Advance Steel for BIM: *Seamless Workflow from Design to Fabrication*

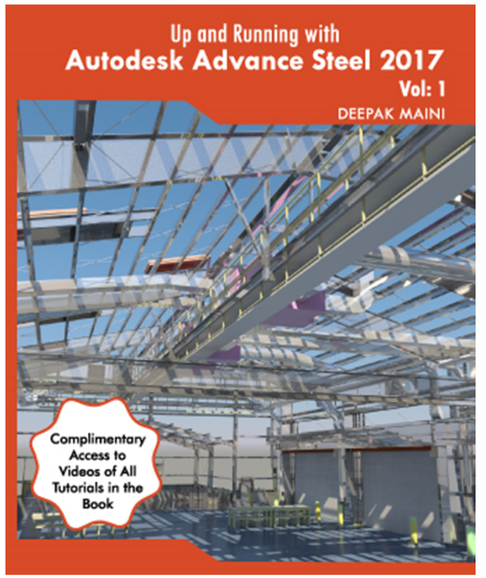
Deepak Maini

National Technical Manager – Named Accounts

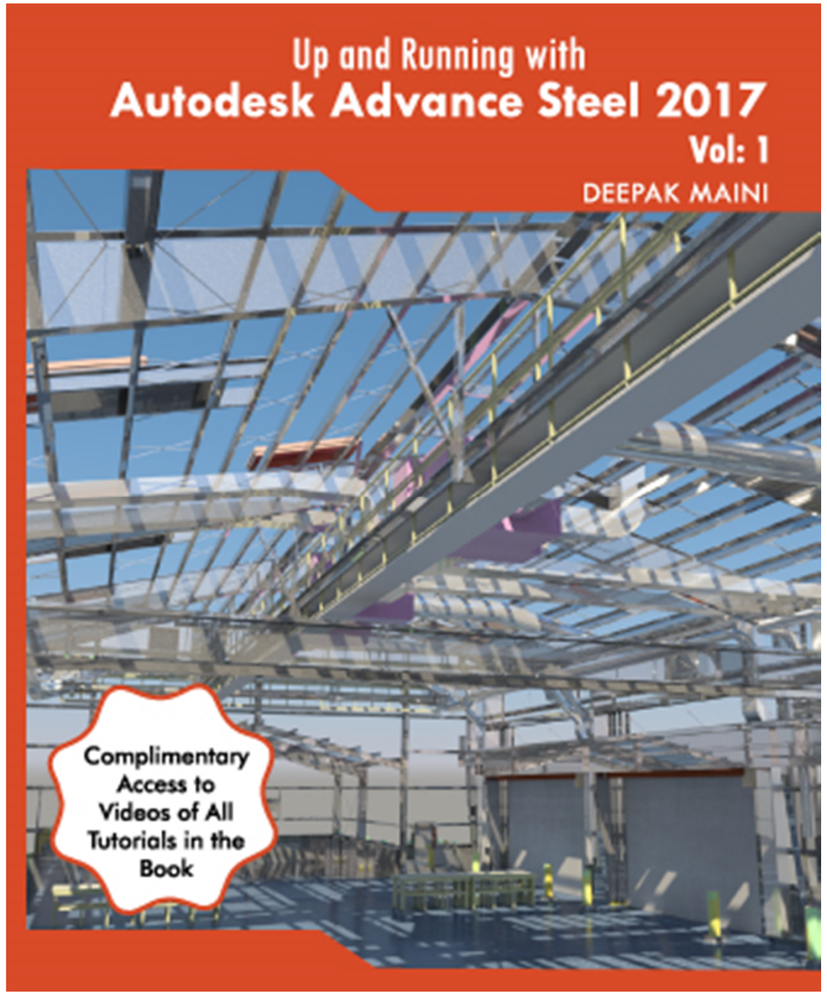
Cadgroup Australia

My Introduction

- Qualified Mechanical Engineer
- More than 18 Years of Experience on various CAD Software
- Regular Speaker at Autodesk University in Las Vegas
- Guest Lecturer at the University of New South Wales (UNSW) and University of Technology Sydney (UTS)
- Author of the “Up and Running with Autodesk Advance Steel” series of books
- Author of the “Up and Running with Autodesk Navisworks” series of books



Give Away 2 Copies of the Advance Steel Book



A lot more Goodies…

pluralsight

My Aim: Lets Keep it Simple and Have Fun as we Learn

- Class is Being Recorded. You and your colleagues will be able to view it around Mid-December as “Class on Demand” from AU Website
- Happy to Receive Emails from Attendees Anytime about Any Technical Question
- Mobile Phones on Silent Mode Please. Thanks

Class summary

To maintain a competitive advantage, more and more structural engineers are trying to find a way to capitalize on their Building Information Modeling (BIM) data for steel detailing and fabrication. This class will focus on showing how Advance Steel software is proving to be the missing link that enables structural engineers to capitalize on their Revit Structure models for steel detailing and fabrication.

