                              lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  List of files received

-->
<!ELEMENT filelist (file-content+)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  First applicant name in applicant group

-->
<!ELEMENT first-named-applicant (%name_group; , address?)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text
```

```
-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number
```

```
-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
```

```
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  The signer of the Wrapped And Signed Package

-->
<!ELEMENT wasp-signer (%name_group;)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>
```

```
<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  What kind of documents were received in the submission receipted.

-->
<!ELEMENT filing-type (#PCDATA)>


<!--
  Response from server

-->
<!ELEMENT response (code , message)>


<!--
  Response message from server

-->
<!ELEMENT message (#PCDATA)>


<!--
  Response code from server

-->
<!ELEMENT code (#PCDATA)>
```

```
<!--
  Wrapped Application Documents message digest

-->
<!ELEMENT wad-message-digest (#PCDATA)>


<!--
  The office that sends the document

-->
<!ELEMENT from (country)>


<!--
  Date, time package was received
  The date of receipt will be determined according to the usual principles
  applicable to the filing of applications on paper, including filing by electronic
  means (such as by facsimile transmission), that is, based on the date prevailing
  at the location of the Office at the time when the complete transmission of the
  application has been received.

-->
<!ELEMENT received-on (date , time?)>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!ELEMENT receipt-id (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

4.3 Dispatch list

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!--
*****************************************************************************
*  dispatch-list v1.2     2012  JULY                                          *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD DISPATCH LIST 1.2//EN" "dispatch-list-v1-2.dtd"       *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/dispatch-list-v1-2.dtd     *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
HT: 14/12/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added attribute 'id' to application-reference
2003/06/01
..released version number as v1.0
*****************************************************************************
Root element, dispatch-list

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application

-->
<!ELEMENT dispatch-list (receiver , dispatch-document-list , number-of-the-rest)>

<!ATTLIST dispatch-list  lang          CDATA  #REQUIRED
                         dtd-version   CDATA  #REQUIRED
                         date-produced CDATA  #REQUIRED
                         time-produced CDATA  #REQUIRED >

<!--
  The sum total number of cases of "patent, utility model, design, and trademark"

-->
<!ELEMENT total-number-of-cases EMPTY>

<!ATTLIST total-number-of-cases  amount CDATA  #REQUIRED >

<!--
  The number of cases by patent, utility model, design and trademark

-->
<!ELEMENT number-of-cases EMPTY>

<!ATTLIST number-of-cases  law    CDATA  #REQUIRED
                           amount CDATA  #REQUIRED >

<!--
  The number of cases which are not displayed

-->
<!ELEMENT number-of-undisplayed EMPTY>
```

```
<!ATTLIST number-of-undisplayed  amount CDATA  #REQUIRED >

<!--
  Details of dispatch documents
  attribute date = date of dispatch

-->
<!ELEMENT dispatch-info (document-code , file-reference-id? , dispatch-id , appeal-
reference? , (application-reference+ | (patent-reference , application-reference+))
, arrival-time , text? , wad-message-digest)>

<!ATTLIST dispatch-info  date CDATA  #REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Reference to an appealed application

-->
<!ELEMENT appeal-reference (doc-number , date?)>

<!ATTLIST appeal-reference  appeal-type CDATA  #REQUIRED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  The number of cases which remain, not yet having been dispatched

-->
<!ELEMENT number-of-the-rest (number-of-cases+ , total-number-of-cases)>


<!--
  A list of the notice documents

-->
<!ELEMENT dispatch-document-list (dispatch-info+ , number-of-undisplayed?)>


<!--
  Wrapped Application Documents message digest

-->
<!ELEMENT wad-message-digest (#PCDATA)>
```

```
<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Time when notice reached the applicant

-->
<!ELEMENT arrival-time (time)>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  Patent reference information: patent number, date, etc

-->
<!ELEMENT patent-reference (document-id)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Dispatch identifier

-->
<!ELEMENT dispatch-id (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum
```

```
-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  For reference to non-PCT document from national office;
  code defined by national office

-->
<!ELEMENT document-code (#PCDATA)>


<!--
  Those who receive the dispatch list

-->
<!ELEMENT receiver (%name_group;)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>
```

```
<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>
```

4.4 Receipt list

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!--
************************************************************************
*  application-receipt-list v1.2     2012  JULY                        *
************************************************************************
*  PUBLIC "-//WIPO//DTD APPLICATION RECEIPT LIST 1.2//EN"               *
                                        "application-receipt-list-v1-2.dtd" *
************************************************************************
*  http://www.wipo.int/pct-safe/epct/schemaDocs/1.18/                   *
*                                         application-receipt-list-v1-2.dtd  *
************************************************************************
* contacts:                                                            *
*   WIPO:  Yukako SHIBA; yukako.shiba@wipo.int                         *
************************************************************************
* revision history                                                     *
************************************************************************
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
HT: 14/12/04 incorporated changes from PFCs:
..added attribute 'id' to application-reference
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'dtext' to application-receipt-list
2003/06/01
..released version number as v1.0
************************************************************************

Root element, application-receipt-list

Attributes:
  lang          = language of application - use ISO639 language code
```

```
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = date the file was produced

-->
<!ELEMENT application-receipt-list (receiver , receipt-list , dtext*)>

<!ATTLIST application-receipt-list  dtd-version   CDATA  #IMPLIED
                                    file          CDATA  #IMPLIED
                                    date-produced CDATA  #IMPLIED
                                    status        CDATA  #IMPLIED >

<!--
  Details of receipt(s)

-->
<!ELEMENT receipt-info (document-code , file-reference-id? , receipt-number ,
appeal-reference? , application-reference* , number-of-annexation , result-code ,
wad-message-digest)>

<!ATTLIST receipt-info  date        CDATA  #REQUIRED
                        kind-of-law CDATA  #IMPLIED >

<!ELEMENT result-code (#PCDATA)>

<!ATTLIST result-code  amount CDATA  #REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Reference to an appealed application

-->
<!ELEMENT appeal-reference (doc-number , date?)>

<!ATTLIST appeal-reference  appeal-type CDATA  #REQUIRED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Descriptive text

-->
```

```
<!ELEMENT dtext (#PCDATA)>


<!ELEMENT receipt-list (receipt-info+)>


<!--
  Wrapped Application Documents message digest

-->
<!ELEMENT wad-message-digest (#PCDATA)>


<!ELEMENT number-of-annexation (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Receipt number

-->
<!ELEMENT receipt-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  For reference to non-PCT document from national office;
  code defined by national office

-->
<!ELEMENT document-code (#PCDATA)>


<!--
```

```
  Those who receive the dispatch list

-->
<!ELEMENT receiver (%name_group;)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>
```

```
<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>
```

5. OTHER E-PCT DTDS

Listed below are a number of DTDs based on the Annex F, Appendix I, E-PCT DTD element set. These DTDs were developed by WIPO for the PCT-SAFE project and the IMPACT COR system.

5.1 Demand form

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  demand v1.11     2022  JANUARY                                             *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD DEMAND 1.11//EN" "demand-v1-11.dtd"                  *
*****************************************************************************
*  http://www.wipo.int/pct-safe/epct/schemaDocs/1.19/demand-v1-11.dtd        *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yukako SHIBA :
..changed version number from v1.10 to v1.11
..added attribute "amendment-art34" to "the-sequence-listing" element.
..added attribute "sequence-listing" to "cl-amendments-art34" element.
..added element 'cl-sequence-listing-statement' to demand-check-list
Yuya USHIDA : 01/04/19 incorporated changes from PFC
..changed version number from v1.9 to v1.10
..added element 'postpone-examination-demand-time-limit' to concerning-amendments
..added element 'postpone-examination-amendment-time-limit' to concerning-
amendments
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.8 to v1.9
..added an attribute "id" to signatory and us-rights
Asahi HASEBE : 01/01/15 to update DTD in alignment with the latest PCT Form IPEA401
..changed version number from v1.7 to v1.8
..added an element named as "the-sequence-listing" to "concerning-amendments".
Asahi HASEBE : 01/07/14 to update DTD in alignment with the latest PCT Form IPEA401
..changed version number from v1.6 to v1.7
..added an attribute 'page-count' to cl-letter. (PFC14/001)
```

```
..added an attribute 'page-count' to cl-copy-amendments-art19. (PFC14/001)
..added an element named as cl-letter-art19 to demand-check-list. (PFC14/001)
MO: 01/07/09 incorporated changes from PFC
..changed version number from v1.5 to v1.6
..added attribute 'carriers-type' to cl-sequence-listing (PFC09/001)
..added attribute 'carriers-quantity' to cl-sequence-listing (PFC09/001)
..added attribute 'size' to cl-sequence-listing (PFC09/001)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..added attribute 'email-purpose' to email (PFC08/006)
..added attribute 'for-search-only' to cl-sequence-listing-table (PFC08/007)
..added attribute 'additional-copies-including-search-copy' to cl-sequence-listing-
table (PFC08/007)
..added attribute 'with-identifying-statement' to cl-sequence-listing-table
(PFC08/007)
..added attribute 'for-search-only' to cl-sequence-listing (PFC08/007)
..added attribute 'additional-copies-including-search-copy' to cl-sequence-listing
(PFC08/007)
..added attribute 'with-identifying-statement' to cl-sequence-listing (PFC08/007)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'id' to addressbook, application-reference
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.2
..changed element name from 'postpone' to 'postpone-examination'
..added element 'begin-examination-early' to concerning-amendments
..added element 'sup2' and 'sub2' to sup and sub
..added element 'cl-sequence-listing-table' to check-list
..added attribute 'carriers' to cl-sequence-listing
..removed element 'election-of-states' from demand
2003/06/01
..released version number as v1.0
*****************************************************************************

Attributes for demand
  id            = unique id for this application - could be file name
  country       = st.3 code for application
  dtd-version   = dtd version number
  lang          = language of application - use ISO639 language code
  status        = status of the application; values: new = new application
  file          = filename of the whole application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ipea          = IPEA office name, country code ST.3
  produced-by   = creator of this document

-->
<!ELEMENT demand ((file-reference-id? , application-reference? , date-of-earliest-
priority? , invention-title* , applicants , correspondence-address? , agents-for-
demand? , bases-examination , demand-check-list? , signatories?) | doc-page+)>
```

```
<!ATTLIST demand  lang          CDATA  #REQUIRED
                  dtd-version   CDATA  #IMPLIED
                  file          CDATA  #IMPLIED
                  status        CDATA  #IMPLIED
                  produced-by           (applicant |
                                 RO |
                                 ISA |
                                 IPEA |
                                 IB |
                                 DO |
                                 EO |
                                 national-office |
                                 regional-office )  #REQUIRED
                  date-produced CDATA  #IMPLIED
                  ipea          CDATA  #REQUIRED
                  ro            CDATA  #IMPLIED
                  isa           CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
                    pp          CDATA  #IMPLIED
                    ppf         CDATA  #IMPLIED
                    ppl         CDATA  #IMPLIED
                    file        CDATA  #REQUIRED
                    ocr         CDATA  #IMPLIED
                    color              (color | bw )  #IMPLIED
                    orientation        (portrait | landscape )  'portrait' >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Checklist; an additional document is being furnished
```

```
-->
<!ELEMENT cl-other-document (#PCDATA)>

<!ATTLIST cl-other-document  page-count CDATA  #IMPLIED >

<!--
  Checklist; a statement that the sequence listing does not go beyond the
disclosure in the international application as filed

-->
<!ELEMENT cl-sequence-listing-statement EMPTY>

<!ATTLIST cl-sequence-listing-statement  quantity CDATA  #REQUIRED >


<!--
  Checklist; a sequence listing table is being furnished

-->
<!ELEMENT cl-sequence-listing-table EMPTY>

<!ATTLIST cl-sequence-listing-table  quantity                                    CDATA
#REQUIRED
                                    for-search-only
(yes |
                                                                                no
)  #IMPLIED
                                    additional-copies-including-search-copy
(yes |
                                                                                no
)  #IMPLIED
                                    with-identifying-statement
(yes |
                                                                                no
)  #IMPLIED
                                    page-count
CDATA  #IMPLIED
                                    carriers
(internal-electronic |

external-electronic |

paper )  #IMPLIED >

<!--
  Checklist; a sequence listing or sequence listings is/are being furnished
  For carrier-type the listed values represent:
    FD    - Floppy Disc
    CD    - Compact Disc
    BD    - Blu-Ray Disc
    DVD   - Digital Versatile Disc
    Other - Other media types

-->
<!ELEMENT cl-sequence-listing EMPTY>

<!ATTLIST cl-sequence-listing  quantity                                  CDATA
#REQUIRED
                               for-search-only
(yes |
                                                                        no )
#IMPLIED
                               additional-copies-including-search-copy
(yes |
                                                                        no )
#IMPLIED
                               with-identifying-statement
(yes |
```

```
                                                                    no )
#IMPLIED
                                page-count                          CDATA
#IMPLIED
                                carriers
(internal-electronic |

external-electronic |
                                                                    paper )
#IMPLIED
                                carriers-type                            (FD
|
                                                                    CD |
                                                                    BD |
                                                                    DVD |
                                                                    other )
#IMPLIED
                                carriers-quantity                   CDATA
#IMPLIED
                                size                                CDATA
#IMPLIED >

<!--
  Checklist; a priority document is being furnished

-->
<!ELEMENT cl-priority-document (sequence-number+)>

<!ATTLIST cl-priority-document  quantity CDATA  #REQUIRED >

<!--
  Checklist; a statement explaining lack of signature is being furnished

-->
<!ELEMENT cl-lack-of-signature EMPTY>

<!ATTLIST cl-lack-of-signature  quantity CDATA  #REQUIRED >

<!--
  Checklist; a copy of the general power of attorney is being furnished

-->
<!ELEMENT cl-copy-general-power-of-attorney (ref-number+)>

<!ATTLIST cl-copy-general-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a general power of attorney is being furnished

-->
<!ELEMENT cl-general-power-of-attorney EMPTY>

<!ATTLIST cl-general-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a separate power of attorney is being furnished

-->
<!ELEMENT cl-separate-power-of-attorney EMPTY>

<!ATTLIST cl-separate-power-of-attorney  quantity CDATA  #REQUIRED >

<!--
  Checklist; a letter is being furnished.  See PCT/IPEA/401 box VI

-->
<!ELEMENT cl-letter EMPTY>

<!ATTLIST cl-letter  quantity CDATA  #REQUIRED
```

```
                                  page-count CDATA  #IMPLIED >

<!--
  Checklist; a copy of statement under Article 19 is being furnished

-->
<!ELEMENT cl-copy-statement-art19 EMPTY>

<!ATTLIST cl-copy-statement-art19  quantity   CDATA  #REQUIRED
                                    page-count CDATA  #IMPLIED >

<!--
  Checklist; copy of amendments made under Article 19 is being furnished

-->
<!ELEMENT cl-copy-amendments-art19 EMPTY>

<!ATTLIST cl-copy-amendments-art19  quantity CDATA  #REQUIRED
                                    page-count CDATA  #IMPLIED >

<!--
  Checklist; amendments made under Article 34 are being furnished

-->
<!ELEMENT cl-amendments-art34 EMPTY>

<!ATTLIST cl-amendments-art34  quantity   CDATA  #REQUIRED
                                page-count CDATA  #IMPLIED
                                sequence-listing (yes |  no )  #IMPLIED  >

<!--
  Check-list; a translation of application  is being furnished

-->
<!ELEMENT cl-translation-of-application-demand EMPTY>

<!ATTLIST cl-translation-of-application-demand  quantity   CDATA  #REQUIRED
                                                 lang       CDATA  #IMPLIED
                                                 page-count CDATA  #IMPLIED >

<!--
  Language for international preliminary examination (Rule 55.1)

-->
<!ELEMENT language-for-examination (#PCDATA)>

<!ATTLIST language-for-examination  examin-lang   (originally-filed |
                                                   translation-isa |
                                                   publication |
                                                   translation-ipea )  #REQUIRED >

<!--
  The drawings are to be used as the basis for international preliminary
  examination

-->
<!ELEMENT the-drawings EMPTY>

<!ATTLIST the-drawings  basis   (originally | amendment-art34 )  #REQUIRED >

<!--
  the claims are to be used as the basis for international preliminary examination.
  Attribute 'basis':
       originally        : the applicant wishes the IPEA to start on the basis of
the
                           claims as originally filed
       amendment-art19   : the applicant wishes the IPEA to start on the basis of
the
                           claims as amended under Art 19.
```

```
       amendment-art34   : the applicant wishes the IPEA to start on the basis of
the
                           claims as amended under Art. 34.
       amendment-art19-34: the applicant wishes the IPEA to start on the basis of
the
                           claims as amended under Art. 19 and Art. 34

-->
<!ELEMENT the-claims EMPTY>

<!ATTLIST the-claims  basis   (originally |
                               amendment-art19 |
                               amendment-art34 |
                               amendment-art19-34 )  #REQUIRED >

<!--
  The description is to be used as the basis for international preliminary
  examination

-->
<!ELEMENT the-description EMPTY>

<!ATTLIST the-description  basis   (originally | amendment-art34 )  #REQUIRED >

<!--
  The application is to be used as the basis for international preliminary
  examination

-->
<!ELEMENT the-application EMPTY>

<!ATTLIST the-application  basis   (originally )  #REQUIRED >

<!--
  Aagent(s) elected specifically for procedures before the International
  Preliminary Examining Authority (Rule 90.1(a)-(c)

-->
<!ELEMENT agents-for-demand (customer-number | agent+)>

<!ATTLIST agents-for-demand  kind-agents   (addition | new | current )  #REQUIRED >

<!--
  Agent or common representative (Rules 90.1, 90.2)

-->
<!ELEMENT agent (addressbook+)>

<!ATTLIST agent  sequence CDATA  #REQUIRED
                 rep-type        (agent | attorney | common-representative )
#REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>
```

```
<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Applicant information:
    (INID 71, ST.32:B710)

  attributes for applicant
    sequence   : sequence number of each applicant
                  e.g, sequence="1"
    app-type   : applicant type
                  app-type="applicant" : the applicant is only applicant
                  app-type="applicant-inventor" : the applicant is also inventor
    designation: This person is applicant for the purpose of:
                  designation="all"          : all designated states
                  designation="all-except-us": all designated states except US
                  designation="us-only"      : US only
                  designation="as-indicated" : the states indicated in
                                               designated-states element
                                               under applicant element

-->
<!ELEMENT applicant (addressbook+ , nationality , residence , us-rights* ,
designated-states? , designated-states-as-inventor?)>

<!ATTLIST applicant  sequence    CDATA  #REQUIRED
                       app-type           (applicant | applicant-inventor )
#REQUIRED
                       designation        (all | all-except-us | us-only | as-
indicated )  #REQUIRED >

<!--
  This person is successor to the rights of an inventor who is deceased, insane, or
  legally incapacitated, for the purposes of the designation of the United States
  of America

-->
<!ELEMENT us-rights (#PCDATA)>

<!ATTLIST us-rights  to-dead-inventor CDATA  #REQUIRED
                       kind                    (heir |
                                               heiress |
                                               executor |
                                               executrix |
                                               estate |
                                               legal-representative |
                                               administrator |
                                               administratrix |
                                               legal-representatives |
                                               heirs |
                                               executors |
                                               legal-heirs )  #REQUIRED
                       id  ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
```

```
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                           lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Signatories
```

```
-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
```

```
  PCT/IPEA/401 BOX No.VI Check List

-->
<!ELEMENT demand-check-list (cl-translation-of-application-demand? , cl-amendments-
art34? , cl-copy-amendments-art19? , cl-copy-statement-art19? , cl-letter-art19?,
cl-letter? , cl-fee-calculation? , cl-separate-power-of-attorney? , cl-general-
power-of-attorney? , cl-copy-general-power-of-attorney? , cl-lack-of-signature? ,
cl-priority-document? , cl-sequence-listing? , cl-sequence-listing-statement? ,cl-
sequence-listing-table? , cl-other-document*)>


<!--
  Sequential identification of priority documents.  PCT/RO/101 Box VI.

-->
<!ELEMENT sequence-number (#PCDATA)>


<!--
  Reference number of general power of attorney.

-->
<!ELEMENT ref-number (#PCDATA)>


<!--
  Checklist; a fee calculation sheet is being furnished

-->
<!ELEMENT cl-fee-calculation EMPTY>


<!--
  The basis on which the international preliminary examination will start
  (PCT/IPEA/401 Box IV, Rule 66.1)

-->
<!ELEMENT bases-examination (concerning-amendments , language-for-examination)>


<!--
  The basis of the international preliminary examination concerns amendments.
  (PCT/IPEA/401 Box IV, 1-3, Rules 53.9(a)(i) and 53.9(c))

-->
<!ELEMENT concerning-amendments (the-application? , the-description? , the-
sequence-listing? , the-claims? , the-drawings? , reverse-art19-amendment? ,
postpone-examination? , begin-examination-early? , postpone-examination-amendment-
time-limit? , postpone-examination-demand-time-limit?)>


<!--
  The applicant may elect to have the examination to start earlier than at the
  expiration of the applicable time limit under Rule 54bis.1(a) (Demand Box IV 4)
  This option will no longer be available from July 1, 2019, but is retained in
  the DTD for backwards compatibility.

-->
<!ELEMENT begin-examination-early EMPTY>


<!--
  "The applicant wishes the start of the international preliminary examination to
  be postponed until the expiration of 20 months from the priority date unless the
  International Preliminary Examining Authority receives a copy of any amendments
  made under Article 19 or a notice from the applicant that he does not wish to
  make such amendments (Rule 69.1(d))

  This element was named without a descriptor for the relevant time limit as
```

```
  being the time limit for amendments to be made and has been superseded by
  the element "postpone-examination-amendment-time-limit".

  This option will no longer be available from July 1, 2019, but is retained in
  the DTD for backwards compatibility.

-->
<!ELEMENT postpone-examination EMPTY>

<!--
  "The applicant wishes the start of the international preliminary examination to
  be postponed until the expiration of 20 months from the priority date unless the
  International Preliminary Examining Authority receives a copy of any amendments
  made under Article 19 or a notice from the applicant that he does not wish to
  make such amendments (Rule 69.1(d))"
-->
<!ELEMENT postpone-examination-amendment-time-limit EMPTY>

<!--
  "The applicant wishes to postpone the start of the international preliminary
  examination until the expiration of the applicable time limit under Rule
54bis.1(a)."

-->
<!ELEMENT postpone-examination-demand-time-limit EMPTY>

<!--
  PCT/IPEA/401 Box No. IV, checkbox 2:
  "The applicant wishes any amendment to the claims under Article 19 to be
  considered as reversed"

-->
<!ELEMENT reverse-art19-amendment EMPTY>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Where the international application claims the priority of several earlier
  applications, the filing date of the earliest application whose priority is
  claimed must be indicated as the priority date.

-->
<!ELEMENT date-of-earliest-priority (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)
```

```
-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Applicants information:
    At least one of the applicants named must be a resident or national of a PCT
    Contracting State for which the receiving Office acts.

-->
<!ELEMENT applicants (applicant+)>


<!--
  Rule 4.6(c):
   "The request may, for different designated states, indicate different persons
    as inventors where, in this respect, the requirements of the national laws of
    the designated States are not the same.  In such a case, the request shall
    contain a separate statement for each designated State or group of States in
    which a particular person, or the same person, is to be considered the
    inventor, or in which particular persons, or the same persons, are to be
    considered the inventors."

-->
<!ELEMENT designated-states-as-inventor (country* , (region , country+)*)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  Country of residence

-->
<!ELEMENT residence (country)>


<!--
  Country of nationality

-->
<!ELEMENT nationality (country)>
```

```
<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
```

```
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>
```

```
<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>
```

```
<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>
```

```
<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>

<!--
  Checklist; a letter accompanying the amendments under Article 19 is being
furnished.  See PCT/IPEA/401 box VI

-->
<!ELEMENT cl-letter-art19 EMPTY>
<!ATTLIST cl-letter-art19  quantity   CDATA  #REQUIRED
                               page-count CDATA  #IMPLIED >

<!--
  the sequence listing is to be used as the basis for international preliminary
examination.
  Attribute 'basis':
       originally :
                           the applicant wishes the IPEA to start on the basis of
the
                           sequence listing as originally filed
       amendment-art34-st25:
                           the applicant wishes the IPEA to start on the basis of
the
                           sequence listing as amended under Art. 34
                           in the form of an AnnexC/ST.25 text file.
       amendment-art34-paper-or-image:
                           the applicant wishes the IPEA to start on the basis of
the
                           sequence listing as amended under Art. 34
                           on paper or in the form of an image file.
       amendment-art34:
                           the applicant wishes the IPEA to start on the basis of
the
                           sequence listing as amended under Art. 34
                           in the form of an AnnexC/ST.26 xml file.
-->
<!ELEMENT the-sequence-listing EMPTY>
<!ATTLIST the-sequence-listing  basis   (originally |  amendment-art34 |
                                amendment-art34-st25 |
                                amendment-art34-paper-or-image)  #REQUIRED >
```

5.2 Received information on the demand form by IPEA

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*******************************************************************************
```

```
*  ipea-demand-receiving-info v1.5    2017  JULY                                *
*************************************************************************
*  PUBLIC "-//WIPO//DTD IPEA DEMAND RECEIVING INFO 1.5//EN"                  *
*                                        "ipea-demand-receiving-info-v1-5.dtd" *
*************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/                          *
*                                         ipea-demand-receiving-info-v1-5.dtd  *
*************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*************************************************************************
* revision history                                                           *
*************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.4 to v1.5
..added an attribute "id" to signatory
Asahi HASEBE : 01/07/14 to update DTD in alignment with the latest PCT Form IPEA401
..changed version number from v1.3 to v1.4
..added an attribute 'page-count' to cl-letter. (PFC14/001)
..added an attribute 'page-count' to cl-copy-amendments-art19. (PFC14/001)
..added an element named as cl-letter-art19 to ipea-check-list. (PFC14/001)
..added an element ipea-fee-info and its child elements to ipea-demand-receiving-
info. (PFC14/001)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.2
..added element 'receipt-after-pct-rule54bis1-a', 'receipt-within-pct-rule54bis1-
a',
   'receipt-after-pct-rule54bis1-a-excused' to ipea-info
2003/06/01
..released version number as v1.0
*************************************************************************

Attributes for iper
  lang = language of application - use ISO639 language code
  dtd-version   = dtd version number
  date-produced = YYYYMMDD e.g, 20011230
  ro            = Receiving office name, country code ST.3

-->
<!ELEMENT ipea-demand-receiving-info (ipea , received-at-ipea , ipea-info , ipea-
check-list , ipea-fee-info?, signatories?)>

<!ATTLIST ipea-demand-receiving-info  lang          CDATA  #REQUIRED
                                      dtd-version   CDATA  #IMPLIED
                                      file          CDATA  #IMPLIED
                                      date-produced CDATA  #IMPLIED
                                      ipea          CDATA  #REQUIRED
                                      status        CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >
```

```
<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Checklist; an additional document is being furnished

-->
<!ELEMENT cl-other-document (#PCDATA)>

<!ATTLIST cl-other-document  page-count CDATA  #IMPLIED >

<!--
  Checklist; a letter is being furnished.  See PCT/IPEA/401 box VI

-->
<!ELEMENT cl-letter EMPTY>

<!ATTLIST cl-letter  quantity CDATA  #REQUIRED
                               page-count CDATA  #IMPLIED >

<!--
  Checklist; a copy of statement under Article 19 is being furnished

-->
<!ELEMENT cl-copy-statement-art19 EMPTY>

<!ATTLIST cl-copy-statement-art19  quantity   CDATA  #REQUIRED
                                    page-count CDATA  #IMPLIED >

<!--
  Checklist; copy of amendments made under Article 19 is being furnished

-->
<!ELEMENT cl-copy-amendments-art19 EMPTY>

<!ATTLIST cl-copy-amendments-art19  quantity CDATA  #REQUIRED
                                    page-count CDATA  #IMPLIED >

<!--
  Checklist; amendments made under Article 34 are being furnished

-->
<!ELEMENT cl-amendments-art34 EMPTY>

<!ATTLIST cl-amendments-art34  quantity   CDATA  #REQUIRED
                                page-count CDATA  #IMPLIED >

<!--
  Check-list; a translation of application  is being furnished

-->
<!ELEMENT cl-translation-of-application-demand EMPTY>

<!ATTLIST cl-translation-of-application-demand  quantity   CDATA  #REQUIRED
                                                 lang       CDATA  #IMPLIED
                                                 page-count CDATA  #IMPLIED >

<!--
  PCT/IPEA/401
  The date of receipt of the demand is AFTER the expiration of 19 months from the
  priority date
```

```
-->
<!ELEMENT receipt-after-19month EMPTY>

<!ATTLIST receipt-after-19month  informed   (yes | no )  #IMPLIED >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
```

```
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
```

```
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym
```

```
-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Checklist of items received with the demand by the International Preliminary
```

```
  Exmination Authority

-->
<!ELEMENT ipea-check-list (cl-translation-of-application-demand? , cl-amendments-
art34? , cl-copy-amendments-art19? , cl-copy-statement-art19? , cl-letter-art19?,
cl-letter? , cl-other-document*)>


<!--
  Information relating to the receipt of the demand by the International
  Preliminary Examination Authority

-->
<!ELEMENT ipea-info (date-of-actual-receipt , receipt-pct-rule60-1? , (receipt-
after-19month | receipt-pct-rule80-5 | receipt-pct-rule82 | receipt-after-pct-
rule54bis1-a | receipt-within-pct-rule54bis1-a | receipt-after-pct-rule54bis1-a-
excused))>


<!--
  PCT Rule 54bis1-a: Time Limit for Making a Demand

-->
<!ELEMENT receipt-after-pct-rule54bis1-a-excused EMPTY>


<!--
  PCT Rule 54bis1-a: Time Limit for Making a Demand

-->
<!ELEMENT receipt-within-pct-rule54bis1-a EMPTY>


<!--
  PCT Rule 54bis1-a: Time Limit for Making a Demand

-->
<!ELEMENT receipt-after-pct-rule54bis1-a EMPTY>


<!--
  PCT Rule 82: Irregularities in the Mail Service

-->
<!ELEMENT receipt-pct-rule82 EMPTY>


<!--
  PCT Rule 80.5: Expiration on a Non-Working Day
    "If the expiration of any period during which any document or fee must reach
    a national Office or intergovernmental organization falls on a day on which
    such Office or organization is not open to the public for the purposes of
    transaction of official business, or on which ordinary mail is not delivered in
    the locality in which such Office or organization is situated, the period shall
    expire on the next subsequent business day on which neither of the said two
    circumstances exists."

-->
<!ELEMENT receipt-pct-rule80-5 EMPTY>


<!--
  PCT Rule 60.1:  Defects in the Demand

-->
<!ELEMENT receipt-pct-rule60-1 (date)>


<!--
```

```
  Date of actual receipt of the purported international application.
    (ST.32:B234)
  The date of receipt will be determined according to the usual principles
  applicable to the filing of applications on paper, including filing by electronic
  means (such as by facsimile transmission), that is, based on the date
  prevailing at the location of the Office at the time when the complete
  transmission of the application has been received.

-->
<!ELEMENT date-of-actual-receipt (date)>


<!--
  Date of receipt by International Preliminary Examination Authority

-->
<!ELEMENT received-at-ipea (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  International Preliminary Examination Authority

-->
<!ELEMENT ipea (country)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>

<!--
  Checklist; a letter accompanying the amendments under Article 19 is being
furnished.  See PCT/IPEA/401 box VI

-->
<!ELEMENT cl-letter-art19 EMPTY>
<!ATTLIST cl-letter-art19  quantity   CDATA  #REQUIRED
                                page-count CDATA  #IMPLIED >

<!--
  Information written in "For International Preliminary Examining Authority use
only"
  of FEE CALCULATION SHEET - Annex to the Demand (IPEA401)

-->
<!ELEMENT ipea-fee-info (received-at-ipea, ipea-preliminary-examin-fee-info?, ipea-
handling-fee-info?, ipea-amount-total-info?)>

<!--
  IPEA's note regarding with Preliminary Examination Fee of FEE CALCULATION SHEET
of Chapter II Demand.

-->
<!ELEMENT ipea-preliminary-examin-fee-info (#PCDATA)>

<!--
  IPEA's note regarding with Handling Fee of FEE CALCULATION SHEET of Chapter II
Demand.
```

```
-->
<!ELEMENT ipea-handling-fee-info (#PCDATA)>

<!--
  IPEA's note regarding with Amount Total of FEE CALCULATION SHEET of Chapter II
Demand.

-->
<!ELEMENT ipea-amount-total-info (#PCDATA)>
```

5.3 Chapter II fee sheet

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  fee-sheet-chapter2 v1.5     2019  APRIL                                    *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD FEE SHEET CHAPTER2 1.5//EN"                           *
*                                          "fee-sheet-chapter2-v1-5.dtd"      *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/fee-sheet-chapter2-v1-5.dtd *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yuya USHIDA : 01/04/19 incorporated changes from PFC
..changed version number from v1.4 to v1.5
..added element 'reimbursement-deposit-account' to fee-sheet-chapter2
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.3 to v1.4
..added an attribute "id" to signatory
.. corrected typos in comments
SY: 01/04/10 incorporated changes from PFC
..changed version number from v1.2 to v1.3
..added element 'credit-card' to payment-mode (PFC09/007)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added element 'later-payment' to payment-mode
..added attribute 'ocr' to doc-page
..added attribute 'id' to application-reference
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
2003/06/01
..released version number as v1.0
*****************************************************************************

Fee calculation sheet annex to the PCT request (root element)
Attributes:
  lang          = language of application - use ISO639 language code
```

```
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ro            = Receiving office name, country code ST.3
  produced-by   = creator of this document

-->
<!ELEMENT fee-sheet-chapter2 ((application-reference? , file-reference-id? ,
applicant-name , further-applicant? , currency , preliminary-examin-fee , handling-
fee , amount-total , payment-mode , deposit-account-ipea? , reimbursement-deposit-
account*) | doc-page+)>

<!ATTLIST fee-sheet-chapter2  lang          CDATA  #REQUIRED
                              dtd-version   CDATA  #IMPLIED
                              file          CDATA  #IMPLIED
                              produced-by           (applicant |
                                                     RO |
                                                     ISA |
                                                     IPEA |
                                                     IB |
                                                     DO |
                                                     EO |
                                                     national-office |
                                                     regional-office )  #REQUIRED
                              date-produced CDATA  #IMPLIED
                              ipea          CDATA  #REQUIRED
                              status        CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he            CDATA  #REQUIRED
                    wi            CDATA  #REQUIRED
                    type                 (jpg | pdf | tif )  #REQUIRED
                    alt           CDATA  #IMPLIED
                    pp            CDATA  #IMPLIED
                    ppf           CDATA  #IMPLIED
                    ppl           CDATA  #IMPLIED
                    file          CDATA  #REQUIRED
                    ocr           CDATA  #IMPLIED
                    color                (color | bw )  #IMPLIED
                    orientation          (portrait | landscape )  'portrait' >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >
```

```
<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Credit card used as payment method

-->
<!ELEMENT credit-card EMPTY>

<!ATTLIST credit-card  number      CDATA  #REQUIRED
                       expires     CDATA  #REQUIRED
                       name        CDATA  #IMPLIED
                       postal-code CDATA  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Authorization to charge or credit deposit account

-->
<!ELEMENT deposit-account-ipea (authorization-ipea , ipea , account-no , date ,
%name_group; , signatories?)>


<!--
  Deposit account number

-->
<!ELEMENT account-no (#PCDATA)>

<!--
    Instruction to reimburse to a deposit account
-->

<!ELEMENT reimbursement-deposit-account (ip-office, account-no, date,
%name_group;)>
```

```
<!--
  IP Office code (ST.3 country code, including the regional authorities)

-->
<!ELEMENT ip-office (#PCDATA)>

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>
```

```
<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th
```

```
-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  International Preliminary Examination Authority

-->
<!ELEMENT ipea (country)>


<!--
  Authorization for International Preliminary Examining Authority to charge or
```

```
  credit deposit account

-->
<!ELEMENT authorization-ipea (total-fee? , deficiency-credit?)>


<!--
  Authorization to charge any deficiency or credit any overpayment

-->
<!ELEMENT deficiency-credit EMPTY>


<!--
  Authorization to charge the total fees indicated above

-->
<!ELEMENT total-fee EMPTY>


<!--
  The total amount due for each fee group;
  e.g., search fees, transmittal fees, etc.

-->
<!ELEMENT amount-total (#PCDATA)>


<!--
  Accrues to the International Bureau for carrying out various tasks,
  e.g., translation of international preliminary examination report
  (Rule 57.1)

-->
<!ELEMENT handling-fee (amount-each , payment-mode)>


<!--
  Preliminary examination fee  (Rule 58.1)

-->
<!ELEMENT preliminary-examin-fee (amount-each , payment-mode)>


<!--
  Mode of payment

-->
<!ELEMENT payment-mode (charge | postal-order | cash | coupons | cheque | bank-
draft | stamps | other | later-payment | credit-card)>


<!--
  Authorization to later payment

-->
<!ELEMENT later-payment EMPTY>


<!--
  Other method by which prior art was disclosed to the public

-->
<!ELEMENT other (#PCDATA)>


<!--
  Revenue stamps  used as mode of payment
```

```
-->
<!ELEMENT stamps EMPTY>


<!--
  Bank draft to be used as mode of payment

-->
<!ELEMENT bank-draft EMPTY>


<!--
  Cheque used as payment method

-->
<!ELEMENT cheque EMPTY>


<!--
  Coupons used as mode of payment

-->
<!ELEMENT coupons EMPTY>


<!--
  Cash used as payment method

-->
<!ELEMENT cash EMPTY>


<!--
  Postal money order used as mode of payment

-->
<!ELEMENT postal-order EMPTY>


<!--
  Authorization to charge deposit account

-->
<!ELEMENT charge EMPTY>


<!--
  The amount of each of the fees

-->
<!ELEMENT amount-each (#PCDATA)>


<!--
  Type of currency for payment

-->
<!ELEMENT currency (#PCDATA)>


<!--
  The presence of this element indicates that there is more than one applicant.
    (ST.32:B512/B522)

-->
<!ELEMENT further-applicant EMPTY>


<!--
```

```
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>
```

```
<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

5.4 Priority document bibliographic data

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  priority-doc v1.3     2017  JULY                                           *
```

```
********************************************************************************
*  PUBLIC "-//WIPO//DTD PRIORITY DOC 1.3//EN" "priority-doc-v1-3.dtd"          *
********************************************************************************
* https://www.wipo.int/pct-safe/en/resources/1.18/priority-doc-v1-3.dtd        *
********************************************************************************
* contacts:                                                                    *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                  *
********************************************************************************
* revision history                                                             *
********************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.2 to v1.3
..added an attribute "id" to signatory
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..added attribute 'id' to application-reference
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
2003/06/01
..released version number as v1.0
********************************************************************************

PRIORITY DOCUMENT

Attributes:
  lang          = language of application - use ISO639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  produced-by   = creator of this document
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum

-->
<!ELEMENT priority-doc (application-reference , pdoc-info , signatories? , pdoc-
body-doc+ , pdoc-certificate-doc*)>

<!ATTLIST priority-doc  lang          CDATA  #REQUIRED
                        dtd-version   CDATA  #IMPLIED
                        file          CDATA  #IMPLIED
                        produced-by          (applicant |
                                              RO |
                                              ISA |
                                              IPEA |
                                              IB |
                                              DO |
                                              EO |
                                              national-office |
                                              regional-office )  #REQUIRED
                        date-produced CDATA  #IMPLIED
                        status        CDATA  #IMPLIED >

<!--
  Holds certification data of priority document

-->
<!ELEMENT pdoc-certificate-doc EMPTY>

<!ATTLIST pdoc-certificate-doc  file      CDATA  #REQUIRED
                                lang      CDATA  #IMPLIED
                                carriers         (internal-electronic |
                                                  external-electronic |
                                                  paper )  #IMPLIED
                                file-type        (xml | pdf | txt | tif | zip |
```

```
jpg )  #REQUIRED
                                  status    CDATA  #IMPLIED >

<!--
  Body of the priority document

-->
<!ELEMENT pdoc-body-doc EMPTY>

<!ATTLIST pdoc-body-doc  file      CDATA  #REQUIRED
                           lang      CDATA  #IMPLIED
                           carriers         (internal-electronic |
                                      external-electronic |
                                      paper )  #IMPLIED
                           file-type        (xml | pdf | txt | tif | zip | jpg )
#REQUIRED
                           status    CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  PCT Rule 17.1:  Obligation to Submit Copy of Earlier
  National or International Application

-->
<!ELEMENT pct-rule17-1 EMPTY>

<!ATTLIST pct-rule17-1  compliance   (yes | no )  #REQUIRED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
```

```
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>
```

```
-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>
```

```
<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>
```

```
<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Priority document information

-->
```

```
<!ELEMENT pdoc-info (document-id , (received-at-ro | applicant-requested)? ,
received-at-ib? , pct-rule17-1?)>


<!--
  International Bureau receipt date

-->
<!ELEMENT received-at-ib (date)>


<!--
  Date on which applicant requested that RO create and transfer to IB  a priority
  document

-->
<!ELEMENT applicant-requested (date)>


<!--
  Receiving Office date of receipt of priority document

-->
<!ELEMENT received-at-ro (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

5.5 Priority document body

```
<?xml version='1.0' encoding='UTF-8' ?>

<!--
*************************************************************************
*  pdoc-body v1.2     2012  JULY                                        *
*************************************************************************
*  PUBLIC "-//WIPO//DTD PDOC BODY 1.2//EN" "pdoc-body-v1-2.dtd"         *
*************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/pdoc-body-v1-2.dtd   *
```

```
**************************************************************************
* contacts:                                                              *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                            *
**************************************************************************
* revision history                                                       *
**************************************************************************
HT: 14/12/04 incorporated changes from PFCs:
..changed attribute he, wi of doc-page from 'NMTOKEN' to 'CDATA'
..added attribute 'ocr' to doc-page
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
2003/06/01
..released version number as v1.0
**************************************************************************

Attributes:
  lang          = language of application - use ISO 639 language code
  dtd-version   = dtd version number
  file          = filename of the whole application
  status        = status of the application; values: new = new application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  produced-by   = creator of this document
  country       = st.3 code for application

-->
<!ELEMENT pdoc-body (document-id , (pdoc-doc | doc-page+))>

<!ATTLIST pdoc-body  lang          CDATA  #REQUIRED
                     dtd-version   CDATA  #IMPLIED
                     file          CDATA  #IMPLIED
                     country       CDATA  #REQUIRED
                     produced-by           (applicant |
                                    RO |
                                    ISA |
                                    IPEA |
                                    IB |
                                    DO |
                                    EO |
                                    national-office |
                                    regional-office )  #REQUIRED
                     date-produced CDATA  #IMPLIED
                     status        CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
```

```
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color               (color | bw )  #IMPLIED
                      orientation         (portrait | landscape )  'portrait' >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  A proirity document 'document' (e.g., XML), as opposed to doc-page.

-->
<!ELEMENT pdoc-doc (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

5.6 IB bibliographic data

```
<?xml version='1.0' encoding='UTF-8' ?>
```

```
<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*****************************************************************************
*  WO-BIBLIOGRAPHIC-DATA v2.0     2021  JULY                                  *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD WO BIBLIOGRAPHIC DATA 2.0//EN"                        *
*                                                "wo-bibliographic-data-v2-0.dtd"*
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/                           *
*                                                 wo-bibliographic-data-v2-0.dtd *
*****************************************************************************
* contacts:                                                                   *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                 *
*****************************************************************************
* revision history                                                            *
*****************************************************************************
Yukako SHIBA incorporated changes from PFCs:
..changed version number from v1.9 to v2.0
..added an element "additional-info" to "rel-passage".
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.8 to v1.9
..added an attribute "id" to signatory and us-rights
..added an element " earlier-search-authorization" to search-authority
SY: 01/07/12 incorporated changes from PFC:
..changed version number from v1.7 to v1.8
..added attribute 'priority-doc-access-code' to priority-doc-from-library
(PFC12/001)
SY: 01/04/10 incorporated changes from PFC
..changed version number from v1.6 to v1.7
..added element 'priority-doc-from-library' to priority-claim (PFC09/005)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.5 to v1.6
..added element 'substantially-equivalent' to earlier-search-request (PFC08/003)
..added element 'earlier-search-document' to earlier-search-request (PFC08/003)
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'incorporation-by-reference' to wo-priority-info (PFC06/004)
..added element 'restore-rights' to priority-claim (PFC06/004)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
..added attribute 'subset' to protection-request (PFC06/005)
MO: 29/09/05 incorporated changes from PFCs:
..changed version number from v1.3 to v1.4
..changed element wo-correction
  FROM (document-id? , type-of-correction? , wo-repub-code , dtext?)
  TO   (document-id? , type-of-correction? , wo-repub-code , wo-pubnum?, wo-dtext*)
HT: 14/12/04 incorporated changes from PFCs:
..changed element correction from (document-id? , type-of-corection? , wo-repub-
code , dtext? to (document-corrected , type-of-correction? , gazette-reference? ,
text?)
```

```
..changed element wo-publication-info from (correction* , wo-bio-material-after-
pub? , isr-status* , pct-pub-info*) to (wo-correction* , wo-bio-material-after-pub?
, isr-status* , pct-pub-info*)
..changed attribute of correction from '#REQUIRED' to '#IMPLIED'
..added element 'classifications-ipcr' to wo-bibliographic-data
..added element 'wo-correction' to wo-publication-info
..added attribute 'id' to addressbook, application-reference, classification-ipc,
priority-claim, publication-reference
..added attribute 'sequence', 'id' to further-classfication
..removed attribute 'correction'
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.2
..changed designation-of-states
   from '(precautionary-designation-statement, exclusion-from-designation?)?)'
   to '(precautionary-designation-statement?, exclusion-from-designation?))'
..added element 'sup2' and 'sub2' to sup and sub
June 2003
..released version number as v1.0
************************************************************************

  ********************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                *
  ********************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
  ************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL           *
  ************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->

<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">
<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
```

```
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                | patcit | nplcit | bio-deposit | crossref | img
                | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "soextblx.dtd">
%calstblx;

<!--
  ********************************************************************
  * SECTION II - DTD                                                 *
  ********************************************************************
-->

<!ELEMENT wo-bibliographic-data (publication-reference? , wo-publication-info? ,
application-reference? , wo-application-info? , wo-amendment-info? , wo-bib-change-
info? , wo-demand-info? , file-reference-id? , invention-title* , parties? ,
designation-of-states? , wo-priority-info? , search-authority? , declaration-info?
, classification-ipc? , classifications-ipcr? , figure-to-publish? , signatories? ,
correspondence-address? , dtext?)>

<!ATTLIST wo-bibliographic-data  date-produced CDATA  #IMPLIED
                                 lang          CDATA  #IMPLIED
                                 dtd-version   CDATA  #IMPLIED
                                 file          CDATA  #IMPLIED
                                 status        CDATA  #IMPLIED
                                 office-name   CDATA  #IMPLIED
                                 produced-by          (applicant |
                                                       RO |
                                                       ISA |
                                                       IPEA |
                                                       IB |
                                                       DO |
                                                       EO |
                                                       national-office |
                                                       regional-office )  #REQUIRED >

<!--
  Later election information

-->
<!ELEMENT later-election (received-at-ib)>

<!ATTLIST later-election  expiration-19months   (before | after )  #REQUIRED >

<!--
  PCT/IPEA/401
  The date of receipt of the demand is AFTER the expiration of 19 months from the
  priority date

-->
<!ELEMENT receipt-after-19month EMPTY>
```

```
<!ATTLIST receipt-after-19month  informed   (yes | no )  #IMPLIED >

<!--
  IPER status information, date of receipt at IB,
  information of new IPER or corrected IPER.

