CO6120 – How to Make Navisworks and BIM 360 Glue Your BFF During Coordination and Construction.

Darren Roos – BIM/VDC Director, Bernards Jose Sanchez – BIM Project Engineer, Bernards

CO6120 Discover tips and tricks for Navisworks Manage software and BIM 360 Glue software during coordination and construction. Learn about the latest tools that are included inside of your product box from Autodesk, Inc., and also realize some ideas discovered when using Autodesk products while thinking outside of the box. If you have never heard a project manager say, "BIM [Building Information Modeling] coordination took less time than I thought it would," attend this class to learn techniques to make your process more efficient.

Learning Objectives

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

- Learning objective 1: Learn how to modify models in Revit software and AutoCAD software before bringing them into Navisworks project review software and BIM 360 Glue software
- Learning objective 2: Learn about the power of the cloud when using Navisworks software and BIM 360 Glue software
- Learning objective 3: Learn how to create 3D reports inside of the model
- Learning objective 4: Learn how to set up models for easier viewing and navigate more easily on iPads using BIM 360 Glue software

About the Speakers



During his career, Darren has tested, tweaked, and capitalized on technology to implement lean production practices and processes in the manufacturing, design, engineering, and construction industries. Using Building Information Modeling (BIM) a decade ago, Darren was able to efficiently model and coordinate custom structures for projects such as the Dubai Convention Center in the United Arab Emirates. Today Darren is a proud member of

the Bernards' BIM team as the BIM / Virtual Design and Construction (VDC) director. He enjoys finding ways to discover new BIM, VDC, and augmented-reality technologies. Darren has presented BIM/VDC topics for Autodesk University, U.S. Green Building Council (USGBC), and Revit Technology Conference (RTC), and he's excited to be part of a talented team at Autodesk University 2014. droos@bernards.com



Jose Sanchez is a BIM Engineer at Bernards. Jose received his Bachelor of Science degree at California State University Northridge. Jose has been the leader for BIM/VDC on projects for the University of California, Meridian, the City of Los Angeles, and is currently working on the Rose Bowl Stadium. Jose has presented at the USC BIM Symposium,

Autodesk University, and also has mad skills on the soccer field. jsanchez@bernards.com

To enhance your experience with this handout, we have used Augmented Reality technology. By using the free app, Aurasma, you will be able to unlock video tutorials of the presentation topics using your mobile device. Please refer to pages 9 to 11 of this handout for instructions on installing the app. Once the app is installed, you can test it by using your mobile device to look at the image below, under the topic, "Introduction." If you want to watch the videos on your computer, click on the image or in the notes area are links to the videos on the Autodesk Screencast website. Throughout 2015 if we find new ways to improve the processes discussed in this class, the videos will be updated. Goodbye static handouts and hello to your gateway to continuously improved tips and tricks.

Introduction



View this video introduction by looking at the image on the left with your mobile device using the app, Aurasma.

One of the keys to a new program/software/app's success, acceptance, and return on investment is how fast and simple the tool is for its users. The purpose of this class is teach you a few tips and tricks using Autodesk's Navisworks and BIM 360 Glue software to make BIM construction coordination simple for your users. To quote Clarence Johnson, "Keep it simple, stupid."

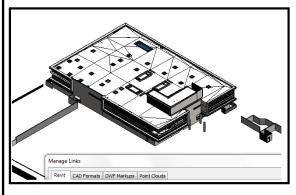
Whether or not these tips and tricks are helpful for you, take some time and think about your current processes. Ask yourself, "What can I do to make these processes simpler for the end user?" Many times you will realize that you have no clue what exactly your end user does. Take the time to get to know them. Shadow them. Watch them. Ask them questions. Simplify your Autodesk product processes to help them overcome their biggest challenges. Teach them, show them, and empower them.

Below are topics on the agenda for CO6120. With each topic is an area for you to write notes during the class. To the right of the notes is an image that you can convert to a video using your mobile device, per the instructions above in the "Welcome" paragraph. Enjoy!

Clean your Revit models before exporting to Navisworks

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/eee b96c1-362a-4a91-be0f-6bed0bc0ca57



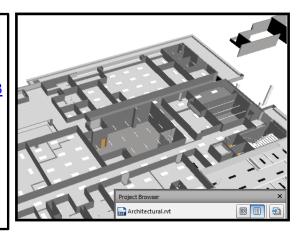
Video example – CO6120-01

Using the Navisworks Project Browser

Notes:

Video can also be found at:

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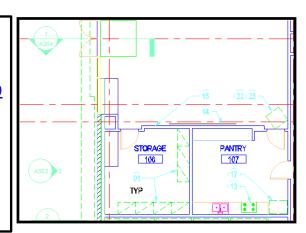
Video example – CO6120-02

The power of 2D in your 3D Navisworks

Notes:

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/e9f9 2c4f-f859-4cbd-9fca-b77c1f214fdd

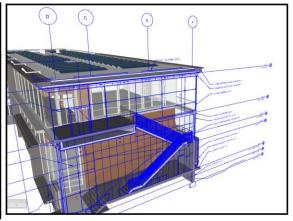


Video example - CO6120-03

Using AutoCAD, Revit, and Navisworks for quick virtual mockups

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/0ef570b6-992d-4255-9483-43e0e472e932

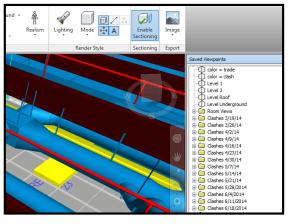


Video example – CO6120-04

Don't forget to save that Viewpoint!

