Development in Eclipse

The preconfigured Eclipse projects for two sample plugins and a batch mode (command-line) tool are provided with a program installation. These projects can be found in *<modeling tool installation directory>\openapi\ide\eclipse.zip*.

Let's use MagicDraw as an example to describe the following procedures.

> Make sure MagicDraw installation directory does not contain spaces.

To setup the Eclipse environment for the modeling tool development

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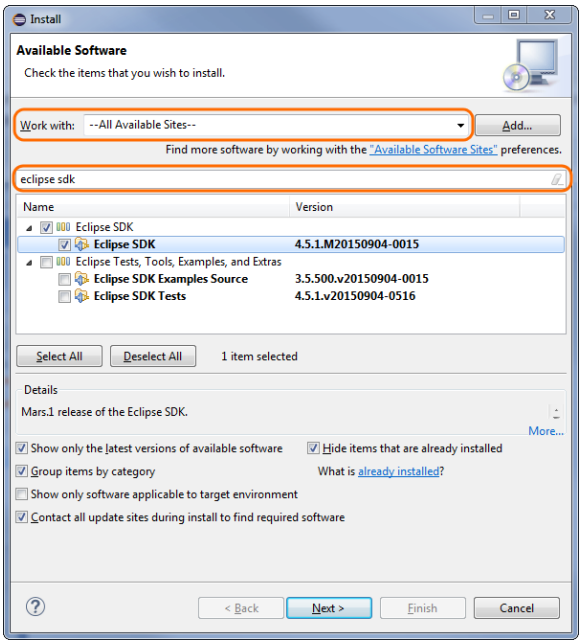
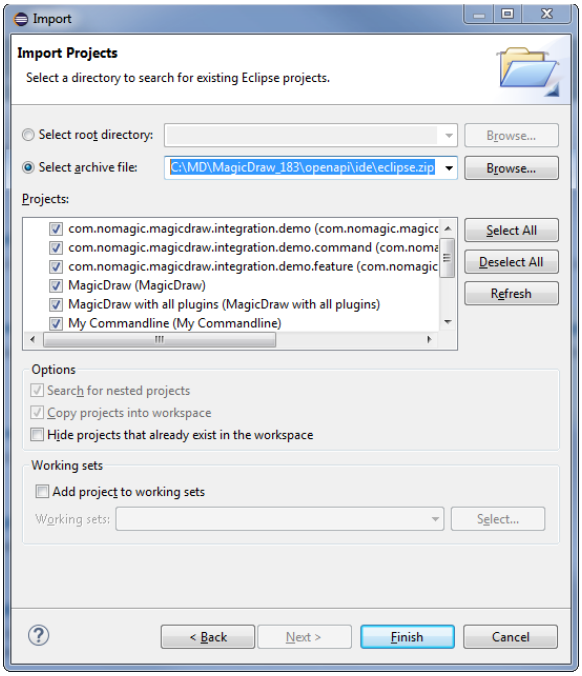
1. Start Eclipse IDE. To install Eclipse SDK, from the main menu, select **Help** > **Install New Software**. The **Install** dialog opens. In the **Work with** list, select **All Available Sites**, and, in the **filter** box, type *eclipse sdk* and press Enter. All available Eclipse versions are listed. Click to select **Eclipse SDK** and go **Next**. Follow the installation wizard steps to proceed software installation process.

   > In case you have Eclipse IDE for Eclipse Committers, Eclipse SDK is already available in your IDE and you can skip this step.

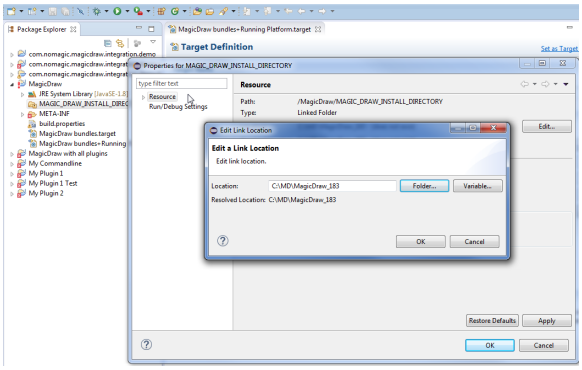
   

2. After the installation completes, import java projects from *<modeling tool installation directory>\openapi\ide\eclipse.zip* into your Eclipse Workspace. On the main menu, click **File** > **Import**. The **Import** dialog opens. In the **Select an import source** list, select **General** > **Existing Projects into Workspace** and click **Next**. Copy the java project location to the **Select archive file** box or browse to the java projects and click **Browse**. The project list appears in the **Projects** box. Select projects you need and click **Finish.**

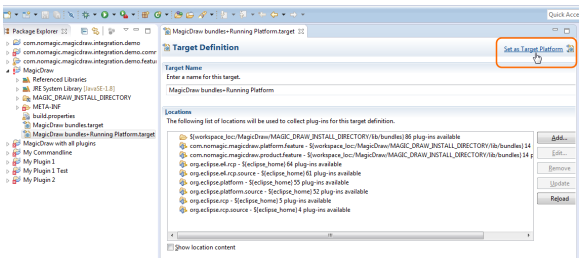


3. Open the **Package Explorer** view, expand the MagicDraw project and edit the MAGIC_DRAW_INSTALL_DIRECTORY link:
   3.1. Right-click the link and select **Properties**.
   3.2. On the left side of the opened dialog, select **Resource** and click the **Edit** button on the right side of the dialog. The **Edit Link Location** dialog opens.
   3.3. Select the location and click **OK**.

> Be sure the link points to your MagicDraw (or other according to a modeling tool you are using) installation directory (see the following figure). **Installation directory must not contain spaces.**



4. In the **Package Explorer**, expand the MagicDraw project and open target definition file *MagicDraw bundles+Running Platform.target*. Click **Set as Target Platform.**



5. Locate two exemplary launch configurations in the **Package Explorer**.
   5.1. *MagicDraw with all plugins.launch* is in the project *MagicDraw with all plugins*. It launches MagicDraw (or other modeling tool) with plugins available in the IDE workspace namely *My Plugin 1* and *My Plugin 2*.

> ⚠ The launch configuration is designed to load plugins from the MagicDraw (or other according to a modeling tool you are using) installation directory (see step #3) and two plugins from the Eclipse Workspace. Thus, if the *md.plugins.dir* java system property is not defined (see Plugins directories), developing plugins are not loaded.

5.2. *My Commandline.launch* is in the project *My Commandline*. It launches batch mode tool *My Commandline*.

Eclipse Workspace is ready for the source code development and running/debugging.

> ⚠ The libraries (jar files) of the plugin must be added to the development class path throughout the plugin dependency hierarchy if the developing code depends on that plugin.
> For example, if the code depends on plugin A; plugin A depends on plugins B and C; plugin B depends on plugin D, the libraries of all plugins (A, B, C, and D) must be added to the class path.

> ⚠ When you launch your own plugin, you need to add all jar files that are required by your plugin from appropriate plugins. The MagicDraw jar files can be found in MAGIC_DRAW_INSTALL_DIRECTORY/lib and its sub directories, whereas plugins' jar files can be found in MAGIC_DRAW_INSTALL_DIRECTORY/plugins and its sub directories.

> ⓘ Even if the plugin descriptor file contains information about the runtime plugin *.jar* file, it is not necessary to build and deploy this *.jar* file to a plugin directory while the plugin is developed under Eclipse.