Key learning objectives

At the end of this class, you will be able to:

- Export Revit Structure model and import into Advance Steel
- Create automated steel connections between the members imported from Revit
- Generate automated fabrication drawings and NC files
- Use Sync to review and import any Revit changes into Advance Steel or validate an Advance Steel model in Revit

Industry Trends

- ## Delivering on BIM Mandates

  AEC industry's technological change has seen exponential growth in BIM uptake. So the question is no longer "What is BIM?" The new question is "How can I leverage BIM on my projects?"

- ## Maintaining a Competitive Advantage

  With the project leads now demanding that entire teams leverage BIM solutions, contractors need to find new ways to differentiate themselves from their competition and provide the best service and value to their clients.

- ## Keeping Lean

  With the tough economic and competitive environment and these new working practices to tackle, the challenge to effectively advance lean production and processes to increase profitability is difficult to address.

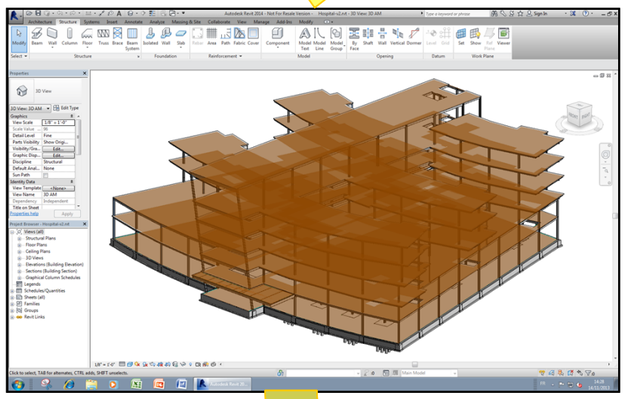
- ## Collaborating Effectively

  As BIM centres on collaboration, successful teams need to be equipped to deal with it. With greater project requirements, it's become even more challenging to maximize efficiency by collaborating effectively.

Current Workflow for Steel Design, Detailing, and Installation

Design

Revit Structure

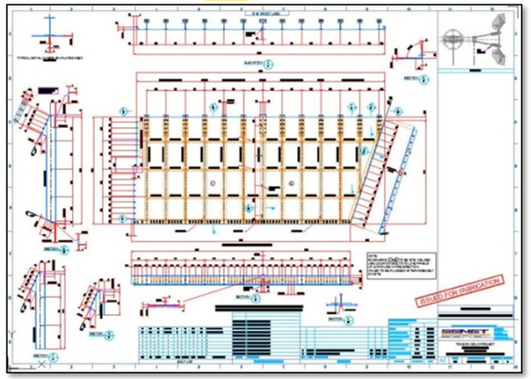


Data Loss/Hard to Compare

IFC Export
No Intelligent Sync

Detailing and Fabrication

Tekla / Pro Steel



Construction

Navisworks / Glue / Field / Point Layout for Total Station Export

CIS/2 / IFC Export
No Intelligent Sync

So what's the Solution???