-->
<!ELEMENT iper-status (received-at-ib?)>

<!ATTLIST iper-status  iper-status   (new | corrected )  #REQUIRED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!ELEMENT classifications-ipcr (classification-ipcr+)>

<!ATTLIST classifications-ipcr  id ID  #IMPLIED >

<!--
  International Patent Classification (IPC) data;

-->
<!ELEMENT classification-ipcr ((ipc-version-indicator , classification-level? ,
section , class , subclass , main-group? , subgroup? , symbol-position? ,
classification-value? , action-date? , generating-office? , classification-status?
, classification-data-source?) | text)>

<!ATTLIST classification-ipcr  id       ID     #IMPLIED
                               sequence CDATA  #IMPLIED >

<!--
  International Patent Classification (IPC) data;
    (INID 51,  ST.32:B510)

-->
<!ELEMENT classification-ipc (edition , main-classification , further-
classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-ipc  id ID  #IMPLIED >

<!--
  Further/secondary classification
    (ST.32:B512/B522)

-->
<!ELEMENT further-classification (#PCDATA)>

<!ATTLIST further-classification  id       ID     #IMPLIED
                                  sequence CDATA  #IMPLIED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.
```

```
  Note: paragraphs may occur in sections other than the description and at
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.

-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
               num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
                              carriers             (internal-electronic |
                                                    external-electronic |
                                                    paper )  #IMPLIED
                              external-type        (math |
                                                    chemistry |
                                                    program-listing |
                                                    other )  #IMPLIED
                              status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>

<!ATTLIST tables  id  ID     #IMPLIED
                    num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
                compact        (compact )  #IMPLIED
                id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
```

```
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
              list-style     (bullet | dash | none )  'bullet'
              compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
              num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                 num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                     num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                file      CDATA  #REQUIRED
                chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arablic numbers     1, 2, 3, ...
    a   lower alpha         a, b, c, ...
```

```
    A   upper alpha          A, B, C, ...
    i   lower roman          i, ii, iii, ...
    I   upper roman          I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
               compact         (compact )  #IMPLIED
               ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
                he          CDATA  #REQUIRED
                wi          CDATA  #REQUIRED
                file        CDATA  #REQUIRED
                alt         CDATA  #IMPLIED
                img-content        (drawing |
                                    photograph |
                                    character |
                                    dna |
                                    undefined |
                                    chem |
                                    table |
                                    math |
                                    program-listing |
                                    flowchart |
                                    graph )  'drawing'
                img-format         (jpg | tif | st33 | st35 )  #REQUIRED
                orientation        (portrait | landscape )  'portrait'
                inline             (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                    num   CDATA   #IMPLIED >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>
```

```
<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                         num  CDATA  #REQUIRED
                         url  CDATA  #IMPLIED
                         dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                    num      CDATA  #IMPLIED
                    lang     CDATA  #IMPLIED
                    file     CDATA  #IMPLIED
                    npl-type CDATA  #IMPLIED
                    medium   CDATA  #IMPLIED
                    url      CDATA  #IMPLIED >
```

```
<!--
  Reference number (general); for the EPO this is the XP number

-->
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
```

```
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                    num       CDATA  #IMPLIED
                    dnum      CDATA  #IMPLIED
                    dnum-type CDATA  #IMPLIED
                    file      CDATA  #IMPLIED
                    url       CDATA  #IMPLIED >

<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
                 xml:space        (preserve | default )  #IMPLIED
                 listing-type     (sequence | program-listing | other )  #REQUIRED
>

<!--
  Designated states for declarations

-->
<!ELEMENT designated-states-as-dec (all-designations | all-designations-except-us |
(regional* , national?))>

<!ATTLIST designated-states-as-dec  dec-type   (1 | 2 | 3 | 4 | 5 | combined )
#REQUIRED >

<!--
  Information of combined declaration(declaration 1 and 2)

-->
<!ELEMENT combined-declaration EMPTY>

<!ATTLIST combined-declaration  quantity CDATA  #REQUIRED >

<!--
  Declaration as to non-prejudical disclosures or exceptions to lack of novelty
  (Rules 4.17(v) and 51bis.1(a)(v))

-->
<!ELEMENT declaration5 EMPTY>

<!ATTLIST declaration5  quantity CDATA  #REQUIRED >

<!--
  Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes
  of the designation of the United States of America

-->
<!ELEMENT declaration4 EMPTY>

<!ATTLIST declaration4  quantity CDATA  #REQUIRED >

<!--
```

```
  Declaration as applicant's entitlement, as at the international filing date, to
  claim the priority of the earlier application, where the applicant is not the
  applicant who filed the earlier application or where the applicant's name has
  changed since the filing of the earlier application
  (Rules 4.17(iii) and 51bis.1(a)(iii))

-->
<!ELEMENT declaration3 EMPTY>

<!ATTLIST declaration3  quantity CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case
  where the declaration under Rule 4.17(iv) is not appropriate

-->
<!ELEMENT declaration2 EMPTY>

<!ATTLIST declaration2  quantity CDATA  #REQUIRED >

<!--
  Declaration as to the identity of the inventor
  (Rules 4.17(i) and 51bis.1(a)(i))

-->
<!ELEMENT declaration1 EMPTY>

<!ATTLIST declaration1  quantity CDATA  #REQUIRED >
<!--
-->
<!ELEMENT earlier-search-documents EMPTY>

<!ATTLIST earlier-search-documents  results-of-earlier-search
(yes |

no )  #IMPLIED
                                        earlier-application
(yes |

no )  #IMPLIED
                                        translation-of-earlier-application
(yes |

no )  #IMPLIED
                                        translation-of-results-of-earlier-search
(yes |

no )  #IMPLIED
                                        documents-cited-in-earlier-search-results
(yes |

no )  #IMPLIED
                                        available-at-isa
(yes |

no )  #IMPLIED
                                        request-ro-to-transmit-to-isa
(yes |

no )  #IMPLIED >

<!--
  Priority claim (PCT Rule 4.10)
    (INID 32/33/34, ST.32:B320/B330/B340)

-->
<!ELEMENT priority-claim (country , doc-number? , date , office-of-filing? ,
(priority-doc-requested | priority-doc-attached | priority-doc-from-library)? ,
```

```
restore-rights?)>

<!ATTLIST priority-claim  id       ID     #IMPLIED
                          sequence CDATA  #REQUIRED
                          kind            (national | regional | international )
#REQUIRED >

<!--
  library-identifier  attribute intended as an identifying code for the library
containing the document ? to be used where offices support the access of documents
from many such libraries

  action-by  attribute would indicate the office requested to retrieve the document
(for PCT this can be the RO or IB, default IB)

  priority-doc-access-code indicates, when present, the access code that the Office
(or applicable Offices) should use to obtain the priority document from the
specified digital library

-->
<!ELEMENT priority-doc-from-library EMPTY>

<!ATTLIST priority-doc-from-library  library-identifier       CDATA  #IMPLIED
                                     action-by                 CDATA  #IMPLIED
                                     priority-doc-access-code CDATA  #IMPLIED >

<!--
  PCT Rule 17.1:  Obligation to Submit Copy of Earlier
  National or International Application

-->
<!ELEMENT pct-rule17-1 EMPTY>

<!ATTLIST pct-rule17-1  compliance   (yes | no )  #REQUIRED >

<!--
  Protection request for the designated office.

-->
<!ELEMENT protection-request (kind-of-protection , document-id?)>

<!ATTLIST protection-request  subset   (yes | no )  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                          lang CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default
```

```
-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Agent or common representative (Rules 90.1, 90.2)

-->
<!ELEMENT agent (addressbook+)>

<!ATTLIST agent  sequence CDATA  #REQUIRED
                 rep-type        (agent | attorney | common-representative )
#REQUIRED >

<!--
  Deceased inventor name

-->
<!ELEMENT deceased-inventor (%name_group;)>

<!ATTLIST deceased-inventor  sequence CDATA  #IMPLIED
                             lang     CDATA  #IMPLIED >

<!--
  The individual or entity responsible for creating the matter that protection is
  sought for.
    (ST.32:B721)

-->
<!ELEMENT inventor (addressbook+ , designated-states?)>

<!ATTLIST inventor  sequence    CDATA  #REQUIRED
                    designation        (all | all-except-us | us-only | as-
indicated )  #IMPLIED >

<!--
  Applicant information:
    (INID 71, ST.32:B710)

  attributes for applicant
    sequence   : sequence number of each applicant
                 e.g, sequence="1"
    app-type   : applicant type
                 app-type="applicant" : the applicant is only applicant
                 app-type="applicant-inventor" : the applicant is also inventor
    designation: This person is applicant for the purpose of:
                 designation="all"          : all designated states
                 designation="all-except-us": all designated states except US
                 designation="us-only"      : US only
                 designation="as-indicated" : the states indicated in
                                              designated-states element
                                              under applicant element

-->
<!ELEMENT applicant (addressbook+ , nationality , residence , us-rights* ,
designated-states? , designated-states-as-inventor?)>

<!ATTLIST applicant  sequence    CDATA  #REQUIRED
                     app-type           (applicant | applicant-inventor )
#REQUIRED
                     designation        (all | all-except-us | us-only | as-
indicated )  #REQUIRED >
```

```
<!--
  This person is successor to the rights of an inventor who is deceased, insane, or
  legally incapacitated, for the purposes of the designation of the United States
  of America

-->
<!ELEMENT us-rights (#PCDATA)>

<!ATTLIST us-rights  to-dead-inventor CDATA  #REQUIRED
                       kind                    (heir |
                                               heiress |
                                               executor |
                                               executrix |
                                               estate |
                                               legal-representative |
                                               administrator |
                                               administratrix |
                                               legal-representatives |
                                               heirs |
                                               executors |
                                               legal-heirs )  #REQUIRED
                       id  ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >
```

```
<!--
  ISR status information, date of receipt at IB,
  information of new ISR or corrected ISR.

-->
<!ELEMENT isr-status (received-at-ib?)>

<!ATTLIST isr-status  isr-status   (new | corrected )  #REQUIRED >

<!--
     IB original dtext, br tag is available.

-->
<!ELEMENT wo-dtext (#PCDATA | br)*>

<!ATTLIST wo-dtext  lang CDATA  #IMPLIED >

<!--
  Publication reference information: publication number, date, etc
    (INID 11, ST.32:B110)

-->
<!ELEMENT publication-reference (document-id)>

<!ATTLIST publication-reference  id ID  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >
<!--
   information for chapter II demand at IB

-->
<!ELEMENT wo-demand-info (ipea? , received-at-ipea? , elected-office? , later-
election? , receipt-after-19month? , considered-not-made? , withdrawn? , iper-
status* , completion-date?)>


<!--
  International Preliminary Examination Authority

-->
<!ELEMENT ipea (country)>


<!--
  Date of receipt by International Preliminary Examination Authority

-->
<!ELEMENT received-at-ipea (date)>


<!ELEMENT elected-office (country* , (region , country+)*)>
```

```
<!ELEMENT completion-date (date)>


<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
```

```
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Figure of the drawings which should accompany the abstract

-->
<!ELEMENT figure-to-publish (fig-number+)>


<!--
  PCT/RO/101 Box IX: the number of the figure which should accompany the abstract.
    (ST.32:B598)

-->
<!ELEMENT fig-number (#PCDATA)>


<!--
  Possible sources: human-generated-classification,
  machine-propagated-classification, software-analysis-generated-classification

-->
<!ELEMENT classification-data-source (#PCDATA)>


<!--
  Possible status: original-classification, reclassified, various-classification,
  deleted-classification

-->
<!ELEMENT classification-status (#PCDATA)>


<!--


-->
<!ELEMENT generating-office (country)>


<!--


-->
<!ELEMENT action-date (date)>


<!--
  Possible values: invention, non-invention

-->
<!ELEMENT classification-value (#PCDATA)>


<!--
  Possible positions: first-symbol-position, later-symbol-position.

-->
<!ELEMENT symbol-position (#PCDATA)>


<!--


-->
```

```
<!ELEMENT subgroup (#PCDATA)>


<!--


-->
<!ELEMENT main-group (#PCDATA)>


<!--


-->
<!ELEMENT subclass (#PCDATA)>


<!--


-->
<!ELEMENT section (#PCDATA)>


<!--
  Levels: ipcr-advanced, ipcr-core

-->
<!ELEMENT classification-level (#PCDATA)>


<!--


-->
<!ELEMENT ipc-version-indicator (date)>


<!--
  Unlinked indexing code.
    (ST.32:B515/B525)

-->
<!ELEMENT unlinked-indexing-code (#PCDATA)>


<!--
  Linked indexing code.
    (ST.32:B514/B524)

-->
<!ELEMENT linked-indexing-code-group (main-linked-indexing-code , sub-linked-
indexing-code+)>


<!--
  Sub/further Linked Indexing Code.

-->
<!ELEMENT sub-linked-indexing-code (#PCDATA)>


<!--
  Main Linked Indexing Code.

-->
<!ELEMENT main-linked-indexing-code (#PCDATA)>
```

```
<!--
  Main classification.
    (ST.32:B511/B521)

-->
<!ELEMENT main-classification (#PCDATA)>


<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
```

```
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
```

```
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? , datecit?
, srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
  Date article was revised

-->
<!ELEMENT revised (date)>
```

```
<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>
```

```
<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
, line?))>


<!--
  Referenced line within cited work
```

```
-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last
```

```
-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>
```

```
<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>
```

```
<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
```

```
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>
```

```
<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  Declaration information including combined declaration
  and desgnated country

-->
<!ELEMENT declaration-info (declaration1? , declaration2? , declaration3? ,
declaration4? , declaration5? , combined-declaration? , designated-states-as-dec*)>


<!--
  Designated states for which indications are made: all except United States

-->
<!ELEMENT all-designations-except-us EMPTY>


<!--
  All designations permitted by the Treaty are made  (Rule 4.9(b))

-->
<!ELEMENT all-designations EMPTY>


<!--
  PCT/RO/101 Box No.VII :International Searching Authority

-->
<!ELEMENT search-authority (isa , earlier-search-request?,  earlier-search-
authorization*)>


<!--
  Request to use results of earlier search; reference to that search

-->
<!ELEMENT earlier-search-request (document-id , substantially-equivalent? ,
earlier-search-documents?)+>

<!--
-->
<!ELEMENT substantially-equivalent EMPTY>


<!--
```

```
  International Search Authority; international search to be carried out by

-->
<!ELEMENT isa (country)>

<!--
  information of priority claims and priority document.


-->
<!ELEMENT wo-priority-info (priority-claim , priority-claim-ib-info? ,
incorporation-by-reference?)+>


<!--
     where an element  of the international application referrred to in Article
11(1)(iii)(d) or (e) or a part of the description, claims or drawings referred to
in Rule 20.5(a) is not otherwise contained in this international application but is
completely contained in an earlier application whose priority is claimed on the
date on which one or more elements referred to in Article 11(1)(iii) were first
received by the receiving Office, that element or part is, subject to confirmation
under Rule 20.6, incorporated by reference in this international application for
the purposes of Rule 20.6

-->
<!ELEMENT incorporation-by-reference EMPTY>


<!--
  The priority document is attached to the application

-->
<!ELEMENT priority-doc-attached EMPTY>


<!--
  The receiving office is requested to prepare and transmit to the IB a certified
  copy of the earlier application

-->
<!ELEMENT priority-doc-requested EMPTY>


<!--
     This element is made when the receiving Office is requested to restore the
right of priority.

-->
<!ELEMENT restore-rights EMPTY>


<!--
  Where the earlier application is an ARIPO application,indicate at least one
  country party to the PARIS convention for the protection of industrial property
  or one member of the WTO for which that earlier application was filed.

-->
<!ELEMENT office-of-filing ((region , country?) | country)>


<!--
  Additional priority claim information by IB

-->
<!ELEMENT priority-claim-ib-info (received-at-ib? , pct-rule17-1? , withdrawn? ,
considered-not-made?)>


<!--
```

```
  PCT/RO/101 Box No.V Designation Of States (PCT Rule 4.9)

-->
<!ELEMENT designation-of-states (designation-pct , (precautionary-designation-
statement? , exclusion-from-designation?))>


<!--
  Rule 4.9(b),(c)
    In addition to the designations made above [i.e, designation-of states], the
    applicant also makes under Rule 4.9(b) all other designations which would be
    permitted under the PCT except any designation(s) indicated in the Supplemental
    Box [i.e., exclusion-from-designation] as being excluded form the scope of this
    statement. The applicant declares that those additional designations are
    subject to confirmation and that any designation which is not confirmed before
    the expiration of 15 months from the priority date is to be regarded as
    withdrawn by the applicant at the expiration of that time limit.

-->
<!ELEMENT precautionary-designation-statement (#PCDATA)>


<!--
  State(s) excluded from precautionary designations under Rule 4.9(b)

-->
<!ELEMENT exclusion-from-designation (regional* , national?)>


<!--
  The Contracting States in which protection is desired
  (Rules 4.1(a)(iv) and 4.9(a))

-->
<!ELEMENT designation-pct (regional* , national? , new-designation-country*)>


<!--
  New PCT member country states (e.g., not yet published in WIPO ST.3, joined after
  PCT electronic filing software published)

-->
<!ELEMENT new-designation-country (#PCDATA)>


<!--
  The States for which protection or exclusion (depending upon context) is desired

-->
<!ELEMENT national (country , protection-request*)+>


<!--
  Regional (as opposed to national) protection being sought

-->
<!ELEMENT regional (region , (country , protection-request*)+ , any-other-state?)>



<!--
  Any other state in which protection is being sought

-->
<!ELEMENT any-other-state EMPTY>


<!--
  Kind of protection; e.g., patent, utility model
```

```
-->
<!ELEMENT kind-of-protection (#PCDATA)>


<!--
  PCT/RO/101 Box No.II, III and IV APPLICANTS, FURTHER APPLICANT(S)
  AND/OR (FURTHER) INVENTOR(S)AGENT OR COMMON REPRESENTATIVE;
  OR ADDRESS FOR CORRESPONDENCE (PCT Rule 4.5, 4.6, 4.7, 4.8)
    (INID 70, ST.32:B700)

-->
<!ELEMENT parties (applicants , inventors? , correspondence-address? , agents?)>


<!--
  Information regarding Agents or common representatives

-->
<!ELEMENT agents (customer-number | agent+)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Inventors information:
    If the US is designated, all of the inventors must also be named as applicants
    for purposes of that designation.

-->
<!ELEMENT inventors (inventor | deceased-inventor)+>


<!--
  Applicants information:
    At least one of the applicants named must be a resident or national of a PCT
    Contracting State for which the receiving Office acts.

-->
<!ELEMENT applicants (applicant+)>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
```

```
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>

<!--
   information of changing of bibliograchic data

-->
<!ELEMENT wo-bib-change-info (bib-change-request+)>


<!--
  Bibliographic chnaging information
  address, name,nationality,residence

-->
<!ELEMENT bib-change-request (received-at-ib , previous-record)>


<!--
  Previous record of bibliographic in application before changing

-->
<!ELEMENT previous-record (applicant | inventor | deceased-inventor | agent)>


<!--
  Rule 4.6(c):
   "The request may, for different designated states, indicate different persons
    as inventors where, in this respect, the requirements of the national laws of
    the designated States are not the same.  In such a case, the request shall
    contain a separate statement for each designated State or group of States in
    which a particular person, or the same person, is to be considered the
```

```
    inventor, or in which particular persons, or the same persons, are to be
    considered the inventors."

-->
<!ELEMENT designated-states-as-inventor (country* , (region , country+)*)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  Country of residence

-->
<!ELEMENT residence (country)>


<!--
  Country of nationality

-->
<!ELEMENT nationality (country)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)
```

```
-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
```

```
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>
```

```
<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  WIPO amendment information:
  art 19 amendment, date of receipt at IB

-->
<!ELEMENT wo-amendment-info (received-at-ib)>


<!--
  WIPO application information:
  received-at-ib : date of receipt of record copy by International Bureau

-->
<!ELEMENT wo-application-info (date-of-earliest-priority? , received-at-ib? ,
considered-not-made? , withdrawn?)>


<!--
  Where the international application claims the priority of several earlier
  applications, the filing date of the earliest application whose priority is
```

```
  claimed must be indicated as the priority date.

-->
<!ELEMENT date-of-earliest-priority (date)>


<!--
  Demand withdrawn by a notice from applicant
  (PCT Article 37; PCT Rule 90bis.4)

-->
<!ELEMENT withdrawn (date)>


<!--
  Declaration by the receiving office or IB that priority claim is considered,
  for the purposes of the procedure under the Treaty not to have been made

-->
<!ELEMENT considered-not-made (date , made-by?)>


<!ELEMENT made-by (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  WIPO publication information:

-->
<!ELEMENT wo-publication-info (wo-correction* , wo-bio-material-after-pub? , isr-
status* , pct-pub-info* , wo-pubnum?)>

<!ELEMENT wo-pubnum (#PCDATA)>


<!--
  PCT published pamphlet information

-->
<!ELEMENT pct-pub-info (wo-published-text , pct-art64*)>


<!--
  published text in PCT pamphlet front page.

-->
<!ELEMENT wo-published-text (wo-text-letter-code+)>

<!ELEMENT wo-text-letter-code (#PCDATA)>


<!--
  PCT Article 64: Reservations

-->
<!ELEMENT pct-art64 (date? , document-id?)>


<!--
  a reference to deposited biological material that was received by IB
  after completion of technical preparations for international publication
```

```
-->
<!ELEMENT wo-bio-material-after-pub (received-at-ib , relevant-date?)>


<!--
  Relevant date

-->
<!ELEMENT relevant-date (date)>


<!--
  International Bureau receipt date

-->
<!ELEMENT received-at-ib (date)>


<!--
  WO Patent correction information.

-->
<!ELEMENT wo-correction (document-id? , type-of-correction? , wo-repub-code , wo-
pubnum? , wo-dtext*)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>

<!ELEMENT wo-repub-code (#PCDATA)>


<!--
  Type of correction.
    (ST.32:B667)

-->
<!ELEMENT type-of-correction (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
```

```
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Authorization to RO to transmit  earlier search
-->
<!ELEMENT earlier-search-authorization (document-id )>
<!ATTLIST earlier-search-authorization  request-ro-not-transmit
(yes |

no )  #IMPLIED
                                       applicant-authorizes-ro-transmit
(yes |

