

Committee on WIPO Standards (CWS)

First Session

Geneva, October 25 to 29, 2010

PROGRESS REPORT ON THE PREPARATION OF THE XML4IP WIPO STANDARD

Document prepared by the Secretariat

INTRODUCTION

1. At the eighth session of the former Standards and Documentation Working Group (SDWG) in March 2007, the SDWG agreed to create the Task No. 41 "Prepare a proposal for a dictionary of International Common Elements (ICEs), and model XML (eXtensible Markup Language) schemas and DTDs (Document Type Definitions) to be used for patents, trademarks and industrial designs". (See paragraph 64 of document SCIT/SDWG/8/14.)
2. The XML4IP Task Force was created to deal with the Task No. 41 and currently consists of 56 members from 22 Industrial Property (IP) Offices. The Task Force uses the electronic forum for its discussion but also hold meetings in person to progress faster in its discussions.
3. During last year, the XML4IP Task Force held two meetings, one in October 2009 and the other one in May 2010. Throughout the two meetings, the Task Force built the corner stone of XML4IP. At the October 2009 Meeting, the Task Force setup draft objectives and scope of XML4IP, draft structure of XML4IP standard and provisional timeline of the XML4IP project.
4. At the May 2010 meeting, the XML4IP Task Force discussed the following items:
 - issues and usage of WIPO XML Standards ST.36, ST.66 and ST.86 at IP offices;
 - design rules and conventions;
 - business case of XML4IP including the objectives and scope;
 - methodologies to identify the international common components;

- development of XML schemas for the international common components; and
 - compatibility with WIPO Standards ST.36, ST.66 and ST.86.
5. The agenda, a list of participants, meeting minutes and copies of presentations given at the Task Force meetings can be found on the XML4IP Task Force's website at:
<http://www.wipo.int/cws/en/taskforce/xml4ip/background.htm>.
6. Since the May 2010 meeting, the XML4IP Task Force has been discussing the following issues to prepare proposals for a new WIPO standard of XML4IP:
- structure of XML4IP standard,
 - IP Data Dictionary,
 - design rules and conventions,
 - international common component schemas, and
 - provisional timeline of XML4IP project.
7. All issues described above are still under discussion. In order to report the status of preparation of the XML4IP standard, an outline of ongoing discussions on each issue is presented as below.

BUSINESS CASE OF XML4IP STANDARD

8. WIPO Standard ST.36 recommends XML DTD technology for dealing with patent information since 2004. However, XML technologies have been moved from DTD to schema because schema technology overpowers DTD. Most new industry standards regarding XML technology are based on schema technology. Schema technology is also better supported by commercial vendor tools. Therefore, it is foreseen that all future efforts should use XML schema, and when possible, current DTDs should be migrated to schema. In this regards, WIPO Standards ST.66 and ST.86 adopted XML schema technology for dealing with trademark and industrial design information, respectively.
9. At the eighth session of the former SDWG in March 2007, a discussion took place on methods to ensure harmony among XML resources for all three IP types sufficient for the needs of WIPO's Member States. Therefore, the XML4IP Task Force undertakes a task of preparing a proposal to harmonize and consolidate the XML vocabularies required for purposes of exchanging information on three IP types and facilitating interoperability among IP offices.
10. The expected benefits of XML4IP standard are:
- use of common vocabulary across three IP types;
 - design rules aligned with contemporary industry practice;
 - reduction of the ongoing need for IP Offices to maintain infrastructure and systems to process DTDs; and
 - opportunity to address issues related to the implementation of WIPO Standards ST.36, ST.66 and ST.86 such as well-guided design rules, sufficient supporting documentation and adequate element definitions.

