Advance Steel for BIM: Seamless Workflow from Design to Fabrication

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My Introduction

- Qualified Mechanical Engineer
- More than 19 Years of experience in the industry
- Autodesk Expert Elite
- Best Speaker at Autodesk University 2017 and Top Rated Speaker for last 5 years in a row
- Among the Top Rated speakers at BILT conferences in ANZ and Asia
- Author of the Up and Running with Autodesk Advance Steel and Up and Running with Autodesk Navisworks series of books
- Guest lecturer at the University of Technology Sydney (UTS) and University of New South Wales (UNSW)
My Aim: Have Lots of Fun as we Learn
(Lots of goodies to give away)
Acknowledgements

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Huge Announcement about AS and AEC Collection
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
- IFC Export
- No Intelligent Sync

**Detailing and Fabrication**
- Tekla / Pro Steel
- CIS/2 / IFC Export
- No Intelligent Sync

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

Data Loss/Hard to Compare
So what’s the Solution???
The Solution is... Connected BIM

- A workflow in which we have a single unified model from design to documentation
- Project complexity will reduce
- 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

Sync

Construction

Navisworks / Glue / Point Layout for Total Station Export

Sync

Sync
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 2019
Steel Plugin for Autodesk Revit Delivered Out of Box in 2019
Structural Steel Connections for Autodesk Revit 2019
Structural Steel Connections for Autodesk Revit 2019
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.
- 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 the LOD 400 model.
- Autodesk Revit 2019 allows you to create steel connections inside Revit. Alternatively, you can import the structural connections from Advance Steel straight into Autodesk 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
Now the goodies...
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