WORLD INTELLECTUAL PROPERTY ORGANIZATION

GENEVA

PATENT COOPERATION TREATY (PCT)

ADMINISTRATIVE INSTRUCTIONS UNDER THE PCT

PROPOSED MODIFICATIONS RELATING TO THE ELECTRONIC FILING
AND PROCESSING OF INTERNATIONAL APPLICATIONS

ANNEX F, APPENDIX I

XML DTDs FOR THE E-PCT STANDARD

prepared by the International Bureau
for the purposes of consultation under Rule 89.2(b)

This is a further revised version of document PCT/AI/1 Add.4 Prov., superseding
document PCT/AI/1 Add.4 Prov. Rev.2 dated January 30, 2001.

Comments on this and related documents are invited by August 24, 2001.

BACKGROUND

1.   The general background to the proposed modifications of the Administrative Instructions relating to the electronic filing and processing of international applications set out in this document is explained in document PCT/AI/1 Add.2 Prov. Rev.3 (containing proposed new Part 7 of the Administrative Instructions) which, together with proposed Annex F and its Appendices, constitute the draft legal framework and technical standard for electronic filing and processing of international applications.[1] The present ("Rev.3") versions of the documents take into account comments made on the previous ("Rev.2") versions.

2.   The International Bureau intends to prepare further revised drafts, taking into account any comments received by August 24, 2001, for the purposes of a final, formal, round of consultation, following which modifications would be promulgated by the Director General. The modifications as promulgated will provide a basis for the development of the necessary systems, but the modifications will not actually come into force until electronic filing and processing becomes possible in practice.

3.   Certain aspects of the technical standard set out in Annex F have now been the subject of consultation in several drafts and the International Bureau does not envisage that they will require further change before the modifications of the Administrative Instructions are promulgated by the Director General. Those matters include the following:

    (a)   electronic IA document (Annex F, section 3), including allowable electronic document formats (section 3.1), compound document structure (section 3.2), electronic signature (section 3.3) and allowable document formats (section 3.4);

    (b)   IA documents packaging (Annex F, section 4), including wrapped application documents (WAD) (section 4.1.1) and wrapped and signed package (WASP) (section 4.2.1), *but not at this stage including* signed and encrypted package (SEP) (section 4.2.2);

    (c)   XML DTDs for the E-PCT standard (Annex F, Appendix I), to the extent that it may be regarded as a baseline DTD subject to further development;

    (d)   use of PKI for the E-PCT standard (Annex F, Appendix II), *but not at this stage including* aspects related to transmission protocols and interoperability of software;

    (e)   use of physical media for the E-PCT standard (Annex F, Appendix IV).

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[1]   The documents are available on WIPO's Internet site at the following address: http://pcteasy.wipo.int/efiling_standards/EFPage.htm. Copies on paper may be obtained from the International Bureau of WIPO on request.

Certain other aspects of the standard still require further discussion, and comments are sought on the following, in particular:

4. signed and encrypted package (SEP) (Annex F, section 4.2.2);

5. transmission protocols and interoperability of software (Annex F, section 5.1, together with related passages).

[Annex F, Appendix I, follows]

PROPOSED MODIFICATIONS OF THE
ADMINISTRATIVE INSTRUCTIONS UNDER THE PCT

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

Appendix I
XML DTDs for the E-PCT Standard

TABLE OF CONTENTS

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 designated 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, the Trilateral 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 the Trilateral Offices and others 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 creating additional components, an HTML-based documentation has been constructed of the elements and structures in the sources of the proposed DTDs, that will illustrate their relationships and their **definitions. 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

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[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.

(g) IPEA to IB

(h) IB to RO

(i) DTDs required by other types of industrial property

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.

The method for producing and organizing these components will initially be based on replication among DTDs and inclusion of DTD structures using the XML feature for "external parameter entities." The emerging XML standard, called XML Schema, contains more sophisticated support for component-level structure and re-use. At some point in the future, when XML Schema has reached maturity in the industry, the DTD components may be converted to XML Schema components.

To date, the following commonly used components have been defined and can be found in several E-PCT DTD's:

- addressbook: name and address information

- doc-page: referenced document or page image or pdf file

- heading: section heading

- invention-title: short title of the invention

- %nam (model group): name information (also used by addressbook)

- p: paragraph (including formatting and complex unit support for image, math, table, etc.)

- signatories: name and electronic signature information

3   DTDs for new PCT applications (E-PCT)

Note: The DTD's listed below are the latest released versions. It is envisioned that they will
be published in a public web repository.

3.1   E-PCT Dossier

```
<!--
      ****************************************************************
      *  EPCT-DOSSIER   v0.96 2001 APRIL                            *
      ****************************************************************
      *  public "-//wipo//dtd ePCT-dossier v0.96    2001-04-30/en"  *
      ****************************************************************
      *  contacts:                                                  *
      *  EPO:   Paul Brewin;  pbrewin@epo.org                       *
      *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                *
      *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                   *
      *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                  *
      *                                                             *
      ****************************************************************
      * revision history                                            *
      ****************************************************************

Revised 2001-04-26 Geneva Trilateral/WIPO Working Group
..changed version to .96
..added signatory
..added transmittal
..modified declaration
Revised
.changed version to v0.95
..changed attribute value
..add declaration element
.changed version to v0.92
..significant structural revision 2001 Mar 2, Shiro Ankyu, WIPO, and
  John Godman,WIPO
...removed subdocument structure from this DTD - all documents simply link to
 a referenced document
....this object (the epct ia dossier) now serves as a document list only -
   each referenced document includes its own structure
.changed version to v0.91
..changed attribute value, from x25 to st25 Revised 2001 Jan 29, Shiro Ankyu,
WIPO, and John Godman, WIPO
..added document-info,document-bibliographic,extref,etc Revised 2000 June 7,
Shiro Ankyu, WIPO, and John Godman, WIPO
.changed version to v0.82
..changed encoding to "UTF-8"
..added PDF element to RO101, SPECIFICATION, & FEE TRANSMITTAL subtrees,
...in order to more closely reflect Annex F, Appendix I, v4.0 Revised 2000
   May 26, Bruce B. Cox, USPTO, Paul Brewin, EPO, and Shiro Ankyu, WIPO
.changed version to v0.8
..major redesign of DTD; see Trilateral Meeting, the Hague, 2000 April 17-19,
...Report of the DTD Subgroup


                                                                     -->
<!--DOCTYPE epct-dossier[                                            -->

<!--* Define some entities
      Name group entity, please see name element group for each elements   -->

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

```
<!-- document-attributes group entity
status : attached document status  e.g, new, replace,,
     lang   : language code of attached document, ISO639 language code,
              e.g, en,de,ja,,
     file   : attached document file name  e.g, "request.xml"
     id     : identification of attached document
     carriers :
       internal = This WAD contains the referenced electronic document
       external = Outside electronic carrier contains the referenced
                  electronic document
       paper    = The referenced document is paper form              -->

<!ENTITY % document-attributes
                " status       CDATA  #IMPLIED
                  lang         CDATA  #IMPLIED
                  file         CDATA  #REQUIRED
                  id           ID     #REQUIRED
                  carriers   (internal-electronic | external-electronic|
                              paper) #IMPLIED  "                          >


<!-- Root Element ePCT                                                -->

<!ELEMENT epct-dossier  (transmittal-info?,signatories?,dtext?,
                 (application-request | application-body-doc | 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|trans-search-report|
                  preliminary-examination-report|
                  trans-preliminary-examination-report |
                  published-application | sequence-list | correspondence |
                  other-documents)+)                                     >


<!-- attributes epct-dossier
          lang   : language code of attached document, ISO639 language code,
              e.g, en,de,ja,,
      dtd-version :  dtd version number
    date-produced : YYYYMMDD   e.g, 20011230                          -->

<!ATTLIST epct-dossier
                  lang             CDATA    #IMPLIED
                  dtd-version      CDATA    #IMPLIED
                  produced-by     (applicant | RO | ISA | IPEA | IB | DO | EO)
                                           #REQUIRED
                  date-produced    CDATA    #IMPLIED
                  file             CDATA    #IMPLIED                      >


<!-- transmittal-information                                         -->

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


<!--New application information from applicant to office             -->
<!ELEMENT new-application        (invention-title?,first-named-applicant?,
                                  file-reference-id?)                     >

<!-- title of invention                                             -->
<!ELEMENT invention-title        (#PCDATA | b | i | u | sup | sub)*       >
<!ATTLIST invention-title
               id         ID      #REQUIRED
               lang       CDATA   #IMPLIED                                >
```

```
<!-- first applicant name in applicant group                           -->
<!ELEMENT first-named-applicant  %nam;                                   >

<!-- PCT: applicant's or agent's file reference, if desired,            -->
<!--       12 characters maximum                                        -->
<!ELEMENT file-reference-id       (#PCDATA)                              >


<!-- Subsequent Filing information, before Issue Date.                  -->
<!ELEMENT subsequent-filing       (invention-title?,first-named-applicant,
                                   confirmation-number?,file-reference-id?,
                                   (application-reference | (patent-reference,
                                   application-reference)))              >

<!-- confirmation number from office to applicant                       -->
<!ELEMENT confirmation-number     (#PCDATA)                              >

<!-- application reference information : application number,             -->
<!--       country                                                      -->
<!ELEMENT application-reference   (document-id,language-of-filing?)      >

<!-- patent reference information : patent number,date,etc              -->
<!ELEMENT patent-reference        (document-id)                         >

<!-- publication reference information : publication number,date,etc    -->
<!ELEMENT publication-reference   (document-id)                         >


<!-- Document transfer information between offices.                     -->
<!ELEMENT office-to-office        (application-reference,publication-reference?,
                                   file-reference-id?,from?,to?)         >


<!-- the office sends the documnet                                      -->
<!ELEMENT from                    (country)                             >

<!-- the office receives the document                                   -->
<!ELEMENT to                      (country)                             >


<!-- Document transfer information from office to applicatn             -->
<!ELEMENT office-to-applicant     (from,invention-title?,first-named-applicant,
                                   confirmation-number?,file-reference-id?,
                                   (application-reference | (patent-reference,
                                   application-reference)))              >



<!-- signatories                                                        -->

<!ELEMENT signatories             (signatory+) >

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

<!ELEMENT electronic-signature    (basic-signature | enhanced-signature) >
<!ATTLIST electronic-signature
                    date          CDATA           #REQUIRED
                    place-signed  CDATA           #IMPLIED              >

<!ELEMENT signatory-capacity      (#PCDATA)                             >

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

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

```
<!ELEMENT fax-image                   EMPTY                                  >
<!ATTLIST fax-image
                    file          CDATA          #REQUIRED                   >

<!ELEMENT text-string            (#PCDATA)                                   >

<!ELEMENT click-wrap             EMPTY                                       >

<!ELEMENT pkcs7                  EMPTY                                       >


<!-- comments or narrative description                                      -->
<!ELEMENT dtext                  (#PCDATA)                                   >



<!--   referenced-document                                                  -->
<!--      referenced document element attribute refer to documents          -->
<!--                                                                        -->
<!--      type    : document file format type, xml,tiff,pdf,txt             -->
<!--              app=st25 format                                           -->
<!--              e.g, en,de,ja,,                                           -->
<!--      dec-type: kind of declaration, 1,2,3,4,5                          -->
<!--      notification-type;                                                -->
<!--              PCT notification form number, e.g. IB331,ISA202,          -->
<!--      correspondence-type;                                              -->
<!--              kind of PCT correspondence, e.g. change of address,       -->
<!--      other-document-name;                                              -->
<!--              other document name                                       -->
<!--      ref-number;                                                       -->
<!--              reference number of copy of general general power of attorney-->

<!-- PCT request form (RO101)                                               -->
<!ELEMENT application-request         EMPTY                                  >
<!ATTLIST application-request         %document-attributes;
                                      type    (xml)     #REQUIRED           >

<!--      application body document,                                        -->
<!--      description,climes,drawings and abstract                          -->
<!ELEMENT application-body-doc        EMPTY                                  >
<!ATTLIST application-body-doc        %document-attributes;
                                      type    (xml | pdf)  #REQUIRED        >

<!--      chapter2-demand form (IPEA401)                                    -->
<!ELEMENT chapter2-demand             EMPTY                                  >
<!ATTLIST chapter2-demand             %document-attributes;
                                      type    (xml)     #REQUIRED           >

<!--      fee-calculation sheet                                             -->
<!ELEMENT fee-calculation-sheet       EMPTY                                  >
<!ATTLIST fee-calculation-sheet       %document-attributes;
                                      type    (xml)     #REQUIRED           >

<!--      declarations under PCT                                            -->
<!ELEMENT declaration-doc             EMPTY                                  >
<!ATTLIST declaration-doc             %document-attributes;
                                      type    (xml)     #REQUIRED
                                      dec-type (1 | 2 | 3 | 4 | 5 |
                                               combined )
                                                        #REQUIRED           >

<!--      statement explaining lack of signature                            -->
<!ELEMENT lack-of-signature           EMPTY                                  >
<!ATTLIST lack-of-signature           %document-attributes;
                                      type    (xml)     #REQUIRED           >
```

```
<!--      separate indications concerning deposited microorganism   -->
<!--      or other biological material                              -->
<!ELEMENT biological-material            EMPTY                      >
<!ATTLIST biological-material            %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      original separate power of attorney                       -->
<!ELEMENT separate-power-of-attorney     EMPTY                      >
<!ATTLIST separate-power-of-attorney     %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      original general power of attorney                        -->
<!ELEMENT general-power-of-attorney      EMPTY                      >
<!ATTLIST general-power-of-attorney      %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      copy of general general power of attorney                 -->
<!ELEMENT copy-general-power-of-attorney  EMPTY                     >
<!ATTLIST copy-general-power-of-attorney  %document-attributes;
                                         type    (xml)    #REQUIRED
                                         ref-number CDATA  #REQUIRED    >

<!--      changing of bibliographic, e.g name, address              -->
<!ELEMENT bib-changes                    EMPTY                      >
<!ATTLIST bib-changes                    %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      notification form among applicant and offices             -->
<!ELEMENT notification                   EMPTY                      >
<!ATTLIST notification                   %document-attributes;
                                         type    (xml)    #REQUIRED
                                         notification-type  CDATA  #REQUIRED  >

<!--      amendment request document,  PCT; Art 19 or 34            -->
<!ELEMENT amendment                      EMPTY                      >
<!ATTLIST amendment                      %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!ELEMENT priority-document              EMPTY                      >
<!ATTLIST priority-document              %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      translation of international application                   -->
<!ELEMENT translation-of-application     EMPTY                      >
<!ATTLIST translation-of-application     %document-attributes;
                                         type    (xml | pdf)   #REQUIRED   >

<!--      search report                                             -->
<!ELEMENT search-report                  EMPTY                      >
<!ATTLIST search-report                  %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      English translation search report                         -->
<!ELEMENT trans-search-report            EMPTY                      >
<!ATTLIST trans-search-report            %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!ELEMENT preliminary-examination-report  EMPTY                     >
<!ATTLIST preliminary-examination-report  %document-attributes;
                                         type    (xml)    #REQUIRED    >

<!--      English translation IPER                                  -->
<!ELEMENT trans-preliminary-examination-report
                                         EMPTY                      >
<!ATTLIST trans-preliminary-examination-report
                                         %document-attributes;
                                         type    (xml)    #REQUIRED    >
```

```
<!--     published application  e.g, PCT; Art.20 communication        -->
<!ELEMENT published-application          EMPTY                        >
<!ATTLIST published-application          %document-attributes;
                                         type    (xml | pdf)  #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 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 ST.25 and be an external file   -->
<!ELEMENT sequence-list                  EMPTY                        >
<!ATTLIST sequence-list                  %document-attributes;
                                         type (pdf | txt | app | xml | zip)
                                                            #REQUIRED    >

<!--     correspondence from applicant                               -->
<!--     it is possible to use correspondence-type attribute         -->
<!--     for correspondence title                                    -->
<!ELEMENT correspondence                 EMPTY                        >
<!ATTLIST correspondence                 %document-attributes;
                                         type    (xml)      #REQUIRED
                                         correspondence-type CDATA
                                                            #REQUIRED    >

<!--     other document, other-document-name attribute supports name -->
<!--     of the document                                             -->
<!ELEMENT other-documents                EMPTY                        >
<!ATTLIST other-documents                %document-attributes;
                                         other-document-name CDATA  #REQUIRED
                                         type (pdf | txt | app | xml | zip)
                                                            #REQUIRED    >

<!--     HIGHLIGHTED ELEMENTS
         bold, italic, underscore,
         If we do not use these we have to have a generic tag such as
         emphasis with styles or levels because users want to use
         these and we need to mark it up - it is far simpler to have
         the tags shown below                                        -->

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

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

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

<!--  *  Underscore attribute: style - single is default             -->
<!ATTLIST u
               style      (single | double | dash | dots )  "single"  >

<!--  * Superscript attribute: position (post)                       -->
<!ELEMENT sup             (#PCDATA | b | u | i)*                       >
```

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

<!--  * Small capitals                                                      -->
<!ELEMENT smallcaps              (#PCDATA | b | u | i| br)*                  >

<!--  *  br - break, line break within a paragraph                          -->
<!ELEMENT br                     EMPTY                                      >




<!--  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
            type (legal | natural)  #REQUIRED                               >

<!--                *Title e.g., Mr., Mrs., Dr. etc*                         -->
<!ELEMENT prefix                 (#PCDATA)                                  >

<!--  Last, family, surname                                                 -->
<!ELEMENT last-name              (#PCDATA)                                  >

<!--  First, given, middle name(s), initials
      eg. John, John F., J.F, John Frederick                                -->
<!ELEMENT first-name             (#PCDATA)                                  >

<!ELEMENT middle-name            (#PCDATA)                                  >

<!--  Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc. *                     -->
<!ELEMENT suffix                 (#PCDATA)                                  >

<!--  Individual id *                                                       -->
<!ELEMENT iid                    (#PCDATA)                                  >

<!--  Role, eg President added 02.11.2000 PB ISO 12083 *                    -->
<!ELEMENT role                   (#PCDATA)                                  >

<!--  Organisation name *                                                   -->
<!ELEMENT orgname                (#PCDATA)                                  >

<!--  Department,division,section, etc. name *                              -->
<!ELEMENT department             (#PCDATA)                                  >

<!--  Synonym, cross-reference *                                            -->
<!ELEMENT synonym                (#PCDATA)                                  >


<!-- Applicant's, agent's registration number with the office              -->
<!ELEMENT registered-number      (#PCDATA)                                  >


<!-- common elements                                                        -->
<!-- Document, application identification group                             -->
<!ELEMENT document-id            (country,doc-number,name?,kind?,date?)      >

<!-- country code, ST.3                                                      -->
<!ELEMENT country                (#PCDATA)                                  >

<!-- Document number                                                        -->
<!--      In case of application ; application number                       -->
<!--      In case of publication ; publication number                       -->
<!--      In case of grant patent; patent number                           -->
<!ELEMENT doc-number             (#PCDATA)                                  >

<!-- kind code,                                                             -->
<!ELEMENT kind                   (#PCDATA)                                  >
```

```
<!-- date, YYYYMMDD, e.g, 20011230                                      -->
<!ELEMENT date                        (#PCDATA)                         >

<!-- filing language, ISO639 language code, e.g, en,de,ja,              -->
<!ELEMENT language-of-filing          (#PCDATA)                         >

<!—- END OF DTD                                                         -->
```

Request form

```
<!--
      ********************************************************************
      *  request v0.3      2001 APRIL                                    *
      ********************************************************************
      *  public "-//wipo//dtd request v0.3  2001-04-30/en"              *
      ********************************************************************
      *  contacts:                                                       *
      *  EPO:   Paul Brewin;  pbrewin@epo.org                            *
      *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                     *
      *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                        *
      *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                       *
      *                                                                  *
      ********************************************************************
      * revision history                                                 *
      ********************************************************************

Revised 2001-04-26, Geneva, Trilateral/WIPO Working Group
..checklist made optional
..
Revised 2001 March 2, Shiro Ankyu, WIPO,
..added check list
Revised 2001 Jan 25, Shiro Ankyu, WIPO, and Paul Brewin, EPO
..changed version to v0.2
..changed order of element from ST32 structure to RO101 paper form structure.
..substantially modified many tags, added attributes, added tags to reflect
PCT requirements better.

