

3D models and 3D images

Response ID:145 Data

1. Country code page

1. Please enter the two-letter country code corresponding to your Office or Organization.

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Please enter your email address so we can contact you if we have questions about your response.

2. Questions page

This survey was approved by the seventh session of the CWS to collect information on practices and expectations of IPOs and users (applicants) for 3D models and 3D images.

Applicant Input

It is hoped that IPOs will consider the views of IP applicants, including industry, when formulating their responses. For this purpose, a Model Questionnaire For Industry On The Design Of Objects For IP Rights Protection Using 3D Models And Images has been prepared. IPOs are encouraged to consider this model questionnaire as a guide for them to collect relevant information on the views of applicants.

MODEL QUESTIONNAIRE FOR INDUSTRY ON THE DESIGN OF OBJECTS FOR IP RIGHTS PROTECTION USING 3D MODELS AND IMAGES

Glossary

3D model – An electronic file that is created by specialized software, for mathematically representing the surface of an object in three dimensions

3D Images – Images that represent objects displayed in three dimensions (length, depth, height), e.g. 3D photos, stereoscopy, etc.

3DS – A file format used by the Autodesk 3ds Max 3D modeling, animation and rendering software

DWF – Design Web Format

DWG – A file format widely used for CAD drawings

IGES – Initial Graphics Exchange Specification

OBJ – An open geometry vertex file format used for CAD and 3D printing

Raster image – An image that is composed of a map of points (pixels), referred to as a bitmap. Typical file formats for raster images include JPEG, TIFF, PNG and BMP

STL – Standard Tessellation Language - a file format native to the stereolithography CAD software created by 3D Systems

STEP – Standard for the Exchange of Product model data –an open ISO Standard which can represent 3D objects in Computer-aided design (CAD) and related information

Vector graphics – An image file that is composed of shapes formed of mathematical formulas and coordinates on a 2D plane. As opposed to raster images, vector graphics have the property of scaling infinitely without any degradation of quality

X3D – Successor of VRML, an Open ISO Standard XML format

Part 1. IP objects and stages of their lifecycle

2. 1.1. Does your office currently use 3D models or 3D images for IP objects within the office? If so, for which IP objects
Industrial designs

3. 1.2. Does your office consider using 3D models or 3D images for IP objects in the future? If so, for which IP objects
Not sure

4. 1.3. On which stages of IP objects' lifecycle does your office currently accept/implement 3D models?

| | Filing of the application | Examination | Storage | Search | Publication | Data exchange | Other (please specify in comments) |
|---|---------------------------|-------------|---------|--------|-------------|---------------|------------------------------------|
| Trademarks | | | | | | | |
| Industrial designs | X | X | X | | X | | |
| Patents in chemistry as a field of technology (e.g. chemical structures, biological structures) | | | | | | | |
| Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry | | | | | | | |
| Integrated circuit topology | | | | | | | |
| | | | | | | | |

Comments:

5. 1.4. Does your Office carry out any image transformations? If so, for which objects and on which stages?

| | Filing of the application | Examination | Storage | Search | Publication | Data exchange | Other (please specify in comments) |
|---|---------------------------|-------------|---------|--------|-------------|---------------|------------------------------------|
| Trademarks | | | | | | | |
| Industrial designs | | | | X | | | X |
| Patents in chemistry as a field of technology (e.g. chemical structures, biological structures) | | | | | | | |
| Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry | | | | | | | |
| Integrated circuit topology | | | | | | | |
| | | | | | | | |

Comments: For searching and priority documents, we use 7 snapshots which are retrieved from the original 3D models.

6. 1.5. On which stages of IP objects' lifecycle does your office consider accepting/implementing 3D models in the future?

| | Filing of the application | Examination | Storage | Search | Publication | Data exchange | Not sure | Other (please specify in comments) |
|---|---------------------------|-------------|---------|--------|-------------|---------------|----------|------------------------------------|
| Trademarks | | | | | | | | |
| Industrial designs | | | | | | | X | |
| Patents in chemistry as a field of technology (e.g. chemical structures, biological structures) | | | | | | | | |
| Patents (e.g. inventions and/or utility models) in other fields of technology except chemistry | | | | | | | | |
| Integrated circuit topology | | | | | | | | |
| | | | | | | | | |

Comments:

Part 2. Existing practices and future plans

7. 2.1. Please describe existing practices/future plans for using 3D models and 3D images within your office

System improvement to reduce errors, Change the method of creating the snapshots and so on

Part 3. Regulations

8. 3.1. What laws and regulations concerning 3D models and 3D images are implemented within your jurisdiction?

Enforcement Rule of the Design Protection Act (Form3 and 4)

Part 4. Formats and technical tools

9. 4.1. Which formats of 3D models or 3D images does your office use at the moment? Does your office use the same or different formats for different stages of lifecycle: filling, examination, publication etc.?

KIPO accepts 3ds, 3dm, igs, dwg and dwf. We use the same formats for all the stages of the lifecycle.

10. 4.2. Which formats of 3D models or 3D images does your office consider using in the future? Does your office consider using the same or different formats for different stages of lifecycle: filling, examination, publication etc.?

N/A

11. 4.3. Please provide us with your suggestions and proposals on formats and reasons why you suppose them to be important (a list of formats to consider) except mentioned in items 6.1, 6.2

From our experience, we think it would be more sufficient to allow submission of one or two standardized formats, to reduce errors.

12. 4.4. Which technical tools does your office currently use to work with 3D models (i.e. viewers, converters, etc.)? Are these standard tools commercially available, or do you consider using any special tool developed for your Office or by your Office?

Cadian viewer and Autocad viewer

13. 4.5. Which technical tools does your office consider using in future work with 3D models (i.e. viewers, converters, etc.)? Are these standard tools commercially available, or do you consider using any special tool developed for your Office or by your Office?

N/A

14. 4.6. Please provide us with your suggestions and proposals on tools and reasons why do you suppose them to be important (a list of tools to consider)

N/A

Part 5. Specific requirements and limitations

15. 5.1. Please provide us with preferable specific file requirements? Should they be the same or different for different objects and stages (i.e. limitations and restrictions for 3D files, size (Mb) and format of 3D model for storing, processing, and sharing, etc.)

Under the Design Protection Act in ROK, it is not provided the limitation of the size of the file.

16. 5.2. In your opinion, what would be the main requirements when choosing 3D file formats (open source, wide spread adoption, etc.)

This could be varied by the user.

17. 5.3. In your opinion, what would be the main requirements when choosing tools for working with 3D files?

This could be varied by the user.

Part 6. Expectations concerning the use of 3D

18. 6.1. Which specific advantages and/or drawbacks do you expect from 3D models and 3D images regarding search, for instance prior art search?

KIPO currently uses snapshots of the 3D models for the prior art search. This means that we need to do additional processes to create thumbnails and several views of the 3D models, which cases time and cost consumption since we make those snapshots by internal staff.

19. 6.2. Do you expect that applicants will comply to provide 3D models which fulfill the defined standards?

Mostly yes, but not always. Sometimes when applicants use the old version of the 3D software and it occurs errors. We experienced 2 cases out of 3,824 in 2018.

Part 7. Other

20. 7.1. Do you have any other comments?

3. Review Page

You have reached the end of the survey questions. Your answers have been saved.

If you or your colleagues wish to revise your answers later, you can use the link emailed to you with the Save and Continue option in the top right of this page. The Review or Back button below will return you to your answers.

When you are ready to submit your final answers, click the Submit button below. You will no longer be able to edit your responses after clicking Submit.

You may download a copy of your answers:

4. Thank You!

Thank you for taking our survey. Your response is very important to us.