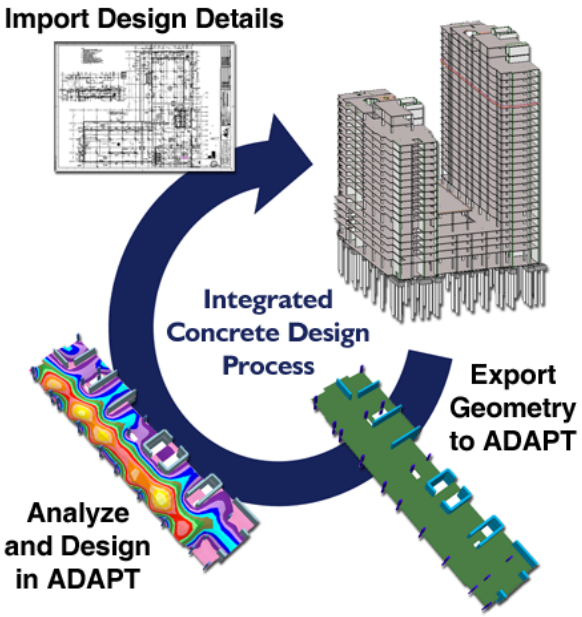
ADAPT

Structural Concrete Software

ADAPT-REVIT LINK 2012

USER MANUAL



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LIST OF CONTENTS

1. GETTING STARTED.....1
2. REVIT LINK 2012: INTEGRATION PROCESS.....5
3. SUPPORT.....9

Chapter 1

GETTING STARTED

This manual explains how to use the bi-directional ADAPT-Revit Link. The link is used to export concrete building information from a Revit Structure model to ADAPT-Builder / Floor Pro or Modeler and import rebar produced in ADAPT back to Revit for documentation.

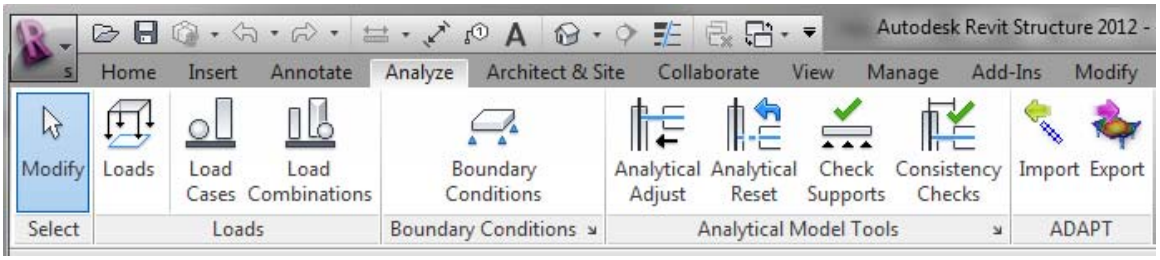
This manual will cover only the steps directly involved with the export and import of Revit models with regard to ADAPT-Floor Pro or Modeler. Advanced modeling, analysis, design and evaluation of the floor model is covered in the manuals for ADAPT-Modeler and ADAPT-Floor Pro. Please refer to these manuals for information not covered herein.

