WinMOD®

Mewes & Partner

Our offerings at a glance:

WinMOD Products

- System Software
- System Configurations
- Add-ons
- Assistances
- OCA Libraries

System Training

- Customized training for the WinMOD System Software, as well as the WinMOD Configurations needed for the coupling to your automation system.

Start Ups for the System Implementation

- Project Counseling
- Project Monitoring
- WinMOD Libraries
- Work Flow Optimization/Assistance

WinMOD Libraries

- Company-specific Libraries
- Technology-specific Libraries

… and more than 10 years worth of experience in Virtual Commissioning.

Your way to us

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Real-Time Simulation Center for Automation

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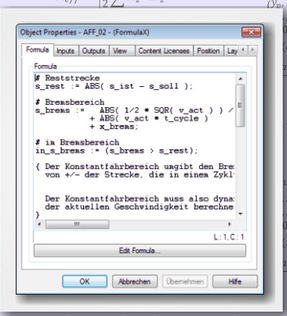
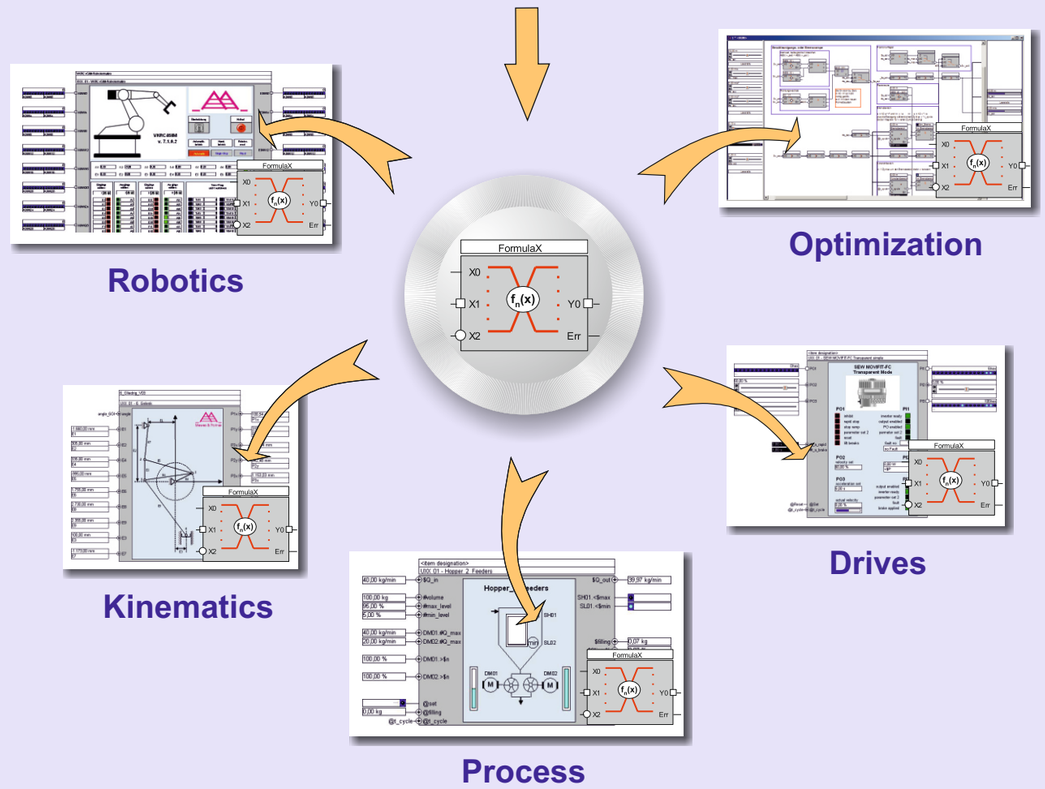
Add-on

FormulaX



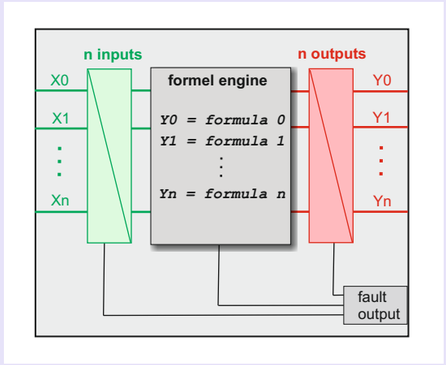


Engineering with WinMOD FormulaX

What is WinMOD FormulaX?

WinMOD FormulaX is an Add-on for the realization of complex mathematical and physical formulas in the WinMOD System Software.

