

CWs/9/6

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# Committee on WIPO Standards (CWS)

**Ninth Session**

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Proposal for a new standard on 3D digital objects

*Document prepared by the 3D Task Force Leader*

INTRODUCTION

At its eighth session in 2020, the Committee on WIPO Standards (CWS) noted the progress of the 3D Task Force on Task No. 61: “Prepare a proposal for recommendations on digital three-dimensional (3D) models and images, including methods of search for 3D models and 3D images”. The CWS also noted the preliminary draft Standard that was included in the Task Force report. (See paragraph 73 to 75 and 103 to 108 of document CWS/8/24.)

PROPOSED NEW WIPO STANDARD

The Task Force prepared a final draft for a new proposed WIPO Standard “Recommendations on digital three-dimensional (3D) models and 3D images”. Major topics of discussion included the selection of file formats for different types of IP applications, necessary file sizes, providing two-dimensional (2D) views, publication requirements, and partial claiming.

The proposed Standard provides recommendations on how to store, process, exchange and disseminate IP data using digital 3D models and 3D images for intellectual Property Rights (IPRs). The proposal is presented in the Annex of the current document. The material includes recommendations for digital 3D models and 3D images formats and file size, procedural recommendations for filing and processing of 3D models and 3D images, recommendations for data exchange and publication, and recommendations for partial claiming.

The general recommendations section provides background information and common guidelines for IP Offices to process, exchange and publish data with 3D visual representations of objects in applications for IPR protection filed by applicants, according to each IPO’s requirements.

The section on recommendations for digital 3D model and 3D image formats was drafted, by taking into account the results of two surveys carried out by the Task Force among IPOs, with input from some industries that use 3D as visual representations in IP applications. Following the discussions, the Task Force worked out a set of criteria for selecting 3D formats with recommendations based on surveys, the criteria, and best practices of IPOs and industry. The proposed preferred formats are modern, standardized, widely supported, open, and cross-platform, as well as addressing different needs of applicants and IPOs, and meeting the criteria agreed by the Task Force Members. The Task Force recommends the following formats for different IPRs:

* for inventions and utility models, it is recommended to use STEP, IGES, U3D, OBJ or STL with the maximum file size of 50 MB;
* for inventions related to chemical structures, it is recommended to use CDX or MOL;
* for industrial designs, it is recommended to use STEP, IGES, U3D, OBJ or STL with the maximum file size of 50 MB;
* for trademarks, it is recommended to use STEP, IGES, U3D, OBJ or STL with the maximum file size of 50 MB; and
* for integrated circuit topographies, it is recommended to use STEP, IGES, U3D, OBJ or STL with the maximum file size of 50 MB.

The section on procedural recommendations for filing and processing of 3D models and 3D images covers issues related to conversion and processing of filed 3D visual representations. Taking into account the results of the surveys identifying best practices for processing 3D visual representations, it is recommended to provide a certain number of 2D views of a 3D model or 3D image to perform examination procedures, according to the practices and requirements established by IPOs.

The section on recommendations for data exchange provides guidelines to establish the exchange of IP data containing 3D visual representations of objects for IPR protection in a harmonized manner, including preferred file formats and file size limitations. The section on recommendations for publication provides guidelines for both electronic and paper publications of the information related to IPRs.

Following discussions by the Task Force, it should be noted that the work on 3D search methods will be continued in calendar years 2021 – 2022. After finalizing the study, the Task Force intends to update the proposed Standard (if adopted at this session of CWS) and include recommendations on methods of search for 3D models and 3D images.

The Task Force, in consultation with the International Bureau, recommends the new Standard be designated as ST.91 with the title “Recommendations on digital three-dimensional (3D) models and 3D images” since it covers several types of IP: patents, trademarks and designs. The 90’s range of WIPO Standards holds Standards that cover multiple types of IP, namely ST.96 for XML and ST.90 for web APIs.

TASK UPDATE

If the proposed Standard is adopted, the Task Force proposes updating the description of Task No. 61 as follows:

~~Prepare a proposal for recommendations on digital three-dimensional (3D) models and images~~ Ensure the necessary revisions and updates of WIPO Standard ST.91, including methods of search for 3D models and 3D images.

*The CWS is invited to:*

* 1. *note the content of this document;*
  2. *consider and approve the proposed name of new WIPO Standard ST.91: “Recommendations on digital three-dimensional (3D) models and 3D images” as indicated in paragraph 9 above;*
  3. *consider and adopt the proposed new WIPO Standard ST.91, as reproduced in the Annex to this document; and*
  4. *consider and approve the revision of Task No. 61, as indicated in paragraph 10 above.*

[Annex follows]