

FMI Features

Technical / Mathematical Features:

1. **Fully parametrizable**
2. **Continuous states:** integrated by the simulation environment (SIMPACK)
3. **Discrete states** (e.g. for discrete controllers): handled FMU internal
4. **Free interconnection** via input and output values: connected by the simulation environment
5. **Event detection:** with possible resetting of the continuous states and integrator reset
 - **State/Root Events:** zero crossing detection by the simulation environment
 - **Step Events:** possible event iteration after each successful integration step (e.g. drift correction, ...)
 - **Time Events:** variable sample times for discrete state handling

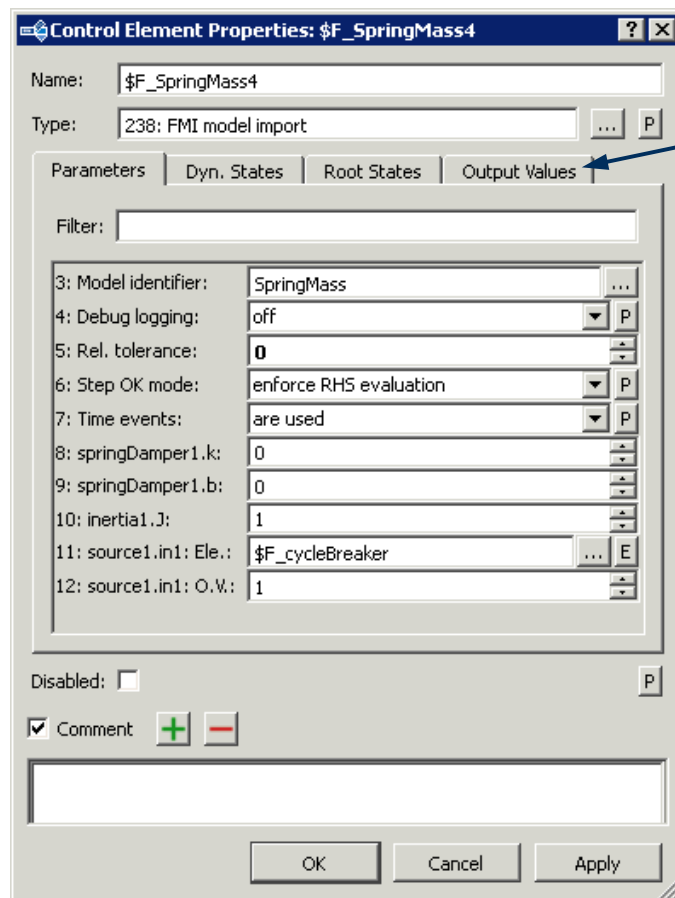


FMI covers all aspects of ODE and mixed ODE/discrete systems

Integration in SIMPACK

FMUs are Imported in SIMPACK as Control Elements

Interaction with SIMPACK using sensors, actuators, ...



FMU specific time-dependent outputs
(can be referenced by other SIMPACK Control Elements)

The FMU to import
(includes DLL+XML-File and resources like tables, ...)

SIMPACK FMI default parameters

FMU specific time-independent parameters
(of type floating point, integer, string or enumeration [ComboBox])

FMU specific time-dependent inputs
(references to other SIMPACK Control Element outputs)