

Authenticate your 3D models with the OIQ's digital signature

After transitioning from paper to the screen, the plans of engineers are now undergoing another big change: an increasingly three-dimensional design. As a result, the digital signature associated with them had to change too, which has now been accomplished!

A CODED SIGNATURE THAT CANNOT BE IMITATED

It is common knowledge: To sign and authenticate 2D plans on paper, engineers have to sign by hand and use an ink seal reserved for members of the Ordre des ingénieurs du Québec. Since 2006, they have also had the option of using the OIQ's digital signature created and provided by Notarius.

As for plans in PDF, engineers first put an image of their handwritten signature and their ink seal on the plans, and then apply the digital signature, which seals the document and confirms the origin of the signatory and his or her right

to practice profession. Result: Not only is the original plan in electronic format authenticated and authentic, but any change made to the document can now be detected.

Engineers can also ensure the longevity of a digital plan by using the PDF/A format (A for archive). This format is governed by an ISO standard guaranteeing that any compliant document will be readable several decades from now.

So, up until now, the transition from paper to an electronic format has been made without causing additional risks and has even brought several benefits with it, such as:

- increased productivity – signatures in batches and rapid transmission;
- lower costs and environmental impacts
 - less paper, handling, transportation and storage.



3D MODELS ARE HERE

Already established in England, the United States and Australia, building information modeling (BIM) is more than just a trend in the construction industry: It is an irreversible development of the associated technology and processes used to design, carry out, manage and communicate building models.

BIM has repercussions for all individuals involved in the life cycle of a structure - design, execution and management. It revolutionizes practices and encourages extensive collaboration. However, authentication, intellectual property and longevity are huge challenges when it comes to 3D models.

Good news: Since December 2015, OIQ members have been able to use a digital signature that, combined with the powerful PDF/A-3 format, can overcome them. Governed by ISO standard 19005-3, files of any other format (DWG, PGN, XLS, REV, etc.) can be included in the PDF/A-3 format, which acts something like a portfolio or a ZIP file. That way, when a PDF/A-3 document is digitally signed using the OIQ's signature, the included files are part of the signature. In other words, their integrity and origin are guaranteed just like a 2D plan.

To authenticate 3D models, engineers will search for the digital signature of the OIQ, and particularly version 3.7 of ConsignO, which is provided by the OIQ's supplier, Notarius.

For more information, go to Notarius' site at www.notarius.com and read the chapter on engineering documents in the professional practice guide at www.gpp.oiq.qc.ca ("Lignes directrices concernant les documents d'ingénierie" and "Signature numérique" sections).

DID YOU KNOW ?

The OIQ offers training on mastering the rules of engineering document guidelines.

Sessions will be scheduled this fall. To find out more about it, go to lignesdirectrices.oiq.qc.ca.