

Committee on WIPO Standards (CWS)

Twelfth Session
Geneva, September 16 to 19, 2024

REPORT ON TASKS NO. 56 AND NO. 64 BY THE API TASK FORCE

Document prepared by the API Task Force Co-Leaders

SUMMARY

1. The API Task Force works under the framework of Tasks No. 56 and No. 64. The Task Force meets quarterly to discuss proposals for revisions and support for implementation of the Standards which are managed by the API Task Force: WIPO Standard ST.90 on Web Application Programming Interfaces (API) and WIPO Standard ST.97 on JavaScript Object Notation (JSON). In 2024, the API Task Force also supported the International Bureau to develop and launch the API Catalog for Intellectual Property (IP).

BACKGROUND

2. The API Task Force, currently co-led by the Canadian Intellectual Property Office (CIPO) and the European Union Intellectual Property Office (EUIPO), was established in November 2019 (see paragraph 51 of document CWS/7/29). Initially Tasks No. 56 and No. 64 were undertaken by the XML4IP Task Force, but the decision was made that the Task No. 56 should be conducted by participants with broad Web API expertise (see paragraphs 49 to 51 of document CWS/7/29).

3. At its eighth session held in 2020, the Committee on WIPO Standards (CWS) adopted WIPO Standard ST.90 (see paragraph 15 of CWS/8/24). At its tenth session held in 2022, the CWS adopted WIPO Standard ST.97 and designated the API Task Force to deal with Task No. 64 (see paragraph 44 of CWS/10/22). At that same session, revisions to WIPO Standard ST.90 were approved in order to ensure consistency with WIPO ST.97 (see paragraph 48 of CWS/10/22).

4. Tasks No. 56 and No. 64 are currently assigned to the API Task Force, the descriptions of which are:

- Task No. 56: “*Ensure the necessary revisions and updates of WIPO Standard ST.90; support the International Bureau in developing a unified catalog of APIs that are made available by Offices; and support the International Bureau in promoting and implementing WIPO Standard ST.90.*”.
- Task No. 64: “*Ensure the necessary revisions and updates of WIPO Standard ST.97*”.

PROGRESS ON TASK NO. 56

Objectives

5. At a high-level, in conducting Task No. 56, the Task Force aims that the following benefits will be realized by Intellectual Property Offices (IPOs):

- guidance on industry best practices, regardless of the size of the Office;
- a recommendation on an appropriate data structure and a standardized business vocabulary which would facilitate communication between machines or software applications developed by IPOs;
- a recommendation on security and authentication solutions which would assist IPOs in selecting software and approaches to authentication where different required security levels exist; and
- a naming convention which will provide a standardized approach in identifying data resources while versioning of the said resources would facilitate Intellectual Property (IP) data exchange at the international level.

Relevant actions for 2024

6. The API Task Force met virtually to discuss future improvements to WIPO Standards ST.90 and ST.97 on a quarterly basis during 2024 and continued these discussions online through their Task Force wiki. The following priorities related to Task No. 56 were identified for the calendar year of 2024:

- Participation in the development of a unified API Catalog;
- Assessment on the implementation of WIPO ST.90 by IPOs; and
- Preparation of a proposal for a revision of WIPO ST.90 considering the feedback by IPOs and the necessary editorial revisions.

Potential challenges or dependencies

7. The API Task Force identified potential challenges in achieving these goals including being able to guarantee the participation of IPOs in the activities led by the Task Force, and time and resource constraints.

Progress evaluation

8. Despite these challenges, progress was made on each of the goals indicated above, which is detailed below.

Development of the API Catalog for Intellectual Property (IP)

9. The API Catalog for IP is a unified platform that offers a list of APIs provided by IP institutions for their products and services. The International Bureau carried out this development project with the key objectives of this project to include:

- Analyzing and documenting the API services provided by the participating IPOs;
- Identifying the best means to automate the crawling process as much as possible;
- Developing a set of comprehensive guidelines that will help IPOs to update their APIs, specifications and related documents;
- Defining a list of common labels/categorizations; and
- Determining the essential and optional information that IPOs should provide to the International Bureau to feed the catalog.

10. The development Project Board consisting of participants from nine IPOs met regularly with the API Catalog Service provider. Interviews were also carried out with various API consumers to solicit requirements.