Revised 2000 June 7, Shiro Ankyu, WIPO, and John Godman, WIPO
..changed version to v0.11
..changed encoding to "UTF-8"
..modified ELECTRONIC-SIGNATURE structure
...in order to more closely reflect Annex F, Appendix I, v4.0
....added BASIC-SIGNATURE
....added FAX
....added TEXT-STRING
....added CLICK-WRAP
....added ENHANCED-SIGNATURE
....added PKCS7
....changed filename attribute to FILE-NAME to match ePCT DTD
Created 2000 May 26, Bruce B. Cox, USPTO, Paul Brewin, EPO,
and Shiro Ankyu, WIPO
..set version to v0.1
...creation of new DTD; see Trilateral Meeting, the Hague, 2000 April 17-19,
....Report of the DTD Subgroup                                          -->


<!--DOCTYPE request [                                                    -->

<!--Define some entities                                                 -->
<!--Name group entity, please see name element group for each elements   -->

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


<!-- PCT REQUEST FORM : RO101 (root element)                            -->
<!ELEMENT request  ((file-reference-id?,request-petition,invention-title?,
                  parties,designation-of-states?,priority-claims?,
                  search-authority?,declarations?,check-list?,
                  figure-to-publish?,language-of-filing?,signatories?,dtext?,
                  office-specific-data*) | doc-page+)                    >


<!--                attributes for request                               -->
```

```
<!--      lang                :language code of attached document,       -->
<!--                          ISO639 language code,e.g, en,de,ja,,       -->
<!--      dtd-version         :dtd version number                        -->
<!--      date-produced       :YYYYMMDD   e.g, 20011230                   -->
<!--                          if desired, 12 characters maximum          -->
<!--      ro                  :Receiving office name, country code ST.3  -->
<!ATTLIST request
                lang            CDATA    #REQUIRED
                dtd-version     CDATA    #IMPLIED
                produced-by     (applicant | RO | ISA | IPEA | IB | DO | EO)
                                         #REQUIRED
                date-produced   CDATA    #IMPLIED
                status          CDATA    #IMPLIED
                ro              CDATA    #REQUIRED
                file            CDATA    #IMPLIED                         >



<!-- PCT: applicant's or agent's file reference, if desired,            -->
<!-- 12 characters maximum                                              -->
<!ELEMENT file-reference-id     (#PCDATA)                                >



<!--    The Petition (PCT Rule 4.2)                                      -->
<!--    The request shall contain a petition,                            -->
<!--    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)                                  >



<!--    BOX No.I TITLE of Invention (PCT Rule 4.3)                       -->
<!--    The title of the invention shall be short (preferably from two to -->
<!--    seven words when in English or translated into English) and precise. -->
<!ELEMENT invention-title     (#PCDATA | b | i | u | sup | sub)*         >
<!ATTLIST invention-title
              id        ID      #REQUIRED
              lang      CDATA   #IMPLIED                                 >

<!--      HIGHLIGHTED ELEMENTS
          bold, italic, underscore,
          If we do not use these we have to have a generic tag such as
          emphasis with styles or levels because users want to use
          these and we need to mark it up - it is far simpler to have
          the tags shown below                                          -->

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

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

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

<!--  *  Underscore attribute: style - single is default               -->
<!ATTLIST u
              style       (single | double | dash | dots )  "single"     >

<!--  *  Superscript attribute: position (post)                         -->
<!ELEMENT sup               (#PCDATA | b | u | i)*                       >

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

<!--  *  Small capitals                                                 -->
<!ELEMENT smallcaps         (#PCDATA | b | u | i| br)*                   >
```

```
<!--  *  br - break, line break within a paragraph                       -->
<!ELEMENT br                    EMPTY                                    >



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


<!--  Applicants information                                            -->

<!ELEMENT applicants  (applicant+)                                       >

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

<!--  attributes for applicant                                         -->
<!--  sequence   : sequence number of each applicant                   -->
<!--              e.g, sequence="1"                                     -->
<!--  type       : applicant type                                      -->
<!--              type="applicant" : the applicant is only applicant   -->
<!--              type="applicant-inventor" : the applicant is         -->
<!--                                          also applicant           -->
<!--  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      -->

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


<!-- addressbook :  NAME and ADDRESS COMPONENTS / GROUP TAG

    % nam "((name | (prefix?,last-name,first-name,middle-name?,suffix?,
            iid?, role?,orgname?,department?,synonym*)),registered-number?)"

    The lang attribute is REQUIRED for eg.the JPO PCT request where names and
    addresses may be repeated in two different languages.
    If no structure possible use pctext                                 -->

<!ELEMENT addressbook  ((%nam;,address, phone*, fax* ,email* , url* , ead*,
                        dtext?) | dtext)                                >
<!ATTLIST addressbook
                lang        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
            type (legal | natural)   #REQUIRED                          >

<!--                *Title e.g., Mr., Mrs., Dr. etc*                    -->
```

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

<!-- Last, family, surname                                               -->

<!ELEMENT last-name              (#PCDATA)                                >

<!-- First, given, middle name(s), initials
     eg. John, John F., J.F, John Frederick                              -->

<!ELEMENT first-name             (#PCDATA)                                >

<!ELEMENT middle-name            (#PCDATA)                                >

<!-- Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc.                     -->
<!ELEMENT suffix                 (#PCDATA)                                >

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

<!-- Role, eg President added 02.11.2000 PB ISO 12083                    -->
<!ELEMENT role                   (#PCDATA)                                >

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

<!-- Department,division,section, etc. name                              -->
<!ELEMENT department             (#PCDATA)                                >

<!-- Synonym, cross-reference                                            -->
<!ELEMENT synonym                (#PCDATA)                                >


<!-- Applicant's, agent's registration number with the office            -->
<!ELEMENT registered-number      (#PCDATA)                                >


<!--    ADDRESS COMPONENTS *
        The name may form part of addresses.  Address format differ from
        country to country.   If no structure possible use pctext        -->

<!ELEMENT address   ((address-1?,address-2?,address-3?,street?,city?,
                      county?,state?,postcode,country) | text)           >

<!--*    In case the address dose not have street name,city name,etc    *-->
<!ELEMENT address-1              (#PCDATA)                                >
<!ELEMENT address-2              (#PCDATA)                                >
<!ELEMENT address-3              (#PCDATA)                                >

<!--*    Street may contain house number or name                        *-->
<!ELEMENT street                 (#PCDATA)                                >

<!--*    City or town name                                              *-->
<!ELEMENT city                   (#PCDATA)                                >

<!--*    County, parish, department, etc (mainly UK, USA)               *-->
<!ELEMENT county                 (#PCDATA)                                >

<!--*    Region of country eg. state, province, lande etc               *-->
<!ELEMENT state                  (#PCDATA)                                >

<!--*    Postal code or zip code                                        *-->
<!ELEMENT postcode               (#PCDATA)                                >

<!--*    Country use ST.3 country code eg. DE, FR, GB, NL - changed
         Includes region codes for EP, AP, EA, OA                       *-->
<!ELEMENT country                (#PCDATA)                                >
```

```
<!--*      Telephone number                                          *-->
<!ELEMENT phone                  (#PCDATA)                            >

<!--*      Fax number                                                *-->
<!ELEMENT fax                    (#PCDATA)                            >

<!ELEMENT email                  (#PCDATA)                            >

<!--*      Web page location,Universal Resource Locator, eg. www.epoline.org *-->
<!ELEMENT url                    (#PCDATA)                            >

<!--*      Electronic address use for other than email              *-->
<!ELEMENT ead                    (#PCDATA)                            >

<!--*      Descriptive text                                          *-->
<!ELEMENT dtext                  (#PCDATA)                            >
<!ELEMENT text                   (#PCDATA)                            >

<!-- Country of nationality                                          -->
<!ELEMENT nationality            (country)                            >

<!-- Country of residence                                            -->
<!ELEMENT residence              (country)                            >

<!-- This person is successor to the rightsof thedeceased inventor for -->
<!-- the purposes of the designation of the United States of America  -->

<!ELEMENT us-rights              (#PCDATA)                            >

<!-- to-dead-inventor :  dead inventor name                          -->
<!-- kind             :  kind of capacity                            -->
<!ATTLIST us-rights
             to-dead-inventor    CDATA                      #REQUIRED
             kind (heir | heiress | executor | executrix | estate) #REQUIRED >

<!-- designation="as-indicated" : the states indicated in           -->
<!--                             designated-states element           -->
<!ELEMENT designated-states      (country*,(region,country+)*)        >


<!-- Inventors information                                           -->

<!ELEMENT inventors              (inventor+,deceased-inventor*)       >

<!ELEMENT inventor               (addressbook+,designated-states?)    >
<!ATTLIST inventor
             sequence            CDATA          #REQUIRED
             designation (all | all-except-us | us-only | as-indicated)
                                                        #IMPLIED    >

<!-- deceased inventor name                                          -->
<!ELEMENT deceased-inventor       %nam;                               >

<!--                   Agents or common-representative               -->

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

<!ELEMENT agent                  (addressbook+)                       >
<!ATTLIST agent
             sequence            CDATA          #REQUIRED
             type (agent | common-representative)  #REQUIRED          >

<!-- customer number for agents by office                            -->
<!ELEMENT customer-number        (#PCDATA)                            >


<!--  correspondence-address                                         -->
```

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


<!-- BOX No.V DESIGNATION OF STATES (PCT Rule 4.9)                    -->

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

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

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

<!ELEMENT regional               (region,(country,protection-request?)+) >


<!-- protection-request for the designated office                    -->
<!-- document-id  :  e.g, US patent application or grant number       -->
<!--              atent application or grant date                     -->

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

<!-- kind of protection  e.g, patet, utility model                    -->
<!ELEMENT kind-of-protection    (#PCDATA)                               >

<!ELEMENT region                (country)                               >

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


<!-- BOX No.VI PRIORITY CLAIM  (PCT Rule 4.10)                        -->

<!ELEMENT priority-claims       (priority-claim+)                       >

<!ELEMENT priority-claim        (country,doc-number?,date,office-of-filing?,
                                (priority-doc-requested |
                                 priority-doc-attached))                >
<!ATTLIST priority-claim
            sequence            CDATA                     #REQUIRED
            kind                (national | regional |
                                 international)           #REQUIRED     >
<!-- Where earlier application is :                                   -->
<!--      Where the earlier application is an ARIPO application,indicate at -->
<!--      one country party to the PARIS convention for the protection -->
<!--      of inderstrial property or one member of the WTO for which that -->
<!--      earlier application was filed.                              -->

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

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

<!ELEMENT priority-doc-requested  EMPTY                                 >

<!-- the priority document is attached to the application             -->
<!ELEMENT priority-doc-attached   EMPTY                                 >


<!--  BOX No.VII INTERNATIONAL SEARCHING AUTHORITY                    -->

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

<!-- name of INTERNATIONAL SEARCHING AUTHORITY                        -->
<!ELEMENT isa                   (country)                               >

<!-- request touse results of earlier search : reference to that search -->
<!ELEMENT earlier-search-request (document-id+)                         >
```

```
<!--                      BOX No.VIII DECLARATIONS                          -->

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


<!-- Declaration as to the identity of the inventor                        -->
<!ELEMENT declaration1            EMPTY                                     >
<!--     quantity   : number of declaration                                -->
<!ATTLIST declaration1
                     quantity  CDATA    #REQUIRED                          >


<!-- Declaration as applicant's entitlement, as at the international        -->
<!--      filing date, to apply for and be granted a patent                -->
<!ELEMENT declaration2            EMPTY                                     >
<!ATTLIST declaration2
                     quantity  CDATA    #REQUIRED                          >


<!-- Declaration as applicant's entitlement, as at the international        -->
<!--      filing date, to clime the priority of the earlier application     -->
<!ELEMENT declaration3            EMPTY                                     >
<!ATTLIST declaration3
                     quantity  CDATA    #REQUIRED                          >


<!-- Declaration of inventorship                                           -->
<!ELEMENT declaration4            EMPTY                                     >
<!ATTLIST declaration4
                     quantity  CDATA    #REQUIRED                          >


<!-- Declaration as to non-prejudical disclosures or exceptions to         -->
<!--      lack of novelty                                                  -->
<!ELEMENT declaration5            EMPTY                                     >
<!ATTLIST declaration5
                     quantity  CDATA    #REQUIRED                          >



<!-- 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-fee-calculation?,
                       cl-separate-power-of-attorney?,
                       cl-general-separate-power-of-attorney?,
                       cl-copy-separate-power-of-attorney?,cl-lack-of-signature?,
                       cl-priority-document?,cl-translation-of-application?,
                       cl-biological-material?,cl-other-document?)          >

<!ELEMENT cl-request                              EMPTY                     >

<!ELEMENT cl-description                          EMPTY                     >

<!ELEMENT cl-claims                               EMPTY                     >

<!ELEMENT cl-abstract                             EMPTY                     >

<!ELEMENT cl-drawings                             EMPTY                     >
```

```
<!ELEMENT cl-sequence-listing                           EMPTY                        >
<!ATTLIST cl-sequence-listing              quantity  CDATA    #REQUIRED          >

<!ELEMENT cl-fee-calculation                            EMPTY                        >

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

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

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

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

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

<!ELEMENT cl-translation-of-application                 EMPTY                        >
<!ATTLIST cl-translation-of-application quantity  CDATA    #REQUIRED          >

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

<!ELEMENT cl-other-document                             EMPTY                        >
<!ATTLIST cl-other-document                quantity  CDATA    #REQUIRED
                                           doc-names CDATA    #IMPLIED           >


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

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

<!ELEMENT fig-number                  (#PCDATA)                               >


<!-- language of filing of the international application                  -->
<!-- ISO639 language code,e.g, en,de,ja,,                                -->

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



<!-- signatories                                                         -->

<!ELEMENT signatories         (signatory+) >

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

<!ELEMENT electronic-signature  (basic-signature | enhanced-signature)     >
<!ATTLIST electronic-signature
                  date         CDATA         #REQUIRED
                  place-signed CDATA         #IMPLIED                      >

<!ELEMENT signatory-capacity   (#PCDATA)                                   >

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

<!ELEMENT enhanced-signature   (pkcs7)                                     >

<!ELEMENT fax-image            EMPTY                                       >
```

```
<!ATTLIST fax-image
                    file         CDATA           #REQUIRED                >

<!ELEMENT text-string           (#PCDATA)                                 >

<!ELEMENT click-wrap            EMPTY                                     >

<!ELEMENT pkcs7                 EMPTY                                     >


<!-- 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                      >




<!-- common elements                                                       -->
<!-- Document, application identification group                            -->
<!ELEMENT document-id               (country,doc-number,name?,kind?,date?)  >

<!-- Document number                                                       -->
<!--        In case of application ; application number                    -->
<!--        In case of publication ; publication number                   -->
<!--        In case of grant patent; patent number                        -->
<!ELEMENT doc-number                (#PCDATA)                             >

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

<!-- date, YYYYMMDD, e.g, 20011230                                         -->
<!ELEMENT date                      (#PCDATA)                             >


<!--        DOC-PAGE - DOCument or PAGE
            This is primarily to be used when data for 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
           <image> may also be used for complete pages, eg. in drawings    -->
<!ELEMENT doc-page    EMPTY                                               >
<!ATTLIST doc-page
            id          ID       #REQUIRED
            he          NMTOKEN #REQUIRED
            wi          NMTOKEN #REQUIRED
            type        (jpg | tiff | jfif | pdf | jpeg | tif)   #REQUIRED
            alt         CDATA    #IMPLIED
            label       CDATA    #IMPLIED
            pp          CDATA    #IMPLIED
            ppf         CDATA    #IMPLIED
            ppl         CDATA    #IMPLIED
            file        CDATA    #REQUIRED
            color       (color | bw)   #IMPLIED                           >

<!-- END OF DTD                                                            -->
```

3.2 Application body

```
<!--
     ***********************************************************************
     *  APPLICATION-BODY   v0.31 2001 JUNE                                 *
     ***********************************************************************
     *  public "-//wipo//dtd application-body v0.31 2001-06-01/en"         *
     ***********************************************************************
     *  contacts:                                                          *
     *  EPO:    Paul Brewin;  pbrewin@epo.org                              *
     *  JPO:    Mitsuru Sono; sono-mitsuru@jpo.go.jp                       *
     *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                           *
     *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                          *
     *                                                                     *
     ***********************************************************************
     * revision history                                                    *
     ***********************************************************************

