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PROGRESS REPORT ON THE PREPARATION OF ANNEXES V AND VI, AND THE REVISION OF WIPO STANDARD ST.96

prepared by the Secretariat

BACKGROUND

- 1. The Committee on WIPO Standards (CWS), at its second session, adopted WIPO Standard ST.96, entitled "Recommendation for the processing of industrial property information using XML (eXtensible Markup Language)", along with Annexes I to IV. The CWS noted that draft Annexes V and VI of ST.96, which were presented at the session, needed to be tested further by industrial property offices (IPOs) in order to ensure that the two Annexes are ready for adoption as part of ST.96. The CWS, therefore, requested its Members to participate in the test exercise of the two Annexes and to provide their comments to the XML4IP Task Force. As a consequence of the adoption of ST.96, the CWS modified Task No. 41 and assigned the modified Task to the XML4IP Task Force in order to prepare a proposal for Annexes V and VI of ST.96 for adoption by the CWS, and to ensure the necessary revisions and updates of ST.96. (See paragraphs 20 to 24 of document CWS/2/14.)
- 2. For performing Task No. 41, the XML4IP Task Force discussed proposals and issues through its Wiki e-forum. In order to find solutions on pending issues in a more effective way, the Task Force held two in-person meetings, in Geneva and in Canberra, Australia, as well as online conferences. The reports of the meetings are available in WIPO website at: http://www.wipo.int/cws/en/taskforce/xml4ip/background.htm.

PREPARATION OF ANNEXES V AND VI

3. The XML4IP Task Force planned to submit, at the third session of the CWS, proposals of Annexes V and VI which would refer to ST.96 XML Schema, version 1.0, which was adopted at the second session of the CWS. However, considering ongoing discussions on the revision of the XML Schema with potential major changes, the Task Force agreed to prepare the two Annexes based on the next version of the XML Schema instead of the version 1.0. Therefore, the finalization of the Annexes will depend on the progress on the revision of XML Schema, as well as available resources in the Task Force Member Offices and the International Bureau.

Annex V

- 4. Annex V of ST.96, *Implementation Rules and Guidelines*, is to provide guidance for customization of ST.96 XML Schemas to fit a specific business requirement of an IPO even though ST.96 XML Schema can be used "as is" in many cases. Annex V recommends IPOs to customize the XML Schema in two ways, i.e., conformant schema and compatible schema. In order to assist implementation by IPOs, customization examples are given in the two Appendixes of Annex V, i.e. Appendix A for examples of ST.96 conformant schemas, and Appendix B for examples of ST.96 compatible schemas.
- 5. According to the request by the CWS, the following seven CWS Members participated in testing and/or revising Annex V: Australia, Canada, China, Japan, Russian Federation, United Kingdom and United States of America. Based on the inputs from the participant Members, draft Annex V has been revised twice since the second session of the CWS. Annex V, version 0.9, is currently under discussion by the XML4IP Task Force members. The version 0.9 refers to the draft revision of XML Schema, version 1.0 draft 4.
- 6. At the XML4IP Task Force meeting held in Canberra mentioned above, the United States Patent and Trademark Office (USPTO) presented a sample Schematron which will help IPOs to valid their implementation schema against the XML design rules and conventions defined in Annex I of ST.96. The Schematron gives errors, warnings and messages. The USPTO agreed to share it with all IPOs.

Annex VI

- 7. Annex VI of ST.96, *Transformation Rules and Guidelines*, is intended to provide rules and guidelines for transformation between XML instances conforming to ST.96 and XML instances validated against ST.36, ST.66 or ST.86. In order to assist IPOs to convert their data conforming to ST.36, ST.66 or ST.86 to data conforming ST.96 and *vice versa*, Annex VI includes the three Appendixes, i.e., Appendix A for the mapping tables of elements and attributes, Appendix B for the mapping tables of enumeration values, and Appendix C for example codes of eXtensible Stylesheet Language Transformations (XSLT).
- 8. According to the request by the CWS, the following six CWS Members participated in testing and/or revising Annex VI: China, Japan, Russian Federation, United States of America, the European Patent Office (EPO), and the Office for Harmonization in the Internal Market (OHIM). Since the second session of the CWS, two round tests were performed by volunteer IPOs and two round reviews have been conducted by all XML4IP Task Force Members. Annex VI, version 0.7, is under discussion by the XML4IP Task Force at the moment of the preparation of this document. The version 0.7 refers to the draft revision of XML Schema, version 1.0 draft 4.

- 9. Taking into account compatibility issues between ST.96 and ST.36/ST.66/ST.86, the XML4IP Task Force Members intensively discussed the scope of the transformation between the Standards and responsibility of maintenance of the mapping tables and XSLTs (hereinafter referred to as "transformation tools"). The Task Force agreed that it is necessary to provide full transformation for all components defined in the Standards instead of sample components. The Task Force also agreed that the maintenance of the transformation tools be crucial because the tools should be updated once the Standards are revised. The Task Force members agreed that the completion of the transformation tools and continued maintenance of them be integral to the success of the ongoing implementation of ST.96 within IPOs and data exchange between IPOs. The Task Force noted that this work would, however, require time and resources on an ongoing basis which the Task Force does not have and has not been scoped to do at this time. The Task Force, therefore, seeks guidance from the CWS on the following:
 - its views on the importance of the continued mapping and development of tools for the bi-directional transformation of components within ST.36, ST.66 and ST.86 to ST.96, and whether this work should continue;
 - if the mapping and the development of the transformation tools are to continue, which task force should continue this work; and
 - who will own and maintain the transformation tools once they have been developed.
- 10. For the preparation of the first version of Annex VI, however, considering the limited time and resources, the XML4IP Task Force agreed that only sample components be included in the first version instead of the complete set of transformations.
- 11. In addition, the XML4IP Task Force noted that, taking into account the co-existence of ST.96 with ST.36, ST.66 and ST.86, and the evolution of each Standard, the complexity and maintenance cost would be significantly increased if the mapping between every single combination of versions of those Standards should be kept. The Task Force, therefore, agreed that the transformation tools should only be done between latest versions of ST.96 and ST.36/ST.66/ST.86.