11. This pilot project was successfully completed and the International Bureau launched the WIPO API Catalogue for IP portal, which is available at: <https://www.wipo.int/standards/en/api-catalog/index.html>, on July 3, 2024 with around 170 APIs from seven IPOs .

12. At its eleventh session, the CWS requested the Secretariat to issue a circular inviting Offices to provide information relating to different API endpoints exposed by them (see paragraphs 44 to 46 of document CWS/11/28). As a follow up of the decision, the Secretariat issued the Circular C.CWS 185 inviting IPOs to provide the information to the Secretariat by August 30, 2024.

Revision and updates of the WIPO Standard ST.90

13. According to the decision made at the tenth session of the CWS, the Secretariat introduced necessary editorial amendments to WIPO ST.90 under the framework of Task No. 56 (see paragraphs 47 and 48 of document CWS/10/22), after the adoption of WIPO Standard ST.97. The revised WIPO Standard ST.90, version 1.1, was published in February 2023.

14. Improvements to WIPO Standard ST.90 are managed using an Improvement Register. Proposals are made by Task Force Members and then opened to the whole Task Force for comment so that they can be refined or agreed for inclusion in the next version of WIPO ST.90. There are currently two proposals open for discussion on the register:

- Improvement to Annex I: to present the four compliance tables in a more usable manner. The EUIPO proposed to export all four tables as a single table on a single worksheet, including each compliance level (AJ, AX, AAJ, AAX) in a different column with a Boolean indicator. Then filters could be used to adjust for different compliance levels.
- Improvement to Annex II: to provide a dynamic list of IP vocabulary instead of a static one based on WIPO ST.96 version 5.0. It was decided to refer to WIPO ST.96 in general as the source of IP vocabulary so that WIPO ST.96 and WIPO ST.90 can evolve independently as required.

15. To assess the implementation of the WIPO Standard ST.90, the EUIPO has produced an Excel workbook for use by IPOs to determine the compliance rating of an API in relation to WIPO Standard ST.90 and to identify potential improvements to the Standard's recommendations. By performing this analysis, IPOs can determine their compliance rating and by using this template Offices can be assured that there is harmonization with respect to commonly exposed endpoints. The Task Force Co-Leaders encouraged other Offices to participate in this assessment. IP Australia, United States Patent and Trademark Office

(USPTO), European Patent Office (EPO) and EUIPO shared the results of their analysis and identified possible amendments to the current version of the Standard. The resulting proposed improvements to WIPO Standard ST.90 are currently under discussion by the Task Force, but include the following:

- Updated references to obsolete standards and conventions, such as several [Internet Engineering Task Force](#) (IETF) RFCs;
- Updated rules descriptions, in line with the new guidelines defined by the IETF;
- Added more examples, when deemed necessary;
- Editorial changes and minor grammatical corrections;
- Enhanced readability for Annex I; and
- Included references to ST.97 vocabulary in Annex II.

Proposal for revision to Task No. 56

16. The API Task Force notes that the promotion of the API Catalog will require more APIs from Offices and other IP institutions, although the pilot development was successfully completed. The Task Force proposes to revise the description of Task No. 56 as follows:

“Ensure the necessary revisions and updates of WIPO Standard ST.90; support the International Bureau in promoting and implementing WIPO Standard ST.90; and promote the API Catalog for Intellectual Property (IP) and facilitate the further participation of IP institutions in the API Catalog”.

PROGRESS ON TASK NO. 64

Objectives

17. In undertaking Task No. 64, the Task Force works to provide the necessary revisions and updates of WIPO Standard ST.97.

Relevant actions for 2024

18. Since the last session of the CWS, the API Task Force Co-Leaders are again reviewing the history of development for the WIPO Standard ST.97 and collecting outstanding issues in a dedicated Improvement Register. The Task Force is working to investigate how to simplify the hierarchy of JSON schemas which are compatible with the WIPO ST.96 XML structure.

