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Committee on WIPO Standards (CWS)

**Ninth Session
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REPORT BY THE XML4IP TASK FORCE

Document prepared by the International Bureau

INTRODUCTION

1.   At the eighth session of the Committee on WIPO Standards (CWS), held in 2020, the CWS heard progress reports on the activity of the XML4IP Task Force conducting the following CWS Tasks:

   − Task No. 41: "Ensure the necessary revisions and updates of WIPO Standard ST.96.";

   − Task No. 53: "Develop XML schema components for geographical indications."; and

   − Task No. 64: "Prepare a proposal for recommendations for JavaScript Object Notation (JSON) resources compatible with WIPO Standard ST.96 to be used for filing, processing, publication and/or exchange intellectual property information.".

2.   At this session, the CWS approved the discontinuation of Task No. 53 from the CWS Task List as it was considered complete (see paragraph 90 of CWS/8/24).

3.   The XML4IP Task Force met once a month to discuss future improvements to WIPO Standard ST.96. During these discussions, the Task Force agreed on the following development priorities for the calendar year of 2021. The outstanding works are listed here in order of priority:

   (a)   JSON Standard

   (b)   Trademark/Design legal status schemas

   (c)   Patent Record/Patent Transaction schemas

(d)   Alloy composition schemas

REVISION AND IMPLEMENTATION OF WIPO ST.96 (TASK NO. 41)

4.   Under the framework of Task No. 41, the XML4IP Task Force prepared and published a new major release, version 5.0, which is planned for release on October 1, 2021. The CWS allows only a maximum of two releases of ST.96 per year: one in April and one in October (see paragraph 53 of document CWS/6/34). Further details of this official release are provided below.

Annex I

5.   Annex I of WIPO ST.96 details the XML Design Rules and Conventions (DRCs) for the creation and use of WIPO ST.96-compliant XML schemas. The CWS should note the following changes which are introduced to version 5.0:

−   adding additional acronyms in Appendix C: 'AF', 'IB', 'XSD' and 'INID';

−   adding an editorial note at the top of Appendix C which reads: "The acronyms/abbreviations below SHOULD NOT be considered in the context of the Language codes, Office codes, Currency codes, Office codes and Country codes, which are listed in WIPO ST.96, where there may be duplicate values. These codes are based on ISO 639-1 language codes, ISO 4217 currency codes, WIPO ST.3 codes and ISO 3166-1 country codes respectively.";

−   updating design rules GD_07 and GD_13 to clarify the use of acronyms in component names;

−   updating design rule ID_10 to indicate that WIPO Standard ST.26 should be used after July 1, 2022;

−   adding a reference to WIPO Standard ST.61 "RECOMMENDATION FOR THE EXCHANGE OF TRADEMARK LEGAL STATUS DATA"; and

−   correcting design rule SD-14 to include within its scope Geographical Indications and Copyright namespaces within its scope.

Annexes III-IV

6.   Annexes III and IV of WIPO ST.96 provide a full list of the IP XML schemas and the XML Schema Technical Specification respectively. These Annexes are revised as a result of the update of ST.96 XML schema components in response to proposed revisions by the XML4IP Task Force.

Annex V

7.   Annex V of WIPO ST.96 provides implementation rules and guidelines for the production of WIPO ST.96 XML compliant, conformant or interoperable schema. The following changes were included in version 5.0:

−   inclusion of improved version of the Schematron XSD Validator tool, used to determine compliance of ST.96 schemas; and

−   inclusion of new schema flattening tool which allows the production of flattened schemas from ST.96 design schemas in a standardized manner.

8.   Further details on the version 5.0 release, in particular changes to the Annexes II, III and IV, are detailed in its release notes published in the WIPO website at: https://www.wipo.int/standards/XMLSchema/ST96/V5_0/ReleaseNotes.pdf. All Annexes of the WIPO ST.96 version 5.0 release are available online at the following location: https://www.wipo.int/standards/en/st96/v5-0/.

PROPOSAL FOR A JSON SCHEMA (TASK NO. 64)

9.   At the seventh session of the CWS, Task No. 64 was added to the CWS Work Plan in recognition of the increased uptake in the use of JavaScript Object Notation (JSON) by Intellectual Property Offices (IPOs), in particular for use as the response payload of a web service.   Also at its seventh session, the CWS noted the working draft of the JSON specification which was presented for their consideration and requested that the XML4IP Task Force continue to work on developing a draft JSON standard. (See paragraphs 58 to 60 of document CWS/7/29.)

