



Product family

gO:CAPE-OPEN

The gPROMS Object for CAPE-OPEN

With gO:CAPE-OPEN ...

- Execute advanced gPROMS models within Aspen Plus™, Hysys™ and PRO/II™
- Put advanced models on process engineers' desktops to extend the power of their flowsheeting tools
- Use the same models for advanced dynamic analysis and steady-state flowsheeting
- Use existing, consistent physical properties from all CO-compliant packages

"We were able to build a highly-detailed model of reactive absorption that we could then drop straight into an Aspen Plus flowsheet for steady-state analysis of the process synthesis.

This gave us the power and ease-of-use of the gPROMS model while allowing us to fit with the corporate software policy"

- Arkema

The gPROMS® Object for CAPE-OPEN (gO:CAPE-OPEN) is a powerful tool that enables you to execute any gPROMS model within a CAPE-OPEN compliant flowsheeting environment such as Aspen Plus™, Hysys™ and PRO/II™.

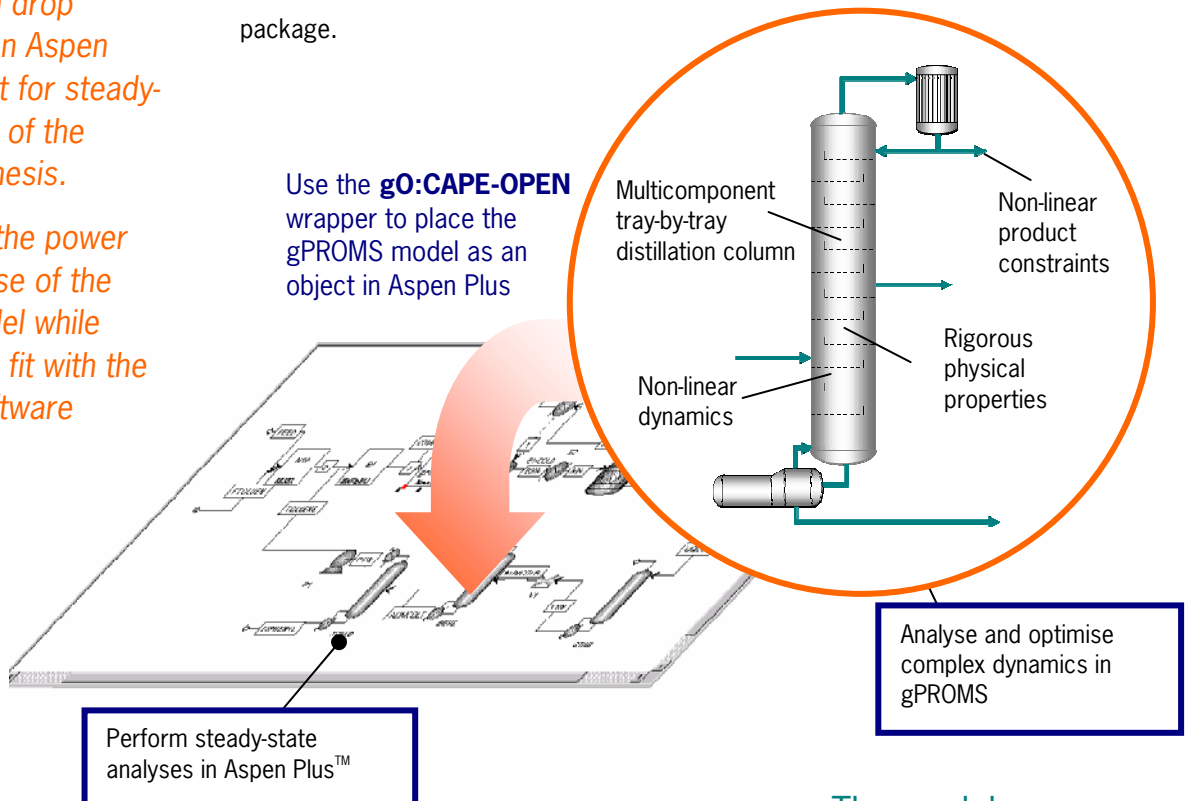
This means that you can build a model of whatever complexity you require using gPROMS' state-of-the-art modelling and solution capabilities, and then run it within the process flowsheeting tools on every process engineer's desktop. For example, you can build a model of a reactor, use gPROMS' parameter estimation capabilities to determine kinetic constants, optimise its size and control performance for various feed change scenarios, then use *exactly the same model* within the steady-state design application.