OBJECTIVES OF XML4IP STANDARD

11. At May 2010 meeting, the XML4IP Task Force tentatively established the following objectives of XML4IP standard:
 - (a) Facilitation of data exchange among IPOs using XML
 - (b) Harmonization of data structures among three IP types
 - rules and guidelines for dealing with common data structures across multiple IP types
 - rules and guidelines for dealing with data structures specific to one IP type
 - (c) Maximization of data transformability from ST.36, ST.66 and ST.86
 - format to XML4IP format, including the creation of transformation rules from WIPO Standards ST.36, ST.66 and ST.86 to XML4IP
 - (d) Facilitation of XML implementation within IP offices
 - rules and guidelines for dealing with data structures specific to one IP office (non-normative)

SCOPE OF XML4IP STANDARD

12. The XML4IP Task Force also agreed on the following provisional scope of the XML4IP standard:

“XML4IP recommends the XML (eXtensible Markup Language) resources used for filing, publication, processing, and exchange of all types of industrial property (IP) information, (i.e., patents, trademarks and industrial designs). The XML4IP aims at superseding (or supplementing) WIPO Standards ST.36, ST.66 and ST.86 which recommend the XML resources for patents, trademarks and industrial designs, respectively. However it is acknowledged that WIPO Standards ST.36, ST.66 and ST.86 will co-exist with XML4IP for some time.”
13. The XML4IP Task Force has not yet reached consensus on whether the XML4IP standard will supersede or supplement WIPO Standards ST.36, ST.66 and ST.86. However, the Task Force recognized that a transition period would be necessary regardless of whether the XML4IP standard supersedes or supplements the existing standards.

PROVISIONAL COMPONENTS OF THE XML4IP STANDARD

14. At present, the XML4IP Task Force is discussing the structure of XML4IP standard which comprises a main body and seven Annexes as described below. The structure is based on the existing WIPO Standards, in particular, ST.36 and ST.66, and XML industry standards. Each Annex may contain a single or multiple Appendixes. The XML4IP standard is tentatively composed of:
 - Main Body of XML4IP standard;
 - Annex I: Design Rules and Conventions (DRCs);
 - Annex II: IP Data Dictionary;
 - Annex III: XML4IP Schemas;
 - Annex IV: Schema Technical Specification;
 - Annex V: Schema Implementation Guidelines;

- Annex VI: Backward Transformation-Compatibility Guidelines and Rules; and
- Annex VII: Conformance Guidelines and Rules.

MAIN BODY OF XML4IP STANDARD

15. The XML4IP Task Force briefly discussed the outline of the main body of XML4IP standard. The main body may include the scope and business requirements (objectives) of the XML4IP, principle recommendations, and usage and description of Annexes. The main body will be dependant on its Annexes. Therefore, the Task Force agreed that the specific contents of the main body would be discussed once draft Annexes are ready.
16. In order to facilitate the preparation of a proposal for the XML4IP WIPO standard, the International Bureau proposes to reserve the standard number ST.96 for the new XML4IP standard.

DESIGN RULES AND CONVENTIONS

17. The Design Rules and Conventions (DRCs) will be a foundation of the XML4IP standard. The DRCs are to provide a comprehensive set of design rules and conventions for the creation of XML schemas and instances in order to facilitate data exchange among IP offices. IP offices can also use this document as a guideline for developing their internal design rules. In WIPO Standards ST.36, ST.66 and ST.86, design rules are part of the main body of the Standards. However, in the XML4IP standard, the DRCs would be a separate document as Annex to the standard.
18. The XML4IP Task Force revised the DRCs several times and, during the preparation of this document, has been discussing the draft DRCs, version 0.6. The DRCs consists of four sections, i.e., Introduction, General Design Rules, Schema Design Rules and Instance Design Rules, and recommends more than 110 rules with explanation.

IP DATA DICTIONARY

19. The IP Data Dictionary is the vocabulary of the XML4IP standard such as Annex C of ST.36 (International Common Elements) and Appendix A of ST.66 and ST.86 (XML Dictionary).
20. The Dictionary consists of a set of data components used in IP information. The set of data components is called Industrial Property Common Components (IPCC). The IPCCs are primarily defined for data exchange among IP offices. However, some IPCCs may be additionally defined for communications between IP offices and applicants. The IPCCs comprise:
 - Common Core Components (CCCs): CCCs are used across three IP types or between two IP types, i.e., patent-trademark, patent-design, and trademark-design.
 - Common Patent Components (CPCs): CPCs are used only in patent business. Some CPCs are inherited from CCCs.
 - Common Trademark Components (CTCs): CTCs are used only in trademark business. Some CTCs are inherited from CCCs.
 - Common Design Components (CDCs): CDCs are used only in industrial design business. Some CDCs are inherited from CCCs.
21. The XML4IP Task Force is also discussing the draft IP Data Dictionary which contains dictionary entries of the draft CCCs, i.e., name, address, address book, payment, signature, citation and image.

