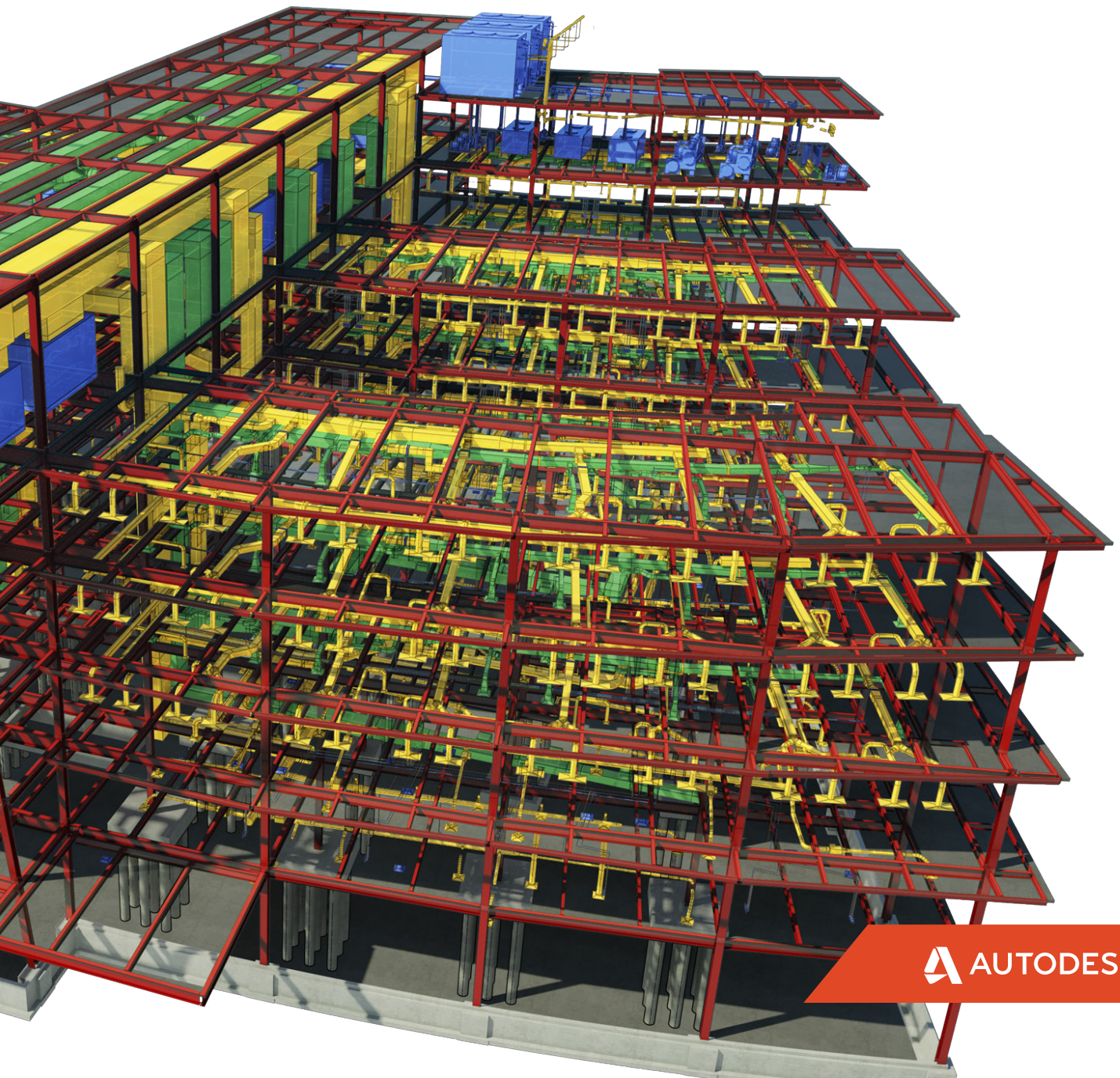


Technology to help mechanical contractors build better business

From initial estimate to building handover, Autodesk software is developed to help contractors like you reduce risk in many areas of your projects.



It is no secret that you carry an almost disproportionate amount risk on any building project.