        Revision 0.31  1 June 2001  PB
      .. changed abstract and title to optional
      .. changed version to v0.31
      .. added <abstract-figure> and <figno> elements to cater for the
         abstract drawing as an image or simply reference the figure
         number in the drawings sub-document.
      .. changed rel to rel-passage and added further elements for
      search reports
      .. cosmetics and result of authoring an example app.
      .. added break <br> to highlight elements: b, i, smallcaps
      .. removed sup and sub from b, i, u, possible to have these
      within sub and sup. Leaving them in would mean it would be possible
      to have a <sup> of a <sup> within <b> bold for example
      .. changed style to list-style for <ul> so it does not conflict
      with other style attributes
      .. residence, nationality - taken out of addressbook (conflict
      with other dtds eg. applicant, inventor)
      .. changed addressbook syntax (small change)




        Revised  10 May 2001  PB - minor changes: date, headings, some ids,
                              mathml copyright statement

        Revised 2001-04-27 - Trilateral meeting, EPO, JPO, USPTO and WIPO,
        in Washington and  Geneva, April 2001
      .. changed version to v0.3
      .. changed order of sub-documents
      .. changed headers to limit to heading with level attribute, removed
      h1 - h3
      .. changed biocit to bio-deposit and modified
      .. changed several attribute names in order to standardise them
      .. chnaged date content
      .. added document-id to standardise all refs. to patent documents
      .. added crossref to allow cross referencing (linking) to any identified
      element
      .. added id attributes to most elements
      .. added pubdate for citations
      .. removed sequence listing definition to epct-dossier level as external
      file
      .. removed pre - preformatted text
      .. removed imageref replaced by crossref
      .. added mathml (W3C)
      .. added st33 and st35 to image formats
      .. several other minor modifications and clean ups.
      .. modified dtd structure for XML Console use

        Revised 2001 6-15 March  - PB, SA
      .. changed version to v0.21
```

```
              .. changed wo-application to application-body since it MUST now be
                 contained in an epct-dossier.dtd and application.dtd wrapper;
                 added country attribute for 'safety'.
              .. changed title to invention-title  - request JPO
              .. changed description content to PCT Rule 5 only  - request JPO
                     - FOR DISCUSSION
              .. changed la to lang - language attribute - request JPO
              .. changed <UL> style attribute - request JPO
              .. changed headers to limit to h1 to h3
              .. changed Table to CALStable (within table tag)
              .. added heading tag
              .. changed sequence listing definition to reference external file
              .. added br to p  - request JPO
              .. removed wo-amended (claims) - request JPO
              .. removed mathML - request JPO - to be discussed
              .. added possibility of different formats for each sub-document -
                  doc-page eg. tiff, pdf
              .. various other cosmetic and small changes


               Revised 2001 January 24-27 Paul Brewin, Jan Bleeker,EPO,
               Shiro Ankyu, WIPO
               .. changed version to v0.2
               .. substantially modified many tags, added attributes, added tags
                  to reflect PCT requirements better and those of other offices
                  please see notes below at tag level
               .. major new sections are: additional sub-sections within
                  description, citations, address book, table, mathML

              Revised 2000 June 7, Shiro Ankyu, WIPO, and John Godman, WIPO
              ..changed version to v0.11
              ..changed encoding to "UTF-8"
              ..modified WO-DESCRIPTION structure
              ...in order to more closely reflect Annex F, Appe
              Created 2000 May 26,
              Bruce B. Cox, USPTO, Paul Brewin, EPO, and Shiro Ankyu, WIPO
              ..set version to v0.1
              ...creation of new DTD; see Trilateral Meeting, the Hague, 2000 April
                 17-19, Report of the DTD Subgroup
 -->
 <!--   ********************************************************************
        *  XML VERSION FOR FILING OF PCT APPLIICATIONS                     *
        *  it may be utilised by other offices as required                 *
        *                                                                  *
        *  This is a working draft - IT IS NOT RECOMMENDED TO USE          *
        *  IN PRODUCTION SYSTEMS YET                                       *
        *  it has to be validated against real documents                   *
        *                                                                  *
        *  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:        *
        *  - version 0.11 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               *
        *             TO BE ADDED                                         *
        *             or part of  dossier dtd ??                          *
        ********************************************************************  -->
 <!--   ********************************************************************
        * SECTION II - DTD                                                *
        ********************************************************************
 -->
```

```
<!--DOCTYPE application-body [   !!commented out - part of dossier.dtd      -->
<!-- Grouped entities;  name group                                         -->

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

<!--
 v0.31 14 May 2001 - 17:54

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

<!-- Attributes:
     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 two letter st.3 codes
     status      = status of the application; values:
                    n = new application
     file        = filename of the whole application                    -->
<!ATTLIST application-body
               id          ID      #REQUIRED
               country     CDATA   #REQUIRED
               dtd-version CDATA   #REQUIRED
               lang        CDATA   #REQUIRED
               status      CDATA   #REQUIRED
               file        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 <image> may also be used for complete pages, eg. in drawings   -->
<!ELEMENT doc-page EMPTY>
<!ATTLIST doc-page
               id          ID      #REQUIRED
               he          NMTOKEN #REQUIRED
               wi          NMTOKEN #REQUIRED
               type    (jpg | tiff | jfif | pdf | jpeg | tif )  #REQUIRED
               alt         CDATA   #IMPLIED
               label       CDATA   #IMPLIED
               pp          CDATA   #IMPLIED
               ppf         CDATA   #IMPLIED
               ppl         CDATA   #IMPLIED
               file        CDATA   #REQUIRED
               color   (color | bw )  #IMPLIED                          >

<!-- *  DESCRIPTION
```

```
                 Rule 5 states that the description must contain a title
                 "as appearing in the request" - need to check REQUEST  dtd
                 for compliance / cross posting
                 The sub-headings although mentioned in Rule 5 and
                 AI section 204 are NOT compulsory
                 The description could merely contain paragraphs- after title.
                 For this version of the DTD ONLY the PCT headings are
                 listed below.
                 Other headings need discussion (see below)                       -->

<!ELEMENT description    (doc-page+ | (invention-title? , (technical-field |
                         background-art | description-of-drawings|disclosure |
                         best-mode | mode-for-invention |
                         industrial-applicability |
                         sequence-list-text | (heading* , p+)+)+))           >

<!ATTLIST description
                 id              ID      #REQUIRED
                 lang            CDATA   #IMPLIED                              >

<!ELEMENT invention-title (#PCDATA | b | i | u | sup | sub)*                   >
<!ATTLIST invention-title
                 id              ID      #REQUIRED
                 lang            CDATA   #IMPLIED                              >

<!ELEMENT technical-field (heading* , p+)+                                     >
<!ATTLIST technical-field
                 id              ID      #REQUIRED                            >

<!--  *  Background art, background of the invention                          -->
<!ELEMENT background-art  (heading* , p+)+                                     >
<!ATTLIST background-art
                 id              ID      #REQUIRED                            >

<!--  Disclosure of the invention;
      with sub-headings:;
      technical problem;
      technical solution;
      advantageous effects (of the invention);                               -->
<!ELEMENT disclosure      ((tech-problem |tech-solution |advantageous-effects)*|
                         (heading* , p+)+)                                    >
<!ATTLIST disclosure
                 id              ID      #REQUIRED                            >

<!ELEMENT tech-problem    (heading* , p+)+                                     >
<!ATTLIST tech-problem
                 id              ID      #REQUIRED                            >

<!ELEMENT tech-solution   (heading* , p+)+                                     >
<!ATTLIST tech-solution
                 id              ID      #REQUIRED                            >

<!ELEMENT advantageous-effects (heading* , p+)+                               >
<!ATTLIST advantageous-effects
                 id              ID      #REQUIRED                            >

<!ELEMENT description-of-drawings (heading* , p+)+                            >
<!ATTLIST description-of-drawings
                 id              ID      #REQUIRED                            >

<!ELEMENT best-mode       (heading* , p+)+                                     >
<!ATTLIST best-mode
                 id              ID      #REQUIRED                            >

<!ELEMENT mode-for-invention (heading* , p+)+                                 >
<!ATTLIST mode-for-invention
                 id              ID      #REQUIRED                            >
```

```
<!ELEMENT industrial-applicability (heading* , p+)+                         >
<!ATTLIST industrial-applicability
                 id              ID      #REQUIRED                         >

<!--
      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".           -->

<!ELEMENT sequence-list-text (heading* , p+)+                              >
<!ATTLIST sequence-list-text
                 id              ID      #REQUIRED                         >

<!--   CLAIMS                                                             -->
<!ELEMENT claims        (doc-page+ | claim+)                              >
<!ATTLIST claims
                 lang            CDATA   #REQUIRED
                 id              ID      #REQUIRED
                 country         NMTOKEN #IMPLIED
                 status          CDATA   #IMPLIED                         >

<!ELEMENT claim         (claim-text+)                                     >
<!ATTLIST claim
                 id              ID      #REQUIRED
                 num             CDATA   #REQUIRED                        >

<!--  Claim text is used for sub-para indentation                        -->
<!ELEMENT claim-text    (#PCDATA | claim-text | claim-ref | b | i | u |
                          sup | sub | smallcaps | br | crossref|
                          image | chemistry | math | table)*             >

<!ELEMENT claim-ref     (#PCDATA)                                         >
<!ATTLIST claim-ref
                 idref           IDREFS  #REQUIRED                        >

<!--   ABSTRACT  (Rule 8)
         this needs linking some way to the REQUEST figure indicator.    -->

<!ELEMENT abstract      (doc-page+ | (abst-problem , abst-solution) |
                          (p+))                                          >
<!ATTLIST abstract
                 id              ID      #REQUIRED
                 lang            CDATA   #IMPLIED
                 country         CDATA   #IMPLIED                         >

<!ELEMENT abst-problem  (p+)                                              >
<!ATTLIST abst-problem
                 id              ID      #REQUIRED                        >

<!ELEMENT abst-solution (p+)                                              >
<!ATTLIST abst-solution
                 id              ID      #REQUIRED                        >


<!--   DRAWINGS
      PCT Article 7 / Rule 7                                             -->
<!ELEMENT drawings      (doc-page+ | figure+)                            >

<!ATTLIST drawings
                 id              ID      #REQUIRED
                 lang            CDATA   #IMPLIED
```

```
                  country          NMTOKEN  #IMPLIED
                  status           CDATA    #IMPLIED                      >

<!ELEMENT figure            (image)                                       >
<!ATTLIST figure
                  id               ID       #REQUIRED
                  num              CDATA    #REQUIRED                     >

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

<!--  Limit to 3 as for Word default,  id  recommended - "h1"          -->
<!ATTLIST heading
                  level     (1 | 2 | 3 ) #IMPLIED
                  id               ID       #REQUIRED                     >

<!--   *  PARAGRAPHS                                                    -->
<!ELEMENT p                 (#PCDATA | b | i | u | sup | sub | smallcaps | br
                             | dl | ul | ol| patcit | nplcit | bio-deposit |
                            crossref | image | chemistry | math | table)*     >

<!--  recommended - id="p1"; num="0001" ; id is permanent, num can be
      renumbered                                                       -->
<!ATTLIST p
                  id               ID       #REQUIRED
                  num              CDATA    #REQUIRED                     >

<!--   IMAGE DATA
      Note: image is used for any kind of image: art work, figures, complex
      maths, tables, etc.                                              -->
<!ELEMENT image             EMPTY                                         >

<!--  recommended - id="img1";
               he, wi="11" - milimeters - height, width;
                file = file name,location;
               label - not used;
                 alt - alternative 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.          -->
<!ATTLIST image
                  id               ID       #REQUIRED
                  he               NMTOKEN  #REQUIRED
                  wi               NMTOKEN  #REQUIRED
                  file             CDATA    #REQUIRED
                  label            CDATA    #IMPLIED
                  alt              CDATA    #IMPLIED
                  img-content   (drawing | photograph |character | dna| undefined )
                                            "drawing"
                  img-format    (jpeg | tiff | jfif | st33 | st35 )  #REQUIRED    >


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

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

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

<!--   * Underscore attribute: style - single is default               -->
<!ATTLIST u
                  style     (single | double | dash | dots )  "single"   >

<!--   * Superscript attribute: position (post)                        -->
<!ELEMENT sup               (#PCDATA | b | u | i)*                        >
```

PCT/AI/1 Add.4 Prov. Rev.3

Annex F, Appendix I

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

<!--  * Small capitals                                                   -->
<!ELEMENT smallcaps      (#PCDATA | b | u | i| br)*                        >

<!--  *  br - break, line break within a paragraph                       -->
<!ELEMENT br             EMPTY                                             >

<!--  *  DEFINITION LISTS
        restrict content of dt - definition term                         -->
<!ELEMENT dl             (dt , dd)+                                        >

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

<!--Term to be defined                                                   -->
<!ELEMENT dt             (#PCDATA | b | i | u | sup | sub | smallcaps)*    >
<!ATTLIST dt
            id             ID       #REQUIRED                             >

<!--Definition of the term                                              -->

<!ELEMENT dd             (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                         patcit | nplcit | bio-deposit | crossref |
                         image | ul | ol | chemistry | math | table)*     >

<!--  *  ORDERED  LISTS, for now the default will be
 recommended style first level -  1. 2. 3. etc.
 For lists within lists -
 second level - a. b. c.
 for third level - i. ii. iii.;
 These are style sheet issues but these are recommended for consistency.  -->
<!ELEMENT ol             (li+)                                            >
<!ATTLIST ol
            id             ID       #REQUIRED
            compact     (compact )  #IMPLIED                              >

<!--  *  UNORDERED  LISTS
        default is 'bullets'
        style may be empty for lists with no bullet or other symbol      -->
<!ELEMENT ul             (li+)                                            >
<!ATTLIST ul
            id             ID       #REQUIRED
            list-style (bullet | dash | none )  'bullet'
            compact     (compact )  #IMPLIED                              >

<!--  *  LIST item                                                       -->
<!ELEMENT li             (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                         patcit | nplcit | bio-deposit | crossref |
                         image | dl | ul | ol | chemistry | math | table)*  >

<!ATTLIST li
            id             ID       #REQUIRED                             >

<!--  *  CHEMISTRY
        Chemical formulae, ring structures, Markush structures  etc
        For now treat as image data.
        Depending on industry support we may have eg. chemML, CML later  -->
<!ELEMENT chemistry      (image)                                          >

<!--  recommended - id="ch1"                                             -->
<!ATTLIST chemistry
            id             ID       #REQUIRED
            num            CDATA    #REQUIRED                             >
```

```
<!-- *  MATHEMATICS
      This is image data or coded according to mathml version 2,        -->
<!ELEMENT math            (image | MathML)                             >

<!-- recommended - id="m1"                                             -->
<!ATTLIST math
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                          >

<!-- *  MATHEMATICS                                                    -->
<!-- MathML 2.0 DTD

          This is the Mathematical Markup Language (MathML) 2.0, an XML
          application for describing mathematical notation and capturing
          both its structure and content.

          Copyright 1998-2000 World Wide Web Consortium
             (Massachusetts Institute of Technology, Institut National de
              Recherche en Informatique et en Automatique, Keio University).
              All Rights Reserved.

          Permission to use, copy, modify and distribute the XHTML 1.1 DTD and
          its accompanying documentation for any purpose and without fee is
          hereby granted in perpetuity, provided that the above copyright
          notice and this paragraph appear in all copies.
          The copyright holders make no representation about the suitability
          of the DTD for any purpose.

          It is provided "as is" without expressed or implied warranty.

          Revision:   $Id: parsing.xml,v 1.34 2000/12/14 13:08:43 davidc Exp $

          This entity may be identified by the PUBLIC and SYSTEM identifiers:

            PUBLIC "-//W3C//DTD MathML 2.0//EN"
            SYSTEM "mathml2.dtd"

      To be added in later - in order to keep this ver. of DTD smaller, see:
      http://www.w3.org/TR/MathML2/
-->
<!ELEMENT MathML          EMPTY                                        >

<!-- *  TABLES
        This is image data or coded according to CALStable exported
        from USPTO EFS with modified cell <entry> content
-->
<!ELEMENT table           (image | CALStable)                         >

<!-- recommended - id="t1"                                            -->
<!ATTLIST table
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                          >

<!ELEMENT CALStable       (heading , TGroup+)                          >
<!ATTLIST CALStable
            frame     (top | bottom | topbot | all | sides | none )  #IMPLIED
            colsep          NMTOKEN  #IMPLIED
            rowsep          NMTOKEN  #IMPLIED
            pgwide          NMTOKEN  #IMPLIED                          >

<!ELEMENT TGroup          (colspec* , spanspec* , thead? , TBody)      >
<!ATTLIST TGroup
            cols            CDATA    #REQUIRED
            colsep          NMTOKEN  #IMPLIED
            rowsep          NMTOKEN  #IMPLIED
            align     (left | right | center | justify | char )  #IMPLIED  >
```

```
<!ELEMENT colspec        EMPTY                                              >
<!ATTLIST colspec
            colnum           CDATA    #IMPLIED
            colname          CDATA    #IMPLIED
            colwidth         CDATA    #IMPLIED
            colsep           NMTOKEN  #IMPLIED
            rowsep           NMTOKEN  #IMPLIED
            align     (left | right | center | justify | char )  #IMPLIED
            char             CDATA    #IMPLIED
            charoff          CDATA    #IMPLIED                               >

<!ELEMENT spanspec       EMPTY                                              >
<!ATTLIST spanspec
            namest           CDATA    #REQUIRED
            nameend          CDATA    #REQUIRED
            spanname         CDATA    #REQUIRED
            align     (left | right | center | justify | char )  'center'
            colsep           NMTOKEN  #IMPLIED
            rowsep           NMTOKEN  #IMPLIED                               >

<!ELEMENT thead          (Row+)                                             >
<!ATTLIST thead
            valign    (top | middle | bottom )  #IMPLIED                    >

<!ELEMENT TBody          (Row+)                                             >
<!ATTLIST TBody
            valign    (top | middle | bottom )  #IMPLIED                    >

<!ELEMENT Row            (Entry+)>
<!ATTLIST Row
            rowsep           NMTOKEN  #IMPLIED
            valign    (top | middle | bottom )  #IMPLIED                    >
<!--   * Changed to add other elements in entry                          -->
<!ELEMENT Entry          (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                          patcit | nplcit | bio-deposit | crossref | image |
                          dl | ul | ol | chemistry | math)*                 >

<!ATTLIST Entry
            colname          NMTOKEN  #IMPLIED
            namest           NMTOKEN  #IMPLIED
            nameend          NMTOKEN  #IMPLIED
            morerows         CDATA    #IMPLIED
            colsep           NMTOKEN  #IMPLIED
            rowsep           NMTOKEN  #IMPLIED
            align     (left | right | center | justify | char )  #IMPLIED
            char             CDATA    #IMPLIED
            charoff          CDATA    #IMPLIED
            valign    (top | middle | bottom )  #IMPLIED                    >


<!--   * PATENT CITATIONS
        Patent Citation within abstract, description or claims
        for pat. 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).

        Attributes (recommended):;
        id - use pcit1, pcit2, etc;
        dnum - use full number as one string, eg, "US5401234A";
        url  - where possible give full web link to patent
;
        Example:<patcit id="pcit1" dnum="US4793675A">
             <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    -->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!--    Attributes (recommended):;
        id - use pcit1, pcit2, 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                  -->
<!ATTLIST patcit
                id              ID      #REQUIRED
                dnum            CDATA   #IMPLIED
                url             CDATA   #IMPLIED
                file            CDATA   #IMPLIED                          >

<!ELEMENT text          (#PCDATA)                                        >

<!--    Document identification refers to patents only and
        is used in several other dtds it should not be changed
        without consultation with WIPO;                                  -->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ELEMENT doc-number    (#PCDATA)                                        >

<!--  * doc. kind code  eg A1                                            -->
<!ELEMENT kind          (#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?)+)        >

<!ELEMENT passage       (#PCDATA)                                        >

<!ELEMENT category      (#PCDATA)                                        >

<!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)                                                -->

<!ELEMENT nplcit        ((text) | (article | book | online | othercit)*)  >

<!--    Attributes (recommended):;
        id - ncit1, ncit2, etc
        num - 0001, 0002
        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 eg.
          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          -->
<!ATTLIST nplcit
                id          ID      #REQUIRED
                num         CDATA   #REQUIRED
                type        CDATA   #IMPLIED
                medium      CDATA   #IMPLIED
                file        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 auths
        <AUTHOR>s followed by:
        %nam; or addressbook entry
        use the ID attribute if, for example, there is a need to
        distinguish between multiple authors. Can also include
        affiliation details                                             -->
<!ELEMENT author        ((%nam;) | (addressbook))                       >
<!ATTLIST author
            id              ID      #IMPLIED                            >

<!--   *  Article title                                                 -->
<!ELEMENT atl           (#PCDATA)                                       >

<!--   *  Subordinate responsibility
          This can be, eg. : editor, translator, etc                    -->
<!ELEMENT subname       ((%nam;) | addressbook)                         >

<!--   * SERIAL  CITATION DATA
        This describes the volume or issue as a whole amd not a
        particular article within it.                                   -->

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

<!--   * Serial title                                                   -->
<!ELEMENT sertitle      (#PCDATA)                                       >

<!--   * Alternate title for serial eg. BMJ = British Medical Journal   -->
<!ELEMENT alttitle      (#PCDATA)                                       >

<!--   *  Issue designation
          This can be, eg. : 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*))          >

<!--   * Physical description - generally NOT used in citations in pats.
        eg. v., 27cm                                                    -->
<!--   * PUBDATE: Components of a date in npl citations - sdate etc
        defined in date                                                 -->
<!ELEMENT pubdate       (#PCDATA | sdate | edate | time)*                >

<!ELEMENT descrip       (#PCDATA)                                       >

<!--   *  Notes about the journal eg. Continues Journal of XYZ 1910-1998,
          published in French and English, etc.                         -->
<!ELEMENT notes         (#PCDATA)                                       >

<!--   * International standard serial number                           -->
<!ELEMENT issn          (#PCDATA)                                       >

<!--   * International standard book number                             -->
<!ELEMENT isbn          (#PCDATA)                                       >

<!--   * Publisher's unique id   added 11.2000  PB   ISO 12083          -->
<!ELEMENT pubid         (#PCDATA)                                       >

<!--   * Volume id/number                                               -->
```

