Advance Steel for BIM: Seamless Workflow from Design to Fabrication

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Ready for the Party Tonight?
My Introduction

- Qualified Mechanical Engineer with around 20 Years in the industry
- Autodesk Expert Elite, Autodesk BIM 360 Certified Consultant
- Awarded the “Best Autodesk University Speaker” two years in a row at AU2018 and AU2017 in Las Vegas
- Voted the “Best Speaker” at the Bluebeam XCON 2019 in Washington DC
- Among the Top Speakers at various BILT conferences in Asia and ANZ
- Author of the Up and Running with Autodesk Navisworks, Autodesk Navisworks for BIM/VDC Managers and Up and Running with Autodesk Advance Steel series of books
- Guest lecturer at the University of Technology Sydney (UTS) and University of New South Wales (UNSW)
- Love riding my motorbike
Your Renewal Makes the Planet Smile

Cadgroup plants one tree for every seat renewed with us
My Aim: Have Lots of Fun as we Learn
(Lots of goodies to give away)
Thanks to My Sponsors

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BIMTRACK®

RTVTOOLS

DRAFTECH DEVELOPMENTS
SMART BUILDING SMART MONEY
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AEC industry is entering the era of connection

Project delivery methods are becoming more collaborative

Teams are becoming more distributed across locations

Acceleration of BIM adoption
Effective Collaboration is the #1 Industry Demand

As BIM centres on collaboration, successful teams need to be equipped to deal with it. With greater project requirements, it’s become even more important to maximize efficiency by collaborating effectively.
Current Workflow for Steel Design, Detailing, and Installation

**Design**
- Revit Structure

**Detailing and Fabrication**
- Tekla / Pro Steel
- Data Loss/Hard to Compare
- IFC Export
- No Intelligent Sync

**Construction**
- Navisworks / Glue / Field / Point Layout for Total Station Export
- CIS/2 / IFC Export
- No Intelligent Sync
So what’s the Solution???
The Solution is... Connected BIM

- A workflow in which we have a single unified model from design to documentation to installation and erection
- Help reduce project complexity
- Interoperability will avoid errors and redundancies
- Result in improved productivity
- Better project coordination
Preferred Workflow for Steel Design, Detailing and Installation

Design
- Revit Structure

Detailing and Fabrication
- Tekla / Pro Steel

Construction
- Navisworks / Glue / Point
  Layout for Total Station Export

Interoperability
Preferred Workflow for Steel Design, Detailing and Installation

Design
Revit Structure

Detailing and Fabrication
Autodesk Advance Steel

Construction
Navisworks / Glue / Point Layout for Total Station Export

Interoperability
Preferred Workflow for Steel Design, Detailing and Installation

- **Design**: Revit Structure
- **Detailing and Fabrication**: Autodesk Advance Steel
- **Construction**: Navisworks / Glue / Point Layout for Total Station Export
**Autodesk Advance Steel**

Advance Steel is a software specifically designed for structural engineers and steel detailers who need an easy-to-use steel detailing application.

- Allows Bi-directional data interoperability with Autodesk Revit
- Automates the creation of complex structural models and connections that would be too tedious to manually model
- Increases productivity during the creation of construction detailing and documentation drawings, bills of material (BOMs), NC files, and reports
Structural Steel Enhancements in Revit 2020
Steel Plugin for Autodesk Revit Delivered Out of Box in 2020
Structural Steel Connections for Autodesk Revit 2020

[Image of a screenshot from Autodesk Revit showing the structural connection settings interface.]
Structural Steel Connections for Autodesk Revit 2020
Creating Steel Connections inside Autodesk Revit Model (for Jobs with Elements that are LOD 400 or above)

- Structural Engineer working on jobs requiring LOD 400 or above elements need to deliver fabrication level structural model.
- Especially, the projects in high seismic regions.
Creating Steel Connections inside Autodesk Revit Model (for Jobs with Elements that are LOD 400 or above)

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- Especially, the projects in high seismic regions.
- Historically, the structural detailers working under the fabricators are capable of working on the fabrication level model.
- There has been a shift in this industry and now certain structural engineers are starting to deliver models with LOD 400 elements.
- Autodesk Revit allows you to create steel connections inside Revit. Alternatively, you can import the structural connections from Advance Steel straight into Autodesk Revit.
Live Demo

Inserting Structural Connections in Revit
Leveraging Autodesk Revit Model (BIM Data) for Steel Detailing Using Autodesk Advance Steel Add-in for Revit
Advance Steel Add-In for Autodesk Revit

One of your Autodesk Subscription Benefits
Live Demo
Leveraging Autodesk Revit Model (BIM Data) for Steel Detailing
Questions??