The processes you put in place, the talent you employ, and the technologies you use help you reduce your project risk and maximize your margin. Autodesk has developed technology solutions to help mechanical contractors be the best they can be. *How can we help you?*



Estimating

Many companies run their estimating as a disconnected process from the rest of their business and the process can seem overly labor intensive. Additionally, for most contractors, project changes are difficult to track against the original estimate, leaving execution open to guesswork. That's where Autodesk Fabrication ESTmep comes in.

With Fabrication ESTmep and the Fabrication portfolio, you get a software solution that shares the same database as your detailing and manufacturing software, helping you streamline processes. Now you can create more accurate bids directly from the design-intent model and then take that estimate straight into detailing. You can even base estimates on past experience, drawing on commonly used attributes such as assemblies, specifications, and labor rates, to speed up the estimating process. If changes occur during the detailing or coordination process, quickly pass them back to Fabrication ESTmep for a variation summary so you can help inform the client of the cost implications with minimal effort.

"Integrating estimating had its challenges, like introducing any new technology, but the end result is better than we had hoped. We now have real-time understanding of project costs. When changes are made we can give an almost instant recommendation to our client, helping us to stay leaders in our market."

—Guy Trapeni, Director of Estimating Services, Limbach



Detailing & Field-Readiness

There can be a lot of pain when it comes to detailing. Some companies find that they must completely redraw their design model. Others experience the pain of having to redraw at the end of the project in order to meet handoff expectations. And then there's the

general issue of poor spatial awareness and inefficient processes when modeling without real-world content. These problems can be more effectively addressed when you use Autodesk® Revit® and Autodesk® Fabrication CADmep™ software.

Revit and Fabrication CADmep benefit from deep integration that speed up the process between design and installation. Use the same service setup and content database in both Revit and Fabrication CADmep to help eliminate the need to redraw. Then open your 3D model directly in Fabrication CADmep for fabrication and field readiness—such as spooling, shop drawing creation, and field layout preparation.

Autodesk® Point Layout construction layout software provides comprehensive technology for field layout within Fabrication CADmep. Add data points to almost any component and easily import control points so your layout is aligned to the general contractor's data.

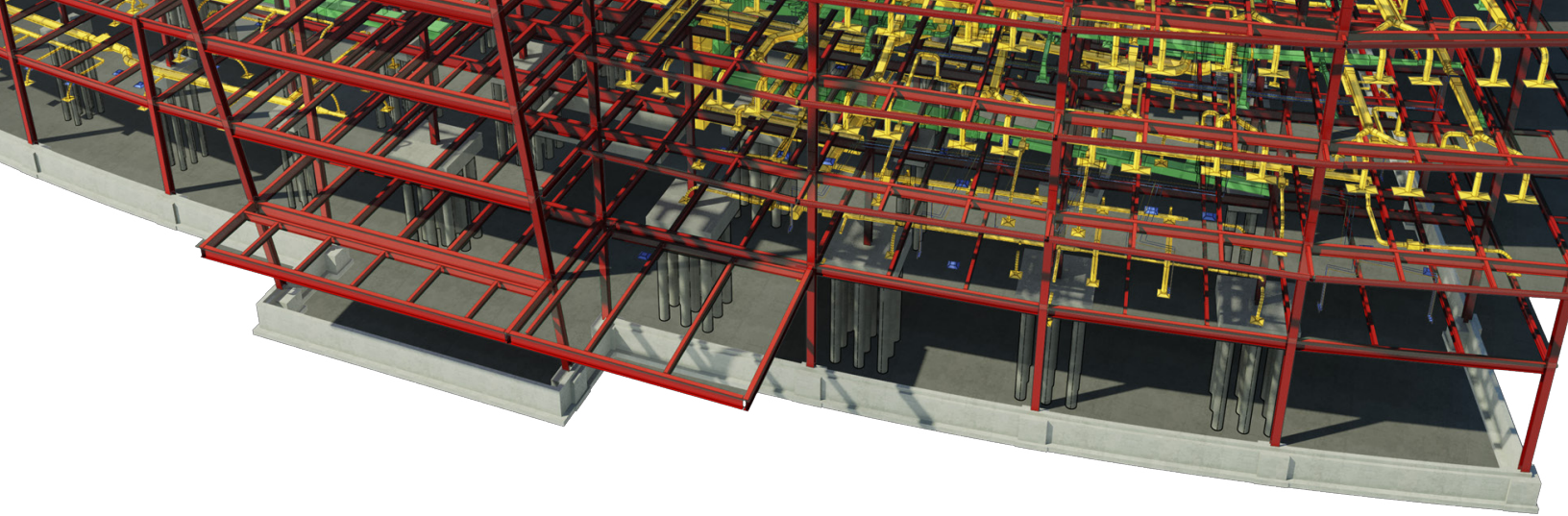
Once you've finished at the jobsite, use Fabrication CADmep to finalize your as-built model and then import directly into Revit for handoff to your client.