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

<!--  * Issue number                                                       -->
<!ELEMENT ino            (#PCDATA)                                              >

<!--  * Copyright info. copyright of publisher of serial                   -->
<!ELEMENT cpyrt          (#PCDATA)                                              >

<!--  * Abstract number                                                    -->
<!ELEMENT absno          (#PCDATA)                                              >

<!--  *  Location  within the work                                         -->
<!ELEMENT location       ((text) | (serpart? , sersect? , chapter? ,
                          pp? , column? , para? , line?))                       >

<!--  *  Part in a serial    ISO 12083                                     -->
<!ELEMENT serpart        (#PCDATA)                                              >

<!ELEMENT sersect        (#PCDATA)                                              >

<!ELEMENT chapter        (#PCDATA)                                              >

<!--  *  Page numbers    ppf - first, ppl - last                           -->
<!ELEMENT pp             (#PCDATA | ppf | ppl)*                                 >

<!ELEMENT ppf            (#PCDATA)                                              >

<!ELEMENT ppl            (#PCDATA)                                              >

<!--  *  Column, para(graph) and line numbers                              -->
<!ELEMENT column         (#PCDATA | colf | coll)*                               >

<!ELEMENT colf           (#PCDATA)                                              >

<!ELEMENT coll           (#PCDATA)                                              >

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

<!ELEMENT paraf          (#PCDATA)                                              >

<!ELEMENT paral          (#PCDATA)                                              >

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

<!ELEMENT linef          (#PCDATA)                                              >

<!ELEMENT linel          (#PCDATA)                                              >

<!--  *  Classification code eg. ipc, dewey etc.                           -->
<!ELEMENT class          (#PCDATA)                                              >

<!--  *  Keywords eg. from a Thesaurus or class. scheme                    -->
<!ELEMENT keyword        (#PCDATA)                                              >

<!--  *    HISTORY of the article (not serial)
           date received/accepted/revised
           preferred: yyyymmdd
           Group added 11/2000 PB from ISO 12083                          -->
<!ELEMENT history        ((text) | (received | accepted | revised | misc))      >

<!ELEMENT received       (date)                                                 >

<!ELEMENT accepted       (date)                                                 >

<!ELEMENT revised        (date)                                                 >

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

```
<!--  * Article unique ID - assigned by a publisher to an article
        added 11/2000 PB from ISO 12803                             -->
<!ELEMENT artid        (#PCDATA)                                      >

<!--  Reference no. (general)  for the EPO this is the XP number      -->
<!ELEMENT refno        (#PCDATA)                                      >
<!ATTLIST refno
            id              ID      #REQUIRED                         >
<!--
        BOOK CITATION (MONOGRAPH)
        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*)))                                     >

<!ELEMENT book-title   (#PCDATA)                                      >

<!ELEMENT subtitle     (#PCDATA)                                      >

<!--  *  Edition statement                                           -->
<!ELEMENT edition      (#PCDATA)                                      >

<!--  *  Subordinate responsibility
        This can be, eg. : editor, translator, etc
        Note this does not follow AACR2 rules
        subname - defined above
        imprint    - described above
        descrip    - described above                                 -->
<!--  *  Series statement                                            -->
<!ELEMENT series        ((text) | (mst , msn? , issn?))               >

<!--  * Monographic series title and number                         -->
<!ELEMENT mst          (#PCDATA)                                      >

<!ELEMENT msn          (#PCDATA)                                      >

<!--  * book number                                                 -->
<!ELEMENT bookno       (#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 <CONFERENCE>
```

```
        and no sub tags                                               -->

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

<!--      *  Conference   title                                        -->
<!ELEMENT conftitle     (#PCDATA)                                        >

<!--      *  Conference   number                                       -->
<!ELEMENT confno        (#PCDATA)                                        >

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

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


<!--  * ONLINE CITATION
        (previously DBASECIT)
        This section completely 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.
          Body</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: &lt;iso.tc46.sc9@nlc-bnc.ca&gt;
          </name></subname>
          <pubdate>3 October 2000; 13:33 EST</pubdate>
          <notes>Personal communication</notes>
          <avail>Message-ID: &lt;002f01c02d60$051a64a0$22a2580c@vaio&gt;
          </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*)) >

<!ELEMENT online-title  (#PCDATA)                                           >

<!-- *   TITLE of the HOST document/database                              -->
<!ELEMENT hosttitle     (#PCDATA)                                           >

<!ELEMENT hostno        (#PCDATA)                                           >

<!-- *   Availability and access - REQUIRED
use for URL, online database, ftp address, email, etc. eg.
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
        it may be different from srchate below                            -->
<!ELEMENT datecit       (date)                                             >

<!-- *  Search terms                                                      -->
<!ELEMENT srchterm      (#PCDATA)                                           >

<!-- *  Date of search/retrieval^                                         -->
<!ELEMENT srchdate      (date)                                             >

<!-- *  Other citations - free form                                       -->
<!ELEMENT othercit      (#PCDATA)                                           >


<!--
  BIOlogical deposit CITation
  (US EFS: biological-deposit)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short
  within the description and/or claims                                    -->

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

<!ATTLIST bio-deposit
```

```
                 id              ID      #REQUIRED
                 num             CDATA   #REQUIRED
                 url             CDATA   #IMPLIED
                 dnum            CDATA   #IMPLIED                           >

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

<!ELEMENT bio-accno    (#PCDATA)                                           >

<!ELEMENT term         (#PCDATA)                                           >


<!--  * Cross references to any other element                         -->

<!ELEMENT crossref     (#PCDATA)                                           >
<!ATTLIST crossref
              idref           CDATA   #REQUIRED                            >


<!--  * ADDRESSBOOK COMPONENTS / GROUP TAG

        The LANG attribute is REQUIRED for eg.the JPO PCT Request
        where names and addresses may be repeated in two different
        languages. If no structure possible use text                  -->

<!ELEMENT addressbook   ((%nam;, address , phone* , fax* ,
                          email* , url* , ead* , dtext?)| (text))         >
<!ATTLIST addressbook
              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
              type              (legal | natural )  #REQUIRED             >

<!--  *  Last, family, surname                                         -->
<!ELEMENT last-name    (#PCDATA)                                           >

<!--  * First, given, name(s), initials
         eg. John, J.                                                 -->
<!ELEMENT first-name   (#PCDATA)                                           >

<!ELEMENT middle-name  (#PCDATA)                                           >

<!--  * Title e.g., Mr., Mrs., Dr. etc                                 -->
<!ELEMENT prefix       (#PCDATA)                                           >

<!--  *  Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc.              -->
<!ELEMENT suffix       (#PCDATA)                                           >

<!--  *  Individual id                                                 -->
<!ELEMENT iid          (#PCDATA)                                           >

<!--  *  Role, eg President added 02.11.2000 PB  ISO 12083            -->
<!ELEMENT role         (#PCDATA)                                           >

<!--  *  Organisation name or company name                            -->
<!ELEMENT orgname      (#PCDATA)                                           >

<!--  *  Department,division,section, etc. name                       -->
<!ELEMENT department   (#PCDATA)                                           >

<!--  *  Synonym, cross-reference                                      -->
<!ELEMENT synonym      (#PCDATA)                                           >
```

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

<!-- * ADDRESS COMPONENTS
        Address formats differ from country to country
        If no structure possible use pctext                              -->

<!ELEMENT address        ((address-1? , address-2? , address-3? , mailcode? ,
                           pobox? , room? , floor? , building? , street? , city?,
                           county? , state? , postcode , country) | (text))  >

<!ELEMENT address-1     (#PCDATA)                                         >

<!ELEMENT address-2     (#PCDATA)                                         >

<!ELEMENT address-3     (#PCDATA)                                         >

<!-- * Org. mail code                                                    -->
<!ELEMENT mailcode      (#PCDATA)                                         >

<!-- * Post Office Box number                                            -->
<!ELEMENT pobox         (#PCDATA)                                         >

<!ELEMENT room          (#PCDATA)                                         >

<!ELEMENT floor         (#PCDATA)                                         >

<!ELEMENT building      (#PCDATA)                                         >

<!-- * Street may contain house number or name                          -->
<!ELEMENT street        (#PCDATA)                                         >

<!-- * City or town name                                                -->
<!ELEMENT city          (#PCDATA)                                         >

<!-- * County, parish, department, etc (mainly UK, USA)                 -->
<!ELEMENT county        (#PCDATA)                                         >

<!-- * Region of country  eg. state, province, lande etc                -->
<!ELEMENT state         (#PCDATA)                                         >

<!-- * Postal code or zip code                                          -->
<!ELEMENT postcode      (#PCDATA)                                         >

<!-- * Country use ST.3 country code eg. DE, FR, GB, NL  - changed
        also, therefore, includes EP, WO                                 -->
<!ELEMENT country       (#PCDATA)                                         >

<!-- * Telephone number                                                 -->
<!ELEMENT phone         (#PCDATA)                                         >

<!-- * Fax number                                                       -->
<!ELEMENT fax           (#PCDATA)                                         >

<!ELEMENT email         (#PCDATA)                                         >

<!-- * Web page location- Universal Resource Locator
        www.wipo.int                                                     -->
<!ELEMENT url           (#PCDATA)                                         >

<!-- * Electronic address use for other than email                      -->
<!ELEMENT ead           (#PCDATA)                                         >

<!-- * Descriptive text                                                 -->
<!ELEMENT dtext         (#PCDATA)                                         >
```

```
<!-- *   DATE: Components of a date (date)  YYYYMMDD                      -->
<!ELEMENT date          (#PCDATA)                                          >

<!-- *   start date, end date used in pubdate                            -->
<!ELEMENT sdate         (#PCDATA)                                          >

<!ELEMENT edate         (#PCDATA)                                          >

<!ELEMENT time          (#PCDATA)                                          >

<!-- END OF DTD                                                          -->
```

3.3 Declaration

```
<!--
     ********************************************************************
     *  declaration v0.1   2001 APRIL                                  *
     ********************************************************************
     *  public "-//wipo//dtd declaration v0.1 2001-04-30/en"           *
     ********************************************************************
     *  contacts:                                                      *
     *  EPO:   Paul Brewin;  pbrewin@epo.org                           *
     *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                    *
     *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                       *
     *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                      *
     *                                                                 *
     ********************************************************************
     * revision history                                               *
     ********************************************************************
Created 2001-04-26
WIPO, EPO, USPTO       Geneva
-->



<!--DOCTYPE declaration [                                             -->

<!-- Define some entities                                            -->
<!-- Name group entity, please see name element group for each elements  -->

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



<!-- DECLARATION                                                     -->

<!ELEMENT declaration            (doc-page+ | (identity-of-inventor+ |
                                        entitlement-filing-date+ |
                                        entitlement-priorty-date+ |
                                        inventorship+ |
                                        lack-of-novelty+))            >
<!--type of declartion
         1:  Declaration as to the identity of the inventor
         2:  Declaration as applicant's entitlement, as at the international
             filing date, to apply for and be granted a patent
         3:  Declaration as applicant's entitlement, as at the international
             filing date, to clime the priority of the earlier application
         4:  Declaration of inventorship
         5:  Declaration as to non-prejudical disclosures or exceptions to
             lack of novelty
   combined:  Combined declaration 1 and 2                           -->



<!ATTLIST declaration
             dec-type           (1 | 2 | 3 | 4 | 5 | combined )  #REQUIRED
             lang               CDATA    #REQUIRED
             dtd-version        CDATA    #IMPLIED
             date-produced      CDATA    #IMPLIED
             status             CDATA    #IMPLIED
             file               CDATA    #IMPLIED                     >



<!-- Declaration as to the identity of the inventor                  -->

<!ELEMENT identity-of-inventor (application-reference?,( date | addressbook |
                              (all-designations |
                               all-designations-except-us |
                               designated-states))+)                 >
```

```
<!ATTLIST identity-of-inventor
            sequence          CDATA               #REQUIRED
            lang              CDATA               #IMPLIED          >



<!-- Declaration as applicant's entitlement, as at the international   -->
<!-- filing date, to apply for and be granted a patent                -->

<!ELEMENT entitlement-filing-date  (application-reference?,%nam;,matter+)  >
<!ATTLIST entitlement-filing-date
            sequence          CDATA               #REQUIRED
            lang              CDATA               #IMPLIED          >

<!ELEMENT matter              (date | %nam; | addressbook |court-name |
                              kind-of-transfer| (all-designations |
                              all-designations-except-us |
                              designated-states))+                  >
<!ATTLIST matter
            num               CDATA               #IMPLIED          >



<!ELEMENT kind-of-transfer    (#PCDATA)                             >
<!ELEMENT court-name          (#PCDATA)                             >
<!-- Declaration as applicant's entitlement, as at the international   -->
<!-- filing date, to clime the priority of the earlier application    -->

<!ELEMENT entitlement-priorty-date  (application-reference?,%nam;,
                               earlier-app-reference,matter+)        >
<!ATTLIST entitlement-priorty-date
            sequence          CDATA               #REQUIRED
            lang              CDATA               #IMPLIED          >



<!-- Declaration of inventorship                                      -->

<!ELEMENT inventorship        (application-reference?,earlier-app-reference*,
                               inventor-info+,signatories?,dtext?)   >
<!ATTLIST inventorship
            sequence          CDATA               #REQUIRED
            lang              CDATA               #IMPLIED          >

<!ELEMENT inventor-info       (addressbook?,us-residence,
                               authority-applicant?)                 >

<!ELEMENT us-residence        (military-service | (us | non-us))     >

<!ELEMENT military-service    (#PCDATA)                             >

<!ELEMENT us                  (city,state,country,citizenship?)      >

<!ELEMENT citizenship         (#PCDATA)                             >

<!ELEMENT non-us              (city,country,citizenship?)            >

<!ELEMENT authority-applicant (#PCDATA)                             >


<!-- Declaration as to non-prejudical disclosures or exceptions to   -->
<!-- lack of novelty                                                 -->

<!ELEMENT lack-of-novelty     (application-reference?,%nam;, (date | address |
                               title-of-disclosure | method-of-disclosure |
                               dtext | (all-designations |
                               designated-states))+)                 >
```

