

PowerPoint Extensions for Enterprise Architect

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Disclaimer

Version 1.0.x of the *PowerPoint Extensions* add-in has been successfully tested for deployment with Enterprise Architect versions 9.1 up to 12.1.

This deployment, as well as the guidelines included herein, may or may not be applicable to any later version of the tool as released by the vendor, Sparx Systems. If required, updates to this software will be made available to support future versions of Enterprise Architect.

There is no guarantee that versions prior to EA 9.1 will work properly. No effort will be made to support earlier releases of Enterprise Architect.

If any problems are encountered with the installation or operation of this software please [contact us](#) through any of the channels listed at the bottom of this document.

Dependencies

The add-in depends on the following components being installed on the system:

- Interop.EA.dll (part of the standard Sparx installation files).
- Microsoft .Net Framework 4.0 Client Profile (if missing, the installer will detect this and offer to automatically download and install the Framework).

Overview

The 1.0.x version of the *PowerPoint Extensions* provides the following features:

- Direct update of Microsoft PowerPoint (2007/2010) files.
- Export to a new PowerPoint file of selected diagrams.
 - The context for selecting diagrams can be:
 - A single Package.
 - A Package hierarchy.
 - A single diagram in the Project Browser.
 - A model search either by diagram name or type.
 - Optional inclusion of the diagram notes.
 - Notes can go on a separate slide, with the diagram name as its title, or be included with the diagram on a single slide.
 - Optional automatic scaling of the diagram to fit on the slide.
 - Scaling can be specified with or without maintaining the image aspect ratio.
- Refresh of previously exported PowerPoint files.
 - Diagram pictures, names and notes are exported to PowerPoint shapes with added metadata allowing a later refresh from the model.
 - Entire slides or selected shapes can be copied and pasted into other PowerPoint files with the metadata maintained.

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- Diagram pictures can be refreshed while maintaining their current maximum size, or be automatically scaled to “best fit”.
- Current aspect ratio settings can be maintained or forced to true/false.

Installation

Exit any running instances of Enterprise Architect, then launch the “setup.exe” program provided by Cephass Consulting and follow the on-screen instructions.

The installation will attempt to update the Windows registry, so the User needs to ensure that s/he has sufficient privileges to run the setup program.

The recommended install path is to place the DLL and any supporting files in an “Addins” folder in the Sparx Systems installation directory, e.g.

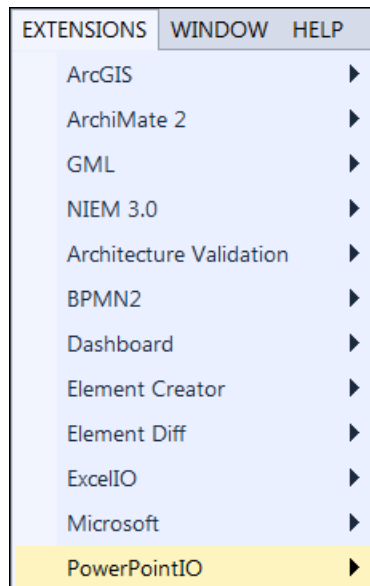
C:\Program Files (x86)\Sparx Systems\Addins.

Note that older versions of the software are automatically removed and replaced.

Should the installation fail for any reason other than insufficient User privileges, please take appropriate screenshots and email the data to the [support](#) address listed at the bottom of this document.

Verifying the installation

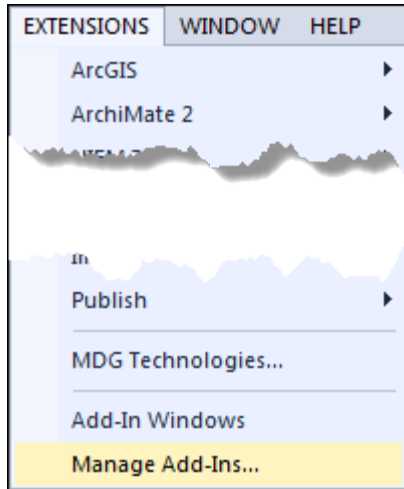
Bring up Enterprise Architect and verify that there is a “PowerPointIO” menu item under the Extensions menu:



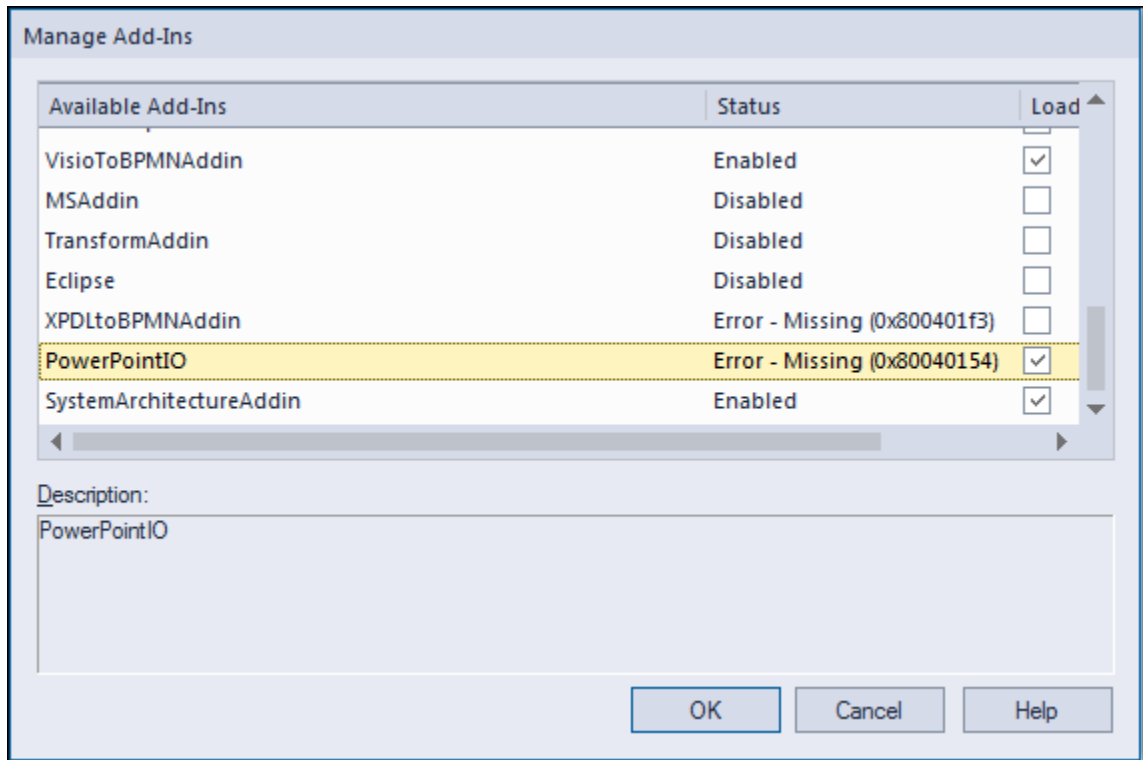
Note that the other extensions shown in the above screenshot may or may not be present, depending on your Enterprise Architect version and configuration.

The content of the “PowerPointIO” sub-menu may vary depending on the selected context in EA (Package, element, diagram,...).

Should the menu entry not be present, select the “Manage Add-Ins” menu option:



And confirm that the “PowerPointIO” add-in is loaded and enabled:



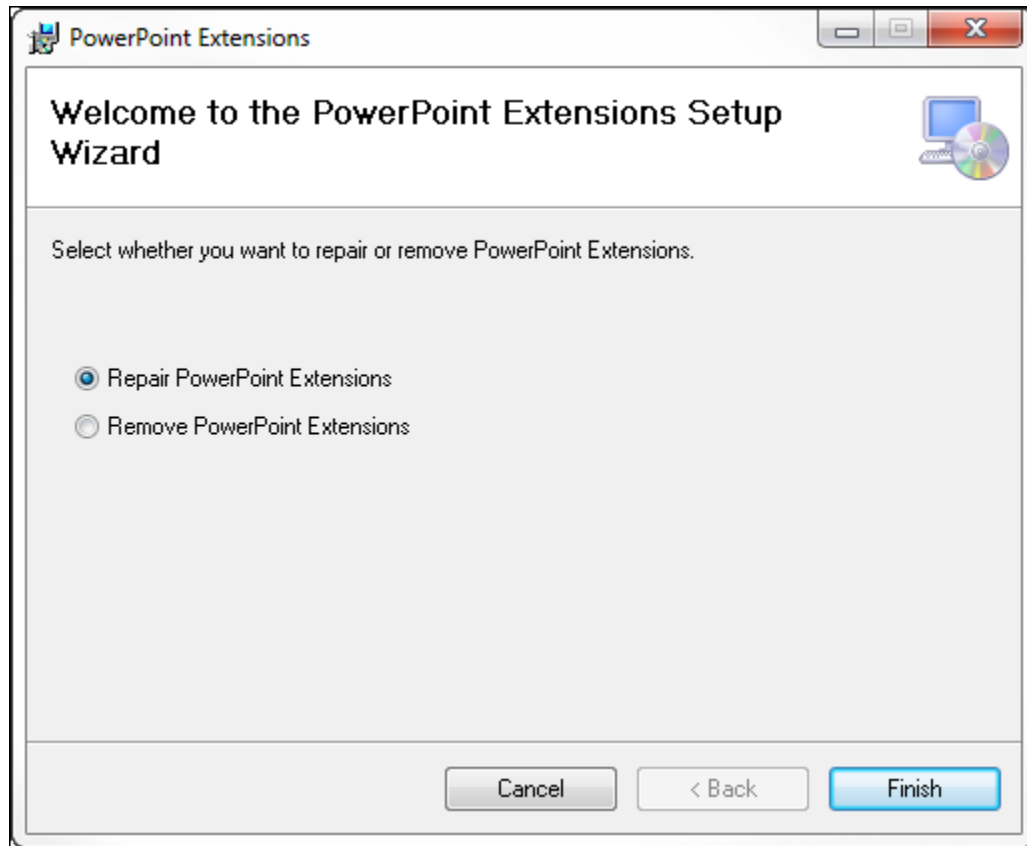
If an error status is shown, as in the example above, this typically means that either:

- The DLL installation process failed and EA cannot locate its reference, either in the Windows registry or in the file system.
- The installation did succeed but the DLL file was later moved or deleted.

If the “PowerPointIO” entry itself is not found then the add-in installation did not complete successfully.

To fix an incorrect installation:

- Exit out of all instances of Enterprise Architect.
- Launch the setup process again. The installer will automatically provide a repair option:



If, after the repair procedure, the “PowerPointIO” extension is still not loaded correctly in Enterprise Architect, remove the program through the Windows control panel and start the installation process over.

At a minimum the following files should have been installed in the selected installation directory:

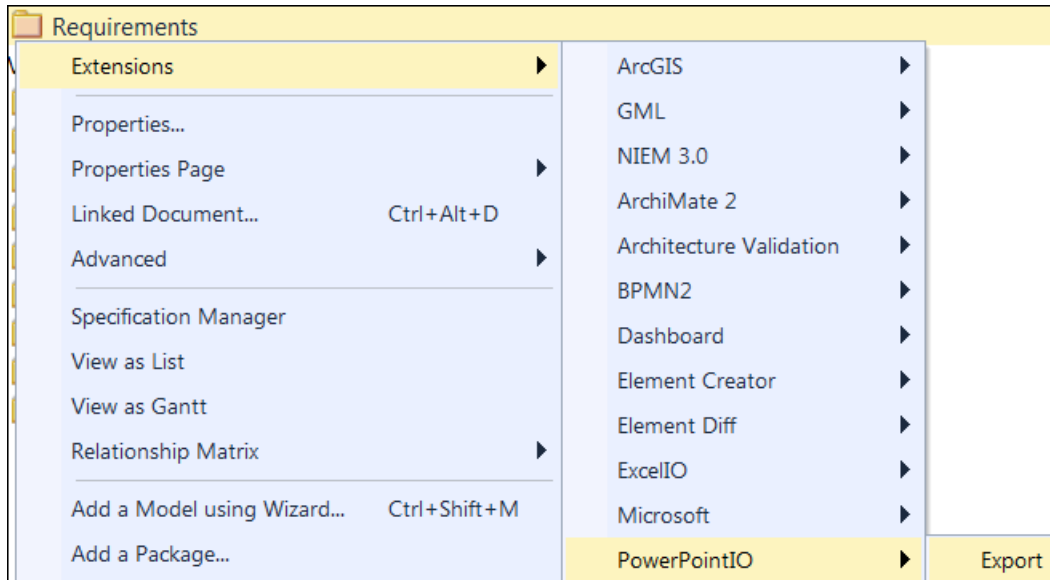
- Cephass_Software_EULA.pdf
- PowerPoint Extensions.pdf (this file)
- Interop.EA.dll
- PowerPointIO.dll

Exporting model data into PowerPoint

The export process takes a selected set of EA diagrams and writes them out to a User selected PowerPoint file. Existing files are always overwritten.

Currently the following contexts can be used as a basis for export (note that the "Refresh" option is not constrained by any selection inside EA and is thus available in all contexts):

- A Package selected in the Project Browser.