Chapter 2

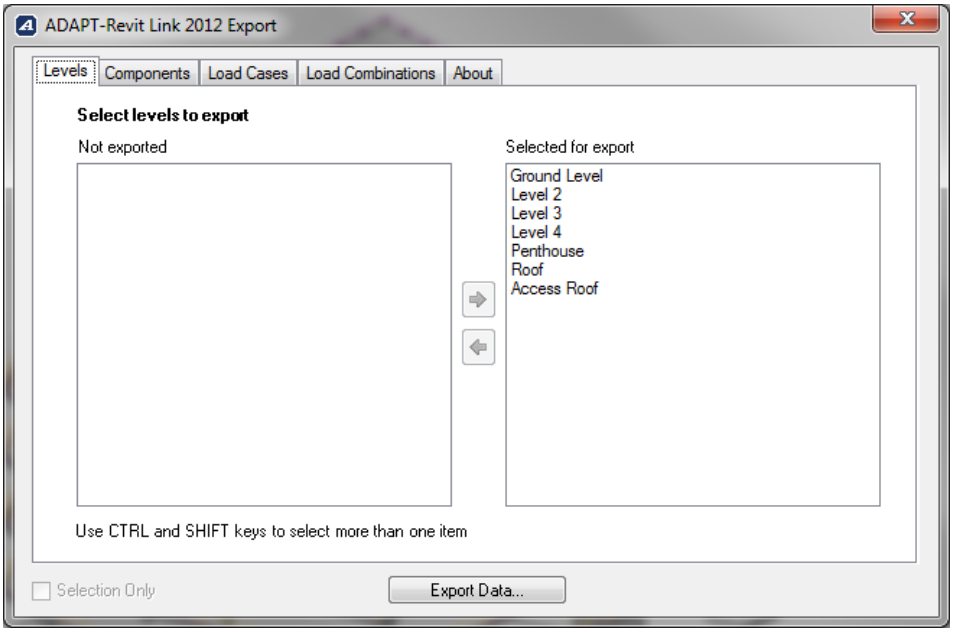
REVIT LINK 2012: INTEGRATION PROCESS

The sequence for exporting a 3D BIM model from Autodesk Revit Structure to ADAPT-Builder is listed in this Chapter. This process sequence will not include specific steps involved in analysis and design of the Builder model, nor the creation of the Revit model. The ADAPT-Revit Link must be installed on the computer on which it will be used for import/export functions to work properly.

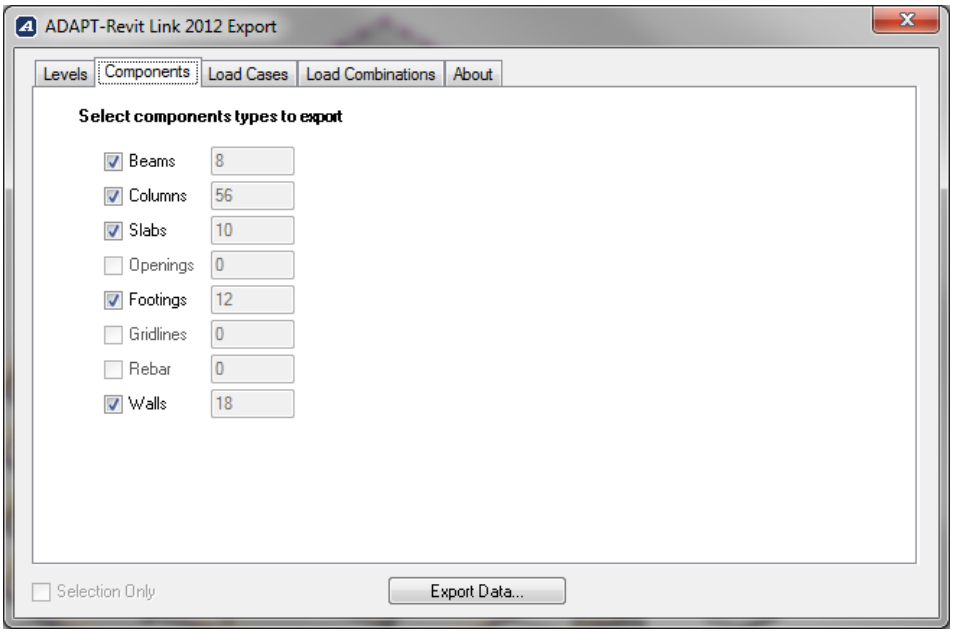
- Start with a structural model in Autodesk Revit Structure.
  - Include structural components such as slabs, beams, walls, and columns. These elements must have a Concrete material definition. Additional information such as loads and load combinations can also be created and selected for import into ADAPT.
- After installing the ADAPT-Revit link, you will find the "Export" and "Import" ADAPT-Link buttons under the Analyze toolbar.



