Storyboard Creator©
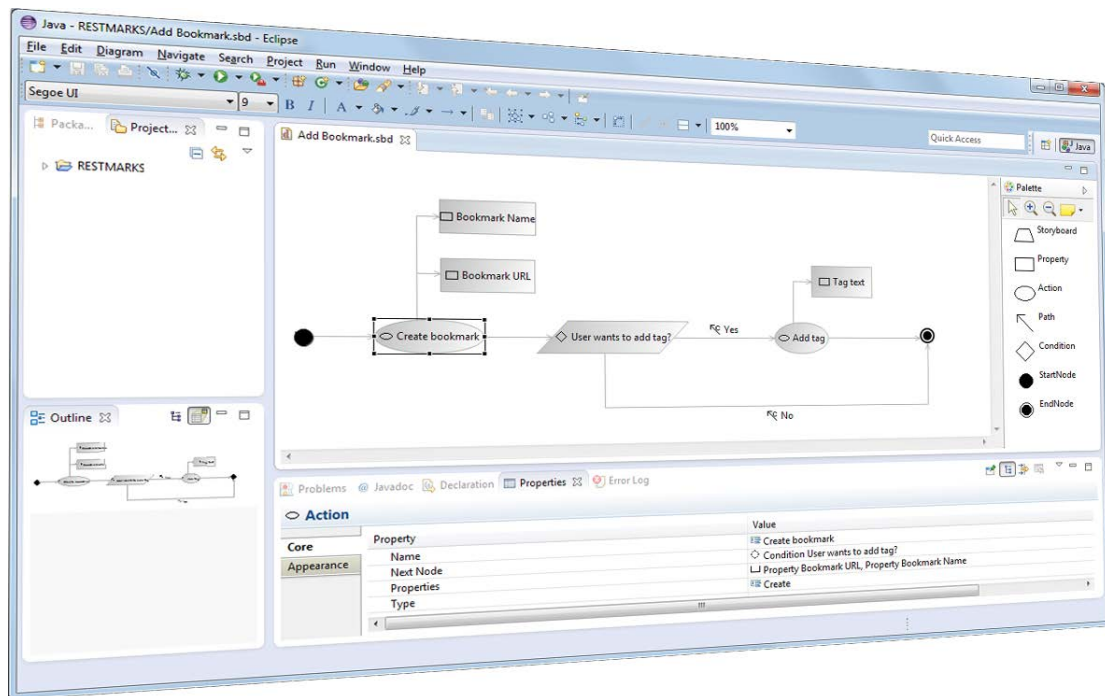
User Manual of the Storyboard Creator© Eclipse Plugin

Contents

1. Introduction

Storyboard Creator[©] is an Eclipse plugin designed and developed by the Aristotle University of Thessaloniki as part of the S-CASE project [1]. The aim of this tool is to help developers express the dynamic view of software projects.

The diagram tool is built using the GMF Runtime of the Eclipse Graphical Modeling Project (GMP) [2]. The tool's update site is:

http://authecesofteng.github.io/StoryboardCreator/StoryboardPluginUpdateSite

The tool is licensed under version 1.0 of the Eclipse Public License (EPL) [3].
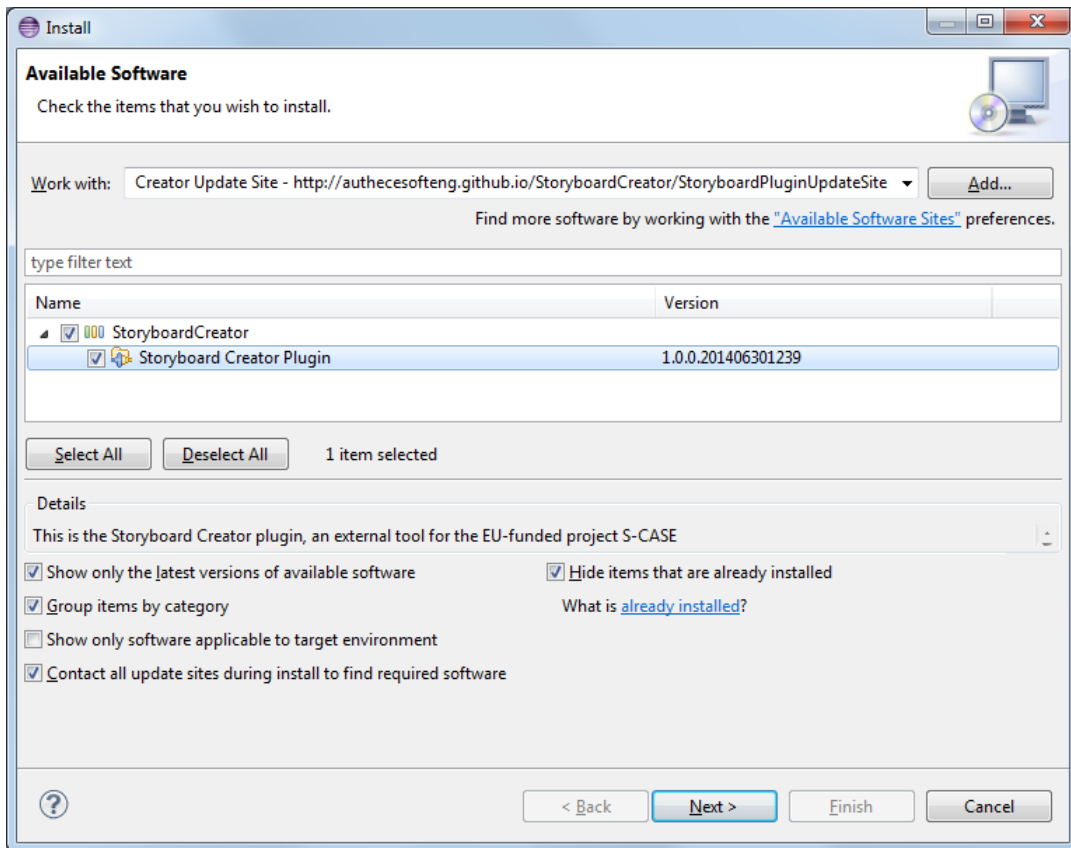
2. Installing the Storyboard Creator©