```
<!ATTLIST lack-of-novelty
            sequence          CDATA                 #REQUIRED
            lang              CDATA                 #IMPLIED          >

<!ELEMENT title-of-disclosure  (#PCDATA)                             >

<!ELEMENT method-of-disclosure (international-exhibition | publication |
                          abuse | other)                            >

<!ELEMENT international-exhibition  (#PCDATA)                        >

<!ELEMENT publication          (#PCDATA)                            >

<!ELEMENT abuse                (#PCDATA)                            >

<!ELEMENT other                (#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
            type (legal | natural)  #REQUIRED                       >

<!--              *Title e.g., Mr., Mrs., Dr. etc*                   -->
<!ELEMENT prefix                (#PCDATA)                           >

<!-- Last, family, surname                                          -->
<!ELEMENT last-name             (#PCDATA)                           >

<!--  First, given, middle name(s), initials
      eg. John, John F., J.F, John Frederick                        -->

<!ELEMENT first-name            (#PCDATA)                           >

<!ELEMENT middle-name           (#PCDATA)                           >

<!--         * Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc. *    -->
<!ELEMENT suffix                (#PCDATA)                           >

<!--                    * Individual id *                           -->
<!ELEMENT iid                   (#PCDATA)                           >

<!--          * Role, eg President added 02.11.2000 PB ISO 12083 *  -->
<!ELEMENT role                  (#PCDATA)                           >

<!--                    * Organisation name *                       -->
<!ELEMENT orgname               (#PCDATA)                           >

<!--           * Department,division,section, etc. name *           -->
<!ELEMENT department            (#PCDATA)                           >

<!--                    * Synonym, cross-reference *                -->
<!ELEMENT synonym               (#PCDATA)                           >



<!-- Applicant's, agent's registration number with the office       -->
<!ELEMENT registered-number     (#PCDATA)                           >



<!-- addressbook :  NAME and ADDRESS COMPONENTS / GROUP TAG

    % nam "((name | (prefix?,last-name,first-name,middle-name?,suffix?,
          iid?, role?,orgname?,department?,synonym*)),registered-number?)"
```

```
    The lang attribute is REQUIRED for eg.the JPO PCT request where names and
    addresses may be repeated in two different languages.
    If no structure possible use pctext                                    -->

<!ELEMENT addressbook  ((%nam;,address, phone*, fax* ,email* , url* , ead*,
                        dtext?) | dtext)                                   >
<!ATTLIST addressbook
                lang          CDATA          #REQUIRED                     >


<!--   ADDRESS COMPONENTS *
      The name may form part of addresses.  Address format differ from
      country to country.   If no structure possible use pctext *          -->

<!ELEMENT address  ((address-1?,address-2?,address-3?,street?,city?,
                   county?,state?,postcode,country) | text)               >


<!--*      In case the address dose not have street name,city name,etc     *-->
<!ELEMENT address-1              (#PCDATA)                                 >
<!ELEMENT address-2              (#PCDATA)                                 >
<!ELEMENT address-3              (#PCDATA)                                 >

<!--*      Street may contain house number or name                        *-->
<!ELEMENT street                (#PCDATA)                                 >

<!--*      City or town name                                              *-->
<!ELEMENT city                  (#PCDATA)                                 >

<!--*      County, parish, department, etc (mainly UK, USA)               *-->
<!ELEMENT county                (#PCDATA)                                 >

<!--*      Region of country eg. state, province, lande etc               *-->
<!ELEMENT state                 (#PCDATA)                                 >

<!--*      Postal code or zip code                                        *-->
<!ELEMENT postcode              (#PCDATA)                                 >

<!--*      Country use ST.3 country code eg. DE, FR, GB, NL - changed
           Includes region codes for EP, AP, EA, OA                       *-->

<!--*      Telephone number                                               *-->
<!ELEMENT phone                 (#PCDATA)                                 >

<!--*      Fax number                                                     *-->
<!ELEMENT fax                   (#PCDATA)                                 >

<!ELEMENT email                 (#PCDATA)                                 >

<!--*      Web page location,Universal Resource Locator, eg. www.epoline.org *-->
<!ELEMENT url                   (#PCDATA)                                 >

<!--*      Electronic address use for other than email                    *-->
<!ELEMENT ead                   (#PCDATA)                                 >


<!--*      Descriptive text                                               *-->
<!ELEMENT dtext                 (#PCDATA)                                 >
<!ELEMENT text                  (#PCDATA)                                 >

<!-- signatories                                                          -->

<!ELEMENT signatories           (signatory+) >

<!ELEMENT signatory             (%nam;,electronic-signature,
                                 signatory-capacity?)                     >
```

```
<!ELEMENT electronic-signature  (basic-signature | enhanced-signature)      >
<!ATTLIST electronic-signature
                  date          CDATA         #REQUIRED
                  place-signed CDATA          #IMPLIED                       >

<!ELEMENT signatory-capacity    (#PCDATA)                                    >

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

<!ELEMENT enhanced-signature    (pkcs7)                                      >

<!ELEMENT fax-image             EMPTY                                        >
<!ATTLIST fax-image
                  file          CDATA         #REQUIRED                      >

<!ELEMENT text-string           (#PCDATA)                                    >

<!ELEMENT click-wrap            EMPTY                                        >

<!ELEMENT pkcs7                 EMPTY                                        >


<!-- common elements                                                        -->

<!-- application identification group                                       -->
<!ELEMENT application-reference  (document-id,language-of-filing?)           >

<!-- earlier application identification group                               -->
<!ELEMENT earlier-app-reference  (document-id)                              >

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

<!-- country code, ST.3                                                     -->
<!ELEMENT country               (#PCDATA)                                   >

<!-- Document number                                                        -->
<!--     In case of application ; application number                        -->
<!--     In case of publication ; publication number                        -->
<!--     In case of grant patent; patent number                            -->
<!ELEMENT doc-number            (#PCDATA)                                    >

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

<!-- date, YYYYMMDD, e.g, 20011230                                          -->
<!ELEMENT date                  (#PCDATA)                                    >

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

<!ELEMENT all-designations      EMPTY                                        >

<!ELEMENT all-designations-except-us EMPTY                                   >

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

<!ELEMENT region                (country)                                    >


<!--      DOC-PAGE - DOCument or PAGE
          This is primarily to be used when data for 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
          <image> may also be used for complete pages, eg. in drawings     -->
```

```
<!ELEMENT doc-page    EMPTY  >
<!ATTLIST doc-page
            id          ID      #REQUIRED
            he          NMTOKEN #REQUIRED
            wi          NMTOKEN #REQUIRED
            type        (jpg | tiff | jfif | pdf | jpeg | tif)   #REQUIRED
            alt         CDATA   #IMPLIED
            label       CDATA   #IMPLIED
            pp          CDATA   #IMPLIED
            ppf         CDATA   #IMPLIED
            ppl         CDATA   #IMPLIED
            file        CDATA   #REQUIRED
            color       (color | bw)   #IMPLIED                                  >

<!-- END OF DTD                                                                -->
```

3.4 Amendment request

```
<!--
      *********************************************************************
      *  amendment-request   v0.1 2001 APRIL                             *
      *********************************************************************
      *  public "-//wipo//dtd amendment-request v0.1 2001-04-30/en"      *
      *********************************************************************
      *  contacts:                                                       *
      *  EPO:   Paul Brewin;  pbrewin@epo.org                            *
      *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                     *
      *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                        *
      *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                       *
      *                                                                  *
      *********************************************************************  -->

<!-- DOCTYPE amendment-request [                                          -->

<!-- Define some entities                                                -->
<!-- Name group entity, please see name element group for each elements  -->
<!ENTITY % nam  "((name | (prefix?,last-name,first-name,middle-name?,suffix?,
                 iid?, role?,orgname?,department?,synonym*)),
                 registered-number?)"                                     >

<!-- amendment-request    (root element)                                 -->
<!ELEMENT amendment-request ((amend-statement?,(amend-body | (delete-object |
                        (amend-content,(insert-before-object |
                         insert-after-object | replace-object)))+)),
                        dtext?)                                           >
<!ATTLIST amendment-request
            amend-type (pct-article-34 | pct-article-19)   #REQUIRED
            lang             CDATA    #REQUIRED
            dtd-version      CDATA    #IMPLIED
            produced-by      (applicant | RO | ISA | IPEA | IB | DO | EO)
                                      #REQUIRED
            date-produced    CDATA    #IMPLIED
            status           CDATA    #IMPLIED
            file             CDATA    #REQUIRED                           >


<!-- amendment statement                                                 -->
<!ELEMENT amend-statement    (doc-page+ | statement)                     >
<!ATTLIST amend-statement
            id          ID     #REQUIRED
            lang        CDATA  #REQUIRED
            status      CDATA  #REQUIRED                                  >

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



<!ELEMENT amend-body ((doc-page+) |
                     (description?,claims?,abstract?,drawings?))          >
<!--   Attributes:
     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 two letter st.3 codes
     status     = status of the application; values:
                  n = new application
     file       = filename of the whole application                      -->

<!ATTLIST amend-body
            id          ID     #REQUIRED
            country     CDATA  #REQUIRED
            lang        CDATA  #REQUIRED
            status      CDATA  #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 <image> may also be used for complete pages, eg. in drawings   -->

<!ELEMENT doc-page        EMPTY
>
<!ATTLIST doc-page
                id          ID      #REQUIRED
                he          NMTOKEN #REQUIRED
                wi          NMTOKEN #REQUIRED
                type        (jpg | tiff | jfif | pdf | jpeg | tif)   #REQUIRED
                alt         CDATA   #IMPLIED
                label       CDATA   #IMPLIED
                pp          CDATA   #IMPLIED
                ppf         CDATA   #IMPLIED
                ppl         CDATA   #IMPLIED
                file        CDATA   #REQUIRED
                color       (color | bw)   #IMPLIED
>
<!--  *  DESCRIPTION
          Rule 5 states that the description must contain a title
          "as appearing in the request" - need to check REQUEST  dtd
          for compliance / cross posting
          The sub-headings although mentioned in Rule 5 and
          AI section 204 are NOT compulsory
          The description could merely contain paragraphs- after title.
          For this version of the DTD ONLY the PCT headings are
          listed below.
          Other headings need discussion (see below)                        -->

<!ELEMENT description     (doc-page+ | (invention-title?, (technical-field |
                           background-art | description-of-drawings|disclosure |
                           best-mode | mode-for-invention |
                           industrial-applicability |
                           sequence-list-text | (heading* , p+)+)+))          >

<!ATTLIST description
                id              ID      #REQUIRED
                lang            CDATA   #IMPLIED                              >

<!ELEMENT invention-title (#PCDATA | b | i | u | sup | sub)*                  >
<!ATTLIST invention-title
                id              ID      #REQUIRED
                lang            CDATA   #IMPLIED                              >

<!ELEMENT technical-field (heading* , p+)+                                    >
<!ATTLIST technical-field
                id              ID      #REQUIRED                            >

<!--  *  Background art, background of the invention                         -->
<!ELEMENT background-art  (heading* , p+)+                                    >
<!ATTLIST background-art
                id              ID      #REQUIRED                            >

<!--   Disclosure of the invention;
       with sub-headings:;
       technical problem;
       technical solution;
       advantageous effects (of the invention);                             -->
<!ELEMENT disclosure        ((tech-problem |tech-solution |advantageous-effects)*|
```

```
                                 (heading* , p+)+)                                  >
<!ATTLIST disclosure
              id                 ID        #REQUIRED                                >

<!ELEMENT tech-problem     (heading* , p+)+                                         >
<!ATTLIST tech-problem
              id                 ID        #REQUIRED                                >

<!ELEMENT tech-solution    (heading* , p+)+                                         >
<!ATTLIST tech-solution
              id                 ID        #REQUIRED                                >

<!ELEMENT advantageous-effects (heading* , p+)+                                     >
<!ATTLIST advantageous-effects
              id                 ID        #REQUIRED                                >

<!ELEMENT description-of-drawings (heading* , p+)+                                  >
<!ATTLIST description-of-drawings
              id                 ID        #REQUIRED                                >

<!ELEMENT best-mode        (heading* , p+)+                                         >
<!ATTLIST best-mode
              id                 ID        #REQUIRED                                >

<!ELEMENT mode-for-invention (heading* , p+)+                                       >
<!ATTLIST mode-for-invention
              id                 ID        #REQUIRED                                >

<!ELEMENT industrial-applicability (heading* , p+)+                                >
<!ATTLIST industrial-applicability
              id                 ID        #REQUIRED                                >

<!--
     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".     -->

<!ELEMENT sequence-list-text (heading* , p+)+                                       >
<!ATTLIST sequence-list-text
              id                 ID        #REQUIRED                                >

<!--   CLAIMS                                                                     -->
<!ELEMENT claims           (doc-page+ | claim+)                                     >
<!ATTLIST claims
              lang               CDATA   #REQUIRED
              id                 ID      #REQUIRED
              country            NMTOKEN #IMPLIED
              status             CDATA   #IMPLIED                                   >

<!ELEMENT claim            (claim-text+)                                            >
<!ATTLIST claim
              id                 ID      #REQUIRED
              num                CDATA   #REQUIRED                                  >

<!--  Claim text is used for sub-para indentation                                -->
<!ELEMENT claim-text       (#PCDATA | claim-text | claim-ref | b | i | u |
                            sup | sub | smallcaps | br | crossref|
                            image | chemistry | math | table)*                      >

<!ELEMENT claim-ref        (#PCDATA)                                                >
<!ATTLIST claim-ref
              idref              IDREFS  #REQUIRED                                  >
```

```
<!--    ABSTRACT  (Rule 8)
        this needs linking some way to the REQUEST figure indicator.     -->

<!ELEMENT abstract          (doc-page+ | (abst-problem , abst-solution) |
                            (p+))                                        >
<!ATTLIST abstract
            id              ID      #REQUIRED
            lang            CDATA   #IMPLIED
            country         CDATA   #IMPLIED                             >

<!ELEMENT abst-problem   (p+)                                           >
<!ATTLIST abst-problem
            id              ID      #REQUIRED                           >

<!ELEMENT abst-solution  (p+)                                           >
<!ATTLIST abst-solution
            id              ID      #REQUIRED                           >


<!--    DRAWINGS
        PCT Article 7 / Rule 7                                           -->
<!ELEMENT drawings       (doc-page+ | figure+)                          >

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

<!ELEMENT figure         (image)                                        >
<!ATTLIST figure
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                           >

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

<!--  Limit to 3 as for Word default,  id  recommended - "h1"           -->
<!ATTLIST heading
            level    (1 | 2 | 3 ) #IMPLIED
            id              ID      #REQUIRED                           >

<!--  *  PARAGRAPHS                                                      -->
<!ELEMENT p              (#PCDATA | b | i | u | sup | sub | smallcaps | br
                         | dl | ul | ol| patcit | nplcit | bio-deposit |
                         crossref | image | chemistry | math | table)*  >

<!--  recommended - id="p1"; num="0001" ; id is permanent, num can be
      renumbered                                                        -->
<!ATTLIST p
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                           >

<!--   IMAGE DATA
      Note: image is used for any kind of image: art work, figures, complex
      maths, tables, etc.                                               -->
<!ELEMENT image              EMPTY                                       >

<!--   recommended - id="img1";
                he, wi="11" - milimeters - height, width;
                 file = file name,location;
                label - not used;
                  alt - alternative 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.           -->
```

```
<!ATTLIST image
             id              ID      #REQUIRED
             he              NMTOKEN #REQUIRED
             wi              NMTOKEN #REQUIRED
             file            CDATA   #REQUIRED
             label           CDATA   #IMPLIED
             alt             CDATA   #IMPLIED
             img-content     (drawing | photograph |character | dna| undefined )
                                       "drawing"
             img-format      (jpeg | tiff | jfif | st33 | st35 )  #REQUIRED    >


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

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

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

<!-- * Underscore attribute: style - single is default              -->
<!ATTLIST u
             style       (single | double | dash | dots )  "single"       >

<!-- * Superscript attribute: position (post)                       -->
<!ELEMENT sup            (#PCDATA | b | u | i)*                           >

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

<!-- * Small capitals                                               -->
<!ELEMENT smallcaps      (#PCDATA | b | u | i| br)*                       >

<!-- * br - break, line break within a paragraph                    -->
<!ELEMENT br             EMPTY                                            >

<!-- * DEFINITION LISTS
        restrict content of dt - definition term                     -->
<!ELEMENT dl             (dt , dd)+                                       >

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

<!--Term to be defined                                              -->
<!ELEMENT dt             (#PCDATA | b | i | u | sup | sub | smallcaps)*   >
<!ATTLIST dt
             id              ID       #REQUIRED                          >

<!--Definition of the term                                          -->

<!ELEMENT dd             (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                          patcit | nplcit | bio-deposit | crossref |
                          image | ul | ol | chemistry | math | table)*   >

<!-- * ORDERED  LISTS, for now the default will be
 recommended style first level -  1. 2. 3. etc.
 For lists within lists -
 second level - a. b. c.
 for third level - i. ii. iii.;
 These are style sheet issues but these are recommended for consistency.  -->
<!ELEMENT ol             (li+)                                           >
<!ATTLIST ol
             id              ID       #REQUIRED
             compact     (compact )   #IMPLIED                           >
```

```
<!--  *  UNORDERED  LISTS
        default is 'bullets'
        style may be empty for lists with no bullet or other symbol      -->
<!ELEMENT ul            (li+)                                            >
<!ATTLIST ul
            id              ID      #REQUIRED
            list-style (bullet | dash | none )  'bullet'
            compact    (compact )  #IMPLIED                              >

<!--  *  LIST item                                                       -->
<!ELEMENT li                (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                         patcit | nplcit | bio-deposit | crossref |
                         image | dl | ul | ol | chemistry | math | table)*   >

<!ATTLIST li
            id              ID      #REQUIRED                           >

<!--  *  CHEMISTRY
        Chemical formulae, ring structures, Markush structures  etc
        For now treat as image data.
        Depending on industry support we may have eg. chemML, CML later   -->
<!ELEMENT chemistry      (image)                                        >

<!--  recommended - id="ch1"                                             -->
<!ATTLIST chemistry
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                           >

<!--  *  MATHEMATICS
      This is image data or coded according to mathml version 2,         -->
<!ELEMENT math          (image | MathML)                                >

<!--  recommended - id="m1"                                              -->
<!ATTLIST math
            id              ID      #REQUIRED
            num             CDATA   #REQUIRED                           >

<!--  *  MATHEMATICS                                                     -->
<!-- MathML 2.0 DTD

            This is the Mathematical Markup Language (MathML) 2.0, an XML
            application for describing mathematical notation and capturing
            both its structure and content.