no )  #IMPLIED >
```

5.7 IB publication

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!ENTITY % amend_content "(invention-title | heading+ | p+ | doc-page+ | claim+ |
figure+)">

<!--
*******************************************************************************
*  wo-published-application v1.12     2021  JULY                                *
*******************************************************************************
*  PUBLIC "-//WIPO//DTD WO PUBLISHED APPLICATION 1.12//EN"                     *
*                                          "wo-published-application-v1-12.dtd"*
*******************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/                            *
*                                           wo-published-application-v1-12.dtd *
*******************************************************************************
* contacts:                                                                    *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                  *
*******************************************************************************
* revision history                                                             *
*******************************************************************************
Yukako SHIBA : 01/01/2021 incorporated changes form PFC
..changed version number from v1.11 to v1.12
..added an element "br" to "statement"
..added an element "additional-info" to "rel-passage".
..changed an attribute  "seq-file-type" from "ST.25" to "(ST.25 | ST.26)"
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.10 to v1.11
..added an attribute "id" to signatory, lack-of-novelty and us-rights
..added an attribute "color" to "figure".
..added an element " earlier-search-authorization" to search-authority
SY: 01/07/12 incorporated changes from PFC:
..changed version number from v1.9 to v1.10
..added attribute 'priority-doc-access-code' to priority-doc-from-library
```

```
(PFC12/001)
SY: 01/04/10 incorporated changes from PFC
..changed version number from v1.8 to v1.9
..added element 'priority-doc-from-library' to priority-claim (PFC09/005)
..changed value of attribute lang of amend-statement from '#REQUIRED' to
'#IMPLIED'(PFC09/006)
..changed value of attribute status of amend-statement from '#REQUIRED' to
'#IMPLIED'(PFC09/006)
MO: 01/07/09 incorporated changes from PFC
..changed version number from v1.7 to v1.8
..added attribute 'electronic-format-type' to sequence-list (PFC09/001)
..added attribute 'part-of-application' to sequence-list (PFC09/001)
MO: 01/01/09 incorporated changes from PFC
..changed version number from v1.6 to v1.7
..added element 'summary-of-invention' to description (PFC08/008)
..added element 'description-of-embodiments' to description (PFC08/008)
..added element 'reference-signs-list' to description (PFC08/008)
..added element 'reference-to-deposited-bioligical-material' to description
(PFC08/008)
..added element 'citation-list' to description (PFC08/008)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.5 to v1.6
..added element 'substantially-equivalent' to earlier-search-request (PFC08/003)
..added element 'earlier-search-document' to earlier-search-request (PFC08/003)
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.4 to v1.5
..implementation of PFC06/001
..changed element '(all-designations | all-designations-except-us | designated-
status)'
  to '(all-designations | all-designations-except-us | designated-status)?'
  in identity-of-inventor (PFC06/002)
..changed element '(all-designations | all-designations-except-us | designated-
status)'
  to '(all-designations | all-designations-except-us | designated-status)?'
  in matter (PFC06/002)
..changed element '(all-designations | designated-status)'
  to '(all-designations | designated-status)?' in lack-of-novelty (PFC06/002)
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'incorporation-by-reference' to wo-priority-info (PFC06/004)
..added element 'restore-rights' to priority-claim (PFC06/004)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
..added attribute 'subset' to protection-request (PFC06/005)
MO: 04/10/05
..changed version FROM 1.3 TO 1.4
..added attribute 'orientation' to abstract-figure
..added attribute 'lang' to abstract-figure
..changed element wo-publication-info
  FROM (wo-correction* , wo-bio-material-after-pub? , isr-status* , pct-pub-info*)
  TO   (wo-correction* , wo-bio-material-after-pub? , isr-status* , pct-pub-info* ,
wo-pubnum?)
..added element 'wo-pubnum'
..changed element wo-correction
  FROM (document-id? , type-of-correction? , wo-repub-code , dtext?)
  TO   (document-id? , type-of-correction? , wo-repub-code , wo-pubnum?, wo-dtext*)
..added element wo-dtext
..changed element wo-published-application
  FROM ( ( wo-bibliographic-data , abstract? , abstract-figure? , front-page ,
description? , claims? , wo-amended-claims? , amend-statement? , drawings? ) |
sequence-list-doc | biological-material-doc | lack-of-novelty | pct-rule91-1f |
```

```
priority-claim-considered-not-made | pct-art17.2a | wo-search-report)*
  TO   ( wo-bibliographic-data , abstract* , abstract-figure* , front-page? ,
description? , claims? , wo-amended-claims? , amend-statement? , drawings? , (
sequence-list-doc | biological-material-doc | lack-of-novelty | pct-rule91-1f |
priority-claim-considered-not-made | pct-art17.2a | wo-search-report )* , wo-ocr-
text? , wo-xml-application?)
..added element wo-ocr-text
..added element wo-xml-application
HT: 14/12/04 incorporated changes from PFCs:
..changed element correction from (document-id? , type-of-corection? , wo-repub-
code , dtext? to (document-corrected , type-of-correction? , gazette-reference? ,
text?)
..changed element nplcit from '(text | (article , book , online , othercit)*)' to
'(text | article | book | online | othercit)'
..changed element othercit from '(#PCDATA)' to '(#PCDATA | b | i | u | sup | sub)*'
..changed element rel-passage from (text | (passage+ , category? , rel-claims?)) to
(text | (passage+ , category* , rel-claims*)+)
..changed element sequence-list-doc from (docpage+ | sequence-list) to (#PCDATA |
doc-page | sequence-list)*
..changed element name from 'amended-claims' to wo-amended-claims''
..changed element name from 'correction' to 'wo-correction'
..changed attribute of correction from '#REQUIRED' to '#IMPLIED'
..changed attribute he, wi of doc-page, img from 'NMTOKEN' to 'CDATA'
..changed value of attribute idref of crossref from 'CDATA' to 'IDREF'
..changed value of attribute tsize of dl from 'NMTOKEN' to 'CDATA'
..changed value of attribute num of patcit, nplcit from '#REQUIRED' to 'IMPLIED'
..changed value of attribute xml:space of pre from '#FIXED 'preserve'' to
'(preserve | default #IMPLIED)'
..changed value name of attribute listing-type of pre from 'software-code' to
'program-listing'
..added element 'classifications-ipcr' to wo-bibliographic-data
..added element 'pre' to claim-text, dd, li
..added element 'wo-correction' to wo-publication-info
..added attribute 'id' to addressbook, application-reference, classification-ipc,
priority-claim, publication-reference
..added attribute 'chem-type' to chem
..added attribute 'claim-type' to claim, claims
..added attribute 'class-type' to class
..added attribute 'ocr' to doc-page
..added attribute 'sequence', 'id' to further-classfication
..added value 'other-subname-type' to attribute 'subname-type' of subname
..removed attribute 'country' from amended-claim
..removed attribute 'lang', 'status', 'dtd-version' from chem
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..changed element article, online, serial from 'subname?' to 'subname*'
..changed element chemistry from '(img)' to '(img|(chem,img?))'
..changed element maths from '(img|math)' to '(img|(math,img?))'
..changed element rel-passage from 'category?, rel-claims?' to 'category*, rel-
claims*'
..added element 'figref' to claim-text, dd, li
..added element 'b', 'i', 'u', 'sup', 'sub', 'smallcaps' to crossref
..added attribute 'num' to li
..added attribute 'subname-type' to subname
..added value 'chem', table'', math'', 'program-listing', 'flowchart' to attribute
'img-content' of img
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
..removed attribute 'class-type' from nplcit
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v1.0 to v1.2
..changed table-external from '#PCDATA' to 'EMPTY'
..changed element designation-of-states
   from '(precautionary-designation-statement, exclusion-from-designation?)?)'
   to '(precautionary-designation-statement?, exclusion-from-designation?))'
..added element 'pre' to p content model
..added element 'sup2' and 'sub2' to sup and sub
..added attribute 'lang' and 'class-type' to nplcit
..added attribute 'external-type' to table-external
```

```
..added attribute 'figure-labels' to figure
June 2003
..released version number as v1.0
************************************************************************

  ********************************************************************
  *  XML VERSION FOR FILING OF PCT APPLICATIONS:                     *
  *  description, claims, abstract, drawings -                       *
  *  it may be utilised by other offices as required -               *
  *  but it is NOT recommended to add or change element and          *
  *  attribute names                                                 *
  *  see: http://pcteasy.wipo.int/efiling_standards/EFPage.htm       *
  *                                                                  *
  *  It is intended for a) Online Filing b) (later) publication, etc *
  *  within the context of a new version of ST.32 (ST.32X)           *
  *  In developing this DTD we have taken into consideration:        *
  *  - earlier versions of this dtd                                  *
  *  - ST32 version 3                                                *
  *  - Variations of ST.32 in: WIPO, USPTO, MIMOSA, etc              *
  *  - USPTO EFS dtd                                                 *
  *  - Trilateral Common data dictionary                             *
  *  - ISO 12083 dtds, etc                                           *
  ********************************************************************

  ************************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                    *
  ************************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
  ************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL           *
  ************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->
<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">

<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
```

```
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                 | patcit | nplcit | bio-deposit | crossref | img
                 | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "soextblx.dtd">
%calstblx;
<!--
  ************************************************************************
  * SECTION II - DTD                                                     *
  ************************************************************************

Attributes for demand
  id            = unique id for this application - could be file name
  country       = st.3 code for application
  dtd-version   = dtd version number
  lang          = language of application - use ISO639 language code
  status        = status of the application; values: new = new application
  file          = filename of the whole application
  date-produced = YYYYMMDD e.g, 20011230  if desired, 12 characters maximum
  ipea          = IPEA office name, country code ST.3
  produced-by   = creator of this document

-->
<!ELEMENT wo-published-application (wo-bibliographic-data , abstract* , abstract-
figure* , front-page? , description? , claims? , wo-amended-claims? , amend-
statement? , drawings? , (sequence-list-doc | biological-material-doc | lack-of-
novelty | pct-rule91-1f | priority-claim-considered-not-made | pct-art17.2a | wo-
search-report)* , wo-ocr-text? , wo-xml-application?)>

<!ATTLIST wo-published-application  lang          CDATA  #REQUIRED
                                   dtd-version   CDATA  #IMPLIED
                                   file          CDATA  #IMPLIED
                                   produced-by          (applicant |
                                                         RO |
                                                         ISA |
                                                         IPEA |
                                                         IB |
                                                         DO |
                                                         EO |
                                                         national-office |
                                                         regional-office )  #REQUIRED
                                   date-produced CDATA  #IMPLIED
                                   office-name   CDATA  #IMPLIED
                                   status        CDATA  #IMPLIED >


<!ELEMENT wo-bibliographic-data (publication-reference? , wo-publication-info? ,
application-reference? , wo-application-info? , wo-amendment-info? , wo-bib-change-
info? , wo-demand-info? , file-reference-id? , invention-title* , parties? ,
designation-of-states? , wo-priority-info? , search-authority? , declaration-info?
, classification-ipc? , classifications-ipcr? , figure-to-publish? , signatories? ,
correspondence-address? , dtext?)>
```

```
<!ATTLIST wo-bibliographic-data  date-produced CDATA  #IMPLIED
                                 lang          CDATA  #IMPLIED
                                 dtd-version   CDATA  #IMPLIED
                                 file          CDATA  #IMPLIED
                                 status        CDATA  #IMPLIED
                                 office-name   CDATA  #IMPLIED
                                 produced-by          (applicant |
                                                       RO |
                                                       ISA |
                                                       IPEA |
                                                       IB |
                                                       DO |
                                                       EO |
                                                       national-office |
                                                       regional-office )  #REQUIRED >

<!--
  Later election information

-->
<!ELEMENT later-election (received-at-ib)>

<!ATTLIST later-election  expiration-19months   (before | after )  #REQUIRED >

<!--
  PCT/IPEA/401
  The date of receipt of the demand is AFTER the expiration of 19 months from the
  priority date

-->
<!ELEMENT receipt-after-19month EMPTY>

<!ATTLIST receipt-after-19month  informed   (yes | no )  #IMPLIED >

<!--
  IPER status information, date of receipt at IB,
  information of new IPER or corrected IPER.

-->
<!ELEMENT iper-status (received-at-ib?)>

<!ATTLIST iper-status  iper-status   (new | corrected )  #REQUIRED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!ELEMENT classifications-ipcr (classification-ipcr+)>

<!ATTLIST classifications-ipcr  id ID  #IMPLIED >

<!--
  International Patent Classification (IPC) data;

-->
```

```
<!ELEMENT classification-ipcr ((ipc-version-indicator , classification-level? ,
section , class , subclass , main-group? , subgroup? , symbol-position? ,
classification-value? , action-date? , generating-office? , classification-status?
, classification-data-source?) | text)>

<!ATTLIST classification-ipcr  id       ID     #IMPLIED
                               sequence CDATA  #IMPLIED >

<!--
  International Patent Classification (IPC) data;
    (INID 51,  ST.32:B510)

-->
<!ELEMENT classification-ipc (edition , main-classification , further-
classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-ipc  id ID  #IMPLIED >

<!--
  Further/secondary classification
    (ST.32:B512/B522)

-->
<!ELEMENT further-classification (#PCDATA)>

<!ATTLIST further-classification  id       ID     #IMPLIED
                                  sequence CDATA  #IMPLIED >

<!--
  Designated states for declarations

-->
<!ELEMENT designated-states-as-dec (all-designations | all-designations-except-us |
(regional* , national?))>

<!ATTLIST designated-states-as-dec  dec-type   (1 | 2 | 3 | 4 | 5 | combined )
#REQUIRED >

<!--
  Information of combined declaration(declaration 1 and 2)

-->
<!ELEMENT combined-declaration EMPTY>

<!ATTLIST combined-declaration  quantity CDATA  #REQUIRED >

<!--
  Declaration as to non-prejudical disclosures or exceptions to lack of novelty
  (Rules 4.17(v) and 51bis.1(a)(v))

-->
<!ELEMENT declaration5 EMPTY>

<!ATTLIST declaration5  quantity CDATA  #REQUIRED >

<!--
  Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes
  of the designation of the United States of America

-->
<!ELEMENT declaration4 EMPTY>

<!ATTLIST declaration4  quantity CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  claim the priority of the earlier application, where the applicant is not the
  applicant who filed the earlier application or where the applicant's name has
```

```
  changed since the filing of the earlier application
  (Rules 4.17(iii) and 51bis.1(a)(iii))

-->
<!ELEMENT declaration3 EMPTY>

<!ATTLIST declaration3  quantity CDATA  #REQUIRED >

<!--
  Declaration as applicant's entitlement, as at the international filing date, to
  apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case
  where the declaration under Rule 4.17(iv) is not appropriate

-->
<!ELEMENT declaration2 EMPTY>

<!ATTLIST declaration2  quantity CDATA  #REQUIRED >

<!--
  Declaration as to the identity of the inventor
  (Rules 4.17(i) and 51bis.1(a)(i))

-->
<!ELEMENT declaration1 EMPTY>

<!ATTLIST declaration1  quantity CDATA  #REQUIRED >
<!--
-->
<!ELEMENT earlier-search-documents EMPTY>

<!ATTLIST earlier-search-documents  results-of-earlier-search
(yes |

no )  #IMPLIED
                                        earlier-application
(yes |

no )  #IMPLIED
                                        translation-of-earlier-application
(yes |

no )  #IMPLIED
                                        translation-of-results-of-earlier-search
(yes |

no )  #IMPLIED
                                        documents-cited-in-earlier-search-results
(yes |

no )  #IMPLIED
                                        available-at-isa
(yes |

no )  #IMPLIED
                                        request-ro-to-transmit-to-isa
(yes |

no )  #IMPLIED >

<!--
  Priority claim (PCT Rule 4.10)
    (INID 32/33/34, ST.32:B320/B330/B340)

-->
<!ELEMENT priority-claim (country , doc-number? , date , office-of-filing? ,
(priority-doc-requested | priority-doc-attached | priority-doc-from-library)? ,
restore-rights?)>

<!ATTLIST priority-claim  id       ID     #IMPLIED
```

```
                              sequence CDATA  #REQUIRED
                              kind             (national | regional | international )
#REQUIRED >

<!--
  library-identifier  attribute intended as an identifying code for the library
containing the document ? to be used where offices support the access of documents
from many such libraries

  action-by  attribute would indicate the office requested to retrieve the document
(for PCT this can be the RO or IB, default IB)

  priority-doc-access-code indicates, when present, the access code that the Office
(or applicable Offices) should use to obtain the priority document from the
specified digital library

-->
<!ELEMENT priority-doc-from-library EMPTY>

<!ATTLIST priority-doc-from-library  library-identifier       CDATA  #IMPLIED
                                       action-by               CDATA  #IMPLIED
                                       priority-doc-access-code CDATA  #IMPLIED >

<!--
  PCT Rule 17.1:  Obligation to Submit Copy of Earlier
  National or International Application

-->
<!ELEMENT pct-rule17-1 EMPTY>

<!ATTLIST pct-rule17-1  compliance   (yes | no )  #REQUIRED >

<!--
  Protection request for the designated office.

-->
<!ELEMENT protection-request (kind-of-protection , document-id?)>

<!ATTLIST protection-request  subset   (yes | no )  #IMPLIED >

<!--
  Agent or common representative (Rules 90.1, 90.2)

-->
<!ELEMENT agent (addressbook+)>

<!ATTLIST agent  sequence CDATA  #REQUIRED
                   rep-type        (agent | attorney | common-representative )
#REQUIRED >

<!--
  Deceased inventor name

-->
<!ELEMENT deceased-inventor (%name_group;)>

<!ATTLIST deceased-inventor  sequence CDATA  #IMPLIED
                               lang     CDATA  #IMPLIED >

<!--
  The individual or entity responsible for creating the matter that protection is
  sought for.
    (ST.32:B721)

-->
<!ELEMENT inventor (addressbook+ , designated-states?)>

<!ATTLIST inventor  sequence    CDATA  #REQUIRED
                      designation        (all | all-except-us | us-only | as-
```

```
indicated )  #IMPLIED >

<!--
  Applicant information:
    (INID 71, ST.32:B710)

  attributes for applicant
    sequence   : sequence number of each applicant
                 e.g, sequence="1"
    app-type   : applicant type
                 app-type="applicant" : the applicant is only applicant
                 app-type="applicant-inventor" : the applicant is also inventor
    designation: This person is applicant for the purpose of:
                 designation="all"          : all designated states
                 designation="all-except-us": all designated states except US
                 designation="us-only"      : US only
                 designation="as-indicated" : the states indicated in
                                              designated-states element
                                              under applicant element

-->
<!ELEMENT applicant (addressbook+ , nationality , residence , us-rights* ,
designated-states? , designated-states-as-inventor?)>

<!ATTLIST applicant  sequence    CDATA  #REQUIRED
                       app-type           (applicant | applicant-inventor )
#REQUIRED
                       designation        (all | all-except-us | us-only | as-
indicated )  #REQUIRED >

<!--
  This person is successor to the rights of an inventor who is deceased, insane, or
  legally incapacitated, for the purposes of the designation of the United States
  of America

-->
<!ELEMENT us-rights (#PCDATA)>

<!ATTLIST us-rights  to-dead-inventor CDATA  #REQUIRED
                       kind                    (heir |
                                          heiress |
                                          executor |
                                          executrix |
                                          estate |
                                          legal-representative |
                                          administrator |
                                          administratrix |
                                          legal-representatives |
                                          heirs |
                                          executors |
                                          legal-heirs )  #REQUIRED
                       id  ID  #IMPLIED >

<!--
  ISR status information, date of receipt at IB,
  information of new ISR or corrected ISR.

-->
<!ELEMENT isr-status (received-at-ib?)>

<!ATTLIST isr-status  isr-status   (new | corrected )  #REQUIRED >

<!--
  Publication reference information: publication number, date, etc
    (INID 11, ST.32:B110)

-->
<!ELEMENT publication-reference (document-id)>
```

```
<!ATTLIST publication-reference  id ID  #IMPLIED >

<!--
     IB XML application

-->
<!ELEMENT wo-xml-application (description , claims , abstract* , wo-amended-claims?
, amend-statement? , drawings?)>

<!ATTLIST wo-xml-application  lang   CDATA  #REQUIRED
                              status CDATA  #IMPLIED >

<!--
     Text data made by the OCR system

-->
<!ELEMENT wo-ocr-text (wo-dtext)>

<!ATTLIST wo-ocr-text  file CDATA  #IMPLIED >

<!--
     IB original dtext, br tag is available.

-->
<!ELEMENT wo-dtext (#PCDATA | br)*>

<!ATTLIST wo-dtext  lang CDATA  #IMPLIED >

<!--
  Biological material component in PCT publication

-->
<!ELEMENT biological-material-doc ((application-reference? , file-reference-id? ,
indications+) | doc-page+)>

<!ATTLIST biological-material-doc  id     ID     #IMPLIED
                                   lang   CDATA  #IMPLIED
                                   status CDATA  #IMPLIED >

<!--
  Declaration as to non-prejudical disclosures or exceptions to lack of novelty
  (PCT Rules 4.17(v) and 51bis.1(a)(v))

-->
<!ELEMENT lack-of-novelty (doc-page+ | (application-reference? , %name_group; ,
((date | address | title-of-disclosure | method-of-disclosure | dtext)+ , (all-
designations | designated-states)?)))>

<!ATTLIST lack-of-novelty  sequence CDATA  #REQUIRED
                           lang     CDATA  #IMPLIED
                           id     ID  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Priority claim considered not made (Rule 26bis2(b))

-->
<!ELEMENT priority-claim-considered-not-made (doc-page+ | priority-claim-
considered-not-made-doc)>
```

```
<!ATTLIST priority-claim-considered-not-made  lang   CDATA  #IMPLIED
                                               id     ID     #IMPLIED
                                               status CDATA  #IMPLIED >

<!--
  PCT Rule91.1(f): "Any authority which authorizes or refuses any rectification
  shall promptly notify the applicant of the authorization or refusal and, in the
  case of refusal, of the reasons therefor.."

-->
<!ELEMENT pct-rule91-1f (doc-page+ | pct-rule91-1f-doc)>

<!ATTLIST pct-rule91-1f  lang   CDATA  #IMPLIED
                         id     ID     #IMPLIED
                         status CDATA  #IMPLIED >
<!--
international search report


-->
<!ELEMENT wo-search-report (doc-page+ | search-report)>

<!ATTLIST wo-search-report  lang   CDATA  #IMPLIED
                           id     ID     #IMPLIED
                           status CDATA  #IMPLIED >

<!--
  Search report

-->
<!ELEMENT search-report EMPTY>

<!ATTLIST search-report  id       ID     #IMPLIED
                         file     CDATA  #REQUIRED
                         lang     CDATA  #IMPLIED
                         carriers        (internal-electronic |
                                   external-electronic |
                                   paper )  #IMPLIED
                         status   CDATA  #IMPLIED >

<!--
  PCT Article 17.2(a):
    "If the International Searching Authority considers
      (i)  that the international application relates to a subject matter which
           the International Searching Authority is not required, under the
           Regulations, to search, and in the particular case decides not to
           search, or
      (ii) that the description, claims, or the drawings, fail to comply with the
           prescribed requirements to such an extent that a meaningful search could
           not be carried out, the said Authority shall so declare and shall notify
           the applicant and the International Bureau that no international search
           report will be established."

-->
<!ELEMENT pct-art17.2a (doc-page+ | art17.2a-doc)>

<!ATTLIST pct-art17.2a  lang   CDATA  #IMPLIED
                        id     ID     #IMPLIED
                        status CDATA  #IMPLIED >

<!--
  Sequence list document component in PCT publication

-->
<!ELEMENT sequence-list-doc (#PCDATA | doc-page | sequence-list)*>

<!ATTLIST sequence-list-doc  id     ID     #IMPLIED
                             lang   CDATA  #IMPLIED
                             status CDATA  #IMPLIED >
```

```
<!--
  SEQUENCE LISTING
    According to WIPO ST.25: STANDARD FOR THE PRESENTATION OF NUCLEOTIDE AND
    AMINO ACID SEQUENCE LISTINGS IN PATENT APPLICATIONS:
      see http://www.wipo.int/scit/en/index.html
    "The sequence listing as defined in paragraph 2(i) shall, where it is filed
    together with the application, be placed at the end of the description
    part of the application. This part shall be entitled Sequence Listing,
    begin on a new page and preferably have independent page numbering.
    The sequence listing forms an integral part of the description; it is therefore
    unnecessary, subject to paragraph 36, to describe the sequences elsewhere
    in the description." Therefore we create here a separate sub-document for
    sequence listings, it should follow any drawings or the claims.
    It should follow the format of Annex C/ST.25 and be an external file
    Or According to WIPO ST.26: RECOMMENDED STANDARD FOR THE PRESENTATION OF
NUCLEOTIDE AND AMINO ACID SEQUENCE LISTINGS
     USING XML (EXTENSIBLE MARKUP LANGUAGE)
    See https://www.wipo.int/standards/en/pdf/03-26-01.pdf
-->
<!ELEMENT sequence-list EMPTY>

<!ATTLIST sequence-list  id                      ID     #IMPLIED
                         file                    CDATA  #REQUIRED
                         lang                    CDATA  #IMPLIED
                         carriers                       (internal-electronic |
                                                   external-electronic |
                                                   paper )  #IMPLIED
                         seq-file-type           (ST.25 | ST.26) #REQUIRED
                         electronic-format-type         (text | other )  #IMPLIED
                         status                  CDATA  #IMPLIED
                         part-of-application             (yes | no )  #IMPLIED >

<!--
  Amended content of original application

-->
<!ELEMENT wo-amended-claims ((amend-statement? , (amend-body | (delete-object |
((insert-before-object | insert-after-object | replace-object)))+)) , text?)>

<!ATTLIST wo-amended-claims  id         ID     #IMPLIED
                             lang       CDATA  #REQUIRED
                             claim-type CDATA  #IMPLIED
                             status     CDATA  #IMPLIED >

<!--
  Replace referenced object with new content ;
  e.g.,
    <replace-object id="p02">
      <p id="p01a" num="001a">(new content)</p>
    </replace-object>

-->
<!ELEMENT replace-object (%amend_content;)>

<!ATTLIST replace-object  id       ID     #IMPLIED
                          num      CDATA  #IMPLIED
                          location CDATA  #IMPLIED >

<!--
  Insert new content after referenced object;
  e.g.,
    <insert-after-object id="p02">
      <p id="p03" num="003">(new content)</p>
    </insert-after-object>

-->
<!ELEMENT insert-after-object (%amend_content;)>
```

```
<!ATTLIST insert-after-object  id       ID     #IMPLIED
                               num      CDATA  #IMPLIED
                               location CDATA  #IMPLIED >

<!--
  Insert new content before referenced object;
  e.g.,
    <insert-before-object id="p02">
      <p id="p01a" num="001a">(new content)</p>
    </insert-before-object>

-->
<!ELEMENT insert-before-object (%amend_content;)>

<!ATTLIST insert-before-object  id       ID     #IMPLIED
                                num      CDATA  #IMPLIED
                                location CDATA  #IMPLIED >

<!--
  Delete object from document; e.g., paragraph, claim, etc.
  e.g,
    <delete-object id='p06'></delete-object>

-->
<!ELEMENT delete-object EMPTY>

<!ATTLIST delete-object  id       ID     #IMPLIED
                         num      CDATA  #IMPLIED
                         location CDATA  #IMPLIED >

<!--
  Amend entire sections of the application-body

-->
<!ELEMENT amend-body (doc-page+ | (description? , claims? , abstract? ,
drawings?))>

<!ATTLIST amend-body  id     ID     #IMPLIED
                      lang   CDATA  #REQUIRED
                      status CDATA  #IMPLIED >

<!--
  Drawings: PCT Article 7 / Rule 7
  Drawings shall be required when they are necessary for the understanding of the
  invention.

  Recommended id = 'draw'

-->
<!ELEMENT drawings (doc-page+ | figure+)>

<!ATTLIST drawings  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  A drawing (figure), necessary for the understanding of the invention

  Recommended id = f0001, f0002, etc.

-->
<!ELEMENT figure (img)>

<!ATTLIST figure  id            ID     #IMPLIED
                  num           CDATA  #REQUIRED
                  figure-labels CDATA  #IMPLIED
                  color (color | bw) #IMPLIED>

<!--
```

```
  Amendment statement (PCT Article 19.1, PCT Rule 46.4).
  May consist of a statement or an attached file

-->
<!ELEMENT amend-statement (doc-page+ | statement)>

<!ATTLIST amend-statement  id     ID     #IMPLIED
                           lang   CDATA  #IMPLIED
                           status CDATA  #IMPLIED >

<!--
  Claims:
  the claims shall define the matter sought for patent and be supported by the
  description.

  Recommended id = 'claim' or 'claim0001' for multiple claims

-->
<!ELEMENT claims (doc-page+ | claim+)>

<!ATTLIST claims  id         ID     #IMPLIED
                  lang       CDATA  #IMPLIED
                  claim-type CDATA  #IMPLIED
                  status     CDATA  #IMPLIED >

<!--
  Defines the matter for which protection is sought
  See PCT Rule 6:
    6.1.a: 'the number of claims shall be reasonable in consideration of what is
            being claimed.'
    6.1.b: 'if there are several claims, they shall be numbered consecutively in
            Arabic numerals.'

  Recommended id values
    If parent element is claims and there is only ONE set of claims:
      id = c0001, c0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there is only ONE set then;
      id = ac0001, ac0002, etc.;num = 0001, 0002, etc.
    If parent element is claims and there are MULTIPLE sets of claims then:
      id = c01.0001, c01.0002, etc.;num = 0001, 0002, etc.
      id = c02.0001, c02.0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there are MULTIPLE sets of
    amended-claims then:
      id = ac01.0001, ac01.0002, etc.;num = 0001, 0002, etc.

-->
<!ELEMENT claim (claim-text+)>

<!ATTLIST claim  id         ID     #IMPLIED
                 num        CDATA  #REQUIRED
                 claim-type CDATA  #IMPLIED >

<!--
  Reference to a claim

-->
<!ELEMENT claim-ref (#PCDATA)>

<!ATTLIST claim-ref  idref IDREFS  #REQUIRED >

<!--
  Description:
  The description must disclose the invention in a manner sufficiently clear and
  complete for it to be carried out by a person skilled in the art (Rule 5).

  Recommended id = 'desc'

-->
<!ELEMENT description (doc-page+ | (invention-title? , (technical-field |
```

```
background-art | disclosure | summary-of-invention | description-of-drawings |
description-of-embodiments | best-mode | mode-for-invention | industrial-
applicability | reference-signs-list | reference-to-deposited-biological-material |
sequence-list-text | citation-list | (heading* , p+)+)+))>

<!ATTLIST description  id     ID     #IMPLIED
                        lang   CDATA  #IMPLIED
                        status CDATA  #IMPLIED >
<!--
-->
<!ELEMENT citation-list (patent-literature | non-patent-literature | (heading* ,
p*)+)+>

<!ATTLIST citation-list  id ID  #IMPLIED >
<!--
-->
<!ELEMENT non-patent-literature (heading* , p+)+>

<!ATTLIST non-patent-literature  id ID  #IMPLIED >
<!--
-->
<!ELEMENT patent-literature (heading* , p+)+>

<!ATTLIST patent-literature  id ID  #IMPLIED >

<!--
  Sequence listing free text
  WIPO ST.25:
  "36. Where the sequence listing part of the description contains free text,
       any such free text shall be repeated in the main part of the description
       in the language thereof.
       It is recommended that the free text in the language of the main part of the
       description be put in a specific section of the description called "Sequence
       Listing Free Text".

  Recommended id = 'seqt'

-->
<!ELEMENT sequence-list-text (heading* , p+)+>

<!ATTLIST sequence-list-text  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-to-deposited-biological-material (heading* , p+)+>

<!ATTLIST reference-to-deposited-biological-material  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-signs-list (heading* , p+)+>

<!ATTLIST reference-signs-list  id ID  #IMPLIED >

<!--
  Article 33(4): "For purposes of the international preliminary examination,
  a claimed invention shall be considered industrially applicable if, according to
  its nature, it can be made or used (in the technological sense) in any kind of
  industry.

  Recommended id = 'inap'

-->
<!ELEMENT industrial-applicability (heading* , p+)+>

<!ATTLIST industrial-applicability  id ID  #IMPLIED >

<!--
  PCT Rule 5.1(a)(vi): "The description shall...indicate explicitly, when it is not
  obvious from the description or nature of the invention, the way in which the
  invention is capable of exploitation in industry and the way in which it can be
```

```
  made and used..."

  Recommended id = 'mode'

-->
<!ELEMENT mode-for-invention (heading* , p+)+>

<!ATTLIST mode-for-invention  id       ID     #IMPLIED
                              mode-num CDATA  #IMPLIED >

<!--
  The best mode contemplated by the applicant for carrying out the invention
  claimed.

  Recommended id = 'bmod'

-->
<!ELEMENT best-mode (heading* , p+)+>

<!ATTLIST best-mode  id ID  #IMPLIED >
<!--
-->
<!ELEMENT description-of-embodiments (embodiments-example | (heading* , p*)+)+>

<!ATTLIST description-of-embodiments  id ID  #IMPLIED >
<!--
-->
<!ELEMENT embodiments-example (heading* , p+)+>

<!ATTLIST embodiments-example  id     ID     #IMPLIED
                               ex-num CDATA  #IMPLIED >

<!--
  Brief description of the drawings (Rule 5.1(a)(iv)

  Recommended id = 'desd'

-->
<!ELEMENT description-of-drawings (heading* , p+)+>

<!ATTLIST description-of-drawings  id ID  #IMPLIED >
<!--
-->
<!ELEMENT summary-of-invention (tech-problem | tech-solution | advantageous-effects
| (heading* , p*)+)+>

<!ATTLIST summary-of-invention  id ID  #IMPLIED >

<!--
  Disclosure of the invention with sub-headings:
    technical problem;
    technical solution;
    advantageous effects (of the invention);

  Recommended id = 'disc'

-->
<!ELEMENT disclosure ((tech-problem | tech-solution | advantageous-effects)* |
(heading* , p+)+)>

<!ATTLIST disclosure  id ID  #IMPLIED >

<!--
  advantageous effects of the invention (PCT Rule 5.1(a)(iii)

  Recommended id = 'adve'

-->
<!ELEMENT advantageous-effects (heading* , p+)+>
```

```
<!ATTLIST advantageous-effects  id ID  #IMPLIED >

<!--
  The solution to the problem that the invention purports to solve.
  (PCT Rule 5.1(a)(iii)

-->
<!ELEMENT tech-solution (heading* , p+)+>

<!ATTLIST tech-solution  id ID  #IMPLIED >

<!--
  The problem the invention purports to solve (Rule 5.1(a)(iii)

-->
<!ELEMENT tech-problem (heading* , p+)+>

<!ATTLIST tech-problem  id ID  #IMPLIED >

<!--
  Background art, background of the invention.

  Recommended id = 'bart'

-->
<!ELEMENT background-art (heading* , p+)+>

<!ATTLIST background-art  id ID  #IMPLIED >

<!--
  PCT Rule 5.1:
    (a) The description shall first state the title of the invention as appearing
       in the request and shall:
      (i) specify the technical field to which the invention relates

-->
<!ELEMENT technical-field (heading* , p+)+>

<!ATTLIST technical-field  id ID  #IMPLIED >

<!--
  Heading text; see Rule 5.  Recommended id = h0001, h0002, etc.

-->
<!ELEMENT heading (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST heading  level     (1 | 2 | 3 )  #IMPLIED
                     id    ID  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                            lang CDATA  #IMPLIED >

<!--
  Front page of the published application

-->
```

```
<!ELEMENT front-page (doc-page+)>

<!ATTLIST front-page  id     ID     #IMPLIED
                      lang   CDATA  #IMPLIED
                      status CDATA  #IMPLIED >

<!--
  Note: the abstract figure (if there is one) may be the actual image,
  e.g.
      <image id='abfig1' file='a1.tif' he='99' wi='74' img-format='tiff'></image>
      or simply a  reference to the figure chosen by the applicant
      or the office;

  Attribute fig-status values:(taken from form PCT/ISA/210)
      1 = as suggested by the applicant
      2 = because the applicant failed to suggest a figure
      3 = because this figure better characterises the invention
      4 = none of the figures

-->
<!ELEMENT abstract-figure ((fig-number+) | img+)>

<!ATTLIST abstract-figure  id          ID     #IMPLIED
                           fig-status         (1 | 2 | 3 | 4 )  '1'
                           orientation CDATA  #IMPLIED
                           lang        CDATA  #IMPLIED >

<!--
  ABSTRACT: PCT Rule 8
    (INID 57, ST.32:B570)
  A concise summary of the disclosure, 50-150 words.

  Recommended id = 'abst' or 'abst0001' for multiple abstracts

-->
<!ELEMENT abstract (doc-page+ | (abst-problem , abst-solution) | p+)>

<!ATTLIST abstract  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  The solution to the alleged problem that the invention  purports to solve.

  Recommended id = 'abss'

-->
<!ELEMENT abst-solution (p+)>

<!ATTLIST abst-solution  id ID  #IMPLIED >

<!--
  The alleged problem that the invention purports to solve

  Recommended id = 'absp'

-->
<!ELEMENT abst-problem (p+)>

<!ATTLIST abst-problem  id ID  #IMPLIED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.

  Note: paragraphs may occur in sections other than the description and at
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.
```

```
-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
             num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
                              carriers             (internal-electronic |
                                                    external-electronic |
                                                    paper )  #IMPLIED
                              external-type        (math |
                                                    chemistry |
                                                    program-listing |
                                                    other )  #IMPLIED
                              status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>

<!ATTLIST tables  id  ID     #IMPLIED
                  num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
              compact        (compact )  #IMPLIED
              id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.
```

```
-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
              list-style     (bullet | dash | none )  'bullet'
              compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
              num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                 num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                     num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                file      CDATA  #REQUIRED
                chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arablic numbers     1, 2, 3, ...
    a   lower alpha         a, b, c, ...
    A   upper alpha         A, B, C, ...
    i   lower roman         i, ii, iii, ...
    I   upper roman         I, II, III, ...
```

```
-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
              compact         (compact )  #IMPLIED
              ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
               he          CDATA  #REQUIRED
               wi          CDATA  #REQUIRED
               file        CDATA  #REQUIRED
               alt         CDATA  #IMPLIED
               img-content        (drawing |
                                   photograph |
                                   character |
                                   dna |
                                   undefined |
                                   chem |
                                   table |
                                   math |
                                   program-listing |
                                   flowchart |
                                   graph )  'drawing'
               img-format         (jpg | tif | st33 | st35 )  #REQUIRED
               orientation        (portrait | landscape )  'portrait'
               inline             (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                  num   CDATA   #IMPLIED >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
```

```
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                         num  CDATA  #REQUIRED
                         url  CDATA  #IMPLIED
                         dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                    num      CDATA  #IMPLIED
                    lang     CDATA  #IMPLIED
                    file     CDATA  #IMPLIED
                    npl-type CDATA  #IMPLIED
                    medium   CDATA  #IMPLIED
                    url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number

-->
```

```
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'
```

```
-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                  num       CDATA  #IMPLIED
                  dnum      CDATA  #IMPLIED
                  dnum-type CDATA  #IMPLIED
                  file      CDATA  #IMPLIED
                  url       CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >
```

```
<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
                xml:space       (preserve | default )  #IMPLIED
                listing-type    (sequence | program-listing | other )  #REQUIRED
>

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                    he          CDATA  #REQUIRED
                    wi          CDATA  #REQUIRED
                    type               (jpg | pdf | tif )  #REQUIRED
                    alt         CDATA  #IMPLIED
                    pp          CDATA  #IMPLIED
                    ppf         CDATA  #IMPLIED
                    ppl         CDATA  #IMPLIED
                    file        CDATA  #REQUIRED
                    ocr         CDATA  #IMPLIED
                    color              (color | bw )  #IMPLIED
                    orientation        (portrait | landscape )  'portrait' >
<!--
   information for chapter II demand at IB
```

```
-->
<!ELEMENT wo-demand-info (ipea? , received-at-ipea? , elected-office? , later-
election? , receipt-after-19month? , considered-not-made? , withdrawn? , iper-
status* , completion-date?)>


<!--
  International Preliminary Examination Authority

-->
<!ELEMENT ipea (country)>


<!--
  Date of receipt by International Preliminary Examination Authority

-->
<!ELEMENT received-at-ipea (date)>


<!ELEMENT elected-office (country* , (region , country+)*)>


<!ELEMENT completion-date (date)>


<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature
```

```
-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Figure of the drawings which should accompany the abstract

-->
<!ELEMENT figure-to-publish (fig-number+)>


<!--
  Possible sources: human-generated-classification,
  machine-propagated-classification, software-analysis-generated-classification

-->
<!ELEMENT classification-data-source (#PCDATA)>


<!--
  Possible status: original-classification, reclassified, various-classification,
  deleted-classification

-->
<!ELEMENT classification-status (#PCDATA)>


<!--


-->
<!ELEMENT generating-office (country)>


<!--


-->
<!ELEMENT action-date (date)>


<!--
  Possible values: invention, non-invention

-->
```

```
<!ELEMENT classification-value (#PCDATA)>


<!--
  Possible positions: first-symbol-position, later-symbol-position.

-->
<!ELEMENT symbol-position (#PCDATA)>


<!--


-->
<!ELEMENT subgroup (#PCDATA)>


<!--


-->
<!ELEMENT main-group (#PCDATA)>


<!--


-->
<!ELEMENT subclass (#PCDATA)>


<!--


-->
<!ELEMENT section (#PCDATA)>


<!--
  Levels: ipcr-advanced, ipcr-core

-->
<!ELEMENT classification-level (#PCDATA)>


<!--


-->
<!ELEMENT ipc-version-indicator (date)>


<!--
  Unlinked indexing code.
    (ST.32:B515/B525)

-->
<!ELEMENT unlinked-indexing-code (#PCDATA)>


<!--
  Linked indexing code.
    (ST.32:B514/B524)

-->
<!ELEMENT linked-indexing-code-group (main-linked-indexing-code , sub-linked-
indexing-code+)>
```

```
<!--
  Sub/further Linked Indexing Code.

-->
<!ELEMENT sub-linked-indexing-code (#PCDATA)>


<!--
  Main Linked Indexing Code.

-->
<!ELEMENT main-linked-indexing-code (#PCDATA)>


<!--
  Main classification.
    (ST.32:B511/B521)

-->
<!ELEMENT main-classification (#PCDATA)>


<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Declaration information including combined declaration
  and desgnated country

-->
<!ELEMENT declaration-info (declaration1? , declaration2? , declaration3? ,
declaration4? , declaration5? , combined-declaration? , designated-states-as-dec*)>


<!--
  Designated states for which indications are made: all except United States

-->
<!ELEMENT all-designations-except-us EMPTY>


<!--
  PCT/RO/101 Box No.VII :International Searching Authority

-->
<!ELEMENT search-authority (isa , earlier-search-request?,  earlier-search-
authorization*)>


<!--
  Request to use results of earlier search; reference to that search

-->
<!ELEMENT earlier-search-request (document-id , substantially-equivalent? ,
earlier-search-documents?)+>

<!--
-->
<!ELEMENT substantially-equivalent EMPTY>


<!--
  International Search Authority; international search to be carried out by
```

```
-->
<!ELEMENT isa (country)>

<!--
  information of priority claims and priority document.


-->
<!ELEMENT wo-priority-info (priority-claim , priority-claim-ib-info? ,
incorporation-by-reference?)+>


<!--
     where an element  of the international application referrred to in Article
11(1)(iii)(d) or (e) or a part of the description, claims or drawings referred to
in Rule 20.5(a) is not otherwise contained in this international application but is
completely contained in an earlier application whose priority is claimed on the
date on which one or more elements referred to in Article 11(1)(iii) were first
received by the receiving Office, that element or part is, subject to confirmation
under Rule 20.6, incorporated by reference in this international application for
the purposes of Rule 20.6

-->
<!ELEMENT incorporation-by-reference EMPTY>


<!--
  The priority document is attached to the application

-->
<!ELEMENT priority-doc-attached EMPTY>


<!--
  The receiving office is requested to prepare and transmit to the IB a certified
  copy of the earlier application

-->
<!ELEMENT priority-doc-requested EMPTY>


<!--
     This element is made when the receiving Office is requested to restore the
right of priority.

-->
<!ELEMENT restore-rights EMPTY>


<!--
  Where the earlier application is an ARIPO application,indicate at least one
  country party to the PARIS convention for the protection of industrial property
  or one member of the WTO for which that earlier application was filed.

-->
<!ELEMENT office-of-filing ((region , country?) | country)>


<!--
  Additional priority claim information by IB

-->
<!ELEMENT priority-claim-ib-info (received-at-ib? , pct-rule17-1? , withdrawn? ,
considered-not-made?)>


<!--
  PCT/RO/101 Box No.V Designation Of States (PCT Rule 4.9)
```

```
-->
<!ELEMENT designation-of-states (designation-pct , (precautionary-designation-
statement? , exclusion-from-designation?))>


<!--
  Rule 4.9(b),(c)
    In addition to the designations made above [i.e, designation-of states], the
    applicant also makes under Rule 4.9(b) all other designations which would be
    permitted under the PCT except any designation(s) indicated in the Supplemental
    Box [i.e., exclusion-from-designation] as being excluded form the scope of this
    statement. The applicant declares that those additional designations are
    subject to confirmation and that any designation which is not confirmed before
    the expiration of 15 months from the priority date is to be regarded as
    withdrawn by the applicant at the expiration of that time limit.

-->
<!ELEMENT precautionary-designation-statement (#PCDATA)>


<!--
  State(s) excluded from precautionary designations under Rule 4.9(b)

-->
<!ELEMENT exclusion-from-designation (regional* , national?)>


<!--
  The Contracting States in which protection is desired
  (Rules 4.1(a)(iv) and 4.9(a))

-->
<!ELEMENT designation-pct (regional* , national? , new-designation-country*)>


<!--
  New PCT member country states (e.g., not yet published in WIPO ST.3, joined after
  PCT electronic filing software published)

-->
<!ELEMENT new-designation-country (#PCDATA)>


<!--
  The States for which protection or exclusion (depending upon context) is desired

-->
<!ELEMENT national (country , protection-request*)+>


<!--
  Regional (as opposed to national) protection being sought

-->
<!ELEMENT regional (region , (country , protection-request*)+ , any-other-state?)>



<!--
  Any other state in which protection is being sought

-->
<!ELEMENT any-other-state EMPTY>


<!--
  Kind of protection; e.g., patent, utility model

-->
```

```
<!ELEMENT kind-of-protection (#PCDATA)>


<!--
  PCT/RO/101 Box No.II, III and IV APPLICANTS, FURTHER APPLICANT(S)
  AND/OR (FURTHER) INVENTOR(S)AGENT OR COMMON REPRESENTATIVE;
  OR ADDRESS FOR CORRESPONDENCE (PCT Rule 4.5, 4.6, 4.7, 4.8)
    (INID 70, ST.32:B700)

-->
<!ELEMENT parties (applicants , inventors? , correspondence-address? , agents?)>


<!--
  Information regarding Agents or common representatives

-->
<!ELEMENT agents (customer-number | agent+)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Inventors information:
    If the US is designated, all of the inventors must also be named as applicants
    for purposes of that designation.

-->
<!ELEMENT inventors (inventor | deceased-inventor)+>


<!--
  Applicants information:
    At least one of the applicants named must be a resident or national of a PCT
    Contracting State for which the receiving Office acts.

-->
<!ELEMENT applicants (applicant+)>

<!--
   information of changing of bibliograchic data

-->
<!ELEMENT wo-bib-change-info (bib-change-request+)>


<!--
  Bibliographic chnaging information
  address, name,nationality,residence

-->
<!ELEMENT bib-change-request (received-at-ib , previous-record)>


<!--
  Previous record of bibliographic in application before changing
```

```
-->
<!ELEMENT previous-record (applicant | inventor | deceased-inventor | agent)>


<!--
  Rule 4.6(c):
   "The request may, for different designated states, indicate different persons
    as inventors where, in this respect, the requirements of the national laws of
    the designated States are not the same.  In such a case, the request shall
    contain a separate statement for each designated State or group of States in
    which a particular person, or the same person, is to be considered the
    inventor, or in which particular persons, or the same persons, are to be
    considered the inventors."

-->
<!ELEMENT designated-states-as-inventor (country* , (region , country+)*)>


<!--
  Country of residence

-->
<!ELEMENT residence (country)>


<!--
  Country of nationality

-->
<!ELEMENT nationality (country)>


<!--
  WIPO amendment information:
  art 19 amendment, date of receipt at IB

-->
<!ELEMENT wo-amendment-info (received-at-ib)>


<!--
  WIPO application information:
  received-at-ib : date of receipt of record copy by International Bureau

-->
<!ELEMENT wo-application-info (date-of-earliest-priority? , received-at-ib? ,
considered-not-made? , withdrawn?)>


<!--
  Where the international application claims the priority of several earlier
  applications, the filing date of the earliest application whose priority is
  claimed must be indicated as the priority date.

-->
<!ELEMENT date-of-earliest-priority (date)>


<!--
  Demand withdrawn by a notice from applicant
  (PCT Article 37; PCT Rule 90bis.4)

-->
<!ELEMENT withdrawn (date)>


<!--
  Declaration by the receiving office or IB that priority claim is considered,
  for the purposes of the procedure under the Treaty not to have been made
```

```
-->
<!ELEMENT considered-not-made (date , made-by?)>


<!ELEMENT made-by (country* , (region , country+)*)>


<!--
  WIPO publication information:

-->
<!ELEMENT wo-publication-info (wo-correction* , wo-bio-material-after-pub? , isr-
status* , pct-pub-info* , wo-pubnum?)>

<!ELEMENT wo-pubnum (#PCDATA)>

<!--
  PCT published pamphlet information

-->
<!ELEMENT pct-pub-info (wo-published-text , pct-art64*)>


<!--
  published text in PCT pamphlet front page.

-->
<!ELEMENT wo-published-text (wo-text-letter-code+)>

<!ELEMENT wo-text-letter-code (#PCDATA)>


<!--
  PCT Article 64: Reservations

-->
<!ELEMENT pct-art64 (date? , document-id?)>


<!--
  a reference to deposited biological material that was received by IB
  after completion of technical preparations for international publication

-->
<!ELEMENT wo-bio-material-after-pub (received-at-ib , relevant-date?)>


<!--
  Relevant date

-->
<!ELEMENT relevant-date (date)>


<!--
  International Bureau receipt date

-->
<!ELEMENT received-at-ib (date)>


<!--
  WO Patent correction information.

-->
<!ELEMENT wo-correction (document-id? , type-of-correction? , wo-repub-code , wo-
pubnum? , wo-dtext*)>
```

```
<!ELEMENT wo-repub-code (#PCDATA)>


<!--
  Type of correction.
    (ST.32:B667)

-->
<!ELEMENT type-of-correction (#PCDATA)>


<!--
  indications relate to the bio-deposit in the application body

-->
<!ELEMENT indications (para-number , (bio-deposit , additional-indication? , (all-
designations | designated-states) , separate-indications?))>


<!--
  Separate furnishing of indications

-->
<!ELEMENT separate-indications (#PCDATA)>


<!--
  Additional indication information for the deposit

-->
<!ELEMENT additional-indication (#PCDATA)>


<!--
  Indications relate to the bio-deposit in the application body at paragraph number

-->
<!ELEMENT para-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>


<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  All designations permitted by the Treaty are made  (Rule 4.9(b))

-->
<!ELEMENT all-designations EMPTY>
```

```
<!--
  Method by which prior art was disclosed to the public

-->
<!ELEMENT method-of-disclosure (international-exhibition | publication | abuse |
other)>


<!--
  Other method by which prior art was disclosed to the public

-->
<!ELEMENT other (#PCDATA)>



<!--
  Exceptions to lack of novelty resulting from abuse;
  Rule 51bis.1(a)(v)

-->
<!ELEMENT abuse (#PCDATA)>


<!--
  A publication was used as the method of disclosure

-->
<!ELEMENT publication (#PCDATA)>


<!--
  An international exhibition was used as the method of disclosure

-->
<!ELEMENT international-exhibition (#PCDATA)>


<!--
  Title of what is being disclosed under PCT Rule 51bis.1(a)(v)

-->
<!ELEMENT title-of-disclosure (#PCDATA)>


<!--
  Document (e.g., XML) containing information relating to
  a priority claim considered not made.

-->
<!ELEMENT priority-claim-considered-not-made-doc (#PCDATA)>


<!--
   Document (e.g., XML) containing information relating to
   PCT Rule 91-1f.

-->
<!ELEMENT pct-rule91-1f-doc (#PCDATA)>


<!--
  A document (e.g., XML) containing information relating to
  article 17.2a.

-->
<!ELEMENT art17.2a-doc (#PCDATA)>
```

```
<!--
  Statement concerning amendments (PCT Article 19.1, PCT Rule 46.4)

-->
<!ELEMENT statement (#PCDATA | b | i | u | o | sup | sub | br)*>


<!--
 The text of the claim; also used for for sub-para indentation

-->
<!ELEMENT claim-text (#PCDATA | claim-text | claim-ref | b | i | u | o | sup | sub
| smallcaps | br | pre | crossref | figref | img | chemistry | maths | tables)*>


<!--
  PCT/RO/101 Box IX: the number of the figure which should accompany the abstract.
    (ST.32:B598)

-->
<!ELEMENT fig-number (#PCDATA)>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
```

```
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
```

```
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? , datecit?
, srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>
```

```
<!--
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>
```

```
  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work
```

```
-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
, line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>
```

```
<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>
```

```
<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>
```

```
<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>


<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm
```

```
-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>
```

```
<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name
```

```
-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
```

```
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>
```

```
<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document
```

```
-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>
```

```
<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  Authorization to RO to transmit  earlier search
-->
<!ELEMENT earlier-search-authorization (document-id )>
<!ATTLIST earlier-search-authorization  request-ro-not-transmit
(yes |

no )  #IMPLIED
                                        applicant-authorizes-ro-transmit
(yes |

no )  #IMPLIED >
```

5.8 Filing of amendments and statements under Articles 19 and 34.2(b)

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!ENTITY % amend_content "(invention-title | heading+ | p+ | doc-page+ | claim+ |
figure+)">

<!--
*****************************************************************************
*  amendment-request v1.7     2021  JULY                                      *
*****************************************************************************
*  PUBLIC "-//WIPO//DTD AMENDMENT REQUEST 1.7/EN" "amendment-request-v1-7.dtd" *
*****************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/amendment-request-v1-7.dtd  *
*****************************************************************************
* contacts:                                                                  *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                *
*****************************************************************************
* revision history                                                           *
*****************************************************************************
Yukako SHIBA : 01/01/2021 incorporated changes form PFC
..changed version number from v1.11 to v1.12
..added an element "br" to "statement"
..added an element "additional-info" to "rel-passage".
Asahi HASEBE incorporated changes from PFCs:
..changed version number from v1.5 to v1.6
..added an attribute "color" to "figure"
SY: 01/04/10 incorporated changes from PFC
..changed version number from v1.4 to v1.5
..changed value of attribute lang of amend-statement from '#REQUIRED' to
'#IMPLIED'(PFC09/006)
..changed value of attribute status of amend-statement from '#REQUIRED' to
'#IMPLIED'(PFC09/006)
MO: 01/01/09 incorporated changes from PFC
..changed version number from v1.3 to v1.4
..added element 'summary-of-invention' to description (PFC08/008)
..added element 'description-of-embodiments' to description (PFC08/008)
..added element 'reference-signs-list' to description (PFC08/008)
..added element 'reference-to-deposited-bioligical-material' to description
(PFC08/008)
..added element 'citation-list' to description (PFC08/008)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
HT: 14/12/04 incorporated changes from PFCs:
..changed element nplcit from '(text | (article , book , online , othercit)*)' to
'(text | article | book | online | othercit)
```

```
..changed element othercit from '(#PCDATA)' to '(#PCDATA | b | i | u | sup | sub)*'
..changed element rel-passage from (text | (passage+ , category? , rel-claims?)) to
(text | (passage+ , category* , rel-claims*)+)
..changed attribute he, wi of doc-page, img from 'NMTOKEN' to 'CDATA'
..changed value of attribute idref of crossref from 'CDATA' to 'IDREF'
..changed value of attribute tsize of dl from 'NMTOKEN' to 'CDATA'
..changed value of attribute num of patcit, nplcit from '#REQUIRED' to 'IMPLIED'
..changed value of attribute xml:space of pre from '#FIXED 'preserve'' to
'(preserve | default #IMPLIED)'
..changed value name of attribute listing-type of pre from 'software-code' to
'program-listing'
..added element 'pre' to claim-text, dd, li
..added attribute 'id' to addressbook
..added attribute 'chem-type' to chem
..added attribute 'claim-type' to claim, claims
..added attribute 'class-type' to class
..added attribute 'ocr' to doc-page
..added value 'other-subname-type' to attribute 'subname-type' of subname
..removed attribute 'lang', 'status', 'dtd-version' from chem
HT: 20/07/04 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..changed element article, online, serial from 'subname?' to 'subname*'
..changed element chemistry from '(img)' to '(img|(chem,img?))'
..changed element maths from '(img|math)' to '(img|(math,img?))'
..changed element rel-passage from 'category?, rel-claims?' to 'category*, rel-
claims*'
..added element 'figref' to claim-text, dd, li
..added element 'b', 'i', 'u', 'sup', 'sub', 'smallcaps' to crossref
..added attribute 'num' to li
..added attribute 'subname-type' to subname
..added value 'chem', table'', math'', 'program-listing', 'flowchart' to attribute
img-content of img
..added value 'national-office', 'regional-office' to attribute produced-by of root
element
..removed attribute 'class-type' from nplcit
HT: 16/12/03 incorporated changes from PFCs:
..changed version number from v0.5 to v1.0
..added element 'pre' to p content model
..added element 'sup2' and 'sub2' to sup and sub
..added attribute 'lang' and 'class-type' to nplcit
..added attribute 'external-type' to table-external
..added attribute 'figure-labels' to figure
JD: 03/02/03 revised
..changed version number from v0.4 to v0.5
..added attribute 'file-reference-id' to root
..added attribute 'orientation' to img and doc-page
..added attribute 'inline' to img
..added attribute 'ol-style' to ol
..added attribute 'dnum-type' to patcit
..added TABLE-EXTERNAL to p content model
..added (last-name | orgname) choice to %name_group;
..made postcode optional within address
..removed element 'br' from b, i, smallcaps
2001/12/01
..released version number as v0.4
************************************************************************

  ********************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                *
  ********************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
```

```
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
  ************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL           *
  ************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->

<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">
<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                | patcit | nplcit | bio-deposit | crossref | img
                | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                        "soextblx.dtd">
%calstblx;

<!--
  ********************************************************************
  * SECTION II - DTD                                                 *
  ********************************************************************
  Attributes:
    amend-type        = type of amendment
    lang              = language of application - use ISO639 language code
    dtd-version       = dtd version number
    file              = filename of the whole application
    status            = status of the application; values: new = new application
    date-produced     = date this document was produced
    produced-by       = creator of this document
```

```
    file-reference-id = applicant's or agent's file reference, if any.

-->
<!ELEMENT amendment-request ((amend-statement? , (amend-body | (delete-object |
(insert-before-object | insert-after-object | replace-object))+)) , remarks?)>

<!ATTLIST amendment-request  amend-type              (pct-article-34 | pct-
article-19 )  #REQUIRED
                             lang              CDATA  #REQUIRED
                             dtd-version       CDATA  #IMPLIED
                             file              CDATA  #IMPLIED
                             produced-by              (applicant |
                                                RO |
                                                ISA |
                                                IPEA |
                                                IB |
                                                DO |
                                                EO |
                                                national-office |
                                                regional-office )  #REQUIRED
                             date-produced     CDATA  #IMPLIED
                             file-reference-id CDATA  #IMPLIED
                             status            CDATA  #IMPLIED >

<!--
  Replace referenced object with new content ;
  e.g.,
    <replace-object id="p02">
      <p id="p01a" num="001a">(new content)</p>
    </replace-object>

-->
<!ELEMENT replace-object (%amend_content;)>

<!ATTLIST replace-object  id       ID     #IMPLIED
                          num      CDATA  #IMPLIED
                          location CDATA  #IMPLIED >

<!--
  Insert new content after referenced object;
  e.g.,
    <insert-after-object id="p02">
      <p id="p03" num="003">(new content)</p>
    </insert-after-object>

-->
<!ELEMENT insert-after-object (%amend_content;)>

<!ATTLIST insert-after-object  id       ID     #IMPLIED
                               num      CDATA  #IMPLIED
                               location CDATA  #IMPLIED >

<!--
  Insert new content before referenced object;
  e.g.,
    <insert-before-object id="p02">
      <p id="p01a" num="001a">(new content)</p>
    </insert-before-object>

-->
<!ELEMENT insert-before-object (%amend_content;)>

<!ATTLIST insert-before-object  id       ID     #IMPLIED
                                num      CDATA  #IMPLIED
                                location CDATA  #IMPLIED >

<!--
  Delete object from document; e.g., paragraph, claim, etc.
  e.g,
```

```
    <delete-object id='p06'></delete-object>

-->
<!ELEMENT delete-object EMPTY>

<!ATTLIST delete-object  id       ID     #IMPLIED
                         num      CDATA  #IMPLIED
                         location CDATA  #IMPLIED >

<!--
  Amend entire sections of the application-body

-->
<!ELEMENT amend-body (doc-page+ | (description? , claims? , abstract? ,
drawings?))>

<!ATTLIST amend-body  id     ID     #IMPLIED
                      lang   CDATA  #REQUIRED
                      status CDATA  #IMPLIED >

<!--
  Drawings: PCT Article 7 / Rule 7
  Drawings shall be required when they are necessary for the understanding of the
  invention.

  Recommended id = 'draw'

-->
<!ELEMENT drawings (doc-page+ | figure+)>

<!ATTLIST drawings  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  A drawing (figure), necessary for the understanding of the invention

  Recommended id = f0001, f0002, etc.

-->
<!ELEMENT figure (img)>

<!ATTLIST figure  id            ID     #IMPLIED
                  num           CDATA  #REQUIRED
                  figure-labels CDATA  #IMPLIED
                  color (color | bw) #IMPLIED>

<!--
  ABSTRACT: PCT Rule 8
    (INID 57, ST.32:B570)
  A concise summary of the disclosure, 50-150 words.

  Recommended id = 'abst' or 'abst0001' for multiple abstracts

-->
<!ELEMENT abstract (doc-page+ | (abst-problem , abst-solution) | p+)>

<!ATTLIST abstract  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  The solution to the alleged problem that the invention  purports to solve.

  Recommended id = 'abss'

-->
<!ELEMENT abst-solution (p+)>
```

```
<!ATTLIST abst-solution  id ID  #IMPLIED >

<!--
  The alleged problem that the invention purports to solve

  Recommended id = 'absp'

-->
<!ELEMENT abst-problem (p+)>

<!ATTLIST abst-problem  id ID  #IMPLIED >

<!--
  Claims:
  the claims shall define the matter sought for patent and be supported by the
  description.

  Recommended id = 'claim' or 'claim0001' for multiple claims

-->
<!ELEMENT claims (doc-page+ | claim+)>

<!ATTLIST claims  id         ID     #IMPLIED
                  lang       CDATA  #IMPLIED
                  claim-type CDATA  #IMPLIED
                  status     CDATA  #IMPLIED >

<!--
  Defines the matter for which protection is sought
  See PCT Rule 6:
    6.1.a: 'the number of claims shall be reasonable in consideration of what is
            being claimed.'
    6.1.b: 'if there are several claims, they shall be numbered consecutively in
            Arabic numerals.'

  Recommended id values
    If parent element is claims and there is only ONE set of claims:
      id = c0001, c0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there is only ONE set then;
      id = ac0001, ac0002, etc.;num = 0001, 0002, etc.
    If parent element is claims and there are MULTIPLE sets of claims then:
      id = c01.0001, c01.0002, etc.;num = 0001, 0002, etc.
      id = c02.0001, c02.0002, etc.;num = 0001, 0002, etc.
    If parent element is amended-claims and there are MULTIPLE sets of
    amended-claims then:
      id = ac01.0001, ac01.0002, etc.;num = 0001, 0002, etc.

-->
<!ELEMENT claim (claim-text+)>

<!ATTLIST claim  id         ID     #IMPLIED
                 num        CDATA  #REQUIRED
                 claim-type CDATA  #IMPLIED >

<!--
  Reference to a claim

-->
<!ELEMENT claim-ref (#PCDATA)>

<!ATTLIST claim-ref  idref IDREFS  #REQUIRED >

<!--
  Description:
  The description must disclose the invention in a manner sufficiently clear and
  complete for it to be carried out by a person skilled in the art (Rule 5).

  Recommended id = 'desc'
```

```
-->
<!ELEMENT description (doc-page+ | (invention-title? , (technical-field |
background-art | disclosure | summary-of-invention | description-of-drawings |
description-of-embodiments | best-mode | mode-for-invention | industrial-
applicability | reference-signs-list | reference-to-deposited-biological-material |
sequence-list-text | citation-list | (heading* , p+)+)+))>

<!ATTLIST description  id     ID     #IMPLIED
                        lang   CDATA  #IMPLIED
                        status CDATA  #IMPLIED >
<!--
-->
<!ELEMENT citation-list (patent-literature | non-patent-literature | (heading* ,
p*)+)+>

<!ATTLIST citation-list  id ID  #IMPLIED >
<!--
-->
<!ELEMENT non-patent-literature (heading* , p+)+>

<!ATTLIST non-patent-literature  id ID  #IMPLIED >
<!--
-->
<!ELEMENT patent-literature (heading* , p+)+>

<!ATTLIST patent-literature  id ID  #IMPLIED >

<!--
  Sequence listing free text
  WIPO ST.25:
  "36. Where the sequence listing part of the description contains free text,
       any such free text shall be repeated in the main part of the description
       in the language thereof.
       It is recommended that the free text in the language of the main part of the
       description be put in a specific section of the description called "Sequence
       Listing Free Text".

  Recommended id = 'seqt'

-->
<!ELEMENT sequence-list-text (heading* , p+)+>

<!ATTLIST sequence-list-text  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-to-deposited-biological-material (heading* , p+)+>

<!ATTLIST reference-to-deposited-biological-material  id ID  #IMPLIED >
<!--
-->
<!ELEMENT reference-signs-list (heading* , p+)+>

<!ATTLIST reference-signs-list  id ID  #IMPLIED >

<!--
  Article 33(4): "For purposes of the international preliminary examination,
  a claimed invention shall be considered industrially applicable if, according to
  its nature, it can be made or used (in the technological sense) in any kind of
  industry.

  Recommended id = 'inap'

-->
<!ELEMENT industrial-applicability (heading* , p+)+>

<!ATTLIST industrial-applicability  id ID  #IMPLIED >

<!--
  PCT Rule 5.1(a)(vi): "The description shall...indicate explicitly, when it is not
```

```
  obvious from the description or nature of the invention, the way in which the
  invention is capable of exploitation in industry and the way in which it can be
  made and used..."

  Recommended id = 'mode'

-->
<!ELEMENT mode-for-invention (heading* , p+)+>

<!ATTLIST mode-for-invention  id       ID     #IMPLIED
                              mode-num CDATA  #IMPLIED >

<!--
  The best mode contemplated by the applicant for carrying out the invention
  claimed.