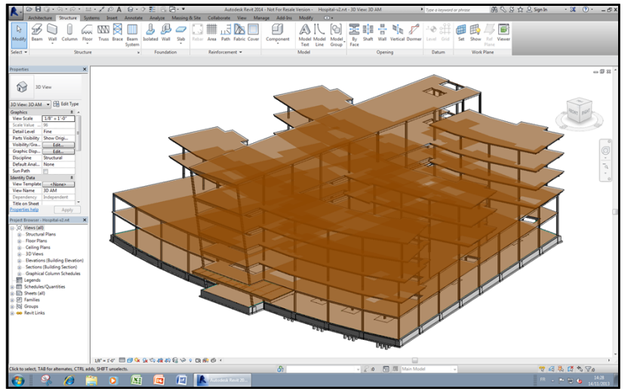
The Solution is…

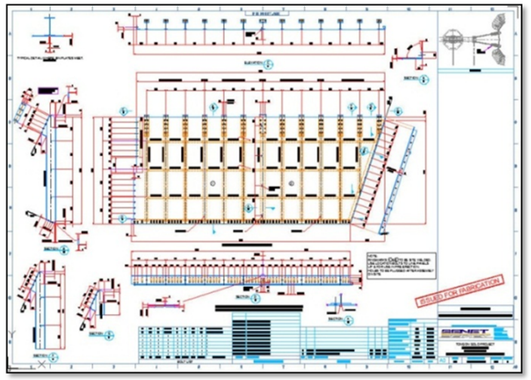
- A workflow in which we have a single unified model from design to documentation
- Project complexity will reduce
- Interoperability will avoid errors and redundancies
- Result in improved productivity
- Better project coordination

Preferred Workflow for Steel Design, Detailing and Installation

Design	Detailing and Fabrication	Construction
Revit Structure	Tekla / Pro Steel	Navisworks / Glue / Point Layout for Total Station Export

Interoperability





Preferred Workflow for Steel Design, Detailing and Installation

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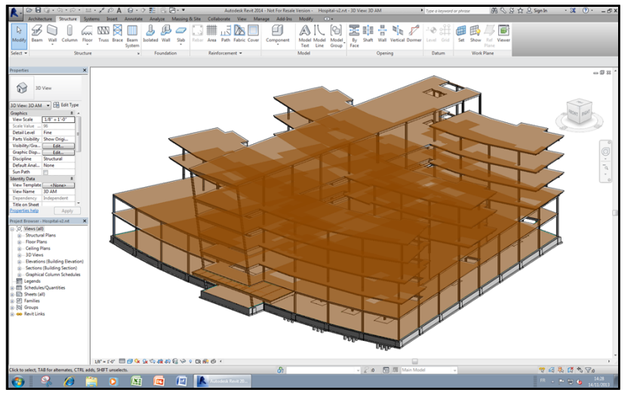
Interoperability



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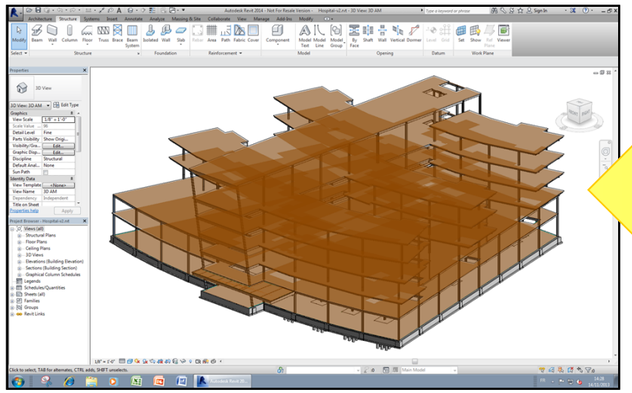


Sync

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 Structure
- 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) and reports