The installation procedure of the Storyboard Creator© is simple. The easiest way to install the storyboard creator is by using the Eclipse plugin update site. In Eclipse, you can select the *Help* menu and click on the option *Install new software*. After that, click on the *Add…* button on the right to add a new repository. In the dialog box that opens insert the address of the Storyboard Creator© update site

http://authecesofteng.github.io/StoryboardCreator/StoryboardPluginUpdateSite

in the location field and fill in a name for the new repository.
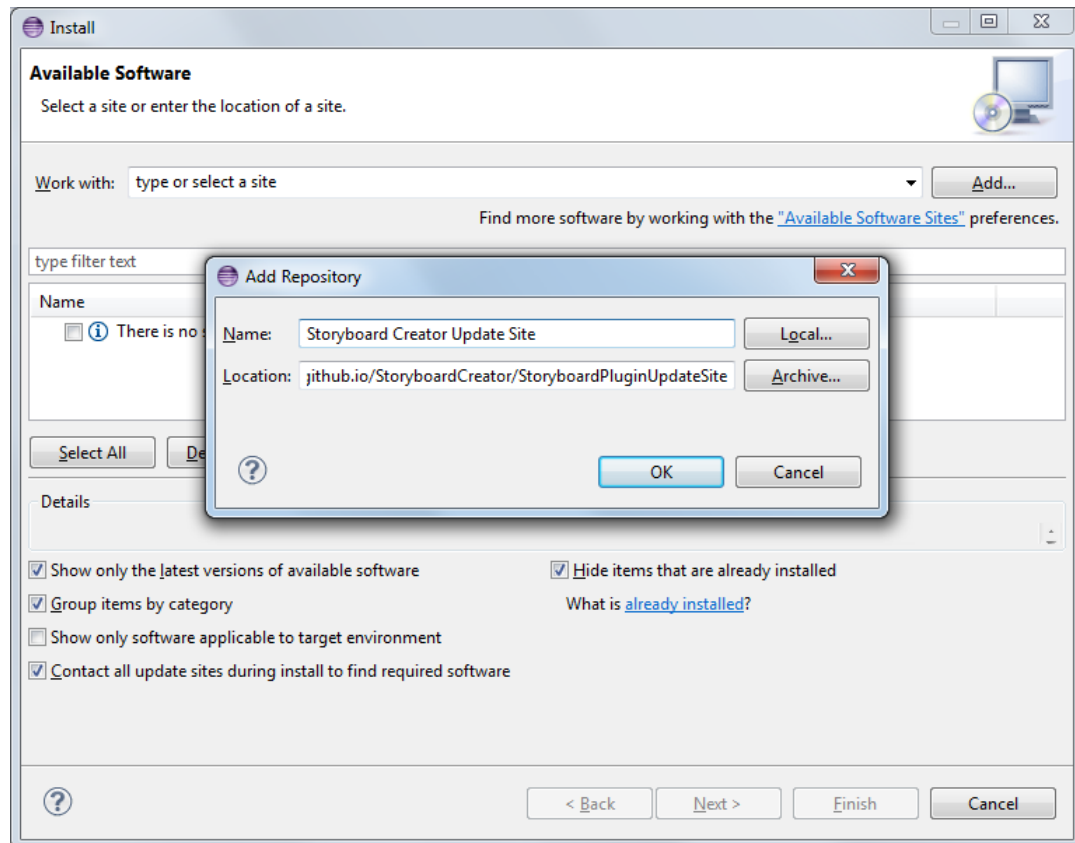

After that the new repository should be selected in the *Work with* field. Tick the *Storyboard Creator Plugin* and press *Next* in order to start the installation.