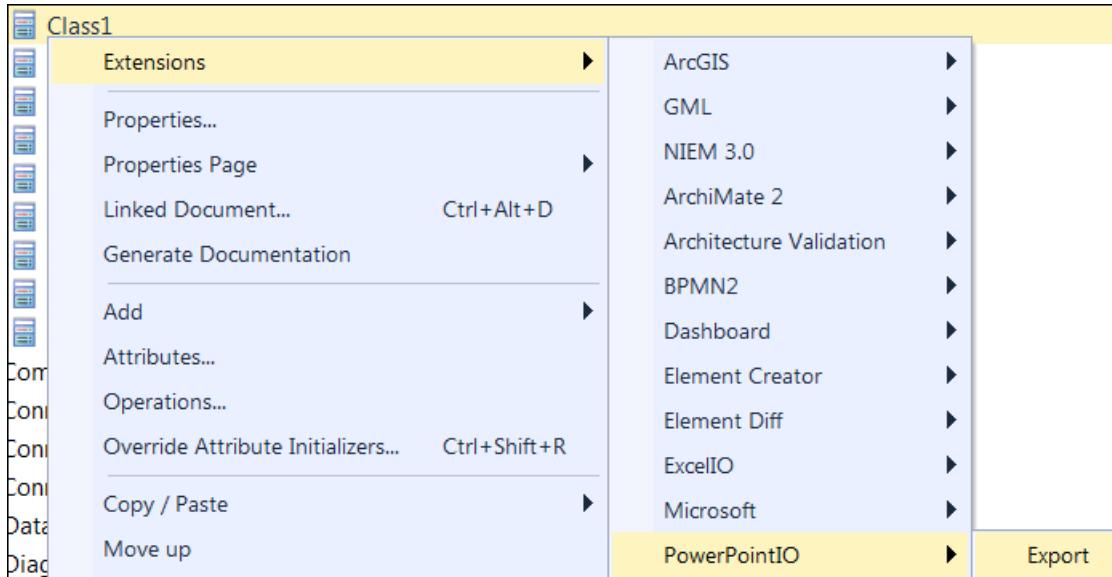


An option will be presented later to include not just the selected Package, but the entire hierarchy underneath it.

- A single diagram, either selected in the Project Browser or through its own context menu:

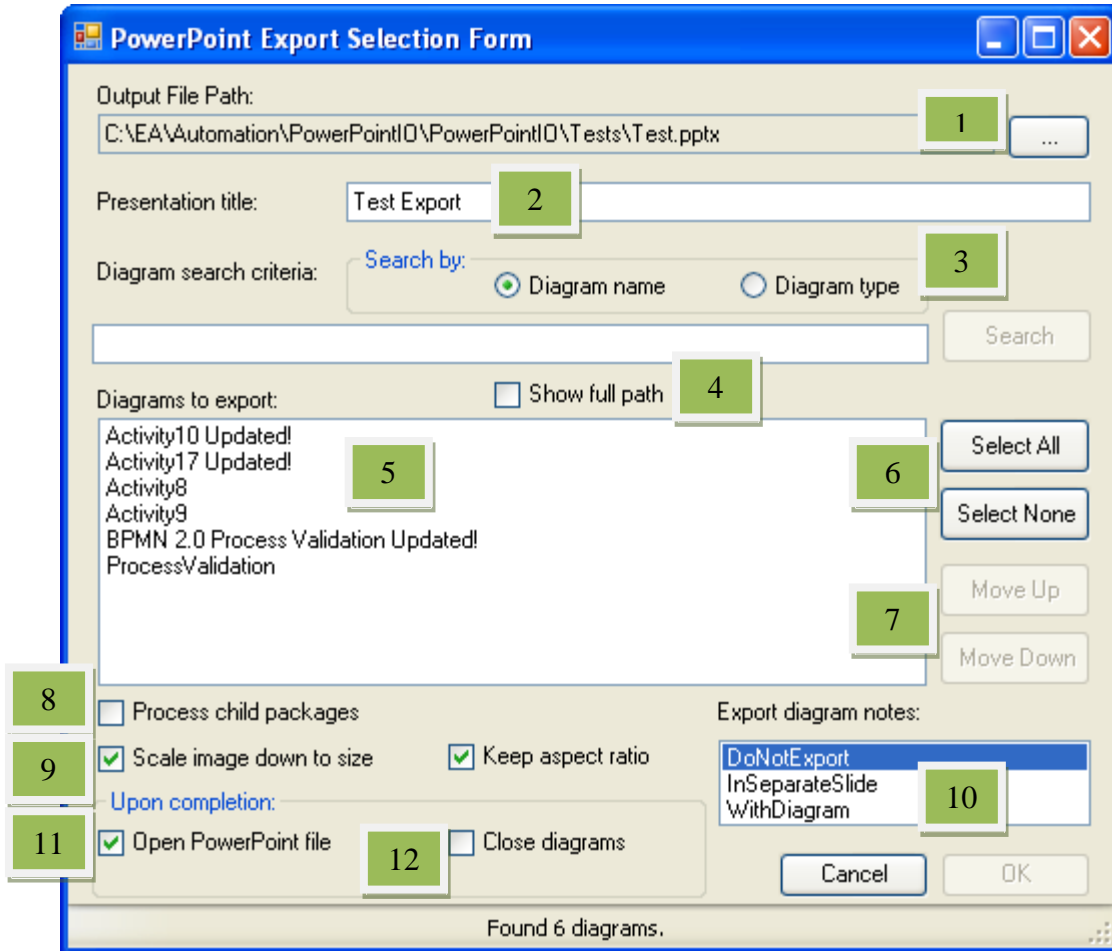


- A selection in the Project Browser which is neither a Package nor a diagram:



This context enables the search for diagrams across the model, either by name or by type.

