

HANDBOOK ON INDUSTRIAL PROPERTY INFORMATION AND DOCUMENTATION

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SURVEY ON THE USE OF 3D MODELS AND 3D IMAGES IN IP DATA AND DOCUMENTATION

Survey results presented to the Committee on WIPO Standards (CWS) at its eighth session on December 4, 2020

INTRODUCTION

1. At its seventh session in 2019, the Committee on WIPO Standards (CWS) noted the progress of the 3D Task Force, particularly on a planned survey of IP Offices (IPOs). The CWS approved the questionnaire on the use of 3D among IPOs. The CWS requested the Secretariat to issue a circular inviting IPOs to participate in the survey. (See paragraphs 91 and 101 of document CWS/7/29.)

RESULTS OF THE SURVEY

- 2. In November 2019, the Secretariat issued circular C.CWS.129 inviting IPOs to participate in the survey on 3D models. The survey was conducted from November 2019 to March 2020. The Task Force Leader analyzed the responses and prepared the following report for consideration by the CWS. The survey responses are available on the WIPO website at: <a href="https://www.wipo.int/edocs/mdocs/cws/en/cws/8/
- 3. Thirty IPOs took part in this survey: African Regional Intellectual Property Organization (ARIPO), Australia, Azerbaijan, Belgium, Canada, Chile, Costa Rica, Czech Republic, Denmark, Ecuador, European Patent Office (EPO), European Union Intellectual Property Office (EUIPO), France, Germany, Hungary, Ireland, Israel, Italy, Japan, Mexico, Norway, Peru, Republic of Korea, Russian Federation, Sint Maarten (Dutch part), Slovakia, Spain, Switzerland, United Kingdom, and Uruguay.
- 4. Among responding offices:
 - Thirteen respondents (43 per cent) indicated that they have experience with digital 3D objects (ARIPO, Australia, EUIPO, France, Germany, Hungary, Mexico, Norway, Republic of Korea, Sint Maarten, United Kingdom, Uruguay), but they use 3D only for some types of IP rights and at certain stages of their lifecycle.
 - Nine respondents (30 per cent) (ARIPO, EUIPO, Germany, Hungary, Mexico, Norway, Sint Maarten, United Kingdom, Uruguay) use 3D for trademarks.
 - Seven respondents (23) (ARIPO, Australia, EUIPO, Hungary, Mexico, Republic of Korea, Uruguay) use 3D for industrial designs.
 - Four respondents (13 per cent) (Belgium, France, Mexico, Uruguay) use 3D for patents for invention, while Germany indicated that they use 3D for chemical structures.
- 5. Among Offices that use 3D, the majority of offices use it mainly for application filing and storage of trademarks and industrial designs. Few Offices use 3D for examination, publication,

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search, or data exchange. Some Offices expressed interest in using 3D for search and data exchange in the future.

- 6. Among respondents using 3D in their trademark practice:
 - 33 per cent use 3D at the filing stage;
 - 13 per cent use 3D in search and data exchange on trademarks;
 - 23 per cent use 3D in the examination stage; and
 - 27 per cent use 3D for storage and publication.
- 7. Among respondents using 3D in their industrial design practice:
 - 27 per cent use 3D at the filing stage;
 - 7 per cent use 3D in search and data exchange;
 - 17 per cent use 3D for examination and publication; and
 - 20 per cent use 3D for storage.
- 8. Among respondents using 3D in their patent practice:
 - 10 per cent use 3D at the filing stage;
 - 7 per cent use 3D in examination; and
 - 3 per cent use 3D for search, storage and publication.
- 9. A few IPOs reported accepting 3D file formats from applicants. To identify priority formats for the standard, respondents were asked to elaborate on the 3D formats they currently use. At present, 80 per cent of responding IPOs use 2D raster images for visual representation of a 3D object. Of the IPOs that accept digital 3D formats, the most popular formats are STL (13 per cent), OBJ (10 per cent), and X3D (10 per cent). Other formats accepted by at least one office include IGES, 3DS, DWF, DWG, STEP, U3D.
- 10. In addition, IPOs were invited to comment on plans for the future and propose formats for consideration and inclusion in recommendations. Among the respondents who expressed a preference on formats, the majority would prefer to accept STL (13 per cent), OBJ (10 per cent), and X3D (17 per cent). Less than 10 per cent of respondents preferred using other formats, such as U3D, STEP, DWF and DWG.
- 1. Regarding viewers and other tools, IPOs prefer viewing 3D models with an internet browser, possibly with minor modifications such as plugins. However, one of the main criteria for adopting software for 3D models is availability and ease of use. Some IPOs indicated that they will use a CAD (computer-aided design) software solution, which provides the ability to view a three-dimensional object in detail from any perspective.

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