Upon pressing *Next* once again, the install shield shows the product's license.
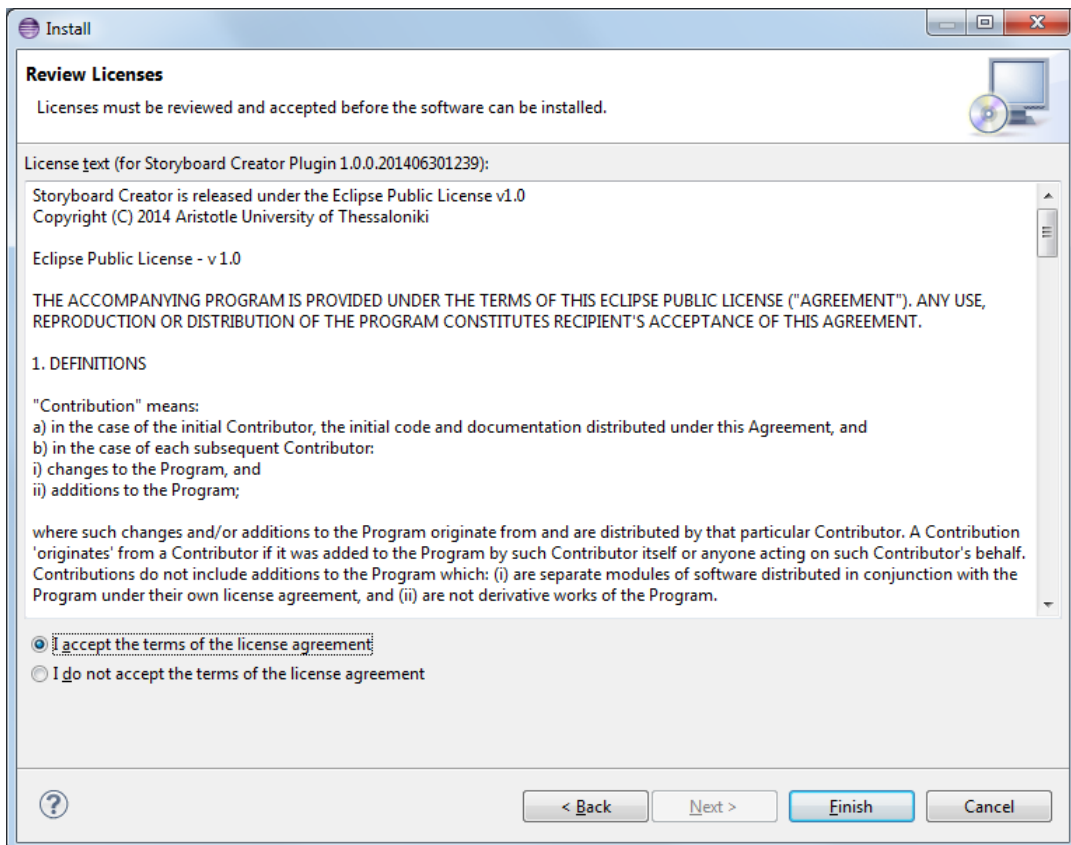
If you agree with the terms of the license agreement, select the radio button *I accept the terms of the license agreement* and press *Finish*. The Storyboard Creator© shall start installing. Note that Eclipse may issue a security warning since the plugin is not signed with a certificate. You can safely ignore this warning by pressing *OK*.
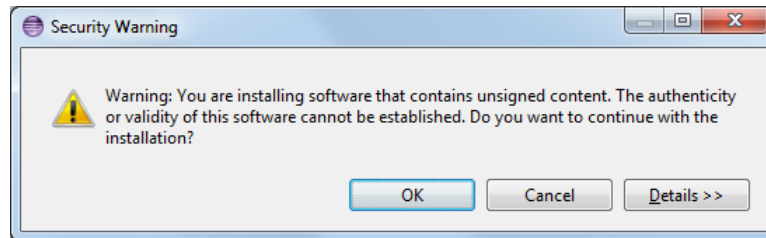
Finally Eclipse will continue with the installation. Upon completion, you have to press Yes in the prompt box that asks you to restart Eclipse.
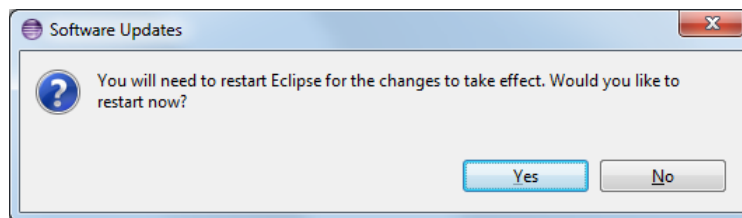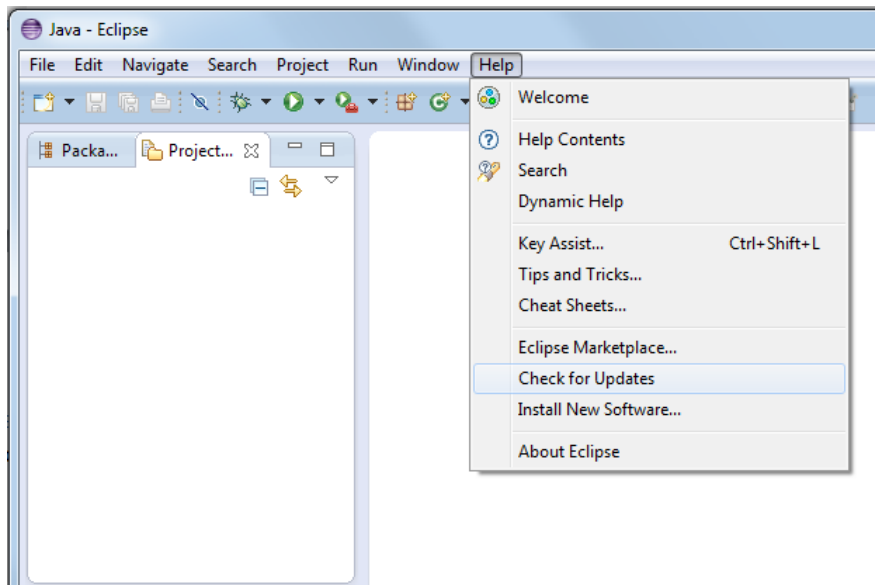