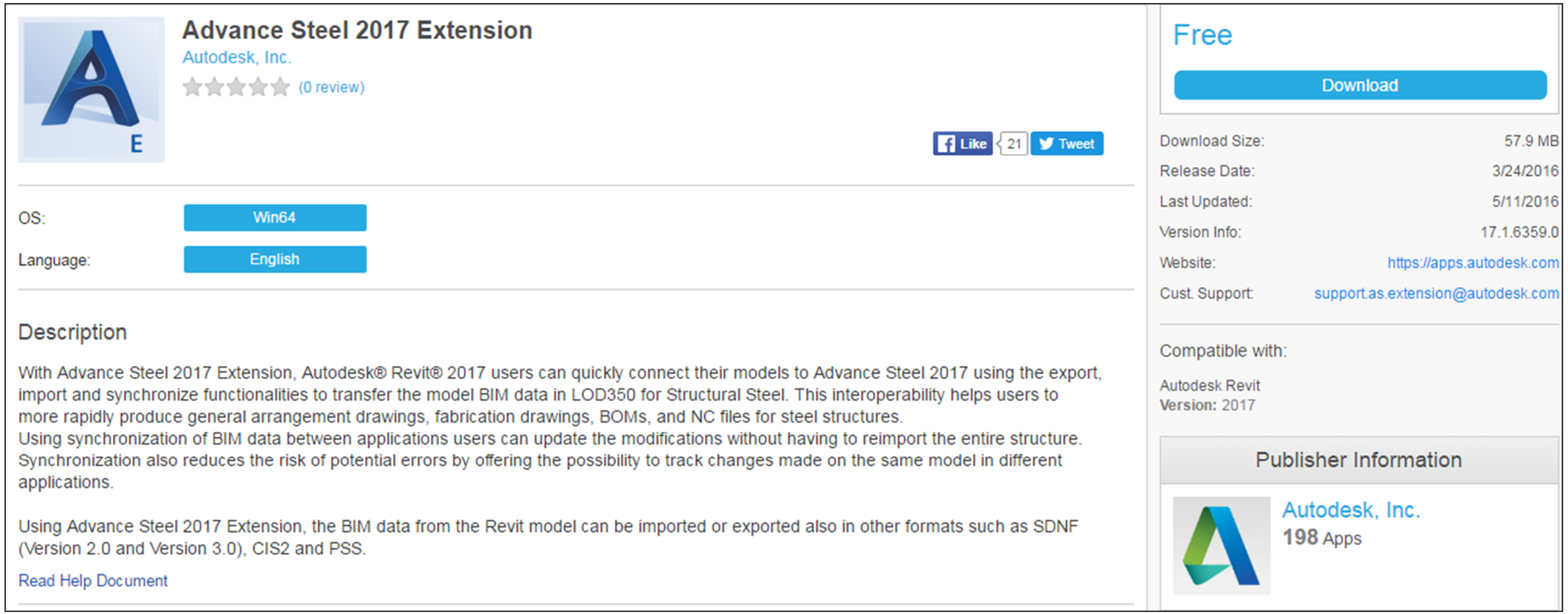
Autodesk Advance Steel Key Features

- Bidirectional Link with Autodesk Revit
- Intelligent Structural Objects
- Parametric Steel Connections
- Extremely Smart Detailing and Documentation Tools
- Bill of Materials and Reports Generation
- NC/DSTV File Generation
- Document Management and Revision Control

Leveraging Autodesk Revit Model (BIM Data) for Steel Detailing

Advance Steel Plugin for Autodesk Revit

Free for Subs Customers



Advance Steel 2017 Extension

Autodesk, Inc.

(0 review)

Like 21 Tweet

OS: Win64

Language: English

Description

With Advance Steel 2017 Extension, Autodesk® Revit® 2017 users can quickly connect their models to Advance Steel 2017 using the export, import and synchronize functionalities to transfer the model BIM data in LOD350 for Structural Steel. This interoperability helps users to more rapidly produce general arrangement drawings, fabrication drawings, BOMs, and NC files for steel structures.
Using synchronization of BIM data between applications users can update the modifications without having to reimport the entire structure. 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 2017 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 and PSS.

Read Help Document

Free

Download

Download Size:	57.9 MB
Release Date:	3/24/2016
Last Updated:	5/11/2016
Version Info:	17.1.6359.0
Website:	https://apps.autodesk.com
Cust. Support:	support.as.extension@autodesk.com

Compatible with:

