

WIPO



PCT/AI/1 Add.5 Prov.

ORIGINAL: English

DATE: June 9, 2000

E

WORLD INTELLECTUAL PROPERTY ORGANIZATION

GENEVA

PATENT COOPERATION TREATY (PCT)

ADMINISTRATIVE INSTRUCTIONS
UNDER THE PATENT COOPERATION TREATY:

PROPOSED MODIFICATIONS RELATING TO THE
ELECTRONIC FILING, PROCESSING, STORAGE AND
RECORDS MANAGEMENT OF INTERNATIONAL APPLICATIONS

(ANNEX F, APPENDIX II: XML DTDS FOR IP DOCUMENT EXCHANGE)

*prepared by the International Bureau for consideration at a
PCT informal consultation meeting on electronic filing,
Geneva, July 11 to 14, 2000*

INTRODUCTION

1. At its twenty-eighth (16th extraordinary) session, held in Geneva in March 2000, the PCT Union Assembly considered the implementation of electronic filing and processing of international applications. The Assembly's discussions were based on document PCT/A/28/3, which included proposed modifications of the Administrative Instructions under the PCT,¹ and the comments of delegations and user representatives on that document which were reproduced in documents PCT/A/28/3 Add.2 to Add.5. The discussions also took into account the documents reproduced in document PCT/A/28/3 Add.1 relating to the development of the necessary technical standard to enable implementation of electronic filing and processing of international applications. The Assembly agreed that proposed new Part 7 of the Administrative Instructions under the PCT (Instructions Relating to Electronic Filing, Processing, Storage and Records Management of International Applications) and draft Annex F of the Administrative Instructions (Standard for Electronic Filing, Processing, Storage and Records Management of International Applications) needed extensive redrafting, and that further consultations on the redrafted versions were necessary (see the Assembly's report, document PCT/A/28/5, paragraph 24).²

2. This and related documents³ contain a redraft of the necessary implementing provisions of the Administrative instructions for the purposes of continuing the consultation under Rule 89.2(b) which was begun in conjunction with the twenty-eighth session of the Assembly. The documents are as follows:

PCT/AI/1 Add.2 Prov., containing redrafted Part 7;

PCT/AI/1 Add.3 Prov., containing redrafted Annex F, Introduction;

¹ References in this document to "Articles," "Rules" and "Sections" are, respectively, to those of the Patent Cooperation Treaty (PCT), of the Regulations under the PCT ("the Regulations") and of the Administrative Instructions under the PCT ("the Administrative Instructions"), or to such provisions as proposed to be amended or added, as the case may be. The current texts are available on WIPO's Internet site at <http://www.wipo.int/eng/pct/texts/index.htm> References to "national law," "national applications," "national Offices," etc., include reference to regional law, regional applications, regional Offices, etc.

² The report and other documents for the Assembly's session are available on WIPO's Internet site at http://www.wipo.int/eng/document/govbody/wo_pct/index_28.htm.

³ This and other documents for consideration by the PCT informal consultation meeting on electronic filing are available on WIPO's Internet site at http://www.wipo.int/eng/meetings/2000/pct_ef/index.htm

PCT/AI/1 Add.4 Prov., containing redrafted Annex F, Appendix I (Technical Standard for the On-Line Exchange of Industrial Property Documents in a PKI Environment);

PCT/AI/1 Add.5 Prov., containing redrafted Annex F, Appendix II (XML DTDs for Industrial Property Document Exchange);

PCT/AI/1 Add.6 Prov., containing redrafted Annex F, Appendix III (Electronic Filing Using Physical Media).

[Annex F, Appendix II, follows]

PROPOSED MODIFICATIONS OF THE
ADMINISTRATIVE INSTRUCTIONS UNDER THE PCT

ANNEX F
STANDARD FOR ELECTRONIC FILING, PROCESSING, STORAGE
AND RECORDS MANAGEMENT OF INTERNATIONAL APPLICATIONS

Appendix II
XML DTDs for IP Document Exchange

TABLE OF CONTENTS

1	MANAGEMENT SUMMARY	2
2	DTDS FOR XML DOCUMENTS	2
2.1	STRATEGY FOR FURTHER DEVELOPMENT OF DTDS.....	2
2.2	DTD INVENTORY AS OF 2000 JUNE 7.....	2
2.2.1	Electronic PCT application, version 0.82:.....	2
2.2.2	Receiving Office form 101 (bibliographic data), version 0.11:.....	2
2.2.3	Specification, version 0.11:.....	2
2.2.4	Receiving Office information, version 0.2:.....	3
2.2.5	Package header, version 0.2:.....	3
2.2.6	Confirmation certificate, version 0.2:.....	3
2.3	FUTURE DTDS.....	3
2.4	REUSABLE COMPONENTS.....	3
3	STANDARD PACKAGES AND HEADER SPECIFICATIONS	4
3.1	PACKAGE HEADER OBJECT	4
3.2	CONFIRMATION CERTIFICATE	6
	ATTACHMENT 1 - DTDS FOR NEW PCT APPLICATIONS (EPCT)	9
	EPCT DTD v0.82.....	9
	RECEIVING OFFICE FORM 101 (BIBLIOGRAPHIC DATA) v0.11.....	11
	SPECIFICATION v0.11.....	16
	RECEIVING OFFICE INFORMATION v0.2.....	23
	ATTACHMENT 2 - PROVISIONAL ATTACHMENT FOR DTD MODIFICATION HISTORY	24

1 Management Summary

This document presents all the XML DTDs used for the electronic exchange of IP documents as defined in Annex F and Appendix I of the PCT Administrative Instructions. It also contains details of the methodology adopted in drafting these DTDs.

2 DTDs for XML Documents

2.1 Strategy for further development of DTDs

Although limited at this stage to the initial electronic filing of a new PCT application, this specification is expected to expand in scope over time to include the subsequent formal exchanges between the parties involved. Below is a list of DTDs required for the initial phase of electronic submission of an electronic application. Other DTDs will be required for later phases of the processing of an electronic PCT application (ePCT).

While the immediate goal of this specification is to support ePCT applications, the Trilateral Offices intended to use it as the basis for their own national electronic applications for a variety of intellectual-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 ePCT will be constructed from so-called "architectural DTDs" that contain templates 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 draft ePCT DTDs completed so far will be revised to take into account the architectural forms. The other DTDs that will eventually be required will also be based on the architectural DTDs. The XML name-space facility (XMLNS) will be used to implement architectures in the DTDs supporting this specification.

As an aid to creating the architectural DTDs and forms, a table will be constructed of the elements and structures in the sources of the proposed DTDs and those newly created for this specification, that will illustrate their relationships and their definitions.

2.2 DTD Inventory as of 2000 June 7

2.2.1 Electronic PCT application, version 0.82:

```
public "-//wipo//dtd epct v0.82 2000-06-07//en"  
in epct-v082.dtd
```

2.2.2 Receiving Office form 101 (bibliographic data), version 0.11:

```
public "-//wipo//dtd wo-ro101 v0.11 2000-06-07//en"  
in wo-ro101-v011.dtd
```

2.2.3 Specification, version 0.11:

```
public "-//wipo//dtd wo-specification v0.11 2000-06-07//en"  
in wo-specification-v011.dtd
```

2.2.4 Receiving Office information, version 0.2:

public "-//wipo//dtd wo-receiving-office v0.2 2000-06-08//en"
in wo-receiving-office-v0.2.dtd

2.2.5 Package header, version 0.2:

public "-//wipo//dtd epct-ph v0.2 2000-06-08//en"
In epct-package-header-v02.dtd

2.2.6 Confirmation certificate, version 0.2:

public "-//wipo//dtd epct-cc v0.2 2000-06-08//en"
In epct-confirmation-certificate-v02.dtd

2.3 Future DTDs

- (a) Post-application, procedural and formal communications of various types
- (b) RO to IB
- (c) RO to ISA
- (d) IB to ISA
- (e) IB to IPEA
- (f) ISA to IB
- (g) IPEA to IB
- (h) IB to RO
- (i) DTDs required by other types of intellectual property

2.4 Reusable Components

Given the large number of IP Document Exchange DTDs, they will be built using a number of reusable standard components combined with transaction specific components.

The method for producing and organising these components shall be based on the XML structure called Architectural Forms.

The following components have been defined:

- (a) Request
- (b) Description
- (c) Claims
- (d) Abstract
- (e) Drawings
- (f) Sequence Listing
- (g) PCT Receiving Office data
- (h) Electronic Signature

3 Standard Packages and Header Specifications

3.1 Package Header Object

The Header Object Data item is written in XML based on the following DTD:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!--pkgheader v0.2, 2000 June 8
public "-//wipo//dtd epct-ph v0.2 2000-06-08//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 2000 June 8, Shiro Ankyu, WIPO, and John Godman, WIPO
.Changes made in order to more closely reflect Annex F, Appendix I, v4.0
..set version to v0.2
..changed encoding to "UTF-8"
..changed CDATA attributes with numerical values to Name Token Groups with
text values
..renamed attribute TYPE of element IP to new name: IP-TYPE
..renamed attribute ID of element PACKAGE to new name: PACKAGE-ID
..changed FILE element name to DATA-ITEM
...changed FILE element to type EMPTY
...added attribute FILE-NAME to DATA-ITEM element to more closely match
other DTD's
Created 1999 August, SCIT/P Annex F, Appendix II
-->
<!DOCTYPE pkgheader [
<!ELEMENT pkgheader (ip?,package,return-route?,data-item+) >

<!ELEMENT ip EMPTY >

<!ATTLIST ip
IP-TYPE (PATENT | UTILITY-MODEL | DESIGN | TRADEMARK)
#REQUIRED
PROCEDURE (APPLICATION | AMENDMENT | REQUEST-FOR-
EXAMINATION)
#REQUIRED >

<!ELEMENT package EMPTY >

<!ATTLIST package
PACKAGE-TYPE (NEW-APPLICATION | CONFIRMATION-CERTIFICATE)
#REQUIRED >

<!ELEMENT return-route (#PCDATA) >

<!ELEMENT data-item EMPTY >

<!--2000 June 8: Not sure if the 'HEADER-INFORMATION' value is meant to
indicate
a sub-package (another package within this package) or some other
information... If it is for a sub-package, then perhaps this value should
```