            Copyright 1998-2000 World Wide Web Consortium
               (Massachusetts Institute of Technology, Institut National de
                Recherche en Informatique et en Automatique, Keio University).
                All Rights Reserved.

            Permission to use, copy, modify and distribute the XHTML 1.1 DTD and
            its accompanying documentation for any purpose and without fee is
            hereby granted in perpetuity, provided that the above copyright
            notice and this paragraph appear in all copies.
            The copyright holders make no representation about the suitability
            of the DTD for any purpose.

            It is provided "as is" without expressed or implied warranty.

            Revision:   $Id: parsing.xml,v 1.34 2000/12/14 13:08:43 davidc Exp $

            This entity may be identified by the PUBLIC and SYSTEM identifiers:

               PUBLIC "-//W3C//DTD MathML 2.0//EN"
               SYSTEM "mathml2.dtd"

        To be added in later - in order to keep this ver. of DTD smaller, see:
        http://www.w3.org/TR/MathML2/
```

```
-->
<!ELEMENT MathML          EMPTY                                               >

<!-- * TABLES
       This is image data or coded according to CALStable exported
       from USPTO EFS with modified cell <entry> content
-->
<!ELEMENT table           (image | CALStable)                                 >

<!--  recommended - id="t1"                                               -->
<!ATTLIST table
              id              ID        #REQUIRED
              num             CDATA     #REQUIRED                             >

<!ELEMENT CALStable       (heading , TGroup+)                                 >
<!ATTLIST CALStable
              frame    (top | bottom | topbot | all | sides | none )  #IMPLIED
              colsep          NMTOKEN  #IMPLIED
              rowsep          NMTOKEN  #IMPLIED
              pgwide          NMTOKEN  #IMPLIED                               >

<!ELEMENT TGroup          (colspec* , spanspec* , thead? , TBody)            >
<!ATTLIST TGroup
              cols            CDATA    #REQUIRED
              colsep          NMTOKEN  #IMPLIED
              rowsep          NMTOKEN  #IMPLIED
              align    (left | right | center | justify | char )  #IMPLIED   >

<!ELEMENT colspec         EMPTY                                               >
<!ATTLIST colspec
              colnum          CDATA    #IMPLIED
              colname         CDATA    #IMPLIED
              colwidth        CDATA    #IMPLIED
              colsep          NMTOKEN  #IMPLIED
              rowsep          NMTOKEN  #IMPLIED
              align    (left | right | center | justify | char )  #IMPLIED
              char            CDATA    #IMPLIED
              charoff         CDATA    #IMPLIED                               >

<!ELEMENT spanspec        EMPTY                                               >
<!ATTLIST spanspec
              namest          CDATA    #REQUIRED
              nameend         CDATA    #REQUIRED
              spanname        CDATA    #REQUIRED
              align    (left | right | center | justify | char )  'center'
              colsep          NMTOKEN  #IMPLIED
              rowsep          NMTOKEN  #IMPLIED                              >

<!ELEMENT thead           (Row+)                                             >
<!ATTLIST thead
              valign   (top | middle | bottom )  #IMPLIED                   >

<!ELEMENT TBody           (Row+)                                             >
<!ATTLIST TBody
              valign   (top | middle | bottom )  #IMPLIED                   >

<!ELEMENT Row             (Entry+)>
<!ATTLIST Row
              rowsep          NMTOKEN  #IMPLIED
              valign   (top | middle | bottom )  #IMPLIED                   >

<!-- * Changed to add other elements in entry                           -->
<!ELEMENT Entry           (#PCDATA | b | i | u | sup | sub | smallcaps | br |
                          patcit | nplcit | bio-deposit | crossref | image |
                          dl | ul | ol | chemistry | math)*                 >

<!ATTLIST Entry
```

```
                colname          NMTOKEN   #IMPLIED
                namest           NMTOKEN   #IMPLIED
                nameend          NMTOKEN   #IMPLIED
                morerows         CDATA     #IMPLIED
                colsep           NMTOKEN   #IMPLIED
                rowsep           NMTOKEN   #IMPLIED
                align      (left | right | center | justify | char )  #IMPLIED
                char             CDATA     #IMPLIED
                charoff          CDATA     #IMPLIED
                valign     (top | middle | bottom )  #IMPLIED                     >


<!--   * PATENT CITATIONS
        Patent Citation within abstract, description or claims
        for pat. 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).

        Attributes (recommended):;
        id - use pcit1, pcit2, etc;
        dnum - use full number as one string, eg, "US5401234A";
        url  - where possible give full web link to patent
;
        Example:<patcit id="pcit1" dnum="US4793675A">
             <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    -->
<!ELEMENT patcit (text | (document-id , rel-passage*))>

<!--      Attributes (recommended):;
        id - use pcit1, pcit2, 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                -->
<!ATTLIST patcit
                id               ID        #REQUIRED
                dnum             CDATA     #IMPLIED
                url              CDATA     #IMPLIED
                file             CDATA     #IMPLIED                       >

<!ELEMENT text          (#PCDATA)                                        >

<!--    Document identification refers to patents only and
        is used in several other dtds it should not be changed
        without consultation with WIPO;                                 -->
<!ELEMENT document-id (country , doc-number , kind? , name? , date?)>

<!ELEMENT doc-number    (#PCDATA)                                        >

<!--   * doc. kind code  eg A1                                           -->
<!ELEMENT kind          (#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?)+)       >

<!ELEMENT passage       (#PCDATA)                                        >

<!ELEMENT category      (#PCDATA)                                        >
```

```
<!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)                                                 -->

<!ELEMENT nplcit       ((text) | (article | book | online | othercit)*)   >

<!--    Attributes (recommended):;
        id - ncit1, ncit2, etc
        num - 0001, 0002
        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 eg.
         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         -->
<!ATTLIST nplcit
            id          ID      #REQUIRED
            num         CDATA   #REQUIRED
            type        CDATA   #IMPLIED
            medium      CDATA   #IMPLIED
            file        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.
                  [XPnnnnnnnnnnnn].
```

```
     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 auths
        <AUTHOR>s followed by:
        %nam; or addressbook entry
        use the ID attribute if, for example, there is a need to
        distinguish between multiple authors. Can also include
        affiliation details                                          -->
<!ELEMENT author        ((%nam;) | (addressbook))                    >
<!ATTLIST author
            id              ID      #IMPLIED                         >

<!-- * Article title                                                 -->
<!ELEMENT atl           (#PCDATA)                                    >

<!-- * Subordinate responsibility
         This can be, eg. : editor, translator, etc                  -->
<!ELEMENT subname       ((%nam;) | addressbook)                      >

<!-- * SERIAL  CITATION DATA
        This describes the volume or issue as a whole amd not a
        particular article within it.                                -->

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

<!-- * Serial title                                                  -->
<!ELEMENT sertitle      (#PCDATA)                                    >

<!-- * Alternate title for serial eg. BMJ = British Medical Journal  -->
<!ELEMENT alttitle      (#PCDATA)                                    >

<!-- * Issue designation
         This can be, eg. : 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*))            >

<!-- * Physical description - generally NOT used in citations in pats.
         eg. v., 27cm                                                       -->
<!-- * PUBDATE: Components of a date in npl citations - sdate etc
         defined in date                                                    -->
<!ELEMENT pubdate        (#PCDATA | sdate | edate | time)*                  >

<!ELEMENT descrip        (#PCDATA)                                          >

<!--  * Notes about the journal eg. Continues Journal of XYZ 1910-1998,
          published in French and English, etc.                            -->
<!ELEMENT notes          (#PCDATA)                                          >

<!--  * International standard serial number                                -->
<!ELEMENT issn           (#PCDATA)                                          >

<!--  * International standard book number                                  -->
<!ELEMENT isbn           (#PCDATA)                                          >

<!--  * Publisher's unique id   added 11.2000  PB   ISO 12083              -->
<!ELEMENT pubid          (#PCDATA)                                          >

<!--  * Volume id/number                                                    -->
<!ELEMENT vid            (#PCDATA)                                          >

<!--  * Issue number                                                        -->
<!ELEMENT ino            (#PCDATA)                                          >

<!--  * Copyright info. copyright of publisher of serial                    -->
<!ELEMENT cpyrt          (#PCDATA)                                          >

<!--  * Abstract number                                                     -->
<!ELEMENT absno          (#PCDATA)                                          >

<!--  *  Location  within the work                                          -->
<!ELEMENT location       ((text) | (serpart? , sersect? , chapter? ,
                         pp? , column? , para? , line?))                    >

<!--  *  Part in a serial    ISO 12083                                      -->
<!ELEMENT serpart        (#PCDATA)                                          >

<!ELEMENT sersect        (#PCDATA)                                          >

<!ELEMENT chapter        (#PCDATA)                                          >

<!--  *  Page numbers    ppf - first, ppl - last                           -->
<!ELEMENT pp             (#PCDATA | ppf | ppl)*                             >

<!ELEMENT ppf            (#PCDATA)                                          >

<!ELEMENT ppl            (#PCDATA)                                          >

<!--  * Column, para(graph) and line numbers                                -->
<!ELEMENT column         (#PCDATA | colf | coll)*                           >

<!ELEMENT colf           (#PCDATA)                                          >

<!ELEMENT coll           (#PCDATA)                                          >

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

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

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

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

<!ELEMENT linef          (#PCDATA)                                          >

<!ELEMENT linel          (#PCDATA)                                          >

<!--  * Classification code eg. ipc, dewey etc.                         -->
<!ELEMENT class          (#PCDATA)                                          >

<!--  * Keywords eg. from a Thesaurus or class. scheme                  -->
<!ELEMENT keyword        (#PCDATA)                                          >

<!--  *   HISTORY of the article (not serial)
          date received/accepted/revised
          preferred: yyyymmdd
          Group added 11/2000 PB from ISO 12083                        -->
<!ELEMENT history        ((text) | (received | accepted | revised | misc))  >

<!ELEMENT received       (date)                                             >

<!ELEMENT accepted       (date)                                             >

<!ELEMENT revised        (date)                                             >

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

<!--  * Article unique ID - assigned by a publisher to an article
        added 11/2000 PB from ISO 12803                                -->
<!ELEMENT artid          (#PCDATA)                                          >

<!-- Reference no. (general)  for the EPO this is the XP number         -->
<!ELEMENT refno          (#PCDATA)                                          >
<!ATTLIST refno
             id              ID      #REQUIRED                             >
<!--
        BOOK CITATION (MONOGRAPH)
        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*)))                                         >

<!ELEMENT book-title     (#PCDATA)                                          >

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

```
<!-- * Edition statement                                              -->
<!ELEMENT edition      (#PCDATA)                                       >

<!--   * Subordinate responsibility
          This can be, eg. : editor, translator, etc
          Note this does not follow AACR2 rules
          subname - defined above
          imprint    - described above
          descrip    - described above                                -->
<!-- * Series statement                                               -->
<!ELEMENT series       ((text) | (mst , msn? , issn?))                 >

<!--  * Monographic series title and number                           -->
<!ELEMENT mst          (#PCDATA)                                       >

<!ELEMENT msn          (#PCDATA)                                       >

<!--  * book number                                                   -->
<!ELEMENT bookno       (#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 <CONFERENCE>
         and no sub tags                                              -->

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

<!--       * Conference  title                                        -->
<!ELEMENT conftitle    (#PCDATA)                                       >

<!--       * Conference  number                                       -->
<!ELEMENT confno       (#PCDATA)                                       >

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

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

<!-- * ONLINE CITATION
         (previously DBASECIT)
         This section completely 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.
              Body</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: &lt;iso.tc46.sc9@nlc-bnc.ca&gt;
              </name></subname>
              <pubdate>3 October 2000; 13:33 EST</pubdate>
              <notes>Personal communication</notes>
              <avail>Message-ID: &lt;002f01c02d60$051a64a0$22a2580c@vaio&gt;
              </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*)) >

<!ELEMENT online-title  (#PCDATA)                                          >

<!-- *   TITLE of the HOST document/database                             -->
<!ELEMENT hosttitle     (#PCDATA)                                          >

<!ELEMENT hostno        (#PCDATA)                                          >

<!-- *  Availability and access - REQUIRED
use for URL, online database, ftp address, email, etc. eg.
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
         it may be different from srchate below                          -->
<!ELEMENT datecit        (date)                                          >

<!--  *  Search terms                                                     -->
<!ELEMENT srchterm       (#PCDATA)                                        >

<!--  *  Date of search/retrieval^                                        -->
<!ELEMENT srchdate       (date)                                          >

<!--  *  Other citations - free form                                      -->
<!ELEMENT othercit       (#PCDATA)                                        >


<!--
  BIOlogical deposit CITation
  (US EFS: biological-deposit)
  According to PCT Rule 13bis, EPC Rule 28
  This covers all bio data references long and short
  within the description and/or claims                                    -->

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

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

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

<!ELEMENT bio-accno      (#PCDATA)                                        >

<!ELEMENT term           (#PCDATA)                                        >


<!--  *  Cross references to any other element                            -->

<!ELEMENT crossref       (#PCDATA)                                        >
<!ATTLIST crossref
              idref          CDATA   #REQUIRED                            >


<!--  *  ADDRESSBOOK COMPONENTS / GROUP TAG

         The LANG attribute is REQUIRED for eg.the JPO PCT Request
         where names and addresses may be repeated in two different
         languages. If no structure possible use text                    -->

<!ELEMENT addressbook    ((%nam;, address , phone* , fax* ,
                          email* , url* , ead* , dtext?)| (text))        >
<!ATTLIST addressbook
              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
              type            (legal | natural ) #REQUIRED               >

<!--  *  Last, family, surname                                            -->
<!ELEMENT last-name      (#PCDATA)                                        >
```

```
<!-- * First, given, name(s), initials
        eg. John, J.                                               -->
<!ELEMENT first-name    (#PCDATA)                                    >

<!ELEMENT middle-name   (#PCDATA)                                    >

<!-- * Title e.g., Mr., Mrs., Dr. etc                              -->
<!ELEMENT prefix        (#PCDATA)                                    >

<!-- * Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc.            -->
<!ELEMENT suffix        (#PCDATA)                                    >

<!-- * Individual id                                              -->
<!ELEMENT iid           (#PCDATA)                                    >

<!-- * Role, eg President added 02.11.2000 PB  ISO 12083          -->
<!ELEMENT role          (#PCDATA)                                    >

<!-- * Organisation name or company name                         -->
<!ELEMENT orgname       (#PCDATA)                                    >

<!-- * Department,division,section, etc. name                    -->
<!ELEMENT department    (#PCDATA)                                    >

<!-- * Synonym, cross-reference                                  -->
<!ELEMENT synonym       (#PCDATA)                                    >

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

<!-- * ADDRESS COMPONENTS
        Address formats differ from country to country
        If no structure possible use pctext                       -->

<!ELEMENT address       ((address-1? , address-2? , address-3? , mailcode? ,
                          pobox? , room? , floor? , building? , street? , city?,
                          county? , state? , postcode , country) | (text))     >

<!ELEMENT address-1     (#PCDATA)                                    >

<!ELEMENT address-2     (#PCDATA)                                    >

<!ELEMENT address-3     (#PCDATA)                                    >

<!-- * Org. mail code                                            -->
<!ELEMENT mailcode      (#PCDATA)                                    >

<!-- * Post Office Box number                                    -->
<!ELEMENT pobox         (#PCDATA)                                    >

<!ELEMENT room          (#PCDATA)                                    >

<!ELEMENT floor         (#PCDATA)                                    >

<!ELEMENT building      (#PCDATA)                                    >

<!-- * Street may contain house number or name                   -->
<!ELEMENT street        (#PCDATA)                                    >

<!-- * City or town name                                         -->
<!ELEMENT city          (#PCDATA)                                    >

<!-- * County, parish, department, etc (mainly UK, USA)          -->
<!ELEMENT county        (#PCDATA)                                    >

<!-- * Region of country  eg. state, province, lande etc         -->
```

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

<!--  *  Postal code or zip code                                            -->
<!ELEMENT postcode       (#PCDATA)                                            >

<!--  * Country use ST.3 country code eg. DE, FR, GB, NL  - changed
         also, therefore, includes EP, WO                                   -->
<!ELEMENT country        (#PCDATA)                                            >

<!--  * Telephone number                                                    -->
<!ELEMENT phone          (#PCDATA)                                            >

<!--  * Fax number                                                          -->
<!ELEMENT fax            (#PCDATA)                                            >

<!ELEMENT email          (#PCDATA)                                            >

<!--  *  Web page location- Universal Resource Locator
         www.wipo.int                                                       -->
<!ELEMENT url            (#PCDATA)                                            >

<!--  * Electronic address use for other than email                        -->
<!ELEMENT ead            (#PCDATA)                                            >

<!--  * Descriptive text                                                    -->
<!ELEMENT dtext          (#PCDATA)                                            >

<!--  *   DATE: Components of a date (date)  YYYYMMDD                        -->
<!ELEMENT date           (#PCDATA)                                            >

<!--  *   start date, end date used in pubdate                              -->
<!ELEMENT sdate          (#PCDATA)                                            >

<!ELEMENT edate          (#PCDATA)                                            >

<!ELEMENT time           (#PCDATA)                                            >



<!--      deleted object   paragraph, clime,,,,                             -->
<!ELEMENT delete-object        (#PCDATA)                                      >


<!--      amendment content    add, replace                                 -->
<!ELEMENT amend-content        (invention-title | heading+ | p+ | doc-page+ |
                       claim+ | figure+ )                                    >

<!ELEMENT insert-before-object  (#PCDATA)                                     >

<!ELEMENT insert-after-object   (#PCDATA)                                     >

<!ELEMENT replace-object        (#PCDATA)                                     >

<!-- END OF DTD                                                             -->
```

3.5 Power of attorney