Autodesk Revit
Version: 2017

Publisher Information

Autodesk, Inc.
198 Apps

Live Demo

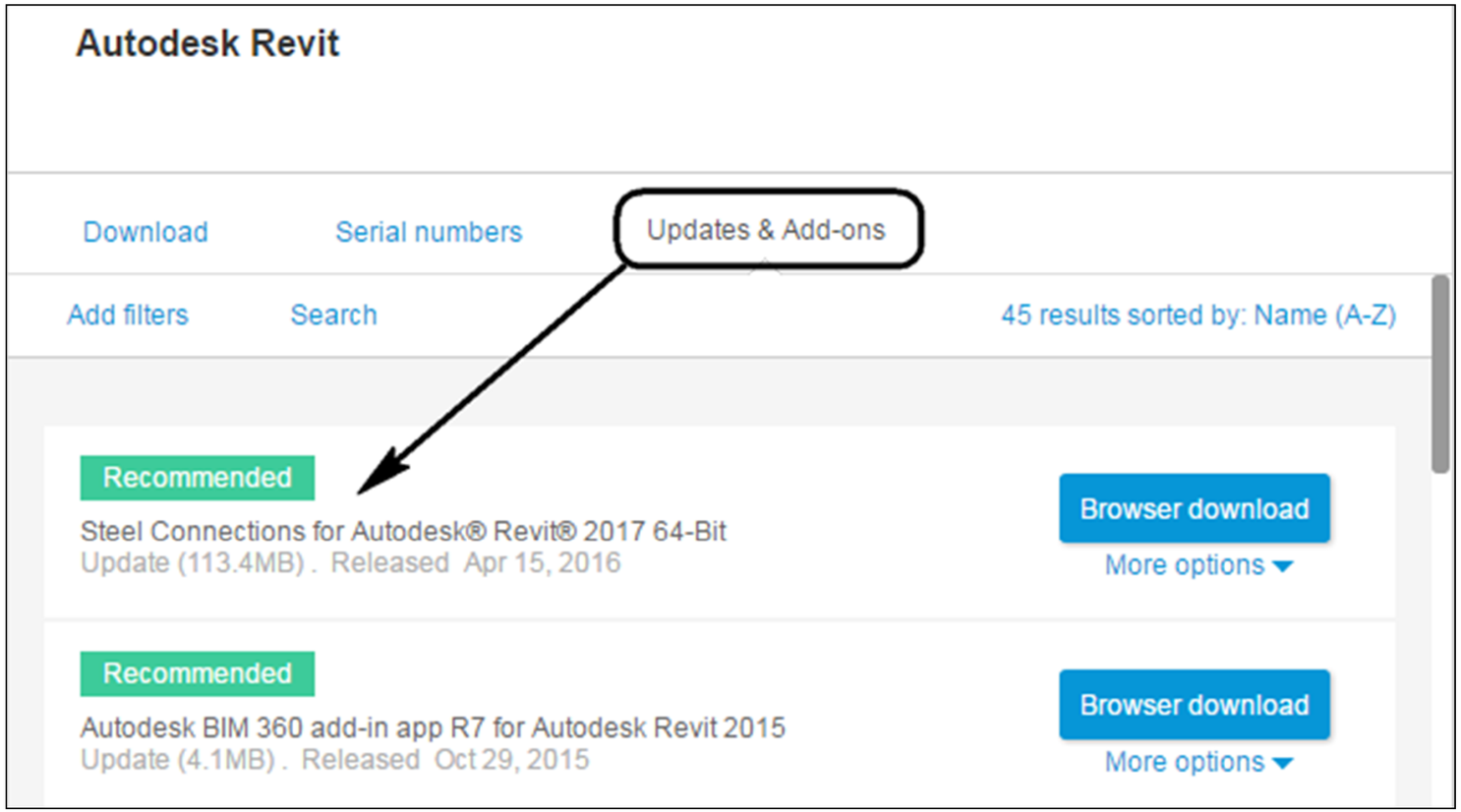
Importing Advance Steel Connections into Autodesk Revit

Importing Advance Steel Connections into the Autodesk Revit Model *(for LOD 400 or above Jobs)*

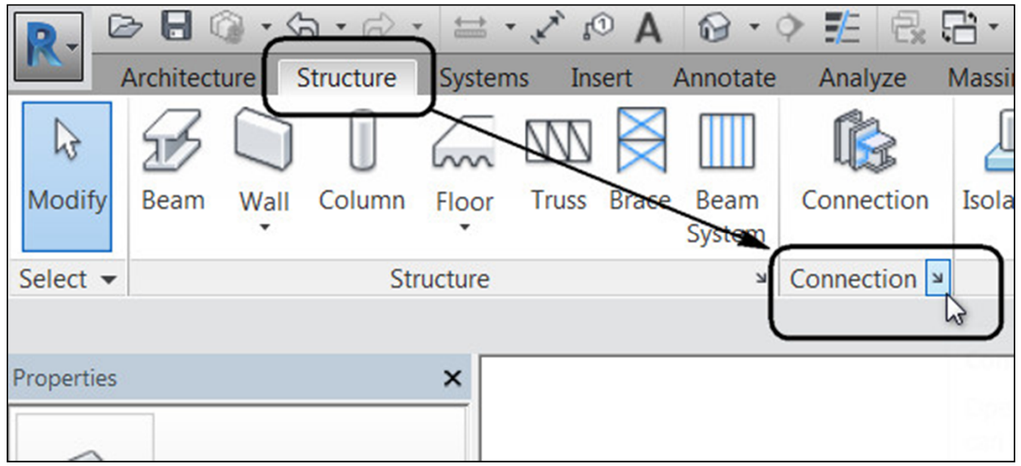
- Structural Engineer working on LOD 400 or above jobs need to deliver fabrication level structural model.
- Especially, the projects in high seismic regions require the structural engineer of record to be involved in the connection designs and to give guidance to the fabricator.
- Generally the structural 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 2017 allows you to create steel connections inside Revit. Alternatively, you can import the structural connections from Advance Steel straight into Autodesk Revit.

