

WIPO Standard ST.91 Recommendations on Digital 3D Models & 3D Images

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Overview of WIPO Standard ST.91

- ❑ ST.91 provides recommendations for Intellectual Property Offices (IPOs) and other interested parties on how manage, store, process, exchange or disseminate IP data using digital three-dimensional (3D) models and 3D images.
- ❑ Applicable to all parties handling 3D digital representations related to intellectual property rights protection.
- ❑ Adopted by Committee on WIPO Standards (CWS), at its ninth session on November 5, 2021, [CWS/9/6](#), and revised at CWS/12 on September 19, 2024, [CWS/12/20](#)

Objectives

❑ Compatibility & Interoperability

Ensure formats are compatible with various software used by applicants.

❑ Efficiency in Application Processing

Reduce time for processing IP applications in IPOs.

❑ Simplified Filing Across IPOs

Facilitate easy filing of applications across multiple IPOs using standardized formats.

❑ Harmonization of Data Exchange

Align data exchange practices across IPOs and organizations for 3D visual IP representations.

❑ Clear Publication Requirements

Set guidelines for publishing information on IP rights with 3D visual representations.

Content of WIPO Standard ST.91

- ❑ General Recommendations
- ❑ Recommendations for 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
- ❑ Recommendations for Electronic Publication and Online Display
- ❑ Recommendations for Partial Claiming, Partial Design, Portion Design
- ❑ ANNEX: Criteria for Selecting 3D Formats

Scope of the Standard

- ❑ General Recommendations
- ❑ Recommendations for 3D Models and 3D Images Formats and File Size
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- ❑ ANNEX: Criteria for Selecting 3D Formats

<https://www.wipo.int/documents/d/standards/docs-en-03-91-01.pdf>

Survey on ST.91 implementation (1/4)

Survey on the implementation of WIPO Standard ST.91

- ❑ Conducted from March to April 2024 and published in October 2024.
- ❑ Responded **22 CWS Members**

Overall impression from answers:

Use 3D models, 3D images or 3D chemical structures of 3D by IPOs remains limited. IP offices need to adopt broader standards, like ST.91, and update their systems to handle 3D data effectively. This will improve IP protection, examination accuracy, and industry collaboration, keeping pace with technological advancements.

Survey on ST.91 implementation (2/4)

- ❑ Among the responses **55 % indicated that they still do not use 3D models**, 3D images or 3D chemical structures; 41% indicated their use; 4% indicated a special use-case in its response.
- ❑ 67 per cent use 3D for industrial designs, 56 per cent use 3D for trademarks, 44 per cent use 3D for patents, 22 per cent use 3D for utility models; and 22 per cent use 3D for other IP rights.
- ❑ It is also important to note that among the respondent Offices, **the majority 64% do not implement WIPO ST.91 while 27% partially implement and 9% fully implement the Standard.**

Survey on ST.91 implementation (3/4)

Formats recommended by WIPO ST.91 which are currently used by IPOs:

IP Right	File format most used (listed in order)
Trademark	OBJ, STL, 3D PDF
Industrial Designs	3D PDF, OBJ, STL, STEP
Patent (including chemical structures)	3D PDF, OBJ, STL, STEP
Utility models	3D PDF

Survey on ST.91 implementation (4/4)

Publication of 3D Models in Intellectual Property (IP)

- ❑ Most of IPOs do not publish 3D information received even if the 3D was accepted.
- ❑ Common Formats for 3D publication:
 - Trademarks: OBJ, STL
 - Industrial Designs, Patents, Utility Models: 3D PDF
- ❑ Paper Publication:
 - Most Offices do not publish 3D models, images, or chemical structures.
 - When published, 2D representations of 3D objects are used, generated from the original 3D models.

Next Steps

- ❑ Promote the use of 3D images and models and the implementation of ST.91 by IPOs.
- ❑ 3D Tasks Force will prepare an annex to the standard, recommending 3D search methods.
- ❑ Collaboration is essential to learn from the best experiences and achieve our excellence together.

Any questions or suggestions?

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