```
be re-named
to 'PKGHEADER' or 'SUB-PACKAGE' to more clearly indicate that the contents
is another package. -JG (WIPO)
-->
<!ATTLIST data-item
      FILE-TYPE (HEADER-INFORMATION | IP-DOCUMENTS) #REQUIRED
      FILE-NAME ENTITY #REQUIRED >
]>
```

Tags are described below:

(1) **pkgheader**

Content : (Root tag for the document)
Attribute : None
Repeat/Omission : 1 time/not possible

(2) **ip**

Content : None
Attribute : **IP-TYPE** (mandatory) Application type; values:
PATENT
UTILITY-MODEL
DESIGN
TRADEMARK
Expand as necessary ##
PROCEDURE (mandatory) Procedure type; values:
APPLICATION
AMENDMENT
REQUEST-FOR-EXAMINATION
Expand as necessary ##
Repeat/Omission : 1 time/not possible

(3) **package**

Content : None
Attribute : **PACKAGE-TYPE** (mandatory) Package type; values:
NEW-APPLICATION
CONFIRMATION-CERTIFICATE
Repeat/Omission : 1 time/not possible

(4) **return-route**

Content : Specify the reply method
Attribute : None
Repeat/Omission : 1 time/possible

(5) **data-item**

Content : Indicate Data Item file name
Attribute : **FILE-TYPE** (mandatory) Data item file type; values:
HEADER-INFORMATION
IP-DOCUMENTS
Expand as necessary ##
FILE-NAME (mandatory) Contains data item file name.
Repeat/Omission : 1 time or more/ not possible

Here is an example of a Header Object:

```
<?xml version="1.0" >  
<!DOCTYPE pkgheader SYSTEM "pkgheader.dtd" >  
<pkgheader>  
</ip IP-TYPE="PATENT" PROCEDURE="APPLICATION">  
</package PACKAGE-TYPE="NEW-APPLICATION">  
</data-item FILE-NAME="header.xml" FILE-TYPE="HEADER-INFORMATION">  
</data-itme FILE-NAME="ipdoc.dat" FILE-TYPE="IP-DOCUMENTS">  
</pkgheader>
```

3.2 Confirmation Certificate

The XML version of the Confirmation Certificate must comply with the following DTD:

```
<?xml version="1.0" encoding="UTF-8"?>  
<!--confcertificate v0.2, 2000 June 8  
public "-//wipo//dtd epct-cc v0.2 2000-06-08//en"  
  
contacts:  
EPO: John Bambridge; jbambridge@email.epo.nl  
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 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  
-->  
<!DOCTYPE confcertificate [  
<!ELEMENT confcertificate (application-number, applicants-reference, date-  
of-receipt,  
                          action, message-digest, result-code, result-message,  
                          application-documents?) >  
  
<!ELEMENT application-number (#PCDATA) >  
  
<!ELEMENT applicants-reference (#PCDATA) >  
  
<!ELEMENT date-of-receipt (#PCDATA) >  
  
<!ELEMENT action (#PCDATA) >
```

```
<!ELEMENT message-digest (#PCDATA) >
<!ELEMENT result-code (#PCDATA) >
<!ELEMENT result-message (#PCDATA) >
<!--2000 June 8 - this element added to specify the optional
application documents data item (see Appendix I v4.0, sec. 6.2.2).
-->
<!ELEMENT application-documents EMPTY >
<!ATTLIST application-documents
          FILE-NAME ENTITY #REQUIRED >
]>
```

Tags are described below:

- (1) **confcertificate**
 - Content : (Root tag for the document.)
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (2) **application-number**
 - Content : Indicate the application number assigned
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (3) **applicants-reference**
 - Content : The reference used by the applicant
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (4) **date-of-receipt**
 - Content : Date assigned by the IP Office for receipt of the IP Document
 - Attribute : None
 - Repeat/Omission : 1 time/possible
- (5) **action**
 - Content : Type of IP Document sent (e.g. New US Application)
 - Attribute : None
 - Repeat/Omission : 1 time/possible
- (6) **message-digest**
 - Content : A hexadecimal representation of the message digest value
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (7) **result-code**
 - Content : A numeric representation of the result of the submission indicating success or failure(0=OK)
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (8) **result-message**
 - Content : A character string representation of the reason for any failure
 - Attribute : None
 - Repeat/Omission : 1 time/not possible
- (9) **application-documents**

Content : None
Attribute : **FILE-NAME** (mandatory) application-documents file name.
Repeat/Omission : 1 time or more/possible

Here is an example of a Confirmation Certificate :

```
<?xml version="1.0" >  
<!DOCTYPE confcertificate SYSTEM "confcertificate.dtd">  
<confcertificate>  
<application-number>EP98200345</application-number>  
<applicants-reference>MyRef001</applicants-reference>  
<date-of-receipt>19990929</date-of-receipt>  
<action>NEW-EP-Application</action>  
<message digest>12:34:56:af:c3: 12:34:56:af:c3:  
12:34:56:af:c3:12:34:56:af:c3</message digest>  
<result-code>3</result-code>  
<result-message>Application incomplete.</result-message>  
  </application-documents FILE-NAME="ipdocs.dat">  
</confcertificate>
```

ATTACHMENTS

ATTACHMENT 1 - DTDs for New PCT Applications (ePCT)

The versions of the DTDs presented here are strikingly different from the previously distributed draft v0.6. The overall structure has changed to conform with PCT practice rather than with the USPTO practice which served as the model for previous drafts. The v0.6 DTD has been separated into three DTDs to better reflect PCT practice and to isolate those components which might change for various receiving or national Offices.¹

ePCT DTD v0.82

```
<?xml version="1.0" encoding="UTF-8"?>
<!--epct public "-//wipo//dtd epct v0.82 2000-06-07//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 2000 June 7, Shiro Ankyu, WIPO, and John Godman, WIPO
..changed version to v0.82
..changed encoding to "UTF-8"
..added PDF element to R0101, 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 [
<!ELEMENT epct (new-application | amendments | changes | notification |
priority-document | international-search-report |
international-preliminary-examination-report) >

<!ELEMENT new-application (ro101,specification,fee-transmittal) >

<!ELEMENT ro101 (xml-instance | page-image+ | pdf+) >

<!ELEMENT specification (xml-instance | page-image+ | pdf+) >

<!ELEMENT fee-transmittal (xml-instance | page-image+ | pdf+) >

<!ELEMENT xml-instance EMPTY >

<!ATTLIST xml-instance
FILE-NAME ENTITY #REQUIRED >
```

¹ Cox, Bruce; Brewin, Paul; Ankyu, Shiro; Report of DTD Subgroup, Trilateral Meeting, the Hague, 2000 April 17-19

```
<!ELEMENT page-image EMPTY >

<!ATTLIST page-image
      FILE-NAME ENTITY #REQUIRED
      IMAGE-TYPE (TIFF | JPG) #REQUIRED >

<!ELEMENT pdf EMPTY >

<!ATTLIST pdf
      FILE-NAME ENTITY #REQUIRED >

]>
```

Receiving Office form 101 (bibliographic data) v0.11

```
<?xml version="1.0" encoding="UTF-8"?>
<!--wo-ro101 - Receiving Office form 101 (bibliographic data) v0.11, 2000
June 7
public "-//wipo//dtd wo-ro101-v0.11 2000-06-07//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 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 wo-ro101 [
<!ELEMENT wo-ro101 (parties,origination-info,priority-info*,technical-
info,
                international-info,descriptive-text?) >

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

<!ELEMENT origination-info (signatory,check-data) >

<!ELEMENT priority-info (priority-application-number,priority-date,
                pct-application-flag,office-of-filing,paris-state,
                priority-doc-requested,priority-doc-attached) >

<!ATTLIST priority-info
                LANGUAGE CDATA #REQUIRED >

<!ELEMENT technical-info (title-of-invention+,search,drawings) >

<!ELEMENT international-info (designation-pct,other-designations?,
                exclusion-form-designation?) >

