Q&A

Learn all about Interoperability, openBIM®, IFC, and more.

What is openBIM®?

openBIM® is a universal approach to collaborative design, realization and operation & maintenance of buildings based on open standards and workflows that allow different stakeholders of a project to share their data, with any BIM compatible software. This collaborative approach, defined by buildingSMART International, aims to improve the quality of buildings and infrastructures, especially by dramatically reducing the risks of errors during phases of re-work or multidisciplinary coordination, while providing interesting opportunities for public and private owners to compare project bids. Software interoperability is made possible by the implementation of the ISO-IFC standard exchanges, currently the global reference.

Who is responsible for determining the standards that apply to the openBIM®? What is the role of buildingSMART International?

buildingSMART is the worldwide organization driving the transformation of the built asset economy through creation & adoption of open, international standards. buildingSMART develops and maintains industry standards such as IFC created in 1996 (COBie or BCF also allow these exchanges). IFC is standardized by the International Standards Organization (ISO). These rules establishing a common standard allows software vendors including Autodesk, to benefit from common language to export and import data.

buildingSMART International actively participates in IFC development. The organization has launched various working groups around the world to define the needs of BIM users. bSI is also active in standardization committees that define new standards. These steps lead to the improvement of object libraries or the opening of IFC to new disciplines.

What is the difference between openBIM® and the Open BIM™ program?

The openBIM® is an universal approach supported by buildingSMART International. It defines interoperability rules of BIM software, including Autodesk solutions. The Open BIM™ is a commercial program of a group of software vendors.

Is Autodesk part of buildingSMART International? Since when Autodesk is supporting openBIM®?

Autodesk is an active member of buildingSMART International, and this from the beginning. Back in 1995, Autodesk organized a private alliance of twelve companies to prove the benefits of interoperability — full information exchange — between the many software programs being used in the building industry. After a year of efforts, the International Alliance for Interoperability (IAI) was
established in 1996 - in 2008, it was renamed into buildingSMART. Autodesk is also part of the Strategic Advisory Council of buildingSMART International.

Since its creation in 1982, interoperability is part of Autodesk DNA. The company is committed to the buildingSMART openBIM® and supports different open collaboration initiatives. Today, 14 solutions support IFC data exchange to enable open collaboration on several MVD (Model View Definition) including Architecture, Structure and MEP.

**I have heard about IFC format? What does it really do?**

IFC format, like other industry standards, enables data exchange between different BIM software. The development of IFC standard increases the scope of the openBIM® approach to new disciplines, to expand project collaboration.

**Which Autodesk solutions are compatible with the IFC?**

Autodesk BIM and CAD solutions are IFC certified. Thus, they allow the import and export of data with professionals using other software also compatible. Autodesk has also integrated the IFC standard in solutions for building product manufacturers and industrials like Autodesk Inventor and in our collaborative platform like A360 and BIM 360.

**Can we say that all BIM tools are "openBIM®"?**

Not all BIM tools, but Autodesk BIM Solutions are. This is the choice of the software vendor to allow interoperability of its software and have them follow the certification process of buildingSMART International.

**Is there an « openBIM® » certification?**

The "openBIM®" certification does not exist under this name, but IFC certification exists, the exchange standard which enables an openBIM process. There is a certification process for the software vendors that is also a reference for the users. buildingSMART manages the software certifications and the information on its website (link here).

**I would like to work with a partner company which does not use Autodesk software. Will the data be exchanged anyway? Will I be able to send information / data? Will we need to re-work on the project to enter some information? Are there any data loss risk during the import-export phases of a software to another?**

The ISO-IFC data exchange format, implemented in Autodesk software is also used by other programs that supports openBIM®. If your partner also uses software that has implemented IFC, you will be able
to share BIM data and add various properties without any re-work. For you, as for your business partner, the time savings on each project will be significant. The risk of error information or losses will be reduced. With the right methodology and coordination, it prevents from having risks of data loss during import and export sessions.

**Does openBIM® mean open source?**

The openBIM® is a BIM collaborative approach on the same project. In order to use this process, there is no need to enter any computer coding in the BIM software. Nevertheless, and in order to constantly provide its users with new performance and innovative features, Autodesk gives free access to data from its software. To meet the demands of the community, there have been 40 versions of the IFC import/export tool for Revit in the last 4 years.