```
<!--
      ********************************************************************
      *  power-of-attorney v0.1   2001 APRIL                            *
      ********************************************************************
      *  public "-//wipo//dtd power-of-attorney v0.1 2001-04-30/en"     *
      ********************************************************************
      *  contacts:                                                      *
      *  EPO:   Paul Brewin;  pbrewin@epo.org                           *
      *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                    *
      *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                       *
      *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                      *
      *                                                                 *
      ********************************************************************


Created 2001-04-26, Geneva, Trilateral/WIPO Working Group.
This DTD is base on PCT-EASY power of attorney                             -->


<!--DOCTYPE power-of-attorney [                                            -->

<!-- Define some entities                                                  -->


<!-- Name group entity, please see name element group for each elements    -->

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


<!-- power-of-attorney (root element)                                      -->

<!ELEMENT power-of-attorney ((customer-number?,
                          attorney-or-agent*), represent-before,
                          (invention-title | file-reference-id |
                          document-id)+, ro, payor,signatories)           >
<!ATTLIST power-of-attorney
                lang            CDATA     #REQUIRED
                dtd-version     CDATA     #IMPLIED
                date-produced   CDATA     #IMPLIED
                status          CDATA     #IMPLIED
                file            CDATA     #REQUIRED
                                                                          >



<!-- signatories                                                           -->

<!ELEMENT signatories          (signatory+) >

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

<!ELEMENT electronic-signature (basic-signature | enhanced-signature)     >
<!ATTLIST electronic-signature
                date            CDATA          #REQUIRED
                place-signed CDATA             #IMPLIED                    >

<!ELEMENT signatory-capacity   (#PCDATA)                                   >

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

<!ELEMENT enhanced-signature   (pkcs7)                                     >

<!ELEMENT fax-image            EMPTY                                       >
```

```
<!ATTLIST fax-image
                     file          CDATA          #REQUIRED                   >

<!ELEMENT text-string            (#PCDATA)                                    >

<!ELEMENT click-wrap             EMPTY                                        >

<!ELEMENT pkcs7                  EMPTY                                        >




<!ELEMENT customer-number        (#PCDATA)                                    >

<!ELEMENT attorney-or-agent      (addressbook)                                >
<!ATTLIST attorney-or-agent
      type      (agent | attorney | common-representative) #REQUIRED      >

<!ELEMENT represent-before       ( all-authorities|isa-only
                                  |ipea-only)                                 >

<!ELEMENT invention-title        (#PCDATA | b | i | u | sup | sub)*           >
<!ATTLIST invention-title
                id           ID    #REQUIRED
                lang         CDATA #IMPLIED                                    >

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

<!ELEMENT ro                     (country)                                    >

<!ELEMENT payor                  EMPTY                                        >
<!ATTLIST payor
      role      (yes | no)                        #REQUIRED           >



<!-- common elements                                                      -->
<!-- Document, application identification group                           -->
<!ELEMENT document-id            (country,doc-number,name?,kind?,date?)    >

<!-- Document number                                                      -->
<!--      In case of application ; application number                     -->
<!--      In case of publication ; publication number                     -->
<!--      In case of grant patent; patent number                          -->
<!ELEMENT doc-number             (#PCDATA)                                 >

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

<!-- date, YYYYMMDD, e.g, 20011230                                        -->
<!ELEMENT date                   (#PCDATA)                                 >





<!-- addressbook :  NAME and ADDRESS COMPONENTS / GROUP TAG
    % nam "((name | (prefix?,last-name,first-name,middle-name?,suffix?,
           iid?, role?,orgname?,department?,synonym*)),registered-number?)"

    The lang attribute is REQUIRED for eg.the JPO PCT request where names and
    addresses may be repeated in two different languages.
    If no structure possible use pctext                                   -->

<!ELEMENT addressbook  ((%nam;,address, phone*, fax* ,email* , url* , ead*,
                        dtext?) | dtext)                                   >
<!ATTLIST addressbook
```

```
                      lang        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
            type (legal | natural)   #REQUIRED                             >

<!-- Title e.g., Mr., Mrs., Dr. etc*                                        -->
<!ELEMENT prefix                      (#PCDATA)                            >

<!-- Last, family, surname                                                 -->
<!ELEMENT last-name                   (#PCDATA)                            >

<!-- First, given, middle name(s), initials
     eg. John, John F., J.F, John Frederick                                -->

<!ELEMENT first-name                  (#PCDATA)                            >

<!ELEMENT middle-name                 (#PCDATA)                            >

<!-- Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc. *                      -->
<!ELEMENT suffix                      (#PCDATA)                            >

<!--                         * Individual id *                             -->
<!ELEMENT iid                         (#PCDATA)                            >

<!--          * Role, eg President added 02.11.2000 PB ISO 12083 *          -->
<!ELEMENT role                        (#PCDATA)                            >

<!--                    * Organisation name *                              -->
<!ELEMENT orgname                     (#PCDATA)                            >

<!--            * Department,division,section, etc. name *                  -->
<!ELEMENT department                  (#PCDATA)                            >

<!--                   * Synonym, cross-reference *                         -->
<!ELEMENT synonym                     (#PCDATA)                            >

<!-- Applicant's, agent's registration number with the office              -->
<!ELEMENT registered-number          (#PCDATA)                            >


<!--   ADDRESS COMPONENTS *
       The name may form part of addresses.  Address format differ from
       country to country.   If no structure possible use pctext           -->

<!ELEMENT address  ((address-1?,address-2?,address-3?,street?,city?,
                     county?,state?,postcode,country) | text)               >


<!--*    In case the address dose not have street name,city name,etc       *-->
<!ELEMENT address-1                   (#PCDATA)                            >
<!ELEMENT address-2                   (#PCDATA)                            >
<!ELEMENT address-3                   (#PCDATA)                            >

<!--*    Street may contain house number or name                           *-->
<!ELEMENT street                      (#PCDATA)                            >

<!--*    City or town name                                                 *-->
<!ELEMENT city                        (#PCDATA)                            >

<!--*    County, parish, department, etc (mainly UK, USA)                   *-->
<!ELEMENT county                      (#PCDATA)                            >
```

```
<!--*    Region of country eg. state, province, lande etc              *-->
<!ELEMENT state                  (#PCDATA)                              >

<!--*    Postal code or zip code                                       *-->
<!ELEMENT postcode               (#PCDATA)                              >

<!--*    Country use ST.3 country code eg. DE, FR, GB, NL - changed
         Includes region codes for EP, AP, EA, OA                      *-->
<!ELEMENT country                (#PCDATA)                              >

<!--*    Telephone number                                              *-->
<!ELEMENT phone                  (#PCDATA)                              >

<!--*    Fax number                                                    *-->
<!ELEMENT fax                    (#PCDATA)                              >

<!ELEMENT email                  (#PCDATA)                              >

<!--*    Web page location,Universal Resource Locator, eg. www.epoline.org *-->
<!ELEMENT url                    (#PCDATA)                              >

<!--*    Electronic address use for other than email                   *-->
<!ELEMENT ead                    (#PCDATA)                              >

<!--*    Descriptive text                                              *-->
<!ELEMENT dtext                  (#PCDATA)                              >
<!ELEMENT text                   (#PCDATA)                              >

<!ELEMENT all-authorities EMPTY                                        >

<!ELEMENT ipea-only      EMPTY                                         >

<!ELEMENT isa-only       EMPTY                                         >

<!--     HIGHLIGHTED ELEMENTS
         bold, italic, underscore,
         If we do not use these we have to have a generic tag such as
         emphasis with styles or levels because users want to use
         these and we need to mark it up - it is far simpler to have
         the tags shown below                                         -->

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

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

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

<!--  *  Underscore attribute: style - single is default              -->
<!ATTLIST u
             style       (single | double | dash | dots )  "single"    >

<!--  *  Superscript attribute: position (post)                        -->
<!ELEMENT sup            (#PCDATA | b | u | i)*                        >

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

<!--  *  Small capitals                                                -->
<!ELEMENT smallcaps      (#PCDATA | b | u | i| br)*                    >

<!--  *  br - break, line break within a paragraph                     -->
<!ELEMENT br             EMPTY                                         >

<!-- END OF DTD                                                        -->
```

3.6 Fee sheet

```
<!--*******************************************************************
    * public "-//wipo//dtd fee-sheet v0.1 2001-06-20/en"           *
    *******************************************************************
    * contacts:                                                     *
    *                                                               *
    * WIPO: Shiro Ankyu; shiro.ankyu@wipo.int                       *
    *                                                               *
    *******************************************************************
    * revision history                                             *
    *******************************************************************   -->

    Created 2001 June 20,  Shiro Ankyu, WIPO
    ..set version to v0.1

<!-- DOCTYPE fee-sheet [                                               -->

<!-- Define some entities
     Name group entity, please see name element group for each elements   -->

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


<!--Fee calculation sheet annex to the PCT request                    -->
<!ELEMENT fee-sheet    ((file-reference-id?,applicant-name,currency,
                        prescribed-fees, total-amounts,deposit-account?)|
                        doc-page+)                                     >
<!ATTLIST fee-sheet
                 lang           CDATA   #REQUIRED
                 dtd-version    CDATA   #IMPLIED
                 produced-by    (applicant | RO | ISA | IPEA | IB | DO | EO)
                                        #REQUIRED
                 date-produced  CDATA   #IMPLIED
                 status         CDATA   #IMPLIED
                 ro             CDATA   #REQUIRED
                 file           CDATA   #IMPLIED                       >


<!--PCT: applicant's or agent's file reference, if desired,
        12 characters maximum                                         -->
<!ELEMENT file-reference-id (#PCDATA)                                  >

<!ELEMENT applicant-name    %nam;                                      >

<!--Kind of currency for payment                                      -->
<!ELEMENT currency          (#PCDATA)                                 >

<!--Calculation of prescribed fees                                    -->
<!ELEMENT prescribed-fees   (transmittal-fee,search-fee,international-fee,
                        pdoc-fee?)                                     >

<!--Transmittal fees                                                  -->
<!ELEMENT transmittal-fee   (total-amounts,payment-mode)              >

<!ELEMENT total-amounts     (#PCDATA)                                 >

<!--Mode of payment                                                   -->
<!ELEMENT payment-mode      (charge | postal-oder | cash | coupons | cheque |
                        bank-draft | stamps | other)                  >

<!--Authorization to charge deposit account                          -->
<!ELEMENT charge            EMPTY                                      >

<!--Postal money order                                                -->
```

```
<!ELEMENT postal-oder        EMPTY                                         >

<!--cash                                                                  -->
<!ELEMENT cash               EMPTY                                         >

<!--coupons                                                               -->
<!ELEMENT coupons            EMPTY                                         >

<!--cheque                                                                -->
<!ELEMENT cheque             EMPTY                                         >

<!--bank draft                                                            -->
<!ELEMENT bank-draft         EMPTY                                         >

<!--revenue stamps                                                        -->
<!ELEMENT stamps             EMPTY                                         >

<!--other payment mode, specify                                           -->
<!ELEMENT other              (#PCDATA)                                     >


<!--Search fee                                                            -->
<!ELEMENT search-fee         (total-amounts,payment-mode,isa?)             >

<!--International search to be carry by                                    -->
<!ELEMENT isa                (country)                                     >


<!--International fee                                                      -->
<!ELEMENT international-fee   (basic-fee,designation-fee,fee-reduction?,
                             total-amounts,payment-mode)                   >

<!--basic fee                                                             -->
<!ELEMENT basic-fee          (amount,additional-amount?,additional-component?,
                             total-amounts)                                >

<!--Additional amount                                                     -->
<!ELEMENT additional-amount  (amount)                                      >

<!--If sequence listing part of description is filed in computer readable form
-->
<!ELEMENT additional-component (amount)                                    >


<!--Designation fee                                                       -->
<!ELEMENT designation-fee    (number-of-designation,designation-fee-payable,
                             amount, total-amounts)                        >

<!--Number of designations contained in international application         -->
<!ELEMENT number-of-designation (#PCDATA)                                  >

<!--Number of designation fees payable, maximum 8                         -->
<!ELEMENT designation-fee-payable (#PCDATA)                                >


<!--Fee reduction                                                         -->
<!ELEMENT fee-reduction      (amount)                                      >



<!-- fee for priorty document                                            -->
<!ELEMENT pdoc-fee           (number-of-pdoc,amount,total-amounts,
                             payment-mode)                                 >

<!-- Number of priority document requested                               -->
<!ELEMENT number-of-pdoc     (#PCDATA)                                     >
```

```
<!--Authoraization to charge or credit deposit account              -->
<!ELEMENT deposit-account   (authorization,ro,account-no,date,%nam;,
                             signatories?)                           >

<!--Kind  of authoraization                                         -->
<!ELEMENT authorization     (total-fee?,deficiency-credit?,fee-for-pdoc?)  >

<!--Authoraization to charge the total fees indicated above         -->
<!ELEMENT total-fee         EMPTY                                    >

<!--Authoraization to charge any deficiency or credit any overpayment  -->
<!ELEMENT deficiency-credit  EMPTY                                   >

<!--Authoraization to charge the fee for priority document          -->
<!ELEMENT fee-for-pdoc       EMPTY                                   >

<!--Receiving office                                                 -->
<!ELEMENT ro                (country)                                >

<!--Deposit account number                                          -->
<!ELEMENT account-no        (#PCDATA)                                >

<!ELEMENT date              (#PCDATA)                                >


<!--Common elements                                                 -->
<!ELEMENT amount            (#PCDATA)                                >

<!ELEMENT country           (#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
            type (legal | natural)   #REQUIRED                      >

<!--*Title e.g., Mr., Mrs., Dr. etc*                                -->
<!ELEMENT prefix            (#PCDATA)                                >

<!--Last, family, surname                                           -->
<!ELEMENT last-name         (#PCDATA)                                >

<!--First, given, middle name(s), initials eg. John, John F., J.F,
         John Frederick                                             -->
<!ELEMENT first-name        (#PCDATA)                                >

<!ELEMENT middle-name       (#PCDATA)                                >

<!--Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc.                 -->
<!ELEMENT suffix            (#PCDATA)                                >

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

<!--Role, eg President added 02.11.2000 PB ISO 12083                -->
<!ELEMENT role              (#PCDATA)                                >

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

<!--Department,division,section, etc. name                          -->
<!ELEMENT department        (#PCDATA)                                >
```

```
<!--Synonym, cross-reference                                            -->
<!ELEMENT synonym          (#PCDATA)                                     >

<!--Applicant's, agent's registration number with the office            -->
<!ELEMENT registered-number (#PCDATA)                                    >



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

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

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

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

<!ELEMENT signatory-capacity (#PCDATA)                                   >

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

<!ELEMENT enhanced-signature (pkcs7)                                     >

<!ELEMENT fax-image          EMPTY                                       >

<!ATTLIST fax-image
              file            CDATA    #REQUIRED                         >

<!ELEMENT text-string        (#PCDATA)                                   >

<!ELEMENT click-wrap         EMPTY                                       >

<!ELEMENT pkcs7              EMPTY                                        >



<!--        DOC-PAGE - DOCument or PAGE
            This is primarily to be used when data for 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
          <image> may also be used for complete pages, eg. in drawings   -->
<!ELEMENT doc-page           EMPTY                                       >
<!ATTLIST doc-page
              id         ID       #REQUIRED
              he         NMTOKEN  #REQUIRED
              wi         NMTOKEN  #REQUIRED
              type       (jpg | tiff | jfif | pdf | jpeg | tif)   #REQUIRED
              alt        CDATA    #IMPLIED
              label      CDATA    #IMPLIED
              pp         CDATA    #IMPLIED
              ppf        CDATA    #IMPLIED
              ppl        CDATA    #IMPLIED
              file       CDATA    #REQUIRED
              color      (color | bw)   #IMPLIED                         >

<!-- END OF DTD                                                          -->
```

3.7 Biological deposit

```
<!--
      **********************************************************************
      *   indication-bio-deposit v0.1      2001 June                      *
      **********************************************************************
      *   public "-//wipo//dtd indication-bio-deposit v0.3  2001-04-30/en"*
      **********************************************************************
      *   contacts:                                                       *
      *   WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                       *
      **********************************************************************
      * revision history                                                  *
      **********************************************************************  -->

Created 2001 June 26, Shiro Ankyu, WIPO
..set version to v0.1

<!-- DOCTYPE indication-bio-deposit [                                       -->

<!ELEMENT indication-bio-deposit ((application-reference?,file-reference-id?,
                               indications,bio-deposit,addtional-indication?,
(all-designations | designated-states),
                               separate-indications?)| doc-page+)          >

<!ATTLIST indication-bio-deposit
                   lang            CDATA    #REQUIRED
                   dtd-version     CDATA    #IMPLIED
                   produced-by     (applicant | RO | ISA | IPEA | IB | DO | EO)
                                            #REQUIRED
                   date-produced   CDATA    #IMPLIED
                   status          CDATA    #IMPLIED
                   ro              CDATA    #REQUIRED
                   file            CDATA    #IMPLIED                        >

<!--application reference information : application number, country         -->
<!ELEMENT application-reference  (document-id,language-of-filing?)          >

<!--common elements Document, application identification group             -->
<!ELEMENT document-id            (country,doc-number,name?,kind?,date?)     >

<!--* Country use ST.3 country code eg. DE, FR, GB, NL - changed
      also, therefore, includes EP, WO                                     -->
<!ELEMENT country               (#PCDATA)                                  >

<!ELEMENT region                (country)                                  >

<!--Document number
       In case of application ; application number
       In case of publication ; publication number
       In case of grant patent; patent number                             -->
<!ELEMENT doc-number            (#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
               type (legal | natural)   #REQUIRED                         >

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

<!--filing language, ISO639 language code, e.g, en,de,ja,                  -->
<!ELEMENT language-of-filing    (#PCDATA)                                  >


<!--PCT: applicant's or agent's file reference, if desired,
```

```
            12 characters maximum                                            -->
<!ELEMENT file-reference-id     (#PCDATA)                            >

<!ELEMENT indications           (para-number+)                      >

<!ELEMENT para-number           (#PCDATA)                           >

<!--BIOlogical deposit CITation
    (US EFS: biological-deposit)
     According to PCT Rule 13bis, EPC Rule 28
     This covers all bio data references long and short
     within the description and/or claims                           -->

<!ELEMENT bio-deposit           (depositary,bio-accno,date?,term?,dtext?)  >
<!ATTLIST bio-deposit
            id          ID      #REQUIRED
            num         CDATA   #REQUIRED
            url         CDATA   #IMPLIED
            dnum        CDATA   #IMPLIED               >