<!ELEMENT descriptive-text (#PCDATA) >

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

```
<!ELEMENT inventors (inventor+) >

<!ELEMENT agents (agent+) >

<!ELEMENT signatory (applicant-agent+) >

<!ELEMENT check-data (request?,signed-power-of-attorney?,general-power-of-attorney?,
                        lack-of-signature?,fee-calculation-sheet?,microorganisms?,
                        sequence-info?,lack-of-novelty?,translation?,pct-easy-disk?)
>

<!ELEMENT priority-application-number (doc-number) >

<!ELEMENT priority-date (#PCDATA) >

<!ELEMENT pct-application-flag EMPTY >

<!ELEMENT office-of-filing (country-code) >

<!ELEMENT paris-state (country-code) >

<!ELEMENT priority-doc-requested EMPTY >

<!ELEMENT priority-doc-attached EMPTY >

<!ATTLIST priority-doc-attached
            FILE-NAME ENTITY #REQUIRED >

<!ELEMENT title-of-invention (#PCDATA | superscript | subscript)* >

<!ATTLIST title-of-invention
            LANGUAGE CDATA #REQUIRED >

<!ELEMENT search (place-of-search,earlier-search-by,earlier-search-date) >

<!ELEMENT drawings (figures-to-publish*) >

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

<!ELEMENT other-designations (#PCDATA) >

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

<!ELEMENT applicant-inventor (name,formatted-address?,address?,
                              country-of-residence,country-of-nationality,capacity-of-legal-rep,
                              dead-inventor-name?,applicant-is-inventor?,(
                              applicant-for-designated-states | applicant-for-all-states |
                              applicant-for-all-except-us | applicant-for-us-only)) >

<!ATTLIST applicant-inventor
            LANGUAGE CDATA #REQUIRED >

<!ELEMENT inventor (name,address,country-of-residence,country-of-nationality,
                   dead-inventor?,(applicant-for-designated-states |
                   applicant-for-all-states | applicant-for-all-except-us |
                   applicant-for-us-only)) >
```

```
<!ATTLIST inventor
    SEQUENCE CDATA #IMPLIED
    LANGUAGE CDATA #REQUIRED >

<!ELEMENT agent (name,address,(agent-representative | common-
representative),
    mailing-address?) >

<!ATTLIST agent
    SEQUENCE CDATA #IMPLIED
    TYPE (0 | 1 | 2) #IMPLIED
    LANGUAGE CDATA #REQUIRED >

<!ELEMENT applicant-agent (name,electronic-signature?,address?,signatory-
capacity?) >

<!ATTLIST applicant-agent
    LANGUAGE CDATA #REQUIRED >

<!ELEMENT request EMPTY >

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

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

<!ELEMENT lack-of-signature EMPTY >

<!ELEMENT fee-calculation-sheet EMPTY >

<!ELEMENT microorganisms EMPTY >

<!ELEMENT sequence-info EMPTY >

<!ELEMENT lack-of-novelty EMPTY >

<!ELEMENT translation EMPTY >

<!ELEMENT pct-easy-disk EMPTY >

<!ELEMENT doc-number (#PCDATA) >

<!ELEMENT country-code (#PCDATA) >

<!ELEMENT superscript (#PCDATA) >

<!ELEMENT subscript (#PCDATA) >

<!ELEMENT place-of-search (country-code) >

<!ELEMENT earlier-search-by (country-code) >

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

<!ELEMENT figures-to-publish (#PCDATA) >

<!ELEMENT national (country-code,protection-requested?) >

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

<!ELEMENT name (name-prefix?,given-name?,middle-name?,family-name,name-
```



```
suffix?,
        reference-number?,organization-name?) >
<!ELEMENT formatted-address (#PCDATA) >
<!ELEMENT address (address-1,address-2?,address-3?,city,state,postal-code,
        country-code,email?,telephone?,fax?) >
<!ELEMENT country-of-residence (#PCDATA) >
<!ELEMENT country-of-nationality (#PCDATA) >
<!ELEMENT capacity-of-legal-rep (#PCDATA) >
<!ELEMENT dead-inventor-name EMPTY >
<!ELEMENT applicant-is-inventor EMPTY >
<!ELEMENT applicant-for-designated-states (country-code*,regional*) >
<!ELEMENT applicant-for-all-states EMPTY >
<!ELEMENT applicant-for-all-except-us EMPTY >
<!ELEMENT applicant-for-us-only EMPTY >
<!ELEMENT dead-inventor EMPTY >
<!ELEMENT agent-representative EMPTY >
<!ELEMENT common-representative EMPTY >
<!ATTLIST common-representative
        RED-BOOK-NAME CDATA #FIXED "[B742WO ]" >
<!ELEMENT mailing-address (address) >
<!ATTLIST mailing-address
        RED-BOOK-NAME CDATA #FIXED "[B743WO ]" >
<!ELEMENT electronic-signature (basic-signature | enhanced-signature?) >
<!ATTLIST electronic-signature
        DATE-SIGNED CDATA #REQUIRED
        PLACE-SIGNED CDATA #IMPLIED >
<!ELEMENT signatory-capacity (#PCDATA) >
<!ELEMENT protection-requested (kind-of-protection,
        patent-application-or-grant-number,patent-application-or-
grant-date) >
<!ELEMENT region (#PCDATA) >
<!ELEMENT name-prefix (#PCDATA) >
<!ELEMENT given-name (#PCDATA) >
<!ELEMENT middle-name (#PCDATA) >
```

```
<!ELEMENT family-name (#PCDATA) >
<!ELEMENT name-suffix (#PCDATA) >
<!ELEMENT reference-number (#PCDATA) >
<!ELEMENT organization-name (#PCDATA) >
<!ELEMENT address-1 (#PCDATA) >
<!ELEMENT address-2 (#PCDATA) >
<!ELEMENT address-3 (#PCDATA) >
<!ELEMENT city (#PCDATA) >
<!ELEMENT state (#PCDATA) >
<!ELEMENT postal-code (#PCDATA) >
<!ELEMENT email (#PCDATA) >
<!ELEMENT telephone (#PCDATA) >
<!ELEMENT fax EMPTY >
<!ATTLIST fax
    FILE-NAME ENTITY #REQUIRED >
<!ELEMENT basic-signature (fax | text-string | click-wrap) >
<!ELEMENT enhanced-signature (pkcs7) >
<!ELEMENT kind-of-protection (#PCDATA) >
<!ELEMENT patent-application-or-grant-number (doc-number) >
<!ELEMENT patent-application-or-grant-date (#PCDATA) >
<!ELEMENT text-string (#PCDATA) >
<!ELEMENT click-wrap EMPTY >
<!ELEMENT pkcs7 EMPTY >
]>
```

Specification v0.11

```
<?xml version="1.0" encoding="UTF-8"?>
<!--wo-specification v0.11 v0.11, 2000 June 7
public "-//wipo//dtd wo-specification v0.11 2000-06-07//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 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, Appendix I, v4.0
....added ST-35
....added ASCII
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 wo-specification [
<!ELEMENT wo-specification (abstract-of-disclosure,(wo-description |
national-description),claims,drawings?) >

<!ATTLIST wo-specification
LA CDATA #REQUIRED >

<!ELEMENT abstract-of-disclosure (heading,paragraph) >

<!ATTLIST abstract-of-disclosure
ID ID #REQUIRED >

<!ELEMENT wo-description (title-of-invention,((technical-field,background-
art,
disclosure-of-invention,brief-description-of-drawings,best-
mode,
industrial-applicability,sequence-list?) | description)) >

<!ATTLIST wo-description
ID ID #REQUIRED
LA NMTOKEN #REQUIRED >

<!ELEMENT national-description EMPTY >

<!ATTLIST national-description
ID ID #REQUIRED
LA NMTOKEN #REQUIRED >

<!ELEMENT claims (heading | paragraph | list) >

<!ATTLIST claims
```

```

                ID ID      #REQUIRED >
<!ELEMENT drawings (image | chemistry-cwu | math-cwu | table-cwu)+ >
<!ATTLIST drawings
                ID ID      #REQUIRED >
<!ELEMENT heading (#PCDATA | emphasis | superscript | subscript)* >
<!ATTLIST heading
                ID ID      #REQUIRED >
<!ELEMENT paragraph (#PCDATA | biological-deposit-citation | citations |
                    custom-character | emphasis | in-line-formula | list |
                    program-listing | literal | subscript | superscript |
                    cross-reference | image | chemistry-cwu | math-cwu | table-
cwu)* >
<!ATTLIST paragraph
                ID ID      #REQUIRED
                N CDATA    #REQUIRED >
<!ELEMENT title-of-invention (#PCDATA | emphasis | superscript |
subscript)* >
<!ATTLIST title-of-invention
                ID ID      #REQUIRED >
<!ELEMENT technical-field (heading | paragraph | image)+ >
<!ATTLIST technical-field
                ID ID      #REQUIRED >
<!ELEMENT background-art (heading | paragraph | image)+ >
<!ATTLIST background-art
                ID ID      #REQUIRED >
<!ELEMENT disclosure-of-invention (heading | paragraph | image)+ >
<!ATTLIST disclosure-of-invention
                ID ID      #REQUIRED >
<!ELEMENT brief-description-of-drawings (heading | paragraph | image)+ >
<!ATTLIST brief-description-of-drawings
                ID ID      #REQUIRED >
<!ELEMENT best-mode (heading | paragraph | image)+ >
<!ATTLIST best-mode
                ID ID      #REQUIRED >
<!ELEMENT industrial-applicability (heading | paragraph | image)+ >
<!ATTLIST industrial-applicability
                ID ID      #REQUIRED >
<!ELEMENT sequence-list (ascii | st-35) >
```

```
<!ATTLIST sequence-list
      ID ID      #REQUIRED  >

<!ELEMENT description (heading | paragraph | image)+ >

<!ATTLIST description
      ID ID      #REQUIRED  >

<!ELEMENT list (list-item+ ) >

<!ATTLIST list
      ID ID      #REQUIRED  >

<!ELEMENT image EMPTY >

<!ATTLIST image
      FILE-NAME ENTITY      #REQUIRED
      FILE-TYPE (TIFF | JPG) #IMPLIED
      ALT CDATA      #IMPLIED
      WIDTH CDATA      #IMPLIED
      HEIGHT CDATA      #IMPLIED
      ID ID      #IMPLIED  >

<!ELEMENT chemistry-cwu (chem?,image) >

<!ATTLIST chemistry-cwu
      ID ID      #REQUIRED  >

<!ELEMENT math-cwu (math?,image) >

<!ATTLIST math-cwu
      ID ID      #REQUIRED
      DISPLAY (DISPLAY) #IMPLIED  >

<!ELEMENT table-cwu (table?,image) >

<!ATTLIST table-cwu
      ID ID      #REQUIRED
      DISPLAY (DISPLAY) #IMPLIED  >

<!ELEMENT emphasis (#PCDATA | smallcaps | overscore | underscore | italic
| bold |
      superscript | subscript)* >

<!ELEMENT superscript (#PCDATA) >

<!ELEMENT subscript (#PCDATA) >

<!ELEMENT biological-deposit-citation (depository-name,deposit-accession-
number) >

<!ATTLIST biological-deposit-citation
      ID ID      #REQUIRED  >

<!ELEMENT citations ((cited-patent-literature | cited-non-patent-
literature),
      relevant-portion*)+ >

<!ELEMENT custom-character (image) >
```

```
<!ELEMENT in-line-formula (#PCDATA | custom-character | subscript |
superscript)* >

<!ATTLIST in-line-formula
          ID ID #REQUIRED >

<!ELEMENT program-listing (#PCDATA) >

<!ATTLIST program-listing
          ID ID #REQUIRED
          XML:SPACE (DEFAULT | PRESERVE) #FIXED "PRESERVE"
          >

<!ELEMENT literal (#PCDATA) >

<!ATTLIST literal
          XML:SPACE (DEFAULT | PRESERVE) #FIXED "PRESERVE"
          >

<!ELEMENT cross-reference (#PCDATA) >

<!ATTLIST cross-reference
          HYTIME CDATA #FIXED "hylink"
          TARGET IDREFS #REQUIRED >

<!ELEMENT ascii EMPTY >

<!ATTLIST ascii
          CODE-PAGE CDATA #REQUIRED
          FILE-NAME ENTITY #REQUIRED >

<!ELEMENT st-35 EMPTY >

<!ATTLIST st-35
          FILE-NAME ENTITY #REQUIRED >

<!ELEMENT list-item (#PCDATA | biological-deposit-citation | citations |
custom-character | emphasis | in-line-formula | list |
subscript |
superscript | cross-reference | chemistry-cwu | math-cwu |
table-cwu)* >

<!ATTLIST list-item
          ID CDATA #REQUIRED >

<!ELEMENT chem (heading?,cml) >

<!ELEMENT math (heading?,mathml) >

<!ELEMENT table (heading?,cals-exchange) >

<!ATTLIST table
          FRAME (TOP | BOTTOM | TOPBOT | ALL | SIDES | NONE)
          #IMPLIED
          COLSEP NMTOKEN #IMPLIED
          ROWSEP NMTOKEN #IMPLIED
          PGWIDE NMTOKEN #IMPLIED >

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

