

Estimating: The Missing Link in the BIM Evolution - Connection Design to Execution

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Learning Objectives

- Learn how to effectively live link 2D, 3D to estimating (5D) in preconstruction for better results in delivery.
- Learn how to visually explore the 3D together with 5D models for better project understanding and stakeholder collaboration.
- Learn how to use valuable 5D data from preconstruction estimating into cost management, planning, purchasing, quality control, and more.
- Learn how to prepare and implement 5D BIM without disrupting the organization.

Description

As the benefits of 5D BIM-enabled construction become widely recognized, industry is rapidly evolving to reap the rewards and meet the demands for faster project delivery while minimizing cost and increasing productivity and quality. However, immature workflows and lack of supporting tools can make it tricky for even the most progressive construction managers and subcontractors to truly take advantage.

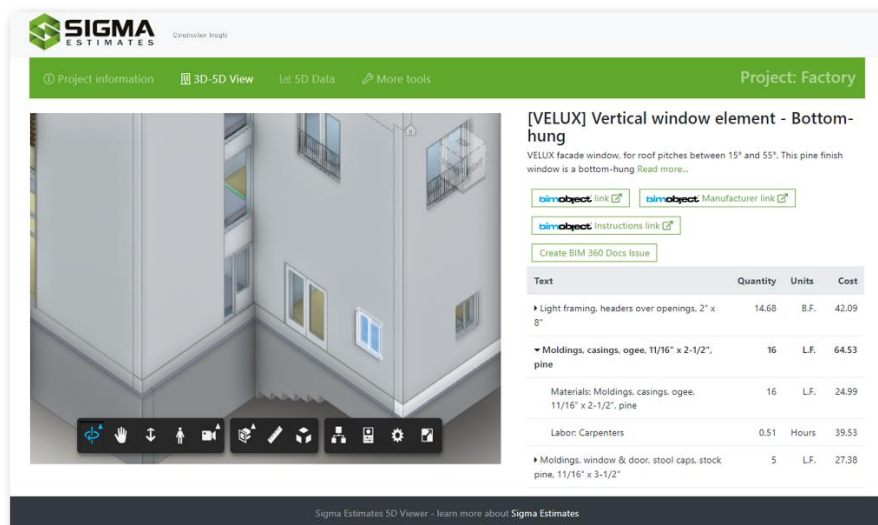
The close coupling of design and estimating in precon is crucial for achieving more effective project insight and overview, thus allowing for better managed projects. At the same time, data must in turn be transferred to the field to avoid rework and loss of data, critical for effective bidding, execution and project delivery. The keystone for connecting workflows is not only design and cost, but also ensuring effective crossover to support production lays within estimating.



Sigma for 5D BIM / Estimating

As an Estimator or Preconstruction Manager, Sigma Estimates' 5D estimating software allows you to connect design, estimating and construction, to minimize risk of errors, oversights and tedious manual entry as well as enable efficient collaboration across teams and stages - ultimately ensuring better profits.

When we set up effective, integrated estimating we get much more than simply estimating cost of a project. We establish transparency and provide thorough understanding of how the project is to be built, resulting in a clear recognition of the activities, resources and workflows that lay the foundation for construction.



Advantages of a connected 5D BIM oriented estimating solution

Not only can accurate estimates be the difference in winning or losing work – they are also the difference between being profitable or not, and they can help inform the construction process with unprecedented levels of information to help increase collaboration to prevent loss and rework.

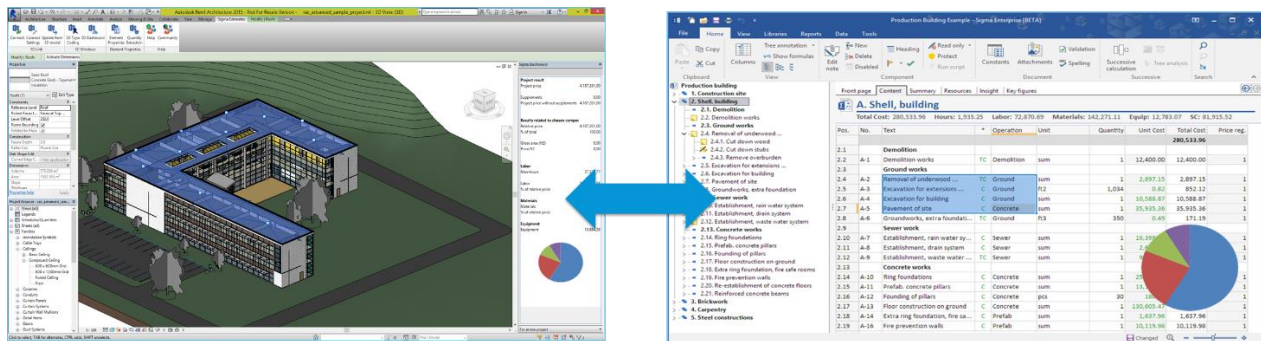
Sigma was built to be a 5D BIM and estimating platform. This platform gives users an extremely advanced yet user friendly and intuitive solution and enables estimators to work more efficiently and help the overall performance of construction projects by acting as the link between design and construction. Unlike alternative solutions, Sigma is 100 percent adoptable and has an open API, hereby minimizing errors and time when providing benefits like:

- Create full project transparency to understand and simulate in finding an optimal solution and accuracy in cost and planning
- Connect design to estimating to utilize data with 2D and 3D design and precisely quantify modeled materials
- Better visual representation of project and construction elements that must be estimated

- Create and deliver critical data for planning and field execution – 5D data
- Build up and share cost and assemble knowledge from historical projects
- Extend functionality and connect to related relevant workflows and processes with the Open API
- Generate more cost estimates at a faster rate
- Saves estimator's time by reducing quantity take-off time
- Allows estimators to focus on more value adding activities in estimating such as: identifying construction assemblies, generating pricing and factoring risks, which are essential for high quality estimates
- Quickly determine costs of specific objects
- Easier to train new estimators through this highly visual process

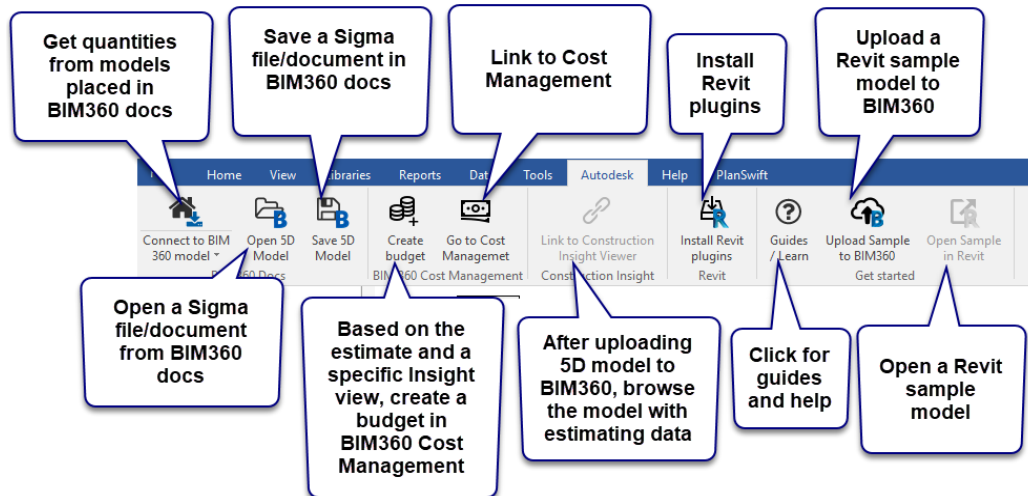
How to effectively live link 2D, 3D, and estimating (5D) in preconstruction for better results in delivery

3D Models provide estimating elements such as walls, doors, roof, and so forth and will provide quantities and logical structures. With Sigma Estimates you have Live Link integrations with Autodesk BIM360 and REVIT which makes it very easy to re-use model data. The seamless integrations allow the estimators and planners to evaluate the impacts of design changes and stay on budget and plan. It also reduces the iteration needs and bidding becomes more accurate.



Create your 5D model from 3D in Revit or BIM 360

Once you have downloaded Sigma Estimates' free Autodesk Integrations package you will have Live Links to both BIM 360 and REVIT. If you are a BIM360 user, you will connect to your project in there, and if not, you can still use the REVIT integration to link to a REVIT model (also works with the Free REVIT viewer) for design QTO to cost estimating.



Implementation 5D BIM without disrupting the organization

Like the fundamentals of BIM, Sigma is an object based estimating solution and works seamlessly through all stages of the project lifecycle to deliver superior estimating with ability to build templates and cost libraries, data validation, sort and reorg insight functionality, integrations and reuse of information. The flexible hierarchical structure of unit components in Sigma combined with the ability to link to 3D models as well as 2D, scheduling, financial and across into filed management makes it adaptable for all types of construction projects and all estimating teams.

Everything we speak about in the presentation and everything you will see in the demo is accessible and attainable today – regardless of your level of current adaptation. To make it easy for you to get started, we offer a free trial, *complete with the Autodesk Integrations including the model, templates and cost libraries* you have seen us use. This will allow you to easily imitate what you have seen to experience for yourself how the solution will help you take advantage of BIM for Cost estimating. Once you are ready to move forward with adapting your own templates and importing our own cost etc, we will be there to support you all the way. **Please visit our site though the link below to get your download today;**

<https://sigmaestimates.com/products/integrations-and-apps/bim-5d-vdc/>

Speaker

With a Master's in software and engineering, Magnus Therkildsen has been working with BIM and construction technologies for more than 15 years. He continues to learn and inspire by pushing the limits of what is possible. Magnus is the Co-founder and CTO of Sigma Estimates, a company that works extensively with BIM and 5D estimating and has led Sigma to become the leading estimating platform in northern Europe.

Magnus is a keen advocate of open integration standards in software development and one of the original members of the Construction Open Standards Alliance. He is sought after for inspirational presentations for audiences that need motivation for digital disruption and construction technologies