

Modelica import

What is Modelica?

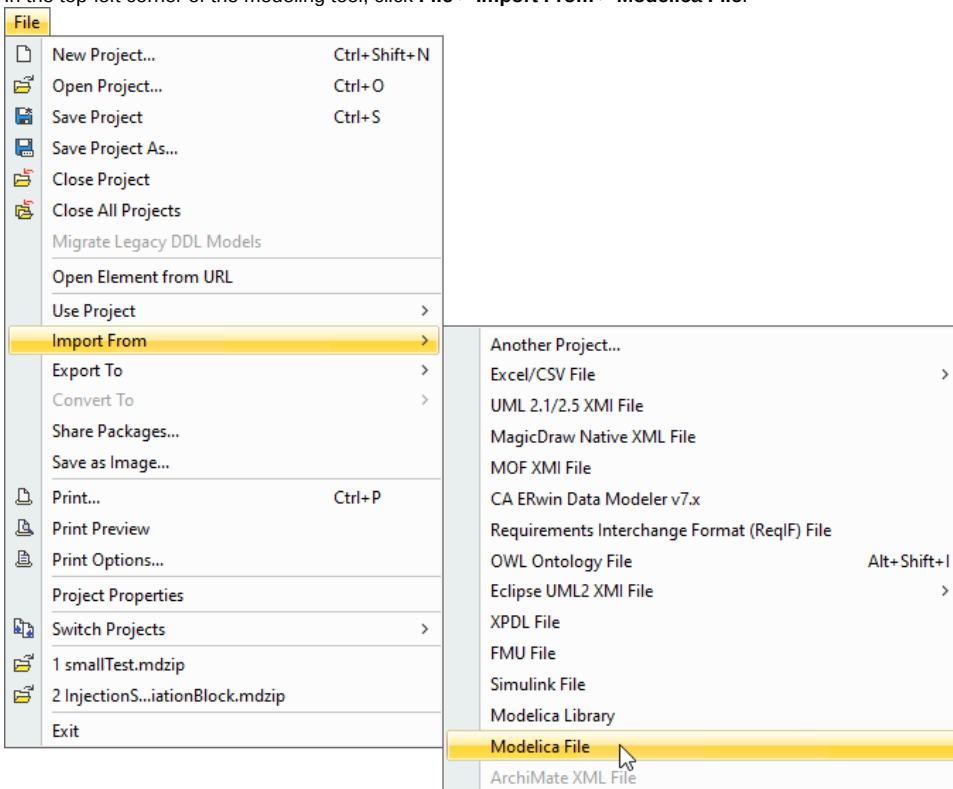
The Modelica Language is a non-proprietary, object-oriented, equation based language to conveniently model complex physical systems containing, for example, mechanical, electrical, electronic, hydraulic, thermal, control, electric power or process-oriented subcomponents.

Modelica file import

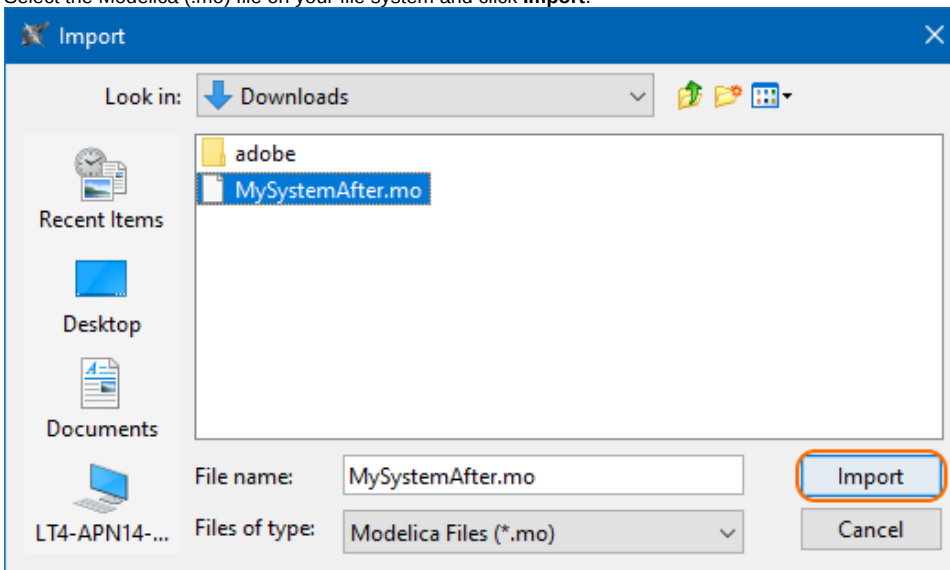
The modeling tools support **MO** file format, meaning that you must have your Modelica model in this format to import it. Following the Modelica file import, the **Modelica Import Options** dialog opens. It allows selecting features you want to update from the Modelica file, create, delete, or change the context-specific initial values. Blocks or Interface Blocks, introduced as property types, are created under the same owner as an imported context. The primitive type, if it was set, is also created for a Block or Interface Block. You can also create properties, connectors, and ports. Note that the imported Connectors are identified by the connector ends.

