Proficy Plant Applications 2023

Models and Event Detection

We want to hear from you. If you have any comments, questions, or suggestions about our documentation, send them to the following email address:

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Table of Contents

Model and Event Creation Overview

The integrated components of a Manufacturing Execution System can be aligned horizontally from the continuous data flow of control systems to the transaction data processing of business-based systems. Plant Applications' primary role in a plant information system is to bridge the gap between continuous time-based data and the manufacturing and business transaction-based data that is found throughout the plant.

Plant Applications has powerful tools that segment the continuous data by the discrete events in order to make decisions concerning grade performance and process optimization. These tools perform this critical function by detecting the important events in the plant, reconciling continuous and event-based data, setting the context of the data through business rules and definitions, and summarizing key variables for long-term performance analysis.

Plant Applications models are used to capture events such as reel turn-ups, batch starts/stops, product changes, consumption of product on a production line, and so on. The Event Manager Service watches for different types of data to change and creates events based on that data. Events are created based on specific models, which describe what data to watch, and how to interpret that data to produce an event. For example, an event model may call for the event management service to watch a set of tags in the historian to capture when a batch was started or completed, capture or create the batch ID, and capture or create the product code of the batch.

A library of event models ship with each Proficy Server. Inside the Plant Applications Administrator, you may browse through available models to determine which model applies to your current situation. If no standard models apply, it is recommended to derive a site-specific model using a generic model as a base. Certain types of event models may be restricted by the licenses purchased.

Plant Applications Model Summary

Production Event Models 1-49

These models are used for creating production events with customized event numbers. These are not the standard recommended models to use to create production events in Plant Applications. It is recommended to use the Generic Models. While very specific in their purpose, if these models fit your site's needs, you can use them.

Models 50-99

Created as site specific models used to interface to various external systems. These interface models are very site specific and are not the standard recommended models to use to interface with Plant Applications. There are several different options available for interfacing to Plant Applications. While very specific in their purpose, if these models fit your site's needs, you can use them.

Models 100-117

Created as site specific models used to create product or grade changes. These are not the standard recommended models to use to create product changes in Plant Applications. It is recommended to use the Generic Models. While very specific in their purpose, if these models fit your site's needs, you can use them.

Models 200-212

The Delay or Downtime Detection Models.

Models 300-304

Site-specific Waste Tracking Models. These are not the standard recommended models to use to create Waste Events in Plant Applications today. They are very site specific in the calculations that are used to track waste. It is recommended to use Generic Models for Waste Tracking. While very specific in their purpose, if these models fit your site's needs, you can use them.

Model 600-603

The Generic models offer the ultimate in flexibility to an individual site. These are recommended models to use.

Models 604-607

A variety of ODBC interface Models allowing various methods to interface to external systems.

Model 650

An Event Conformance and Test Percentage Complete Calculation Model that can be used on multiple Plant Applications Variables for a specific Production Unit.

Model 900

Genealogy Model

Model 1001-1013

Site-specific Genealogy Models.

Model 1051-1055

Generic Models used in Production Management and Genealogy. These are recommended models to use. The Generic Genealogy Models offer the ultimate in flexibility to an individual site.

Models 5002 - 5012

These models use pre-configured stored procedures, which have been designed to help get up and running quickly.

- **Models 5002 - 5007** are used for **Input Movement**.
- **Models 5008 - 5010** are used for **Input Genealogy**.
- **Models 5011 - 5012** are used for **Waste**.

Model Log Files

All messages created by models are logged in the Plant Applications Event Manager log files typically in the Proficy\Logfiles directory (this location is a customizable site parameter). The log files are named EventMgr-01.Log and EventMgr-01.Shw with the 01 being the version of the log file. In the "Log" file there will be error messages and in the "Show" file EventMgr.Shw there is a summary of all currently configured models and their current configuration.

Creating a Crew and Shift

Refer to the “Crew Schedule Models” topic in the Plant Applications Models help guide.

Creating Process Orders from Tags

Refer to the “Creating Process Orders From Tags” topic in the Plant Applications Models help guide.