

## **BPMN 2.0 Extensions for Enterprise Architect**

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### Disclaimer

The guidelines contained in this document are based on releases 9.0.909 and 9.1.910 of Enterprise Architect. Version 1.0.x of the *BPMN 2.0 Extensions* add-in can be successfully deployed with EA version 9.0.x/9.1.x.

This deployment, as well as these guidelines, may or may not be applicable to any later version of the tool as released by the vendor, Sparx Systems. Versions prior to EA 9.0 do not include the BPMN 2.0 Technology.

The 32-bit add-in has been successfully tested on Microsoft Windows XP (SP3) and the 64-bit add-in on Windows 7. 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 (if missing, the installer will detect this and offer to automatically download and install the Framework).

### Overview

As of version 1.0.x of the *BPMN 2.0 Extensions* only the core validation functionality is provided.

Core validation covers compliance with the non-executable aspects of the BPMN 2.0 specification for the following diagram types: Business Process, Collaboration and Conversation.

Additional functionality that is planned for future updates of the add-in includes:

- Validation for Process execution.
  - Extends the core validation of BPMN 2.0 compliance with an additional verification of the execution semantics, as a preparation for transforming business models into BPEL-ready models.
- Validation of Choreographies.
  - Verifies model compliance with the special rules that apply to Choreographies.
- Validation augmented with automatic and suggested fixes to the model.
  - Runs the appropriate level of validation and, where possible, either automatically fixes the issue found, or interactively proposes an action to the User to bring the model into compliance. This requires that the User has update rights to the BPMN model elements.

## 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.

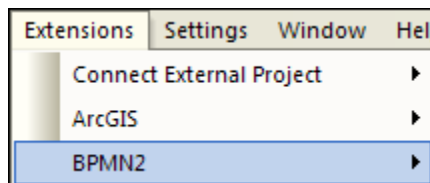
The recommended install path is to place the DLL and any supporting files in an “Addins” folder in the Sparx Systems installation directory (e.g. C:\Program Files\Sparx Systems\Addins).

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.

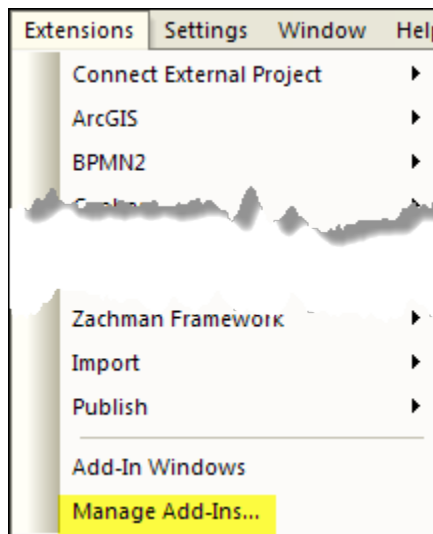
## Verifying the installation

Bring up Enterprise Architect and verify that there is a “BPMN2” entry under the Add-Ins menu:

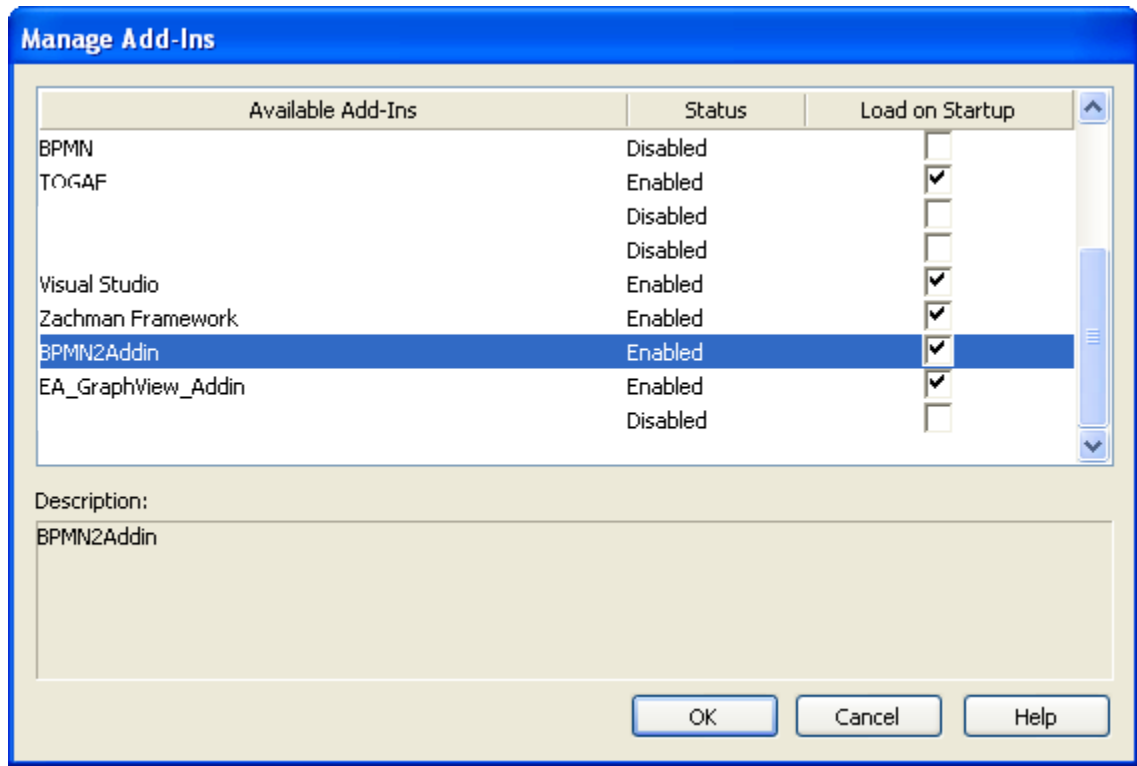


Other add-ins may be present as well, depending on your EA version and configuration. Sub-menus of the “BPMN2” entry will become available only in the proper BPMN 2.0 context.

