

## Exporting/Importing a Project

Updated July 23rd, 2015

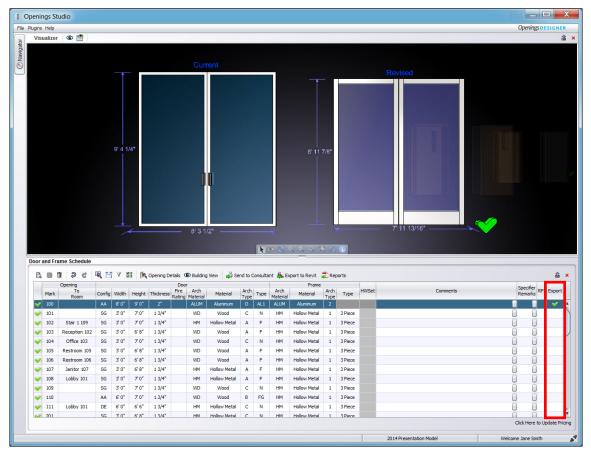
## Exporting a Project from Openings Studio

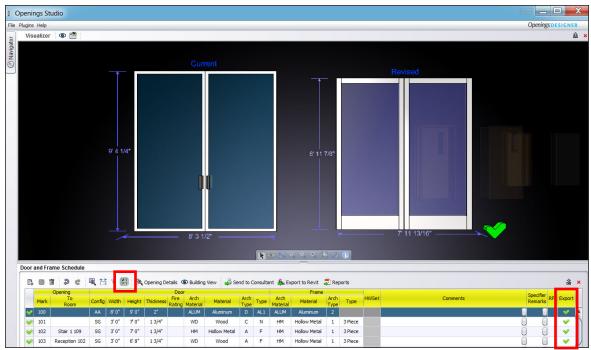
At various points throughout the project, updated openings with complete door, frame and hardware information can be 'exported' out of Openings Studio and 'imported' back into the Revit project model. With each export/import process, current openings in the Revit project model will be replaced with the revised or updated versions from Openings Studio. Typically this process will be repeated multiple times as the project progresses starting in the Design Development phase and continuing through the Construction Document phase.

Before starting the analyze process, login to Openings Studio, go to Plugins on the top tool bar, and choose the update for your Revit version. A dialog box will appear indicating you have successfully updated. Revit must be closed to perform an update.

With the Revit project open, login to Openings Studio and select the openings to export. There are various options that can be used to select openings for the export process:

1. Click the 'Export' column in the Door Schedule to indicate the opening selected is to be exported to Revit. A GREEN check mark is shown in the column, and the GREEN check mark in the Visualizer will move over to the 'Revised' opening.

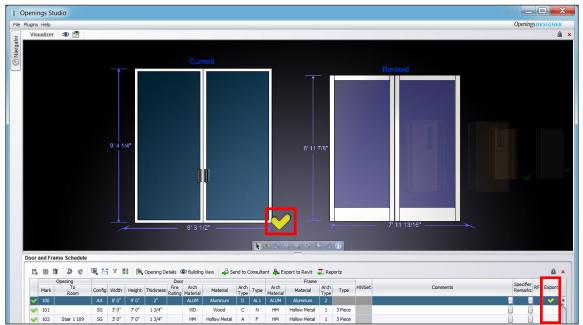




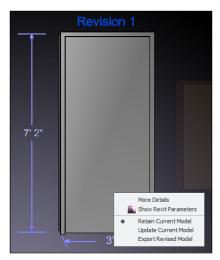
**NOTE:** Select every door in the project by using the 'Apply Changes to All' icon. A YELLOW highlight will appear across the door schedule header columns. Clicking on any door in the Export Column will select all of the openings for export.

2. As an option, data can be 'appended' to the 'Current' opening model rather than replacing it with a 'Revised' version. In this manner, openings analyzed from Revit will remain as originally designed, but additional door, frame, and hardware basis-of-design text data will be added to the model project parameters.

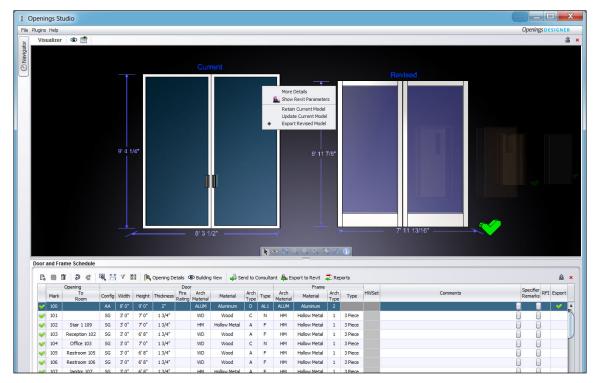
Holding down the ALT key while clicking on the opening in the Export column will change the GREEN check mark to YELLOW. YELLOW indicates text data, such as a hardware set, will be appended onto the existing Revit model project parameters.



3. Right-clicking on a 'Current' opening in the Visualizer panel will display all of the options available for selecting openings to export as well.