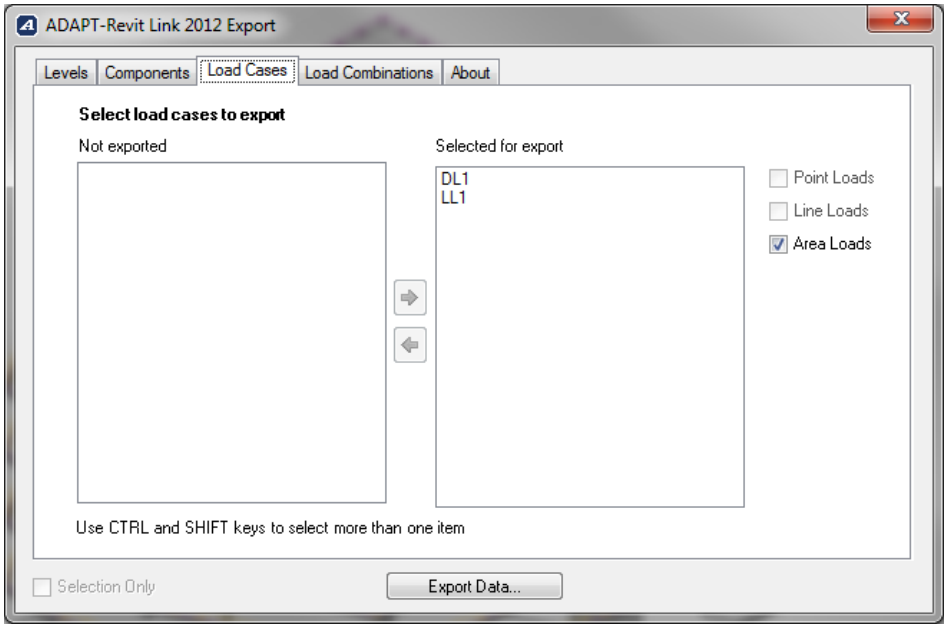
  - Review each tab in the Export screen. The first tab describes the levels for import. All levels in the Revit model, by default, will show up in the "Selected for Export" box. Select any levels not needed to be modeled and use the arrows to move them to the "Not exported" box. All levels may remain in the "Selected for Export" box even if only one level is intended to be designed in ADAPT.



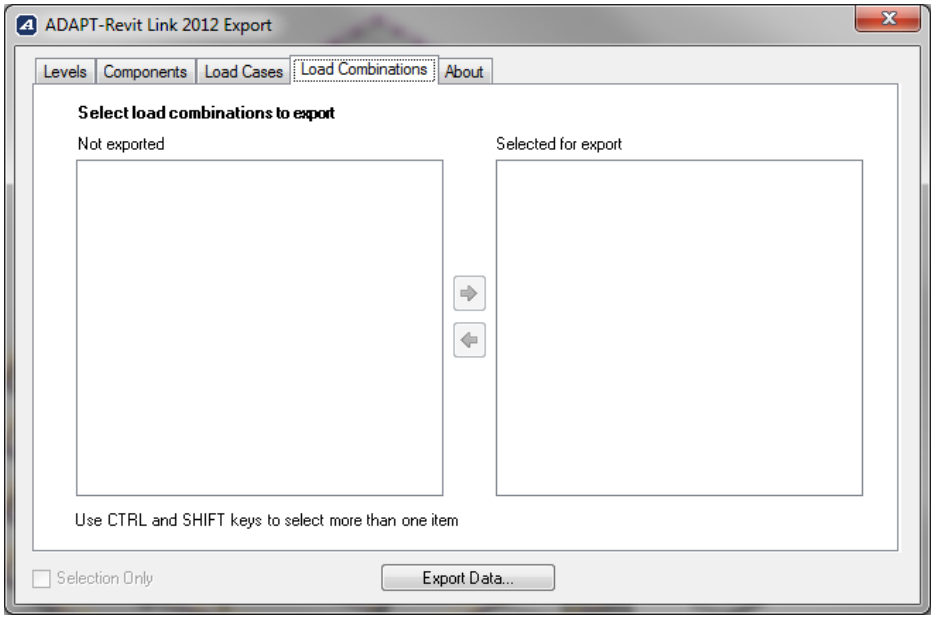
- Review the "Components" tab. By default, all structural components (Beams, Columns, Slabs, Openings, Footings and Walls" will be selected for export. Edit these as necessary or leave as-is.



