

Committee on WIPO Standards (CWS)

**Seventh Session
Geneva, July 1 to 5, 2019**

WIPO SEQUENCE TOOL

Document prepared by the International Bureau

INTRODUCTION

1. At the fifth session of the Committee of WIPO Standards (CWS), in 2017, the CWS agreed on the 'big-bang' approach as the option for transition from WIPO Standard ST.25 to WIPO Standard ST.26. The effect of this is that all applications received by Intellectual Property Offices (IPOs) after the January 1, 2022 must be compliant with WIPO Standard ST.26.
2. The CWS requested that the International Bureau produce a common software tool that would support applicants to both author their sequence listings and validate against WIPO Standard ST.26. The common tool would also allow IPOs to validate a sequence listing supplied as a supplement to a patent application to ensure it is compliant with WIPO ST.26. Finally, the International Bureau will manage the update and release of new versions of the tool, when required, through the use of an update server.

NAME OF THE COMMON ST.26 AUTHORIZING AND VALIDATION TOOL

3. In March 2019, the Director General of the International Bureau officially approved the name for the common tool being developed, as well as its representative components. The tool is generally referred to as the 'WIPO Sequence' tool and all subsequent communication about the common tool will use this terminology. The tool components will now be referred to as follows:

- 'WIPO Sequence': a desktop application installed locally by applicants which allows them to author and validate a sequence listing they wish to seek patent protection for;
- 'WIPO Sequence Validator': a microservice integrated into IPO environments which ensures IPOs receive only compliant sequence listings; and

- ‘WIPO Sequence Server’: the update and release server for use by the International Bureau in providing new versions of the tool.

DEVELOPMENT PROGRESS

4. In its sixth session, the CWS was informed that development would consist of four phases (see document CWS/6/17):

- Phase 1: Business analysis
- Phase 2: Architecture and Proof of concept
- Phase 3: Development of application
- Phase 4: Delivery of acceptance and production

5. Phases 1 and 2 were completed in advance of the sixth session of CWS, and the progress to-date on Phase 3 was reported at the session (see document CWS/6/17 and paragraphs 115 to 118 of document CWS/6/34).

6. Phase 3 is the development phase and continued after the sixth session of the CWS with development Sprints of five weeks in length. At the end of each sprint, IPOs were provided the opportunity to test the binary. At the end of Sprint 6, end users who were selected by active IPOs to assist us in development, were also provided this opportunity.

7. Due to delays caused by the re-designing of the interface to reflect WIPO’s new project, WIPO IP Portal, and an underestimation of the complexity of the validation module, the Project Board approved an extension of Phase 3 until the first week of March 2019.

8. Phase 4 is the formal acceptance period with a separate team independently performing functional testing, an architecture and source code review as well as performance testing. During this time, both IPOs and the end users nominated by these IPOs were given the opportunity to conduct testing in parallel to the formal testing team. At the time of writing this document, Phase 4 is due for completion at the beginning of June 2019.

9. Once the tool has been delivered to the International Bureau, there will be validation of the binaries provided to the International Bureau before delivery to the IPOs and applicants around the globe, at the end of September 2019.

10. The WIPO Sequence interface will be available in the 10 official PCT languages of publication (English, Arabic, Chinese, French, German, Japanese, Korean, Portuguese, Russian and Spanish). These different languages will all be available in the first release of the tool. After considering the size of the document, the User Guide, which provides basic support to applicants on how to use the tool, would be only provided in English at this time.

COLLABORATION WITH IPOS AND APPLICANTS

11. The functional specifications outlining the requirements for all three tool components were finalized with the assistance of the Sequence Listing Task Force (SEQL TF). Discussion was conducted through a dedicated wiki for the project: <https://www3.wipo.int/confluence/display/ST26software/>. Regular WebEx meetings with active members of the Task force were also organized as required to quickly resolve any outstanding issues. The developers provided a demonstration of the status of the WIPO Sequence tool both at the end of Sprint 6 and Sprint 8.

12. At the end of each Sprint, the tool executables for WIPO Sequence were provided to IPOs with Sprints 5, 6, 7, and 8 and 10. At the end of Sprint 6, applicants nominated by the SEQL TF members were also provided the opportunity to test the tool. The WIPO Sequence Validator has now been provided at two stages of development to allow IPOs to determine how to incorporate this microservice into their current IT Systems.

FUTURE DEVELOPMENT

13. Following feedback from IPOs in regards to the WIPO Sequence Validator, the International Bureau is currently seeking feedback from the SEQL TF on future capability of the WIPO Sequence tool. One suggestion is to provide functionality in the tool that would assist patent examiners during the examination process. Suggested functionalities include:

- extracting of sequence residues from the listing to be exported into FASTA format, to assist in entering these residues into a search tool; and
- a tool to perform a comparison of two ST.26 compliant sequence listings.

DEMONSTRATION OF THE TOOL

14. The first release of the WIPO Sequence tool will be demonstrated at the seventh session of the CWS in order to provide the CWS with a high-level knowledge of its functionalities.

15. *The CWS is invited to:*

(a) note the contents of the present document including the updated terminology for the ST.26 common tool; and

(b) encourage IPOs to trial the release of the tool at the end of September 2019 and provide feedback.

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