Potential challenges or dependencies

19. The API Task Force identified potential challenges in conducting this Task including:

- Maintaining the compatibility between WIPO ST.97 and across future revisions of WIPO ST.96. Future revisions to WIPO ST.96 and WIPO ST.97 may need to be aligned and/or reference each other where appropriate. The existing WIPO ST.97 JSON schemas were based on WIPO ST.96 XML version 5.0, however the most recent version of WIPO ST.96 has evolved to the upcoming version 8.0. The Task Force has determined that there is no need to update WIPO ST.97 each time WIPO Standard ST.96 is revised. The only dependency on WIPO ST.96 would be that of the XML2JSON Transformation tool which is to be used to transform WIPO ST.96 XML into WIPO ST.97 JSON format.
- During the API TF Q2 meeting, the USPTO demonstrated the use of the XML2JSON Transformation Tool. This tool is intended to be used by developers only when developing a new WIPO ST.97 JSON structure based on an existing WIPO ST.96

structure. The International Bureau requested USPTO to deliver an enhanced user manual and the Task Force encourages members to participate in testing this transformation tool and establish a practice in its use. This type of Office feedback is critical in determining whether it is useful and determining an appropriate process for its use.

Progress evaluation

20. The first version of WIPO Standard ST.97 was published on the premise that it would remain compatible with WIPO ST.96. Therefore, one of the main challenges is to reduce the complexity inherited from WIPO ST.96, with a clear goal to define a workable version of WIPO ST.97 which facilitates the maximum adoption among the IPOs and external organizations.

21. The API Task Force Co-Leaders are creating a dedicated Improvement Register for WIPO Standard ST.97, collecting the list of improvements identified during the development of the WIPO ST.97 by the XML4IP Task Force. Once validated, API Task Force members will be requested to comment on each issue and/or to propose a solution.

22. In undertaking this task, the Task Force should leverage the simplified hierarchy of JSON, as the current version of WIPO ST.97 is quite complicated due to its concordance with the XML structure provided in WIPO ST.96. A proposal to test the simplification of the WIPO ST.97 `TrademarkApplication` component has been made by the Task Force Co-Leaders. The results of this exercise will be reported to the CWS as soon as experts can be freed up from IPO priority demands in order to undertake developing this prototype structure. The result of this exercise will be a future revision to WIPO Standard ST.97.

WORK PLAN

23. The API Task Force will continue its work on Tasks No. 56 and No. 64 and note below the activities which are planned for the period prior to the thirteenth session of the CWS.

API Catalog for IP support and evolution:

24. The International Bureau informed the Task Force that the project should move into a maintenance mode as the pilot was successfully completed. During this period, the developers would upgrade the API Catalog by including more APIs and provide some new and improved functionalities. The Task Force will continually support the International Bureau to enhance the API Catalog to deliver better IP services to stakeholders and users in IP community.

WIPO Standard ST.90

25. Discussions will continue for proposals which are currently listed on the Improvement Register published on the Task Force wiki, including potential improvements to Annexes I and II to the Standard.

26. The Task Force will share their implementation plans for WIPO Standard ST.90 and their experience in conducting these plans using the dedicated page for the Implementation of WIPO ST.90 and the results of the compatibility matrix assessment.

WIPO Standard ST.97

27. The Task Force would like to emphasize that feedback from IPOs who have already implemented this Standard is highly appreciated, especially regarding the challenges which have been encountered. This information is very helpful in identifying areas where simplification of components might be possible. The Task Force is aiming to gather this information from the various Offices, with the goal of achieving a simplified version of WIPO ST.97 that can be easily adopted by both IPOs and the industry.

28. An Improvement Register for WIPO ST.97 has been created and will evolve as required to document and communicate the improvements proposed in the history of development by the XML4IP Task Force and be published on the Task Force wiki.

29. *The CWS is invited to:*

(a) note the content of the present document;

(b) note the availability of the API Catalog for IP and encourage its Members and Observers to participate in the API Catalog for IP by responding to the circular as referred to in paragraph 12 above;

(c) note the definition of the compatibility matrix Excel template to evaluate the compliance rating with ST.90, as indicated in paragraph 15 above;

(d) comment on the potential improvements to WIPO ST.90, as referred to in paragraph 15 above;

(e) approve the proposed revision to the description of Task No. 56 as referred to in paragraph 16 above;

(f) test the XML2JSON transformation tool as indicated above in paragraph 19; and

(g) note the work plan of the API Task Force, as indicated in paragraphs 23 to 28 above.

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