You can check that Storyboard Creator© is installed by selecting the option *About Eclipse* of the *Help* menu and pressing *Installation Details*.
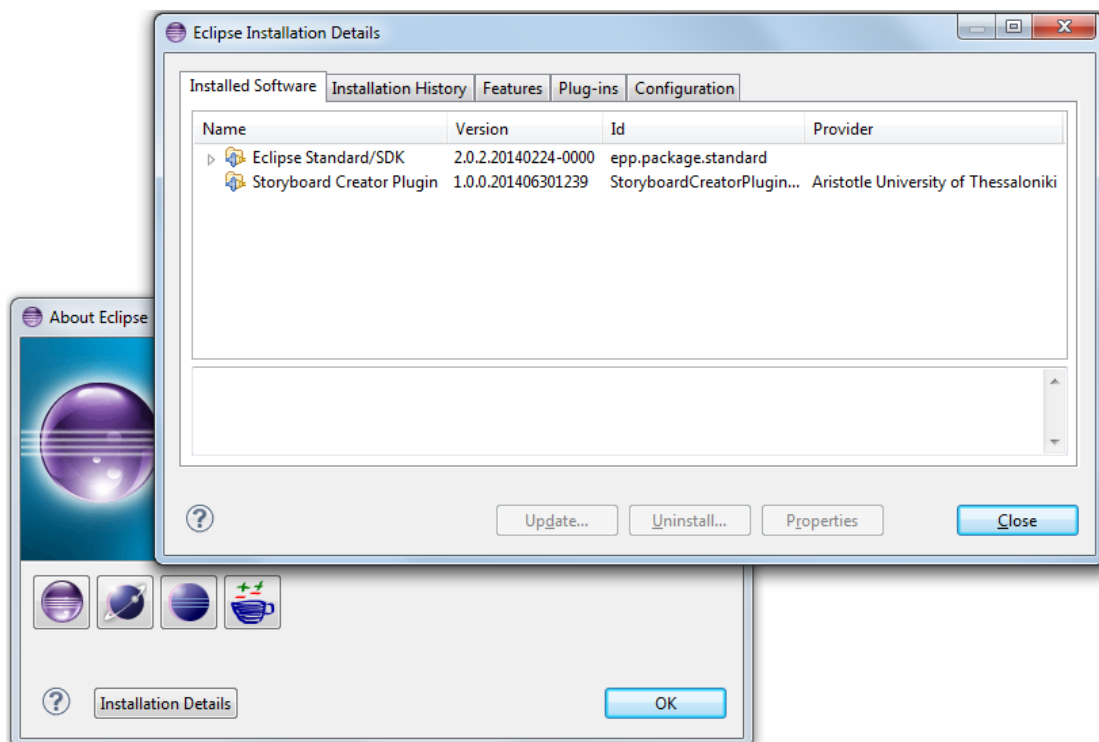
3. Updating the Storyboard Creator©
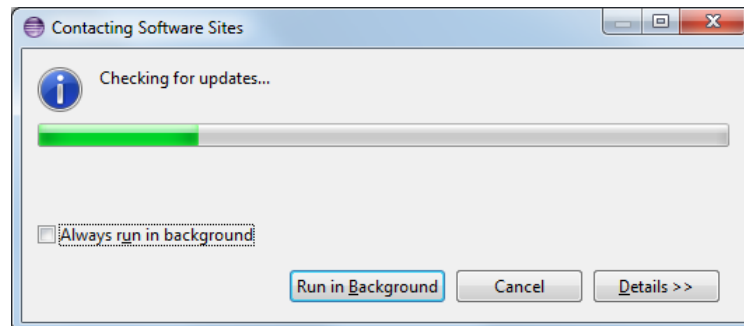
Updating the tool is quite easy. The update is initialized by selecting *Help* and *Check for Updates*.

Since the tool is installed, Eclipse will contact the software site and will prompt for updating it if there is some newer version.


Upon prompting the user, Eclipse will start the update procedure of the plugin which is similar to the Install procedure of the previous Section.

4. Using the Storyboard Creator©

This Section covers the usage of Storyboard Creator. Initially, an overview of the main screen of the tool is shown and after that the procedure of creating storyboards and importing/exporting them is demonstrated.

4.1. Overview

Storyboard Creator© uses several views of Eclipse. The main screen of the tool is shown in the following screenshot.
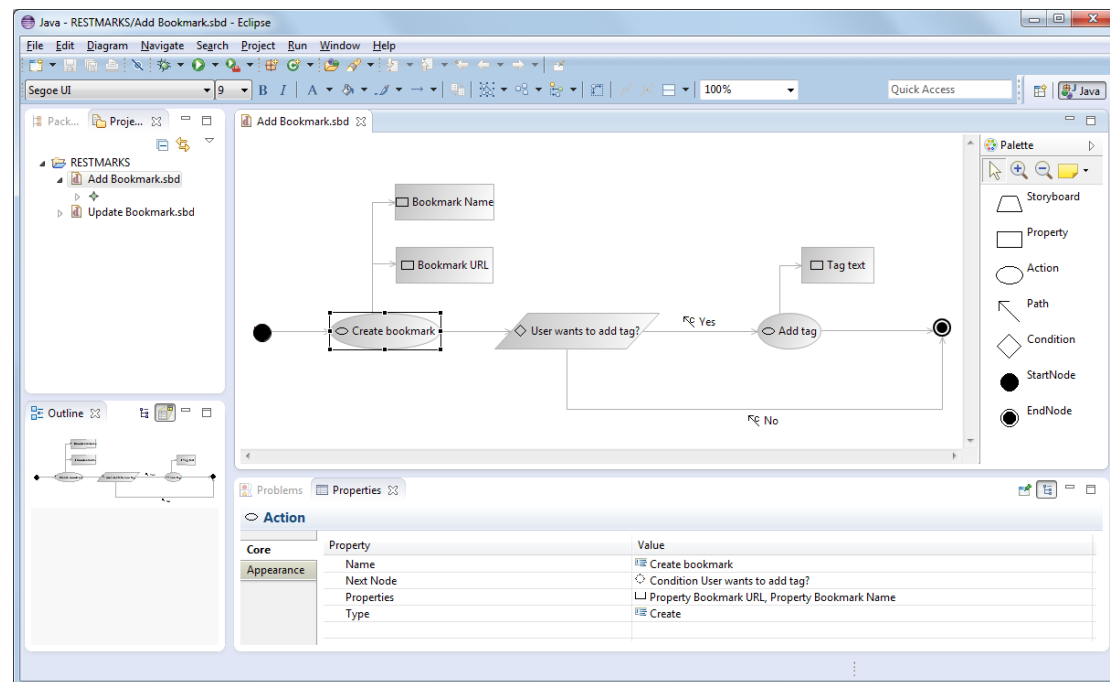
As shown in this screenshot, the main views used in Storyboard Creator© are:

- The Canvas, in the center of the screen, where the storyboard diagrams are shown and edited.
- The Palette that includes the possible shapes on the right.
- The Project Explorer on the left that shows the open and closed Storyboard Creator© projects.
- The outline in the lower left part of the screen that allows viewing the canvas and navigating (especially when the diagrams are large).
- The Properties tab in the lower part of Eclipse that allows changing specific values for properties of diagram elements.
- The Problems informational tab in the lower part of Eclipse that shows any validation problems for the diagrams.