REVISION OF ST.96

Annexes II, III and IV

- 12. Since the adoption of ST.96, version 1.0, the XML4IP Task Force has continued working on the revision of Annex III, *IP XML Schemas*, along with the revision to Annex II, *IP Data Dictionary*, and Annex IV, *Schema Technical Specification*, which are tightly coupled with Annex III.
- 13. For the next version of XML Schema, the Task Force agreed to add new schemas for patent bibliographic data and trademark dissemination data. In addition, the Task Force discussed the business needs and content models for new items, for example, "status information of patent data after filing or registration", "status information of trademark data after filing or registration".
- 14. Furthermore, the Task Force members also discussed the proposals presented by USPTO regarding structural changes to XML schema folders and rearrangement of schema components. Based on comments on the proposals, USPTO and the International Bureau prepared a draft revision, version 1.0 draft 4, which is under discussion by the Task Force members at the moment of the preparation of this document. It is expected that the discussion on the proposals will result in major changes to Annex III and cause modifications to Annexes I, II and IV.

- 15. The Task Force also discussed, based on the proposal made by OHIM, the feasibility of replacing presentation components, for example, B (bold), by importing HTML (HyperText Markup Language) or XHTML (Extensible HyperText Markup Language) tags in order to effectively take advantage of HTML/XHTML editors and viewers. USPTO investigated further how to implement the HTML/XHTML tags in ST.96. It appeared that it would be necessary to customize HTML/XHTML tags to accommodate IP-specific business requirements, and customizing HTML/XHTML tags would be very complex. Throughout these exercises, the Task Force recognized that a promising technique is under development by the World Wide Web Consortium (W3C) and the technique might provide a solution to reuse HTML/XHTML tags in ST.96 without technical constraints. The Task Force, therefore, concluded that current ST.96 presentation components should be used until the development of the technique would be completed by W3C and widely used in industries.
- 16. With regard to the revision of Annexes II and IV, the International Bureau developed tools to synchronize Annex II with Annex III and to generate Annex VI based on Annex III. The tools are available in WIPO website at: https://www3.wipo.int/svn/ST96 for use by IPOs.

Annex I (DRCs)

17. In order to support the changes to XML Schemas, version 1.0 draft 4, and to reflect other proposals, a revision of Annex I, *XML Design Rules and Conventions*, is under discussion by the XML4IP Task Force. The revision will be completed once the discussion on the next version of XML Schema has been finalized.

OTHER ACTIVITIES

<u>Discussion on the restructure of XML-based Task Forces</u>

- 18. Considering the coexistence of two XML Standards for each industrial property type, i.e., ST.96-ST.36, ST.96-ST.66, and ST.96-ST.86 for patents, trademarks and industrial designs, respectively, and the compatibility issue between them, the International Bureau, at the Canberra meeting mentioned above, presented a proposal on the reorganization of Task Forces dealing with XML-based Standards (ST.36, ST.66, ST.86 and ST.96) and the change of work flow for revising those Standards.
- 19. The Task Force noted that the compatibility issue do not currently exist and may or may not arise in the future. The Task Force also noted that it may be reasonable to consider freezing the old Standards (ST.36, ST.66 and ST.86) and thus minimizing potential compatibility issues and negating the need for the reorganization of the Task Forces. Therefore, the Task Force Members agreed that there is no reason to reorganize those XML-based Task Forces for the time being.

IPO's practices and plan

20. At the Canberra meeting mentioned above, participant IPOs made presentations on their practices regarding WIPO XML-based Standards and other Information and Communications Technology (ICT) initiatives. Delegations from Republic of Korea, Russian Federation and United States of America reported their plan to implement ST.96 in the 2012 to 2015 period. Delegations from Australia, Canada and United Kingdom reported that they are exploring ST.96 for use in their data systems.

WIPO Subversion service

21. The International Bureau launched Subversion service for collaborative works among the XML4IP Task Force Members and sharing IPOs' practices. The service can be accessible by all Task Force Members and, on demand, by any IPO through the WIPO website at: https://www3.wipo.int/svn/ST96. The Task Force Members acknowledged that the service will facilitate collaboration in developing XML Schema and sharing information regarding IPOs' implementation. Based on its own experience with TM-XML (http://www.tm-xml.org/), OHIM suggested using the WIPO Subversion for shared access to national extension components.

22. 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; and
- (b) consider, in particular, the discussions by the XML4IP Task Force, as referred to in paragraphs 9, 18 and 19, above, and provide the guidance requested by the Task Force, as stated in paragraph 9.

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