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

<!--* ADDRESS COMPONENTS
      Address formats differ from country to country
      If no structure possible use pctext                           -->
<!ELEMENT address               ((address-1?,address-2?,address-3?,street?,
                                 city?,county?,state?, postcode,country) |
                                 text)                              >

<!ELEMENT address-1             (#PCDATA)                           >

<!ELEMENT address-2             (#PCDATA)                           >

<!ELEMENT address-3             (#PCDATA)                           >

<!--* Street may contain house number or name                       -->
<!ELEMENT street                (#PCDATA)                           >

<!--* City or town name                                             -->
<!ELEMENT city                  (#PCDATA)                           >

<!--* County, parish, department, etc (mainly UK, USA)              -->
<!ELEMENT county                (#PCDATA)                           >

<!--* Region of country eg. state, province, lande etc             -->
<!ELEMENT state                 (#PCDATA)                           >

<!--* Postal code or zip code                                       -->
<!ELEMENT postcode              (#PCDATA)                           >

<!ELEMENT text                  (#PCDATA)                           >


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

<!-- DATE: Components of a date (date) YYYYMMDD
     The date of deposit                                            -->
<!ELEMENT date                  (#PCDATA)                           >

<!ELEMENT term                  (#PCDATA)                           >

<!--* Descriptive text                                              -->
<!ELEMENT dtext                 (#PCDATA)                           >
```

```
<!--Addtional indication                                           -->
<!ELEMENT addtional-indication   (#PCDATA)                          >


<!--Designated states for which indications are made               -->
<!ELEMENT all-designations        EMPTY                             >

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


<!--Separate furnishing of indications                             -->
<!ELEMENT separate-indications   (#PCDATA)                          >


<!--         DOC-PAGE - DOCument or PAGE
             This is primarily to be used when data for 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
            <image> may also be used for complete pages, eg. in drawings   -->
<!ELEMENT doc-page               EMPTY                             >
<!ATTLIST doc-page
             id        ID      #REQUIRED
             he        NMTOKEN #REQUIRED
             wi        NMTOKEN #REQUIRED
             type      (jpg | tiff | jfif | pdf | jpeg | tif)   #REQUIRED
             alt       CDATA   #IMPLIED
             label     CDATA   #IMPLIED
             pp        CDATA   #IMPLIED
             ppf       CDATA   #IMPLIED
             ppl       CDATA   #IMPLIED
             file      CDATA   #REQUIRED
             color     (color | bw)   #IMPLIED                      >

<!-- END OF DTD                                                    -->
```

3.8   Receiving Office information

```
<!--
      ********************************************************************
      *  ro-request-receiving-info v0.1     2001 APRIL                   *
      ********************************************************************
      *public "-//wipo//dtd ro-request-receiving-info v0.1 2001-04-30/en"*
      ********************************************************************
      *  contacts:                                                      *
      *  EPO:   Paul Brewin;  pbrewin@epo.org                           *
      *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                    *
      *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                       *
      *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                      *
      *                                                                 *
      ********************************************************************


********** Revision History **********
Created 2001-05-08, Geneva,                                           -->


<!--DOCTYPE ro-request-receiving-info [                                -->
<!--Define some entities                                              -->
<!--Name group entity, please see name element group for each elements -->

<!ENTITY % nam  "((name | (prefix?,last-name,first-name,middle-name?,suffix?,
                   iid?, role?,orgname?,department?,synonym*)),
                   registered-number?)"                               >
<!-- PCT receiving office filing information for PCT request          -->
<!ELEMENT ro-request-receiving-info (application-reference,ro-info,
                                 signatories?)                        >

<!-- attributes for iper                                              -->
<!--                                                                  -->
<!--      lang              :language code of attached document,      -->
<!--                         ISO639 language code,e.g, en,de,ja,,     -->
<!--      dtd-version       :dtd version number                       -->
<!--      date-produced     :YYYYMMDD   e.g, 20011230                 -->
<!--      ro                :Receiving office  name, country code ST.3 -->

<!ATTLIST ro-request-receiving-info
                  lang            CDATA    #REQUIRED
                  dtd-version     CDATA    #IMPLIED
                  date-produced   CDATA    #IMPLIED
                  status          CDATA    #IMPLIED
                  ro              CDATA    #REQUIRED
                                                                      >



<!-- application reference information : application number, country  -->
<!ELEMENT application-reference (document-id,language-of-filing?)      >



<!-- 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?) >

<!-- Date of actual receipt of the purorted international application  -->
<!ELEMENT date-of-actual-receipt (date)                               >

<!-- If drawing was not received,this empty tag exists                -->
<!ELEMENT drawings-not-received   EMPTY                               >

<!-- Corrected date of actual receipt due to later but timely         -->
<!-- received documents or drawings completing the purported          -->
<!-- international application                                         -->
<!ELEMENT corrected-date-receipt (date)                               >
```

```
<!-- date of timely receipt of the required corrections under      -->
<!--     PCT Article 11(2)                                          -->
<!ELEMENT receipt-pct11-2      (date)                              >

<!-- isa contry name, if two or more are competent                 -->
<!ELEMENT isa                  (country)                           >

<!-- Transmittal of search copy delayed until search               -->
<!--     fee is paid                                                -->
<!ELEMENT search-copy-delayed    EMPTY                             >


<!--  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
           type (legal | natural)   #REQUIRED                      >

<!--               *Title e.g., Mr., Mrs., Dr. etc*                 -->
<!ELEMENT prefix               (#PCDATA)                           >

<!-- Last, family, surname                                         -->

<!ELEMENT last-name            (#PCDATA)                           >

<!-- First, given, middle name(s), initials
     eg. John, John F., J.F, John Frederick                        -->

<!ELEMENT first-name           (#PCDATA)                           >

<!ELEMENT middle-name          (#PCDATA)                           >

<!-- Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc.               -->
<!ELEMENT suffix               (#PCDATA)                           >

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

<!-- Role, eg President added 02.11.2000 PB ISO 12083              -->
<!ELEMENT role                 (#PCDATA)                           >

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

<!-- Department,division,section, etc. name                        -->
<!ELEMENT department           (#PCDATA)                           >

<!-- Synonym, cross-reference                                      -->
<!ELEMENT synonym              (#PCDATA)                           >


<!-- Applicant's, agent's registration number with the office      -->
<!ELEMENT registered-number      (#PCDATA)                         >
<!--     Document identification refers to patents only and
         is used in several other dtds it should not be changed
         without consultation with WIPO;                           -->

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

<!ELEMENT doc-number      (#PCDATA)                                >

<!--  * doc. kind code  eg A1                                      -->
<!ELEMENT kind            (#PCDATA)                                >

<!--  * Country use ST.3 country code eg. DE, FR, GB, NL  - changed
```

```
        also, therefore, includes EP, WO                              -->
<!ELEMENT country         (#PCDATA)                                    >

<!-- date, YYYYMMDD, e.g, 20011230                                     -->
<!ELEMENT date                        (#PCDATA)                        >

<!-- filing language, ISO639 language code, e.g, en,de,ja,            -->
<!ELEMENT language-of-filing          (#PCDATA)                        >


<!-- signatories                                                       -->

<!ELEMENT signatories          (signatory+) >

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

<!ELEMENT electronic-signature (basic-signature | enhanced-signature)  >
<!ATTLIST electronic-signature
                  date          CDATA           #REQUIRED
                  place-signed CDATA            #IMPLIED                >

<!ELEMENT signatory-capacity   (#PCDATA)                               >

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

<!ELEMENT enhanced-signature   (pkcs7)                                 >

<!ELEMENT fax-image            EMPTY                                   >
<!ATTLIST fax-image
                  file          CDATA           #REQUIRED               >

<!ELEMENT text-string          (#PCDATA)                               >

<!ELEMENT click-wrap           EMPTY                                   >

<!ELEMENT pkcs7                EMPTY                                   >

<!-- END OF DTD                                                        -->
```

4 DTD's for use in document packaging and transmission

4.1 Package header

```
<!--
     ********************************************************************
     *  pkgheader v0.3   2001 APRIL                                    *
     ********************************************************************
     *  public "-//wipo//dtd pkgheader v0.3 2001-04-30/en"             *
     ********************************************************************
     *  contacts:                                                      *
     *  EPO:   Paul Brewin;  pbrewin@epo.org                           *
     *  JPO:   Mitsuru Sono; sono-mitsuru@jpo.go.jp                    *
     *  USPTO: Bruce B. Cox; bruce.cox@uspto.gov                       *
     *  WIPO:  Shiro Ankyu;  shiro.ankyu@wipo.int                      *
     *                                                                 *
     ********************************************************************
-->

<!--DOCTYPE pkgheader[                                                 -->
<!-- Define some entities                                             -->
<!-- Name group entity, please see name element group for each elements  -->
<!ENTITY % nam "((name | (prefix? , last-name , first-name , middle-name? , suffix?
, iid? , role? , orgname? , department? , synonym*)) , registered-number?)">

<!-- Root element package header                                      -->
<!ELEMENT pkgheader (transmittal-info? , submission-type? , application-type? ,
payment-method? , us-pgpub-info? , wasp-message-digest? , filelist?)>

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

<!-- New application information from applicant to office             -->
<!ELEMENT new-application (invention-title? , first-named-applicant? , file-
reference-id?)>

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

<!ATTLIST invention-title  id   ID     #REQUIRED
                           lang CDATA  #IMPLIED >
<!-- first applicant name in applicant group                         -->
<!ELEMENT first-named-applicant %nam;>

<!-- PCT: applicant's or agent's file reference, if desired,          -->
<!--      12 characters maximum                                       -->
<!ELEMENT file-reference-id (#PCDATA)>

<!-- Subsequent Filing information, before Issue Date.                -->
<!ELEMENT subsequent-filing (invention-title? , first-named-applicant ,
confirmation-number? , file-reference-id? , (application-reference | (patent-
reference , application-reference)))>

<!-- confirmation number from office to applicant                     -->
<!ELEMENT confirmation-number (#PCDATA)>

<!-- application reference information : application number,           -->
<!--      country                                                     -->
<!ELEMENT application-reference (document-id , language-of-filing?)>

<!-- patent reference information : patent number,date,etc            -->
<!ELEMENT patent-reference (document-id)>

<!-- publication reference information : publication number,date,etc   -->
```

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

<!-- Document transfer information between offices.                      -->
<!ELEMENT office-to-office (application-reference , publication-reference? , file-
reference-id? , from , to)>

<!-- the office sends the documnet                                       -->
<!ELEMENT from (country)>

<!-- the office receives the document                                    -->
<!ELEMENT to (country)>

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

<!-- submission type                                                     -->
<!ELEMENT submission-type EMPTY>

<!ATTLIST submission-type  submission-type  (notification |
                                             pgpub |
                                             amendment |
                                             to-be-determined |
                                             application |
                                             request-for-examination )  #REQUIRED
>
<!--  application type                                                   -->
<!ELEMENT application-type EMPTY>

<!ATTLIST application-type  type  (reexamination |
                                   reissue |
                                   pct |
                                   regular |
                                   trademark |
                                   patent |
                                   utility-model |
                                   design )  #REQUIRED >
<!-- Payment method                                                      -->
<!ELEMENT payment-method (fee+ , (deposit-account | credit-card | other-ecommerce-
method))>

<!ATTLIST payment-method  amount CDATA  #REQUIRED
                          type   CDATA  #REQUIRED >
<!ELEMENT fee EMPTY>

<!ATTLIST fee  fee-code CDATA  #REQUIRED
               amount   CDATA  #REQUIRED
               qty      CDATA  #REQUIRED >
<!ELEMENT deposit-account EMPTY>

<!ATTLIST deposit-account  number CDATA  #REQUIRED
                           name   CDATA  #REQUIRED >
<!ELEMENT credit-card EMPTY>

<!ATTLIST credit-card  number       CDATA  #REQUIRED
                       expires      CDATA  #REQUIRED
                       name         CDATA  #IMPLIED
                       postal-code CDATA  #IMPLIED >
<!ELEMENT other-ecommerce-method EMPTY>

<!-- Wrapped and signed package message digest                           -->
<!ELEMENT wasp-message-digest (#PCDATA)>

<!--       HIGHLIGHTED ELEMENTS
           bold, italic, underscore,
           If we do not use these we have to have a generic tag such as
```

```
                    emphasis with styles or levels because users want to use
                    these and we need to mark it up - it is far simpler to have
                    the tags shown below                                          -->
<!-- *  bold                                                                       -->
<!ELEMENT b (#PCDATA | i | u | smallcaps | br)*>


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


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


<!-- *  Underscore attribute: style - single is default                           -->
<!ATTLIST u style  (single | double | dash | dots )  "single">


<!-- *  Superscript attribute: position (post)                                    -->
<!ELEMENT sup (#PCDATA | b | u | i)*>


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


<!-- *  Small capitals                                                            -->
<!ELEMENT smallcaps (#PCDATA | b | u | i | br)*>


<!-- *  br - break, line break within a paragraph                                 -->
<!ELEMENT br EMPTY>


<!-- 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  type  (legal | natural )  #REQUIRED >
<!--                  *Title e.g., Mr., Mrs., Dr. etc*                             -->
<!ELEMENT prefix (#PCDATA)>


<!-- Last, family, surname                                                        -->
<!ELEMENT last-name (#PCDATA)>


<!-- First, given, middle name(s), initials
     eg. John, John F., J.F, John Frederick                                       -->
<!ELEMENT first-name (#PCDATA)>


<!ELEMENT middle-name (#PCDATA)>


<!--          * Suffix (e.g., II, Jr.Dip. Ing., BA, et al, etc. *       -->
<!ELEMENT suffix (#PCDATA)>


<!--                        * Individual id *                           -->
<!ELEMENT iid (#PCDATA)>


<!--          * Role, eg President added 02.11.2000 PB ISO 12083 *      -->
<!ELEMENT role (#PCDATA)>


<!--                       * Organisation name *                        -->
<!ELEMENT orgname (#PCDATA)>


<!--            * Department,division,section, etc. name *              -->
<!ELEMENT department (#PCDATA)>


<!--                   * Synonym, cross-reference *                     -->
<!ELEMENT synonym (#PCDATA)>


<!-- Applicant's, agent's registration number with the office           -->
<!ELEMENT registered-number (#PCDATA)>


<!-- common elements                                                    -->
<!-- Document, application identification group                         -->
```

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

<!-- Document number                                                      -->
<!--      In case of application ; application number                     -->
<!--      In case of publication ; publication number                     -->
<!--      In case of grant patent; patent number                          -->
<!ELEMENT doc-number (#PCDATA)>

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

<!-- date, YYYYMMDD, e.g, 20011230                                        -->
<!ELEMENT date (#PCDATA)>

<!-- Country use ST.3 country code eg. DE, FR, GB, NL - changed
         Includes region codes for EP, AP, EA, OA                         -->
<!ELEMENT country (#PCDATA)>

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

<!--US: specifies type of submission for pre-grant publication-->
<!ELEMENT us-pgpub-info (publication-filing-type , request-for-early-publication?)>

<!ELEMENT publication-filing-type EMPTY>

<!ATTLIST publication-filing-type  values  (new-utility |
                                            voluntary |
                                            original-publication-amended |
                                            original-publication-redacted |
                                            republication-amended |
                                            republication-redacted |
                                            corrected )  'new-utility' >
<!ELEMENT request-for-early-publication EMPTY>

<!--This relates to the data item in the original PCT package header dtd   -->
<!ELEMENT filelist (file-content+)>

<!ELEMENT file-content EMPTY>

<!ATTLIST file-content  file             CDATA  #REQUIRED
                        kind-of-content  CDATA  #REQUIRED
                        type             CDATA  #REQUIRED
                        id               ID     #REQUIRED
                        parent           CDATA  #REQUIRED
                        size             CDATA  #REQUIRED >

<!-- END OF DTD                                                           -->
```

4.2 Transmission receipt

```
<!--transmission-receipt v0.3, 2001 Jan 29
public "-//wipo//dtd epct-xmit-receipt v0.3 2001-01-29//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Mitsuru Sono;   sono-mitsuru@jpo.go.jp
USPTO: Bruce B. Cox; bruce.cox@uspto.gov
WIPO: Shiro Ankyu; shiro.ankyu@wipo.int
WIPO: John Godman; john.godman@wipo.int

********** Revision History **********
Revised 2001 Jan 29, Shiro Ankyu, WIPO, and John Godman, WIPO
..set version to v0.3
..renamed from "confirmation certificate" to "transmission receipt"
..changed CONFCERTIFICATE element
...renamed to XMIT-RECEIPT
...replaced APPLICATION-NUMBER and APPLICANTS-REFERENCE with INTERNATIONAL-
FILING Revised 2000 June 8, Shiro Ankyu, WIPO, and John Godman, WIPO
..set version to v0.2
..changed encoding to "UTF-8"
..changed CONFCERTIFICATE element
...added APPLICATION-DOCUMENTS element with FILE-NAME entity attribute
...in order to more closely reflect Annex F, Appendix I, v4.0 (see section
6.2.2) Created 1999 August, SCIT/P Annex F, Appendix II                  -->

<!--###################### Transmission receipt  #########################-->
<!ELEMENT xmit-receipt   (international-filing,receipt-of-application,action,
                          message-digest,result-code,result-message,
                          application-documents?)                        >
<!ATTLIST xmit-receipt
                dtd    CDATA      #IMPLIED
                appref CDATA      #IMPLIED
                status CDATA      #IMPLIED                                >

<!--############### International application number, country  ############-->
<!ELEMENT international-filing    (number,country?)                       >

<!ELEMENT number                 (#PCDATA)                                >

<!ELEMENT country                (#PCDATA)                                >

<!ELEMENT receipt-of-application  (date)                                  >

<!ELEMENT date                   (#PCDATA)                                >

<!ELEMENT action                 (#PCDATA)                                >

<!ELEMENT message-digest         (#PCDATA)                                >

<!ELEMENT result-code            (#PCDATA)                                >

<!ELEMENT result-message         (#PCDATA)                                >

<!ELEMENT application-documents   EMPTY                                   >

<!ATTLIST application-documents
                file  ENTITY      #REQUIRED                               >

<!-- END OF DTD                                                          -->
```

[End of document]