Note that the user is able to change the position of these tabs as he/she would normally do in the Eclipse IDE.
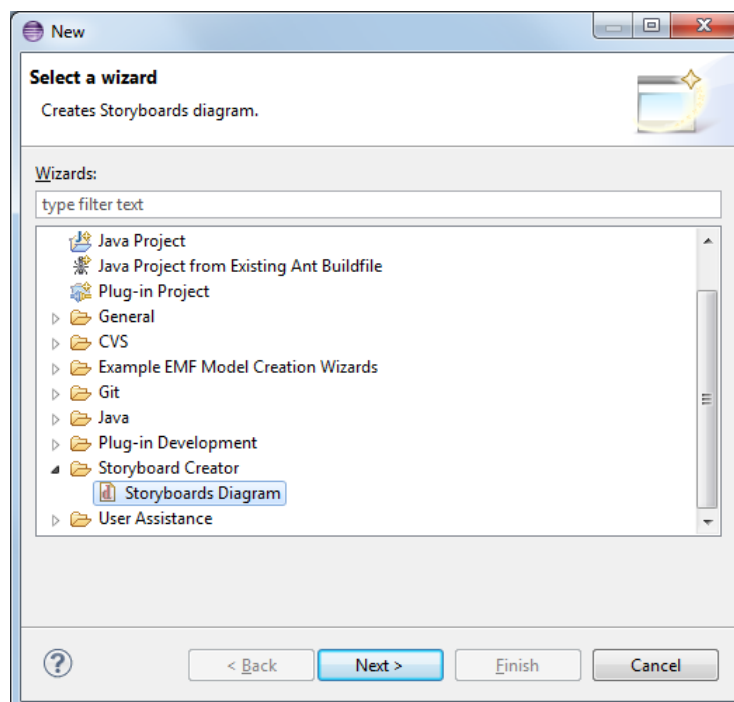
4.2. Creating Storyboards

4.2.1. Creating Projects and Storyboards

Storyboards stored in Eclipse projects. So at first, one has to create a project by selecting the option *File* and then *New* and *Project….* After that, the general type of project has to be selected.
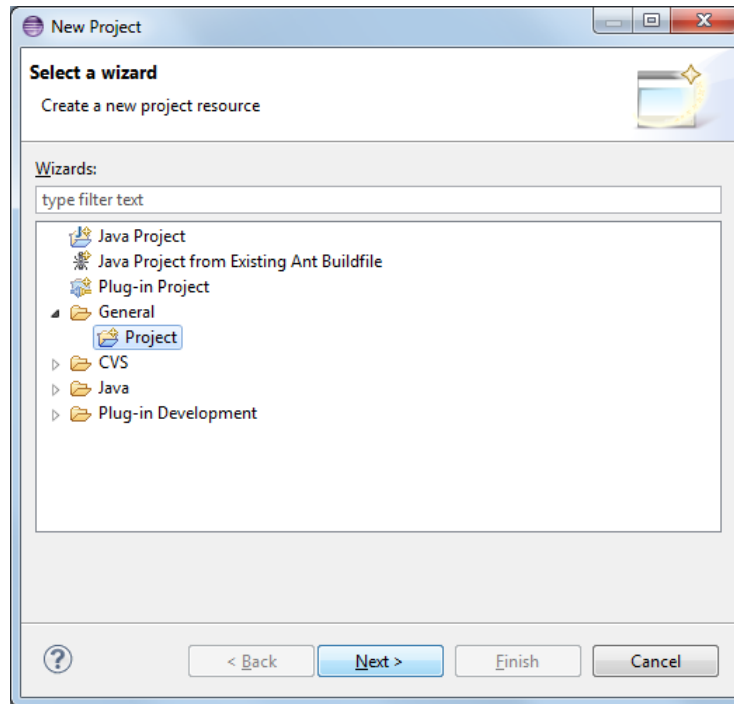
After that, the user is asked to give a name for the project and press *Finish*. The process for creating a storyboard is similar. Upon selecting the option *File* and then *New* and *Project…* the user is presented with the following screen.
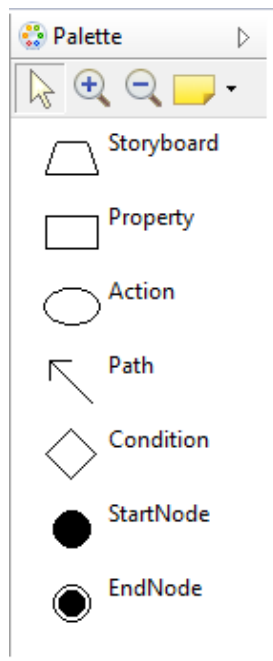
After clicking on *Next*, the next screen asks for a name for the newly created Storyboard.
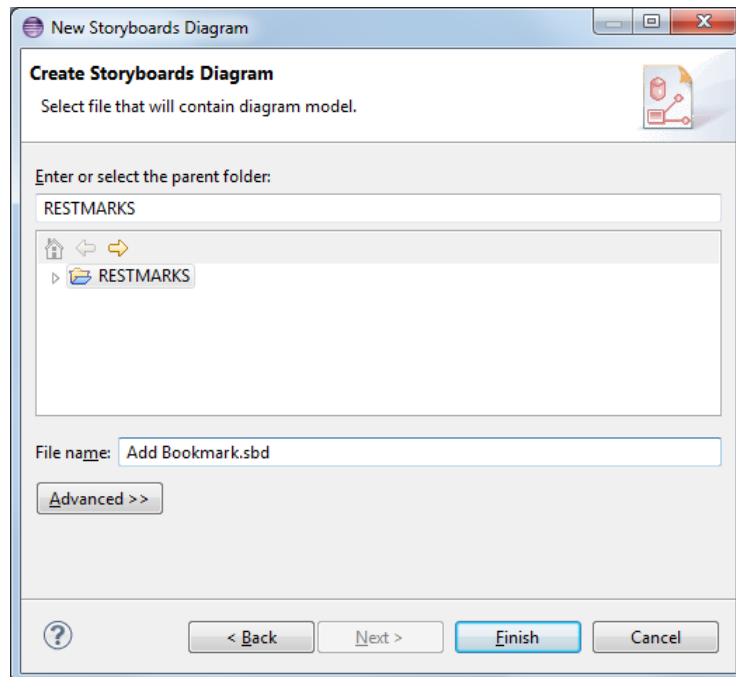
Note that the name must have the extension sbd.