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



And confirm that the “BPMN2Addin” is loaded and enabled:



If an error status is shown this typically means that:

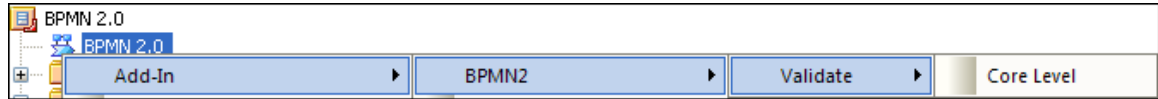
- The DLL installation process failed and that EA cannot locate its reference, either in the Windows registry or in the file system.
- The installation did succeed but the DLL file was later moved or deleted.

If the “BPMN2Addin” entry itself is not found then the add-in installation did not complete successfully. Try the “repair” option when re-installing or, if that does not resolve the problem, uninstall the current version manually and re-install from scratch.

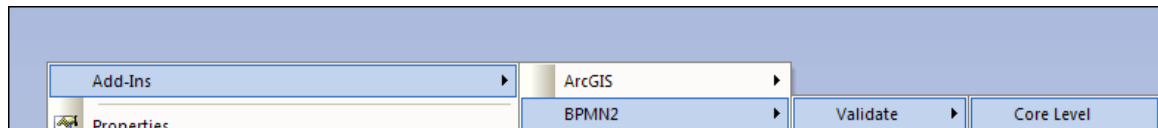
## Running the validation

Currently the only supported context for the validation is a BPMN 2.0 diagram. Diagrams from earlier BPMN versions are ignored.

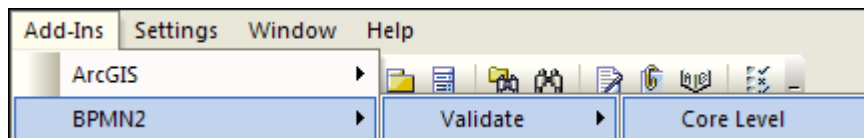
The diagram can be identified in the Project Browser and the validation menu accessed through a right mouse-click:



The command can also be invoked by right-clicking on a diagram **background** (i.e. with no elements selected in the diagram):



In the same two contexts, and as an alternative to using right-click, the operation is also available from the tool's "Add-Ins" menu:

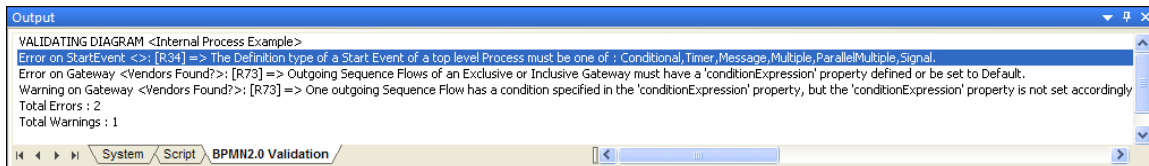


Elements on the diagram that do not belong to the BPMN 2.0 metamodel (e.g. Requirements) are ignored.

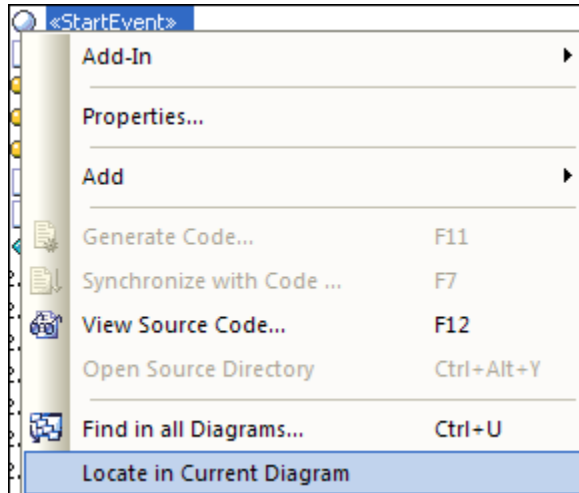
Sub-Processes that are composite elements (i.e. with a child diagram underneath) are automatically included in the validation process. To verify a child diagram only, select it as the validation context.

The program automatically creates a "BPMN 2.0 Validation" tab in EA's Output Window and ensures that the tab is visible to the User.

Validation results are divided into warnings and errors:



A single (left-mouse) click on an error or warning message selects the related element in the Project Browser. From there, if needed, the element can be located in the current diagram (or in any other diagram):



EA currently does not support the automated selection of a connector in a diagram, so any errors or warnings relating to a connector will always be expressed in terms of either its source or target element.

Double clicking the line entry in the Output Window will open the Properties dialog for the related element.

## Support and contact information

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

Frank Truyen

Email: [frank.truyen@cephas.cc](mailto:frank.truyen@cephas.cc)

Phone : 714-573-7112.