To import the Modelica file into the model

1. Select a Block.
2. In the top-left corner of the modeling tool, click **File > Import From > Modelica File**.



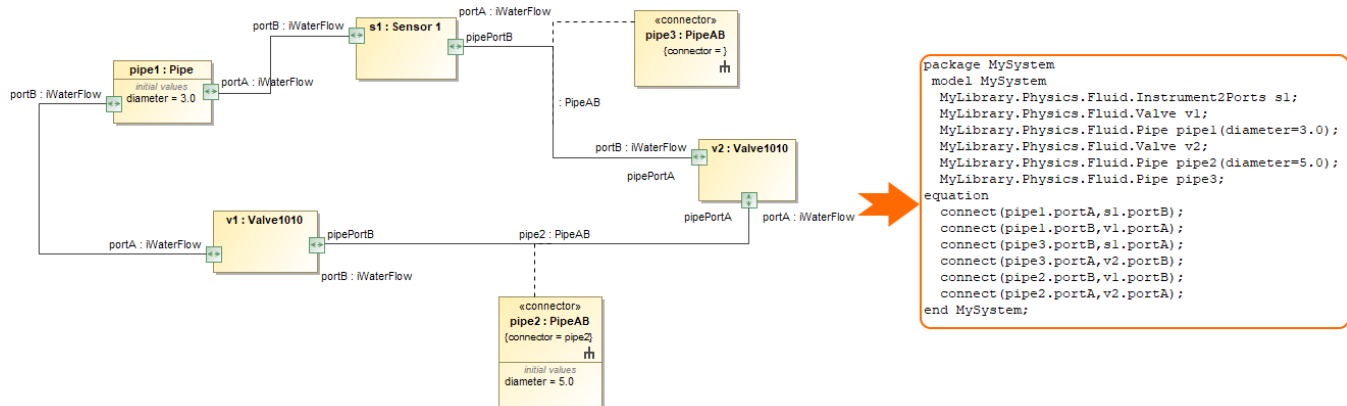
3. Select the Modelica (.mo) file on your file system and click **Import**.



4. In the **Modelica Import Options** dialog, specify which features you want to update from the Modelica file.
5. Click **Import**.

An example of Modelica Import

The original Modelica data file for the example model:



The changes made in the Modelica data file are shown in the Modelica Import Options dialog, where you can choose whether to accept those changes or not:

```

package MySystem
model MySystem
MyLibrary.Physics.Fluid.Instrument2Ports s1 (sensitivity=3,range=10.0);
  MyLibrary.Physics.Fluid.Valve v1;
  MyLibrary.Physics.Fluid.Pipe pipe1 (diameter=2.0);
  MyLibrary.Physics.Fluid.Valve v2;
  MyLibrary.Physics.Fluid.Pipe pipe2 (diameter=4.0);
  MyLibrary.Physics.Fluid.Pipe pipe3;
  Real power;
equation
connect(pipe1.portA,s1.portB);
connect(pipe1.portB,v1.portA);
connect(pipe3.portB,s1.portA);
connect(pipe3.portA,v2.portB);
connect(pipe2.portB,v1.portB);
connect(pipe2.portA,v2.portA);
end MySystem;
model myCar
Real power;
end myCar;
end MySystem;

```

Modelica Import Options

Select the features you want to update from the Modelica file. Create, delete, or change the context-specific initial values. Blocks or interface Blocks, introduced as property types, are created under the same owner as an imported context. You can also create properties. Note that the imported Connectors are identified by the connector ends.

Legend

Added (5) Deleted (2) Modified (4) Read-Only Has Modifications

Type here to filter properties

Name	SysML Value	Modelica Value
MySystem		
s1: Sensor 1		
sensitivity: Integer		3
range: Real		10.0
pipe1: Pipe		
diameter: Real	3.0	2.0
pipe2: Pipe		
diameter: Real	5.0	4.0
power: Real		

Show Only Updated

Select All Clear All

Import Cancel Help