Spiral Unified Supply Chain Management: Process Model Generator

Build & Track Process Models

Accurate planning and scheduling needs accurate plant models. From up-to-date feedstock quality data, current pricing information and representative process models, each component is vital to having confidence in your final results.

However, building accurate, detailed and representative process models for plant assets is challenging, often requiring costly consultancy and significant time. As a result, many organizations avoid base delta maintenance workflows which lead to model error, incorrect decision making, and gaps between plan and actual.
Key Features

Process Model Generator, part of Spiral Unified Supply Chain Management, is a powerful regression and tracking tool helping organizations maintain, extend, and validate base delta structure used as part of planning and scheduling models. Key features include:

- Easily configured, constrained multiple linear regression, for accurate base delta vector generation
- Support for swing cuts and multi-base models, for increased accuracy in non-linear processes
- Ability to regress in engineering units of measure or blend index space simplifying production of valid models
- Statistics on model quality and driver selection helping improve model validity, usefulness and robustness in usage
- Powerful charting to understand input data sets and output model results helping highlight problem data, spot relationships and identify trends
- Maintains data history for model tracking and performance review
- Built within of Spiral Unified Supply Chain Management to provide simple model sharing, traceability and version control - standard modeling in planning and scheduling ensures consistent decision making, easier maintenance and reduces plan vs. schedule differences.

Process Model Generator’s unified environment allows users to quickly adapt and improve their plant representations, increasing model accuracy and helping improve margins. Fit-for-purpose base delta models can be easily created and validated, and instantly shared for use in more accurate and more consistent planning and scheduling decision making.
Confirm & Validate Structure

Making use of both plant data alongside data from rigorous process simulators Process Model Generator allows users to easily work with large data sets collected across time and under multiple conditions. Easily integrated with simulator output via a flexible user interface models for new assets can be quickly setup and incorporated for planning and scheduling decision making. Combined with operational data collected via historians or the Spiral Unified Supply Chain Management Staging Service models can be maintained and enhanced to better match operational results, with the powerful regression engine ensuring that models are statistically valid and robust for optimization. Simple to understand statistics and visualizations help engineers choose appropriate structure and assess the quality of the resultant models.

Approve, Distribute, Utilise

Publish models directly from Process Model Generator across the enterprise for fast and confident usage through the advanced synchronization infrastructure of Spiral Unified Supply Chain Management. Updates are immediately available to all end users, ensuring up-to-date tuned, representative and approved models are used for decision making. Combined with the flexible configuration of Plan and Schedule modules of Spiral Unified Supply Chain Management , end-users can confidently incorporate, validate and use models for decision making, with easy understanding of the economic and process impacts of updated models. Track model history to review differences in structure helping understand changes in the asset performance alongside developments in modeling intelligence and fidelity, helping users confidently evolve model and process.

Spiral Unified Supply Chain Management

Build and share knowledge and experience with Spiral Unified Supply Chain Management’s single platform enabling visibility and optimization of the entire supply distribution process. Simple, fast and secure, each stakeholder works side-by-side, with shared understanding and shared confidence in robust and realizable decisions and strategies.

For more information on AVEVA’s Spiral Unified Supply Chain Management, please visit sw.aveva.com/plan-and-schedule