4.2.2. Creating Nodes and Paths

A new diagram is populated with nodes and paths. The available nodes are shown in the tool palette. As shown in the figure on the left, there are 6 available nodes.

Storyboard and Action are similar within the same diagram. Actions, however, represent atomic operations, whereas Storyboards must have their own diagram consisting possibly of several actions.

Properties are interpreted as parameters of Actions. They have to be connected to some Action of the diagram.

Conditions can be used to split the main flow of a storyboard. Each condition must have exactly two outgoing paths.

Each Storyboard Diagram must have exactly one StartNode and one EndNode. The StartNode is the first node of the diagram and the EndNode is the last node of the diagram.

Finally, Path is used to connect the nodes of the diagram to one another. The have one direction, and in the case of an outgoing Condition path, they also have a label.

Finally the palette is also available at any time at the position of the mouse (see screen on the right).

So, the user can select any element from the Palette by clicking on it and place it on the Canvas by clicking once again.

You can change the properties of a diagram element by clicking on it and changing the values in the Properties editor.
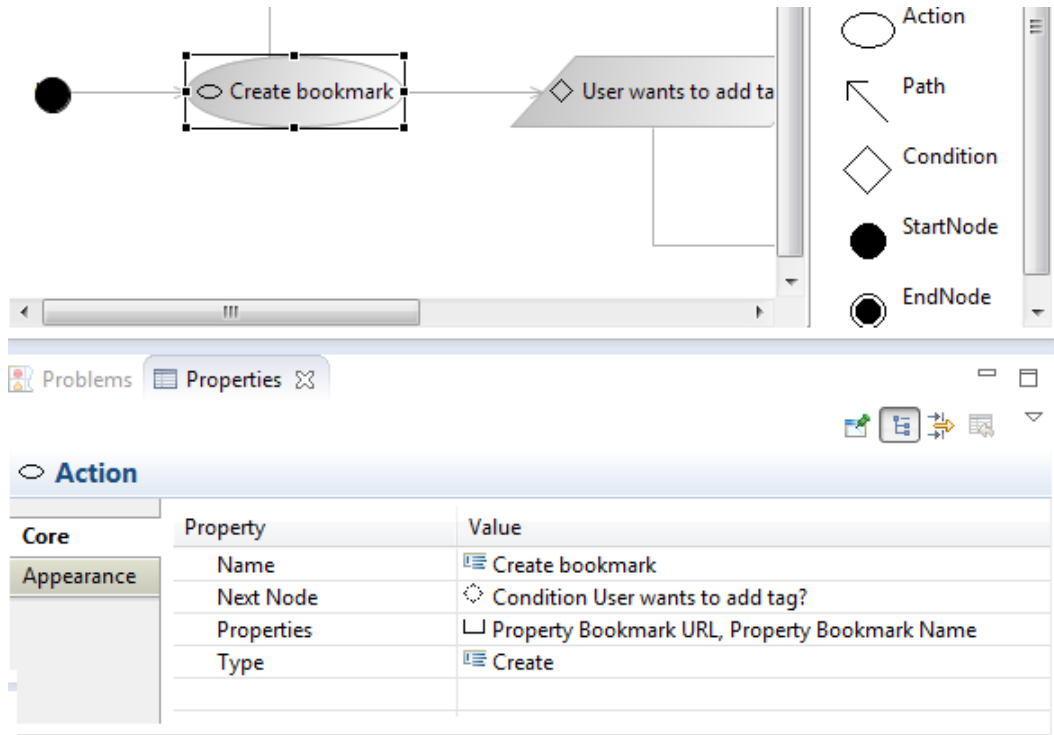

For Action, one can change the name, see the other connected nodes and properties and select the type of the action, out of the 4 CRUD types, Create, Read, Update, and Delete, and the type Other. Most other nodes (and paths) have only a name, while storyboard has also the Precondition option, as the diagram precondition.

