Sample project

The Parametric Simulation sample projects are available in the *<md.install.dir>/samples/simulation/Parametrics* directory. The SysML Parametric diagrams and InstanceSpecifications are as follows

- simple_parametrics.mdzip: basic Parametric Simulation.
- The CylinderPipe.mdzip sample: demonstrates how to deal with multiple values. It shows the calculation for the cost of raw materials that will be used to manufacture the cylinder pipes. It also   demonstrates the use of OpaqueBehaviorAction to simulate the parametric.
- The ActParIntegrate.mdzip sample: demonstrates the use of OpaqueBehavior to simulate the parametric.
- SCARA manipulator.mdzip: demonstrate the use of Parametric Simulation to evaluate the position of end-effector of the SCARA manipulator from the given angles of actuators.
- MotionAnalysis.mdzip and SpringDisplacementUsingTimevariable.mdzip: show how to use Time Series Chart for plotting the runtime values.
- Trade-Study for Brayton Cycle.mdzip: this sample shows you how to perform a trade-study.
- Forward Contract Valuation.mdzip: a dynamic constraint usage in Parametric Simulation.

> ⚠️ **Note**
>
> All of the sample projects of the Parametric Simulation engine include a Simulation Configurations package that contains two SimulationConfig elements for normal and silent simulation. You can select this SimulationConfig class to start the Parametric Simulation engine.

Related pages

- Specifying the language for the expression
- Value binding
- Evaluating expressions
- Evaluation with causality
- Dynamic constraint
- Manual value updates using the Parametric Evaluator
- Communicating with evaluators through simulation console
- Exchanging values between Magic Model Analyst and Parametric Evaluator
- Built-in Math
- Integration with external Evaluators
- Trade study analysis
- Sample project