For a Package context the following dialog box will be presented:

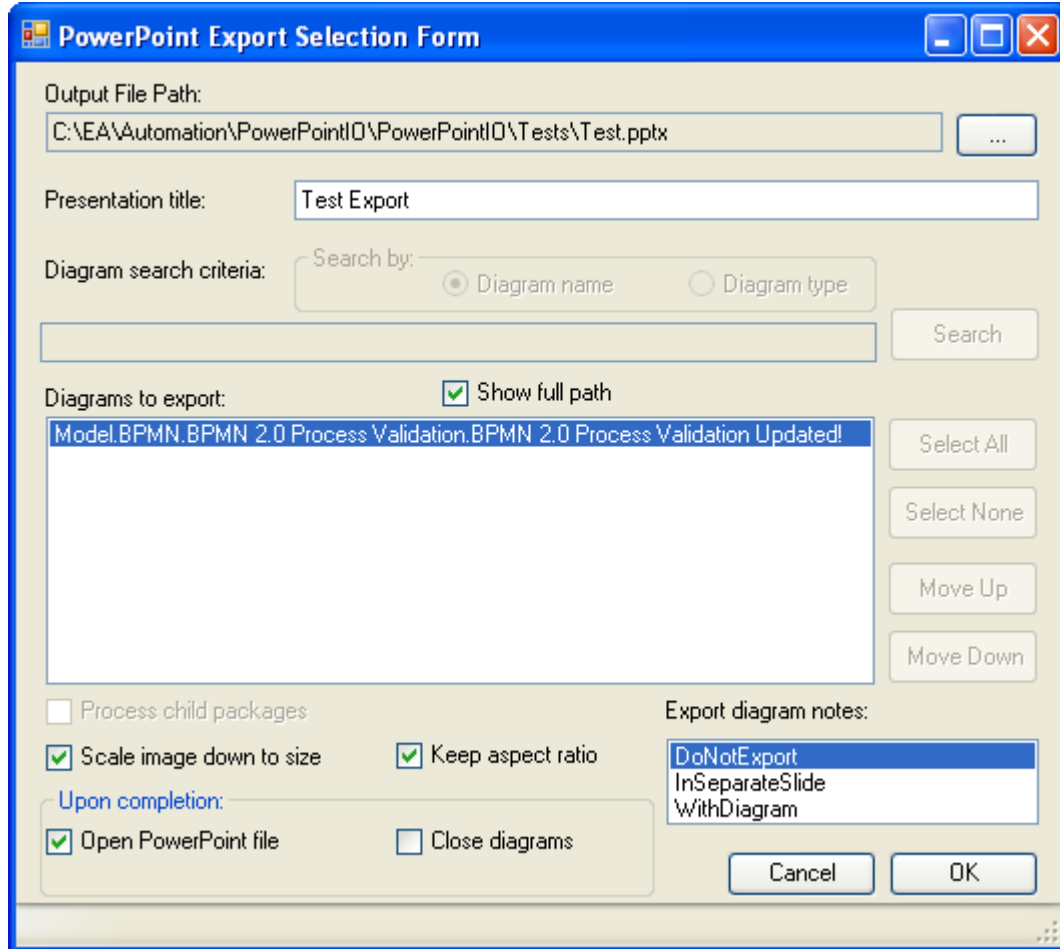


User actions:

Action	Description
1.	Click the ellipsis to select the directory and name of the PowerPoint file to be created.
2.	Optionally enter the title of this Presentation. If defined, a title slide will be added.
3.	Filter the set of diagrams returned for the Package (or Package hierarchy) either by name or type. The wildcard search text is not case sensitive.
4.	Expand the diagram names to show their full path in the repository, starting from the root node.
5.	From the proposed list select one or more diagrams to be selected. Use the CTRL or SHIFT keys to select multiple items.
6.	Click "Select All/None" to toggle a complete list select or deselect.
7.	Select a <u>single</u> diagram name then click the "Move Up/Down"

	buttons to control the order in which the diagrams are added to the PowerPoint presentation.
8.	Checkmark to include the entire Package hierarchy (if any). Note that this clears any prior re-ordering of diagrams, as well as any active search filter.
9.	Checkmark to automatically scale the diagram image to the best possible fit on the slide. Optionally indicate if, during the scaling process, the aspect ratio should be maintained.
10.	Select if notes should be included in the export and, if yes, whether they should go on a separate (preceding) slide or be combined with the diagram on a single slide.
11.	Checkmark to open the resulting PowerPoint file upon completion.
12.	Diagrams being exported are automatically opened in EA in order to be copied and pasted. Checkmark this option to close these diagrams at completion.

