

# Writing plugins

With this example, we will create a plugin that displays a message on the program startup. To create the plugin, you need to write a plugin descriptor.

## Related pages

- [Compilation classpath](#)
- [Plugin descriptor](#)

### Step #1: Create your plugin folder in a *plugins* folder

Create a *myplugin* folder in the *plugins* folder in the installation directory of the modeling tool.

### Step #2: Write a plugin code

The plugin must contain at least one class derived from the [com.nomagic.magicdraw.plugins.Plugin](#) class.

```
package myplugin;
import com.nomagic.magicdraw.plugins.Plugin;
import javax.swing.*;
public class MyPlugin extends Plugin
{
    @Override
    public void init()
    {
        JOptionPane.showMessageDialog(null, "My Plugin init");
    }
    @Override
    public boolean close()
    {
        JOptionPane.showMessageDialog( null, "My Plugin close");
        return true;
    }
    @Override
    public boolean isSupported()
    {
        //plugin can check here for specific conditions
        //if false is returned plugin is not loaded.
        return true;
    }
}
```

This plugin shows the one message when it is initialized, and another message when it is closed.

### Step #3: Compile and pack the plugin to a *.jar* file

 For more information on the classpath specification details, see [Classpath](#).

The compiled code must be packed to a *.jar* file.

To create a *.jar* file, use a *jar* command in the *plugins* directory:

```
jar -cf myplugin.jar myplugin/*.class
```

### Step #4: Write a plugin descriptor

The plugin descriptor is a file named *plugin.xml*. This file should be placed in the *myplugin* folder.

```
<?xml version="1.0" encoding="UTF-8"?>
<plugin id="my.first.plugin" name="My First Plugin" version="1.0" provider-
name="Coder" class="myplugin.MyPlugin">
  <requires>
    <api version="1.0"/>
  </requires>
  <runtime>
    <library name="myplugin.jar"/>
  </runtime>
</plugin>
```

For detailed information about the plugin descriptor, see [Plugin descriptor](#).