- Review the "Load Cases" tab. Any load cases defined in Revit will be listed in the "Not Exported" box initially. Load cases are not automatically selected for export. Select desired load cases and use the arrows to move them into the "Selected for Export" box. As necessary, select or deselect the load types: Point Loads, Line Loads, and Area Loads.

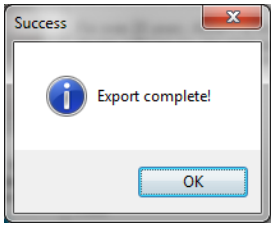


- Review the "Load Combinations" tab. Any load combinations defined in Revit will be listed in the "Not Exported" box initially. Load combinations are not automatically selected for export. Select desired load combinations and use the arrows to move them into the "Selected for Export" box.

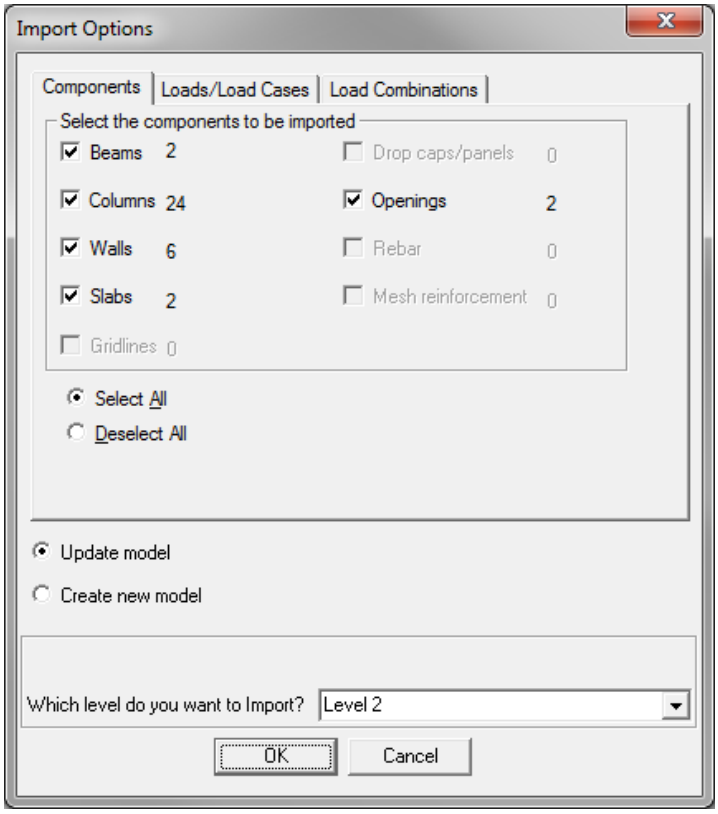


- Review the "About" tab for information on the version of Revit Link installed, as well as information on ADAPT Corporation and support contact. This step is not required for the Revit export process.
- To finalize the export process, click the button "Export Data".