  Recommended id = 'bmod'

-->
<!ELEMENT best-mode (heading* , p+)+>

<!ATTLIST best-mode  id ID  #IMPLIED >
<!--
-->
<!ELEMENT description-of-embodiments (embodiments-example | (heading* , p*)+)+>

<!ATTLIST description-of-embodiments  id ID  #IMPLIED >
<!--
-->
<!ELEMENT embodiments-example (heading* , p+)+>

<!ATTLIST embodiments-example  id     ID     #IMPLIED
                               ex-num CDATA  #IMPLIED >

<!--
  Brief description of the drawings (Rule 5.1(a)(iv)

  Recommended id = 'desd'

-->
<!ELEMENT description-of-drawings (heading* , p+)+>

<!ATTLIST description-of-drawings  id ID  #IMPLIED >
<!--
-->
<!ELEMENT summary-of-invention (tech-problem | tech-solution | advantageous-effects
| (heading* , p*)+)+>

<!ATTLIST summary-of-invention  id ID  #IMPLIED >

<!--
  Disclosure of the invention with sub-headings:
    technical problem;
    technical solution;
    advantageous effects (of the invention);

  Recommended id = 'disc'

-->
<!ELEMENT disclosure ((tech-problem | tech-solution | advantageous-effects)* |
(heading* , p+)+)>

<!ATTLIST disclosure  id ID  #IMPLIED >

<!--
  advantageous effects of the invention (PCT Rule 5.1(a)(iii)

  Recommended id = 'adve'
```

```
-->
<!ELEMENT advantageous-effects (heading* , p+)+>

<!ATTLIST advantageous-effects  id ID  #IMPLIED >

<!--
  The solution to the problem that the invention purports to solve.
  (PCT Rule 5.1(a)(iii)

-->
<!ELEMENT tech-solution (heading* , p+)+>

<!ATTLIST tech-solution  id ID  #IMPLIED >

<!--
  The problem the invention purports to solve (Rule 5.1(a)(iii)

-->
<!ELEMENT tech-problem (heading* , p+)+>

<!ATTLIST tech-problem  id ID  #IMPLIED >

<!--
  Background art, background of the invention.

  Recommended id = 'bart'

-->
<!ELEMENT background-art (heading* , p+)+>

<!ATTLIST background-art  id ID  #IMPLIED >

<!--
  PCT Rule 5.1:
    (a) The description shall first state the title of the invention as appearing
       in the request and shall:
      (i) specify the technical field to which the invention relates

-->
<!ELEMENT technical-field (heading* , p+)+>

<!ATTLIST technical-field  id ID  #IMPLIED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.

  Note: paragraphs may occur in sections other than the description and at
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.

-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
               num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
```

```
                                carriers             (internal-electronic |
                                                   external-electronic |
                                                   paper )  #IMPLIED
                                external-type        (math |
                                                   chemistry |
                                                   program-listing |
                                                   other )  #IMPLIED
                                status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>

<!ATTLIST tables  id  ID     #IMPLIED
                  num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
              compact        (compact )  #IMPLIED
              id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
              list-style     (bullet | dash | none )  'bullet'
              compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
```

```
                num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                   num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                       num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                  file      CDATA  #REQUIRED
                  chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arablic numbers     1, 2, 3, ...
    a   lower alpha         a, b, c, ...
    A   upper alpha         A, B, C, ...
    i   lower roman         i, ii, iii, ...
    I   upper roman         I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
                compact         (compact )  #IMPLIED
                ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
```

```
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
                he          CDATA  #REQUIRED
                wi          CDATA  #REQUIRED
                file        CDATA  #REQUIRED
                alt         CDATA  #IMPLIED
                img-content        (drawing |
                                    photograph |
                                    character |
                                    dna |
                                    undefined |
                                    chem |
                                    table |
                                    math |
                                    program-listing |
                                    flowchart |
                                    graph )  'drawing'
                img-format         (jpg | tif | st33 | st35 )  #REQUIRED
                orientation        (portrait | landscape )  'portrait'
                inline             (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                    num   CDATA   #IMPLIED >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                         num  CDATA  #REQUIRED
                         url  CDATA  #IMPLIED
                         dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;
```

```
  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                    num      CDATA  #IMPLIED
                    lang     CDATA  #IMPLIED
                    file     CDATA  #IMPLIED
                    npl-type CDATA  #IMPLIED
                    medium   CDATA  #IMPLIED
                    url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number

-->
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>
```

```
<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                         lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
```

```
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                  num       CDATA  #IMPLIED
                  dnum      CDATA  #IMPLIED
                  dnum-type CDATA  #IMPLIED
                  file      CDATA  #IMPLIED
                  url       CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
               xml:space        (preserve | default )  #IMPLIED
               listing-type     (sequence | program-listing | other )  #REQUIRED
>

<!--
  Heading text; see Rule 5.  Recommended id = h0001, h0002, etc.

-->
```

```
<!ELEMENT heading (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST heading  level     (1 | 2 | 3 )  #IMPLIED
                     id    ID  #IMPLIED >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                            lang CDATA  #IMPLIED >

<!--
  Amendment statement (PCT Article 19.1, PCT Rule 46.4).
  May consist of a statement or an attached file

-->
<!ELEMENT amend-statement (doc-page+ | statement)>

<!ATTLIST amend-statement  id     ID     #IMPLIED
                           lang   CDATA  #IMPLIED
                           status CDATA  #IMPLIED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.
```

```
-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  Remarks section

-->
<!ELEMENT remarks (p+)>


<!--
 The text of the claim; also used for for sub-para indentation

-->
<!ELEMENT claim-text (#PCDATA | claim-text | claim-ref | b | i | u | o | sup | sub
| smallcaps | br | pre | crossref | figref | img | chemistry | maths | tables)*>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>
```

```
<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.
```

```
      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? , datecit?
, srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>
```

```
<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
```

```
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number
```

```
-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
, line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
```

```
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>
```

```
<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
```

```
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>


<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.
```

```
-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>
```

```
<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)
```

```
-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line
```

```
-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
```

```
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>

<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
```

```
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>


<!--
  Statement concerning amendments (PCT Article 19.1, PCT Rule 46.4)

-->
<!ELEMENT statement (#PCDATA | b | i | u | o | sup | sub | br)*>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
```

```
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>
```

5.9 Search report

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , first-last-name? , second-last-name? , suffix? , iid? , role? ,
orgname? , department? , synonym*)) , registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">


<!--
*************************************************************************
*  search-report (International Search Report) v2.2     JULY    2022      *
*************************************************************************
*  PUBLIC "-//WIPO//DTD SEARCH REPORT 2.2//EN" "search-report-v2-2.dtd"   *
*************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.19/search-report-v2-2.dtd *
*************************************************************************
* contacts:                                                             *
*   WIPO: Taiki Ushimaru; taiki.ushimaru@wipo.int                       *
*************************************************************************
* revision history                                                      *
*************************************************************************
Yukako SHIBA incorporated changes from PFCs:
..changed version number from v2.1 to v2.2
..added an element "additional-info" to "rel-passage".
..added optional attribute "without-compliant-sequence-list" to element "sequence-
list-basis"

Yukako SHIBA incorporated changes from PFCs:
..changed version number from v2.0 to v2.1
..added an element "additional-info" to "rel-passage".
Asahi HASEBE: 01/07/17 incorporated changes from PFCs:
.. changed version number from v1.2 to 2.0
.. updated elements/attributes for ISR and ISA203
SY: 26/08/10 incorporated changes from PFCs:
..changed version number from v1.2 to v1.21
```

```
..For test only (PFC10/002, PFC10/003)
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added element 'earlier-search' to srep-for-pub (PFC08/003)
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
January 2005
..released version number as v1.0
*****************************************************************************

  ***************************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                       *
  ***************************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
  ***************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL              *
  ***************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->

<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">
<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
```

```
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                 | patcit | nplcit | bio-deposit | crossref | img
                 | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "soextblx.dtd">
%calstblx;

<!--
  ********************************************************************************
  * SECTION II - DTD                                                             *
  ********************************************************************************

  Notes:

  This DTD is intended to process stand-alone search reports (SR) sent to the
  applicant - use search-report-data when included in patent-doc.: xx-patent-
  document.dtd
  Namely the ISR (PCT) and the EPO SR.

  This DTD is based on:
  Form PCT/ISA/201 Jan. 2004 (International-type SR)
  Form PCT/ISA/210 Jan. 2004 (main SR)
  Form PCT/ISA/220 Jan. 2004 (transmittal)
  Form PCT/ISA/237 Jan. 2004 (written opinion)

  Some stylesheet info. has been put in in most places according to the NEW ISR
  layout - it needs more detailed instructions and will need changing for the
  published ISR as part of the PCT pamphlet.

  It is recommended to use the new layout and not the "box" layout of current paper
  forms.

Attributes:
  id =
  file          = filename of the whole application
  lang          = language of application - use ISO639 language code
  status        = status of the application; values: new = new application
  date-produced = YYYYMMDD e.g, 20011230 if desired, 12 characters maximum
  search-type   = type of search expected values are:
                    isr for International Search Report
                    sisr for Supplementary International Search Report
                    international-type for international type search report
                    national for national search-reports
                    national-supplementary for supplementary national search reports
  srep-type     = type of search with detailed office specific values allowed
  srep-office   = Searching office, country code ST.3
  dtd-version   = dtd version number
  form-version = form version number. e.g. "201501"

-->
<!ELEMENT search-report (doc-page+ | (srep-info? , srep-for-pub? , office-specific-
srep-data*))>
```

```
<!ATTLIST search-report  id             ID     #REQUIRED
                          file           CDATA  #REQUIRED
                          lang           CDATA  #IMPLIED
                          status         CDATA  #IMPLIED
                          date-produced CDATA  #REQUIRED
                          search-type           (international-type |
                                                 isr |
                                                 sisr |
                                                 national |
                                                 national-supplementary )  #IMPLIED
                          srep-type      CDATA  #IMPLIED
                          srep-office    CDATA  #REQUIRED
                          dtd-version    CDATA  #IMPLIED
                          form-version    CDATA  #IMPLIED >

<!--
  Office is the ST.3 country code, including the regional authorities.
  Office-dtd is the file which contains the DTD for the office-specific
  bibliographic elements.
  ALTERNATIVELY elemnt names may be grouped directly under this element.
  - add the two letter ST.3 code.

-->
<!ELEMENT office-specific-srep-data EMPTY>

<!ATTLIST office-specific-srep-data  office     CDATA  #REQUIRED
                                     office-dtd CDATA  #REQUIRED
                                     file       CDATA  #REQUIRED
                                     id         ID     #IMPLIED
                                     lang       CDATA  #IMPLIED
                                     status     CDATA  #IMPLIED >
<!--
-->
<!--

  Earlier search document referenced in search report


-->
<!ELEMENT srep-earlier-search (document-id)>

<!ATTLIST srep-earlier-search  id ID  #IMPLIED >

<!--
  Patent family member.
    (ST.32:B345)

-->
<!ELEMENT patent-family (priority-application , (family-member+ | text))>

<!ATTLIST patent-family  id ID  #IMPLIED >

<!--
  Form PCT/ISA/2003 (April 2005)

  If no search is to be carried out the search examiner will complete Form
PCT/ISA/203
  (Declaration of Non-Establishment of International Search Report),
  see PCT INTERNATIONAL SEARCH AND PRELIMINARY EXAMINATION GUIDELINES, 9.03.

  Where the subject matter of all claims constitutes a subject excluded from the
search
  where no meaningful search is possible for all of the claimed subject matter, a
declaration
  of non-establishment of the international search report is issued pursuant to
Article 17(2)(a) on Form PCT/ISA/203,
  see PCT INTERNATIONAL SEARCH AND PRELIMINARY EXAMINATION GUIDELINES, paragraph
9.40.
  The phase attribute contains the code of the procedure, e.g. PCT, EP, US, ...
```

```
  and permits the reuse of the present DTD in national phases. Its values has been
defaulted to PCT.

-->
<!ELEMENT srep-declaration ((srep-earlier-declaration* , srep-declaration-subject-
matter? , srep-declaration-compliance? , srep-declaration-sequence-listing? ,
additional-info?) | (heading? , p+)+)>

<!ATTLIST srep-declaration  phase CDATA  'PCT' >

<!--
  Form PCT/ISA/203 (April 2005)
  Points 3. and 4. of Form PCT/ISA/203 (April 2005) indicate deficiencies
  of the international application related to sequence listings which are
  subject to the issuance of the declaration under Article 17(2)(a) for
  non compliance with Rules 13ter.1(c) and (d), namely:
  * The late furnishing or the non compliance with Annex C of the
  Administrative Instruction of a paper or an electronic sequence-listing is
  indicated by the paper and electronic attribute respectively;
  * The late furnishing or the non compliance with Annex C-bis of the
  Administrative Instruction of tables related to a sequence-listing is
  indicated by the table attribute;
  * The late payment of the furnishing fees is indicated with the late-furnishing-
fee attribute.

-->
<!ELEMENT srep-declaration-sequence-listing EMPTY>

<!ATTLIST srep-declaration-sequence-listing  paper                 (yes | no )
#IMPLIED
                                            electronic            (yes | no )
#IMPLIED
                                            late-furnishing-fee   (yes | no )
#IMPLIED
                                            table                 (yes | no )
#IMPLIED >

<!--
  Form PCT/ISA/203 (April 2005)
  Point 2. of Form PCT/ISA/203 (April 2005) indicates which part(s) of the
international application
  are subject to the issuance of the declaration under Article 17(2)(a).

-->
<!ELEMENT srep-declaration-compliance EMPTY>

<!ATTLIST srep-declaration-compliance  description   (yes | no )  #IMPLIED
                                       claims        (yes | no )  #IMPLIED
                                       drawings      (yes | no )  #IMPLIED >

<!--
Form PCT/ISA/203 (April 2005)
When it has been established that the subject-matter of the international
application falls
into one of the exceptions set out in Rule 39, point 1. of Form PCT/ISA/203 (April
2005) is
completed by selecting the exception.
Each attribute refers to a specific type of subject-matter excluded in Rule 39
(PCT International Search and Preliminary Examination Guidelines, chapter 9).

-->
<!ELEMENT srep-declaration-subject-matter EMPTY>

<!ATTLIST srep-declaration-subject-matter  scientific-theories        (yes | no )
#IMPLIED
                                           mathematic-theories        (yes | no )
#IMPLIED
                                           plant-varieties            (yes | no )
#IMPLIED
```

```
                                                animal-varieties            (yes | no )
#IMPLIED
                                                bio-processes               (yes | no )
#IMPLIED
                                                business                    (yes | no )
#IMPLIED
                                                mental-act                  (yes | no )
#IMPLIED
                                                games                       (yes | no )
#IMPLIED
                                                treatment-human             (yes | no )
#IMPLIED
                                                treatment-animal            (yes | no )
#IMPLIED
                                                diagnostic-methods          (yes | no )
#IMPLIED
                                                presentation-information    (yes | no )
#IMPLIED
                                                computer-program            (yes | no )
#IMPLIED >

<!--
  The International Searching Authority (ISA/_______)
  has made a declaration under Article 17(2)(a) and has
  not established an international search report
  (see Form PCT/ISA/203 dated ____________________________________
  (day/month/year)), (Rule 45bis.5(e)).

-->
<!ELEMENT srep-earlier-declaration EMPTY>

<!ATTLIST srep-earlier-declaration  taken-into-account        (yes | no | not-
available )  'yes'
                                    idref              IDREF  #IMPLIED >

<!--

-->
<!ELEMENT limitation-of-search (text? , claims-searched* , claims-searched-
incompletely* , claims-not-searched* , reason-limited-search*)>

<!ATTLIST limitation-of-search  sequence    CDATA  #IMPLIED
                                reason-type CDATA  #IMPLIED >

<!--
  Heading text identifying the parts of the description (see PCT Rule 5.1(c),
PCT/AI section 204). Recommended id = h0001, h0002, etc. The attribute level
defines a hierarchic level and may be associated with a style. Otherwise the
formatting tags may be used to highlight the heading text.

-->
<!ELEMENT heading (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST heading  level     (1 | 2 | 3 )  #IMPLIED
                   id    ID  #IMPLIED >

<!--*******************************
CITATIONS
*******************************
Grouping tag for patent literature (patcit)
or non-patent literature (nplcit) plus data related to those citations.

Recommended id='cit0001', 'cit0002', etc.
For the SR: id='sr-cit0001', 'sr-cit0002'
For the WO: id='wo-cit0001"

@reference
Identification given by the party to the document, e.g. A1.
```

```
@exam-reference
Identification given by the search or examining division to the document,
e.g. D1.

@has-equivalent :
The expected usage of this attribute is that it will only be present in the
circumstances where the examiner explicitly
chooses to express the fact that the cited document has no equivalent document /
patent family members in the
rendered search report citation; in other words the attribute when present and
having the value "no" will result in the text
"No patent family" or "No equivalent documents" in the relevant language being
displayed on the search report.

-->
<!ELEMENT citation ((patcit | nplcit) , (rel-passage* , category* , rel-claims*)* ,
                    corresponding-docs*, classification-ipc? , classifications-
ipcr? , classification-national? , doi?)>

<!ATTLIST citation  id          ID  #IMPLIED
                      cited-phase     (application |
                                      search |
                                      international-search-report |
                                      supplementary-international-search-report |
                                      international-type-search-report |
                                      national-search-report |
                                      supplementary-national-search-report |
                                      examination |
                                      international-examination |
                                      national-examination |
                                      opposition |
                                      limitation )  #IMPLIED
                      cited-by        (applicant | examiner | opponent | third-
party )  #IMPLIED
                      reference  CDATA    #IMPLIED
                      exam-reference  CDATA    #IMPLIED
                      has-equivalent        (yes | no)  #IMPLIED >

<!--
  Domestic or national classification.
    (INID 52,  ST.32:B520)

@scheme-name:
This attribute is used when it is necessary to distinguish between different
classification schemes
which may be in use at the same Office.  In general, abbreviated forms should be
used where they
are widely recognized, for example scheme-name="CPC" for the Cooperative Patent
Classification.

-->
<!ELEMENT classification-national (country , edition? , main-classification ,
further-classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-national  id ID  #IMPLIED
                                  scheme-name CDATA #IMPLIED>

<!ELEMENT classifications-ipcr (classification-ipcr+)>

<!ATTLIST classifications-ipcr  id ID  #IMPLIED >

<!--
  International Patent Classification (IPC) data;

-->
<!ELEMENT classification-ipcr ((ipc-version-indicator , classification-level? ,
section , class , subclass , main-group? , subgroup? , symbol-position? ,
classification-value? , action-date? , generating-office? , classification-status?
```

```
, classification-data-source?) | text)>

<!ATTLIST classification-ipcr  id       ID     #IMPLIED
                                sequence CDATA  #IMPLIED >

<!--
  International Patent Classification (IPC) data;
    (INID 51,  ST.32:B510)

-->
<!ELEMENT classification-ipc (edition , main-classification , further-
classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-ipc  id ID  #IMPLIED >

<!--
  Further/secondary classification
    (ST.32:B512/B522)

-->
<!ELEMENT further-classification (#PCDATA)>

<!ATTLIST further-classification  id       ID     #IMPLIED
                                  sequence CDATA  #IMPLIED >

<!--
  Stylesheet (for new layout) generates (for PCT) at the beginning:

  PATENT COOPERATION TREATY (PCT)
  INTERNATIONAL SEARCH REPORT (ISR) - PART 1 (PCT Articles 18 and Rules 43 and 44).
  SUPPLEMENTARY INTERNATIONAL SEARCH REPORT (SISR) - PART 1 (PCT Rule 45bis)

  FOR FURTHER ACTION see Notification of Transmittal of ISR (Form PCT/ISA/220)
  as well as, where applicable, abstract information below.
  **This will need modifying depending on stytesheet and output required **

  SREP - INFO DETAILS
  This is a repetition of data found elsewhere but we put it here also for
  convenience, formatting, etc
  The order has changed from the paper form.

  PCT covers Forms: 201, 210, 220
  EPO - covers Form 1507

-->
<!ELEMENT srep-info (doc-page+ | (correspondence-address? , file-reference-id? ,
application-reference+ , date-of-earliest-priority? , applicant-name , srep-
established? , srep-protest-fees? , srep-request-date? , srep-request-number? ,
srep-prior-art-docs* , srep-basis? , srep-claims-info? , srep-unity-of-invention? ,
srep-invention-title? , srep-abstract? , srep-figure-to-publish? , srep-info-admin
, srep-other-info? , srep-request-received-date? , earlier-searches? , text*))>

<!ATTLIST srep-info  total-page-count CDATA  #IMPLIED >

<!--

  Information relevant to a previous search-report on which is referred to by the
present search-report.

-->
<!ELEMENT earlier-search (application-reference? , date-search-completed?)>

<!ATTLIST earlier-search  id                        ID     #IMPLIED
                            office                    CDATA  #REQUIRED
                            srep-type                        (international-type |
                                                       isr |
                                                       sisr |
                                                       national |
```

```
                                                        national-supplementary )
#REQUIRED
                              declaration-of-no-search        (yes | no | not-
determined )  #REQUIRED >

<!ELEMENT srep-information (#PCDATA)>

<!ATTLIST srep-information  srep-code CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                  place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
    Abstract Drawing

    The figure of the drawings to be published with the abstract is:
    Figure No.
    followed by text of attribute value:
    by-applicant = as suggested by the applicant.
    none-suggested = selected by the examiner because the applicant failed to
suggest a figure.
    by-examiner = selected by the examiner because this figure better characterizes
the invention.

    or:

    none = None of the figures is to be published with the abstract
    (Old PCT/ISA/210- 6 a and b)

-->
<!ELEMENT srep-figure-to-publish (figure-to-publish?)>

<!ATTLIST srep-figure-to-publish  figinfo   (by-applicant |
                                             none-suggested |
                                             by-examiner |
                                             none )  #REQUIRED >

<!--
  Abstract
  (followed by:)
  The text is approved as submitted by the applicant [attribut]e "yes" (default)]
  (or)
  The text has been established according to Rule 38.2(b), ]by this ISA as it
  appears below.  The applicant may, within one month from the date of mailing of
  this ISR, submit comments to this ISA.

  a revised abstract if present [attribute "no"] (Old PCT/ISA/210 - 5)

-->
<!ELEMENT srep-abstract (abstract?)>

<!ATTLIST srep-abstract  abs-approval   (yes | no )  'yes' >

<!--
  ABSTRACT: PCT Rule 8
```

```
    (INID 57, ST.32:B570)
  A concise summary of the disclosure, 50-150 words.

  Recommended id = 'abst' or 'abst0001' for multiple abstracts

-->
<!ELEMENT abstract (doc-page+ | (abst-problem , abst-solution) | p+)>

<!ATTLIST abstract  id     ID     #IMPLIED
                    lang   CDATA  #IMPLIED
                    status CDATA  #IMPLIED >

<!--
  The solution to the alleged problem that the invention  purports to solve.

  Recommended id = 'abss'

-->
<!ELEMENT abst-solution (p+)>

<!ATTLIST abst-solution  id ID  #IMPLIED >

<!--
  The alleged problem that the invention purports to solve

  Recommended id = 'absp'

-->
<!ELEMENT abst-problem (p+)>

<!ATTLIST abst-problem  id ID  #IMPLIED >

<!--
  Title
  followed by:
  The text is approved as submitted by the applicant -  [attribute "yes" (default)]
  or
  The text has been established by this ISA to read as follows:

  [a revised title if present - attribute "no")] (Old PCT/ISA/210 - 4)

-->
<!ELEMENT srep-invention-title (invention-title?)>

<!ATTLIST srep-invention-title  title-approval   (yes | no )  'yes' >

<!--
  Title of the Invention:
    (INID 54, ST.32:B540/B542)

  Preferably two to seven words when in English or translated into English and
  precise. (Rule 4.3)

  Recommended id = 'invt'

-->
<!ELEMENT invention-title (#PCDATA | b | i | u | o | sup | sub)*>

<!ATTLIST invention-title  id   ID     #IMPLIED
                           lang CDATA  #IMPLIED >

<!--
  (Old PCT/ISA/210 - Box No. III)
    Observations where unity of invention is lacking
    This ISA found multiple inventions in this international application, as
    follows: (use text data)

   The attribute number-of-inventions indicates the number of inventions identified
by the (S)ISA.
```

```
-->
<!ELEMENT srep-unity-of-invention (p* , srep-search-fees , srep-protest-remark? ,
srep-earlier-lack-of-unity* , sisr-limited-to-invention? , sisr-review-fee?)>

<!ATTLIST srep-unity-of-invention  number-of-inventions CDATA  #IMPLIED >

<!--
  Where the applicant requests the Authority to review this opinion,
  the applicant is hereby invited, within one month from the date of
  mailing of this report, to pay a review fee (Rule 45bis.6(c))
  in the amount of _________________ (currency/amount).

-->
<!ELEMENT sisr-review-fee (amount-total)>

<!ATTLIST sisr-review-fee  currency CDATA  #REQUIRED >

<!--
  At the request of the applicant, this supplementary international search report
is
  limited to the invention specified by the applicant under Rule 45bis.1(d) and
  those parts of the international application which relate to that invention (Rule
45bis.5(b)).

-->
<!ELEMENT sisr-limited-to-invention (#PCDATA)>

<!ATTLIST sisr-limited-to-invention  limited-to-invention   (yes | no )  #REQUIRED
>

<!--
  This Authority specified for supplementary search agrees with
  the conclusions of the International Searching Authority
  regarding the issue of unity of invention
  (see Forms PCT/ISA/210 and 237 dated _____________________ )
  and refers the applicant to these documents for further details.
  The idref attribute refers to the corresponding earlier-search element.

-->
<!ELEMENT srep-earlier-lack-of-unity EMPTY>

<!ATTLIST srep-earlier-lack-of-unity  conclusion-agreed        (yes | no | not-
available )  'yes'
                                      idref             IDREF  #IMPLIED >

<!--
     Remark on protest Attribute values:

     no-protest = No protest accompanied the payment of additional search fees;
     protest-fee-paid = The additional search fees were accompanied by the
applicant's protest and, where applicable, the payment of a protest fee.
     protest-fee-not-paid = The additional search fees were accompanied by the
applicant's protest but the applicable protest fee was not paid within the time
limit specified by the invitation.

-->
<!ELEMENT srep-protest-remark EMPTY>

<!ATTLIST srep-protest-remark  protest-remark   (no-protest |
                                                protest-fee-paid |
                                                protest-fee-not-paid )  #REQUIRED
>

<!--
  The attribute "reason" defines the reason for which certain claims have not been
searched.

-->
```

```
<!ELEMENT srep-claims-not-searched (claim-num* , claim-remark?)>

<!ATTLIST srep-claims-not-searched  reason   (subject-matter-not-searched-by-isa |
                                             no-meaningful-search |
                                             dependent-claims-incorrectly-drafted
|
                                             limited-to-claim-fees-paid |
                                             limited-to-first-claims |
                                             not-subject-of-isr )  #REQUIRED >

<!--
  This supplementary international search report has been established
  taking due account of the international search report,
  or the delaration under Article 17(2)(a) that no international search report
  will be established, and the written opinion established under Rule 43bis.1.
  The idref attribute refers to the corresponding earliersearch element,

-->
<!ELEMENT srep-earlier-search-or-declaration-considered EMPTY>

<!ATTLIST srep-earlier-search-or-declaration-considered  taken-into-account
(yes |
                                                                              no
|
not-available )  'yes'
                                                        idref               IDREF
#IMPLIED >

<!--
  c. time of filing/furnishing

-->
<!ELEMENT sequence-listing-filing-time (#PCDATA)>

<!ATTLIST sequence-listing-filing-time  in-application              (yes | no )
#REQUIRED
                                        together-with-application   (yes | no )
#REQUIRED
                                        furnished-for-search        (yes | no )
#REQUIRED
                                        amendment                   (yes | no )
#IMPLIED >

<!--
  b. format of material

-->
<!ELEMENT sequence-listing-material-format EMPTY>

<!ATTLIST sequence-listing-material-format  paper        (yes | no )  #REQUIRED
                                            electronic   (yes | no )  'yes' >

<!--
  a. type of material

-->
<!ELEMENT sequence-listing-material-type EMPTY>

<!ATTLIST sequence-listing-material-type  sequence-listing   (yes | no )  'yes'
                                          table              (yes | no )
#REQUIRED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.

  Note: paragraphs may occur in sections other than the description and at
```

```
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.

-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
             num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
                              carriers             (internal-electronic |
                                external-electronic |
                                paper )  #IMPLIED
                              external-type        (math |
                                chemistry |
                                program-listing |
                                other )  #IMPLIED
                              status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>

<!ATTLIST tables  id  ID     #IMPLIED
                  num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
              compact        (compact )  #IMPLIED
              id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'
```

```
  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
               list-style     (bullet | dash | none )  'bullet'
               compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
               num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | formula-text | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                  num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | formula-text | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                      num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                 file      CDATA  #REQUIRED
                 chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arablic numbers     1, 2, 3, ...
    a   lower alpha         a, b, c, ...
    A   upper alpha         A, B, C, ...
    i   lower roman         i, ii, iii, ...
```

```
    I   upper roman         I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
              compact         (compact )  #IMPLIED
              ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
               he          CDATA  #REQUIRED
               wi          CDATA  #REQUIRED
               file        CDATA  #REQUIRED
               alt         CDATA  #IMPLIED
               img-content        (drawing |
                                   photograph |
                                   character |
                                   dna |
                                   undefined |
                                   chem |
                                   table |
                                   math |
                                   program-listing |
                                   flowchart |
                                   graph )  'drawing'
               img-format         (jpg | tif | st33 | st35 )  #REQUIRED
               orientation        (portrait | landscape )  'portrait'
               inline             (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                  num   CDATA   #IMPLIED >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >
```

```
<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                       num  CDATA  #REQUIRED
                       url  CDATA  #IMPLIED
                       dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                  num      CDATA  #IMPLIED
                  lang     CDATA  #IMPLIED
                  file     CDATA  #IMPLIED
                  npl-type CDATA  #IMPLIED
                  medium   CDATA  #IMPLIED
                  url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number
```

```
-->
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >

<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
```

```
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                  num       CDATA  #IMPLIED
                  dnum      CDATA  #IMPLIED
                  dnum-type CDATA  #IMPLIED
                  file      CDATA  #IMPLIED
                  url       CDATA  #IMPLIED >

<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
               space            (preserve | default )  #IMPLIED
               listing-type     (sequence | program-listing | other )  #REQUIRED
>

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
  Overscore: ostyle - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  ostyle   (single |
                       double |
                       dash |
                       dots |
                       leftarrow |
                       rightarrow |
                       leftrightarrow )  'single' >

<!--
  1. With regard to the language, this opinion has been established on the basis of
    the international application in the language in which it was filed, unless
    otherwise indicated under this item.

  This opinion has been established on the basis of a translation from the original
  language into the following language_________________ , which is the language of
  a translation furnished for the purposes of international search
  (under Rules 12.3 and 23.1(b)).

-->
<!ELEMENT translation-of-appl EMPTY>

<!ATTLIST translation-of-appl  translation                (yes | no )  'no'
                               translation-purpose        (international-search |
                                                        international-publication |
                                                        supplementary-international-
```

```
search |
                                                    international-type-search |
                                                    international-preliminary-
examination |
                                                    entry-regional-phase |
                                                    priority-document |
                                                    national-search |
                                                    national-examination |
                                                    opposition )  #IMPLIED
                                  lang              CDATA  #IMPLIED >

<!--
  This part preceded by - on old PCT/ISA/210 :
  This international search report has been prepared by this ISA and is transmitted
  to the applicant according to Article 18.
  A copy is being transmitted to the International Bureau.

  This international search report consists of a total of ______ sheets.
  It is also accompanied by a copy of each prior art document cited in this report.
  (This text will need modification for electronic transmission of the SR).

  If the attribute value is "yes" then the prior art may accompany the SR as paper,
  image data, or xml (application-body) data

-->
<!ELEMENT srep-prior-art-docs (doc-page | prior-art-xml-doc)*>

<!ATTLIST srep-prior-art-docs  prior-art   (yes | no )  #REQUIRED >

<!--
  XML version prior art document, if any
  To be checked may be application-body.

-->
<!ELEMENT prior-art-xml-doc EMPTY>

<!ATTLIST prior-art-xml-doc  id       ID     #IMPLIED
                             file     CDATA  #REQUIRED
                             lang     CDATA  #IMPLIED
                             carriers        (internal-electronic |
                                       external-electronic |
                                       paper )  #IMPLIED
                             status   CDATA  #IMPLIED >

<!--
  With regard to the protest against payment of (an) additional fee(s)
  under Rule 40.2, the applicant is notified that:

  if yes:
    the protest together with the decision thereon has been transmitted to the
    International Bureau together with the applicant s request to forward the texts
    of both the protest and the decision thereon to the designated Offices.

  if no:
    no decision has been made yet on the protest; the applicant will be notified
    as soon as a decision is made.
  -
  Sytlesheet note: this data is followed by Reminders and Notes (if printed)
  otherwise put a link in to the relevant text.

-->
<!ELEMENT srep-protest-fees EMPTY>

<!ATTLIST srep-protest-fees  srep-protest   (yes | no )  'yes' >

<!--
  Form PCT/ISA/220 (January 2004)

  If yes:
```

```
    The applicant is hereby notified that the international search report and the
    written opinion of the International Searching Authority have been established
    and are transmitted herewith.

    Filing of amendments and statement under Article 19:
    The applicant is entitled, if he so wishes, to amend the claims of the
    international application (see Rule 46):
    When? The time limit for filing such amendments is normally two months from the
    date of transmittal of the international search report.
    Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
    1211 Geneva 20, Switzerland, Facsimile No.: +41 22 740 14 35

  if no:
    The applicant is hereby notified that no international search report will be
    established and that the declaration under Article 17(2)(a) to that effect and
    the written opinion of the International Searching Authority are transmitted
    herewith.

-->
<!ELEMENT srep-established EMPTY>

<!ATTLIST srep-established  srep-established   (yes | no )  'yes' >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
```

```
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  SECTION III OF DTD
  The actual search report - start a new page

  The Heading is:
    <B>INTERNATIONAL SEARCH REPORT (ISR) - PART 2</B>
    <HR></HR>
  Repeat international application number (?)
    IPC, FIELDS and DATABASES SEARCHED
    CLASSIFICATION OF SUBJECT MATTER

-->
<!ELEMENT srep-for-pub (doc-page+ | (classification-ipc? , classifications-ipcr? ,
classification-national? , srep-fields-searched , srep-citations , srep-incomplete-
search? , srep-declaration? , srep-admin? , srep-patent-family? , srep-earlier-
search* , sisr-scope?))>
```

```
<!--

  Explanations with regard to the citations and/or the scope of the search (Rule
45bis.7(e)(ii))

-->
<!ELEMENT sisr-scope (heading* , p+)+>


<!--
  This is the old 210 (patent family annex)
  Patent family information according to WIPO ST.14
  For EP SR can be used for Annex to the EP SR.(Form P0459)

-->
<!ELEMENT srep-patent-family (text? , patent-family+)>


<!--
  Patent family.
    (ST.32:B345)

-->
<!ELEMENT family-member (document-id, rel-passage?)>


<!--
  Priority application number.
    (INID 31, ST.32:B310)

This element normally represents a priority application.
However, under <patent-family> this element may be used to represent a patent
document
which is cited in the search report, which may not necessarily be a priority
application which
links the family members.

-->
<!ELEMENT priority-application (document-id)>


<!--
  SR - ADMINISTRATIVE DETAILS
  example layout:

  ISA/Examiner: EPO
  DE LAERE, Ann
  PB 5818, Patentlaan 2
  NL 2280 HV Rijswijk
  Tel. +31 - 70 340 2040
  Fax. +31 - 70 340 3016
  Search completed: 10 August 1992
  ISR mailed: 24 August 1992

  ** End of ISR **

-->
<!ELEMENT srep-admin (examiners? , srep-office? , date-search-completed , date-
search-report-mailed?)>


<!--
  Persons acting on the document.
    (ST.32:B745)

-->
<!ELEMENT examiners (primary-examiner? , assistant-examiner? , authorized-
officer?)>
```

```
<!--
  Assistant Examiner.
    (ST.32:B747)

-->
<!ELEMENT assistant-examiner (%name_group; , electronic-signature?)>


<!--
  Primary Examiner.
    (ST.32:B746)

-->
<!ELEMENT primary-examiner (%name_group; , electronic-signature?)>


<!--
  The element is to process EPO SR FORM 1503 - partial SR.
  e.g., EP 99305342

-->
<!ELEMENT srep-incomplete-search (text | limitation-of-search+)>


<!ELEMENT reason-limited-search (heading? , p+)>


<!ELEMENT claims-not-searched (#PCDATA)>


<!ELEMENT claims-searched-incompletely (#PCDATA)>


<!ELEMENT claims-searched (#PCDATA)>


<!--
  CITATIONS GROUP

  Stylesheet:DOCUMENTS CONSIDERED TO BE RELEVANT
  (Citation, any relevant passage (*), followed by category and claim number(s))

-->
<!ELEMENT srep-citations (text | citation+)>


<!--
  Patent family and corresponding-docs

-->
<!ELEMENT corresponding-docs ((patcit | nplcit) , (rel-passage* , category* , rel-
claims*)*)>


<!--
  FIELDS SEARCHED (old B. box)

-->
<!ELEMENT srep-fields-searched (minimum-documentation , other-documentation* ,
database-searched?)>


<!--
  Database(s) searched

-->
<!ELEMENT database-searched (text | nplcit)>
```

```
<!--
  Documentation searched other than minimum documentation

-->
<!ELEMENT other-documentation (#PCDATA)>


<!--
  Minimum documentation searched

-->
<!ELEMENT minimum-documentation (classification-ipc? , classifications-ipcr? ,
classification-national?)>


<!--
  Possible sources: human-generated-classification,
  machine-propagated-classification, software-analysis-generated-classification

-->
<!ELEMENT classification-data-source (#PCDATA)>


<!--
  Possible status: original-classification, reclassified, various-classification,
  deleted-classification

-->
<!ELEMENT classification-status (#PCDATA)>


<!--


-->
<!ELEMENT generating-office (country)>


<!--


-->
<!ELEMENT action-date (date)>


<!--
  Possible values: invention, non-invention

-->
<!ELEMENT classification-value (#PCDATA)>


<!--
  Possible positions: first-symbol-position, later-symbol-position.

-->
<!ELEMENT symbol-position (#PCDATA)>


<!--


-->
<!ELEMENT subgroup (#PCDATA)>


<!--
```

```
-->
<!ELEMENT main-group (#PCDATA)>


<!--


-->
<!ELEMENT subclass (#PCDATA)>


<!--


-->
<!ELEMENT section (#PCDATA)>


<!--
  Levels: ipcr-advanced, ipcr-core

-->
<!ELEMENT classification-level (#PCDATA)>


<!--


-->
<!ELEMENT ipc-version-indicator (date)>


<!--
  Unlinked indexing code.
    (ST.32:B515/B525)

-->
<!ELEMENT unlinked-indexing-code (#PCDATA)>


<!--
  Linked indexing code.
    (ST.32:B514/B524)

-->
<!ELEMENT linked-indexing-code-group (main-linked-indexing-code , sub-linked-
indexing-code+)>


<!--
  Sub/further Linked Indexing Code.

-->
<!ELEMENT sub-linked-indexing-code (#PCDATA)>


<!--
  Main Linked Indexing Code.

-->
<!ELEMENT main-linked-indexing-code (#PCDATA)>


<!--
  Main classification.
    (ST.32:B511/B521)

-->
```

```
<!ELEMENT main-classification (#PCDATA)>


<!--
  Grouping tag referencing all previous to which a (supplementary) international
search report refers to.

-->
<!ELEMENT earlier-searches (earlier-search+)>


<!--
  Date of completion of search report.
    (ST.32:B565)

-->
<!ELEMENT date-search-completed (date)>


<!--
  Date of reception of the request for (supplementary) search

-->
<!ELEMENT srep-request-received-date (date)>


<!--
  This is a place marker since there may be other information added at a later
  stage which has not been forseen.

-->
<!ELEMENT srep-other-info (srep-information+)>


<!ELEMENT srep-info-admin (authorized-officer? , srep-office? , date-search-report-
mailed? , date-opinion-completed?)>


<!--


-->
<!ELEMENT date-opinion-completed (date)>


<!--
  Date of mailing of search report.
    (ST.32:B566)

-->
<!ELEMENT date-search-report-mailed (date)>


<!--
  International Search Authority; international search to be carried out by

-->
<!ELEMENT srep-office (addressbook)>


<!--
  Authorized Officer.

-->
<!ELEMENT authorized-officer (%name_group; , phone? , fax? , email? , electronic-
signature?)>


<!--
```

```
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  The total amount due for each fee group;
  e.g., search fees, transmittal fees, etc.

-->
<!ELEMENT amount-total (#PCDATA)>


<!--
  Figure of the drawings which should accompany the abstract

-->
<!ELEMENT figure-to-publish (fig-number+)>


<!--
  PCT/RO/101 Box IX: the number of the figure which should accompany the abstract.
    (ST.32:B598)

-->
<!ELEMENT fig-number (#PCDATA)>


<!ELEMENT srep-search-fees (srep-fee-1? , srep-fee-2? , srep-fee-3? , srep-fee-4?)>


<!--
  No required additional search fees were timely paid by the applicant.
  Consequently, this ISR is restricted to the invention first mentioned in the
  claims; it is covered by claim number(s):

-->
<!ELEMENT srep-fee-4 (claim-num+)>
```

```
<!--
  As only some of the required additional search fees were timely paid by the
  applicant, this ISR covers only those claims for which fees were paid,
  specifically claim number(s):

-->
<!ELEMENT srep-fee-3 (claim-num+)>


<!--
  As all searchable claims could be searched without effort justifying an
  additional fee, this ISA did not invite payment of any additional fees.

-->
<!ELEMENT srep-fee-2 EMPTY>


<!--
  As all required additional search fees were timely paid by the applicant,
  this ISR covers all searchable claims.

-->
<!ELEMENT srep-fee-1 EMPTY>


<!--
  (Old PCT/ISA/210 - Box No. II)
   Observations where certain claims were found unsearchable

  This ISR has not been established in respect of certain claims
  under Article 17(2)(a) for the following reasons.
  The reasons for which sets of claims where not searched will be provided with an
element srep-claims-not-searched for each set.


-->
<!ELEMENT srep-claims-info (srep-claims-not-searched*)>


<!--
  Remarks on these claims

-->
<!ELEMENT claim-remark (p+)>


<!--
  Claim numbers

-->
<!ELEMENT claim-num (#PCDATA)>


<!--
  PCT/ISA/210 Box 1::Basis of the Report

-->
<!ELEMENT srep-basis (translation-of-appl , sequence-list-basis? , srep-
rectification-of-obvious-mistake? , srep-earlier-search-or-declaration-
considered*)>


<!--
  This supplementary international search report has
  been established taking into account the rectification
  of an obvious mistake notified to this Authority under Rule 91
  (Rules 43.6bis(a) and 45bis.7(c)).
```

```
-->
<!ELEMENT srep-rectification-of-obvious-mistake EMPTY>


<!--
  A sequence listing and/or any related table(s) - see Supplemental Box Relating
  to Sequence Listing.

-->
<!ELEMENT sequence-list-basis (material-of-sequence-list , presentation-of-
statements? , without-compliant-sequence-list? , additional-info?)>


<!--
  (PCT/ISA/210 Box No. I Nucleotide and/or amino acid sequence(s)

  (Continuation of item1.c of the first sheet))
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application,
       the international search was carried out on the basis of a sequence listing:

  (PCT/ISA/237 Box No. I Basis of this opinion)
    3. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application,
       this opinion has been established on the basis of a sequence listing:

  (PCT/IPEA/409 Supplemental Box Relating to Sequence Listing)
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       this report was established on the basis of a sequence listing:

  (PCT/IPEA/408 Supplemental Box Relating to Sequence Listing)
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       this opinion was established on the basis of a sequence listing:

-->

<!ELEMENT material-of-sequence-list (sequence-listing-material-type , sequence-
listing-material-format , sequence-listing-filing-time)>


<!--
  Additional information.
    (ST.32:B513)

-->
<!ELEMENT additional-info (p+)>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  This is for a simple mathematical or chemical formulae.

-->
<!ELEMENT formula-text (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.
```

```
-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]
```

```
      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , vid? , ino? , history? ,
series? , hostno? , absno? , location? , notes? , avail* , class* , keyword* ,
cpyrt? , doi? , issn? , isbn? , datecit? , srchterm* , srchdate? , refno*))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below
```

```
-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>


<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>
```

```
<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
```

```
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , vid? , ino? , descrip? , series? , notes? , absno?
, location* , pubid? , bookno? , class* , keyword* , cpyrt? , doi? , issn? , isbn*
, refno*)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? , para?
, line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first

-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last
```

```
-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
```

```
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>

-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor
```

```
-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , pubid? , vid? , ino? , doi? , issn? , isbn? , cpyrt?)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--


-->
<!ELEMENT doi (#PCDATA)>
```

```
<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>
```

```
<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)

-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  br - break, line break within a paragraph
```

```
-->
<!ELEMENT br EMPTY>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  (PCT/ISA/210 and PCT/ISA/237 )
    In addition, in the case that more than one version or copy of a sequence
    listing and/or table relating thereto has been filed or furnished,
    the required statements that the information in the subsequent or additional
    copies is identical to that in the application as filed or does not go beyond
    the application as filed, as appropriate, were furnished.

  (PCT/IPEA/409 and PCT/IPEA/408 )
    In addition, in the case that more than one version or copy of a sequence
    listing and/or table(s) relating thereto has been filed or furnished,
    the required statements that the information in the subsequent or additional
    copies is identical to that in the application as filed or does not go beyond
    the application as filed, as appropriate, were furnished.

-->
```

```
<!ELEMENT presentation-of-statements EMPTY>

<!--
  (PCT/ISA/210, PCT/ISA/237, PCT/IPEA/409 and PCT/IPEA/408)

With regard to any nucleotide and/or amino acid sequence
disclosed in the international application and necessary to
the claimed invention, this opinion was established to the
extent that a meaningful opinion could be formed without a
WIPO Standard ST.26 compliant sequence listing.

-->

<!ELEMENT without-compliant-sequence-list EMPTY>


<!--
  Search request number eg. on PCT Form 201.

-->
<!ELEMENT srep-request-number (#PCDATA)>


<!--
  Date of request for search eg. on PCT Form 201

-->
<!ELEMENT srep-request-date (date)>


<!--
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Where the international application claims the priority of several earlier
  applications, the filing date of the earliest application whose priority is
  claimed must be indicated as the priority date.

-->
<!ELEMENT date-of-earliest-priority (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>
```

```
<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
```

```
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number
```

```
-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
```

```
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Second last name (mother's family surname), for some countries (such as Spain) is
legally mandatory.

-->
<!ELEMENT second-last-name (#PCDATA)>


<!--
  First last name (father's family surname), for some countries (such as Spain) is
legally mandatory.

-->
<!ELEMENT first-last-name (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>
```

5.10 International Preliminary Report on Patentability

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
*******************************************************************************
*  IPRP (International Preliminary Report on Patentability) v1.3  2021  JULY   *
*******************************************************************************
*  PUBLIC "-//WIPO//DTD IPRP 1.3//EN" "iprp-v1-3.dtd"                          *
*******************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/iprp-v1-3.dtd               *
*******************************************************************************
* contacts:                                                                    *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                                  *
*******************************************************************************
* revision history                                                             *
*******************************************************************************
Yukako SHIBA incorporated changes from PFCs:
..changed version number from v1.2 to v1.3
..added an element "additional-info" to "rel-passage".
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..implementation of PFC06/001
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
..added element 'address-4' to address (PFC06/005)
..added element 'address-5' to address (PFC06/005)
2005/01/01
..released version number as v1.0
*******************************************************************************

  ***************************************************************************
  * SECTION I - DECLARATION, ENT. REFs, ISO sets, etc                       *
  ***************************************************************************
-->
<!--
  import character entity set.  Download from:
  http://pcteasy.wipo.int/efiling_standards/schemaDocs/wipo.ent

  Note that nsgmls-based parsers (SP, Near and Far Designer, etc.)
  may not be able to process this file for reasons described below
  in MathML comments.
 -->
<!--ENTITY % wipo PUBLIC "-//WIPO//ENTITIES WIPO 1.0//EN" "wipo.ent">
%wipo;-->

<!--
```

```
  ****************************************************************************
  * INCLUDE COMPONENT DTDS (MATHML, OASIS EXCHANGE TABLE MODEL                *
  ****************************************************************************
-->
<!-- DTD MathML2: maintained by W3C.  Download from:
     http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

     If using nsgmls-based parser (SP, Near and Far Designer, etc.)
     uncomment 'mathml-charent-module' switch below or replace the
     referenced MathML2 DTD with the version downloadable from:
     http://www.w3.org/Math/DTD/dtd-sp.zip

      This notice copied from: http://www.w3.org/Math/DTD/

     "DTD for nsgmls
       Some systems (including the popular nsgmls parser) may not be able
       to process files using 'plane 1' characters which have Unicode
       numbers higher than #xFFFF. The versions of the DTD provided here
       incoprorate the modifications mentioned above, but the high
       characters are replaced by the equivalent mchar construct
       <mchar name="..." /> this allows the DTD to be read and for MathML
       files to be validated using such sytems."
-->

<!--ENTITY % mathml-charent.module "IGNORE" -->
<!ENTITY % MATHML.prefixed "IGNORE">
<!ENTITY % MATHML.xmlns "">

<!-- import MathML2 dtd -->
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "mathml2.dtd">
%mathml2;

<!-- DTD OASIS Open XML Exchange Table Model.
       Maintained by OASIS; download from:
       http://www.oasis-open.org/specs/soextblx.dtd
       Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
       That convention has been followed here.
-->
<!--  create content for title element in table  -->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | sup | sub | smallcaps)* >
">
%title;

<!-- override OASIS Exchange <entry> model -->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | sup | sub | smallcaps | br
                | patcit | nplcit | bio-deposit | crossref | img
                | dl | ul | ol | chemistry | maths)* ">

<!-- import OASIS Exchange model -->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "soextblx.dtd">
%calstblx;

<!--
  ****************************************************************************
  * SECTION II - DTD                                                         *
  ****************************************************************************

  This DTD is based on WIPO PCT IPEA Form 409
  INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
  and
  Form PCT/IPEA/416 (January 2004)

  NOTIFICATION OF TRANSMITTAL OF
  INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
  (Chapter II of the Patent Cooperation Treaty)
  * see: http://www.wipo.int/pct/en/forms/ipea/index.htm
  ****************************************************************************
  Notes:
```

```
  Attributes:
    id            = unique id
    lang          = language of application - use ISO639 language code
    dtd-version   = dtd version number
    file          = filename of the whole application
    status        = status of the application; values: new = new application
    iprp-office   = WIPO ST.3 code for application
    date-produced = YYYYMMDD e.g, 20011230

-->
<!ELEMENT iprp (doc-page+ | (iprp-info , iprp-written-opinion? , iprp-annex* , pct-
art34* , office-specific-iprp-data*))>

<!ATTLIST iprp  lang          CDATA  #IMPLIED
                dtd-version   CDATA  #IMPLIED
                file          CDATA  #IMPLIED
                status        CDATA  #IMPLIED
                date-produced CDATA  #IMPLIED
                iprp-office   CDATA  #REQUIRED
                id            IDREF  #IMPLIED >

<!--
  Office is the ST.3 country code, including the regional authorities.
  Office-dtd is the file which contains the DTD for the office-specific elements.