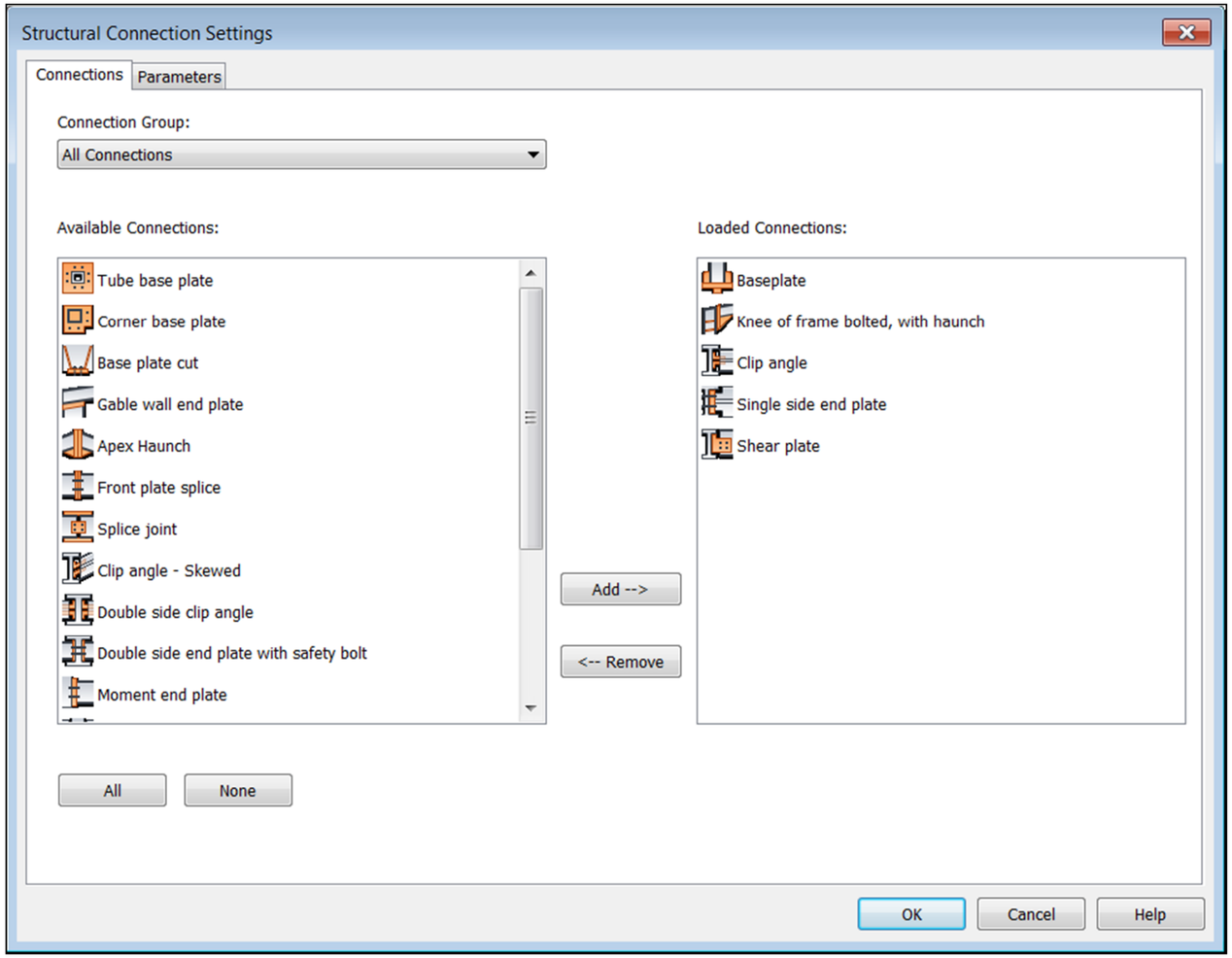
Steel Connection Add-In for Autodesk Revit