10.   The International Bureau proposed below the provisional structure of the new WIPO standard on JSON and plans to prepare a draft standard for consideration by the XML4IP Task Force this year and where possible to present this draft to this session of Committee for information. As development of these components is ongoing, the XML4IP TF will continue to improve the draft standard and plans to present a final proposal for consideration by the CWS at its tenth session.

The provisional structure for the draft JSON standard is as follows:

- Main Body: including naming conventions and rules like ST.90

- Annex I: Transformation rules from ST.96 XSD to JSON schema, potentially rules to transform ST.96 instance to JSON instance)

- Annex II: JSON Schema (Annex comparison ST.96 XSD and corresponding JSON schema as an appendix)

- Annex III: JSON instances (providing corresponding to ST.96 Annex VII, Appendices)

WIPO ST.96 IMPLEMENTATION

11.   In order to support Office implementation of WIPO Standard ST.96, the International Bureau collated three different types of example XML instances: one for Hague IB-To-Office communication (ST.96 version 4.0), one for Madrid IB-To-Office communication (ST.96 version 4.0) and a set of six for patent publications at the Korean Intellectual Property Office (KIPO) (KIPO customized ST.96).

12.   These XML example instances will be published on the WIPO website as a separate HTML page to host these instances, linked to Part 3 of the WIPO Handbook on Industrial Property Information and Documentation as a 'Related Resource'. This page will be expanded as required to host example XML instances based on any ST.96 implementation, including Office-customized ST.96 schemas.

FURTHER COLLABORATION AND SUPPORT

13.   For the purposes of sharing implementations of WIPO ST.96 among IPOs and identifying the need for improvements to WIPO ST.96, the XML4IP Task Force requested and the CWS supported that the International Bureau provide the WIPO ST.96 Centralized Repository (see paragraphs 27 and 29 of document CWS/7/29).

14.   A pilot for the Centralized Repository was created by the International Bureau as a Git repository hosted on the GitHub platform. Several Office representatives from the XML4IP Task Force were invited to participate in testing for the pilot and will provide their feedback. Based on the feedback from this pilot, this GitHub-based repository will be improved and made available to the remainder of the Task Force, for use in hosting Office-customizations of ST.96 XML schemas. The success of the operation of this new WIPO ST.96 repository will be reported to the CWS at its tenth session.

15.   Also at its seventh session, the International Bureau informed the CWS that the audience for WIPO Standards had expanded to include developers working for IPOs. The CWS agreed at this session for the International Bureau to establish an external developer's forum to serve as a means of communicating with this new audience (see paragraph 34 of document CWS/7/29). The International Bureau currently plans to also use GitHub for this purpose, as well as for the Centralized Repository for ST.96 XML schema, and would appreciate the support of IPOs in promoting use of this forum.

FUTURE WORK PLAN

16.   The XML4IP Task Force will continue to work on developing new XML schema and improve the existing XML schema but in particular would like to note the following for development in the period before the tenth session of the CWS:

–   Priority Document schemas: development of these schemas were not considered a priority during the past year but will be revisited in the future;

–   Trademark/Design legal status schemas: The XML4IP Task Force agreed on moving several of the common components across all three IP rights (Patent, Trademark, Designs) over to the Common namespace for reuse as a first step in developing these schemas;

–   Alloy composition schemas: KIPO and the European Patent Office (EPO) have been collaborating on the development of these schemas and continue to make good progress;

–   Copyright Management Metadata components: For further details on the progress of development of these schema components, please refer to document CWS/9/5; and

–   Patent record/transaction schemas: development of these schema components progressed well during this year and these schemas should be ready for inclusion in the next version of ST.96, which will be published in 2022.

17.   The CWS is invited to:

(a)   note the content of the present document;

(b)   note the release of ST.96 versions 5.0, as indicated in paragraphs 4 to 8 above;

(c)   note the separate publication of WIPO ST.96 example XML instances on the WIPO website as indicated in paragraphs 11 to 12 above;

(d)   note the pilot project of the WIPO ST.96 Centralized Repository and the external developer's forum, hosted on GitHub, with developers working locally at IPOs, as indicated in paragraphs 14 to 15 above; and

(e)   note the work plan of the XML4IP Task Force, as indicated in paragraph 16 above.

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