```
<!ELEMENT overscore (#PCDATA) >
<!ELEMENT underscore (#PCDATA) >
<!ELEMENT italic (#PCDATA) >
<!ELEMENT bold (#PCDATA) >
<!ELEMENT depository-name (#PCDATA) >
<!ELEMENT deposit-accession-number (#PCDATA) >
<!ELEMENT cited-patent-literature (document-id,party*,
international-patent-classification*,us-patent-
classification*) >
<!ELEMENT cited-non-patent-literature (#PCDATA) >
<!ELEMENT relevant-portion (#PCDATA) >
<!ELEMENT document-id (doc-number,kind-code?,document-date?,country-code?)
>
<!ELEMENT party (name,residence?,correspondence-address?) >
<!ELEMENT international-patent-classification (#PCDATA) >
<!ELEMENT us-patent-classification (class,subclass) >
<!ELEMENT doc-number (#PCDATA) >
<!ELEMENT kind-code (#PCDATA) >
<!ELEMENT document-date (#PCDATA) >
<!ELEMENT country-code (#PCDATA) >
<!ELEMENT name (name-prefix?,given-name?,middle-name?,family-name,name-
suffix?,
reference-number?,organizational-name?) >
<!ATTLIST name
LA CDATA #REQUIRED >
<!ELEMENT residence (military-service | (city,(state |
country),citizenship)) >
<!ELEMENT correspondence-address (name-1,name-2?,address-1,address-
2?,address-3?,
city,state,postal-code,country,email*,telephone*,fax*) >
<!ELEMENT class (#PCDATA) >
<!ATTLIST class
LABEL CDATA #FIXED "[Class:] " >
<!ELEMENT subclass (#PCDATA) >
<!ATTLIST subclass
LABEL CDATA #FIXED "[Subclass:] " >
```

```
<!ELEMENT name-prefix (#PCDATA) >
<!ATTLIST name-prefix
          ST32-NAME CDATA #FIXED "TTL" >
<!ELEMENT given-name (#PCDATA) >
<!ATTLIST given-name
          RED-BOOK-NAME CDATA #FIXED "[Given Name: ]" >
<!ELEMENT middle-name (#PCDATA) >
<!ATTLIST middle-name
          RED-BOOK-NAME CDATA #FIXED "[Middle Initial: ]"
          >
<!ELEMENT family-name (#PCDATA) >
<!ATTLIST family-name
          RED-BOOK-NAME CDATA #FIXED "[Family Name: ]" >
<!ELEMENT name-suffix (#PCDATA) >
<!ATTLIST name-suffix
          RED-BOOK-NAME CDATA #FIXED "[Name Suffix: ]" >
<!ELEMENT reference-number (#PCDATA) >
<!ELEMENT organizational-name (#PCDATA) >
<!ATTLIST organizational-name
          RED-BOOK-NAME CDATA #FIXED "[Organization Name: ]"
          >
<!ELEMENT military-service (#PCDATA) >
<!ELEMENT city (#PCDATA) >
<!ELEMENT state EMPTY >
<!ELEMENT country EMPTY >
<!ELEMENT citizenship (country-code) >
<!ELEMENT name-1 (#PCDATA) >
<!ELEMENT name-2 (#PCDATA) >
<!ELEMENT address-1 (#PCDATA) >
<!ELEMENT address-2 (#PCDATA) >
<!ELEMENT address-3 (#PCDATA) >
<!ELEMENT postal-code (#PCDATA) >
<!ELEMENT email (#PCDATA) >
<!ATTLIST email
```



```
DATA-FORMAT CDATA #FIXED "?@?.?"  
DATA-FORMAT-NOTATION NOTATION (TO_COME_FROM_LM) #IMPLIED  
>  
<!ELEMENT telephone (#PCDATA) >  
<!ATTLIST telephone  
DATA-FORMAT CDATA #FIXED  
"###.###.###|###-###-###|#####|  
(###) ###-#####|011.#####"  
DATA-FORMAT-NOTATION NOTATION (TO_COME_FROM_LM) #IMPLIED  
>  
<!ELEMENT fax (#PCDATA) >  
]>
```

Receiving Office information v0.2

```
<?xml version="1.0" encoding="UTF-8"?>
<!--wo-receiving-office v0.2, 2000 June 7
public "-//wipo//dtd wo-receiving-office v0.2 2000-06-08//en"

contacts:
EPO: John Bambridge; jbambridge@email.epo.nl
JPO: Takashi Sakurai; sakurai@email.jpo-miti.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 2000 June 8, Shiro Ankyu, WIPO, and John Godman, WIPO
..set version to v0.2
...changed encoding to "UTF-8"
...added APPLICATION-DOCUMENT element
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 wo-receiving-office [
<!ELEMENT wo-receiving-office (filing-information,drawings-not-received?,
corrected-date-of-receipt?,date-of-receipt-pct-11-2?,
search-copy-delayed-until-fee-paid?,application-document) >

<!ELEMENT filing-information (international-application,receiving-country,
international-filing-date,language-of-filing) >
<!ELEMENT drawings-not-received EMPTY >

<!ELEMENT corrected-date-of-receipt (#PCDATA) >

<!ELEMENT date-of-receipt-pct-11-2 (#PCDATA) >

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

<!--2000 June 8 - Added this element to support external reference to
signed WAD mentioned in Annex F, Appendix I v4.0 sec. 7.2. - SA & JG - WIPO
-->
<!ELEMENT application-document EMPTY >

<!ATTLIST application-document
FILE-NAME ENTITY #REQUIRED >
<!ELEMENT international-application (doc-number) >