- Choose '**Retain Current Model**' and a GREEN check mark will display on the 'Current' opening and the Export column will be blank. No revised opening model or data will be exported and the existing opening from the Revit project will remain unchanged.
- Choose 'Update Current Model' and a YELLOW check mark will display on the 'Current' opening and in the Export column. Additional door, frame, and hardware basis-of-design text data will be exported and appended to the existing Revit opening project parameters.
- Choose 'Export Revised Model' and a GREEN check mark will display on the 'Revised' opening and in the Export column. The 'Revised' opening and data will be exported and the corresponding version in the Revit project replaced.



When the openings selection process is complete, open the Revit project and proceed with the Exporting to Revit steps.

1. Click on the 'Export to Revit' button.

Door and Frame Schedule		
📭 🗈 🖬 👂 建 😤 Y	📓 🎉 Opening Details 👁 Building View 齃 Send to Consultant	🍇 Export to Revit

2. A dialog box will appear. If this project has green checkmarks that are exporting entire families, you have the option to add a space around the frame and/or ADA clearance lines. ADA clearance lines will come in as a type parameter and can be turned off under Visibility/Graphics.

Export Options	×	Create
Create 3D Hardware Models (Create revit families for all available hardware)	Rough Opening Spacing Butt Frames: 0*	Paramo selecte check
Create ADA Clearance Lines	Cap Frames: 0"	
Create Project or Shared Parameters	ter Options Snap Project	Export Project
Resize Curtain Wall Openings I Export Openin	ngs Studio Project ID	an Op numbe track
Maintain Custom Parameters (Not Valid for Libraries) add any existing custom famil	y parameters to newly created models.	they
✓ I agree to the <u>Terms and Conditions</u>	Ok Cancel	during

Create Project or Shared Parameters must be selected if any yellow check marks were used.

Export Openings Studio Project ID will send back an Openings Studio ID number that helps keep track of projects should they be renamed or renumbered at any point during the life of the project.

Click on Edit Parameter Options to modify which parameters are imported to Revit. All parameters are recommended, but not required.

Parameter Options	X	Parameter Options	×
Openings Studio can export to built-in parameters, proj combination. The parameters will be added to every door is data exists. Please select the parameters you would like included in parameter template from the drop down.	n the Revit project and will be populated if	combination. The parameters will be added to e data exists. Please select the parameters you would like parameter template from the drop down.	neters, project parameters, shared parameters or any very door in the Revit project and will be populated if included in this export from the tree below or select a
Templates:     ▲I Project Parameters       ▼     Parameters       ▶     Built-In       ▶     Ø Project       ▶     Shared	Note: Any parameters not selected will not be found by Openings Studio on subsequent analysis and may lead to missing information in later revisions	Templates:       All Project Parameters <ul> <li>Parameters</li> <li>Comments</li> <li>Fire Rating</li> <li>Fire Rating</li> <li>AAOS Arch Door Material Type</li> <li>AAOS Arch Door Panel Type</li> <li>AAOS Arch Frame Material Type</li> <li>AAOS Door Bottom Rail Width</li> <li>AAOS Door Cost</li> <li>AAOS Door Cost</li> <li>AAOS Door Finish Color</li> <li>AAOS Door Finish Type</li> <li>AAOS Door Handing</li> <li>AAOS Door Manufacturer Type</li> <li>AAOS Door Manufacturer</li> <li>AAOS Door Manufacturer</li> <li>AAOS Door Manufacturer</li> <li>AAOS Door Material Type</li> </ul>	Note: Any parameters not selected will not be found by Openings Studio on subsequent analysis and may lead to missing information in later revisions

Also, to use shared parameters, here is where you would select them. These parameters are automatically added to your existing shared parameter text file, if one is available, under the group 'AAOSParameters'. It is not necessary to select both Project and Shared parameters.

If any doors are green checked, choosing Maintain Custom Parameters is recommended. Existing door family parameters in the original models will be retained in the 'Revised' opening model for transfer back to the Revit project.

3. Select OK and the Export process will begin. Exporting may take several minutes to complete the first time. During this process, the 'Revised' and 'Updated' Openings Studio door families are created and transferred to the Revit project. A progress bar will display until completion of the export process.

Openings Studio for Revit (Not Responding)	
Creating Families 3 of 11 (Pair-Exterior-Flush)	
	Cancel
Openings Studio for Revit	
Replacing Opening 36 of 115 Family: Sgl-G-MDRU-Butt-4 In. Head Type: Ext-G-MDMF-36'' x 84''-4'' Head Mark:	
	Cancel

4. After the export process is complete, a Family Preview window will display the openings previously selected for export and the new imported openings will be added to the Revit model under Door Families in the Project Browser. Press OK.