Furthermore, the gPROMS model executing within the flowsheeting environment can use the same physical properties as the other units, ensuring consistency across applications.

This powerful combination of technologies lets your engineers work in their environment of choice, enables you to comply with corporate software standards, and helps to promote seamless working across different parts of the organisation. Most important, you can do this while accessing the power of gPROMS modelling to deliver additional value at every step.

How gO:CAPE-OPEN works

You can package and export any gPROMS model to a CAPE-OPEN compliant flowsheeting package with all the solvers and support software required for its solution. The gPROMS model is executed just like any other unit operation within the package.



The model company

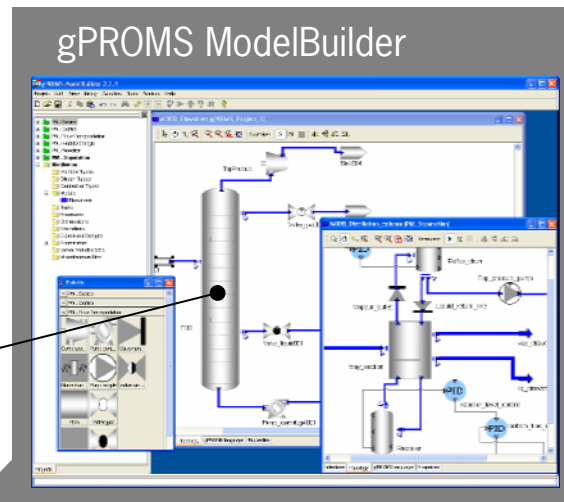
Using gO: CAPE-OPEN – a simple step-by-step guide



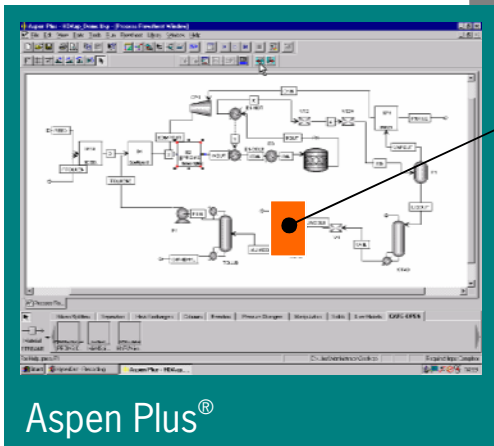
Step 1: Build steady-state or dynamic process model in gPROMS for optimising equipment design

Example: gPROMS rate-based reactive distillation model

Models are packaged automatically, including all required solvers, to execute within the gO:CAPE-OPEN block



Step 2: Export gPROMS model directly to CAPE-OPEN compliant package



gO:CAPE-OPEN
gPROMS process model
executing within Aspen Plus®

Step 3: Perform steady-state flowsheeting analysis using detailed gPROMS column model



Licensing

gO:CAPE-OPEN is licensed as a separate PSE product. A gPROMS ModelBuilder licence is required for building the gPROMS model that will execute within the CAPE-OPEN environment.

Prerequisites are:

- gPROMS ModelBuilder licence for creating, validating, executing and testing gPROMS models
- Aspen Plus version 12.1 or greater
- Hysys version 2.2 or greater
- PRO/II version 6.0 or greater



PSE's commitment to CAPE-OPEN

PSE is committed to the CAPE-OPEN set of standards and is an active member of the CO-LaN organisation. PSE principals – and principles – have played a major part in defining the Cape-Open standards over the years.

PSE ModelCare



Through our **ModelCare** consulting service, PSE can provide expert assistance in building sophisticated custom models of any type of process. ModelCare is specifically designed to help you or your specialists to implement robust, detailed models in the minimum of time, while ensuring a handover of custom modelling know-how to your organisation.