<!ELEMENT receiving-country (#PCDATA) >

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

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

<!ELEMENT doc-number (#PCDATA) >

]>
```

ATTACHMENT 2 - PROVISIONAL ATTACHMENT FOR DTD MODIFICATION HISTORY

The following document is presented in this version of the Appendix to facilitate understanding of the extensive changes to the DTDs since the last version.

Trilateral Meeting, the Hague, 2000 April 17—19
Report of DTD subgroup

Contents:

- *Summary of progress at the meeting.*
- *Responses to written comments on draft DTD.*
- *Tree diagrams of revised and additional DTDs.*
- *Revised and additional DTDs.*

Summary of progress at the meeting.

The DTD subgroup met separately on the 18th and the 19th and reported to the main meeting on the 19th. The following outline served as a summary of progress during the meeting.

DTD Progress

- Agreement on general structure of DTDs for request data (wo-ro101), specification (wo-specification), and receiving office information (wo-receiving-office).
- National offices can create national versions to substitute for wo-ro101 (for example, ep-1001).
- Significant overlap of elements and structures achieve a degree of uniformity.
- Fixed most of the problems noted by JPO.

Next steps

- Rewrite wrapper DTDs based on work done for priority document exchange.
- Finish revision of DTDs above (attributes, open questions).
- By 2000 May 10, begin writing documentation for an initial draft WIPO standard (ST.xx/B).
- To accommodate future development of other required DTDs, we propose a group of standards following the model of WIPO ST.10 (10/A, 10/B, etc.).
- Written response to JPO comments.

Responses to written comments on draft DTD v0.6.

Japanese Patent Office

The Japanese Patent Office submitted comments on the draft ePCT DTD which had been prepared by the USPTO. Rather than reproduce the entire JPO paper here, only those portions which require comment are included, and even then in abbreviated form. The response of the DTD group are in italics.

- 1.2 Use of all the tagged “label, red-book-name and class” attributes is not clear for us.

These attributes are for development purposes only and would not necessarily appear in document instances. They have been removed from the updated draft DTDs.

1.3 ... As a practical descriptive method using these specifications, the method of padding with “Namespace” or referencing external files should preferably be used as standard specification, and review should be conducted in a direction not to adopt CWU specification for the proposed DTD.

The current revision of the ePCT DTD does not incorporate MathML and CALS table markup, but instead references the external DTDs as suggested by JPO.

1.5 The internal architecture of “specification-block” partly does not conform to the PCT provision

Corrected in the current version of the DTD.

1.6 ... we think that separate files should be set aside in order to secure the originality of these electronically signed documents.

Corrected in the current version of the DTD.

1.7 The proposed DTD is not adapted to applications filed for non-patent intellectual property rights

Correct. Such adaptation has been deferred for future development.

2.1 In case a signature column is filled out by a corporation, its representative’s signature is required.

This is an issue for the electronic filing process and cannot be addressed in the DTD.

2.2 Name and address should be annotated in international standards if any.

The use of international standard tagging for address elements will be considered.

2.3 With respect to address notation, how should tags for “address-1” and “address-2” be used respectively?

These were intended to represent the first line of the address and the second line of the address, respectively. An additional optional element has been added, “address-3”, to accommodate practice at the EPO.

2.4 Relating to “state” tag for the address column, portions where the U.S. state should be written as attributes should be corrected to adapt to the international standards.

Corrected in the current version of the DTD.

2.5 In the address column, entry of “country” and “country-code” is optional, but they should be combined into a single entry

Corrected in the current version of the DTD.

2.6 Pre-description of country names in the DTD should be avoided

Corrected in the current version of the DTD.

2.7 We have no idea on use of “signatory-capacity” in the signature column, nor “PCT request ix-x-3.”

This is an issue for the electronic filing process and cannot be addressed in the DTD.

2.8 Tags describing basic electronic signature are required.

This is an issue for the electronic filing process and cannot be addressed in the specification DTD.

2.9 As electronic application is used together with paper application, it is preferable to provide tags for collating specifications, claims, summaries, drawings, and array tables in the collation column (check-data).

This question is under study.

2.10 It is necessary to add tags for describing applicant's reference number in the application forms.

Corrected in the current version of the DTD.

2.11 It is necessary to provide tags allowing free description in the statement column.

Corrected in the current version of the DTD.

2.12 It is desirable to provide free extension tags for member states to facilitate their compliance with domestic requirements upon PLT enforcement.

It is not possible to design the DTD to account for the full impact of the PLT at this time. One possible solution is that each member state will create its own DTD for bibliographic elements based on the standard set of elements defined for ePCT. In that way, the requirements of each state could be met while achieving at least some degree of consistency.

2.13 Application forms should be modified to enable entry of multiple priority information.

Corrected in the current version of the DTD.

2.14 It is necessary to provide tags for entry of statement relating to undetrimental disclosure or exception to foreclosure of novelty in the supplementary entry column of the application as conventionally practiced.

The DTD subgroup was unable to understand this requirement. Is this a PCT or a JPO issue?

2.15 Application forms should be modified to provide free description column relating to priority right.

Corrected in the current version of the DTD.

2.16 Application forms should be modified to enable concurrent entry of the title of invention in multiple languages.

Corrected in the current version of the DTD.

2.17 Since respective items of bibliographic information are normally stored in the database, no character ornament is required.

While it is true that diacritics are often discarded when building indexes for search systems, they may be required for proper presentation of names and addresses for printing and correspondence, and would therefore be expected in an application instance. In any case, it is not feasible to use the DTD to prohibit or enforce the use of diacritics.

2.18 Since ISA specification ... and request for use of search findings ... are different items, grouping should be changed.

Modification of tagging for search reports is deferred for future development.

2.19 We propose that application forms should be modified to state the names and addresses ... in the same format

Implemented in the current version of the DTD.

2.20 Application forms should be modified to enable entry of name and address in multiple languages.

Corrected in the current version of the DTD.

2.21 ... add an item for entry of ID number ...

Corrected in the current version of the DTD.

2.22 ... “capacity-of-legal-rep” ... “dead-inventor-name”

Please clarify the comment. We were unable to understand the problem or what would be required to correct the problem.

2.23 It is necessary to add a tag describing nationality and resident country to the applicant’s item.

Corrected in the current version of the DTD.

2.24 We [JPO] propose that the application forms should be modified to enable applicants to state the proportion of the title by numerical value.

Not implemented in the DTD. This suggestion appears to require a change of PCT rules.

2.25 The applicant declaration item ... should be a choice among four things.

Corrected in the current version of the DTD.

2.26 “applicant-for-listed-states” should be added to the item for inventor

Please clarify the comment.

2.27 It is necessary to add a tag describing the nationality and resident country in the item for inventor.

Corrected in the current version of the DTD.

2.28 Agent is customarily classified in three categories ... it is necessary to provide a tag showing the category of agent.

Does the modification in the current DTD satisfy this requirement?

2.29 (see 2.28)

2.30 (see 2.28)

2.31 There is no tag describing the nationality and resident country for the item for agent. ...
Not required.

2.32 “other-designations, exclusion-from-designation” ... should be omissible.

Corrected in the current version of the DTD.

General comments section

JPO comments that the draft DTD was strongly slanted to US requirements, which is true, and has been corrected in the current version.

JPO comments that the draft DTD could place a considerable burden on the applicant by allowing for complex document structures, which is true, but necessary in order to allow sufficient freedom for applicants to adequately describe their inventions. The complexity of the DTD, and any software designed to support the creation of an application in conformance with the DTD, is a direct reflection of the complexity of patent documents, over which the DTD group has no control.

