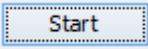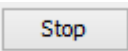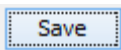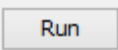# Recording Macros

Macro Engine has the capability to record changes in a model. It uses opaque objects to generate macros and record them. This capability is especially useful when you want to redo some of your repetitive tasks.

The following is a list of actions that you can record:

- Creating UML, Stereotype, and DSL elements
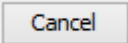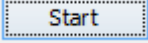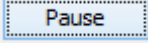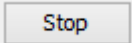- Creating relationships between UML, Stereotype, or DSL elements
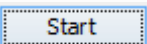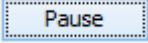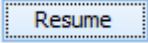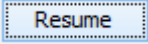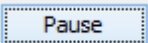
> ⓘ You cannot move the element defined as a record scope during recording.

To record a macro

1. Click **Tools** > **Macros** > **Record Macro** on the MagicDraw main menu. The **Record Macro** dialog will open, see figure below.
2. Select a macro language in the **Language** box (you will see the default macro language that you have previously selected in that particular box (see *Selecting a Default Macro Language*).
3. Select the ☐ Define record scope check box and click the **Model Scope** button to locate a scope in the Containment tree. The generated macros will later record the change in the element by using a relative path that refers to the defined scope.
4. Click ⬛ Start to start recording.
5. Work with the model in the scope you have defined.
6. Click ⬛ Stop to stop recording. The **Record Macro** dialog will close and the **Create Macro** dialog will open, see figure below, showing the recorded macros.
7. Click either ⬛ Save or ⬛ Run .
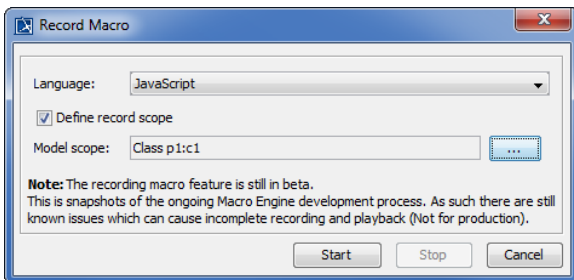
- If you do not open a project, the menu **Tools** > **Macros** > **Record Macro** will be disabled.
- You can select a record scope only before you start recording
- You cannot change a record scope during recording.
- If you do not define a record scope, the model **Data** will become the record scope.

- If you click the Cancel button, the **Record Macro** dialog will be closed.
- If you click the Start button, it will be changed to Pause and the Stop button will enabled.

- You cannot alter the **Language**, Define record scope , or **Model Scope** options after you click the Start button.

- If you click the Pause button, the recording will pause and the button will be changed to Resume .

- If you click the Resume button, the following things will happen:
    - the recording will continue
    - the button will be changed to Pause

- The recording mechanism of Macro Engine can generate code for Beanshell, Groovy, Javascript (Nashorn and Rhino), JRuby, and Jython. Unsupported languages will be filtered out of the

Macro Language:*	JavaScript
File:*	Groovy JRuby JavaScript JavaScript Rhino Jython Maple Mathematica Matlab
Description:	

box.

```
Create Macro

Macro Language: JavaScript

1        var CollectionsAndFiles = new JavaImporter (
2                com.nomagic.magicdraw.automaton,
3                com.nomagic.magicdraw.core,
4                com.nomagic.magicdraw.openapi.uml);
5
6        with (CollectionsAndFiles)  {
7
8            try {
9                SessionManager.getInstance().createSession('Automaton_Macro_Script_Execute'
10               var ele0 = AutomatonMacroAPI.getModelData();
11           }
12
13           finally {
14               SessionManager.getInstance().closeSession();
15           }
16       }
17
```

Save   Run   Close