11
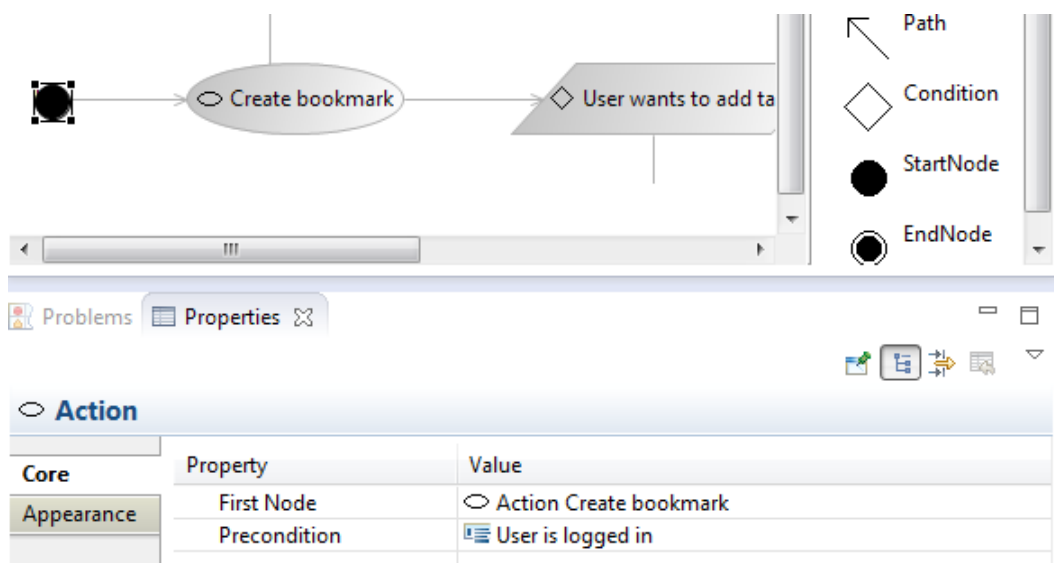
4.2.3. Storyboard Validation

The Storyboard Diagrams have specific validation rules. Storyboard Creator© checks these rules every time a diagram is saved and presents them in the Problems tab of Eclipse.

Several validation errors are shown in the following figure.
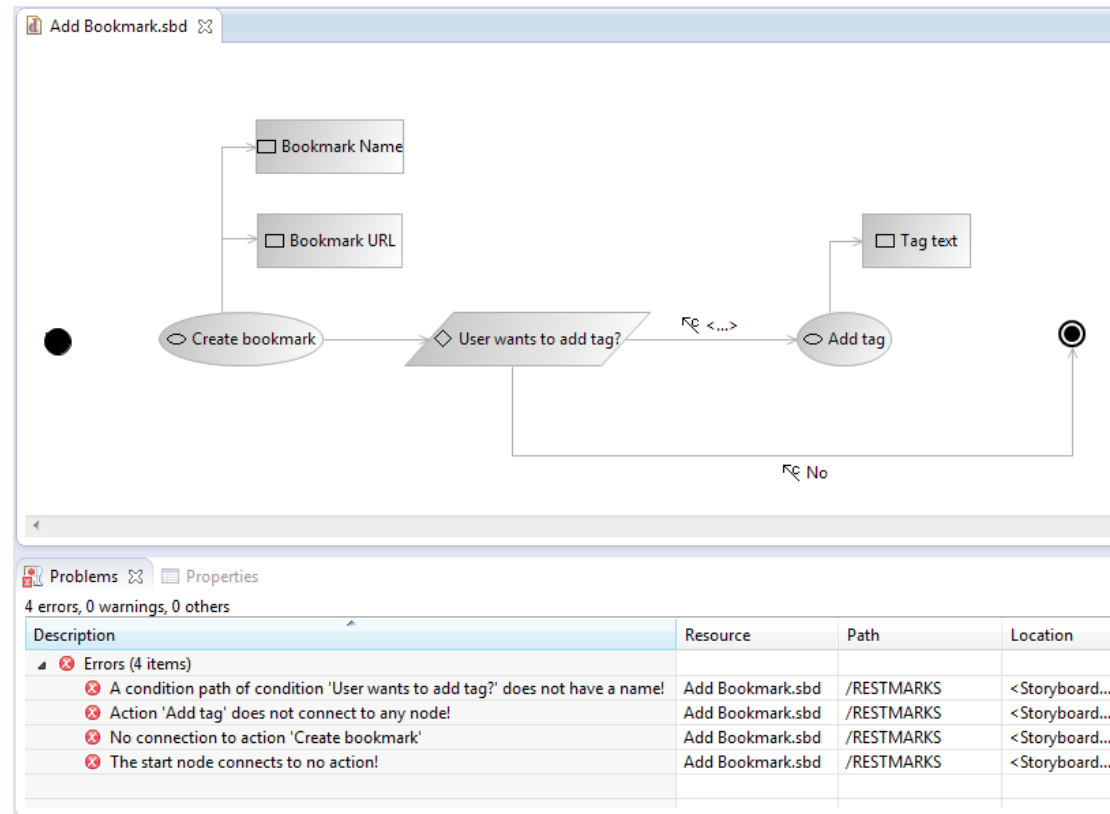
In the above example, the start node does not connect to any node, the Action "Add tag" does not connect to any node, and there is no connection (i.e. possible path) to the Action "Create Bookmark". In addition, a condition path of Condition "User wants to add tag?" does not have a name.

The messages shown by Storyboard Creator© are informative, so the user should be able to correct the diagram and upon saving, these messages will disappear.

4.3. Importing/Exporting Storyboards

Storyboard Creator© can import and export the diagrams of a project using the functionality of the Eclipse IDE.