JPO comments that because the JPO, EPO, and USPTO do not have the same domestic requirements, it might be some time before the Trilateral Offices can reach complete agreement on a DTD for a patent specification. Instead, we should reach agreement on explicit principles of DTD design. The following design principles have already been agreed to:

1. DTDs and document instances will conform with the current version of XML.
2. Element names will be English-language words rather than Bnnn (as in ST.32) or abbreviations.

The following principles were agreed during the this meeting:

3. Bibliographic elements will be separated from the specification. This will simplify and maximize reuse of the DTDs and their components in domestic filing

Individual comments section

1. The element to follow “spec-title-block” ... should be deleted
Corrected in the current version of the DTD.

2. DTD involves items not prescribed in the PCT
Corrected in the current version of the DTD.

3. Element model “<!ELEMENT a ((b, c?) | (c, b?))>” should be replaced
This type of content model was intended to allow elements b and c to be in either order, since XML does not allow a content model in which the order is not specified. Corrected in the current version of the DTD.

4. Structures ... in ... “continuity-data” ... too complex
Corrected in the current version of the DTD.

5. We have no idea how to use the “not-applicable” element.
Corrected in the current version of the DTD.

6. ... management of documents by “paragraph” is difficult
Time did not permit a resolution of this issue.

7. In the case of patent documents, one to two hierarchies are sufficient for section nesting ...
Corrected in the current version of the DTD.

8. “list” should be combined to simplify “claim” description.

Time did not permit a resolution of this issue.

9. MathML ... should be treated as external reference by entity.

Corrected in the current version of the DTD.

SCIT Task Force Comments

The International Bureau provided paper copy of comments from various members of WIPO’s SCIT Task Force, which are addressed individually below.

Georgia

The comments from Georgia require no response from the DTD group.

Germany

The comments from Germany require no response from the DTD group.

Switzerland

Switzerland asks about the file names of document components referred to from within the *.XML file. File names are indicated in an entity reference within the *.XML file. In general, XML requires the full path on the local system rather than the use of a public identifier which can be resolved through a catalog as is done in SGML. In either case, however, the file names will be significantly longer than eight characters to ensure that the files can always be associated with each other without having to look inside the files. For Grant Red Book currently under production, a file name for an external entity follows one of these examples:

US06000000-19990120.ZIP	The compressed file
US06000000-19990120.SGM	SGML and other markup
USD0367557-19990120-D00001.TIF	First drawing image
US06000000-19990120-C00001.TIF	First chemistry image
US06000000-19990120-C00001.CDX	CDX file for same
US06000000-19990120-C00001.MOL	MOL file for same
US06000000-19990120-M00001.TIF	First math image
US06000000-19990120-M00001.NB	Mathematica file for same
US06000000-19990120-T00001.TIF	First table image
US06000000-19990120-T00002-0001.TIF	Second table image, first page
USRE035111-19990120-T00002-0002.TIF	Second table image, second page
US06000000-19990120-S00001.TIF	First sequence listing
US06000000-19990120-S00002-0001.TIF	Second sequence listing, first page
US06000000-19990120-S00002-0002.TIF	Second sequence listing, second page
USPP023555-19990120-P00039.TIF	Thirty-ninth pullout image

Although the file-naming convention for PCT applications has not yet been determined, it will more than likely look something like this. Offices should be prepared to upgrade operating systems to accommodate file names similar to those shown above.

Switzerland also comments on the possible confusion that could result from the use of architectural forms as a basis for building new DTDs. Whatever mechanism is used to control the consistency of elements among various DTDs designed for prosecuting PCT applications, and to synchronize the versions of the various DTDs, it will likely be necessary to put that mechanism in the hands of an agreed central authority. If that happens, the level of confusion

should be reduced to a manageable level.

In a second paper, Switzerland comments on several aspects of the DTD which can be addressed here only briefly.

- Harmonization of the a PCT DTD with national DTDs will be not just difficult, but impossible, so long as there remain significant differences between national law and PCT regulations. With the implementation of the Patent Law Treaty, national Offices will likely be required to accept a PCT application on the same terms as a national application. Even that event, although it will provoke movement in the right direction, is unlikely to achieve the necessary harmony of PCT and national law that would support common high-level content models in their respective DTDs. Nevertheless, there are at least many bibliographic elements in ST.32 which have already been identified as common to most Offices. Efforts should be taken to ensure that this basic level of agreement is not lost in the PCT DTDs.
- The date format is YYYYMMDD (e.g., 20000425) as it is in ST.32.
- The element names have been revised to use English-language words or phrases instead of ST.32-type tags based on INID codes. No rules have been established for “nationalizing” such names. What was seen in the previous versions of the DTD was an ad-hoc method used to identify the source of a suggested element during the DTD development process.
- XML does not support a means for specifying data length, data type, data dependencies, or other such properties of the data. Various forms of so-called XML schema, however, do. Unfortunately, the XML schema specification has not been finalized yet. When it has been, there are likely to be several implementations to choose from. If a decision is made to use such a mechanism, considerable effort will be required to harmonize the significant variations in these values among the Trilateral Offices and any other states which might wish to process electronic applications.

MIPEX

Comments from MIPEX do not require a response from the DTD group.

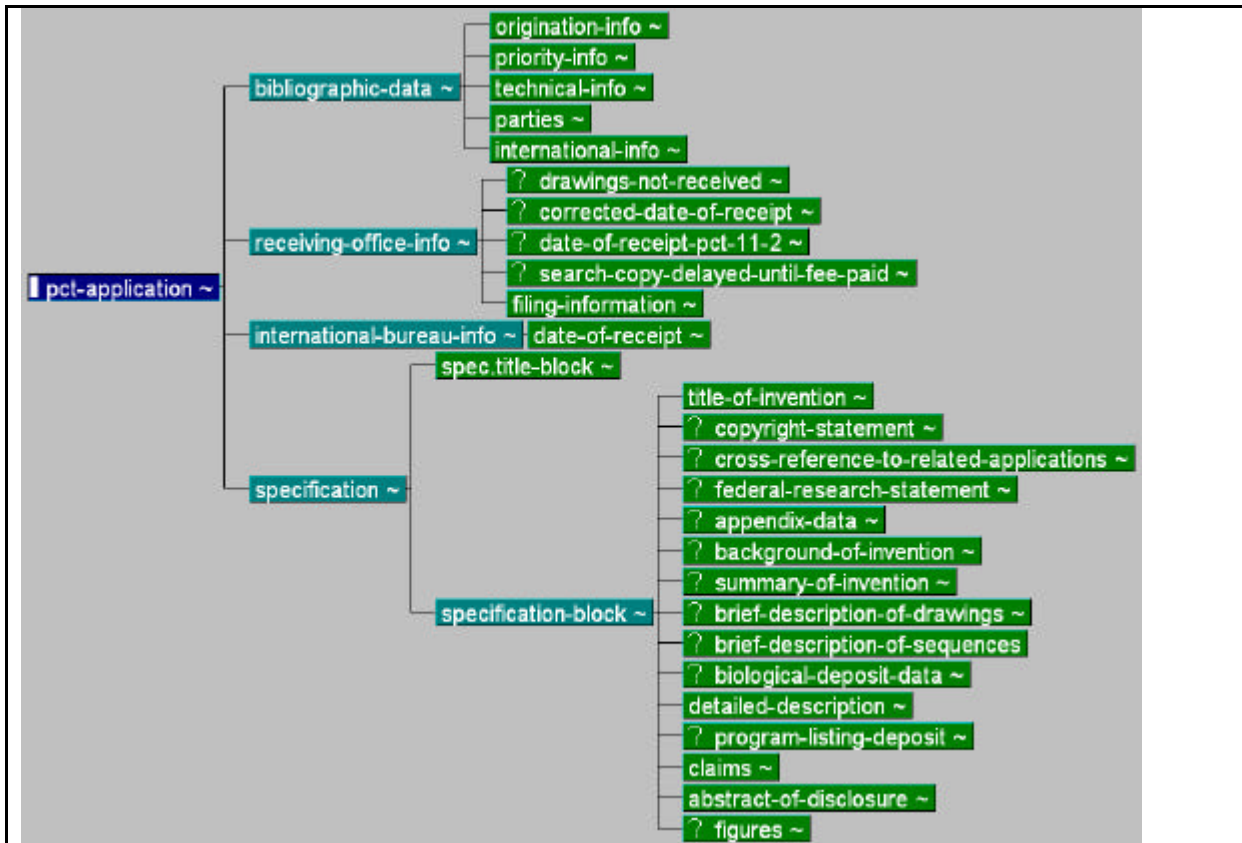
WIPO

Comments from WIPO do not require a response from the DTD group.

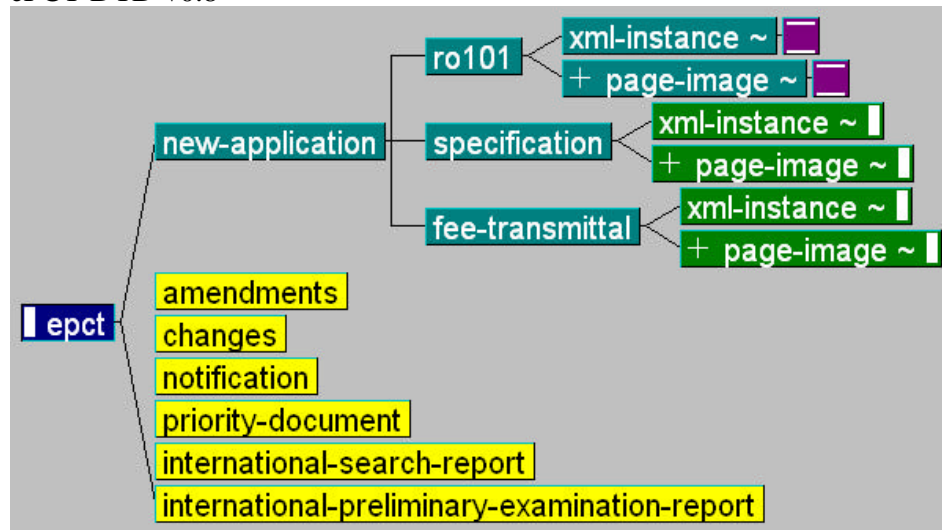
Tree diagrams of revised and additional DTDs.

The versions of the DTDs presented here are strikingly different from the previously distributed draft v0.6. The overall structure has changed to conform with PCT practice rather than with the USPTO practice which served as the model for previous drafts. The v0.6 DTD has been separated into three DTDs to better reflect PCT practice and to isolate those components which might change for various receiving or national Offices.

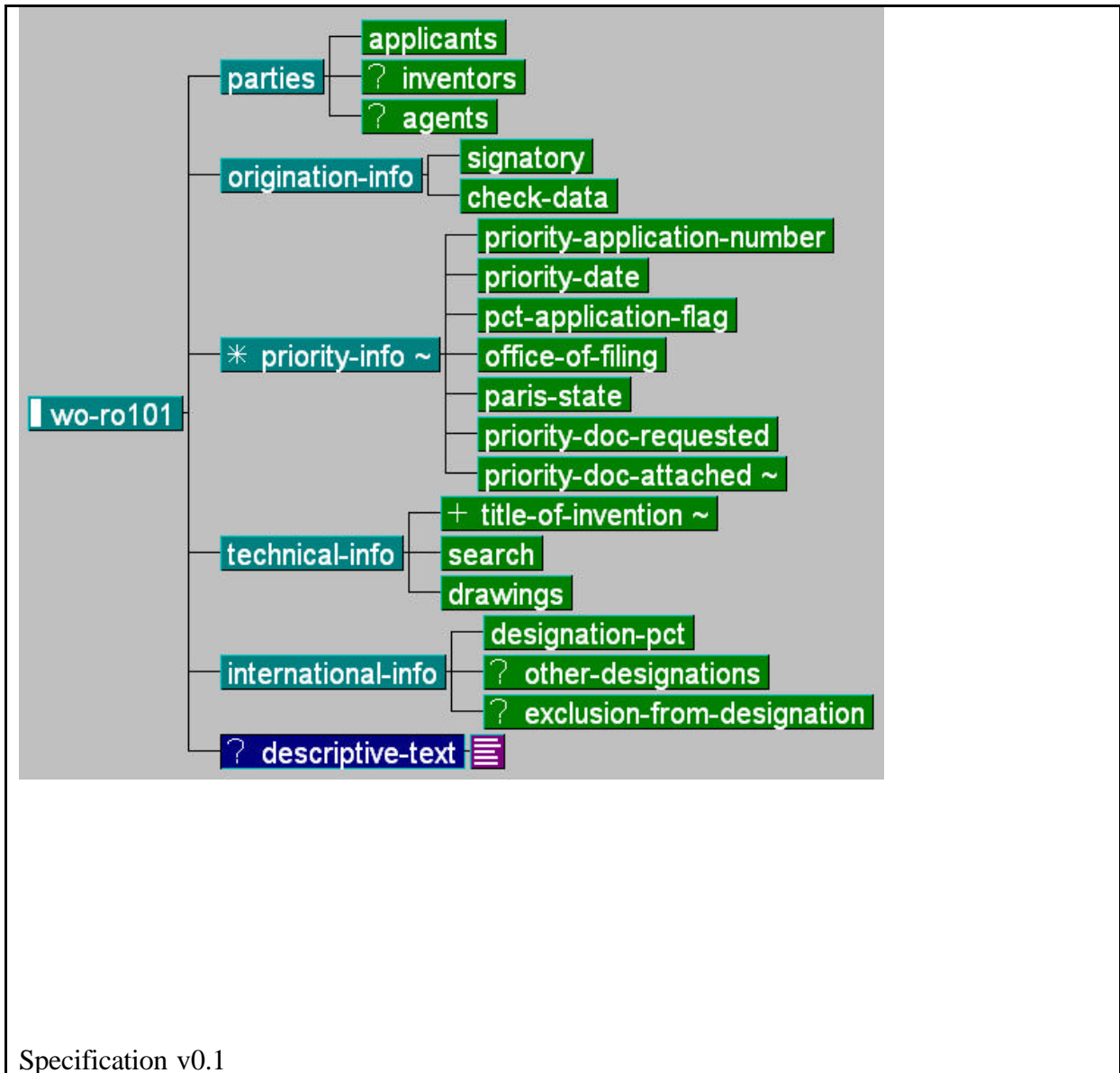
ePCT DTD v0.6

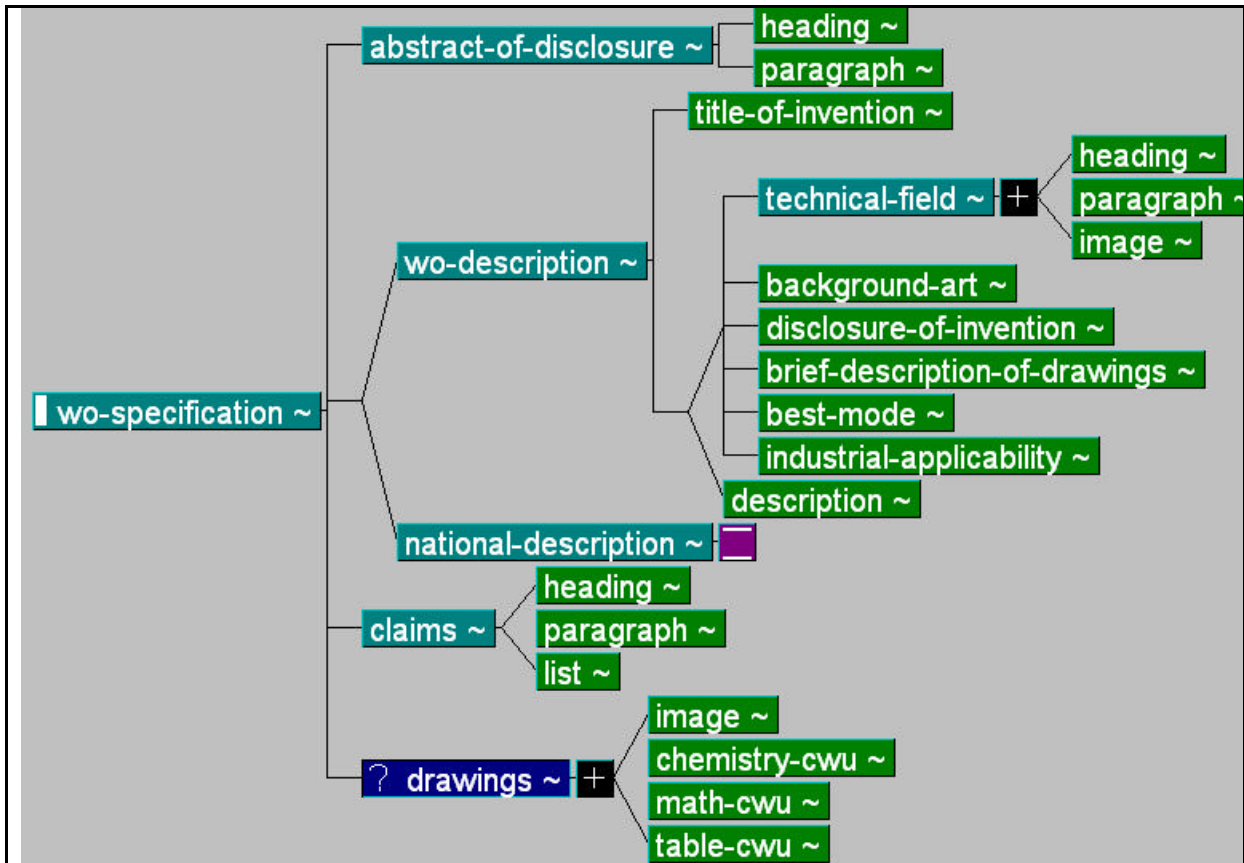


ePCT DTD v0.8

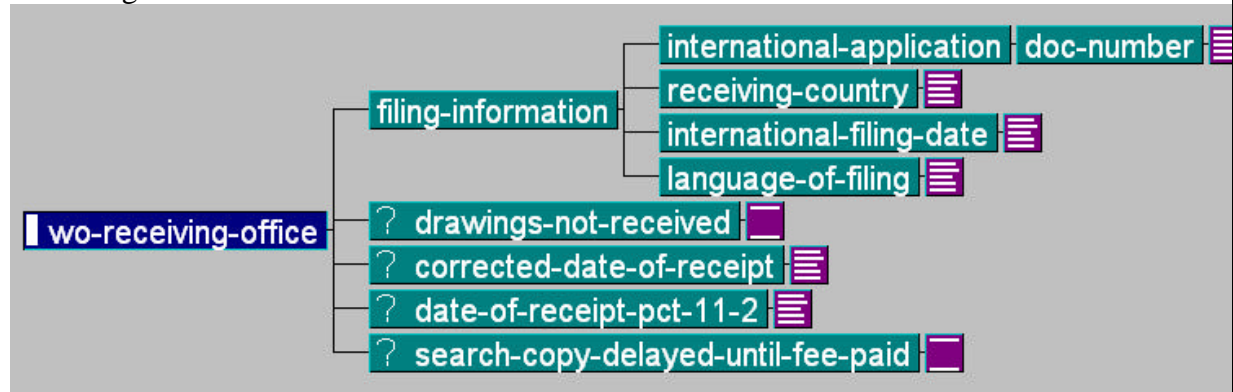


Receiving Office form 101 (bibliographic data) v0.1





Receiving Office information v0.1



From the above diagrams it can be seen that the ePCT DTD has been modified to accommodate future development of other types of correspondence in the PCT process. Three new DTDs have been created from information formerly contained in the ePCT DTD. A DTD for fee transmittal has not yet been developed.

The ePCT DTD v0.8 has been structured with the intention of accommodating mixed submissions, that is, partly XML and partly facsimile image, or entirely XML. There seemed no point in providing for applications submitted entirely as images at this stage of development.

A specification to accompany the DTDs explaining the meaning of each element is under

development and will be patterned after WIPO Standard ST.10.

As many as seven languages must be accommodated in ePCT applications. Although the use of Unicode (or the ISO equivalent) would seem to satisfy this requirement, there may be instances where further specification of specific fonts for rendering is required to distinguish between local variations in the glyphs for various Chinese, Japanese, or Korean characters. UDF-16 encoding may be desirable as an interim alternative until all Offices can accommodate Unicode.

All element attributes are subject to change. There was insufficient time at the April meeting to discuss attributes in detail.

The DTD group feels that significant progress was made during this meeting but warns that until several hundreds of test documents have been processed through the DTDs, they are still subject to the possibility of significant change.

2000 May 26
Bruce B. Cox, USPTO
Paul Brewin, EPO
Shiro Ankyu, WIPO

Revised and additional DTDs.

ePCT DTD

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE epct [
<!--electronic PCT application-->
<!ELEMENT epct (new-application | amendments | changes | notification |
                priority-document | international-search-report |
                international-preliminary-examination-report) >

<!ELEMENT new-application (ro101,specification,fee-transmittal) >

<!ELEMENT ro101 (xml-instance | page-image+) >

<!ELEMENT specification (xml-instance | page-image+) >

<!ELEMENT fee-transmittal (xml-instance | page-image+) >

<!ELEMENT xml-instance EMPTY >

<!ATTLIST xml-instance
                file ENTITY #REQUIRED >

<!ELEMENT page-image EMPTY >

<!ATTLIST page-image
                file ENTITY #REQUIRED >

]>
```