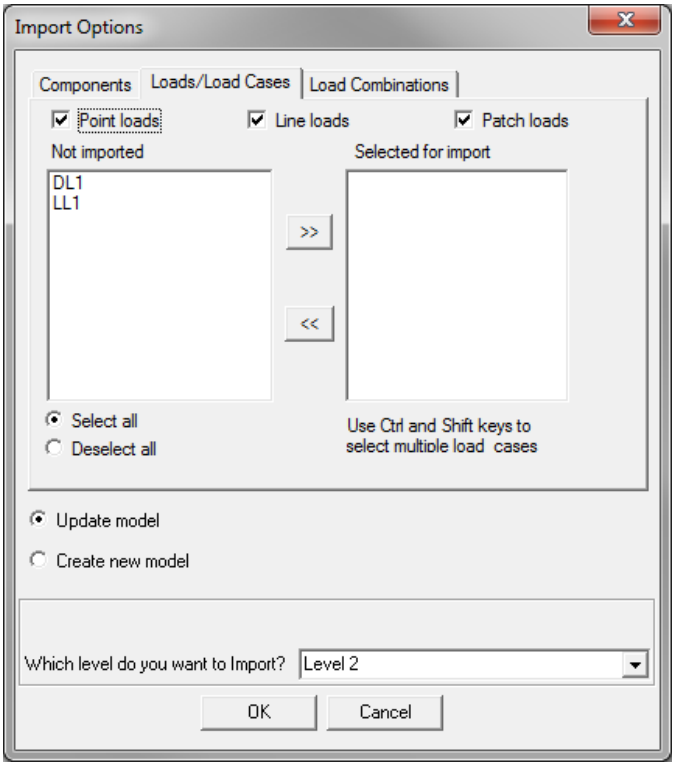
- A Windows “Save As” screen will pop up. Specify a location and name for the input file to be saved.
- A small notification screen will alert you when the export is complete. Select “OK” to close the screen.



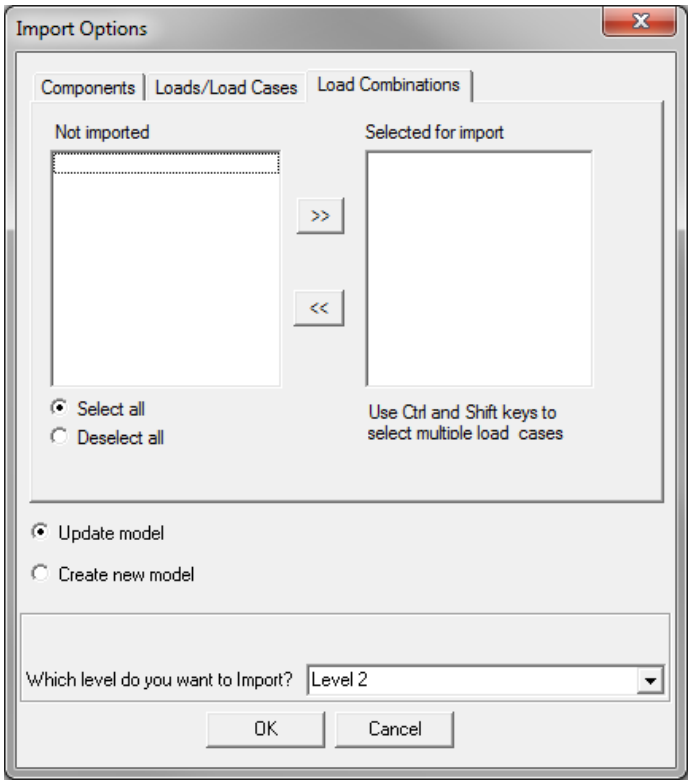
- Open a new model in ADAPT-Builder/Floor Pro (or Modeler). In the opening screen, select “REVIT” under “Import/Export loading/geometry”.
- Under File, select *Import*, then select *REVIT*.
  - Select the file location you saved the exported Revit file.
- Review each tab in the “Import Options” screen. In the “Components” tab, the number of beams, columns, walls, slabs and openings for each level are selected. You can deselect any components you do not want to import. For a new model, select the “Create New model” option, or if updating an existing model, you can select “Update model”. Using the drop down box, select the level you want to import.