-->
<!ELEMENT office-specific-iprp-data EMPTY>

<!ATTLIST office-specific-iprp-data  office     CDATA  #REQUIRED
                                     office-dtd CDATA  #REQUIRED
                                     file       CDATA  #REQUIRED
                                     id         ID     #IMPLIED
                                     lang       CDATA  #IMPLIED
                                     status     CDATA  #IMPLIED >

<!ELEMENT pct-art34-doc EMPTY>

<!ATTLIST pct-art34-doc  file      CDATA  #REQUIRED
                         lang      CDATA  #IMPLIED
                         status    CDATA  #IMPLIED
                         carriers         (internal-electronic |
                                   external-electronic |
                                   paper )  #IMPLIED
                         file-type        (xml | pdf | txt | tif | zip | jpg )
#REQUIRED >

<!ELEMENT iprp-annex-doc EMPTY>

<!ATTLIST iprp-annex-doc  file      CDATA  #REQUIRED
                          lang      CDATA  #IMPLIED
                          status    CDATA  #IMPLIED
                          carriers         (internal-electronic |
                                    external-electronic |
                                    paper )  #IMPLIED
                          file-type        (xml | pdf | txt | tif | zip | jpg )
#REQUIRED >

<!--
  PCT WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (ISA)
  (PCT Rule 43bis.1)
  DRAFT FORM PCT/ISA/237)

  (The following data is taken from srep-info area):

  - Correspondence address
  - Date of mailing (day/month/year)
  - Applicant s or agent s file reference
  - International application No.
```

```
  - International filing date (day/month/year)
  - Priority date (day/month/year)
  - International Patent Classification (IPC) or both national classification and
    IPC
  - Applicant name

  (followed by the text:)

  FOR FURTHER ACTION

  If a demand for international preliminary examination is made, this opinion will,
  except in certain cases where this Authority does not also act as International
  Preliminary Examining Authority, be considered to be a written opinion of the
  International Preliminary Examining Authority. In this case, the applicant is
  invited to submit to the International Preliminary Examining Authority a written
  reply together, where appropriate, with amendments before the expiration of
  3 months from the date of mailing of Form PCT/ISA/220 or before the expiration
  of 22 months from the priority date, whichever expires later.

-->
<!ELEMENT iprp-written-opinion (doc-page+ | (basis-of-iprp-opinion , priority-
opinion? , non-establishment-of-opinion? , unity-of-invention? , pct-rule66-2-
statement , opinion-citations , defect-in-application? , observation-on-
application? , text*))>

<!ATTLIST iprp-written-opinion  consideration-srep-opinion        (yes | no )
#REQUIRED
                                final-date                  CDATA  #REQUIRED
                                number-of-times             CDATA  #REQUIRED >

<!--
  (PCT/ISA/237 - Box II) - Priority

-->
<!ELEMENT priority-opinion (earlier-appl? , claim-invalid? , additional-info?)>

<!ATTLIST priority-opinion  valid CDATA  #IMPLIED >

<!--
  Form PCT/IPEA/409
  IPRP identification information group element

-->
<!ELEMENT iprp-info (correspondence-address? , file-reference-id? , application-
reference+ , date-of-earliest-priority? , classification-ipc? , classification-
national? , applicant-name , iprp-sheet-of-annexes , iprp-admin? , iprp-basis ,
iprp-priority? , non-establishment-of-opinion? , iprp-unity-of-invention , pct-
art35-2-statement , iprp-citations? , defect-in-application? , observation-on-
application? , text*)>

<!ATTLIST iprp-info  total-page-count CDATA  #IMPLIED >

<!--
  Rule 70.10: Any published application ... shall be accompanied by ...
  its claimed priority date (if any).
  In respect of the priority date of any such document, the report may indicate
  that, in the opinion of the International Preliminary Examining Authority,
  such date has not been validly claimed.

-->
<!ELEMENT priority-date (#PCDATA)>

<!ATTLIST priority-date  priority-valid   (yes | no )  'yes' >

<!--
  Reference to other documents, either patent literature (patcit)
  or non-patent literature (nplcit)

  Recommended id = 'cit0001', 'cit0002', etc.
```

```
-->
<!ELEMENT citation ((patcit | nplcit) , (rel-passage* , category* , rel-claims*)* ,
corresponding-docs* , classification-ipc? , classifications-ipcr? , classification-
national? , doi?)>

<!ATTLIST citation  id         ID     #IMPLIED
                    srep-phase CDATA  #IMPLIED >

<!ELEMENT classifications-ipcr (classification-ipcr+)>

<!ATTLIST classifications-ipcr  id ID  #IMPLIED >

<!--
  International Patent Classification (IPC) data;

-->
<!ELEMENT classification-ipcr ((ipc-version-indicator , classification-level? ,
section , class , subclass , main-group? , subgroup? , symbol-position? ,
classification-value? , action-date? , generating-office? , classification-
status? , classification-data-source?) | text)>

<!ATTLIST classification-ipcr  id       ID     #IMPLIED
                               sequence CDATA  #IMPLIED >

<!--
  (PCT/ISA/237 ) - Box No. IV Lack of unity of invention

  (3) This Authority considers that the requirement of unity of invention in
      accordance with Rule 13.1, 13.2 and 13.3 is

  complied with
  not complied with for the following reasons

-->
<!ELEMENT compliance-unity-invention (p*)>

<!ATTLIST compliance-unity-invention  unity-complied   (yes | no )  #REQUIRED >

<!--
  In response to the invitation (Form PCT/ISA/206) to pay additional fees the
  applicant has:

  Attribute values:

  (PCT/ISA/237 )
    1 = paid additional fees
    2 = paid additional fees under protest
    3 = not paid additional fees
    4 = not used

  (PCT/IPEA/409 and PCT/IPEA/408 )
    1 = restricted the claims
    2 = paid additional fees
    3 = paid additional fees under protest
    4 = neither restricted nor paid additional fees

-->
<!ELEMENT invitation-pay-additional-fees EMPTY>

<!ATTLIST invitation-pay-additional-fees  unity-fee-code   (1 | 2 | 3 | 4 | 5 )
#REQUIRED >

<!--
  (PCT/ISA/237 and PCT/IPEA/408 )
    The tables related to the nucleotide and/or amino acid sequence listing, if in
    computer readable form only, do not comply with the technical requirements
    provided for in Annex C-bis of the Administrative Instructions.
```

```
  (PCT/IPEA/409 )
    The tables related to the nucleotide and/or amino acid sequence listing do not
    comply with the technical requirements provided for in Annex C-bis of the
    Administrative Instructions in that the computer readable form:

-->
<!ELEMENT annex-c-bis EMPTY>

<!ATTLIST annex-c-bis  e-tables-missing   (yes | no )  #REQUIRED
                       format-error       (yes | no )  #REQUIRED >

<!--
  The nucleotide and/or amino acid sequence listing does not comply with the
  standard provided for in Annex C of the Administrative Instructions in that:

-->
<!ELEMENT annex-c EMPTY>

<!ATTLIST annex-c  e-tables-missing   (yes | no )  #REQUIRED
                   format-error       (yes | no )  #REQUIRED
                   no-payment         (yes | no )  #REQUIRED >

<!--
  (PCT/ISA/237 - Box II)

  Priority

  1. The following document has not yet been furnished:

  Attribute vakue:
    1 = copy of the earlier application whose priority has been claimed
      (Rules 43bis.1 and 66.7(a)).
    2 = translation of the earlier application whose priority has been claimed
      (Rules 43bis.1 and 66.7(b)).

  Consequently it has not been possible to consider the validity of the priority
  claim. This opinion has nevertheless been established on the assumption that the
  relevant date is the claimed priority date.

-->
<!ELEMENT earlier-appl EMPTY>

<!ATTLIST earlier-appl  prio-code   (1 | 2 )  #REQUIRED >

<!--
  1. With regard to the language, this report is based on the international
    application in the language in which it was filed, unless otherwise indicated
    under this item.

  This report is based on translations from the original language into the
  following language _____ ,
  which is the language of a translation furnished for the purposes of:

  international search (under Rules 12.3 and 23.1(b))
  publication of the international application (under Rule 12.4)
  international preliminary examination (under Rules 55.2 and/or 55.3)

-->
<!ELEMENT basis-language-for-examination EMPTY>

<!ATTLIST basis-language-for-examination  lang        CDATA  #REQUIRED
                                          examin-lang        (originally-filed |
                                                              publication |
                                                              translation-isa |
                                                              translation-iprp )
'originally-filed' >

<!--
  c. time of filing/furnishing
```

```
-->
<!ELEMENT sequence-listing-filing-time (#PCDATA)>

<!ATTLIST sequence-listing-filing-time  in-application              (yes | no )
#REQUIRED
                                        together-with-application   (yes | no )
#REQUIRED
                                        furnished-for-search        (yes | no )
#REQUIRED
                                        amendment                   (yes | no )
#IMPLIED >

<!--
  b. format of material

-->
<!ELEMENT sequence-listing-material-format EMPTY>

<!ATTLIST sequence-listing-material-format  paper        (yes | no )  #REQUIRED
                                            electronic   (yes | no )  'yes' >

<!--
  a. type of material

-->
<!ELEMENT sequence-listing-material-type EMPTY>

<!ATTLIST sequence-listing-material-type  sequence-listing   (yes | no )  'yes'
                                          table              (yes | no )
#REQUIRED >

<!--
  The drawings:
  pages _____________________________________________________________
  as originally filed/furnished pages* ____________________________
  received by this Authority on ___________________________
  pages* ____________________________
  received by this Authority on ___________________________

-->
<!ELEMENT iprp-basis-drawings (text | (rel-pages+ | rel-figures+)+)>

<!ATTLIST iprp-basis-drawings  basis                      (originally-filed |
                                                          with-demand |
                                                          with-letter )  #REQUIRED
                               date-letter-received CDATA  #IMPLIED >

<!--
  The claims:
  pages _____________________________________________________________
  as originally filed/furnished pages* ____________________________
  as amended (together with any statement) under Article 19 pages* _____
  received by this Authority on ___________________________
  pages* ____________________________
  received by this Authority on ___________________________

-->
<!ELEMENT iprp-basis-claims (text | claim-num+)>

<!ATTLIST iprp-basis-claims  basis                        (originally-filed |
                                                        under-art19 |
                                                        with-demand |
                                                        with-letter )  #REQUIRED
                             date-letter-received CDATA  #IMPLIED >

<!--
  The description:
    pages _____________________________________________________________
```

```
    as originally filed/furnished pages* _____________________________________
    received by this Authority on ____________________________
    pages* ___________________________________
    received by this Authority on ____________________________

-->
<!ELEMENT iprp-basis-description (text | (rel-pages | rel-para)+)>

<!ATTLIST iprp-basis-description  basis                      (originally-filed |
                                                          with-demand |
                                                          with-letter )  #REQUIRED
                                  date-letter-received CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  2. This REPORT consists of a total of ___________ sheets, including this
     cover sheet.

-->
<!ELEMENT iprp-sheet-of-annexes (iprp-annexes-sheet? , iprp-annexes-electronic-
carrier?)>

<!ATTLIST iprp-sheet-of-annexes  page-count CDATA  #IMPLIED >

<!--
  A total of (indicate type and number of electronic carrier(s)) _________________ ,
  containing a sequence listing and/or tables related thereto, in computer readable
  form only, as indicated in the Supplemental Box Relating to Sequence Listing
  (see Section 802 of the Administrative Instructions).

-->
<!ELEMENT iprp-annexes-electronic-carrier EMPTY>

<!ATTLIST iprp-annexes-electronic-carrier  quantity CDATA  #IMPLIED >

<!--
  3. This report is also accompanied by ANNEXES, comprising:
     a. a total of ___________ sheets, as follows:

-->
<!ELEMENT iprp-annexes-sheet (iprp-beyond-disclosure? , iprp-rectifications-
authorized?)>

<!ATTLIST iprp-annexes-sheet  page-count CDATA  #IMPLIED >

<!--
  Domestic or national classification.
    (INID 52,  ST.32:B520)

-->
<!ELEMENT classification-national (country , edition? , main-classification ,
further-classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>
```

```
<!ATTLIST classification-national  id ID  #IMPLIED >

<!--
  International Patent Classification (IPC) data;
    (INID 51,  ST.32:B510)

-->
<!ELEMENT classification-ipc (edition , main-classification , further-
classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-ipc  id ID  #IMPLIED >

<!--
  Further/secondary classification
    (ST.32:B512/B522)

-->
<!ELEMENT further-classification (#PCDATA)>

<!ATTLIST further-classification  id       ID     #IMPLIED
                                  sequence CDATA  #IMPLIED >

<!--
  Paragraph

  Recommended id  = p0001, p0002, etc.  num = 0001, 0002, etc.

  Note: paragraphs may occur in sections other than the description and at
  different times  eg. for the abstract, in this case use for example "p0001a";
  amended claims: "p0001ac", etc.

-->
<!ELEMENT p (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | dl | ul |
ol | crossref | figref | patcit | nplcit | bio-deposit | img | chemistry | maths |
tables | table-external-doc)*>

<!ATTLIST p  id  ID     #IMPLIED
             num CDATA  #REQUIRED >

<!--
   References a stand-alone table authored with the table-external DTD.

-->
<!ELEMENT table-external-doc (#PCDATA)>

<!ATTLIST table-external-doc  id            ID     #IMPLIED
                              file          CDATA  #REQUIRED
                              lang          CDATA  #IMPLIED
                              carriers              (internal-electronic |
                                                    external-electronic |
                                                    paper )  #IMPLIED
                              external-type         (math |
                                                    chemistry |
                                                    program-listing |
                                                    other )  #IMPLIED
                              status        CDATA  #IMPLIED >

<!--
  TABLES
  This is image data or coded according to OASIS Exchange model with modified cell
  'entry' content.

  Recommended id = tabl0001, tabl0002, etc.

-->
<!ELEMENT tables (img | table)>
```

```
<!ATTLIST tables  id  ID     #IMPLIED
                    num CDATA  #REQUIRED >

<!--
  Definition list

  Recommended id = dlis0001, dlis0002, etc.

-->
<!ELEMENT dl (dt , dd)+>

<!ATTLIST dl  tsize   CDATA  #IMPLIED
                compact        (compact )  #IMPLIED
                id      ID     #IMPLIED >

<!--
  Term to be defined

  Recommended id = dtrm0001, dtrm0002, etc.

-->
<!ELEMENT dt (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST dt  id ID  #IMPLIED >

<!--
  Unordered Lists
    list-style may be empty for lists with no bullet or other symbol default
    list-style is 'bullets'

  Recommended id = ulis0001, ulis0002, etc.

-->
<!ELEMENT ul (li+)>

<!ATTLIST ul  id         ID  #IMPLIED
                list-style     (bullet | dash | none )  'bullet'
                compact        (compact )  #IMPLIED >

<!--
  List item

  Recommended id = list0001, list0002, etc.

-->
<!ELEMENT li (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | dl | ul | ol | chemistry |
maths)*>

<!ATTLIST li  id  ID     #IMPLIED
                num CDATA  #IMPLIED >

<!--
  MATHEMATICS
  This is image data or coded according to mathml, version 2

  Recommended id = math0001, math0002, etc.

-->
<!ELEMENT maths (img | (math , img?))>

<!ATTLIST maths  id  ID     #IMPLIED
                   num CDATA  #REQUIRED >

<!--
  Chemistry
  Chemical formulae, ring structures, Markush structures, etc.

  For now treat as image data.
```

```
  Depending on industry support we may use, e.g., chemML, CML later

  Recommended id = chem0001, chem0002, etc

-->
<!ELEMENT chemistry (img | (chem , img?))>

<!ATTLIST chemistry  id  ID     #IMPLIED
                     num CDATA  #REQUIRED >

<!--
  This is a pointer to an external DTD for chemical markup - to be determined.
  For EPO probably CML; http://www.xml-cml.org/

-->
<!ELEMENT chem EMPTY>

<!ATTLIST chem  id        ID     #IMPLIED
                file      CDATA  #REQUIRED
                chem-type CDATA  #IMPLIED >

<!--
  Ordered Lists:
  attribute 'ol-style'

  Recommded use:
    1   arabic numbers     1, 2, 3, ...
    a   lower alpha        a, b, c, ...
    A   upper alpha        A, B, C, ...
    i   lower roman        i, ii, iii, ...
    I   upper roman        I, II, III, ...

-->
<!ELEMENT ol (li+)>

<!ATTLIST ol  id       ID     #IMPLIED
              compact         (compact )  #IMPLIED
              ol-style CDATA  #IMPLIED >

<!--
  Image data
  Image is used for any kind of image: art work, figures,  complex work units
  (math, tables, chemistry), etc.

  Recommended:
    id          = i0001, i0002, etc.
    he, wi      = "11" - milimeters - height, width;
    file        = file name,location; label - not used;
    alt         = alternate text if image not shown;
    img-content = drawing is the default;
    img-format  = common will be tiff, st33 and st35 in for backward compatibilty
                  and, later, publication.
    orientation = orientation of the image (portrait | landscape).
                  Default is portrait
    inline      = (yes | no).
                  Whether the image is to be presented inline or separated by line
                  breaks.  Default is no.

-->
<!ELEMENT img EMPTY>

<!ATTLIST img  id          ID     #IMPLIED
               he          CDATA  #REQUIRED
               wi          CDATA  #REQUIRED
               file        CDATA  #REQUIRED
               alt         CDATA  #IMPLIED
               img-content        (drawing |
                                   photograph |
                                   character |
```

```
                                dna |
                                undefined |
                                chem |
                                table |
                                math |
                                program-listing |
                                flowchart |
                                graph )  'drawing'
                  img-format          (jpg | tif | st33 | st35 )  #REQUIRED
                  orientation         (portrait | landscape )  'portrait'
                  inline              (yes | no )  'no' >

<!--
  A reference to a figure;
  e.g., "...as shown in <figref idref='f0001'>figure<b>1</b></figref>..."

-->
<!ELEMENT figref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST figref  idref IDREFS  #IMPLIED
                    num   CDATA   #IMPLIED >

<!--
  Cross reference to any other element with an identifier (id)

-->
<!ELEMENT crossref (#PCDATA | b | i | u | o | sup | sub | smallcaps)*>

<!ATTLIST crossref  idref IDREF  #REQUIRED >

<!--
  Biological deposit citation (US EFS: biological-deposit)
    (INID 83, ST.32:B830)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short within the description and/or
  claims

  Recommended id = biod0001, biod0002, etc.

-->
<!ELEMENT bio-deposit (depositary , bio-accno , date? , term? , dtext?)>

<!ATTLIST bio-deposit  id   ID     #IMPLIED
                         num  CDATA  #REQUIRED
                         url  CDATA  #IMPLIED
                         dnum CDATA  #IMPLIED >

<!--
  Non-Patent Literature (NPL) CITation;

  Notes:
    This can be free text data without any structure (#PCDATA) which is NOT
    recommended
    or it can be highly structured data which is marked up according to ST.14 and
    ISO 690 layout;

    This part of the DTD has used many different sources for element names and DTD
    structure and reference:
    AACR2 / MARC
    ISO 12083 - Electronic manuscript prep. and markup. DTD
    Association of American Publishers (AAP) Z39.59 DTD
    European Working Group for SGML (EWS) MAJOUR DTD
    SuperJournal Full Article DTD
      www.superjournal.ac.uk/sj
    Elsevier DTD
    Medline DTD (NLM)

  Attributes (recommended):
    id - ncit0001, ncit0002, etc
```

```
    num - 0001, 0002
    npltype - The TYPE of citation is office specific (recommended):;
      A - Abstract citation of no specific kind
      B - Book citation
      I - Bilogical abstract citation
      C - Chemical abstracts citation
      E - Database citation
      D - Derwent citation
      P - Patent cited within NPL group
      J - Patent Abstracts of Japan citation (REC 067)
      S - Serial / Journal / Periodical citation
      W - World Wide Web / Internet search citation
    medium - the type of medium
      e.g., CD (CD-ROM), MT (Magnetic Tape), DISK, ONLINE
    file - file name on local systems eg. XP number in EPO
    url  - where possible give full web link to document

-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit  id       ID     #IMPLIED
                  num      CDATA  #IMPLIED
                  lang     CDATA  #IMPLIED
                  file     CDATA  #IMPLIED
                  npl-type CDATA  #IMPLIED
                  medium   CDATA  #IMPLIED
                  url      CDATA  #IMPLIED >

<!--
  Reference number (general); for the EPO this is the XP number

-->
<!ELEMENT refno (#PCDATA)>

<!ATTLIST refno  id ID  #IMPLIED >

<!--
  Classification code; e.g., ipc, dewey etc.

-->
<!ELEMENT class (#PCDATA)>

<!ATTLIST class  class-type CDATA  #IMPLIED >

<!--
  Subordinate responsibility;  e.g., editor, translator, etc.

-->
<!ELEMENT subname (%name_group; | addressbook)>

<!ATTLIST subname  subname-type   (editor | translator | other-subname-type )
'editor' >

<!--
  Author

  Prime responsibility for the work
  there is no distinguishing between personal and corporate authors
  <author> followed by name or addressbook information
  use the ID attribute if, for example, there is a need to distinguish between
  multiple authors.
  Can also include affiliation details

  Recommended id = auth0001, auth0002, etc.

-->
<!ELEMENT author (%name_group; | addressbook)>

<!ATTLIST author  id ID  #IMPLIED >
```

```
<!--
  PATENT CITATIONS:
    (ST.32:B561)
  Patent Citation within abstract, description or claims.
  For patent citations within Search Report see Search Report DTD

  Notes:
    Tags arranged according to WIPO ST.14 order.
    This can be free text data without any structure (text).

  Example:
    <patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
      <document-id>
        <country>US</country>
        <doc-number>4793675</doc-number>
        <kind>A</kind>
        <name>Handa</name>
        <date>19881227</date>
      </document-id>
    </patcit>

  Note:
    It is NOT expected that the applicant will create the tagged data
    - it could be generated from a 'pull down' data entry form
    or generated from internal SR databases

  Attributes (recommended):
    id   - pcit0001, pcit0002, etc.
    num  - 0001, 0002, etc.
    dnum - use full number as one string, eg, "US5401234A";
    url  - where possible give full web link to patent
    file - file name eg. if stored on local systems
    dnum-type - type of document number
      (e.g., application number, publication number)

-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit  id        ID     #IMPLIED
                    num       CDATA  #IMPLIED
                    dnum      CDATA  #IMPLIED
                    dnum-type CDATA  #IMPLIED
                    file      CDATA  #IMPLIED
                    url       CDATA  #IMPLIED >

<!--
  This element is one method to identify content consisting of text objects that
  require preservation (pre) of their whitespace in order to preserve internal
  logical relationships.
  (e.g., sequence listing fragments, computer program listings)

-->
<!ELEMENT pre (#PCDATA)>

<!ATTLIST pre  id           ID  #IMPLIED
                 xml:space        (preserve | default )  #IMPLIED
                 listing-type     (sequence | program-listing | other )
#REQUIRED >

<!--
  Underscore: style - single is default

-->
<!ELEMENT u (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST u  style   (single | double | dash | dots )  'single' >

<!--
```

```
  Overscore: style - single is default

-->
<!ELEMENT o (#PCDATA | b | i | smallcaps | sup | sub)*>

<!ATTLIST o  style   (single |
                      double |
                      dash |
                      dots |
                      leftarrow |
                      rightarrow |
                      leftrightarrow )  'single' >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                  appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
           the default value depends on e-mail policies of the relevant Office.
           For PCT purposes as at 1 July 2008, no attribute being included is
           equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
```

```
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type               (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color              (color | bw )  #IMPLIED
                      orientation        (portrait | landscape )  'portrait' >

<!--
  PCT Article 34 Amendment document

-->
<!ELEMENT pct-art34 (doc-page | pct-art34-doc)+>


<!--
  Body of the annex to the International Preliminary Examination Report

-->
<!ELEMENT iprp-annex (doc-page | iprp-annex-doc)+>


<!--
  (PCT/IPEA/408) - Box No. V
  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty,
  inventive step or industrial applicability;
  citations and explanations supporting such statement

-->
<!ELEMENT pct-rule66-2-statement (novelty-valid , novelty-not-valid , inventive-
step-valid , inventive-step-not-valid , applicability-valid , applicability-not-
valid , citations-explanations?)>


<!--
  (PCT/IPEA/408 - Box No. VI Certain documents cited)
```

```
-->
<!ELEMENT opinion-citations (certain-published-documents | non-written-
disclosures)*>


<!--
  (PCT/IPEA/408 - Box No. IV Lack of unity of invention)

-->
<!ELEMENT unity-of-invention (invitation-pay-additional-fees? , not-unity-of-
invention? , compliance-unity-invention , opinion-established-regarding)>


<!--
  (PCT/ISA/237 ) - Box No. IV Lack of unity of invention Consequently,
  this opinion has been established in respect of the following parts of the
  international application: all parts the parts relating to claims Nos.

-->
<!ELEMENT opinion-established-regarding (entire-application | claim-num+)>


<!--
  (PCT/IPEA/408 - Box No. I Basis of the opinion)
  Basis of this opinion

-->
<!ELEMENT basis-of-iprp-opinion (basis-language-for-examination , iprp-basis-
application? , iprp-basis-description* , iprp-basis-claims* , iprp-basis-
drawings* , sequence-list-basis* , cancellation-doc? , pct-rule70-2c?)>


<!--
  (PCT/IPEA/409)
  Certain documents cited (Section VI)

-->
<!ELEMENT iprp-citations (certain-published-documents | non-written-disclosures |
text)*>


<!--
  (PCT/ISA/237 )
    2. Non-written disclosures (Rules 43bis.1 and 70.9)

  (PCT/IPEA/409 and PCT/IPEA/408 )
    2. Non-written disclosures (Rule 70.9)

-->
<!ELEMENT non-written-disclosures (kind-of-disclosure , date , date-of-written-
disclosure)>


<!--
  Date of written disclosure

  Referring to non-written disclosure (day/month/year)

-->
<!ELEMENT date-of-written-disclosure (date)>


<!--
  Kind of non-written disclosure

-->
<!ELEMENT kind-of-disclosure (#PCDATA)>
```

```
<!--
  (PCT/ISA/237 )
    1. Certain published documents (Rules 43bis.1 and 70.10)

  (PCT/IPEA/409 and PCT/IPEA/408 )
    1. Certain published documents (Rule 70.10)

-->
<!ELEMENT certain-published-documents ((citation+ , filing-date , priority-date?) |
text)>


<!--
  Certain observations on the international application (Section VIII).
  The following observations on the clarity of the claims, description, and
  drawings or on the question whether the claims are fully supported by the
  description, are made:

-->
<!ELEMENT observation-on-application (p+)>


<!--
  Certain defects in the international application (Section Vii).
  The following defects in the form or contents of the international application
  have been noted:

-->
<!ELEMENT defect-in-application (p+)>


<!--
  (PCT/IPEA/409)
    Reasoned statement under Article 35(2) with regard to novelty, inventive step
    or industrial applicability;citations and explanations supporting such
    statement  (Section V)

-->
<!ELEMENT pct-art35-2-statement (novelty-valid , novelty-not-valid , inventive-
step-valid , inventive-step-not-valid , applicability-valid , applicability-not-
valid , citations-explanations?)>


<!--
  Citations and explanations:

-->
<!ELEMENT citations-explanations ((citation+ , filing-date? , priority-date?) |
p+)>


<!ELEMENT filing-date (date)>


<!--
  Possible sources: human-generated-classification,
  machine-propagated-classification, software-analysis-generated-classification

-->
<!ELEMENT classification-data-source (#PCDATA)>


<!--
  Possible status: original-classification, reclassified, various-classification,
  deleted-classification

-->
<!ELEMENT classification-status (#PCDATA)>
```

```
<!--


-->
<!ELEMENT generating-office (country)>

<!--


-->
<!ELEMENT action-date (date)>

<!--
  Possible values: invention, non-invention
-->
<!ELEMENT classification-value (#PCDATA)>

<!--
  Possible positions: first-symbol-position, later-symbol-position.
-->
<!ELEMENT symbol-position (#PCDATA)>

<!--


-->
<!ELEMENT subgroup (#PCDATA)>

<!--


-->
<!ELEMENT main-group (#PCDATA)>

<!--


-->
<!ELEMENT subclass (#PCDATA)>

<!--


-->
<!ELEMENT section (#PCDATA)>

<!--
  Levels: ipcr-advanced, ipcr-core
-->
<!ELEMENT classification-level (#PCDATA)>

<!--


-->
```

```
<!ELEMENT ipc-version-indicator (date)>


<!--
  Patent family and corresponding-docs

-->
<!ELEMENT corresponding-docs ((patcit | nplcit) , (rel-passage* , category* , rel-
claims*)*)>


<!ELEMENT applicability-not-valid (claim-num*)>


<!ELEMENT applicability-valid (claim-num*)>


<!ELEMENT inventive-step-not-valid (claim-num*)>


<!ELEMENT inventive-step-valid (claim-num*)>


<!ELEMENT novelty-not-valid (claim-num*)>


<!ELEMENT novelty-valid (claim-num*)>


<!--
  (PCT/IPEA/409)
  Box No. IV Lack of unity of invention

-->
<!ELEMENT iprp-unity-of-invention (invitation-pay-additional-fees? , not-unity-of-
invention? , compliance-unity-invention , subject-examination)>


<!--
  Consequently, the following parts of the international application were the
  subject of international preliminary examination in establishing this report:

  all parts
  the parts relating to claims Nos.

-->
<!ELEMENT subject-examination (entire-application | (claim-num+ | p*))>


<!--
  (PCT/ISA/237 ) - Box No. IV Lack of unity of invention (2)
    This Authority found that the requirement of unity of invention is not complied
    with and chose not to invite the applicant to pay additional fees.

  (PCT/IPEA/409 )
    This Authority found that the requirement of unity of invention is not complied
    with and chose, according to Rule 68.1, not to invite the applicant to restrict
    or pay additional fees.

-->
<!ELEMENT not-unity-of-invention EMPTY>


<!--
  (PCT/ISA/237 - Box III)
    Non-establishment of opinion with regard to novelty, inventive step and
    industrial applicability.

-->
```

```
<!ELEMENT non-establishment-of-opinion (invention-not-examined , not-annex-c-
compliant)>


<!--
  (PCT/ISA/237 - Box III)

-->
<!ELEMENT not-annex-c-compliant (annex-c? , annex-c-bis? , additional-info?)>


<!--
  The questions whether the claimed invention appears to be novel, to involve
  an inventive step (to be non obvious), or to be industrially applicable have not
  been examined in respect of:

-->
<!ELEMENT invention-not-examined ((entire-application | claim-num+) , non-estab-
reason-1? , non-estab-reason-2? , non-estab-reason-3? , non-estab-reason-4?)>


<!--
  No international search report has been established for said claims Nos.
  (rel-claims)

-->
<!ELEMENT non-estab-reason-4 (claim-num+)>


<!--
  The claims, or said claims Nos. (claim nos) are so inadequately supported by the
  description that no meaningful opinion could be formed.

-->
<!ELEMENT non-estab-reason-3 (claim-num* , p+)>


<!--
  The description, claims or drawings (indicate particular elements below) or said
  claims Nos are so unclear that no meaningful opinion could be formed (specify):

-->
<!ELEMENT non-estab-reason-2 (claim-num* , p+)>


<!--
  The said international application, or the said claims Nos. "rel-claims" relate
  to the following subject matter which does not require an international
  preliminary examination

-->
<!ELEMENT non-estab-reason-1 (claim-num* , p+)>


<!--
  The entire international application.

-->
<!ELEMENT entire-application EMPTY>


<!--
  (PCT/IPEA/409)
  Box NO. II Priority

-->
<!ELEMENT iprp-priority (earlier-appl? , claim-invalid? , additional-info?)>
```

```
<!--
  This opinion has been established as if no priority had been claimed due to
  the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1).

  Thus for the purposes of this opinion, the international filing date indicated
  above is considered to be the relevant date.

-->
<!ELEMENT claim-invalid EMPTY>


<!--
  (PCT/IPEA/409)
  Box No. I Basis of the report

-->
<!ELEMENT iprp-basis ((iprp-basis-application? , iprp-basis-description* , iprp-
basis-claims* , iprp-basis-drawings* , sequence-list-basis*) , basis-language-for-
examination , cancellation-doc? , pct-rule70-2c?)>


<!--
  4. This report has been established as if (some of) the amendments annexed to
     this report and listed below had not been made, since they have been
     considered to go beyond the disclosure as filed, as indicated in the
     Supplemental Box (Rule 70.2(c)).

-->
<!ELEMENT pct-rule70-2c (amend-description? , amend-claims? , amend-drawings? ,
amend-sequence-listing? , amend-sequence-listing-table?)>


<!--
  The amendments have resulted in the cancellation of:

-->
<!ELEMENT cancellation-doc (amend-description? , amend-claims? , amend-drawings? ,
amend-sequence-listing? , amend-sequence-listing-table?)>


<!--
  Any table(s) related to sequence listing (specify): _____

-->
<!ELEMENT amend-sequence-listing-table (text)>


<!--
  The sequence listing (specify): _____

-->
<!ELEMENT amend-sequence-listing (text)>


<!--
  The drawings, sheets/figs _____

-->
<!ELEMENT amend-drawings (text | (rel-pages+ | rel-figures+)+)>


<!--
  The claims, Nos. _____

-->
<!ELEMENT amend-claims (text | claim-num+)>


<!--
```

```
  The description, pages _____

-->
<!ELEMENT amend-description (text | (rel-pages | rel-para)+)>


<!--
  A sequence listing and/or any related table(s) - see Supplemental Box Relating
  to Sequence Listing.

-->
<!ELEMENT sequence-list-basis (material-of-sequence-list , presentation-of-
statements? , additional-info?)>


<!--
  (PCT/ISA/210 Box No. I Nucleotide and/or amino acid sequence(s)

  (Continuation of item1.b of the first sheet))
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       the international search was carried out on the basis of:

  (PCT/ISA/237 Box No. I Basis of this opinion)
    2. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       this opinion has been established on the basis of:

  (PCT/IPEA/409 Supplemental Box Relating to Sequence Listing)
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       this report was established on the basis of:

  (PCT/IPEA/408 Supplemental Box Relating to Sequence Listing)
    1. With regard to any nucleotide and/or amino acid sequence disclosed in the
       international application and necessary to the claimed invention,
       this opinion was established on the basis of:

-->
<!ELEMENT material-of-sequence-list (sequence-listing-material-type , sequence-
listing-material-format , sequence-listing-filing-time)>


<!--
  (PCT/ISA/210 and PCT/ISA/237 )
    In addition, in the case that more than one version or copy of a sequence
    listing and/or table relating thereto has been filed or furnished,
    the required statements that the information in the subsequent or additional
    copies is identical to that in the application as filed or does not go beyond
    the application as filed, as appropriate, were furnished.

  (PCT/IPEA/409 and PCT/IPEA/408 )
    In addition, in the case that more than one version or copy of a sequence
    listing and/or table(s) relating thereto has been filed or furnished,
    the required statements that the information in the subsequent or additional
    copies is identical to that in the application as filed or does not go beyon
    the application as filed, as appropriate, were furnished.

-->
<!ELEMENT presentation-of-statements EMPTY>


<!--
  Referenced figure number

-->
<!ELEMENT rel-figures (#PCDATA)>
```

```
<!--
  Claim numbers

-->
<!ELEMENT claim-num (#PCDATA)>


<!--
  Referenced paragraph

-->
<!ELEMENT rel-para (#PCDATA)>


<!--
  Referenced pages

-->
<!ELEMENT rel-pages (#PCDATA)>


<!--
  2. With regard to the elements of the international application, this report is
    based on (replacement sheets which have been furnished to the receiving Office
    in response to an invitation under Article 14 are referred to in this report as
    goriginally filed h and are not annexed to this report):

  The international application as originally filed/furnished

-->
<!ELEMENT iprp-basis-application EMPTY>


<!--
  IPRP administration data group

-->
<!ELEMENT iprp-admin (examiners? , iprp-office? , completion-date , demand-
submission-date? , date-of-mailing?)>


<!--
  Date of mailing:

-->
<!ELEMENT date-of-mailing (date)>


<!--
  Date of submiision of demand, format YYYYMMDD

-->
<!ELEMENT demand-submission-date (date)>


<!ELEMENT completion-date (date)>


<!--
  International Preliminary Examination Authority; international preliminary
  examination to be carried out by

-->
<!ELEMENT iprp-office (addressbook)>


<!--
  Persons acting on the document.
    (ST.32:B745)
```

```
-->
<!ELEMENT examiners (primary-examiner? , assistant-examiner? , authorized-
officer?)>


<!--
  Authorized Officer.

-->
<!ELEMENT authorized-officer (%name_group; , phone? , fax? , email? , electronic-
signature?)>


<!--
  Assistant Examiner.
    (ST.32:B747)

-->
<!ELEMENT assistant-examiner (%name_group; , electronic-signature?)>


<!--
  Primary Examiner.
    (ST.32:B746)

-->
<!ELEMENT primary-examiner (%name_group; , electronic-signature?)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  Sheets which supersede earlier sheets, but which this Authority considers contain
```

```
  an amendment that goes beyond the disclosure in the international application as
  filed, as indicated in item 4 of Box No. I and the Supplemental Box.

-->
<!ELEMENT iprp-rectifications-authorized EMPTY>


<!--
  Sheets of the description, claims and/or drawings which have been amended and are
  the basis of this report and/or sheets containing rectifications authorized by
  this Authority
  (see Rule 70.16 and Section 607 of the Administrative Instructions)

-->
<!ELEMENT iprp-beyond-disclosure EMPTY>


<!--
  The name of the applicant (without address information)
    (ST.32:B711)

-->
<!ELEMENT applicant-name (%name_group;)>


<!--
  Unlinked indexing code.
    (ST.32:B515/B525)

-->
<!ELEMENT unlinked-indexing-code (#PCDATA)>


<!--
  Linked indexing code.
    (ST.32:B514/B524)

-->
<!ELEMENT linked-indexing-code-group (main-linked-indexing-code , sub-linked-
indexing-code+)>


<!--
  Sub/further Linked Indexing Code.

-->
<!ELEMENT sub-linked-indexing-code (#PCDATA)>


<!--
  Main Linked Indexing Code.

-->
<!ELEMENT main-linked-indexing-code (#PCDATA)>


<!--
  Main classification.
    (ST.32:B511/B521)

-->
<!ELEMENT main-classification (#PCDATA)>


<!--
  Additional information.
    (ST.32:B513)

-->
```

```
<!ELEMENT additional-info (p+)>


<!--
  Definition description

-->
<!ELEMENT dd (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit |
nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry | maths)*>


<!--
  Identifies the period of time during which the depository must be able to furnish
  samples of the biological material.

-->
<!ELEMENT term (#PCDATA)>


<!--
  Biological accession number:
    (ST.32:B831)
  The identification assigned to the biological material by the depository

-->
<!ELEMENT bio-accno (#PCDATA)>


<!--
  Information regarding the facility storing the biological deposit.
    (ST.32:B832)

-->
<!ELEMENT depositary (#PCDATA | address)*>


<!--
  Other citations - free form

-->
<!ELEMENT othercit (#PCDATA | b | i | u | o | sup | sub)*>


<!--
  Online citation
    Revised according to ISO-690-2 - Electronic documents and parts thereof.
    Please refer to this standard for definitions and examples.
    See: http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents
    The tagging in fact is a mixture of article and book tags together with
    specific electronic source tags.
    'Online' is taken to mean any kind of electronic documentation:
      databases, internet, CD-Roms, DVD, email, etc

  EXAMPLES:;

    Kirk-Othmer Encyclopedia of Chemical Technology [online].
    3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
    Available from: DIALOG Information Services, Palo Alto (Calif.).

      <nplcit id='ncit1' num='0001' type='E' medium='online'>
        <online>
          <online-title>Kirk-Othmer Encyclopedia of Chemical Technology
          </online-title>
          <edition>3rd ed.</edition>
          <imprint>
            <address>
              <text>New York</text>
            </address>
            <name>John Wiley</name>
```

```
            <pubdate>19840000</pubdate>
          </imprint>
          <avail>dialog information services, palo alto (calif.).</avail>
          <datecit>
            <date>19900103</date>
          </datecit>
        </online>
      </nplcit>

  * Article on Internet:
    Clark, Carol. On the Threshold of a Brave New World.
    In Blueprint of the Body [online].
    CNN.com, 2000. [cited 24 August 2000;10:25 EST]. In-depth specials.
    Available from: [http://www.cnn.com/SPECIALS/2000/genome/story/overview/]

      <nplcit id='ncit1' num='0002' type='E' medium='online'>
        <online>
          <author>
            <name>Clark, Carol</name>
          </author>
          <online-title>On the Threshold of a Brave New World</online-title>
          <imprint>
            <name>CNN.com, 2000</name>
          </imprint>
          <series>
            <text>In-depth specials</text>
          </series>
          <avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail>
          <datecit>
            <date>20000824; 10:25 est</date>
          </datecit>
        </online>
      </nplcit>

  * Personal communication (e-mail)

    Thacker, Jane. MPEG-21 project stream on digital item identification [online].
    Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000; 13:33 EST [cited 6
    October 2000; 13:10 EST].
    Message-ID: [002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication.