Collaboration & Coordination

Your coordination process is probably one of your most important activities. By finding issues in the virtual model, you reduce your risk of rework in the field. Catching clashes in your own work and against other trades early means a more accurate virtual model, leaner fabrication, and smoother field execution. Autodesk has technology that can improve your coordination process and shorten your coordination meetings.

Autodesk BIM 360 Glue is cloud-based collaboration software built for multidisciplinary coordination. BIM 360 Glue enables a parallel coordination process between all stakeholders with one cloud-based model. BIM 360 Glue can help remove the need to send files back-and-forth and



the worry of whether you're working on the latest version of the model at any moment in time.

Autodesk Navisworks Manage can be used for advanced clash detection and can help get you to the final, clash-free model. Use Navisworks Manage to perform clash detection using clearances and tolerances required for installation for multiple disciplines and to perform 4D scheduling tasks that help you plan your work in the field.

"Many clients now ask for co-location for project collaboration and we wanted to find a solution to simulate the "Big Room" environment virtually. BIM 360 Glue meets this requirement for us. It brings all parties together in one common, user-friendly environment in the cloud without the need for file conversions. It maximizes the efficiency of working from your own office while maintaining direct contact with all other team members."

Doug Smith, Virtual Design Manager, Dynamic Systems Inc.



Fabrication

You spend a lot of money on material and labor for fabrication. Being able to predict those costs and efficiently plan your workforce activities can help save time and resources and enable you to reinvest them elsewhere in your company. As the Autodesk Fabrication products use a single database of services and content, you benefit from streamlined fabrication workflows—meaning more time for other activities.

Using Fabrication CADmep as your detailing tool, you can better plan for fabrication. PIPework and HVAC systems can be spooled faster to produce more

accurate shop drawings for your fabrication facility. With Autodesk® Fabrication CAMduct™ software, you can download sheet metal components from your Fabrication CADmep model and automatically send them to your burning table or decoiler for manufacturing.

"Integrating 3D modeling technology with costing and fabrication processes has saved us time and labor since the day we invested, and has allowed us to reinvest that time on multiple levels. This has been a component in the volume of work we can execute effectively and allows us to stay cutting edge on the next wave of innovation, such as modular construction."

David Pikey, Director of Technology, The Hill Group

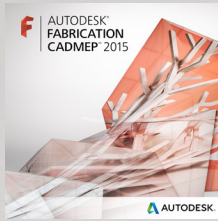


Field Execution

This is what you've worked toward—getting into the field and installing the components that you've spent months modeling, coordinating, and fabricating. It's also the place where technology sometimes goes out the window and manual, error-prone practices come back into play. Do you know about Autodesk® BIM 360™ Field software?

Autodesk BIM 360 Field is web- and iPad®-based field management software that helps you more effectively manage your work from fabrication to completion. With BIM 360 Field you can manage your field labor with task lists, provide access to spool sheets and documentation, manage checklists, and gather data for quality assurance and commissioning. With the right level of integration, you can even bar code and track components from fabrication to installation and provide status updates to the wider team.