For an export based on a single selected diagram (from the Browser or from a diagram background) the dialog box presented is:



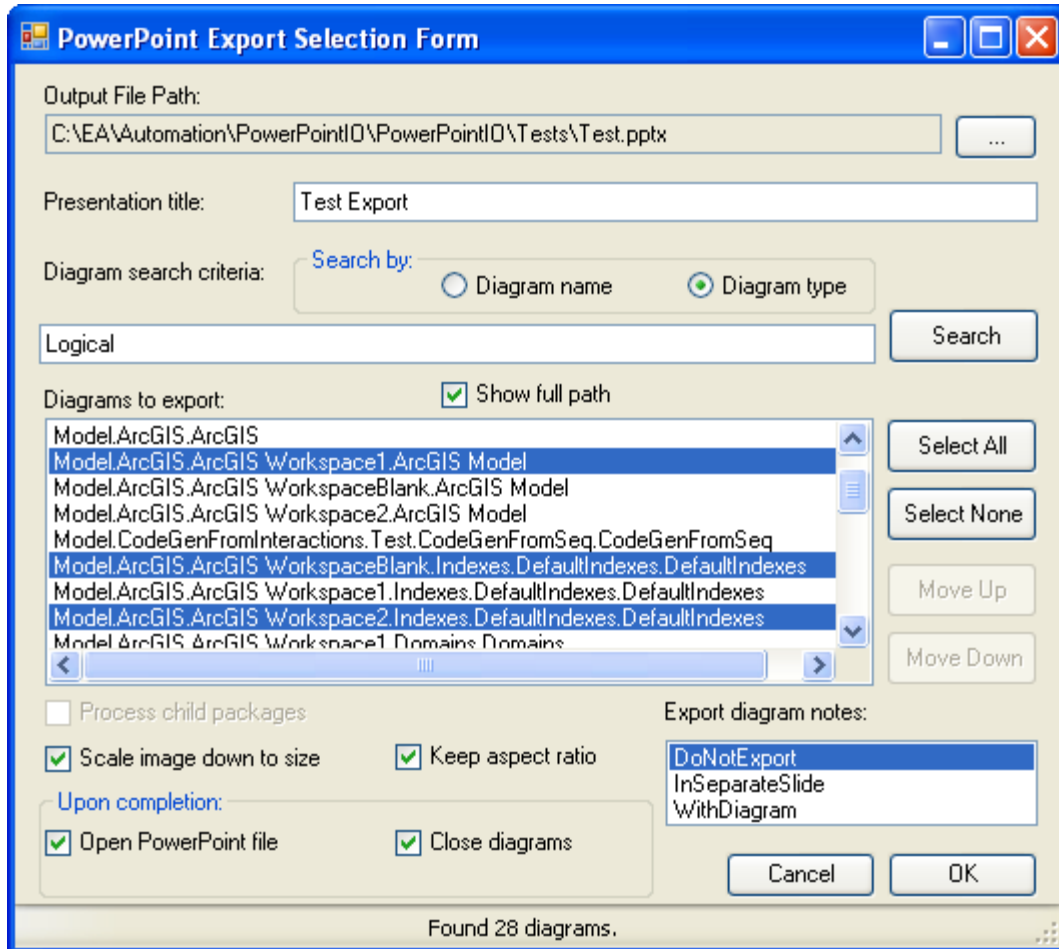
The screenshot shows a dialog box titled "PowerPoint Export Selection Form". It contains the following fields and controls:

- Output File Path:** A text box containing "C:\EA\Automation\PowerPoint\PowerPoint\Tests\Test.pptx" and a browse button "...".
- Presentation title:** A text box containing "Test Export".
- Diagram search criteria:** A "Search by:" section with two radio buttons: "Diagram name" (selected) and "Diagram type". Below it is an empty text box and a "Search" button.
- Diagrams to export:** A list box containing one item: "Model.BPMN.BPMN 2.0 Process Validation.BPMN 2.0 Process Validation Updated!". To the right of the list are buttons: "Select All", "Select None", "Move Up", and "Move Down".
- Options:**
 - Process child packages
 - Scale image down to size
 - Keep aspect ratio
 - Upon completion:**
 - Open PowerPoint file
 - Close diagrams
- Export diagram notes:** A text box containing "DoNotExport", "InSeparateSlide", and "WithDiagram".
- Buttons:** "Cancel" and "OK" at the bottom right.