      <nplcit id='ncit3' num='0003' type='E' medium='online'>
        <online>
          <author>
            <name>Thacker, Jane</name>
          </author>
          <online-title>MPEG-21 project stream on digital item identification
          </online-title>
          <subname>
            <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
          </subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: <002f01c02d60$051a64a0$22a2580c@vaio></avail>
          <datecit><date>6 october 2000; 13:10 EST</date></datecit>
        </online>
      </nplcit>

-->
<!ELEMENT online (text | (author* , online-title* , hosttitle? , subname* ,
edition? , (serial | book)? , imprint? , pubdate? , history? , series? , hostno? ,
location? , notes? , avail , class* , keyword* , cpyrt? , issn? , isbn? ,
datecit? , srchterm* , srchdate? , refno* , vid? , ino? , doi? , absno?))>


<!--
  Date of search/retrieval  YYYYMMDD

-->
```

```
<!ELEMENT srchdate (date)>


<!--
  Search terms

-->
<!ELEMENT srchterm (#PCDATA)>


<!--
  Date cited - date on which the citation was cited.
  May be different from srchdate below

-->
<!ELEMENT datecit (date)>


<!--
  Availability and access - REQUIRED use for URL, online database, ftp address,
  email, etc.;
  e.g., Available from Internet: http://www.epoline.org
    Available from DIALOG Information Systems, Palo Alto (Calif.)

-->
<!ELEMENT avail (#PCDATA)>


<!--
  Numeration within host document

-->
<!ELEMENT hostno (#PCDATA)>


<!--
  History of the article (not serial)

-->
<!ELEMENT history (text | (received | accepted | revised | misc))>


<!--
  Miscellaneous information relating to the history of the article; see ISO 12083

-->
<!ELEMENT misc (#PCDATA | date)*>


<!--
  Date article was revised

-->
<!ELEMENT revised (date)>


<!--
  Date article was accepted

-->
<!ELEMENT accepted (date)>


<!--
  Date article was received

-->
<!ELEMENT received (date)>
```

```
<!--
  Title of the host document/database

-->
<!ELEMENT hosttitle (#PCDATA)>


<!--
  The title of the electronic resource

-->
<!ELEMENT online-title (#PCDATA)>


<!--
  Article citations within a 'host' document

  After patent citations the most common citations are articles within serials
  (periodicals, magazines), books and electronic (eg. internet) sources.
  This is a very complex and varied area to standardise. The tag set below is drawn
  from a number of sources as is the order of the tags (which in any case can be
  changed depending on the stylesheet used).;

  The order of tags is that of WIPO ST.14 / ISO 690 layout.
    DROP, J.G.  Integrated Circuit Personalization at the Module Level. IBM Tech.
    Dis. Bull.  October 1974, Vol. 17, No. 5, p. 1344 and 1345.
    [XPnnnnnnnnnnn].

      <nplcit id='ncit1' num='0012' type='S' file='XP1234456'>
        <article>
          <author>
            <name>DROP, J.G.</name>
          </author>
          <atl>Integrated Circuit Personalization at the Module Level</atl>
          <serial>
          <sertitle>IBM Tech. Dis. Bull.</sertitle>
          <pubdate>19741000</pubdate>
          <vid>17</vid>
          <ino>5</ino>
          </serial>
          <location>
            <pp>1344 and 1345</pp>
          </location>
          <refno id='XP1'>XP1234456</refno>
        </article>
      </nplcit>

  Note: it is NOT expected that the applicant will create the tagged data
  - it can be generated from a 'pull down' data entry form (eg. in Word) or
    generated from internal SR databases

-->
<!ELEMENT article (text | (author* , atl? , subname* , (serial | book) , absno? ,
location? , class* , keyword* , cpyrt? , artid? , refno*))>


<!--
  Article unique ID - assigned by a publisher to an article

-->
<!ELEMENT artid (#PCDATA)>


<!--
  Book citation
  In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules for layout

  WALTON, Herrmann. Microwave quantum theory.
```

```
  London : Sweet and Maxwell, 1973. ISBN 0123456789.
  Vol.2, p. 138 to 192.

    <nplcit id='ncit12' num='0013' type='b'>
      <book>
        <author>
          <name>WALTON, Herrman</name>
        </author>
        <book-title>Microwave quantum theory</book-title>
        <imprint>
          <address>
            <text>London</text>
          </address>
          <name>Sweet and Maxwell</name>
          <pubdate>19730000</pubdate>
        </imprint>
        <location>
          <pp>138 to 192</pp>
        </location>
        <isbn>0-1234-568-9</isbn>
      </book>
    </nplcit>

-->
<!ELEMENT book (text | (author* , (book-title+ | conference) , (subtitle? ,
subname* , edition? , imprint? , descrip? , series? , absno? , location* , isbn* ,
pubid? , vid? , bookno? , notes? , class* , keyword* , cpyrt? , refno* , doi? ,
ino? , issn?)))>


<!--
  Keyword; e.g., from a Thesaurus or class. scheme
    (ST.32:B550)

-->
<!ELEMENT keyword (#PCDATA)>


<!--
  Book number

-->
<!ELEMENT bookno (#PCDATA)>


<!--
  Location within the cited work

-->
<!ELEMENT location (text | (serpart? , sersect? , chapter? , pp? , column? ,
para? , line?))>


<!--
  Referenced line within cited work

-->
<!ELEMENT line (#PCDATA | linef | linel)*>


<!--
  Cited document line, last

-->
<!ELEMENT linel (#PCDATA)>


<!--
  Cited document line, first
```

```
-->
<!ELEMENT linef (#PCDATA)>


<!--
  Referenced paragraph within cited work

-->
<!ELEMENT para (#PCDATA | paraf | paral)*>


<!--
  Cited paragraph, last

-->
<!ELEMENT paral (#PCDATA)>


<!--
  Cited paragraph, first

-->
<!ELEMENT paraf (#PCDATA)>


<!--
  Cited document column numbers

-->
<!ELEMENT column (#PCDATA | colf | coll)*>


<!--
  Cited document column, last

-->
<!ELEMENT coll (#PCDATA)>


<!--
  Cited document column, first

-->
<!ELEMENT colf (#PCDATA)>


<!--
  Cited document page numbers

-->
<!ELEMENT pp (#PCDATA | ppf | ppl)*>


<!--
  Cited document page, last

-->
<!ELEMENT ppl (#PCDATA)>


<!--
  Cited  document page , first

-->
<!ELEMENT ppf (#PCDATA)>


<!--
```

```
  Chapter; e.g., in a book.  Example: Chapter 2

-->
<!ELEMENT chapter (#PCDATA)>


<!--
  Serial section

-->
<!ELEMENT sersect (#PCDATA)>


<!--
  Part within a serial

-->
<!ELEMENT serpart (#PCDATA)>


<!--
  Abstract number

-->
<!ELEMENT absno (#PCDATA)>


<!--
  Series statement

-->
<!ELEMENT series (text | (mst , msn? , issn?))>


<!--
  Monographic series number

-->
<!ELEMENT msn (#PCDATA)>


<!--
  Monographic series title

-->
<!ELEMENT mst (#PCDATA)>


<!--
  Edition statement
    (ST.32:B516)

-->
<!ELEMENT edition (#PCDATA)>


<!--
  Book subtitle

-->
<!ELEMENT subtitle (#PCDATA)>


<!--
  CONFERENCE GROUP / CITATION
  There is no standard way of citing conference proceedings; date of the conf. may
  come before or after place, for example. The tags are specified in a set order
  where it is not possible or correct then simply use <text>
```

```
-->
<!ELEMENT conference (text | (conftitle , confdate? , confno? , confplace? ,
confsponsor*))>


<!--


-->
<!ELEMENT confdate (date | (sdate , edate))>


<!--
  Conference sponsor

-->
<!ELEMENT confsponsor (#PCDATA | addressbook)*>


<!--
  Conference place

-->
<!ELEMENT confplace (#PCDATA | address)*>


<!--
  Conference number

-->
<!ELEMENT confno (#PCDATA)>


<!--
  Conference title

-->
<!ELEMENT conftitle (#PCDATA)>


<!--
  The title of the cited book

-->
<!ELEMENT book-title (#PCDATA)>


<!--
  Serial citation data:
  This describes the volume or issue as a whole and not a particular article within
  it.

-->
<!ELEMENT serial (sertitle , alttitle? , subname* , issue? , imprint? , pubdate? ,
descrip? , notes? , isbn? , issn? , pubid? , vid? , ino? , cpyrt? , doi?)>


<!--


-->
<!ELEMENT doi (#PCDATA)>


<!--
  Copyright info.  Copyright of publisher of serial

-->
<!ELEMENT cpyrt (#PCDATA)>
```

```
<!--
  Issue number

-->
<!ELEMENT ino (#PCDATA)>


<!--
  Volume id/number

-->
<!ELEMENT vid (#PCDATA)>


<!--
  Publisher's unique id

-->
<!ELEMENT pubid (#PCDATA)>


<!--
  International Standard Book Number

-->
<!ELEMENT isbn (#PCDATA)>


<!--
  International Standard Serial Number

-->
<!ELEMENT issn (#PCDATA)>


<!--
  Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
  French and English, etc.

-->
<!ELEMENT notes (#PCDATA)>


<!--
  Physical description - generally NOT used in citations in pats; e.g., v., 27cm

-->
<!ELEMENT descrip (#PCDATA)>


<!--
  Publication date used in npl citations

-->
<!ELEMENT pubdate (#PCDATA | sdate | edate | time)*>


<!--
  Imprint:
  Publication / creation data
  Place of publication : publisher, date(s) of publication usually only date of
  publication is used for journal citations

-->
<!ELEMENT imprint (text | (address? , name , pubdate*))>
```

```
<!--
  Time; format HHMM

-->
<!ELEMENT time (#PCDATA)>


<!--
  End date used in pubdate

-->
<!ELEMENT edate (#PCDATA)>


<!--
  Start date used in pubdate

-->
<!ELEMENT sdate (#PCDATA)>


<!--
  Issue designation; e.g., Annual, 1971-, 1890-1972

-->
<!ELEMENT issue (#PCDATA)>


<!--
  Alternate title for serial; e.g. BMJ = British Medical Journal

-->
<!ELEMENT alttitle (#PCDATA)>


<!--
  Serial title

-->
<!ELEMENT sertitle (#PCDATA)>


<!--
  Article title

-->
<!ELEMENT atl (#PCDATA)>


<!--
  Relevant passage group within patent; most used in search  reports
  - use text in abstract, description and claims

-->
<!ELEMENT rel-passage (text | (passage+ , (category , rel-claims?)*, additional-
info?))>


<!--
  Relevant claims

-->
<!ELEMENT rel-claims (#PCDATA)>


<!--
  Category
    (ST.32:B563)
```

```
-->
<!ELEMENT category (#PCDATA)>


<!--
  Passage within the cited patent literature

-->
<!ELEMENT passage (#PCDATA)>


<!--
  br - break, line break within a paragraph

-->
<!ELEMENT br EMPTY>


<!--
  Bold formatting for text

-->
<!ELEMENT b (#PCDATA | i | u | o | smallcaps | sup | sub)*>


<!--
  Italic formatting for text

-->
<!ELEMENT i (#PCDATA | b | u | o | smallcaps | sup | sub)*>


<!--
  Small capitals

-->
<!ELEMENT smallcaps (#PCDATA | b | u | i | o)*>


<!--
  Subscripted text

-->
<!ELEMENT sub (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Superscripted text

-->
<!ELEMENT sup (#PCDATA | b | u | i | o | sup2 | sub2)*>


<!--
  Subscripted text

-->
<!ELEMENT sub2 (#PCDATA | b | u | i | o)*>


<!--
  Superscripted text

-->
<!ELEMENT sup2 (#PCDATA | b | u | i | o)*>


<!--
  Where the international application claims the priority of several earlier
```

```
  applications, the filing date of the earliest application whose priority is
  claimed must be indicated as the priority date.

-->
<!ELEMENT date-of-earliest-priority (date)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>


<!--
  Applicant's or agent's file reference, if desired, 12 characters maximum

-->
<!ELEMENT file-reference-id (#PCDATA)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>
```

```
<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)

-->
<!ELEMENT text (#PCDATA)>


<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
```

```
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>
```

```
<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>


<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>
```

```
<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>
```

5.11 Notification of a Change

```
<?xml version='1.0' encoding='UTF-8' ?>

<!ENTITY % name_group "((name | (prefix? , (last-name | orgname) , first-name? ,
middle-name? , suffix? , iid? , role? , orgname? , department? , synonym*)) ,
registered-number?)">

<!ENTITY % address_group "((address-1? , address-2? , address-3? , address-4? ,
address-5? , mailcode? , pobox? , room? , address-floor? , building? , street? ,
city? , county? , state? , postcode? , country) | text)">

<!--
************************************************************************
*  wo-notification v1.3     2017  JULY                                  *
************************************************************************
*  PUBLIC "-//WIPO//DTD WO NOTIFICATION 1.3//EN" "wo-notification-v1-3.dtd"    *
************************************************************************
*  https://www.wipo.int/pct-safe/en/resources/1.18/wo-notification-v1-3.dtd    *
************************************************************************
* contacts:                                                            *
*   WIPO: Yukako SHIBA; yukako.shiba@wipo.int                          *
************************************************************************
* revision history                                                     *
************************************************************************
Asahi HASEBE : 01/07/17 incorporated changes from PFC
..changed version number from v1.2 to v1.3
..added an attribute "id" to signatory and us-rights
MO: 01/07/08 incorporated changes from PFCs:
..changed version number from v1.1 to v1.2
..added attribute 'email-purpose' to email (PFC08/006)
MO: 01/01/07 incorporated changes from PFCs:
..changed version number from v1.0 to v1.1
..added element 'sup' to u (PFC06/003)
..added element 'sup' to i (PFC06/003)
..added element 'sup' to b (PFC06/003)
..added element 'sub' to u (PFC06/003)
..added element 'sub' to i (PFC06/003)
..added element 'sub' to b (PFC06/003)
..added element 'o' to invention-title, b, i, sup, sup2, sub, sub2, heading, claim-
text,
  p, small-caps, dt, dd, li, crossref, figref, othercit, statement (PFC06/003)
January 2005
..released version number as v1.0
************************************************************************

Attributes for notification:
  lang              = language of application - use ISO639 language code
  dtd-version       = dtd version number
  file              = filename of the whole application
  id                = unique id for this application - could be file name
  status            = status of the application; values: new = new application
```

```
  country           = WIPO ST.3 code for application
  file-reference-id = applicant's or agent's file reference, if any

Notification by applicant to Office, or from Office to Office, or from Office to
applicant; should contain a <signatory> element as provided for in Rule 92.1(a):
92.1 Need for Letter and for Signature
(a) Any paper submitted by the applicant in the course of the international
procedure provided for in the Treaty and these Regulations, other than the
international application itself, shall, if not itself in the form of a letter,
be accompanied by a letter identifying the international application to which it
relates. The letter shall be signed by the applicant.

-->
<!ELEMENT wo-notification ((application-reference , parties , wo-notification-
doc+ , effective-date? , notify-office? , signatories?))>

<!ATTLIST wo-notification  lang              CDATA  #REQUIRED
                           dtd-version       CDATA  #IMPLIED
                           file              CDATA  #IMPLIED
                           status            CDATA  #IMPLIED
                           id                ID     #IMPLIED
                           country           CDATA  #REQUIRED
                           file-reference-id CDATA  #IMPLIED >

<!--
  A signature represented by electronic means

-->
<!ELEMENT electronic-signature (basic-signature | enhanced-signature)>

<!ATTLIST electronic-signature  date         CDATA  #REQUIRED
                                place-signed CDATA  #IMPLIED >

<!--
  A TIFF image of a signature

-->
<!ELEMENT fax-image EMPTY>

<!ATTLIST fax-image  file CDATA  #REQUIRED >

<!--
  Office(s) to be notified of changes

  Attribute 'office-type'
  Specifies capacity of Office receiving correspondence

  Values:
    RO - Receiving Office
    ISA - International Search Authority
    IPEA - International Preliminary Examination Authority
    IB - International Bureau

-->
<!ELEMENT notify-office (country* , (region , country+)*)>

<!ATTLIST notify-office  office-type   (RO | ISA | IPEA | IB )  #REQUIRED >

<!--
  The contents of notification sent by Applicant to Office

-->
<!ELEMENT wo-notification-doc (text? , doc-page+)>

<!ATTLIST wo-notification-doc  sequence          CDATA  #REQUIRED
                               notification-type        (change-name |
                                                        change-address |
                                                        change-nationality |
                                                        change-residence |
```

```
                                                    change-person |
                                                    withdrawal-application |
                                                    withdrawal-designations |
                                                    withdrawal-priority-claim |
                                                    withdrawal-demand |
                                                    withdrawal-elections |
                                                    request-early-publication |
                                                    change-reference-number |
                                                    art19-amendments |
                                                    statement-lack-of-signature |
                                                    earlier-search-copy |
                                                    separate-poa-doc |
                                                    correction-declarations |
                                                    correction-drawings |
                                                    response-notification |
                                                    other-notification )
#REQUIRED
                                document-name     CDATA  #IMPLIED >

<!--
  doc-page - DOCument or PAGE

  This is primarily to be used when data for the whole or major sections of an
  application are in image format OR other formats such as pdf.

  Page range attributes are given when required
    pp  - page range
    ppf - first page
    ppl - last page (for pdf).
  The 'img' may also be used for complete pages, e.g. in drawings

  Recommended id = docp0001, docp0002, etc.
  Attributes "he" and "wi" mean height and width.


-->
<!ELEMENT doc-page EMPTY>

<!ATTLIST doc-page  id          ID     #IMPLIED
                      he          CDATA  #REQUIRED
                      wi          CDATA  #REQUIRED
                      type                (jpg | pdf | tif )  #REQUIRED
                      alt         CDATA  #IMPLIED
                      pp          CDATA  #IMPLIED
                      ppf         CDATA  #IMPLIED
                      ppl         CDATA  #IMPLIED
                      file        CDATA  #REQUIRED
                      ocr         CDATA  #IMPLIED
                      color               (color | bw )  #IMPLIED
                      orientation         (portrait | landscape )  'portrait' >

<!--
  Agent or common representative (Rules 90.1, 90.2)

-->
<!ELEMENT agent (addressbook+)>

<!ATTLIST agent  sequence CDATA  #REQUIRED
                   rep-type        (agent | attorney | common-representative )
#REQUIRED >

<!--
  Deceased inventor name

-->
<!ELEMENT deceased-inventor (%name_group;)>

<!ATTLIST deceased-inventor  sequence CDATA  #IMPLIED
                               lang     CDATA  #IMPLIED >
```

```
<!--
  The individual or entity responsible for creating the matter that protection is
  sought for.
    (ST.32:B721)

-->
<!ELEMENT inventor (addressbook+ , designated-states?)>

<!ATTLIST inventor  sequence    CDATA  #REQUIRED
                      designation        (all | all-except-us | us-only | as-
indicated )  #IMPLIED >

<!--
  Applicant information:
    (INID 71, ST.32:B710)

  attributes for applicant
    sequence   : sequence number of each applicant
                 e.g, sequence="1"
    app-type   : applicant type
                 app-type="applicant" : the applicant is only applicant
                 app-type="applicant-inventor" : the applicant is also inventor
    designation: This person is applicant for the purpose of:
                 designation="all"          : all designated states
                 designation="all-except-us": all designated states except US
                 designation="us-only"      : US only
                 designation="as-indicated" : the states indicated in
                                              designated-states element
                                              under applicant element

-->
<!ELEMENT applicant (addressbook+ , nationality , residence , us-rights* ,
designated-states? , designated-states-as-inventor?)>

<!ATTLIST applicant  sequence    CDATA  #REQUIRED
                       app-type           (applicant | applicant-inventor )
#REQUIRED
                       designation        (all | all-except-us | us-only | as-
indicated )  #REQUIRED >

<!--
  This person is successor to the rights of an inventor who is deceased, insane, or
  legally incapacitated, for the purposes of the designation of the United States
  of America

-->
<!ELEMENT us-rights (#PCDATA)>

<!ATTLIST us-rights  to-dead-inventor CDATA  #REQUIRED
                       kind                    (heir |
                                          heiress |
                                          executor |
                                          executrix |
                                          estate |
                                          legal-representative |
                                          administrator |
                                          administratrix |
                                          legal-representatives |
                                          heirs |
                                          executors |
                                          legal-heirs )  #REQUIRED
                       id  ID  #IMPLIED >

<!--
  ADDRESSBOOK GROUP:
  Holds name and contact information for individuals/organizations

  The LANG attribute is REQUIRED for certain document types,
```

```
  e.g., the JPO PCT Request where names and addresses may be repeated in two
    different languages. If no structure possible use text.

-->
<!ELEMENT addressbook ((%name_group; , address , phone* , fax* , email* , url* ,
ead* , dtext?) | text)>

<!ATTLIST addressbook  id   ID     #IMPLIED
                       lang CDATA  #IMPLIED >

<!--
     Email address

     Attribute:
          email-purpose    reason for which email address is included:
informal     for informal contact only
general      for any type of communication
confirmation any type of communication, but formal messages followed up
             by conventional mailing (to the extent offered)
main         where applicant desires this address to be used as primary
             means of contact as a replacement of the use of conventional
             post (to the extent that an Office offers this)
          the default value depends on e-mail policies of the relevant Office.
          For PCT purposes as at 1 July 2008, no attribute being included is
          equivalent to 'informal'

-->
<!ELEMENT email (#PCDATA)>

<!ATTLIST email  email-purpose   (informal | general | advance | main )  #IMPLIED >

<!--
  Application reference information: application number, country
    (INID 21, ST.32:B210)

-->
<!ELEMENT application-reference (document-id)>

<!ATTLIST application-reference  id        ID     #IMPLIED
                                 appl-type CDATA  #IMPLIED >

<!--
  Document identification refers to patents (and patent applications) only.
  See WIPO ST.14

-->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ATTLIST document-id  lang CDATA  #IMPLIED >

<!--
  Name:
  If no distinction or detail can be given.
  Also to be used for: personal (natural person) and corporate (legal entity) names

-->
<!ELEMENT name (#PCDATA)>

<!ATTLIST name  name-type   (legal | natural )  #IMPLIED >

<!--
  Signatories

-->
<!ELEMENT signatories (signatory+)>


<!--
  PCT/RO/101 Box No. X:
```

```
  The signature must be that of the applicant (if there are several applicants, all
  must sign); however, the signature may be that of the agent, or the common
  representative, where a separate power of attorney appointing the agent or the
  common representative, respectively, or a copy of a general power of attorney is
  already in possession of the receiving Office, is furnished...
  (PCT Rules 4.1(d), 4.15, and 90)

  Indicate the capacity of the signer with 'signatory-capacity'

-->
<!ELEMENT signatory (%name_group; , address? , electronic-signature , signatory-
capacity?)>

<!ATTLIST signatory
                  id ID #IMPLIED>


<!--
  The capacity in which the person signs

-->
<!ELEMENT signatory-capacity (#PCDATA)>


<!--
  A PKI / PKCS #7 digital signature data type

-->
<!ELEMENT enhanced-signature (pkcs7)>


<!--
  PKCS7 digital signature

-->
<!ELEMENT pkcs7 EMPTY>


<!--
  A non-PKI electronic signature

-->
<!ELEMENT basic-signature (fax-image | text-string | click-wrap)>


<!--
  A simple 'signature';
  e.g., clicking a button labeled 'accept' or 'I agree'

-->
<!ELEMENT click-wrap EMPTY>


<!--
  A simple text string is to be used as the basic electronic signature;
  e.g., John Doe  <text-string>/jd/</text-string>

-->
<!ELEMENT text-string (#PCDATA)>


<!--
  The date any proposed changes would take effect.

-->
<!ELEMENT effective-date (date)>


<!--
```

```
  PCT/RO/101 Box No.II, III and IV APPLICANTS, FURTHER APPLICANT(S)
  AND/OR (FURTHER) INVENTOR(S)AGENT OR COMMON REPRESENTATIVE;
  OR ADDRESS FOR CORRESPONDENCE (PCT Rule 4.5, 4.6, 4.7, 4.8)
    (INID 70, ST.32:B700)

-->
<!ELEMENT parties (applicants , inventors? , correspondence-address? , agents?)>


<!--
  Information regarding Agents or common representatives

-->
<!ELEMENT agents (customer-number | agent+)>


<!--
  Address used for general correspondence

-->
<!ELEMENT correspondence-address (customer-number | addressbook+)>


<!--
  Customer number for agents by office

-->
<!ELEMENT customer-number (#PCDATA)>


<!--
  Inventors information:
    If the US is designated, all of the inventors must also be named as applicants
    for purposes of that designation.

-->
<!ELEMENT inventors (inventor | deceased-inventor)+>


<!--
  Applicants information:
    At least one of the applicants named must be a resident or national of a PCT
    Contracting State for which the receiving Office acts.

-->
<!ELEMENT applicants (applicant+)>


<!--
  Rule 4.6(c):
   "The request may, for different designated states, indicate different persons
    as inventors where, in this respect, the requirements of the national laws of
    the designated States are not the same.  In such a case, the request shall
    contain a separate statement for each designated State or group of States in
    which a particular person, or the same person, is to be considered the
    inventor, or in which particular persons, or the same persons, are to be
    considered the inventors."

-->
<!ELEMENT designated-states-as-inventor (country* , (region , country+)*)>


<!--
  Indication of specific Contracting States in or for which the applicant is
  seeking protection for his invention
  (Rule 4.9(a))

-->
<!ELEMENT designated-states (country* , (region , country+)*)>
```

```
<!--
  The region for which protection or exclusion (depending upon context) is desired.

-->
<!ELEMENT region (country)>


<!--
  Country of residence

-->
<!ELEMENT residence (country)>


<!--
  Country of nationality

-->
<!ELEMENT nationality (country)>


<!--
  Descriptive text

-->
<!ELEMENT dtext (#PCDATA)>


<!--
  Universal Resource Locator; e.g. www.wipo.int

-->
<!ELEMENT url (#PCDATA)>


<!--
  Fax number

-->
<!ELEMENT fax (#PCDATA)>


<!--
  Telephone number

-->
<!ELEMENT phone (#PCDATA)>


<!--
  Electronic address use for other than email

-->
<!ELEMENT ead (#PCDATA)>


<!--
  Address components:
  Address formats differ from country to country
  If no structure possible use text

-->
<!ELEMENT address (%address_group;)>


<!--
  If no structure is possible, enter text (without markup)
```

```
-->
<!ELEMENT text (#PCDATA)>


<!--
  Postal code or zip code

-->
<!ELEMENT postcode (#PCDATA)>


<!--
  Region of country; e.g., state, province, etc.

-->
<!ELEMENT state (#PCDATA)>


<!--
  County, parish, department, etc (mainly UK, USA)

-->
<!ELEMENT county (#PCDATA)>


<!--
  City or town name

-->
<!ELEMENT city (#PCDATA)>


<!--
  Street may contain house number or name

-->
<!ELEMENT street (#PCDATA)>


<!--
  Building information in address; e.g., Hoffman building

-->
<!ELEMENT building (#PCDATA)>


<!--
  Address floor; e.g., 10th

-->
<!ELEMENT address-floor (#PCDATA)>


<!--
  Address room; e.g., Room 55B

-->
<!ELEMENT room (#PCDATA)>


<!--
  Post Office Box number

-->
<!ELEMENT pobox (#PCDATA)>


<!--
```

```
  Organizational mail code

-->
<!ELEMENT mailcode (#PCDATA)>


<!--
  Address, fifth line

-->
<!ELEMENT address-5 (#PCDATA)>


<!--
  Address, fourth line

-->
<!ELEMENT address-4 (#PCDATA)>


<!--
  Address, third line

-->
<!ELEMENT address-3 (#PCDATA)>


<!--
  Address, second line

-->
<!ELEMENT address-2 (#PCDATA)>


<!--
  Address, first line

-->
<!ELEMENT address-1 (#PCDATA)>


<!--
  Registered number

-->
<!ELEMENT registered-number (#PCDATA)>


<!--
  Synonym

-->
<!ELEMENT synonym (#PCDATA)>


<!--
  Department, division, section, etc. name

-->
<!ELEMENT department (#PCDATA)>


<!--
  Organisation name or company name

-->
<!ELEMENT orgname (#PCDATA)>
```

```
<!--
  Role; e.g., President, Chairman, etc.

-->
<!ELEMENT role (#PCDATA)>


<!--
  SDOBI : Individual id

-->
<!ELEMENT iid (#PCDATA)>


<!--
  Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)

-->
<!ELEMENT suffix (#PCDATA)>


<!--
  Middle name(s) or initial(s)

-->
<!ELEMENT middle-name (#PCDATA)>


<!--
  First or given name(s), initial(s)

-->
<!ELEMENT first-name (#PCDATA)>


<!--
  Last, family, surname

-->
<!ELEMENT last-name (#PCDATA)>


<!--
  Title: e.g., Mr., Mrs., Dr. etc

-->
<!ELEMENT prefix (#PCDATA)>


<!--
  Date: components of a date.  Format: YYYYMMDD

-->
<!ELEMENT date (#PCDATA)>


<!--
  Document kind code; e.g., A1
    (INID 13, ST.32:B130)

-->
<!ELEMENT kind (#PCDATA)>


<!--
  The number of the referenced patent (or application) document

-->
<!ELEMENT doc-number (#PCDATA)>
```

```
<!--
  Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc.
  Also includes EP, WO

-->
<!ELEMENT country (#PCDATA)>
```

5.12 Information concerning an application

```
<?xml version='1.0' encoding='UTF-8' ?>

<!--application-info
This tag provides a container for any general information concerning an
application.
-->
<!ELEMENT application-info  (file-reference-id?,application-reference,
               date-of-earliest-priority?,applicant-name,classifications-ipcr,
classification-national*) >

<!--Applicant's or agent's file reference, if desired,
-->
<!ELEMENT file-reference-id  (#PCDATA) >

<!--********************************
Application reference information: application number, country
(INID 21, ST.32:B210)
In case of a filing refererence, the kind code is empty and the date refers to
the filing date
-->
<!ELEMENT application-reference  (document-id) >

<!ATTLIST application-reference
               id  ID    #IMPLIED
               appl-type  CDATA    #IMPLIED  >

<!--Where the international application claims the priority of several earlier
applications, the filing date of the earliest application whose priority is
claimed must be indicated as the priority date.
-->
<!ELEMENT date-of-earliest-priority  (date) >

<!--++++++++++++++++++++++++++++++++++++++++
** EPO - Old Form 1507; new layout:

<application-reference> <document-id> - application number
followed by:
The name of the applicant (without address information)
(ST.32:B711)

Example:
<applicant-name><name>IVECO S.P.A.</name></applicant-name>
-->
<!ELEMENT applicant-name  ((name | (prefix?,(last-name | orgname),first-name?,
               middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
               orgname?,department?,synonym*)),registered-number?) >

<!--***********
Classification IPCR - NEW IPCR8
(INID 53, ST.32:B530)
-->
<!ELEMENT classifications-ipcr  (classification-ipcr+) >

<!ATTLIST classifications-ipcr
               id  ID    #IMPLIED  >
```

```
<!--
  Domestic or national classification.
    (INID 52,  ST.32:B520)

@scheme-name:
This attribute is used when it is necessary to distinguish between different
classification schemes
which may be in use at the same Office.  In general, abbreviated forms should be
used where they
are widely recognized, for example scheme-name="CPC" for the Cooperative Patent
Classification.

-->
<!ELEMENT classification-national (country , edition? , main-classification ,
further-classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-national  id ID  #IMPLIED
                                scheme-name CDATA #IMPLIED>

<!--Document identification refers to patents (and patent applications) only. See
WIPO ST.14-->
<!ELEMENT document-id  (country,doc-number,kind?,name?,date?) >

<!ATTLIST document-id
               lang  CDATA    #IMPLIED  >

<!--Date: components of a date. Format: YYYYMMDD-->
<!ELEMENT date  (#PCDATA) >

<!--Name: If no distinction or detail can be given. Also to be used for: personal
(natural person) and corporate (legal entity) names-->
<!ELEMENT name  (#PCDATA) >

<!ATTLIST name
               name-type (legal | natural)   #IMPLIED  >

<!--Title: e.g., Mr., Mrs., Dr. etc-->
<!ELEMENT prefix  (#PCDATA) >

<!--Last, family, surname-->
<!ELEMENT last-name  (#PCDATA) >

<!--Organisation name or company name-->
<!ELEMENT orgname  (#PCDATA) >

<!--First or given name(s), initial(s)-->
<!ELEMENT first-name  (#PCDATA) >

<!--Middle name(s) or initial(s)-->
<!ELEMENT middle-name  (#PCDATA) >

<!--First last name (father's family surname), for some countries (such as Spain)
is legally mandatory.
-->
<!ELEMENT first-last-name  (#PCDATA) >

<!--Second last name (mother's family surname), for some countries (such as Spain)
is legally mandatory.
-->
<!ELEMENT second-last-name  (#PCDATA) >

<!--Name suffix (e.g., II, Jr., Dip., Ing., BA, etc.)-->
<!ELEMENT suffix  (#PCDATA) >

<!--SDOBI : Individual id-->
<!ELEMENT iid  (#PCDATA) >
```

```
<!--Role; e.g., President, Chairman, etc.-->
<!ELEMENT role  (#PCDATA) >

<!--Department, division, section, etc. name-->
<!ELEMENT department  (#PCDATA) >

<!--Synonym-->
<!ELEMENT synonym  (#PCDATA) >

<!--Registered number-->
<!ELEMENT registered-number  (#PCDATA) >

<!--*******************************
* IPC DATA - NEW IPC8
*******************************
International Patent Classification (IPC) data;
- to be implemented in 2006
- use B510 for until week 52, 2005
- see: http://www.wipo.int/scit/en/standards/pdf/03-08-01.pdf:

Industrial property offices are asked to implement this new version of Standard
ST.8 for
all patent documents with a publication date from January 1, 2006, onwards. For
patent
documents published prior to that date, the previous version of the Standard should
continue to be used.
. . .
This recording convention provides that symbols of the International Patent
Classification (IPC) should be
presented on machine-readable records for the exchange of information in
machine-readable form in a fixed-length field in 50 positions, each part of
the Int. Cl. symbol being recorded in specific positions and in the manner
prescribed.
- this can be recorded within the <text> tag.

Position(s) Content Values

1 Section A-H
2 to 3 Class 01-99
4 Subclass A-Z
5 to 8 Main Group (right aligned) 1-9999, blank
9 Separating character / ("Slash")
10 to 15 Subgroup (left aligned) 00-999999 blank
16 to 19 For future use 4 blanks
20 to 27 Version indicator YYYYMMDD date format
28 Classification level C, A, S
29 First or later position of symbol F, L
30 Classification value (inventive or non-inventive) I, N
31 to 38 Action date YYYYMMDD date format
39 Original or reclassified data BRVD
40 Source of classification data H M G
41-42 Generating office AA ZZ (ST.3)
43-50 For future use 8 blanks

EPO usage:
- we will NOT use the detailed element markup as listed below (it is far too heavy)
- we will use "a fixed-length field in 50 positions" as specified above

EPO layout:
- for the title page to be determined

Example:

<B510EP>
<classification-ipcr sequence="1">
<text>B28B...5/00........20060101AFI20070601BHEP........</text>
</classification-ipcr>
</B510EP>
```

```
-->
<!ELEMENT classification-ipcr  ((ipc-version-indicator,classification-level?,
               section,class,subclass,main-group?,subgroup?,symbol-position?,
               classification-value?,action-date?,generating-office?,
               classification-status?,classification-data-source?) | text) >

<!ATTLIST classification-ipcr
               id  ID    #IMPLIED
               sequence  CDATA    #IMPLIED  >

<!--
  International Patent Classification (IPC) data;
    (INID 51,  ST.32:B510)

-->
<!ELEMENT classification-ipc (edition , main-classification , further-
classification* , (additional-info | linked-indexing-code-group | unlinked-
indexing-code)* , text?)>

<!ATTLIST classification-ipc  id ID  #IMPLIED >


<!--Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc. Also includes EP,
WROP-->
<!ELEMENT country  (#PCDATA) >

<!--The number of the referenced patent (or application) document-->
<!ELEMENT doc-number  (#PCDATA) >

<!--Document kind code; e.g., A1 (INID 13, ST.32:B130)-->
<!ELEMENT kind  (#PCDATA) >

<!--Positions 20 to 27: Version indicator
Although in the paper publications a version indicator may contain
four or six digits, the version indicator in machinereadable
records contains eight digits, namely YYYYMMDD with Y for year, M for month and D
for day.
-->
<!ELEMENT ipc-version-indicator  (date) >

<!--Position 28 : Classification level
Offices are expected to classify each subject matter only in one level (core or
advanced).
However, both levels need to be completely represented in the master classification
database
and thus a level indicator is needed. The level indicator is also useful for
indicating
situations where an office does not classify in either the core or the advanced
level
classification, i.e., when an office only assigns classifications to the subclass
level.
The level indicator enables to make the difference between core, advanced and
subclass levels.
The letters C (Core), A (Advanced) and S (Subclass) are
used for this one-digit field.

Levels: ipcr-advanced, ipcr-core
-->
<!ELEMENT classification-level  (#PCDATA) >

<!--Positions 1 to 19: Recording of the parts of the IPC symbols
IPC symbols are defined in Part 5 of the WIPO Handbook on
Industrial Property Information and Documentation and in
the latest version of the Guide to the IPC.
-->
<!ELEMENT section  (#PCDATA) >

<!--Classification code; e.g., ipc, dewey etc.-->
<!ELEMENT class  (#PCDATA) >
```

```
<!ATTLIST class
               class-type  CDATA    #IMPLIED  >

<!ELEMENT subclass  (#PCDATA) >

<!ELEMENT main-group  (#PCDATA) >

<!ELEMENT subgroup  (#PCDATA) >

<!--Position 29: First or later position of symbols
The position of the first invention information classification
can be recognized by this field. The letters F and L are used
for first and later position, respectively.
-->
<!ELEMENT symbol-position  (#PCDATA) >

<!--Position 30: Classification value (inventive or non-inventive)
The difference between invention information and other information
is important for the retrieval of the information. The
letters I and N are used for the invention and non-invention
information, respectively.
-->
<!ELEMENT classification-value  (#PCDATA) >

<!--Positions 31-38: Action date
The date of assigning the classification symbol (action date)
is represented by eight digits, namely YYYYMMDD. This
date can be used to check if a classification needs to be
reviewed after revision of the scheme, e.g., in case of creating
new subdivisions.
-->
<!ELEMENT action-date  (date) >

<!--Positions 41-42: Generating Office
Since part of the original data in the advanced level and
the reclassified data can be delivered by offices other than the
publishing office, the information source of such data is
recorded by a field of two characters. The country or office
code CC, as defined by WIPO Standard ST.3, must be used.
-->
<!ELEMENT generating-office  (country) >

<!--Position 39: Original and reclassified data
Original data is the first data assigned to the document.
In case of a publishing office assigning classification symbols at
the core level, another office may also assign symbols at
the advanced level as original data.
Reclassified data is data changed due to a change in the classification schemes.
Various data is data changed due to an incidental reclassification
of an individual document, such as the correction of a mistake.
Deleted data is data which has to be deleted from the
Master Classification Database, due to a change in assigning of
classification symbols to a document.

The indication of the different types of data is marked by the letters B for the
basic or original data,
R for reclassified data, V for various incidental changes, and D for data to be
deleted.
Possible status: original-classification, reclassified, various-classification,
deleted-classification
-->
<!ELEMENT classification-status  (#PCDATA) >

<!--Position 40: Source of classification data
The following sources of classification data are foreseen:
- Intellectual classification by persons,
value H for human generated data.
- Machine classification by the propagation of earlier
```

```
intellectual classification through the use of common
priorities in the patent application.
The value M is used in this case and will facilitate later corrections.
- Classification symbols generated by software using automatic
analysis of the content of the patent document.
The letter G is used to indicate this source of generated data.
-->
<!ELEMENT classification-data-source  (#PCDATA) >

<!--If no structure is possible, enter text (without markup)-->
<!ELEMENT text  (#PCDATA) >

<!--Address components: Address formats differ from country to country If no
structure possible use text-->
<!ELEMENT address  ((address-1?,address-2?,address-3?,address-4?,address-5?,
              mailcode?,pobox?,room?,address-
floor?,building?,street?,city?,county?,
              state?,postcode?,country) | text) >

<!--Address, first line-->
<!ELEMENT address-1  (#PCDATA) >

<!--Address, second line-->
<!ELEMENT address-2  (#PCDATA) >

<!--Address, third line-->
<!ELEMENT address-3  (#PCDATA) >

<!--Address, fourth line-->
<!ELEMENT address-4  (#PCDATA) >

<!--Address, fifth line-->
<!ELEMENT address-5  (#PCDATA) >

<!--Address floor; e.g., 10th-->
<!ELEMENT address-floor  (#PCDATA) >

<!--ADDRESSBOOK GROUP: Holds name and contact information for
individuals/organizations The LANG attribute is REQUIRED for certain document
types, e.g., the JPO PCT Request where names and addresses may be repeated in two
different languages. If no structure possible use text.-->
<!ELEMENT addressbook  ((((name | (prefix?,(last-name | orgname),first-name?,
              middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
              orgname?,department?,synonym*)),registered-number?),address,phone*,
              fax*,email*,url*,ead*,dtext?) | text) >

<!ATTLIST addressbook
              id  ID    #IMPLIED
              lang  CDATA    #IMPLIED  >

<!--Assistant Examiner.
(ST.32:B747)
-->
<!ELEMENT assistant-examiner  (((name | (prefix?,(last-name | orgname),first-name?,
              middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
              orgname?,department?,synonym*)),registered-number?),phone?,fax?,
              email?,electronic-signature?) >

<!--Authorized Officer.
-->
<!ELEMENT authorized-officer  (((name | (prefix?,(last-name | orgname),first-name?,
              middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
              orgname?,department?,synonym*)),registered-number?),phone?,fax?,
              email?,electronic-signature?) >

<!--A non-PKI electronic signature
-->
<!ELEMENT basic-signature  (fax-image | text-string | click-wrap) >
```

```
<!--Building information in address; e.g., Hoffman building-->
<!ELEMENT building  (#PCDATA) >

<!--City or town name-->
<!ELEMENT city  (#PCDATA) >

<!--A simple 'signature';
e.g., clicking a button labeled 'accept' or 'I agree'
-->
<!ELEMENT click-wrap   EMPTY  >

<!--communication-info
Information about the communication of data
-->
<!ELEMENT communication-info  (completion-date?,date-of-mailing,office-admin,
               type-of-notification,examiners?,list-of-copies?) >

<!--completion-date
-->
<!ELEMENT completion-date  (date) >

<!--copy-to
The copy of the document was sent to another office in the following roles:
- ib : International Bureau
- ro : Receiving Office (PCT)
- isa : International Search Authority
- sisa : Supplementary International Search Authority
- ipea : International Preliminary Examination Authority
- do : Designated Office (PCT Chapter I)
- eo : Elected Office (PCT - Chapter II)
- other : to be specified in role-other, intended for national use
-->
<!ELEMENT copy-to  (correspondence-address) >

<!ATTLIST copy-to
               copy-to-role (ib | ro | isa | sisa | ipea | do | eo | other)
                #REQUIRED
               role-other  CDATA    #IMPLIED  >

<!--Address used for general correspondence-->
<!ELEMENT correspondence-address  (customer-number | addressbook+) >

<!--County, parish, department, etc (mainly UK, USA)-->
<!ELEMENT county  (#PCDATA) >

<!--Customer number for agents by office-->
<!ELEMENT customer-number  (#PCDATA) >

<!--Date of mailing:

-->
<!ELEMENT date-of-mailing  (date) >

<!--Descriptive text-->
<!ELEMENT dtext  (#PCDATA) >

<!--Electronic address use for other than email-->
<!ELEMENT ead  (#PCDATA) >

<!--***
A signature represented by electronic means
-->
<!ELEMENT electronic-signature  (basic-signature | enhanced-signature) >

<!ATTLIST electronic-signature
               date  CDATA    #REQUIRED
               place-signed  CDATA    #IMPLIED  >

<!--Email address Attribute: email-purpose reason for which email address is
```

```
included: informal for informal contact only general for any type of communication
confirmation any type of communication, but formal messages followed up by
conventional mailing (to the extent offered) main where applicant desires this
address to be used as primary means of contact as a replacement of the use of
conventional post (to the extent that an Office offers this) the default value
depends on e-mail policies of the relevant Office. For PCT purposes as at 1 July
2008, no attribute being included is equivalent to 'informal'-->
<!ELEMENT email  (#PCDATA) >

<!ATTLIST email
               email-purpose (informal | general | advance | main)   #IMPLIED  >

<!--A PKI / PKCS #7 digital signature data type
-->
<!ELEMENT enhanced-signature  (pkcs7) >

<!--Persons acting on the document.
(ST.32:B745)
-->
<!ELEMENT examiners  (primary-examiner?,assistant-examiner?,senior-examiner?,
               legal-member?,authorized-officer?,address?) >

<!--Fax number-->
<!ELEMENT fax  (#PCDATA) >

<!--A TIFF image of a signature
-->
<!ELEMENT fax-image   EMPTY  >

<!ATTLIST fax-image
               file  CDATA    #REQUIRED  >

<!ELEMENT important   EMPTY  >

<!ELEMENT information   EMPTY  >

<!--Legal Member
EPO: chairman of the examining division
-->
<!ELEMENT legal-member  (((name | (prefix?,(last-name | orgname),first-name?,
               middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
               orgname?,department?,synonym*)),registered-number?),phone?,fax?,
               email?,electronic-signature?) >

<!--list-of-copies
List of all addresees to which copies are sent.
The correspondance-address is for the main addressee, the copy-to elements
are used for additional copies sent.
-->
<!ELEMENT list-of-copies  (correspondence-address,copy-to*) >

<!--Organizational mail code-->
<!ELEMENT mailcode  (#PCDATA) >

<!--office-admin
Provides the correspondence address of the drafting office.
-->
<!ELEMENT office-admin  (addressbook) >

<!--payment due
According the type limit, payment due within a period or by a certain date.
-->
<!ELEMENT payment-due  (time-limit) >

<!--Telephone number-->
<!ELEMENT phone  (#PCDATA) >

<!--PKCS7 digital signature
-->
```

```
<!ELEMENT pkcs7   EMPTY  >

<!--Post Office Box number-->
<!ELEMENT pobox  (#PCDATA) >

<!--Postal code or zip code-->
<!ELEMENT postcode  (#PCDATA) >

<!--Primary Examiner.
(ST.32:B746)
-->
<!ELEMENT primary-examiner  (((name | (prefix?,(last-name | orgname),first-name?,
               middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
               orgname?,department?,synonym*)),registered-number?),phone?,fax?,
               email?,electronic-signature?) >

<!--reply due
According the type limit, reply due within a period or by a certain date.
-->
<!ELEMENT reply-due  (time-limit) >

<!ATTLIST reply-due
               reply-to (ib | ro | isa | sisa | ipea | do | eo | other)   #IMPLIED
               reply-to-other  CDATA    #IMPLIED  >

<!--for-further-action
The next action depends on the procedural context.
Text might be added to refer to an item in the text, in the forms or other forms.
-->
<!ELEMENT for-further-action  (#PCDATA) >

<!--Address room; e.g., Room 55B-->
<!ELEMENT room  (#PCDATA) >

<!--Senior Examiner.
EPO: chairman of the examining division
-->
<!ELEMENT senior-examiner  (((name | (prefix?,(last-name | orgname),first-name?,
               middle-name?,first-last-name?,second-last-name?,suffix?,iid?,role?,
               orgname?,department?,synonym*)),registered-number?),phone?,fax?,
               email?,electronic-signature?) >

<!--Region of country; e.g., state, province, etc.-->
<!ELEMENT state  (#PCDATA) >

<!--Street may contain house number or name-->
<!ELEMENT street  (#PCDATA) >

<!--A simple text string is to be used as the basic electronic signature;
e.g., John Doe <text-string>/jd/</text-string>
-->
<!ELEMENT text-string  (#PCDATA) >

<!ELEMENT time-limit  (#PCDATA) >

<!ATTLIST time-limit
               period (date | months | weeks | days)   #IMPLIED  >

<!--type-of-nofication
Indicates the type of notification for the applicant.
-->
<!ELEMENT type-of-notification  (information | important | for-further-action |
               reply-due | payment-due) >

<!--Universal Resource Locator; e.g. www.wipo.int-->
<!ELEMENT url  (#PCDATA) >

<!--
  Main classification.
```

```
    (ST.32:B511/B521)

-->
<!ELEMENT main-classification (#PCDATA)>

<!--
  Further/secondary classification
    (ST.32:B512/B522)

-->
<!ELEMENT further-classification (#PCDATA)>

<!ATTLIST further-classification  id       ID     #IMPLIED
                                  sequence CDATA  #IMPLIED >

<!--
  Linked indexing code.
    (ST.32:B514/B524)

-->
<!ELEMENT linked-indexing-code-group (main-linked-indexing-code , sub-linked-
indexing-code+)>


<!--
  Sub/further Linked Indexing Code.