Ask your reseller about Autodesk products built for mechanical contractors or visit the websites below for more information:



Autodesk® Fabrication

- Fabrication CADmep™
- Fabrication ESTmep™
- Fabrication CAMduct™

<http://autode.sk/cadmep>



Autodesk® Point Layout

<http://autode.sk/pointlayout>



Autodesk® Building Design Suite Premium

(includes access to):

- AutoCAD®
- Revit®
- Navisworks® Manage

<http://autode.sk/BDS>



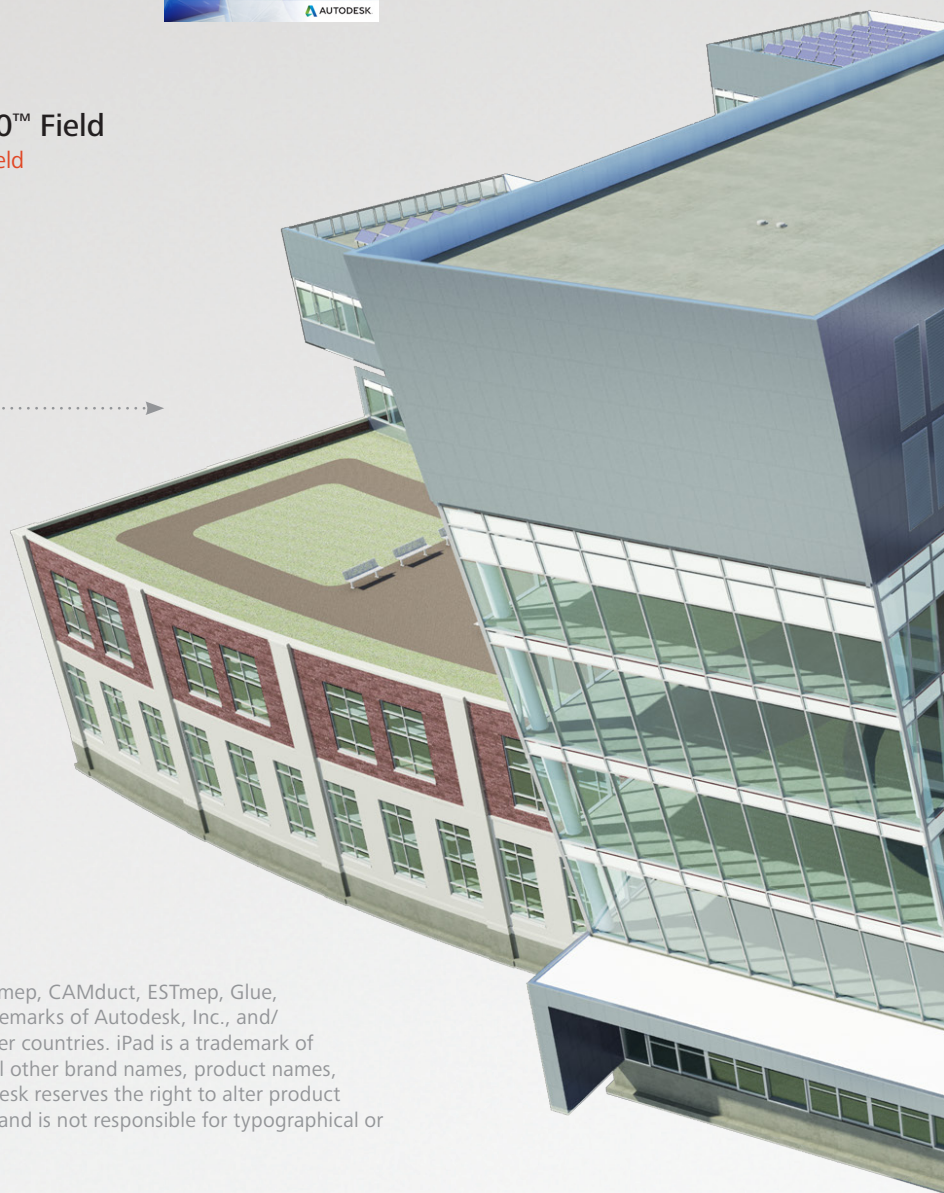
Autodesk® BIM 360™ Glue

<http://autode.sk/bim360glue>



Autodesk® BIM 360™ Field

<http://autode.sk/bim360field>



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