XML4IP SCHEMAS

22. The set of XML4IP Schemas will be another foundation of the XML4IP standard. The XML Schemas will consist of the set of XML schemas for CCCs, CPCs, CTCs and CDCs which are called, respectively, CCC schemas, CPC schemas, CTC schemas and CDC schemas. It is expected that the schemas will be used for data exchange amongst IP offices and reused for development of IP offices' schemas.
23. The XML4IP Task Force has been developing and discussing the draft XML schemas of name, address, address book, payment method, signature, citation and image. Once the CPCs, CTCs and CDCs are defined, the Task Force will develop XML schemas for the components.

BACKWARD TRANSFORMATION-COMPATIBILITY GUIDELINES AND RULES

24. The XML4IP Task Force agreed that the backward transformation compatibility between the new XML4IP standard and existing WIPO Standards ST.36, ST.66 or ST.86, should be guided in the new standard because WIPO Standards ST.36, ST.66 and ST.86 have already been used in some IP Offices. The guidelines and rules of backward transformation compatibility will facilitate the IP Offices to transform their XML instance conforming to ST.36, ST.66 or ST.86 into XML instance compliant to XML4IP. It will comfort IP Offices to adopt the new XML4IP standard.
25. The XML4IP Task Force also agreed that the new standard should not provide rules and guidelines for the forward transformation-compatibility which is transformations from XML instance compliant to the XML4IP standard to XML instance compliant to ST.36, ST.66, or ST.86. The Task Force recommends that the forward transformation-compatibility should be discussed, if needed, by the ST.36, ST.66 and ST.86 Task Forces.

SCHEMA TECHNICAL SPECIFICATION

26. The Schema Technical Specification is to provide technical documentation on the XML4IP Schemas. It would help developers, at IP offices, to have better understanding on the contents and structure of the schemas.

SCHEMA IMPLEMENTATION GUIDELINE

27. The Schema Implementation Guideline is to guide how IP offices develop their own schemas by using XML4IP schemas. It would promote common practice of implementation of XML schemas.

CONFORMANCE GUIDELINES AND RULES

28. After XML schemas have been developed by IP office, in particular for data exchange with other offices, the IP office needs to validate whether its XML schemas conform to the XML4IP. The Conformance Guidelines and Rules are to guide the validation procedure and to provide a tool to be used in the procedure.

PROPOSAL FOR MODIFICATION OF TASK NO. 41

29. Considering the change of XML technologies and that there is no requirement of DTDs in the new standard (see paragraph 14), the International Bureau proposes to revise the Task No. 41 (see paragraph 1 of this document). The new wording for the Task No. 41

would read "Task No. 41: Prepare, for adoption as a WIPO standard, a recommendation for the XML (eXtensible Markup Language) resources to be used for filing, processing, publication and exchange of information regarding patents, trademarks and industrial designs".

PROVISIONAL TIMELINE OF XML4IP PROJECT

30. The International Bureau proposes the following provisional timeline for preparation of final proposal for the new XML4IP standard:
- October 2010: XML4IP Task Force meeting during the first session of the CWS;
 - December 2010: the IB to circulate a draft proposal for new standard, including draft main body and all draft Annexes as described in paragraph 14;
 - February to August 2011: Development of more schemas and revision of draft main body and Annexes; and
 - Second session of CWS, in 2011, the XML4IP TF to submit a final proposal of the XML4IP standard for consideration and approval by the CWS.

31. *The CWS is invited to:*

(a) note the results of the work of the XML4IP Task Force and the report of the Task Force Leader, as set out in this document;

(b) adopt the standard number ST.96 for the new XML4IP standard as proposed in paragraph 16, above; and

(c) approve the modification of Task No. 41 as proposed in paragraph 29, above.

[End of document]