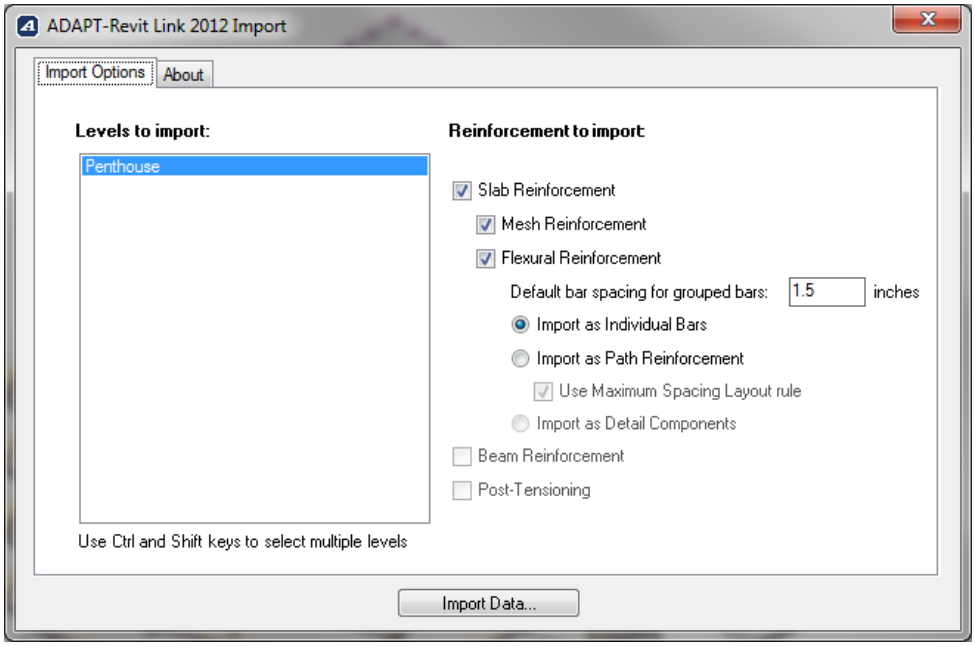
- Review the Loads/Load Cases tab. Select the load cases and types you intend to import and use the arrow buttons to move them into the "Selected for Import" box.



- Review the Load Combinations tab. Select the load combinations you intend to import and use the arrow buttons to move them into the "Selected for Import" box. Select "OK" to complete the import process.



- In Builder, complete your analysis and design of the floor level.
- Once an acceptable mild reinforcing design is completed, export the reinforcing back to Revit (if desired).
  - To export the reinforcing to Revit, in Builder, under File, select *Export*, then select *REVIT*.
    - Select the file location to save the file. It is a good idea to explicitly name the file, such as *project_level2_toRevit.*
- In Revit Structure 2012, under Analyze toolbar, select the "Import" option in the ADAPT-Link.
  - Select the file location you saved the exported Builder file.
  - The "ADAPT-Revit Link 2012 Import" screen will open. The floor level will be listed in "Levels to Import". Select all types of reinforcing desired to be imported from Builder to Revit. It is the user's choice to select Flexural Reinforcement as Individual Bars or Path Reinforcement.



- Individual bars are each modeled as an individual object and can be edited individually.
- Path reinforcement is grouped and cannot be edited bar by bar. Path reinforcement is an efficient way to model reinforcement in Revit Structure.

o Select “Import Data” and in the floor level view, you will be able to see, and edit the reinforcing, as well as in section.

Chapter 3

SUPPORT

ADAPT Corporation offers the ADAPT-Revit Link as a free add-on product for its clients.

To better support our clients that are committed to taking full advantage of the Revit Structure / ADAPT-Floor Pro link and help them maximize the process improvements and time savings potential of this integration effort, we offer a special support service. Please contact our support team at support@adaptsoft.com to receive a quote and detailed assessment of how we can help you succeed with your BIM implementation strategy.