Family Preview	
The following Families and Types have been added to your project. They can be of the project browser.	e found under the Families->Doors Section
Type: Ext-AES2-AL Silder-96'' x 84''	
Family: BS-WBS-DCOU-Cap	
Type: Int-BS1-WDMF-72'' x 84''	
Family: DE-F-DDEU-Cap	-
Type: Int-F-MDMF-72" x 84"-Obl Egress	
Create a wall and add these families to the project document.	ОК

Project1 - Project Browser	X
Pair-Exterior-Flush-4 Head	*
Pair-Exterior-Full Glass	
Pair-Exterior-Full Glass-4 Head	
Pair-Exterior-Half Glass-4 Head	
Pair-Exterior-Narrow Glass	
Pair-Exterior-Narrow Glass-4 Head	
Pair-Interior-Flush	
Pair-Interior-Flush-Dbl Egress	
Single-Curtain Panel-All Glass-GL1	
. Single-Curtain Panel-All Glass-GL2	
⊡ Single-Exterior-Flush-4 In Head	
Single-Exterior-Flush-LSidelight-RHR-4 He	
Single-Exterior-Flush-RSidelight-LHR-4 He	
Single-Exterior-Flush-Transom-4 Head	11
Single-Exterior-Full Glass	
Single-Exterior-Full Glass-4 Head	

5. As part of the Export process, the Revit project is examined for off-centered, changed or deleted openings. An Update Log will display the changes found. Openings Studio will adjust placement of 'Revised' openings to account for off-centered origins, however it is recommended to verify the position of these openings in the Revit model. Openings with changes can be located by searching using the Revit ID number located in the right hand column. Press OK to continue.

Update Log	- • •
The following warnings were generated during the Update pro	cess:
Message	RevitID
Door Mark: 9 appears to have an off-centered origin, attempting to adjust replacement door position.	183907
The opening center for Door Mark: 9 has changed. Please manually verify the position of this door.	183907
Save Log to File	•

Use Select by ID to under the Manage tab in Revit to search for doors by their RevitID number.

v Manage	Add-Ins Modify	•						
	🚯 Location	•	Add to Set	₿ <sub>b</sub>	📳 Manage Images		Save	IDs of Selection
Additional	🛃 Coordinates 🔹	Design	🧊 Pick to Edit	Manage	🔤 Decal Types	Phases	🔄 Load	🕎 Select by ID
Settings	Position •		Main Model	<ul> <li>Links</li> </ul>	🔁 Starting View	Thuses	Edit	🕼 Warnings
	Project Location		Design Options	1	Manage Project	Phasing	Selection	Inquiry

**NOTE:** Any errors that appear during the export process should be documented with a screen shot and sent to your consultant. Also, large projects with a significant number of doors green check marked (See page 3) will have a longer export process than yellow check marked doors.

7. When the Export process is complete, any imported Door Families will now include detailed door and frame data under Type Properties. Specified door hardware and hardware set numbers will be added onto the opening Instance Parameters.

Doors (1)	✓ B Edit Type			
Data	*	1	L. VA3	-Z-₿
AAOS HW Set	1.0	/	1	20
AAOS HW Preps	1.0	Type Properties		X
AAOS HW Item 20		Type Properties		
AAOS HW Item 20		Family: Single-Exterior-Flu	sh 🔻 Load	
AAOS HW Item 19		Type: 3' 0"x7' 10"x1 3/4'	-45 Min-C-NE-C-SU-P  Duplicate	
AAOS HW Item 18		18	-45 MIN-CHIERCISUP +	
			Rename	
AAOS HW Item 16		Type Parameters		
AAOS HW Item 15		Parameter	Value	^
AAOS HW Item 14		Frame Jamb Width	0' 2"	
AAOS HW Item 13		Frame Jamb Face Frame Head Width	2" 0' 2"	
AAOS HW Item 12		Frame Head Height	2*	
AAOS HW Item 11	l l	Frame Gauge	14	
AAOS HW Item 10		Frame Finish Type	Painted	
AAOS HW Item 09		Frame Finish Color Frame Cost	Prime 184.05	E
AAOS HW Item 08	2 - Sweep - 315CN - PE	Frame Cost	184.05 V5	
AAOS HW Item 07	1 - Gasketing - 2891AS - PE	Frame Attachment	Butt Frame	
AAOS HW Item 06	1 - Threshold - 171A - PE	Edited by		
AAOS HW Item 05	2 - Wall Stop - 400 - US26D - RO	1 Door Stile Type Door Steel Type/Species	A60	
AAOS HW Item 04	2 - Kick Plate - K1050 10" x 2" LDW BE C	Door Steel Type/ species	NE	
AAOS HW Item 04	2 - Door Closer - 281 O - EN - SA	Door Panel Type	F	
		Door Material Type	Hollow Metal	
AAOS HW Item 02	1 - Storeroom Lock - 76 8204 LNB - US2	Door Manufacturer Type Door Manufacturer	F C	
AAOS HW Item 01	1 - Hinge (heavy weight) - T4A3386 4-1/	Door Lite Size	·	
A A OC F A J.J O.	Apply	Door Handing	LHR	

A custom Door Schedule can now be built in Revit to match the door and frame fields shown in Openings Studio. Further information on creating Door Schedules is covered under the AAOS Standard Operating Procedure - "Creating a Door Schedule".

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Exporting a Project