A general article on the BlenderBim Addon, covering: mission, features, tools & updates

Post to Mastodon & BlenderNation.

“Look at this cool BIM stuff happening with Blender”

For those in the know, you might have realised that BIM (Building Information Modelling) has sneakily made its way to Blender, while most of us weren’t looking. What do you know? It’s not only based on the open international standard (IFC) by letting Blender edit ifc files directly but it’s also turning Blender into a more competent BIM tool than most proprietary software.

That sneaky little addon is called BlenderBim and it’s slowly becoming the most effective BIM tool in the industry. The reason it’s able to bring BIM to Blender is because it’s built on top of an engine called IfcOpenshell, which is able to directly read and edit the Ifc schema. BlenderBim takes that and uses Blender as the user interface and its hoard of modelling tools and gives us the start of a full set comprehensive Architecture Engineering, Construction and Operations (AECO) BIM tools. Its mission is simple- like Blender itself, it’s attempting to democratise our industries by providing an interoperable tool for data exchange and modelling, and that’s just the beginning- just wait till you realise what it is capable of!

It’s features run from the brilliant base of the broadly interoperable native ifc editing, which does away with the idea of importing and exporting ifc files- it lets you edit them directly and change only that part of the model that you edit. The result of this is not only a widely accessible model but one that is sometimes up to 500x smaller than its proprietary contemporaries. Your ifc file is basically a text file and for a typical architectural model which would be 5gbs in a proprietary software could be as small as 10mb with all the same information.

Because it’s essentially a text file some smart Alec named Bruno Postle decided “why couldn’t we share and update Ifc files over Git?” and he just did it by adding the feature to share and distribute models to Git platforms like Github. It’s called IfcGit, and it allows you not only to track and update and version your model with branches and commits but it also lets you pull and push geometry that has been edited by a full team across the globe. The dream of BIM coordination is finally here and it wasn’t Autodesk that cracked it.

And of course that is just the beginning. BlenderBim’s drawing generation tools essentially let you take any Ifc model, and immediately start creating a set of drawings. Is your model from Sketchup? Archicad? Revit? It no longer matters- you can import the ifc and start using it as a native file format, and if you can’t get an ifc file out of other software, you can just import the geometry and classify the model yourself, the power is immense.

 BlenderBim doesn’t stop there. Its features range from a comprehensive set of Costing & Scheduling tools allowing you at last to take that Quantity data and do something with it, to a full set of parametric modelling tools. With BlenderBim you can Audit & Analyse your modelling checking to see if geometry is clashing, you can create and document MEP systems and BlenderBim is creating a set of built-in tools to accommodate that. The Ifc model allows for complete Structural analysis of any model, and to top it off, you can create a set of post construction documents and models straight from the Ifc file for any Facility management needs.

As you might know it’s a pre alpha software (with this feature list, exactly) and it gets updated daily. There are stable releases every two months, like any open source software its rate of change is the driving factor, it’s currently being used professionally in the industry by at least a dozen experimental Architects Engineers and other professionals.

The main developers for BlenderBim are two people: Thomas Krijen (covering IfcOpenshell) and Dion Moult (BlenderBim). However at this point, there is a slowly growing army of contributors, the developers are always looking for contributors and bug testers and donations so if any of this sounds good to you why not check it out, it might just change your life.