The major difference with the previous interface is that a number of options are disabled:

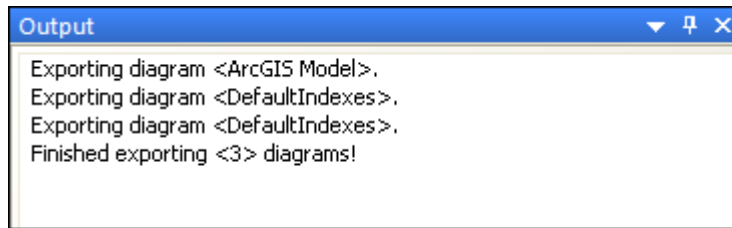
- The search option.
- The "Process child packages" option.
- The "Select All/None" option.
- The "Move Up/Down" option.

Finally, for a non-Package, non-diagram based context the (search) interface is:



In this case the “Process child packages” option is disabled and “Search” must be used to find the desired diagrams.

The export automatically creates a “PowerPointIO” tab in EA's Output Window, ensures that the tab is visible to the User, and logs the export results to it:



Refreshing PowerPoint shapes from EA

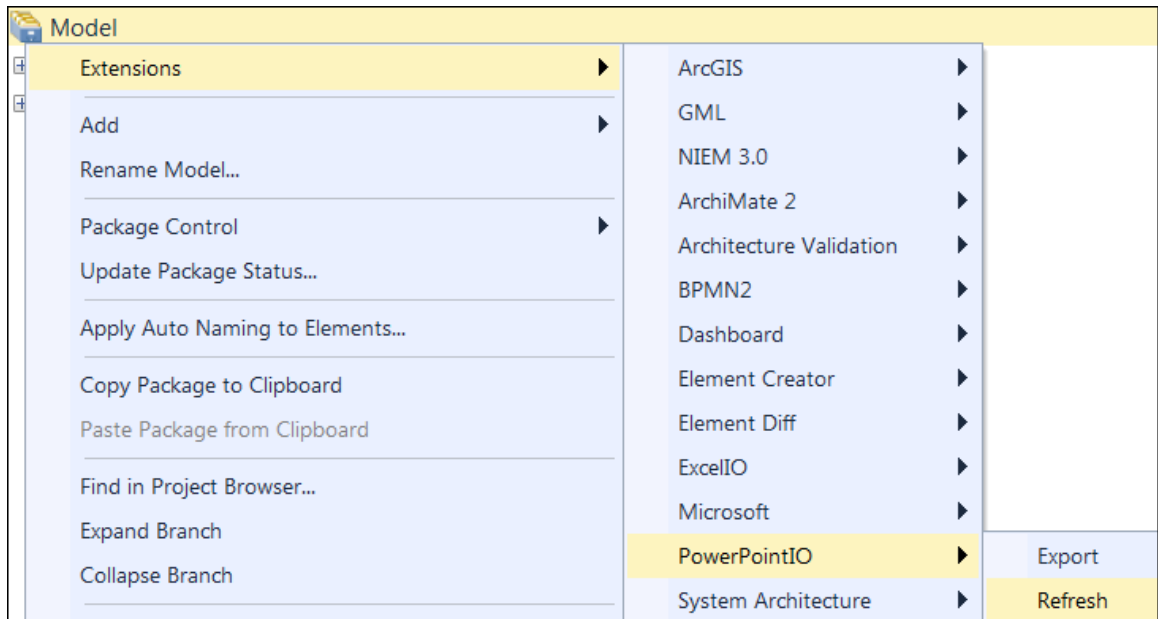
A previously exported PowerPoint file can become 'stale' after some time, in which case you may want to refresh the existing diagrams (including their notes and names) with the current data in EA. The refresh can occur against:

- The originally exported PowerPoint presentation (or any copy thereof).
- Any PowerPoint presentation which contains slides copied out of an export file, and/or individual shapes copied out of such a file.

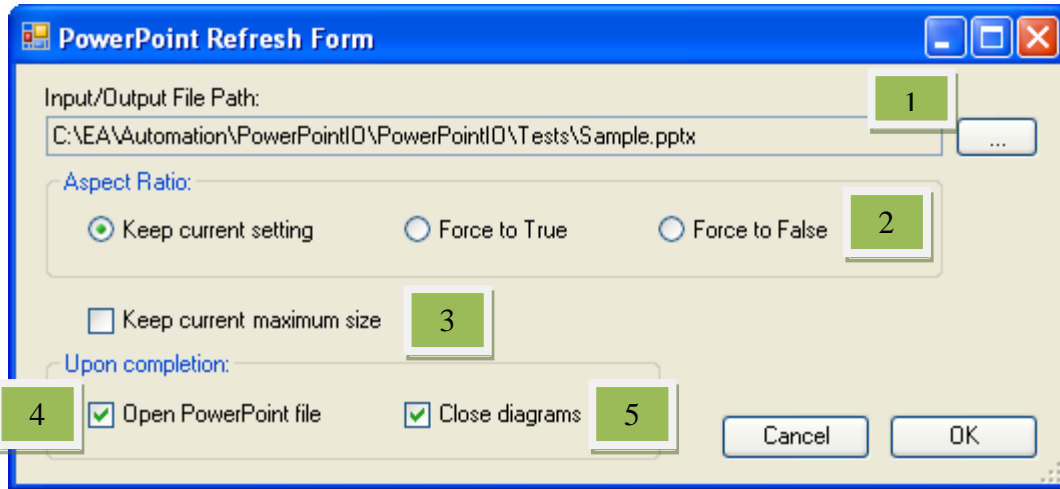
The only pre-conditions for the refresh to succeed are that:

- The original exported occurred through the Cephass extension, not by manual copy and paste out of EA.
- Pasted shapes (diagram picture, name or notes) are copied in their entirety, with the hidden metadata, and not just their content (image or text).
- The repository against which the refresh is executed contains the diagrams that were originally exported. If a diagram GUID can no longer be located (e.g. perhaps the diagram has since been deleted from the model) an error message will be added to the log.

Since a refresh can require access to diagrams from anywhere in the repository, the context for accessing the menu item is not significant. Therefore select any Package, diagram, element or other context in the Project Browser to access the menu item (or use the top level "Extensions" menu):



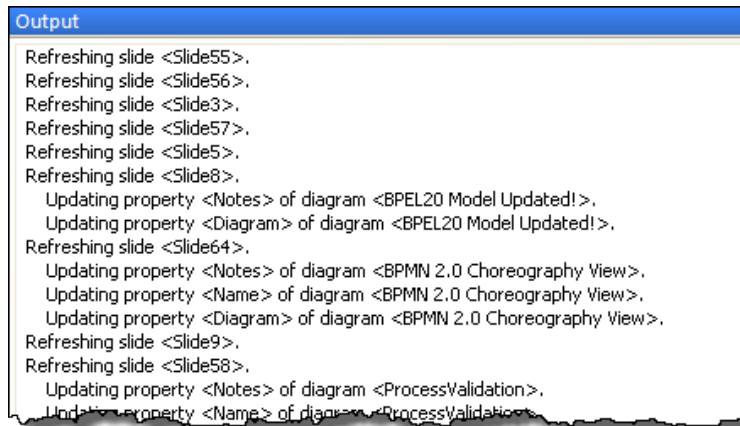
The following dialog box will be presented:



User actions:

Action	Description
1.	Click the ellipsis to select the directory and name of the PowerPoint file to be refreshed.
2.	By default the current aspect ratio setting of any diagram shape is preserved, but this can be overridden.
3.	Checkmark this option to maintain the current maximum size of any refreshed diagram picture or note textbox (note that the size may shrink if the new text or image is smaller than before). If not set, the notes textbox will be resized to accommodate the updated text using the current font size, and the diagram may be resized to “best fit” the slide. If a slide is determined to contain shapes not originating with Enterprise Architect then the current maximum size of the refreshed elements is always maintained (regardless of how the option is set) so as to not visually impact User defined content.
4.	Checkmark to open the PowerPoint file upon completion.
5.	Diagrams being exported are automatically opened in EA in order to be copied and pasted. Checkmark this option to close these diagrams at completion.

The program automatically creates a “PowerPointIO” tab in EA’s Output Window, ensures that the tab is visible to the User, and logs the refresh results to it:



```
Output
Refreshing slide <Slide55>.
Refreshing slide <Slide56>.
Refreshing slide <Slide3>.
Refreshing slide <Slide57>.
Refreshing slide <Slide5>.
Refreshing slide <Slide8>.
  Updating property <Notes> of diagram <BPEL20 Model Updated!>.
  Updating property <Diagram> of diagram <BPEL20 Model Updated!>.
Refreshing slide <Slide64>.
  Updating property <Notes> of diagram <BPMN 2.0 Choreography View>.
  Updating property <Name> of diagram <BPMN 2.0 Choreography View>.
  Updating property <Diagram> of diagram <BPMN 2.0 Choreography View>.
Refreshing slide <Slide9>.
Refreshing slide <Slide58>.
  Updating property <Notes> of diagram <ProcessValidation>.
  Updating property <Name> of diagram <ProcessValidation>.
```




Support and contact information

Use the contact information below for any installation or runtime issues with the extension. Feature requests or suggestions for improvement are also welcome!

Contact: Frank Truyen

Email: support@enterprisemodelingsolutions.com

Phone: 714-573-7112.

Web: www.enterprisemodelingsolutions.com