Please note that not all elements in the above DTD have been defined as of this writing.

Receiving Office information DTD

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE wo-receiving-office [
<!ELEMENT wo-receiving-office (filing-information,drawings-not-received?,
corrected-date-of-receipt?,date-of-receipt-pct-11-2?,
search-copy-delayed-until-fee-paid?) >

<!ELEMENT filing-information (international-application,receiving-country,
international-filing-date,language-of-filing) >

<!ELEMENT drawings-not-received EMPTY >

<!ELEMENT corrected-date-of-receipt (#PCDATA) >

<!ELEMENT date-of-receipt-pct-11-2 (#PCDATA) >

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

<!ELEMENT international-application (doc-number) >

<!ELEMENT receiving-country (#PCDATA) >

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

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

<!ELEMENT doc-number (#PCDATA) >

]>
```

Form 101 DTD

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE wo-ro101 [
<!ELEMENT wo-ro101 (parties,origination-info,priority-info*,technical-
info,
international-info,descriptive-text?) >

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

<!ELEMENT origination-info (signatory,check-data) >

<!ELEMENT priority-info (priority-application-number,priority-date,
pct-application-flag,office-of-filing,paris-state,
priority-doc-requested,priority-doc-attached) >

<!ATTLIST priority-info
language CDATA #REQUIRED >

<!ELEMENT technical-info (title-of-invention+,search,drawings) >

<!ELEMENT international-info (designation-pct,other-designations?,
exclusion-from-designation?) >

<!ELEMENT descriptive-text (#PCDATA) >

<!ELEMENT applicants (applicant-inventor+) >

<!ELEMENT inventors (inventor+) >

<!ELEMENT agents (agent+) >
```

```
<!ELEMENT signatory (applicant-agent+) >

<!ELEMENT check-data (request?,signed-power-of-attorney?,
    general-power-of-attorney?,lack-of-signature?,
    fee-calculation-sheet?,microorganisms?,sequence-info?,
    lack-of-novelty?,translation?,pct-easy-disk?) >

<!ELEMENT priority-application-number (doc-number) >

<!ELEMENT priority-date (#PCDATA) >

<!ELEMENT pct-application-flag EMPTY >

<!ELEMENT office-of-filing (country-code) >

<!ELEMENT paris-state (country-code) >

<!ELEMENT priority-doc-requested EMPTY >

<!ELEMENT priority-doc-attached EMPTY >

<!ATTLIST priority-doc-attached
    filename CDATA #REQUIRED >

<!ELEMENT title-of-invention (#PCDATA | superscript | subscript)* >

<!ATTLIST title-of-invention
    language CDATA #REQUIRED >

<!ELEMENT search (place-of-search,earlier-search-by,earlier-search-date) >

<!ELEMENT drawings (figures-to-publish*) >

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

<!ELEMENT other-designations (#PCDATA) >

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

<!ELEMENT applicant-inventor (name,formatted-address?,address?,
    country-of-residence,country-of-nationality,
    capacity-of-legal-rep,dead-inventor-name?,
    applicant-is-inventor?,
    (applicant-for-designated-states | applicant-for-all-states |
    applicant-for-all-except-us | applicant-for-us-only)) >

<!ATTLIST applicant-inventor
    language CDATA #REQUIRED >

<!ELEMENT inventor (name,address,country-of-residence,country-of-
nationality,
    dead-inventor?,(applicant-for-designated-states |
    applicant-for-all-states | applicant-for-all-except-us |
    applicant-for-us-only)) >

<!ATTLIST inventor
    sequence CDATA #IMPLIED
    language CDATA #REQUIRED >
```

```
<!ELEMENT agent (name,address,(agent-representative | common-  
representative),  
mailing-address?) >  
  
<!ATTLIST agent  
sequence CDATA #IMPLIED  
type (0 | 1 | 2) #IMPLIED  
language CDATA #REQUIRED >  
  
<!ELEMENT applicant-agent (name,electronic-signature?,address?,  
signatory-capacity?) >  
  
<!ATTLIST applicant-agent  
language CDATA #REQUIRED >  
  
<!ELEMENT request EMPTY >  
  
<!ELEMENT signed-power-of-attorney EMPTY >  
  
<!ELEMENT general-power-of-attorney EMPTY >  
  
<!ELEMENT lack-of-signature EMPTY >  
  
<!ELEMENT fee-calculation-sheet EMPTY >  
  
<!ELEMENT microorganisms EMPTY >  
  
<!ELEMENT sequence-info EMPTY >  
  
<!ELEMENT lack-of-novelty EMPTY >  
  
<!ELEMENT translation EMPTY >  
  
<!ELEMENT pct-easy-disk EMPTY >  
  
<!ELEMENT doc-number (#PCDATA) >  
  
<!ELEMENT country-code (#PCDATA) >  
  
<!ELEMENT superscript (#PCDATA) >  
  
<!ELEMENT subscript (#PCDATA) >  
  
<!ELEMENT place-of-search (country-code) >  
  
<!ELEMENT earlier-search-by (country-code) >  
  
<!ELEMENT earlier-search-date (#PCDATA) >  
  
<!ELEMENT figures-to-publish (#PCDATA) >  
  
<!ELEMENT national (country-code,protection-requested?) >  
  
<!ELEMENT regional (region,country-code+,protection-requested?) >  
  
<!ELEMENT name (name-prefix?,given-name?,middle-name?,family-name,  
name-suffix?,reference-number?,  
organization-name?) >  
  
<!ELEMENT formatted-address (#PCDATA) >
```



```
<!ELEMENT address (address-1,address-2?,address-3?,city,state,postal-code,
country-code,email?,telephone?,fax?) >

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

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

<!ELEMENT capacity-of-legal-rep (#PCDATA) >

<!ELEMENT dead-inventor-name EMPTY >

<!ELEMENT applicant-is-inventor EMPTY >

<!ELEMENT applicant-for-designated-states (country-code*,regional*) >

<!ELEMENT applicant-for-all-states EMPTY >

<!ELEMENT applicant-for-all-except-us EMPTY >

<!ELEMENT applicant-for-us-only EMPTY >

<!ELEMENT dead-inventor EMPTY >

<!ELEMENT agent-representative EMPTY >

<!ELEMENT common-representative EMPTY >

<!ATTLIST common-representative
red-book-name CDATA #FIXED "[B742WO ]" >

<!ELEMENT mailing-address (address) >

<!ATTLIST mailing-address
red-book-name CDATA #FIXED "[B743WO ]" >

<!ELEMENT electronic-signature EMPTY >

<!ATTLIST electronic-signature
filename CDATA #REQUIRED >

<!ELEMENT signatory-capacity (#PCDATA) >

<!ELEMENT protection-requested (kind-of-protection,
patent-application-or-grant-number,
patent-application-or-grant-date) >

<!ELEMENT region (#PCDATA) >

<!ELEMENT name-prefix (#PCDATA) >

<!ELEMENT given-name (#PCDATA) >

<!ELEMENT middle-name (#PCDATA) >

<!ELEMENT family-name (#PCDATA) >

<!ELEMENT name-suffix (#PCDATA) >

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