-->
<!ELEMENT sub-linked-indexing-code (#PCDATA)>


<!--
  Main Linked Indexing Code.

-->
<!ELEMENT main-linked-indexing-code (#PCDATA)>

<!--
  Unlinked indexing code.
    (ST.32:B515/B525)

-->
<!ELEMENT unlinked-indexing-code (#PCDATA)>
```

5.13 Written opinion

```
<?xml version='1.0' encoding='UTF-8' ?>

<!--WRITTEN OPINION

This construction is intended to capture all communications from an examiner to
an applicant concerning an application typically referred as written opinions
or examination reports. The DTD could also cover minutes of telephone
conversation or other formal meetings with the applicant.

Contacts:

Asahi HASEBE, asahi.hasebe@wipo.int

For details about PCT Annex F and about all Annex F DTDs see:
http://www.wipo.int/pct-safe/en/resources/ and for PFCs see:
http://www.wipo.int/efiling_standard/en

### Version 1.2 ###
- MODIFIED <search-carried-out> element in <application_documents_group>
```

```
  from
    search-carried-out
  to
    search-carried-out+

### Version 1.1 ###

- ADDED
*New element
 <!ELEMENT non-establishment-claims (claim-num*, partially-for-claims?)>
 <!ATTLIST non-establishment-claims %common_id_attribute_group;>

 <!ELEMENT citation-opinion(p+)>
 <!ATTLIST citation-opinion
   %common_id_attribute_group;>

* <non-establishment-claims> in <non-establishment-of-opinion>
* <category> and <citation-opinion> in <conflicting-document>
* <category> and <citation-opinion> in <non-written-disclosure>

### Version 1.0 ###

 - Added <clasification-national> to <application-info>
 - Updated child elements and attributes under <citation>

### Version 0.96 ###

- ADDED
 <iprp-rectifications-not-authorized> to <iprp-annexes-sheet>

### Version 0.95 ###

- ADDED
 "@form-version" to <written-opinion>

### Version 0.94 ###

- ADDED
* Added "@status" and "@office" to <written-opinion>

### Version 0.93 ###

- ADDED
* <top-up-search-carried-out> and <no-top-up-search-carried-out> to <application-
documents>
   in order to update the DTD in align with PCT C.1400.

### Version 0.9 ###

Simplified non-establishment-of-opinion

### Version 0.7 ###

- MODIFIED
  * introduced info-dtd
  * rendered modular to ST.36/Ann F by introducing written-opinion-components

### Version 0.6 ###

- MODIFIED
* written-opinion-admin brought in-line with info.dtd (PCT Forms discussions)
Only with needed tags for opinions
* additional-info: cardinality of p to +

- ADDED
* office-admin in communication-info
* attributes id and level to heading

- REMOVED
```

```
* invention-to-be-selected-by-applicant
In first communication the examiner may defer a detailed reasoning until the
applicant has indicated on which invention he wishes the procedure to be based
on.
Intended for future use in PCT/ISA/206
EPO/JPO/WIPO : to be added in country specific implementation
<!ELEMENT invention-to-be-selected-by-applicant EMPTY >
* invention-title
* date-of-actual-receipt
-->

<!--
************************************************************************
SECTION WRITTEN-OPINION DTD
This section contains the tags specific to the written opinion.
************************************************************************

written-opinion
Root element for the written opinion.
The doc-page element has been included to capture communications that
would not be produced in XML.
It suggested to have all paragraphs numbered consecutively as they appear.

Attributes:

id
This uniquely identifies each communication. Its usage is required in a
file wrapper but not for the transmittal of a single opinion.<br/>
Recommended values: wo-01, wo-02, ...

num
Sequence number.

lang
Language of the present written opinion. Use two letter code (ST.3)

dtd-version
Version of the DTD used for drafting the file, e.g. written-opinion-v1-0.dtd.

procedure
Code of the procedure, suggested value: country code

phase
Phase during which the opinion is issued, e.g.: search, examination,
opposition, appeal, ...

opinion-type
Type of report, e.g.: woisa, iper, examination report (exre), ...

status
Status of WOSA, e.g. new, corrected.

office
Code of an office who made WOSA, e.g. EP, CN, JP, etc


form-version
form version number.  e.g. "201501"
.....................................................................
The following attributes are used extensively accross the DTD and are addressed
once here (specific examples may be provided for each element using these.

id
Unique identifier, must be unique in each XML instance.
It is suggested to use a tree approach wherein the id of child element is the
id of the parent element further completed by the corresponding id.

idref or idrefs
Cross-reference to an element or elements within the XML instance by means of
```

```
their ids.

gidref or gidrefs
Cross-reference to an element or elements outside the XML instance by means of
their of a global identifier of said elements.

legal-basis and legal-source
Paragraph, article or rule in a legal source relavant for the element.
Suggest values:
Articles : a(followed by the legal number format up to the desired level)
Rules : r(followed by the legal number format up to the desired level)
Paragraphs: use by the legal number format up to the desired level

The legal source should be identified by its commonly agreed accronym (e.g.
patent cooperation treaty - PCT, european patent convention - EPC, ...)
in lower case followed by its version (either a sequence number or a date in
the format YYYY[MM[DD]]).

Examples:
Article 19(1) of the PCT (modified October 3, 2001)
legal-basis="a19(1)" legal-source="pct-20011003"

Rule 86(2) EPC 2000
legal-basis="r86(2)" legal-source="epc-2000"

!!! place root element first for viewers
-->
<!ELEMENT written-opinion  (written-opinion-admin,(doc-page+ | (heading*,p+)+ | (
               written-opinion-request+,conclusion?)),citations?,
               annexed-documents?) >

<!ATTLIST written-opinion
               id  ID    #IMPLIED
               num  CDATA    #IMPLIED
               lang  CDATA    #IMPLIED
               dtd-version  CDATA    #IMPLIED
               procedure  CDATA    #REQUIRED
               phase  CDATA    #REQUIRED
               opinion-type  CDATA    #REQUIRED
               status  (new | corrected) 'new'
               office CDATA   #IMPLIED
               form-version  CDATA    #IMPLIED >

<!-- INCLUDE PARENT DTDs -->
<!ENTITY % written-opinion-components PUBLIC "-//WIPO//WRITTEN OPINION COMP
0.5//EN" "written-opinion-components-v1-3.dtd">
%written-opinion-components;
```

5.14 Written opinion components

```
<?xml version='1.0' encoding='UTF-8' ?>

<!--
************************************************************************

The written opinion DTD is larger than needed by Ann F, for this reason
it has been rendered customizable by separating the DTD from the components.

Before instantiating the components declare the following entity:

- for the full set of components (ST.36) :

     Nothing to do

- for the Ann F version:
```

```
     <!ENTITY % ST36.DTD   "IGNORE">
     <!ENTITY % ANNF.DTD   "INCLUDE">

********************************************************************************
-->

<!--WRITTEN OPINION

This construction is intended to capture all communications from an examiner to
an applicant concerning an application typically referred as written opinions
or examination reports. The DTD could also cover minutes of telephone
conversation or other formal meetings with the applicant.

Contacts:

Taiki Ushimaru; taiki.ushimaru@wipo.int

For details about PCT Annex F and about all Annex F DTDs see:
http://www.wipo.int/pct-safe/en/resources/ and for PFCs see:
http://www.wipo.int/efiling_standard/en

### Version 1.2 ###
- MODIFIED <search-carried-out> element in <application_documents_group>
  from
    search-carried-out
  to
    search-carried-out+

-Added an element "additional-info" to "rel-passage".
### Version 1.1 ###

- ADDED
*New element
 <!ELEMENT non-establishment-claims (claim-num*, partially-for-claims?)>
 <!ATTLIST non-establishment-claims %common_id_attribute_group;>

 <!ELEMENT citation-opinion(p+)>
 <!ATTLIST citation-opinion
   %common_id_attribute_group;>

* <non-establishment-claims> in <non-establishment-of-opinion>
* <category> and <citation-opinion> in <conflicting-document>
* <category> and <citation-opinion> in <non-written-disclosure>

### Version 1.0 ###

- ADDED
 <clasification-national> to <application-info>

### Version 0.7 ###

- MODIFIED
* introduced entities to enable customization
* cut in modules: info, components and written-opinion

### Version 0.6 ###

- MODIFIED
* written-opinion-admin brought in-line with info.dtd (PCT Forms discussions)
Only with needed tags for opinions
* additional-info: cardinality of p to +

- ADDED
* office-admin in communication-info
* attributes id and level to heading

- REMOVED
* invention-to-be-selected-by-applicant
In first communication the examiner may defer a detailed reasoning until the
```

```
applicant has indicated on which invention he wishes the procedure to be based
on.
Intended for future use in PCT/ISA/206
EPO/JPO/WIPO : to be added in country specific implementation
<!ELEMENT invention-to-be-selected-by-applicant EMPTY >
* invention-title
* date-of-actual-receipt

### Version 0.3 ###

Changed non-establishment-of-opinion (simplification)

### Version 0.1 ###

Created written-opinion-components based on written-opinion-0.6

-->

<!-- info.dtd
Import info DTD for the header/footer components.

 QUESTION: To be added here or with the main DTD ?
-->

<!ENTITY % info_st36 PUBLIC "-//WIPO//FORMS INFO 1.0//EN" "info-v1-0.dtd">
%info_st36;

<!--
  DTD MathML2: maintained by W3C.  Download from:
    http://www.w3.org/TR/MathML2/DTD-MathML-20010221.zip

  If using nsgmls-based parser (SP, Near & Far Designer, etc.)
  Uncomment 'mathml-charent-module' switch below or replace the Referenced
  MathML2 DTD with the version downloadable from:
    http://www.w3.org/Math/DTD/dtd-sp.zip

  This notice copied from: http://www.w3.org/Math/DTD/

  "DTD for nsgmls
    Some systems (including the popular nsgmls parser) may not be able to
    process files using 'plane 1' characters which have Unicode numbers
    higher than #xFFFF. The versions of the DTD provided here incoprorate
    the modifications mentioned above, but the high characters are replaced
    by the equivalent mchar construct <mchar name="..." /> this allows the
    DTD to be read and for MathML files to be validated using such sytems."

    ENTITY % mathml-charent.module "IGNORE"

Defaults:

<!ENTITY % MATHML.prefixed "IGNORE">

<!ENTITY % MATHML.xmlns "">
-->

<!--
The EPO limits the attributes of the element math as follows:

     display (block | inline) "inline"

     The following common attributes are not used

               MATHML.xmlns.attrib
               %MATHML.NamespaceDecl.attrib;
      %XLINK.prefix;:href   CDATA           #IMPLIED
      %XLINK.prefix;:type   CDATA           #IMPLIED

-->
<!ENTITY % att-topinfo "display (block | inline) 'inline'">
```

```
<!ENTITY % att-browif "" >
<!-- Attributes shared by all elements  ......................... -->

<!ENTITY % MATHML.xmlns.attrib "">
<!ENTITY % MATHML.Common.attrib
     "class        CDATA                    #IMPLIED
      style        CDATA                    #IMPLIED
      id           ID                       #IMPLIED
      xref         IDREF                    #IMPLIED
      other        CDATA                    #IMPLIED"
>

<!--
  import MathML2 dtd
-->
<!ENTITY % mathml2 PUBLIC "-//W3C//DTD MathML 2.0//EN" "imported\mathml2.dtd">
%mathml2;

<!--
  DTD OASIS Open XML Exchange Table Model.
  Maintained by OASIS; download from:
    http://oasis-open.org/specs/soextblx.dtd
  Note that the FPI in soextblx.dtd refers to itself as 'calstblx'.
  That convention has been followed here.
-->

<!--
  create content for title element in table
-->
<!ENTITY % title "<!ELEMENT title (#PCDATA | b | i | u | o | sup | sub |
smallcaps)* > ">
%title;

<!--
  override OASIS Exchange <entry> model
-->
<!ENTITY % tbl.entry.mdl "(#PCDATA | b | i | u | o | sup | sub | smallcaps |
                           pre | br | patcit | nplcit | bio-deposit | crossref |
                           figref | img | dl | ul | ol | chemistry | maths)* ">

<!--
  import OASIS Exchange model
-->
<!ENTITY % calstblx PUBLIC "-//OASIS//DTD XML Exchange Table Model 19990315//EN"
                           "imported\soextblx.dtd">
<!ENTITY % yesorno  "NMTOKEN" >

<!-- EPO Limits the attributes
Does not use:

                           orient    (port | land)  #IMPLIED
                           tabstyle  NMTOKEN        #IMPLIED
-->
<!ENTITY % tbl.table.att  " pgwide    %yesorno;      #IMPLIED" >
%calstblx;



<!--
*************************************************************************
SECTION ENTITIES DECLARATION
This section contains entities used accross the DTD
*************************************************************************
-->

<!--
address_group
Structure to store an address.
-->
```

```
<!ENTITY % address_group
               "((address-1?,address-2?,address-3?,address-4?,
                                    address-5?,mailcode?,pobox?,room?,address-
floor?,building?,
                                    street?,city?,county?,state?,postcode?,country)
| text)" >

<!--name_group
Structure to identify a person.
-->
<!ENTITY % name_group
               "((name | (prefix?,(last-name | orgname),first-name?,
                                    middle-name?,first-last-name?, second-last-
name?, suffix?,iid?,

     role?,orgname?,department?,synonym*)),registered-number?)" >

<!-- wo-specific-data -->
<!ENTITY % wo_specific_data
          "wo-isa-as-ipea?, iprp-final-date?, demand-submission-date?,
          iprp-sheet-of-annexes?, sis-received-and-considered*">

<!--
DTD Customisation, the following entities can be redefined before calling the
components to customize the DTD. When doing so, care should be take to maintain
the backward compatibility
-->

<!-- country-specific-data
redefine the entity with the country code element for your country before
including this DTD.

e.g.:

<!ENTITY % country_specific_data ",ep-specific-data" >
!!! do not forget to prepend with a comma

and define ep-specific-data in your own DTD.

-->
<!ENTITY % country_specific_data "" >

<!-- p_group
Defines the structure of the p tag
-->
<!ENTITY % p_group "(#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre |
dl | ul |
               ol | crossref | figref | legalref | patcit | nplcit | bio-deposit |
               img | chemistry | maths | tables | table-external-doc)*">

<!-- additional_info_group
-->
<!ENTITY % additional_info_group "application-document*,(p+|xhtml-text)" >

<!-- written_opinion_request_group
-->
<!ENTITY %  written_opinion_request_group "application-documents,priority-opinion?,
               non-establishment-of-opinion?,added-subject-matter-objections?,
               lack-of-unity-objection?,clarity-objections?,
               insufficiency-of-disclosure-objections?,compliance-of-invention*,
               formal-defects?,comments-of-applicant?,additional-
info?,conclusion?">

<!-- application_documents_group
-->

<!ENTITY % application_documents_group "translation-of-appl?,
               application-documents-description?,application-documents-claims?,
               application-documents-drawings?,application-documents-sequence-
```

```
list?,
              rectification-of-obvious-mistakes?, (top-up-search-carried-out+ |
no-top-up-search-carried-out)?, additional-info?">

<!-- claim_defect_group
-->
<!ENTITY % claim_defect_group "((claim-num*, partially-for-claims?) |
          sequence-list-defect | table-defect)">

<!-- objection_group
-->
<!ENTITY % objection_group "application-document+,p*,additional-info*">

<!-- objections_group
-->
<!ENTITY % objections_group "objection+ | p+">

<!-- lack_of_unity_objection_group
-->
<!ENTITY % lack_of_unity_objection_group "( lack-of-unity-additional-fees,
                                    ((lack-of-unity-single-general-inventive-
concept?,
              lack-of-unity-invention+) | p+), opinion-established-regarding,
              additional-info*)">

<!-- lack_of_unity_invention_group
-->
<!ENTITY % lack_of_unity_invention_group "claim-num+,identification-of-
invention,p*,
              lack-of-unity-invention-special-tech-feature?">

<!-- opinion_established_regarding_group
-->
<!ENTITY % opinion_established_regarding_group "entire-application | (
              completely-for-claims?, partially-for-claims?, not-for-claims?) |
              selected-invention">

<!-- compliance_group
Defines the structure of the elements determining the compliance of the
application with certain criteria
-->
<!ENTITY % compliance_group "(compliance-valid | compliance-not-valid)+,
additional-info*">

<!-- compliance_valid_group
Remove p, covered by additional-info
-->
<!ENTITY % compliance_valid_group "claim-num+">

<!-- citations_group
-->
<!ENTITY % citations_group "citation | conflicting-document | non-written-
disclosure">

<!-- common_id_attribute_group
-->
<!ENTITY % common_id_attribute_group "id  ID    #IMPLIED
              idrefs  IDREFS    #IMPLIED
              gidrefs  CDATA    #IMPLIED">

<!--
********************************************************************************
END SECTION ENTITIES DECLARATION
********************************************************************************
-->

<!--written-opinion-admin
Wrapper for information related to the application and written opinion,
as well as specific information for specific procedures/phases.
```

```
-->
<!ELEMENT written-opinion-admin  (application-info, communication-info,
                                        office-specific-data?) >

<!--wo-isa-as-ipea
The written opinion of the ISA is considered a WO of the IPEA
-->
<!ELEMENT wo-isa-as-ipea   EMPTY  >

<!ATTLIST wo-isa-as-ipea
               considered (yes | no)   #IMPLIED  >

<!--iprp-final-date
The final date by which the international preliminary report on
patentability (Chapter II of the PCT) must be established according to
Rule 69.2.
-->
<!ELEMENT iprp-final-date  (date) >

<!--Date of submiision of demand, format YYYYMMDD

-->
<!ELEMENT demand-submission-date  (date) >

<!--2. This REPORT consists of a total of ___________ sheets, including this
cover sheet.

-->
<!ELEMENT iprp-sheet-of-annexes  (iprp-annexes-sheet?,
               iprp-annexes-electronic-carrier?) >

<!ATTLIST iprp-sheet-of-annexes
               page-count  CDATA    #IMPLIED  >

<!--3. This report is also accompanied by ANNEXES, comprising:
a. a total of ___________ sheets, as follows:

-->
<!ELEMENT iprp-annexes-sheet  (iprp-beyond-disclosure?,
               iprp-rectifications-authorized?,
               iprp-rectifications-not-authorized?) >

<!ATTLIST iprp-annexes-sheet
               page-count  CDATA    #IMPLIED  >

<!--Sheets of the description, claims and/or drawings which have been amended and
are
the basis of this report and/or sheets containing rectifications authorized by
this Authority
(see Rule 70.16 and Section 607 of the Administrative Instructions)

-->
<!ELEMENT iprp-beyond-disclosure   EMPTY  >

<!--Sheets which supersede earlier sheets, but which this Authority considers
contain
an amendment that goes beyond the disclosure in the international application as
filed, as indicated in item 4 of Box No. I and the Supplemental Box.

-->
<!ELEMENT iprp-rectifications-authorized   EMPTY  >

<!--sheets containing rectifications, where the decision was made by this Authority
not to take them into account because
they were not authorized by or notified to this Authority at the time when this
Authority began to draw up this report,
and any accompanying letters (Rules 66.4bis, 70.2(e), 70.16 and 91.2).

-->
```

```
<!ELEMENT iprp-rectifications-not-authorized   EMPTY  >

<!--A total of (indicate type and number of electronic carrier(s))
_________________ ,
containing a sequence listing and/or tables related thereto, in computer readable
form only, as indicated in the Supplemental Box Relating to Sequence Listing
(see Section 802 of the Administrative Instructions).

-->
<!ELEMENT iprp-annexes-electronic-carrier   EMPTY  >

<!ATTLIST iprp-annexes-electronic-carrier
               quantity  CDATA    #IMPLIED  >

<!--sis-received-and-considered
Supplementary international search report was received and considered
in the redaction of the opinion. Office code according to ST.3.
-->
<!ELEMENT sis-received-and-considered  (#PCDATA) >

<!--Office is the ST.3 country code, including the regional authorities.
Office-dtd is the file which contains the DTD for the office-specific elements.
-->
<!ELEMENT office-specific-data
     (%wo_specific_data; %country_specific_data;)
>

<!ATTLIST office-specific-data
               id  ID    #IMPLIED
               file  CDATA    #REQUIRED
               lang  CDATA    #IMPLIED
               office  CDATA    #REQUIRED
               office-dtd  CDATA    #REQUIRED
               status  CDATA    #IMPLIED  >

<!--********************************
DOC-PAGE
********************************
doc-page - DOCument or PAGE

This is primarily to be used when data for the whole or major sections of an
application are in image format OR other formats such as pdf.

Page range attributes are given when required
pp - page range
ppf - first page
ppl - last page (for pdf).
The 'img' may also be used for complete pages, e.g. in drawings

EPO Required usage:
- in the EP publication process this tag is only likely to be used for the
search report; then we use:
- id="srep0001"
- file="srep0001.tif"

- in all other cases use:
- id="docp0001"
- file="docp0001.tif"

** Note: ocr attribute added NOT ANNEX F compatible - for OCR project? CHECK

Example:
<search-report-data id="srep" srep-office="EP" date-produced="20050308">
<doc-page id="srep0001" file="srep0001.tif" he="231" wi="159" type="tif" />
<doc-page id="srep0002" file="srep0002.tif" he="231" wi="159" type="tif"/>
</search-report-data>
-->
<!ELEMENT doc-page   EMPTY  >
```

```
<!ATTLIST doc-page
               id  ID    #IMPLIED
               file  CDATA    #REQUIRED
               wi  CDATA    #REQUIRED
               he  CDATA    #REQUIRED
               type (jpg | pdf | tif)   #REQUIRED
               alt  CDATA    #IMPLIED
               pp  CDATA    #IMPLIED
               ppf  CDATA    #IMPLIED
               ppl  CDATA    #IMPLIED
               ocr  CDATA    #IMPLIED
               color (color | bw)   #IMPLIED
               orientation (portrait | landscape)  "portrait" >

<!--*******************************
HEADINGS
*******************************

EPO required usage:
- id="h0001", "h0002", etc.
- level="1" etc MAY be used and are used in PatXML files

EPO PatXML uses:
- For level 1: left justified, bold, line break
- For level 2: left justified, underlined, line
- For level 3: left justified, line break,
but the rendering tags are included within the <heading>; eg. <b>

- For ALL other headings entered by the contractor just use <heading> using
bold etc as entered by the applicant
BUT left justified,
DO NOT USE level attribute UNLESS it is a PatXML file which can be left "as is".
-->
<!ELEMENT heading  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!ATTLIST heading
               id  ID    #IMPLIED
               level (1 | 2 | 3)   #IMPLIED  >

<!--Bold formatting for text-->
<!ELEMENT b  (#PCDATA | i | u | o | smallcaps | sup | sub)* >

<!--Italic formatting for text-->
<!ELEMENT i  (#PCDATA | b | u | o | smallcaps | sup | sub)* >

<!--Underscore: style - single is default-->
<!ELEMENT u  (#PCDATA | b | i | smallcaps | sup | sub)* >

<!ATTLIST u
               style (single | double | dash | dots)  "single" >

<!--Small capitals-->
<!ELEMENT smallcaps  (#PCDATA | b | u | i | o)* >

<!--Overscore: style - single is default-->
<!ELEMENT o  (#PCDATA | b | i | smallcaps | sup | sub)* >

<!ATTLIST o
               ostyle (single | double | dash | dots | leftarrow | rightarrow |
               leftrightarrow)  "single" >

<!--Superscripted text-->
<!ELEMENT sup  (#PCDATA | b | u | i | o | sup2 | sub2)* >

<!--Superscripted text-->
<!ELEMENT sup2  (#PCDATA | b | u | i | o)* >

<!--Subscripted text-->
<!ELEMENT sub2  (#PCDATA | b | u | i | o)* >
```

```
<!--Subscripted text-->
<!ELEMENT sub  (#PCDATA | b | u | i | o | sup2 | sub2)* >

<!--*********************************************************************************
START SECTION FORMATTING TAGS
**********************************************************************************

*******************************
PARAGRAPH
*******************************

EPO Required usage:
- In case of standard paragraphs in the description: id="p0001", "p0002", etc.
- In case of abstracts: id="pa01", "pa02", etc. (more than three is rare)
- In case of amended-claims-statement: id="pc0001", "pc0002", etc.
- In case of search reports: id="ps0001", "ps0002", etc.
- num = 0001, 0002, etc.

EPO style: - always left justified
- precede by para. number in bold as so: [0001]
- para. text indented 7mm from [0001]
- see espacenet for examples

-->

<!ELEMENT p  %p_group; >

<!ATTLIST p
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED  >

<!--br - break, line break within a paragraph, etc
-->
<!ELEMENT br   EMPTY  >

<!--*******************************
PRE
*******************************
- This element is one method to identify content consisting of text objects that
require preservation (pre) of their whitespace in order to preserve internal
logical relationships.
(e.g., sequence listing fragments, computer program listings)
-->
<!ELEMENT pre  (#PCDATA) >

<!ATTLIST pre
               id  ID    #IMPLIED
               xml:space (preserve | default)   #IMPLIED
               listing-type (sequence | program-listing | other)   #REQUIRED  >

<!--*******************************
LISTS
*******************************
DEFINTION LISTS
*******************************
EPO required usage:
- For dl elements in the main part of the document: id="dl0001"
- If parent element is abstract: id="dla01" BUT contractors
should, if possible, not use in abstracts.
(It is not used in PatXML in abstracts)
- tsize: this is optional and not used in PatXML
files (similar to HTML).
- Old SGML files have the value of the length of the first <dt> this can be removed
- For new processing tsize is not required; layout will depend on style sheet
- This follows HTML practice

Example:
```

```
Old file:

<DL TSIZE=10>
<DT>Fig. 1<DD>shows a 3D surface plot ..
<DT>Fig. 2a<DD>is a schematic diagram ...
</DL>

New file

<dl id="dl0001">
<dt>fig. 1</dt><dd>shows a 3d surface plot ..</dd>
<dt>fig. 2a</dt><dd>is a schematic diagram ...</dd>
</dl>


-->
<!ELEMENT dl  (dt,dd)+ >

<!ATTLIST dl
               id  ID    #IMPLIED
               tsize  CDATA    #IMPLIED
               compact (compact)   #IMPLIED  >

<!--Term to be defined

Recommended id="dt0001",etc
EPO required usage:
NOT USED IN EPO.
-->
<!ELEMENT dt  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!ATTLIST dt
               id  ID    #IMPLIED  >

<!--Definition description
-->
<!ELEMENT dd  (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit
|
               nplcit | bio-deposit | crossref | figref | img | ul | ol | chemistry
|
               maths)* >

<!--PATENT CITATIONS: (ST.32:B561) Patent Citation within abstract, description or
claims.
For patent citations within Search Report see Search Report DTD Notes: Tags
arranged according to WIPO ST.14 order.
This can be free text data without any structure (text).
Example:
<patcit id='pcit0001' dnum='US4793675A' dnum-type='publication number'>
<document-id> <country>US</country> <doc-number>4793675</doc-number> <kind>A</kind>
<name>Handa</name> <date>19881227</date>
</document-id>
</patcit>
Note: It is NOT expected that the applicant will create the tagged data -
it could be generated from a 'pull down' data entry form or generated from
internal SR databases
Attributes (recommended):
id - pcit0001, pcit0002, etc.
num - 0001, 0002, etc. dnum - use full number as one string, eg, "US5401234A";
url - where possible give full web link to patent file - file name eg.
if stored on local systems dnum-type - type of document number
(e.g., application number, publication number)

REMOVED rel-passage NOT USED
-->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!ATTLIST patcit
               id  ID    #IMPLIED
```

```
                num  CDATA    #IMPLIED
                dnum  CDATA    #IMPLIED
                dnum-type  CDATA    #IMPLIED
                file  CDATA    #IMPLIED
                url  CDATA    #IMPLIED  >

<!-- INCLUDED BY INHERITANCE  -->
<!--If no structure is possible, enter text (without markup)-->
<!--<!ELEMENT text  (#PCDATA) >-->

<!-- INCLUDED BY INHERITANCE  -->
<!--Document identification refers to patents (and patent applications) only. See
WIPO ST.14-->
<!--<!ELEMENT document-id  (country,doc-number,kind?,name?,date?) >-->

<!-- INCLUDED BY INHERITANCE  -->
<!--Country: use ST.3 country code; e.g. DE, FR, GB, NL, etc. Also includes EP,
WROP-->
<!--<!ELEMENT country  (#PCDATA) >-->

<!-- INCLUDED BY INHERITANCE  -->
<!--The number of the referenced patent (or application) document-->
<!--<!ELEMENT doc-number  (#PCDATA) >-->

<!-- INCLUDED BY INHERITANCE  -->
<!--Document kind code; e.g., A1 (INID 13, ST.32:B130)-->
<!--<!ELEMENT kind  (#PCDATA) >-->

<!-- INCLUDED BY INHERITANCE  -->
<!--Name: If no distinction or detail can be given. Also to be used for: personal
(natural person) and corporate (legal entity) names-->
<!--<!ELEMENT name  (#PCDATA) >-->

<!--Relevant passage group within patent; most used in search reports - use text in
abstract, description and claims-->
<!ELEMENT rel-passage  (text | (passage+,(category,rel-claims?)*, additional-
info?)) >

<!--Passage within the cited patent literature-->
<!ELEMENT passage  (#PCDATA) >

<!--Category (ST.32:B563)-->
<!ELEMENT category  (#PCDATA) >

<!--Relevant claims
see example above
-->
<!ELEMENT rel-claims  (#PCDATA) >

<!--Non-Patent Literature (NPL) CITation;
Notes: This can be free text data without any structure (#PCDATA) which is
NOT recommended or it can be highly structured data which is marked up according
to ST.14 and ISO 690 layout; This part of the DTD has used many different sources
for element names and DTD structure and reference: AACR2 / MARC ISO 12083 -
$Electronic manuscript prep. and markup. DTD Association of American Publishers
(AAP) Z39.59 DTD European Working Group for SGML (EWS) MAJOUR DTD SuperJournal
Full Article DTD www.superjournal.ac.uk/sj Elsevier DTD Medline DTD (NLM)

Attributes (recommended):
Â¨
id - ncit0001, ncit0002, etc

num - 0001, 0002

npltype - The TYPE of citation is office specific (recommended):;
A - Abstract citation of no specific kind
B - Book citation I - Bilogical abstract citation
C - Chemical abstracts citation E - Database citation
D - Derwent citation
```

```
P - Patent cited within NPL group
J - Patent Abstracts of Japan citation (REC 067)
S - Serial / Journal / Periodical citation
W - World Wide Web / Internet search citation

medium - the type of medium e.g., CD (CD-ROM), MT (Magnetic Tape), DISK,
ONLINE

file - file name on local systems eg. XP number in EPO

url - where possible give full web link to document

REMOVED rel-passage NOT USED
-->
<!ELEMENT nplcit ((text | article | book | online | othercit) , rel-passage*)>

<!ATTLIST nplcit
               id  ID    #IMPLIED
               num  CDATA    #IMPLIED
               lang  CDATA    #IMPLIED
               file  CDATA    #IMPLIED
               npl-type  CDATA    #IMPLIED
               medium  CDATA    #IMPLIED
               url  CDATA    #IMPLIED  >

<!--Article citations within a 'host' document After patent citations the most
common citations are articles within serials (periodicals, magazines), books and
electronic (eg. internet) sources. This is a very complex and varied area to
standardise. The tag set below is drawn from a number of sources as is the order of
the tags (which in any case can be changed depending on the stylesheet used).; The
order of tags is that of WIPO ST.14 / ISO 690 layout. DROP, J.G. Integrated Circuit
Personalization at the Module Level. IBM Tech. Dis. Bull. October 1974, Vol. 17,
No. 5, p. 1344 and 1345. [XPnnnnnnnnnnn]. <nplcit id='ncit1' num='0012' type='S'
file='XP1234456'> <article> <author> <name>DROP, J.G.</name> </author>
<atl>Integrated Circuit Personalization at the Module Level</atl> <serial>
<sertitle>IBM Tech. Dis. Bull.</sertitle> <pubdate>19741000</pubdate> <vid>17</vid>
<ino>5</ino> </serial> <location> <pp>1344 and 1345</pp> </location> <refno
id='XP1'>XP1234456</refno> </article> </nplcit> Note: it is NOT expected that the
applicant will create the tagged data - it can be generated from a 'pull down' data
entry form (eg. in Word) or generated from internal SR databases-->
<!ELEMENT article  (text | (author*,atl?,subname*,(serial | book),absno?,location?,
               class*,keyword*,cpyrt?,artid?,refno*)) >

<!--Author Prime responsibility for the work there is no distinguishing between
personal and corporate authors <author> followed by name or addressbook information
use the ID attribute if, for example, there is a need to distinguish between
multiple authors. Can also include affiliation details Recommended id = auth0001,
auth0002, etc.-->
<!ELEMENT author  (((name | (prefix?,(last-name | orgname),first-name?,middle-
name?,
               first-last-name?,second-last-name?,suffix?,iid?,role?,orgname?,
               department?,synonym*)),registered-number?) | addressbook) >

<!ATTLIST author
               id  ID    #IMPLIED  >

<!--Article title-->
<!ELEMENT atl  (#PCDATA) >

<!--Subordinate responsibility; e.g., editor, translator, etc.-->
<!ELEMENT subname  (((name | (prefix?,(last-name | orgname),first-name?,middle-
name?,
               first-last-name?,second-last-name?,suffix?,iid?,role?,orgname?,
               department?,synonym*)),registered-number?) | addressbook) >

<!ATTLIST subname
               subname-type (editor | translator | other-subname-type)  "editor"
                >
```

```
<!--Serial citation data: This describes the volume or issue as a whole and not a
particular article within it.-->
<!ELEMENT serial  (sertitle,alttitle?,subname*,issue?,imprint?,pubdate?,descrip?,
              notes?,pubid?,vid?,ino?,doi?,issn?,isbn?,cpyrt?) >

<!--Serial title-->
<!ELEMENT sertitle  (#PCDATA) >

<!--Alternate title for serial; e.g. BMJ = British Medical Journal-->
<!ELEMENT alttitle  (#PCDATA) >

<!--Issue designation; e.g., Annual, 1971-, 1890-1972-->
<!ELEMENT issue  (#PCDATA) >

<!--Imprint: Publication / creation data Place of publication : publisher, date(s)
of publication usually only date of publication is used for journal citations-->
<!ELEMENT imprint  (text | (address?,name,pubdate*)) >

<!--Publication date used in npl citations-->
<!ELEMENT pubdate  (#PCDATA | sdate | edate | time)* >

<!--Start date used in pubdate-->
<!ELEMENT sdate  (#PCDATA) >

<!--End date used in pubdate-->
<!ELEMENT edate  (#PCDATA) >

<!--Time; format HHMM-->
<!ELEMENT time  (#PCDATA) >

<!--Physical description - generally NOT used in citations in pats; e.g., v., 27cm-
->
<!ELEMENT descrip  (#PCDATA) >

<!--Notes about the journal; e.g. Continues Journal of XYZ 1910-1998, published in
French and English, etc.-->
<!ELEMENT notes  (#PCDATA) >

<!--Publisher's unique id-->
<!ELEMENT pubid  (#PCDATA) >

<!--Volume id/number-->
<!ELEMENT vid  (#PCDATA) >

<!--Issue number-->
<!ELEMENT ino  (#PCDATA) >

<!---->
<!ELEMENT doi  (#PCDATA) >

<!--International Standard Serial Number-->
<!ELEMENT issn  (#PCDATA) >

<!--International Standard Book Number-->
<!ELEMENT isbn  (#PCDATA) >

<!--Copyright info. Copyright of publisher of serial-->
<!ELEMENT cpyrt  (#PCDATA) >

<!--Book citation In the order specified by WIPO ST.14 and ISO 690 and AACR2 rules
for layout WALTON, Herrmann. Microwave quantum theory. London : Sweet and Maxwell,
1973. ISBN 0123456789. Vol.2, p. 138 to 192. <nplcit id='ncit12' num='0013'
type='b'> <book> <author> <name>WALTON, Herrman</name> </author> <book-
title>Microwave quantum theory</book-title> <imprint> <address> <text>London</text>
</address> <name>Sweet and Maxwell</name> <pubdate>19730000</pubdate> </imprint>
<location> <pp>138 to 192</pp> </location> <isbn>0-1234-568-9</isbn> </book>
</nplcit>-->
<!ELEMENT book  (text | (author*,(book-title+ | conference),(subtitle?,subname*,
```

```
edition?,imprint?,vid?,ino?,descrip?,series?,notes?,absno?,location*,
               pubid?,bookno?,class*,keyword*,cpyrt?,doi?,issn?,isbn*,refno*))) >

<!--The title of the cited book-->
<!ELEMENT book-title  (#PCDATA) >

<!--CONFERENCE GROUP / CITATION There is no standard way of citing conference
proceedings; date of the conf. may come before or after place, for example. The
tags are specified in a set order where it is not possible or correct then simply
use <text>-->
<!ELEMENT conference  (text |
(conftitle,confdate?,confno?,confplace?,confsponsor*)) >

<!--Conference title-->
<!ELEMENT conftitle  (#PCDATA) >

<!---->
<!ELEMENT confdate  (date | (sdate,edate)) >

<!--Conference number-->
<!ELEMENT confno  (#PCDATA) >

<!--Conference place-->
<!ELEMENT confplace  (#PCDATA | address)* >

<!--Conference sponsor-->
<!ELEMENT confsponsor  (#PCDATA | addressbook)* >

<!--Book subtitle-->
<!ELEMENT subtitle  (#PCDATA) >

<!--Edition statement (ST.32:B516)-->
<!ELEMENT edition  (#PCDATA) >

<!--Series statement-->
<!ELEMENT series  (text | (mst,msn?,issn?)) >

<!--Monographic series title-->
<!ELEMENT mst  (#PCDATA) >

<!--Monographic series number-->
<!ELEMENT msn  (#PCDATA) >

<!--Abstract number-->
<!ELEMENT absno  (#PCDATA) >

<!--Location within the cited work-->
<!ELEMENT location  (text | (serpart?,sersect?,chapter?,pp?,column?,para?,line?)) >

<!--Part within a serial-->
<!ELEMENT serpart  (#PCDATA) >

<!--Serial section-->
<!ELEMENT sersect  (#PCDATA) >

<!--Chapter; e.g., in a book. Example: Chapter 2-->
<!ELEMENT chapter  (#PCDATA) >

<!--Cited document page numbers-->
<!ELEMENT pp  (#PCDATA | ppf | ppl)* >

<!--Cited document page , first-->
<!ELEMENT ppf  (#PCDATA) >

<!--Cited document page, last-->
<!ELEMENT ppl  (#PCDATA) >

<!--Cited document column numbers-->
<!ELEMENT column  (#PCDATA | colf | coll)* >
```

```
<!--Cited document column, first-->
<!ELEMENT colf  (#PCDATA) >

<!--Cited document column, last-->
<!ELEMENT coll  (#PCDATA) >

<!--Referenced paragraph within cited work-->
<!ELEMENT para  (#PCDATA | paraf | paral)* >

<!--Cited paragraph, first-->
<!ELEMENT paraf  (#PCDATA) >

<!--Cited paragraph, last-->
<!ELEMENT paral  (#PCDATA) >

<!--Referenced line within cited work-->
<!ELEMENT line  (#PCDATA | linef | linel)* >

<!--Cited document line, first-->
<!ELEMENT linef  (#PCDATA) >

<!--Cited document line, last-->
<!ELEMENT linel  (#PCDATA) >

<!--Book number-->
<!ELEMENT bookno  (#PCDATA) >

<!-- INCLUDED BY INHERITANCE-->
<!--Classification code; e.g., ipc, dewey etc.-->
<!--<!ELEMENT class  (#PCDATA) >-->

<!--Keyword; e.g., from a Thesaurus or class. scheme (ST.32:B550)-->
<!ELEMENT keyword  (#PCDATA) >

<!--Reference number (general); for the EPO this is the XP number-->
<!ELEMENT refno  (#PCDATA) >

<!ATTLIST refno
               id  ID    #IMPLIED  >

<!--Article unique ID - assigned by a publisher to an article-->
<!ELEMENT artid  (#PCDATA) >

<!--Online citation Revised according to ISO-690-2 - Electronic documents and parts
thereof. Please refer to this standard for definitions and examples. See:
http://www.nlc-bnc.ca/iso/tc46sc9/standard/690-2e.htm#Contents The tagging in fact
is a mixture of article and book tags together with specific electronic source
tags. 'Online' is taken to mean any kind of electronic documentation: databases,
internet, CD-Roms, DVD, email, etc EXAMPLES:; Kirk-Othmer Encyclopedia of Chemical
Technology [online]. 3rd ed. New York : John Wiley, 1984 [cited 3 January 1990].
Available from: DIALOG Information Services, Palo Alto (Calif.). <nplcit id='ncit1'
num='0001' type='E' medium='online'> <online> <online-title>Kirk-Othmer
Encyclopedia of Chemical Technology </online-title> <edition>3rd ed.</edition>
<imprint> <address> <text>New York</text> </address> <name>John Wiley</name>
<pubdate>19840000</pubdate> </imprint> <avail>dialog information services, palo
alto (calif.).</avail> <datecit> <date>19900103</date> </datecit> </online>
</nplcit> * Article on Internet: Clark, Carol. On the Threshold of a Brave New
World. In Blueprint of the Body [online]. CNN.com, 2000. [cited 24 August
2000;10:25 EST]. In-depth specials. Available from:
[http://www.cnn.com/SPECIALS/2000/genome/story/overview/] <nplcit id='ncit1'
num='0002' type='E' medium='online'> <online> <author> <name>Clark, Carol</name>
</author> <online-title>On the Threshold of a Brave New World</online-title>
<imprint> <name>CNN.com, 2000</name> </imprint> <series> <text>In-depth
specials</text> </series>
<avail>http://www.cnn.com/SPECIALS/2000/genome/story/</avail> <datecit>
<date>20000824; 10:25 est</date> </datecit> </online> </nplcit> * Personal
communication (e-mail) Thacker, Jane. MPEG-21 project stream on digital item
identification [online]. Message to: [iso.tc46.sc9@nlc-bnc.ca]. 3 October 2000;
```

```
13:33 EST [cited 6 October 2000; 13:10 EST]. Message-ID:
[002f01c02d60$051a64a0$22a2580c@vaio]. Personal communication. <nplcit id='ncit3'
num='0003' type='E' medium='online'> <online> <author> <name>Thacker, Jane</name>
</author> <online-title>MPEG-21 project stream on digital item identification
</online-title> <subname> <name>Message to: <iso.tc46.sc9@nlc-bnc.ca></name>
</subname> <pubdate>3 October 2000; 13:33 EST</pubdate> <notes>Personal
communication</notes> <avail>Message-ID:
<002f01c02d60$051a64a0$22a2580c@vaio></avail> <datecit><date>6 october 2000; 13:10
EST</date></datecit> </online> </nplcit>-->
<!ELEMENT online  (text | (author*,online-title*,hosttitle?,subname*,edition?,(
              serial |
book)?,imprint?,pubdate?,vid?,ino?,history?,series?,hostno?,
              absno?,location?,notes?,avail*,class*,keyword*,cpyrt?,doi?,issn?,
              isbn?,datecit?,srchterm*,srchdate?,refno*)) >

<!--The title of the electronic resource-->
<!ELEMENT online-title  (#PCDATA) >

<!--Title of the host document/database-->
<!ELEMENT hosttitle  (#PCDATA) >

<!--History of the article (not serial)-->
<!ELEMENT history  (text | (received | accepted | revised | misc)) >

<!--Date article was received-->
<!ELEMENT received  (date) >

<!--Date article was accepted-->
<!ELEMENT accepted  (date) >

<!--Date article was revised-->
<!ELEMENT revised  (date) >

<!--Miscellaneous information relating to the history of the article; see ISO
12083-->
<!ELEMENT misc  (#PCDATA | date)* >

<!--Numeration within host document-->
<!ELEMENT hostno  (#PCDATA) >

<!--Availability and access - REQUIRED use for URL, online database, ftp address,
email, etc.; e.g., Available from Internet: http://www.epoline.org Available from
DIALOG Information Systems, Palo Alto (Calif.)-->
<!ELEMENT avail  (#PCDATA) >

<!--Date cited - date on which the citation was cited. May be different from
srchdate below-->
<!ELEMENT datecit  (date) >

<!--Search terms-->
<!ELEMENT srchterm  (#PCDATA) >

<!--Date of search/retrieval YYYYMMDD-->
<!ELEMENT srchdate  (date) >

<!--Other citations - free form-->
<!ELEMENT othercit  (#PCDATA | b | i | u | o | sup | sub)* >

<!--Date: components of a date. Format: YYYYMMDD

If no structure is possible, enter text (without markup)

******************************
BIO-DEPOSIT
******************************.
Biological deposit citation
(INID 83, ST.32:B830)
According to PCT Rule 13bis, EPC Rule 32
This covers all bio data references long and short within
```

```
the description and/or claims

Recommended id=biod0001, biod0002, etc.