4.3.1. Importing Storyboards

Storyboards are imported into projects. After right clicking on a project and selecting the *Import…* option in the context menu, the following screen is shown.
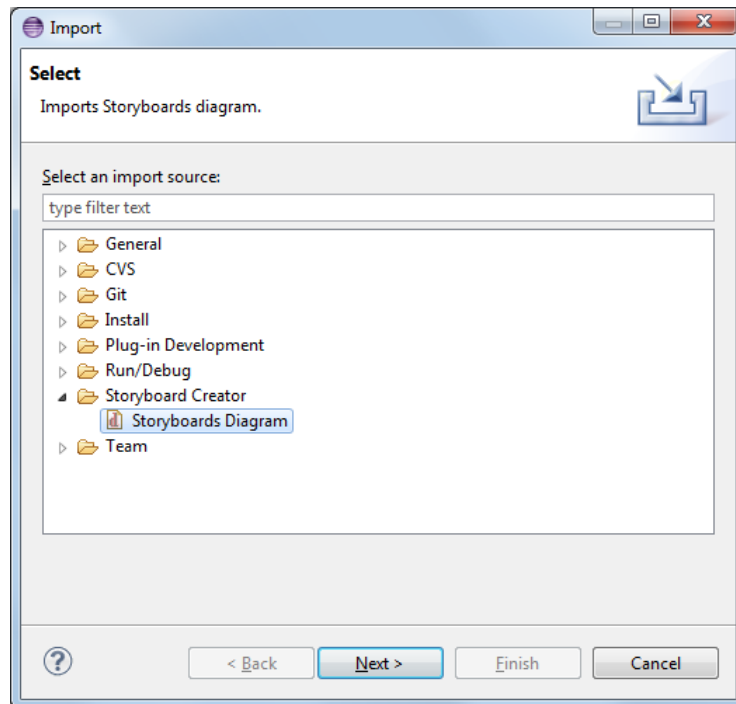

Selecting the *Storyboards Diagram* and clicking *Next* shows the following screen.
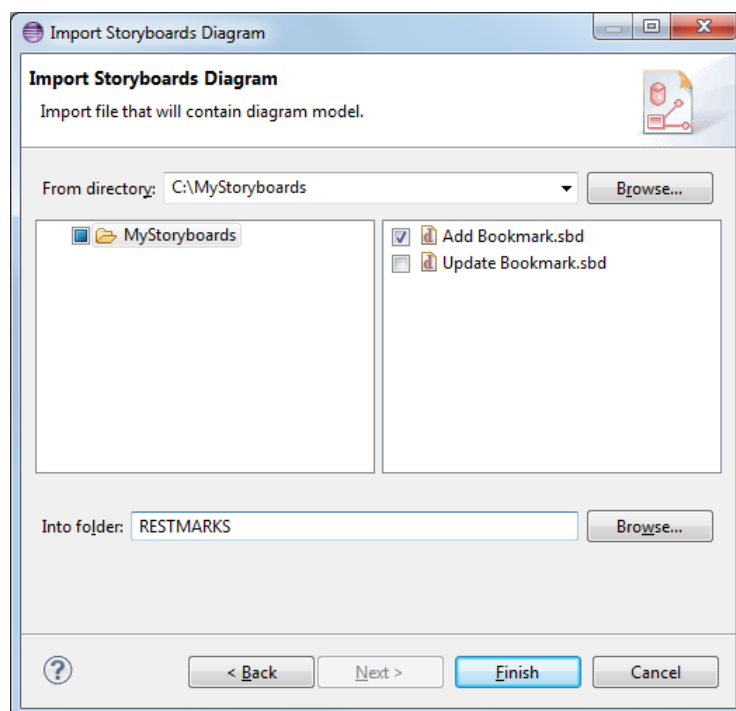
As shown in the above Figure, the user has to select the directory where the storyboards to be imported reside. After that, he/she is presented with a list of storyboard files on the right of the screen. Note that only files with extension sbd are accepted. In the bottom of the window, the user may select the project that will have the newly imported storyboards.

4.3.2. Exporting Storyboards

Exporting storyboards is also a quite simple procedure. It is initialized by selecting the option *Export…* from the right click context menu of a project. After selecting the *Storyboards Diagram* option (similar to the Import screen), the system shows the following screen.
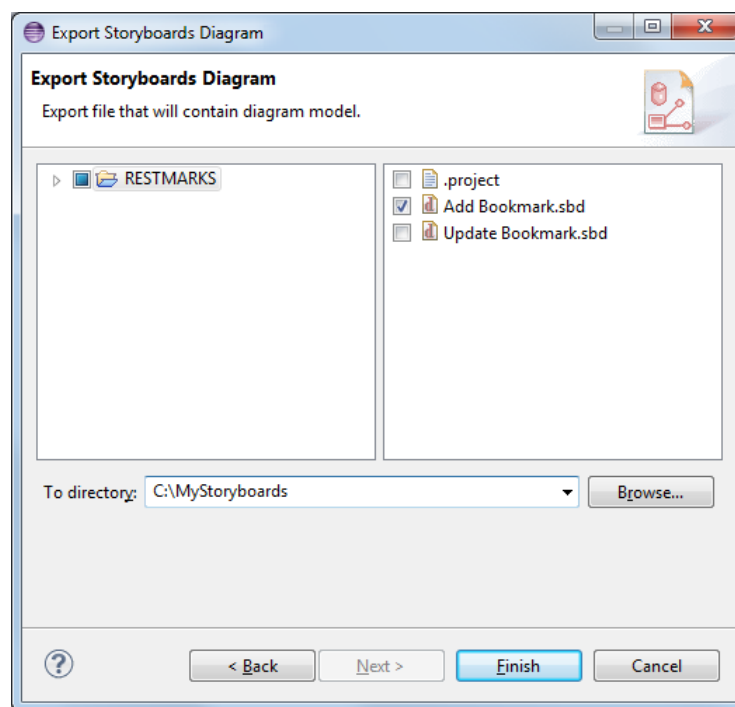
As shown in this Figure, the user has the option to export one or more storyboard files (selected by the right section of the screen) into the chosen file system directory (selected in the bottom of this screen).

Note that trying to import or export any file with no sbd extension will cause Storyboard Creator[©] to display error messages.

References

[1]   S-CASE project, FP7, project webpage: http://www.scasefp7.eu/

[2]   Eclipse Graphical Modeling Project (GMP), available online:
      http://www.eclipse.org/modeling/gmp/?project=gmf-runtime

[3]   Eclipse Public License (EPL), version 1.0, available online:
      https://www.eclipse.org/legal/epl-v10.html