Advance Steel for BIM: Seamless Workflow from Design to Fabrication

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My Introduction

- Qualified Mechanical Engineer
- More than 18 Years of experience in the industry
- Autodesk Expert Elite
- Guest lecturer at the University of Technology Sydney (UTS) and University of New South Wales (UNSW)
- Top rated speaker at Autodesk University in Las Vegas for last 4 years in a row
- Among the Top 3 speakers at BILT ANZ and Top 6 speakers at BILT Asia
- Author of the *Up and Running with Autodesk Advance Steel* and *Up and Running with Autodesk Navisworks* series of books
My Aim: Have Lots of Fun as we Learn

(Lots of goodies to give away)
(Thanks to my sponsors)
Kangaroos in Australia
No we don’t have Kangaroos roaming the streets of our Cities

We do not have Kangaroos as Pets

And we definitely DO NOT ride the Kangaroos
Please stay away from Kangaroos in the bush
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 Trends

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
- IFC Export
- No Intelligent Sync

**Construction**
- Navisworks / Glue / Field / Point Layout for Total Station Export
- CIS/2 / IFC Export
- No Intelligent Sync

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

- 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

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Sync

![Image of Revit Structure]

![Image of Autodesk Advance Steel]

![Image of Construction Site]
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
Leveraging Autodesk Revit Model (BIM Data) for Steel Detailing Using Autodesk Advance Steel Add-in for Revit
Advance Steel Plugin for Autodesk Revit

Free for Subs Customers

**Advance Steel 2018 Extension**

*Autodesk, Inc.*

![Star Rating](Image)

**OS:** Win64

**Language:** English

**Description:**

With Advance Steel 2018 Extension, Autodesk® Revit® 2018 users can quickly connect their models to Advance Steel 2018 using the export, import and synchronize functionalities to transfer the BIM data in LOD350 for Structural Steel. This interoperability helps users to produce general arrangement drawings, fabrication drawings, BOMs, and NC files for steel structures more rapidly. Users can update the modifications without the need to reimport the entire structure using BIM data synchronization between applications. Synchronization also reduces the risk of potential errors by offering the possibility to track changes made on the same model in different applications.

Using Advance Steel 2018 Extension, the BIM data from the Revit model can be imported or exported also in other formats such as SDNF (Version 2.0 and Version 3.0), CIS2 Fabrication and PSS.

**Online Help:** [http://help.autodesk.com/view/Revit/ENU/?guid=GUID-C86164A0-C1B3-4F09-8C38-84C0B4A860FF](http://help.autodesk.com/view/Revit/ENU/?guid=GUID-C86164A0-C1B3-4F09-8C38-84C0B4A860FF)
Live Demo
Leveraging Autodesk Revit Model (BIM Data) for Steel Detailing
Creating Steel Connections inside Autodesk Revit Model (*for LOD 400 or above Jobs*)

- Structural Engineer working on LOD 400 or above jobs need to deliver fabrication level structural model.

- Especially, the projects in high seismic regions require the structural engineer of record to be involved in the connection designs and to give guidance to the fabricator.

- Generally, 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 2018 allows you to create steel connections inside Revit. Alternatively, you can import the structural connections from Advance Steel straight into Autodesk Revit.
Steel Connection Add-In for Autodesk Revit

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Steel Connection Add-In for Autodesk Revit
Live Demo
Now the goodies...