```
<!ELEMENT organization-name (#PCDATA) >
<!ELEMENT address-1 (#PCDATA) >
<!ELEMENT address-2 (#PCDATA) >
<!ELEMENT address-3 (#PCDATA) >
<!ELEMENT city (#PCDATA) >
<!ELEMENT state (#PCDATA) >
<!ELEMENT postal-code (#PCDATA) >
<!ELEMENT email (#PCDATA) >
<!ELEMENT telephone (#PCDATA) >
<!ELEMENT fax (#PCDATA) >
<!ELEMENT kind-of-protection (#PCDATA) >
<!ELEMENT patent-application-or-grant-number (doc-number) >
<!ELEMENT patent-application-or-grant-date (#PCDATA) >
]>
```

Specification DTD

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE wo-specification [
<!ELEMENT wo-specification (abstract-of-disclosure,(wo-description |
national-description),claims,drawings?) >

<!ATTLIST wo-specification
la CDATA #REQUIRED >

<!ELEMENT abstract-of-disclosure (heading,paragraph) >

<!ATTLIST abstract-of-disclosure
id ID #REQUIRED >

<!ELEMENT wo-description (title-of-invention,((technical-field,
background-art,disclosure-of-invention,
brief-description-of-drawings,best-mode,
industrial-applicability) | description)) >

<!ATTLIST wo-description
id ID #REQUIRED
la NMTOKEN #REQUIRED >

<!ELEMENT national-description EMPTY >

<!ATTLIST national-description
id ID #REQUIRED
la NMTOKEN #REQUIRED >

<!ELEMENT claims (heading | paragraph | list) >
```

```
<!ATTLIST claims
    id ID #REQUIRED >

<!ELEMENT drawings (image | chemistry-cwu | math-cwu | table-cwu)+ >

<!ATTLIST drawings
    id ID #REQUIRED >

<!ELEMENT heading (#PCDATA | emphasis | superscript | subscript)* >

<!ATTLIST heading
    id ID #REQUIRED >

<!ELEMENT paragraph (#PCDATA | biological-deposit-citation | citations |
    custom-character | emphasis | in-line-formula | list |
    program-listing | literal | subscript | superscript |
    cross-reference | image | chemistry-cwu | math-cwu |
    table-cwu)* >

<!ATTLIST paragraph
    id ID #REQUIRED
    n CDATA #REQUIRED >

<!ELEMENT title-of-invention (#PCDATA | emphasis | superscript |
subscript)* >

<!ATTLIST title-of-invention
    id ID #REQUIRED >

<!ELEMENT technical-field (heading | paragraph | image)+ >

<!ATTLIST technical-field
    id ID #REQUIRED >

<!ELEMENT background-art (heading | paragraph | image)+ >

<!ATTLIST background-art
    id ID #REQUIRED >

<!ELEMENT disclosure-of-invention (heading | paragraph | image)+ >

<!ATTLIST disclosure-of-invention
    id ID #REQUIRED >

<!ELEMENT brief-description-of-drawings (heading | paragraph | image)+ >

<!ATTLIST brief-description-of-drawings
    id ID #REQUIRED >

<!ELEMENT best-mode (heading | paragraph | image)+ >

<!ATTLIST best-mode
    id ID #REQUIRED >

<!ELEMENT industrial-applicability (heading | paragraph | image)+ >

<!ATTLIST industrial-applicability
    id ID #REQUIRED >

<!ELEMENT description (heading | paragraph | image)+ >
```

```
<!ATTLIST description
      id ID      #REQUIRED >

<!ELEMENT list (list-item+) >

<!ATTLIST list
      id ID      #REQUIRED >

<!ELEMENT image EMPTY >

<!ATTLIST image
      file ENTITY      #REQUIRED
      file-type (tiff | jpg) #IMPLIED
      alt CDATA      #IMPLIED
      width CDATA      #IMPLIED
      height CDATA      #IMPLIED
      id ID      #IMPLIED >

<!ELEMENT chemistry-cwu (chem?,image) >

<!ATTLIST chemistry-cwu
      id ID      #REQUIRED >

<!ELEMENT math-cwu (math?,image) >

<!ATTLIST math-cwu
      id ID      #REQUIRED
      display (display) #IMPLIED >

<!ELEMENT table-cwu (table?,image) >

<!ATTLIST table-cwu
      id ID      #REQUIRED
      display (display) #IMPLIED >

<!ELEMENT emphasis (#PCDATA | smallcaps | overscore | underscore | italic
|
      bold | superscript | subscript)* >

<!ELEMENT superscript (#PCDATA) >

<!ELEMENT subscript (#PCDATA) >

<!ELEMENT biological-deposit-citation (depository-name,
      deposit-accession-number) >

<!ATTLIST biological-deposit-citation
      id ID      #REQUIRED >

<!ELEMENT citations ((cited-patent-literature | cited-non-patent-
literature),
      relevant-portion*)+ >

<!ELEMENT custom-character (image) >

<!ELEMENT in-line-formula (#PCDATA | custom-character | subscript |
      superscript)* >

<!ATTLIST in-line-formula
```

```
        id ID      #REQUIRED >

<!ELEMENT program-listing (#PCDATA) >

<!ATTLIST program-listing
        id ID      #REQUIRED
        xml:space (default | preserve) #FIXED "preserve"
        >

<!ELEMENT literal (#PCDATA) >

<!ATTLIST literal
        xml:space (default | preserve) #FIXED "preserve"
        >

<!ELEMENT cross-reference (#PCDATA) >

<!ATTLIST cross-reference
        hytime CDATA #FIXED "hylink"
        target IDREFS #REQUIRED >

<!ELEMENT list-item (#PCDATA | biological-deposit-citation | citations |
        custom-character | emphasis | in-line-formula | list |
        subscript | superscript | cross-reference | chemistry-cwu |
        math-cwu | table-cwu)* >

<!ATTLIST list-item
        id CDATA #REQUIRED >

<!ELEMENT chem (heading?,cml) >

<!ELEMENT math (heading?,mathml) >

<!ELEMENT table (heading?,cals-exchange) >

<!ATTLIST table
        frame (top | bottom | topbot | all | sides | none)
#IMPLIED
        colsep NMTOKEN #IMPLIED
        rowsep NMTOKEN #IMPLIED
        pgwide NMTOKEN #IMPLIED >

<!ELEMENT smallcaps (#PCDATA) >

<!ELEMENT overscore (#PCDATA) >

<!ELEMENT underscore (#PCDATA) >

<!ELEMENT italic (#PCDATA) >

<!ELEMENT bold (#PCDATA) >

<!ELEMENT depository-name (#PCDATA) >

<!ELEMENT deposit-accession-number (#PCDATA) >

<!ELEMENT cited-patent-literature (document-id,party*,
        international-patent-classification*,us-patent-
        classification*) >
```

```
<!ELEMENT cited-non-patent-literature (#PCDATA) >

<!ELEMENT relevant-portion (#PCDATA) >

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

<!ELEMENT party (name,residence?,correspondence-address?) >

<!ELEMENT international-patent-classification (#PCDATA) >

<!ELEMENT us-patent-classification (class,subclass) >

<!ELEMENT doc-number (#PCDATA) >

<!ELEMENT kind-code (#PCDATA) >

<!ELEMENT document-date (#PCDATA) >

<!ELEMENT country-code (#PCDATA) >

<!ELEMENT name (name-prefix?,given-name?,middle-name?,family-name,
name-suffix?,reference-number?,organization-name?) >

<!ATTLIST name
    la CDATA #REQUIRED >

<!ELEMENT residence (military-service | (city,(state | country),
citizenship)) >

<!ELEMENT correspondence-address (name-1,name-2?,address-1,address-
2?,address-3?,
city,state,postal-code,country,email*,telephone*,fax*) >

<!ELEMENT class (#PCDATA) >

<!ATTLIST class
    label CDATA #FIXED "[Class:] " >

<!ELEMENT subclass (#PCDATA) >

<!ATTLIST subclass
    label CDATA #FIXED "[Subclass:] " >

<!ELEMENT name-prefix (#PCDATA) >

<!ATTLIST name-prefix
    st32-name CDATA #FIXED "TTL" >

<!ELEMENT given-name (#PCDATA) >

<!ATTLIST given-name
    red-book-name CDATA #FIXED "[Given Name: ]" >

<!ELEMENT middle-name (#PCDATA) >

<!ATTLIST middle-name
    red-book-name CDATA #FIXED "[Middle Initial: ]"
>
```

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

<!ATTLIST family-name
    red-book-name CDATA #FIXED "[Family Name: ]" >

<!ELEMENT name-suffix (#PCDATA) >

<!ATTLIST name-suffix
    red-book-name CDATA #FIXED "[Name Suffix: ]" >

<!ELEMENT reference-number (#PCDATA) >

<!ELEMENT organization-name (#PCDATA) >

<!ATTLIST organization-name
    red-book-name CDATA #FIXED "[Organization Name: ]"
    >

<!ELEMENT military-service (#PCDATA) >

<!ELEMENT city (#PCDATA) >

<!ELEMENT state EMPTY >

<!ELEMENT country EMPTY >

<!ELEMENT citizenship (country-code) >

<!ELEMENT name-1 (#PCDATA) >

<!ELEMENT name-2 (#PCDATA) >

<!ELEMENT address-1 (#PCDATA) >

<!ELEMENT address-2 (#PCDATA) >

<!ELEMENT address-3 (#PCDATA) >

<!ELEMENT postal-code (#PCDATA) >

<!ELEMENT email (#PCDATA) >

<!ATTLIST email
    data-format CDATA #FIXED "?@??.?"
    data-format-notation NOTATION (to_come_from_LM) #IMPLIED
    >

<!ELEMENT telephone (#PCDATA) >

<!ATTLIST telephone
    data-format CDATA #FIXED
    "###.###.###|###-###-###|#####|
    (###) ###-#####|011.##### "
    data-format-notation NOTATION (to_come_from_LM) #IMPLIED
    >

<!ELEMENT fax (#PCDATA) >

]>
```

[End of document]