WinMOD FormulaX simplifies the engineering and optimizes the performance by the utilization of:



WinMOD FormulaX

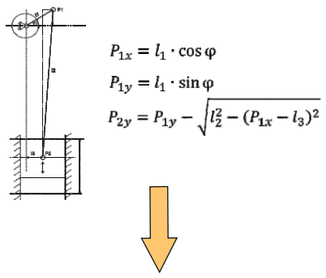
- complex formulas with analog and binary operations
- compact notation in a WinMOD FormulaX element
- clearly structured display of complex formula systems

The number of formulas and outputs in the runtime and editing mode is subject to the licensing.

The Engineering with WinMOD FormulaX

The behavior to be simulated is analyzed and relations of analog and binary state variables and process functions are described by formulas. The formula style corresponds with the general known rules of formula notations. Formulas can be chosen easily from collections of mathematical formulas and transfered to WinMOD.

1. Analyzing of behavior and description through formulas

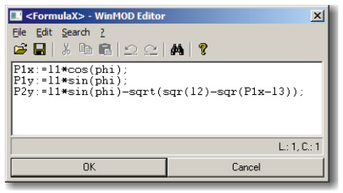


$$P_{1x} = l_1 \cdot \cos\varphi$$

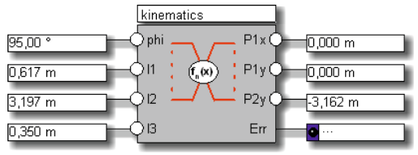
$$P_{1y} = l_1 \cdot \sin\varphi$$

$$P_{2y} = P_{1y} - \sqrt{l_2^2 - (P_{1x} - l_3)^2}$$

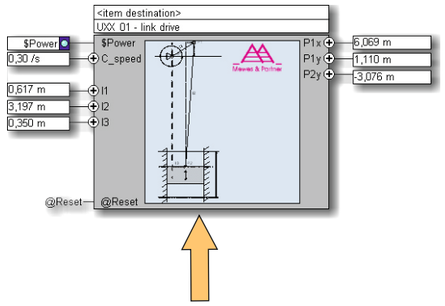
2. Editing in WinMOD FormulaX



3. Simulation of the behavior in WinMOD FormulaX



4. Virtualized component in real time

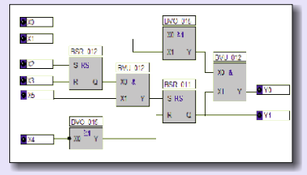


Use of WinMOD FormulaX

What is the Benefit of WinMOD FormulaX?

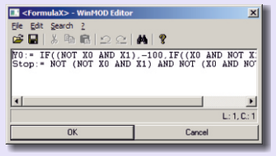
- extension of the WinMOD System Platform for the utilization of symbolic formula language
- higher simulation depth
- creation of customized libraries with WinMOD FormulaX
- integration of WinMOD FormulaX into the well-known WinMOD Components

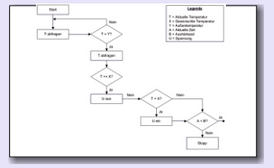
Functions of WinMOD FormulaX



logical operations

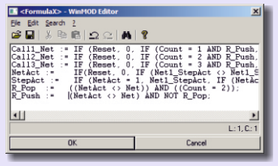
NOT, AND, OR, XOR, EQ,...

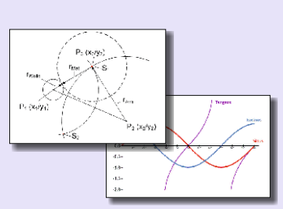




conditions

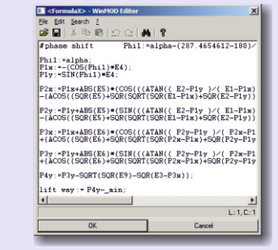
IF, <, >, >=, <=, <>, =





arithmetic operations

trigonometric functions, roots, logarithms, min, max, abs

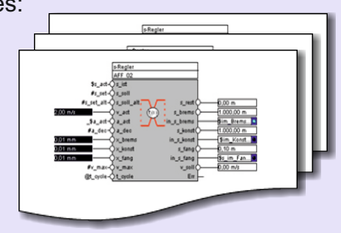


…and WinMOD specific: Identifier conversion, system variables, comments

OCA Libraries with WinMOD FormulaX

Basic libraries for WinMOD FormulaX developed by Mewes & Partner are provided free of charge for users.

Outlook on further development of WinMOD FormulaX libraries:



- libraries for physical formulas
- libraries for mechanical modeling
- libraries for motion mathematics
- libraries for pipe systems

Licensed Libraries with WinMOD FormulaX

On request, Mewes & Partner can develop costumer-specific libraries, which can be protected by WinMOD content licensing.