Notes:

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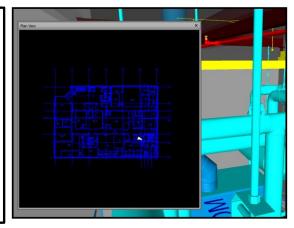
Video example - CO6120-05

Need a map? Use the Plan View

Notes:

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/bf074 687-bc2a-41df-b7d5-34ceb2a6f203

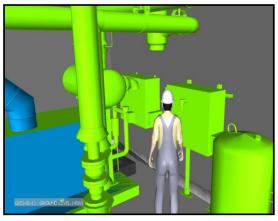


Video example - CO6120-06

More than just an Avatar

Video can also be found at:

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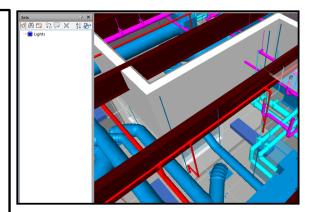
Video example – CO6120-07

Save those sets!

Notes:

Video can also be found at:

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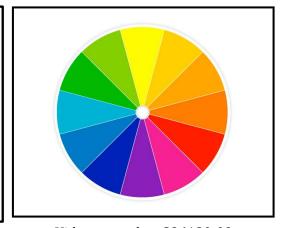
Video example - CO6120-08

Don't be color blind

Notes:

Video can also be found at:

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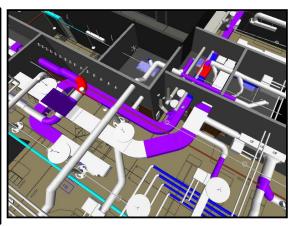


Video example - CO6120-09

Colors for clash detection

Video can also be found at:

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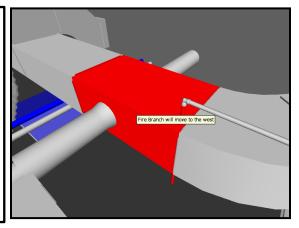
Video example - CO6120-10

3D reports inside of the model

Notes:

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/0d6eb655-0493-42f0-9246-2a4b8e098fd5



Video example – CO6120-11

Viewpoints for BIM 360 Glue

Notes:

Video can also be found at:

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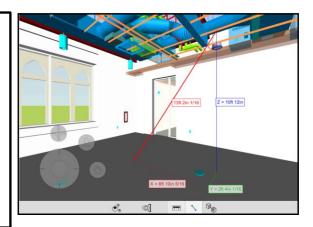


Video example – CO6120-12

BIM 360 Glue on the iPad

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/b1e 207ea-cd66-4444-b332-86186b49af41



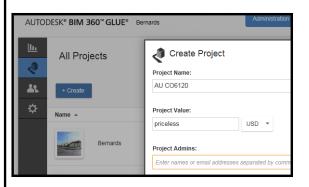
Video example - CO6120-13

Setting up a project with BIM 360 Glue

Notes:

Video can also be found at:

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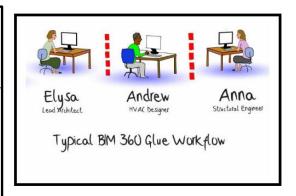
Video example – CO6120-14

BIM 360 Glue basics

Notes:

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/ebdeddc2-d866-4c33-81bf-9a9f1700c2bf



Video example – CO6120-15

BIM 360 Glue markups

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/315b27cc-25a0-43b5-aa8d-dd5c7308d863



Video example - CO6120-16

BIM 360 Glue in the field

Notes:

Video can also be found at:

https://screencast.autodesk.com/Embed/Timeline/20014b6d-0b26-4b63-803b-3b1c21c3d8f5



Video example - CO6120-17

What's next?

Notes:	
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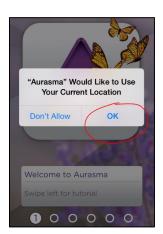


Using Aurasma for the $\mathbf{1}^{\text{st}}$ time



1. Install the Aurasma app on your mobile device:

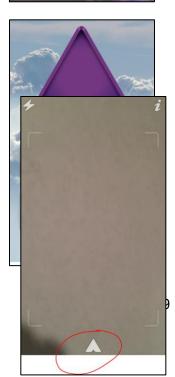
2. When asked to use current location, select "ok" or "allow"



3. Keep swiping the screen to skip through the tutorial

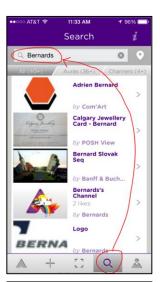


4. You do not need an account so select "Skip" at the bottom



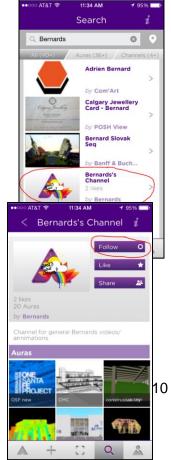
5. Go to the Aurasma menu by touching the "A" icon at the bottom

6. Select the Search icon at the bottom and type "Bernards" in the search box



7. Select 'Bernards's Channel"

8. Click on the "Follow" box



9. Click on the square at the bottom center to go back to the camera view.



10. Center your camera view on the video example pictures in this handout and watch them come to life!

