

## Plant Applications Fundamentals

### Course Description

**Proficy Plant Applications Fundamentals** will teach the student how to configure and maintain Plant Applications software. This course provides an entry-level introduction to essential Plant Applications administrator capabilities and applications. This includes learning to configure the plant model, products, events, variables, calculations, user displays and user security. Students will also be taught how to utilize aspecting and the Unified Manufacturing Database, apply quality specifications, setup alarms and SPC rules, track downtime and waste and run Plant Applications Web Displays through Proficy Vision. Valuable hands-on lab exercises are provided which guide students through the configuration of the out-of-the-box capabilities of Proficy Plant Applications.



### Who should attend?

The course is intended for Plant Applications Administrators and power users that are responsible for configuration and support of the software within their organization.

### Are there any prerequisites?

Participants should have a basic understanding of manufacturing terminology and the role of industrial software. They should also have a general knowledge of Microsoft SQL Server and Excel, plus Microsoft Internet Information Server (IIS).

### What topics will be covered in this course?

The following topics will be covered in this session:

- Exploring the Plant Applications architecture and design.
- Creating, configuring and implementing a Plant Model hierarchy. Performing aspecting and employing a Unified Manufacturing Database.
- Creating aggregate and custom calculations.
- Defining and applying unit-based and central level specifications. Applying alarm and SPC rules in Plant Applications.
- Configuring downtime and waste tracking and using associated client applications. Using Web Client Displays.
- Applying the Plant Applications security model and configuring e-signatures. Using Server Management tools.

### Course Length

3 days

### Suggested Class Size

10 students

### Class Hours

8:00 am - 5:00 pm, daily



## Course Agenda

*(Schedule and content may vary)*

### Day 1

#### Morning:

##### **Introduction to Proficy Plant Applications**

Study the basic features and architecture of Proficy Plant Applications. Examine aspecting and the UMDB. Review Plant Applications' client tools and learn to configure data sources.

##### **Plant Model**

Configure Departments, Production Lines, Production Units and Variables. Learn to use the Import/Export tool of Plant Applications. Configure Time-Based Variables and learn key variable properties.

#### Afternoon:

##### **Production Events**

Configure Production Event type Variables and Production Events on Production Units and learn how to automatically detect them with Event models. Create an Autolog Production Event display and configure its properties.

##### **Calculations**

Learn how to acquire data from Process Historians,, and aggregate the data as needed. Create Calculations using the Equation Editor, VB Script, and Stored Procedures.

### Day 2

#### Morning:

##### **Product Management**

Configure Products and assign them to Production Units. Explore Product Change Events.

##### **Specification Management – Unit Level and Central Specifications**

Introduce the features of Plant Applications Quality Management. Describe the relationship of product information with specification. Define quality and process specifications at the Unit (Machine) and Central (Plant wide) levels.

#### Afternoon:

##### **Plant Applications Alarms and SPC**

Define alarming conditions based on data points outside of their specification limits. Build a Alarm View Display to alert on process variations. Run and view Alarm related Reports and Web Parts. Configure SPC Variables and Groups, define SPC Rule Alarming and trigger SPC Alarms. Create SPC calculations using the out-of-the-box pre-configured calculations. Run and view SPC related analysis Reports and Web Parts.

### Day 3

#### Morning:

##### **Downtime Overview**

Introduce the concept of "downtime" and how Plant Applications handles Downtime Events. Configure Slave Units, Faults, Downtime Events, Reasons, and Reason Trees. Build Downtime Displays. Configure Automatic Downtime Detection using a Downtime Event Model.

##### **Waste Overview**

Discover what exactly "Waste" is and how Plant Applications monitors and records Waste Events. Configure Waste Events, Conversion Types, and Waste Displays and Manually Enter Waste Information. Build a Waste View Display. Configure Automatic Waste Detection using Waste Models.

#### Afternoon:

##### **Web Client Displays**

Learn to use the Plant Applications Multi-Event display. Run Web Client Displays through the Proficy Vision interface.

##### **Plant Applications Security**

Configure Administrator security and user (Data Level) security and review 21CFR11 functionality

##### **Plant Applications Maintenance**

Learn routine maintenance tasks, troubleshooting tools and techniques.