Used in PatXML files

Corresponding SDOBI tags:
ST.32:B831 - depositary
ST.32:B832 - bio-accno
ST.32:B833 - date
ST.32:B834 - term
ST.32:B835 - dtext
-->
<!ELEMENT bio-deposit  (depositary,bio-accno,date?,term?,dtext?) >

<!ATTLIST bio-deposit
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED
               url  CDATA    #IMPLIED
               dnum  CDATA    #IMPLIED  >

<!--Information regarding the facility storing the biological deposit.
(ST.32:B831)
-->
<!ELEMENT depositary  (#PCDATA | address)* >

<!--Biological accession number:
The identification assigned to the biological material by the depository
(ST.32:B832)
-->
<!ELEMENT bio-accno  (#PCDATA) >

<!--Identifies the period of time during which the depository must be able to
furnish
samples of the biological material.
(ST.32:B834)
-->
<!ELEMENT term  (#PCDATA) >

<!--Cross reference to any other element with an identifier (id)

In PatXML files can be to a table only.
-->
<!ELEMENT crossref  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!ATTLIST crossref
               idrefs  IDREFS    #REQUIRED
               gidrefs  CDATA    #IMPLIED  >

<!--*******************************
REFERENCES:
*******************************
A reference to a figure. May be in PatXML files.
QUESTION: For discussion with contractor ?**

Example:"...as shown in <figref idref='f0001'>Fig.1</figref>..."

-->
<!ELEMENT figref  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!ATTLIST figref
               idrefs  IDREFS    #IMPLIED
               gidrefs  CDATA    #IMPLIED
               num  CDATA    #IMPLIED  >

<!--*******************************
IMAGE DATA
*******************************
Image is used for any kind of image: drawings, art work,
```

```
figures, complex work units (math, tables, chemistry), etc.

EPO Required usage:
the following attributes must be used in this order:
- id
- file
- wi (in mm) - note wi and he can be in any order (old Datimtex files are he and
wi)
- he (in mm)
- img-content="drawing" (default - may be other - see below)
- img-format="tif" (default - no other)
- orientation="portrait" (default for PATXML files - may be landscape)
- inline may be used
- alt is NOT used

- id and file values:
- For figures within the DRAWINGS section:
id="if0001", etc.
file="imgf0001.tif" (where f = figure)
- For images within the DESCRIPTION and CLAIMS section:
id="ib0001", etc.
file ="imgb0001.tif" (where b = body)
- For images within the BODY of the ABSTRACT section eg a chemical formula
id="ia01", etc.
file ="imga0001.tif" (where a = abstract)
- For the figure to accompany the ABSTRACT section (abstract drawing): Taken from
the drawings section NOT in PatXML files.
id="iaf01", etc.
file ="imgaf001.tif" (where af = abstract figure)

Example:

<img id="if0001" file="imgf0001.tif" wi="155" he="230" img-content="drawing" img-
format="tif"/>

Note: where images occur, possibly, in other sections, eg. search report data use
similar logic.
-->
<!ELEMENT img   EMPTY  >

<!ATTLIST img
               id  ID    #IMPLIED
               file  CDATA    #REQUIRED
               wi  CDATA    #REQUIRED
               he  CDATA    #REQUIRED
               img-content (drawing | photograph | character | dna | undefined |
               chem | table | math | program-listing | flowchart | graph)
               "drawing"
               img-format (jpg | tif | st33 | st35)   #REQUIRED
               orientation (portrait | landscape)  "portrait"
               inline (yes | no)  "no"
               alt  CDATA    #IMPLIED  >

<!--*******************************
UNORDERED LISTS:
*******************************

List-style may be empty for lists with no bullet or other symbol
default list-style is 'bullets'.

EPO required usage:
- for ul element in the description: id="ul0001"
- If parent element is abstract: id="ula01"; BUT contractors
should, if possible, not use in abstracts just type in the
numbers as text (not used in PatXML)
- list-style: "none" means "none" or other type of symbol;
that is if the applicant used
some other symbol use this and then in the body of the text enter that symbol
- bullet and dash may be used
```

```
- compact


EPO style: indent whole list 6mm from left margin

Example:
<ul id="ul0001" list-style="bullet">

-->
<!ELEMENT ul  (li+) >

<!ATTLIST ul
               id  ID    #IMPLIED
               list-style (bullet | dash | none)  "bullet"
               compact (compact)   #IMPLIED  >

<!--LIST ITEM
EPO required usage:
- DO NOT USE ID
-->
<!ELEMENT li  (#PCDATA | b | i | u | o | sup | sub | smallcaps | br | pre | patcit
|
               nplcit | bio-deposit | crossref | figref | img | dl | ul | ol |
               chemistry | maths)* >

<!ATTLIST li
               id  ID    #IMPLIED
               num  CDATA    #IMPLIED  >

<!--*******************************
ORDERED LISTS:
*******************************

EPO required use:
- For ol elements in the main part of the document id="ol0001"
- If parent element is abstract:id="ola01";BUT contractors
should, if possible, not use in abstracts just type in the
numbers as text.

EPO PatXML style ONLY for three levels and ONLY in the description:
- level 1 use arabic numbers 1, 2, 3, ...
- level 2 use lower alpha a, b, c, ...
- level 3 use lower roman i, ii, iii, ...

Early PatXML files <ol> is nested as above.

Example (from PatXML version 1.4) :
<ol id="ol0001" ol-style="1.">
<ol id="ol0001" ol-style="a.">
<ol id="ol0001" ol-style="i.">

Contractors: For all other cases (ie non-PatXML) leave the style
empty and insert the actual numbering in the text after <li>:

EPO style: indent whole list 6mm from left margin

Example:
<ol id="ol0001" ol-style="">
<li>1.1 List item 1.1</li>
</ol>

-->
<!ELEMENT ol  (li+) >

<!ATTLIST ol
               id  ID    #IMPLIED
               compact (compact)   #IMPLIED
               ol-style  CDATA    #IMPLIED  >
```

```
<!--*******************************
CHEMISTRY
*******************************
Chemical formulae, ring structures, Markush structures, etc.

** Added 2006-02-08 - <formula-text> as alternative to image for very simple
chemical "formulaes" where it would be useful to indentify them as such.

EPO required usage:
- For now treat as image or text data.
- Depending on industry support we may use, e.g. CML later
- For chemistry elements in the main part of the document:
id="chem0001".
- For chemistry elements in the abstract:id="chema01";
- num = 0001, 0002, etc.
-->
<!ELEMENT chemistry  (img | formula-text | (chem,img?)) >

<!ATTLIST chemistry
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED  >

<!--NEW data element for v.1.1:
formula-text allows the data entry of very simple formulae
without the verbosity of full mark up of maths and when available for chemistry
-->
<!ELEMENT formula-text  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!--This is a pointer to an external DTD for
chemical markup - to be determined.
IDEA: For EPO probably CML; http://www.xml-cml.org/ ?**
-->
<!ELEMENT chem   EMPTY  >

<!ATTLIST chem
               id  ID    #IMPLIED
               file  CDATA    #REQUIRED
               chem-type  CDATA    #IMPLIED  >

<!--This is image data or coded according to mathml, version 2

** Added 2006-02-08 - <text> as alternative to image for very simple
maths which do not need rendition and the "heavy coding" of
mathml, eg. 2 x 2 = 4

The top-level element "math" contains MathML encoded
mathematics. The "math" element has the browser info
attributes if it is also the browser interface element.

EPO required usage:
- id="math0001"
- If parent element is abstract: id="matha01"
- num="0001", 0002, etc. OR
- use the value given by the applicant, usually in
parenthesis to the (right) side of the formula, eg. (1)
- old SGML files:
<DF NUM="(1)"> becomes <maths id="math0001" num="(1)">
if there is no number:
<maths id="math0001" num="">
-->
<!ELEMENT maths  (img | formula-text | (math,img?)) >

<!ATTLIST maths
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED  >

<!--Legal reference
Reference to a law document
-->
```

```
<!ELEMENT legalref  (#PCDATA | b | i | u | o | sup | sub | smallcaps)* >

<!--********************************
TABLES
*********************************
This is image data or coded according to OASIS Exchange model with modified cell
'entry' and 'title' content.

EPO required usage:
- id="tabl0001" etc.
- If parent element is abstract: id="tabla01";
- num="0001" etc.
- tables may be images or marked up. Mark up should be the default

The parameter entities defined by the CALS table model as published
(as part of the Example DTD) in MIL-HDBK-28001, have been removed
and replaced by the corresponding values, to simplify reading. LS
-->
<!ELEMENT tables  (img | table) >

<!ATTLIST tables
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED  >

<!--*******************************
TABLE EXTERNAL - NOT USED
*******************************
References a stand-alone table authored with the table-external DTD.
This is unlikely to be used by the EPO
-->
<!ELEMENT table-external-doc  (#PCDATA) >

<!ATTLIST table-external-doc
               id  ID    #IMPLIED
               file  CDATA    #REQUIRED
               lang  CDATA    #IMPLIED
               carriers (internal-electronic | external-electronic | paper)
                #IMPLIED
               external-type (math | chemistry | program-listing | other)
                #IMPLIED
               status  CDATA    #IMPLIED  >

<!--written-opinion-request
A written opinion is based on a set of documents (description, claims,
drawings, sequence listing material) on file, generally referred to as a
request. Although in PCT there is generally only one request on file, some
offices authorise the applicant to have multiple requests on file, each being
handled separately in a written opinion.

id
Id for the request, suggested values (combine id of written-opinion followed by
the sequence number) e.g. : wo-01-01

num
Identifies the level of the request, e.g.: 0=main request, 1=first
auxiliary request, ...

request-allowable
Indicates if the request meets all the criteria for patentability.

-->
<!ELEMENT written-opinion-request  (%written_opinion_request_group;) >

<!ATTLIST written-opinion-request
               id  ID    #IMPLIED
               num  CDATA    #REQUIRED
               request-allowable (yes | no)   #IMPLIED  >

<!--application-documents
```

```
Wrapper element to indicate the documents that form part of the request, i.e.
which have considered for the establishment of the opinion.
-->
<!ELEMENT application-documents  (%application_documents_group;) >

<!--translation-of-appl
Indicates that a translation of the application is on file.

translation
A translation has been provided or not.

lang
Language into which the application has been translated.

translation-purpose
The reason for which the translation was submitted.
- international-search
Rules 12.3(a) and 23.1(b) PCT, the translation was submitted for
the purpose of international search.
- international-publication
Rule 12.4(a) PCT, the translation was submitted for the purpose
of the international publication
- supplementary-international-search
Rule 45bis.1(c)(i) PCT, the translation was submitted for the
purpose of a supplementary international search
- international-examination
Rules 55.2(a) and/or 55.3(a) PCT, the translation was submitted
for the purpose of international examination (including amendments).
- entry-regional-phase
The translation was submitted when entering a regional phase
-->
<!ELEMENT translation-of-appl   EMPTY  >

<!ATTLIST translation-of-appl
               translation (yes | no)   #REQUIRED
               lang  CDATA    #IMPLIED
               translation-purpose (international-search |
               international-publication | supplementary-international-search |
               international-type-search | international-preliminary-examination |
               entry-regional-phase | priority-document | national-search |
               national-examination | opposition)   #IMPLIED  >

<!--application-documents-description
Indicates the documents of the description on which the opinion is based.
-->
<!ELEMENT application-documents-description  (application-document+) >

<!--application-document
Part of a document provided as basis.

value
Describes the value of the tag, e.g. whether it refers to pages, claims, ...
- free-text
Take the value as is. Not allowed in PCT.
- page, paragraph
Identifies a part of the description as page or paragraph.
- claim
Identifies a claim.
- sheet, figure
Identifies a part of the drawings either a sheet or a specific figure.

basis, basis-other
Indicates the basis of the provided documents: as filed (default), amended,
cancelled, ignored. after-search-report cover the specific
case of Article 19(1) PCT.
basis-other is intended to provided for extension for national procedures.

basis-format
the support by which the documents were filed.
```

```
basis-date, basis-received
The date of drafting and the date of receipt of the document indicating
the changes.

EXAMPLE 1
Pages 1-5 as originally filed:

<application-document value="page" basis="as-filed">1-5</application-document>

EXAMPLE 2
Pages 1-5 as originally filed
Page 6 filed with letter of 12 january 2009 received on 15
january 2009
Pages 7-10 filed electronically on 25 march 2009
Claims 1-10 filed electronically on 25 march 2009
Claims 12-15 cancelled with letter of 12 january 2009 received on 15
january 2009

<application-document value="page" basis="as-filed">1-5</application-document>
<application-document value="page" basis="amended" basis-format="letter"
basis-date="20090112" basis-received="20090115">6</application-document>
<application-document value="page" basis="amended" basis-format="electronic"
basis-received="20090325">7-10</application-document>
<application-document value="claim" basis="amended" basis-format="electronic"
basis-received="20090325">1-10</application-document>
<application-document value="claim" basis="cancelled" basis-format="letter"
basis-date="20090112" basis-received="20090115" >12-15</application-document>

-->
<!ELEMENT application-document  (text+ | (range-from,range-to?)+) >

<!ATTLIST application-document
               id  ID    #IMPLIED
               basis (as-filed | after-search-report | entry-regional-phase |
                      amended | cancelled | ignored | application-published |
                      specification-published | iper | filed-with-demand |
                      introduced-by-examiner | requested-by-applicant)   #IMPLIED
               basis-other  CDATA    #IMPLIED
               basis-format (letter | fax | electronic | interview |
                             oral-proceedings | other)   #IMPLIED
               basis-date  CDATA    #IMPLIED
               basis-received  CDATA    #IMPLIED
               idrefs  IDREFS    #IMPLIED
               gidrefs  CDATA    #IMPLIED  >

<!--range-from
Start of a range of reference to document part.
e.g. page 3 column 2 line 3 - 10
-->
<!ELEMENT range-from  (range-position+) >

<!--range-position
Element to define a position in a document
e.g. page 3
-->
<!ELEMENT range-position  (#PCDATA) >

<!ATTLIST range-position
               value (page | column | line | paragraph | claim | sheet | figure)
                #REQUIRED  >

<!--range-to
Start of a range of reference to document part.
-->
<!ELEMENT range-to  (range-position+) >

<!--application-documents-claims
Indicates the documents of the description on which the opinion is based.
```

```
-->
<!ELEMENT application-documents-claims  (application-document+) >

<!--application-documents-drawings
Indicates the documents of the description on which the opinion is based.
-->
<!ELEMENT application-documents-drawings  (application-document+) >

<!--application-documents-sequence-list
Indicates the documents of the description on which the opinion is based.
-->
<!ELEMENT application-documents-sequence-list  (material-of-sequence-list,
               material-of-sequence-listing-cancelled?,
               material-of-sequence-listing-ignored?,
               presentation-of-statements?, without-compliant-sequence-list?,
additional-info?) >

<!--material-of-sequence-list
Basis of any nucleotide and/or amino acid sequence disclosed in the
international application and necessary to the claimed invention.
Typically used in written opinions to provide the basis, e.g. in forms
PCT/ISA/237, PCT/IPEA/408, PCT/IPEA/409.

sequence-listing
Sequence listings were filed (default yes)

table
table(s) were filed.

paper
Submitted in paper.

electronic
Submitted electronically (default yes).

filing
Time of filing/cancellation of sequence listing material
- in-application-as-filed
Contained in the international application as filed. Empty
tag.
- electronically-with-application
Filed together with the international application in electronic
form. Empty tag
- submitted-for-search-or-exam
Submitted subsequently to this Authority for the purposes of
search and/or examination. Empty tag
- amendment
Received by this Authority as amendment. The tag contains the
date of reception of the sequence listing material.

amendment-received-on
Date of receipt of the amended material.

cancelled
Indicates that the part was cancelled.

ignored
Indicates that the part (amendement) was ignored because it was
considered to go beyond the application as originally filed.
-->
<!ELEMENT material-of-sequence-list  (sequence-listing-material-type,
               sequence-listing-material-format,sequence-listing-filing-time) >

<!--a. type of material

-->
<!ELEMENT sequence-listing-material-type   EMPTY  >

<!ATTLIST sequence-listing-material-type
```

```
                sequence-listing (yes | no)  "yes"
                table (yes | no)   #REQUIRED  >

<!--b. format of material

-->
<!ELEMENT sequence-listing-material-format   EMPTY  >

<!ATTLIST sequence-listing-material-format
                paper (yes | no)   #REQUIRED
                electronic (yes | no)  "yes" >

<!--c. time of filing/furnishing

-->
<!ELEMENT sequence-listing-filing-time  (#PCDATA) >

<!ATTLIST sequence-listing-filing-time
                in-application (yes | no)   #REQUIRED
                together-with-application (yes | no)   #REQUIRED
                furnished-for-search (yes | no)   #REQUIRED
                amendment (yes | no)   #IMPLIED  >

<!-- material-of-sequence-listing-cancelled
The amendments have resulted in the cancellation of sequence listing material.
-->
<!ELEMENT material-of-sequence-listing-cancelled (#PCDATA) >

<!-- material-of-sequence-listing-ignored
This opinion has been established as if (some of) the amendments to the sequence
listing material below had not been made, since either they are considered to
go beyond the disclosure as filed, or they were not accompanied by a letter
indicating the basis for the amendments in the application as filed.
-->
<!ELEMENT material-of-sequence-listing-ignored (#PCDATA) >

<!--presentation-of-statements
In addition, in the case that more than one version or copy of a sequence
listing and/or table relating thereto has been filed or furnished,
the required statements that the information in the subsequent or
additional copies is identical to that in the application as filed or
does not go beyond the application as filed, as appropriate, were
submitted.

submitted
Indicates if the statements were submitted
-->
<!ELEMENT presentation-of-statements   EMPTY  >

<!ATTLIST presentation-of-statements
                submitted (yes | no)   #REQUIRED  >

<!--
  (PCT/ISA/210, PCT/ISA/237, PCT/IPEA/409 and PCT/IPEA/408)

With regard to any nucleotide and/or amino acid sequence
disclosed in the international application and necessary to
the claimed invention, this opinion was established to the
extent that a meaningful opinion could be formed without a
WIPO Standard ST.26 compliant sequence listing.

-->

<!ELEMENT without-compliant-sequence-list EMPTY>

<!--rectification-of-obvious-mistakes
Indicates if the authority took into account the correction of obvious
mistakes under Rule 91 PCT.
```

```
considered
Yes if the authority took the corrections into account.
-->
<!ELEMENT rectification-of-obvious-mistakes   EMPTY  >

<!ATTLIST rectification-of-obvious-mistakes
               considered (yes | no)   #REQUIRED  >

<!--Additional information. (ST.32:B513)
Any observation that does not fit in other elements, typically
comments or suggestions made by an authorized officer or examiner.
Stylesheet:
If no p is provided, generates a standard phrase based on legal-basis,
legal-source and the references to the application documents.
-->
<!ELEMENT additional-info  (%additional_info_group;) >

<!ATTLIST additional-info
               id  ID    #IMPLIED
               idrefs  IDREFS    #IMPLIED
               gidrefs  CDATA    #IMPLIED
               legal-basis  CDATA    #IMPLIED
               legal-source  CDATA    #IMPLIED  >

<!--priority-opinion
This opinion has been established as if no priority hab been claimed.

Suggested value for id: wo-01-01-po
-->
<!ELEMENT priority-opinion  (earlier-appl?,claim-invalid?,additional-info?) >

<!ATTLIST priority-opinion %common_id_attribute_group; >

<!--(PCT/ISA/237 - Box II) - Priority
Priority 1. The following document has not yet been
furnished:
Attribute value:
copy = copy of the earlier application whose priority
has been claimed (Rules 43bis.1 and 66.7(a)).

translation = translation of the earlier
application whose priority has been claimed (Rules 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority
claim. This opinion has nevertheless been established on the assumption that the
relevant date is the claimed priority date.-->
<!ELEMENT earlier-appl   EMPTY  >

<!ATTLIST earlier-appl
               earlier-appl-missing (copy | translation)   #IMPLIED  >

<!--This opinion has been established as if no priority had been claimed due to the
fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus
for the purposes of this opinion, the international filing date indicated above is
considered to be the relevant date.-->
<!ELEMENT claim-invalid   EMPTY  >

<!--non-establishment-of-opinion
Non-establishment of opinion with regard to novelty, inventive step and
industrial applicability.

entire-application
No opinion could be established with respect to the entire application.

complex-application
Indicates whether the objection results in the application to be treated as a
complex application (Articles 17(2)(a)(ii) and 34(4)(a)(ii) PCT
(Rule 63 EPC-2000).
```

```
Suggested value for id: wo-01-01-ne
-->
<!ELEMENT non-establishment-of-opinion  (non-establishment-claims?,non-
establishment-reason*,additional-info*) >

<!ATTLIST non-establishment-of-opinion %common_id_attribute_group;
     complex-application (yes | no)   #IMPLIED
     entire-application (yes | no)   #REQUIRED  >

<!--non-establishment-claims
This element is used to specify the claim numbers for which there is non-
establishment of the written opinion.
-->

<!ELEMENT non-establishment-claims (claim-num*, partially-for-claims?)>

<!ATTLIST non-establishment-claims %common_id_attribute_group;>


<!--non-establishment-reason
No opinion was established with repect to claims, sequence-listing or a
table.

reason
Reason for not establishing an opinion:
- no-opinion-required
The said application or said claims relate to the following
subject matter which does not require an opinion, see statement.
See Article 17(2)(a)(i) or 34(4)(a)(i) PCT (20011003), Article 52(2) EPC 2000.
- unclear
The description, claims or drawings (indicate particular elements
in statement) or said claims are so unclear that no meaningful
opinion could be formed.
See Article 6 PCT (20011003), Article 84 EPC 2000.
- not-supported
The claims, or said claims are so inadequately supported
by the description that no meaningful opinion could be formed.
See Article 5 PCT (20011003), Article 83 EPC 2000.
- no-search-report
No international search report has been established for said
claims.
- added-subject-matter
The ammendements go beyond the application as orginally filed to
such an extent that no examination is possible
See Article 19(2) or 34(2)(b) PCT (20011003), Article 123(2) EPC 2000.
- novelty-overflow
The claims are so broad that the search generated such a number of prior
documents that no meaningful opinion can be established.

All reasons should be accompanied by a statement except for
no-search-report.

Suggested value for id: wo-01-01-ne-01, wo-01-01-ne-02, ...
-->
<!ELEMENT non-establishment-reason  (%claim_defect_group;,p*) >

<!ATTLIST non-establishment-reason %common_id_attribute_group;
     reason (no-opinion-required | unclear | not-supported |
     no-search-report | added-subject-matter | novelty-overflow |
     sequence-listing ) #REQUIRED                >

<!--*************************************************************************
END SECTION WRITTEN-OPINION DTD
This section contains the tags specific to the written opinion.
*************************************************************************

*************************************************************************
SECTION GENERIC TAGS
This section contains generic tags out of their context, typically ICE
```

```
**************************************************************************

Claim numbers
-->
<!ELEMENT claim-num  (#PCDATA) >

<!--partially-for-claims
Opinion established to limited aspects of the provided claims, see additional
info for details.

Typically used in case of Markush type claims, novelty overflow, ...
-->
<!ELEMENT partially-for-claims  (claim-num+) >

<!--sequence-list-defect
No opinion was established without the sequence listing.

reason
Reason for not establishing an opinion:
- no-paper-submitted
The applicant did not submit within the prescribed time limit
a sequence listing on paper complying with the standard provided for
in Annex C of the Administrative Instructions, and such listing was
not available to the Authority in a form and manner acceptable to it.
- no-electronic-submitted
The applicant did not submit within the prescribed time limit
a sequence listing in electronic form complying with the standard
provided for in Annex C of the Administrative Instructions, and such
listing was not available to the Authority in a form and manner
acceptable to it.
- no-fee-paid
The applicant did not within the prescribed time limit pay the
required late furnishing fee for the furnishing of a sequence
listing in response to an invitation under Rules 13ter.1(a) or (b)
and 13ter.2 PCT.

No additional statement required.
-->
<!ELEMENT sequence-list-defect   EMPTY  >

<!ATTLIST sequence-list-defect
               reason (no-paper-submitted | no-electronic-submitted | no-fee-paid)
                #REQUIRED  >

<!--table-defect
No opinion was established because the tables related to the sequence
listings.

reason
Reason for not establishing an opinion:
- not-electronically-submitted
A meaningful opinion could not be formed without the tables
related to the sequence listings; the applicant did not, within the
prescribed time limit, furnish such tables in electronic form
complying with the technical requirements provided for in
Annex C-bis of the Administrative Instructions, and such tables
were not available to the Authority in a form and manner acceptable
to it.
- not-format-compliant
The tables related to the nucleotide and/or amino acid sequence
listing, if in electronic form only, do not comply with the
technical requirements provided for in Annex C-bis of the
Administrative Instructions.

No additional statement required.
-->
<!ELEMENT table-defect   EMPTY  >

<!ATTLIST table-defect
```

```
                reason (not-electronically-submitted | not-format-compliant)
                 #REQUIRED  >

<!--added-subject-matter-objections
The amendments shall not go beyond the disclosure in the international
application as filed ( Art 19(2), 28(2), 34(2)(b) and 41(2) PCT - Oct 3, 2001 )
and further information.
The amendment not fullfilling the requirement will be identified and a
statement explaining the reason as to why it goes beyond the application as
originally filed is provided.
When referring to a previous set of objections as a whole, this element only
needs to contain the additional objections not yet covered by the referred set.

suggested value for id: wo-01-01-as
-->
<!ELEMENT added-subject-matter-objections  (%objections_group;) >

<!ATTLIST added-subject-matter-objections
                id  ID    #IMPLIED
                idref  IDREFS    #IMPLIED
                gidref  CDATA    #IMPLIED  >


<!--objection
Identifies any objection related to specific application documents
When referring to a previous (set of) objection(s), this element only
needs to contain additional information not yet covered by the referred set or
element.
Stylesheet:
If no p is provided, generates a standard phrase based on legal-basis,
legal-source and the references to the application documents.

Suggested values for id:
added subject-matter: wo-01-01-as-01, wo-01-01-as-02, ...
clarity : wo-01-01-co-01, wo-01-01-co-02, ...
insuficiency of disclosure: wo-01-01-id-01, wo-01-01-id-02, ...
formal defects: wo-01-01-fd-01, wo-01-01-fd-02, ...
-->
<!ELEMENT objection  (%objection_group;) >

<!ATTLIST objection %common_id_attribute_group;
                legal-basis  CDATA    #IMPLIED
                legal-source  CDATA    #IMPLIED  >

<!--lack-of-unity-objection
The Authority has determined that the present application does (not)
relate to one invention only or to a group of inventions so linked as to
form a single general inventive concept.
A lack of unity is assessed whenever:
* the special technical features of each of the invention are neither
corresponding nor the same, and/or
* the general concept linking all the inventions is neither novel nor
inventive

unity-of-invention
Indicates if the requirement of unity of invention is satisfied.

complex-application
Indicates whether the objection results in the application to be treated as a
complex application (Articles 17(2)(a)(ii) and 34(4)(a)(ii) PCT
(Rule 63 EPC-2000).

-->

<!ELEMENT lack-of-unity-objection  %lack_of_unity_objection_group; >

<!ATTLIST lack-of-unity-objection
                unity-of-invention (yes | no)   #REQUIRED
                complex-application (yes | no)   #IMPLIED
```

```
               idref  IDREF    #IMPLIED
               gidref  CDATA    #IMPLIED  >

<!--lack-of-unity-additional-feesIf the Authority finds that the requirement of
unity of invention is not
complied with, it may invite the applicant to pay additional fees.

additional-fees-requested
This Authority found that the requirement of unity of invention is not
complied with and chose (not) to invite the applicant to restrict or
pay additional fees.

response-additional-fees
The response of the applicant to the request to pay additional fees.
* restricted-claims
  the applicant restricted the claims.
* paid-additional-fees
     the applicant paid the additional fees.
* neither-additional-fees-nor-restricted-claims
     the applicant did neither pay the fees nor restricted the claims.

-->
<!ELEMENT lack-of-unity-additional-fees (additional-fees-paid-under-protest?)>

<!ATTLIST lack-of-unity-additional-fees
                                     additional-fees-requested ( yes | no )
#REQUIRED
               response-additional-fees (restricted-claims |
               additional-fees-paid | additional-fees-not-paid) #IMPLIED>

<!-- additional-fees-paid-under-protest
* paid-additional-fees-under-protest-and-protest-fee
     the applicant paid the additional fees under protest. The protest was paid.
* paid-additional-fees-under-protest-and-not-protest-fee
     the applicant paid the additional fees under protest. The protest was not
paid.
-->
<!ELEMENT additional-fees-paid-under-protest EMPTY>

<!ATTLIST additional-fees-paid-under-protest
                                          protest-fee-paid (yes | no) #REQUIRED >

<!--lack-of-unity-single-general-inventive-concept
The requirement of unity of invention is fulfilled only when there exists
a single general inventive concept among the claimed separate inventions
(see claim-num) which finds its expression in one or more of the same or
corresponding special technical features. It should be noted, however,
that it is not required that the concept linking the claimed separate
inventions be expressly stated in the wording of the claims.
If no single general concept can be distinguished, or if the single
general concept is clearly known from the state of the art at hand (see
citations), then the application lacks unity of invention.
-->
<!ELEMENT lack-of-unity-single-general-inventive-concept  (p+) >

<!--lack-of-unity-invention
Invention or group of inventions so linked as to form a single general inventive
concept. When assessing a posteriori the lack of unity, the lack of novelty of
the first claim should be firts assessed.
The reasonning to identify the special technical feature is only required for
the first mentionned invention.

num
Sequence number of the invention
-->
<!ELEMENT lack-of-unity-invention  (%lack_of_unity_invention_group;) >

<!ATTLIST lack-of-unity-invention %common_id_attribute_group;
               num  CDATA    #REQUIRED >
```

```
<!--identification-of-invention
Identification of an invention or group of inventions so linked as
to form a single general inventive concept. This is not to be confused
with the invention title of the description.
-->
<!ELEMENT identification-of-invention  (text) >

<!--lack-of-unity-invention-special-tech-features
Where a group of inventions is claimed in one and the same international
application, the requirement of unity of invention referred to in
Rule 13.1 PCT shall be fulfilled only when there is a technical
relationship among those inventions involving one or more of the same or
corresponding special technical features.
The expression special technical features shall mean those technical
features that define a contribution which each of the claimed inventions,
considered as a whole, makes over the prior art.
-->
<!ELEMENT lack-of-unity-invention-special-tech-feature  (claim-num+,text,
              lack-of-unity-invention-tech-problem-solved) >

<!--lack-of-unity-invention-tech-problem-solved
Technical problem solved by the selected special technical feature
-->
<!ELEMENT lack-of-unity-invention-tech-problem-solved  (text) >

<!--opinion-established-regarding
A written opinion has been established with respect to the provided
elements.
-->
<!ELEMENT opinion-established-regarding  (%opinion_established_regarding_group;) >

<!--entire-application
When making references to parts of the application, this refers to
the application as a whole.
-->
<!ELEMENT entire-application   EMPTY  >

<!--completely-for-claims
Opinion established to all aspects of the provided claims, see additional
info for details.
-->
<!ELEMENT completely-for-claims  (claim-num+) >

<!--not-for-claims
Opinion not established for the provided claims, see additional
info for details.

Typically used in case of Markush type claims, novelty overflow, ...
-->
<!ELEMENT not-for-claims  (claim-num+) >

<!--selected-invention
In the context of an objection of lack of unity this refers to one of
the named inventions.
-->
<!ELEMENT selected-invention   EMPTY  >

<!ATTLIST selected-invention
              idref  IDREF    #REQUIRED
              gidref  CDATA    #IMPLIED  >

<!--clarity-objections
Container for all clarity objections and further additional-infos.

Suggested value for id: wo-01-01-co
-->
<!ELEMENT clarity-objections  (%objections_group;) >
```

```
<!ATTLIST clarity-objections %common_id_attribute_group;>

<!--insufficiency-of-disclosure-objections
The description shall disclose the invention in a manner sufficiently clear
and complete for the invention to be carried out by a person skilled in the
art.

Suggested value for id: wo-01-01-id
-->
<!ELEMENT insufficiency-of-disclosure-objections  (%objections_group;) >

<!ATTLIST insufficiency-of-disclosure-objections %common_id_attribute_group; >

<!--compliance-of-invention
The Authority establishes a non-binding opinion on the questions whether
the claimed invention appears to be novel, to involve an inventive step
(to be non-obvious), and to be industrially applicable,
Article 33(1)-(4) PCT.

Recommended values for id: wo-01-01-pr
-->
<!ELEMENT compliance-of-invention  (novelty-compliance?,inventive-step-compliance?,
               industrial-applicability-compliance?,additional-info*) >

<!ATTLIST compliance-of-invention %common_id_attribute_group; >

<!--novelty-compliance
A claimed invention shall be considered novel if it is not anticipated
by the prior art, Art 33(2) PCT.

Recommended values for id: wo-01-01-pr-n
-->
<!ELEMENT novelty-compliance  (%compliance_group;) >

<!ATTLIST novelty-compliance %common_id_attribute_group; >

<!--compliance-valid
Said claims comply with the criteria to which this element
refers to (novelty, inventive step or industrial applicability) for the
reasons provided.

Recommended values for:
novelty: wo-01-01-pr-n-01, wo-01-01-pr-n-02, ...
inventive step: wo-01-01-pr-is-01, wo-01-01-pr-is-02, ...
industrial applicability: wo-01-01-pr-ia-01, wo-01-01-pr-ia-02, ...
-->
<!ELEMENT compliance-valid  (%compliance_valid_group;) >

<!ATTLIST compliance-valid %common_id_attribute_group; >

<!--compliance-not-valid
Said claims do not comply with the criteria to which this element
refers to (novelty, inventive step or industrial applicability) for the
reasons provided.

Recommended values for:
novelty: wo-01-01-pr-n-01, wo-01-01-pr-n-02, ...
inventive step: wo-01-01-pr-is-01, wo-01-01-pr-is-02, ...
industrial applicability: wo-01-01-pr-ia-01, wo-01-01-pr-ia-02, ...
-->
<!ELEMENT compliance-not-valid  (%compliance_valid_group;) >

<!ATTLIST compliance-not-valid %common_id_attribute_group; >

<!--inventive-step-compliance
A claimed invention shall be considered to involve an inventive step if,
having regard to the prior art, it is not, at the prescribed relevant
date, obvious to a person skilled in the art, Article 33(3) PCT.
```

```
Recommended values: wo-01-01-pr-is
-->
<!ELEMENT inventive-step-compliance  (%compliance_group;) >

<!ATTLIST inventive-step-compliance %common_id_attribute_group; >

<!--industrial-applicability-compliance
A claimed invention shall be considered industrially applicable if,
according to its nature, it can be made or used (in the technological
sense) in any kind of industry.
Industry shall be understood in its broadest sense, as in the Paris
Convention for the Protection of Industrial Property, Article 33(4) PCT.

Recommended values: wo-01-01-pr-ia
-->
<!ELEMENT industrial-applicability-compliance  (%compliance_group;) >

<!ATTLIST industrial-applicability-compliance %common_id_attribute_group; >

<!--formal-defects
Container for all objections related to formal aspects and further
additional-infos.

Recommended values: wo-01-01-fd
-->
<!ELEMENT formal-defects  (%objections_group;) >

<!ATTLIST formal-defects %common_id_attribute_group;  >

<!--comments-of-applicant
Container for all observations from the examiner to address arguments of the
applicant that were not cover by any of the preceeding points.

Recommended values: wo-01-01-ca
-->
<!ELEMENT comments-of-applicant  (additional-info+) >

<!ATTLIST comments-of-applicant %common_id_attribute_group;  >

<!--conclusion
Set of statements of additional information concluding either a request or the
written opinion.
Stylesheet:
If no p is provided, generates a standard phrase based on legal-basis,
legal-source and the references to the application documents.

id
Suggested values:
for a request: wo-01-01-c
for the opinon: wo-01-c
-->
<!ELEMENT conclusion  (p*,additional-info*) >

<!ATTLIST conclusion %common_id_attribute_group;
               legal-basis  CDATA    #IMPLIED
               legal-source  CDATA    #IMPLIED  >

<!--citations
The statement shall be accompanied by the citation of the documents
believed to support the stated conclusion with such explanations as the
circumstances of the case may require (Article 35(2) PCT).
-->
<!ELEMENT citations  (%citations_group;)+ >

<!--*******************************
CITATIONS
*******************************
Grouping tag for patent literature (patcit)
or non-patent literature (nplcit) plus data related to those citations.
```

```
Recommended id='cit0001', 'cit0002', etc.
For the SR: id='sr-cit0001', 'sr-cit0002'
For the WO: id='wo-cit0001"

@reference
Identification given by the party to the document, e.g. A1.

@exam-reference
Identification given by the search or examining division to the document,
e.g. D1.

@has-equivalent :
The expected usage of this attribute is that it will only be present in the
circumstances where the examiner explicitly
chooses to express the fact that the cited document has no equivalent document /
patent family members in the
rendered search report citation; in other words the attribute when present and
having the value "no" will result in the text
"No patent family" or "No equivalent documents" in the relevant language being
displayed on the search report.

-->
<!ELEMENT citation  ((patcit | nplcit),(rel-passage*,category*,rel-claims*)*,
               corresponding-docs*, classification-ipc?, classifications-ipcr?,
classification-national?, doi?) >

<!ATTLIST citation
               id  ID    #IMPLIED
               cited-phase (application | search | international-search-report |
               supplementary-international-search-report |
               international-type-search-report | national-search-report |
               supplementary-national-search-report | examination |
               international-examination | national-examination | opposition |
               limitation)   #IMPLIED
               cited-by (applicant | examiner | opponent | third-party)   #IMPLIED
               reference  CDATA    #IMPLIED
               exam-reference  CDATA    #IMPLIED
               has-equivalent        (yes | no)  #IMPLIED >

<!--Patent family and corresponding-docs - see example above
These are also "&" cases.
** PB 2006-03-02
-->
<!ELEMENT corresponding-docs  ((patcit | nplcit),(rel-passage*,category*,rel-
claims*)*) >

<!--conflicting-document
Any published application or any patent whose publication date is the
same as, or later than, but whose filing date, or, where applicable,
claimed priority date, is earlier than the international filing date of
the international application searched, and which would constitute
relevant prior art for the purposes of Article 15(2) had it been published
prior to the international filing date, shall be specially mentioned in
the international search report.
Such published application or patent shall not be considered part
of the prior art for the purposes of Article 33(2) and (3). Nevertheless,
the international preliminary examination report shall call attention to
such application or patent in the manner provided for in Rule 70.10.<br/>
Rules 33.1(c) and 64(3) PCT

Recommended id='cit0001', 'cit0002', etc.
For the SR: id='sr-cit0001', 'sr-cit0002'
For the WO: id='wo-cit0001"

reference
Identification given by the party to the document, e.g. A1.

exam-reference
```

```
Identification given by the search or examining division to the document,
e.g. D1.
-->
<!ELEMENT conflicting-document  ((category*,application-reference,publication-
reference,priority-date?,citation-opinion?) | text) >

<!ATTLIST conflicting-document
               id  ID    #IMPLIED
               reference  CDATA    #IMPLIED
               exam-reference  CDATA    #IMPLIED  >


<!--
  Publication reference information: publication number, date, etc
    (INID 11, ST.32:B110)

-->
<!ELEMENT publication-reference (document-id)>

<!ATTLIST publication-reference  id ID  #IMPLIED >

<!--Rule 70.10: Any published application ... shall be accompanied by ... its
claimed priority date (if any). In respect of the priority date of any such
document, the report may indicate that, in the opinion of the International
Preliminary Examining Authority, such date has not been validly claimed.-->
<!ELEMENT priority-date  (#PCDATA) >

<!ATTLIST priority-date
               priority-valid (yes | no)  "yes" >

<!--citation-opinion
For cases where the examiner provides an opinion related to a cited document.  This
element, where present must contain a paragraph contained in a p element. -->

<!ELEMENT citation-opinion (p+)>

<!ATTLIST citation-opinion
  %common_id_attribute_group;>

<!--non-written-disclosure
In cases where the making available to the public occurred by means of an
oral disclosure, use, exhibition or other non-written means ( non-written
disclosure ) before the relevant date as defined in Rule 64.1(b) and the
date of such non-written disclosure is indicated in a written disclosure
which has been made available to the public on a date which is the same
as, or later than, the relevant date, the non-written disclosure shall
not be considered part of the prior art for the purposes of Article 33(2)
and (3). Nevertheless, the international preliminary examination report
shall call attention to such non-written disclosure in the manner
provided for in Rule 70.9.
See also Rules 33.1(b) and 64(2) PCT

Recommended id='cit0001', 'cit0002', etc.
For the SR: id='sr-cit0001', 'sr-cit0002'
For the WO: id='wo-cit0001"

reference
Identification given by the party to the document, e.g. A1.

exam-reference
Identification given by the search or examining division to the document,
e.g. D1.
-->
<!ELEMENT non-written-disclosure  ((category*,kind-of-disclosure,date,date-of-
written-disclosure,citation-opinion?) | text) >

<!ATTLIST non-written-disclosure
               id  ID    #IMPLIED
               reference  CDATA    #IMPLIED
```

```
                exam-reference  CDATA    #IMPLIED  >

<!--Kind of non-written disclosure-->
<!ELEMENT kind-of-disclosure  (#PCDATA) >

<!--Date of written disclosure Referring to non-written disclosure
(day/month/year)-->
<!ELEMENT date-of-written-disclosure  (date) >

<!--annexed-documents
Documents annexed to an xml files either as facsimile or electronic files-->
<!ELEMENT annexed-documents  (doc-page | electronic-file)+ >

<!--electronic-file
-->
<!ELEMENT electronic-file   EMPTY  >

<!ATTLIST electronic-file
                title  CDATA    #IMPLIED
                file  CDATA    #IMPLIED
                file-type (tif | pdf | xml | other)   #IMPLIED
                file-type-other  CDATA    #IMPLIED
                lang  CDATA    #IMPLIED
                status  CDATA    #IMPLIED  >

<!-- Exceptional handling for WIPO - EPO data exchange
If the opinion cannot be converted to ST.36, the original XHTML code will be
stored in this tag as CDATA-->
<!ELEMENT xhtml-text (#PCDATA)>

<!-- top-up-search-carried-out
[PCT/IPEA/409]
Box I : 6. With regard to top-up searches (Rules 66.1ter and 70.2(f)):
  [] A top-up search was carried out by this Authority on _________________
       [] Additional relevant documents have been discovered during the top-up
search.

-->
<!ELEMENT top-up-search-carried-out EMPTY>

<!ATTLIST top-up-search-carried-out
    date CDATA #REQUIRED
    document-found (yes | no) #REQUIRED>

<!-- no-top-up-search-carried-out
[PCT/IPEA/409]
Box I : 6. With regard to top-up searches (Rules 66.1ter and 70.2(f)):
  []  No top-up search was carried out by this Authority because it would serve no
useful purpose

-->
<!ELEMENT no-top-up-search-carried-out EMPTY>

<!--
*******************************************************************************
  END OF FILE
*******************************************************************************
-->
```

[End of document]