Free for Subs Customers



Steel Connection Add-In for Autodesk Revit





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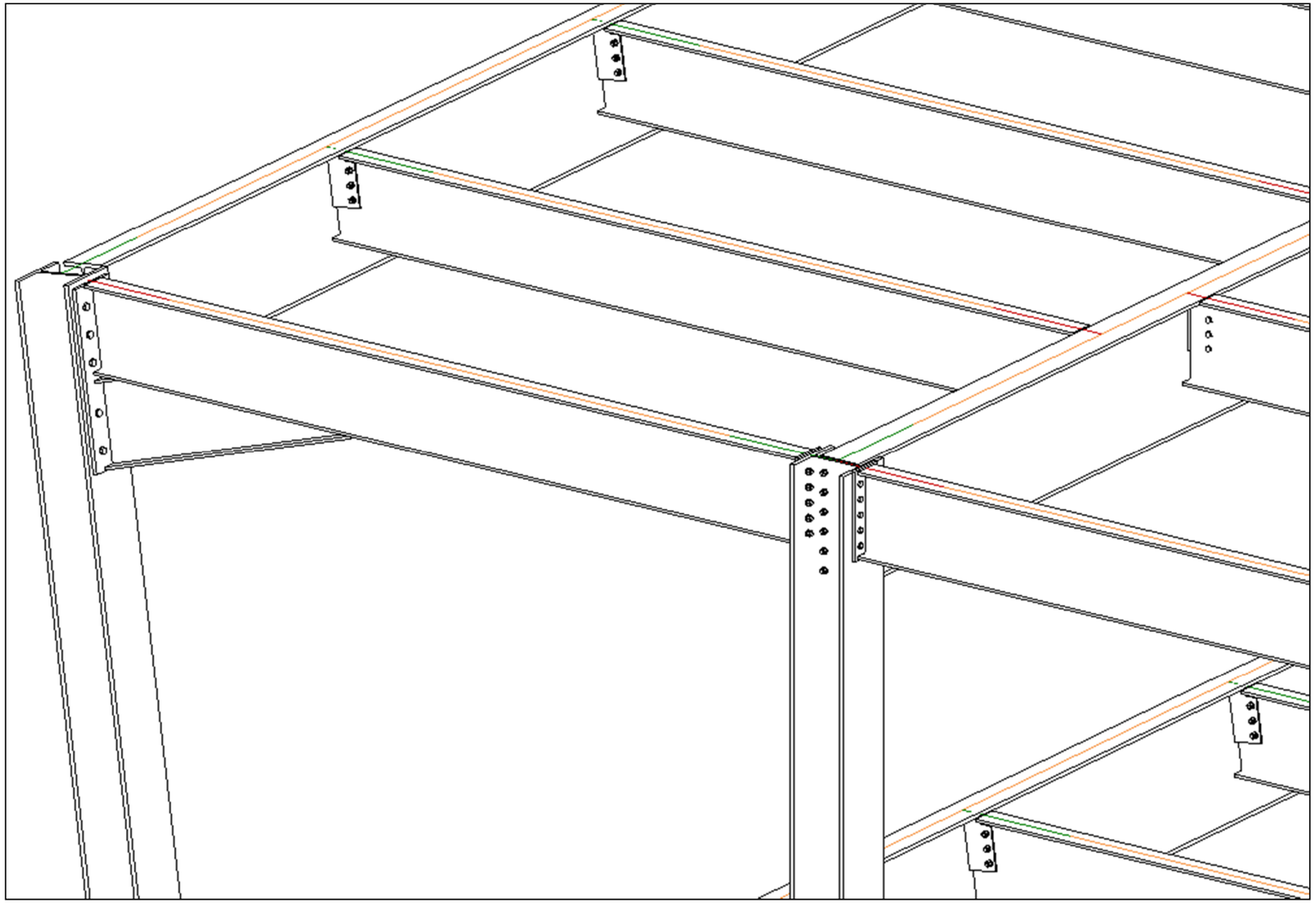

Live Demo

Now the goodies…

VR Yayyyy!!!
Lets put the goggles on