

## h-p + MC = PREDICI®-11 hybrid

The first version of the leading **polymerization modeling** tool PREDICI® was finished in 1993. Since then it has been permanently updated and extended, hundreds of researchers in industry and academics have used or use PREDICI® for innovative model development, hundreds of publications refer to PREDICI® results.

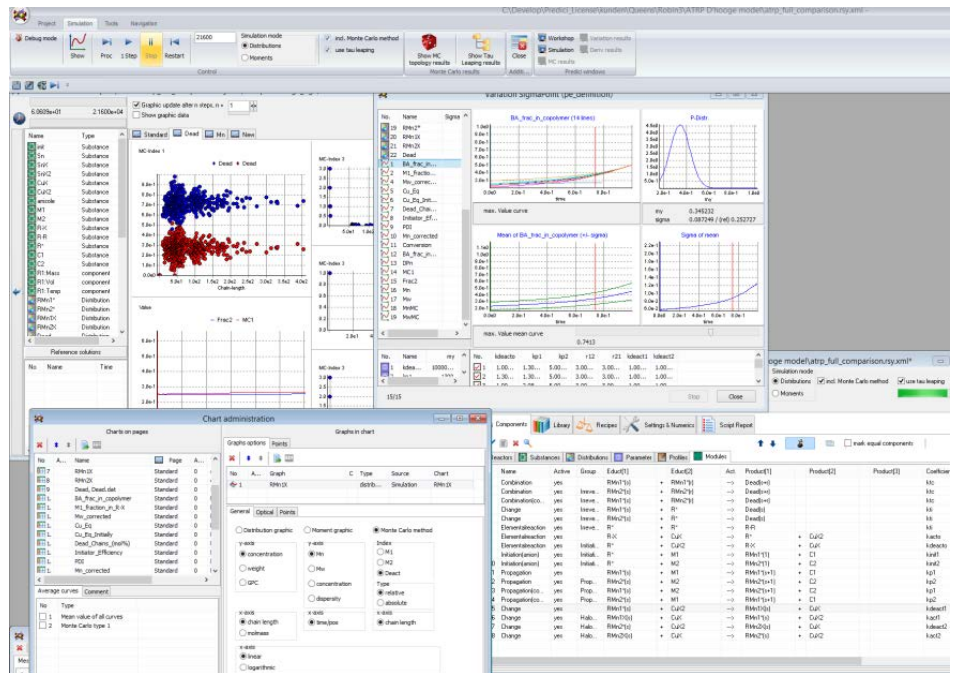
Now PREDICI® gets many new functions and a new face. And we have developed a very new algorithm opening new ways. The new hybrid solver based on PREDICI's benchmark **Galerkin h-p-method** and a special **Monte-Carlo algorithm** allows an even more detailed description of various polymer product properties. And as always in PREDICI®: It's modular and does not require any low level programming of the researcher. The new algorithm has been developed as part of the **Nanopoly** project in cooperation with MATHEON Berlin.



## Simulation and modeling require online visualization

Create your own collections of graphics and information online. Drag & drop charts during a simulation for comparison, get all information and export of data directly.

Even topologies of branched chains can be analyzed during the simulation process.

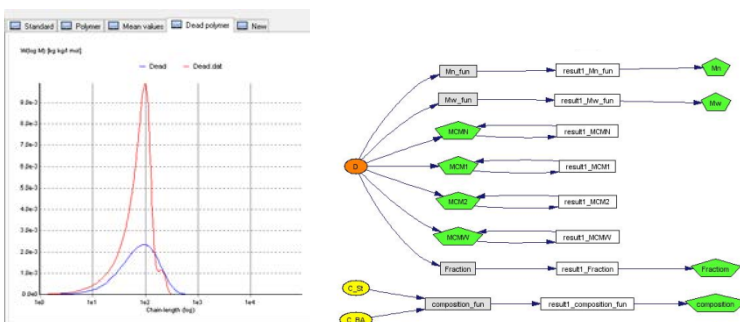


## New sensitivity analysis

Using recent methods for variation and sensitivity analysis a model can quickly be studied with respect to its parameters. The output is suggestive and easy-to-use.

## New model workshop

Use numerous new features to work with models, compare and merge projects, document your modeling progress, visualize dependencies.



```

Script
Name: h3b-run

h3b = getp("h3b")
p212 = wval("p212", 0, 0) = wval("p212", 0, 0)
p213 = wval("p213", 0, 0) = wval("p213", 0, 0)
result1 = h3b + p212

Template | Functions | Species | Distributions | Parameters | Procedures | Reactors | Profiles
// initialize file for coefficient in module
// coefficients is given as arg1
// local assignment, e.g.
// arg1 = arg1
// reaction coefficients
h3b = getp("h3b")
// insert your code here.
expression = h3
// result1 is returned and used instead of
// coefficients h3 in dialog
result1 = expression
    
```

## PREDICI<sup>®</sup>-11 hybrid features

Features	PREDICI <sup>®</sup> -11	PREDICI <sup>®</sup> -7
Comprehensive list of reaction steps	X	X
Galerkin h-p- method for MWD simulation	X	X
Hybrid deterministic-stochastic solver	X	-
Recipe modules	advanced	basic
Parameter estimation tool	advanced	basic
Sensitivity analysis (Monte-Carlo)	X	-
Sensitivity analysis (sigma points)	X	-
Dynamic graphic and chart administration	X	-
PDE-solver	X	X
Project search tool	X	-
Script interpreter	new editor	X
Export of underlying moment equations	including subroutines	X
Model comparison, exchange of objects between projects	X	-
All-in-one XML project files	X	-
Compatible import of PREDICI7 models	X	X
Petri chart for model analysis	X (using WinGraphviz)	-
Assignment of structure graphics to substances and reaction steps	X	-
Pattern finder for beginners	X	-
System requirements	Windows 8, 7, XP	Windows 8, 7, XP

Contact us for more information and test versions

Dr. Michael Wulkow

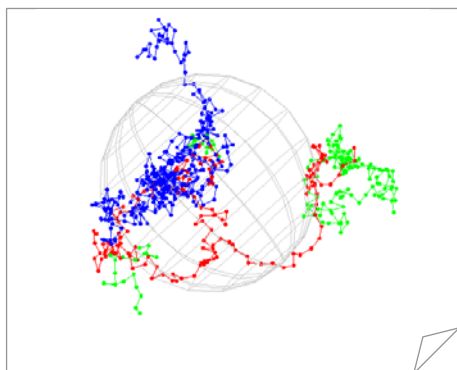
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nanopoly 

Nanopoly is an EU Marie-Curie network. The members are BASF SE, CiT, ETH Zurich, FU Berlin, IMC Prague, POLYMAT Donostia, Univ. Amsterdam, Univ. Porto. The network is devoted to the education of young researchers and the development of new methods for nano-architectures of polymers.  
<http://www.biocomputing-berlin.de/nanopoly/en/>