INTRODUCTION TO MODEL BASED DEFINITION (MBD) WITH CREO PARAMETRIC 4.0

Learn how to create a Model Based Definition (MBD) model using a start part. Understand how annotate mode provides the necessary tools to create an MBD model using the MBD process within Creo Parametric. The course will also cover the creation of 3-D annotations and how to utilize them in combined states.

Create and modify various annotations, including dimensions, ordinate dimensions, datum reference features, geometric tolerances, surface finishes, symbols, notes and datum targets. Learn about creating a technical data package and the deliverables it should contain. Upon completion of this course, you will have a better understanding of the MBD process and how to create MBD models using the MBD process.

UPDATE TO CREO PARAMETRIC 4.0 FROM CREO PARAMETRIC 3.0

Learn how to utilize the variety of functionality enhancements in Creo Parametric 4.0. Be introduced to user interface enhancements such as the mini toolbar and new geometry selection filter. Examine the Part Modeling enhancements to features, such as negative depth, extrude features with offset depth, and new midplane datum plane type. Discuss the new Sketcher enhancements, including clipping the model, customizing line thickness, the new constraint appearance and using sketch references. Investigate the new Assembly capabilities such as automatic representations, mirror symmetry and assigning materials. Inspect the new Datum Feature Symbol, Datum Target, Geometric Tolerance and Driven Dimension functionality and workflows for 2-D drawings and review various detailing enhancements.

This course also covers the new Freestyle surfacing enhancements including use of multiple objects, importing OBJ files and using N-Gon faces, as well as new Style enhancements such as G3 connections, creating periodic and non-periodic closed curves and drop curves. Finally, attendees will learn to use the updated tools in Sheetmetal mode such as Twist Walls, Edge Bend Relief and Close Corner edge treatment, as well as the enhancement for utilizing dependency control with punch and die forms.
ENHANCING YOUR PRODUCTIVITY WITH THE CREO PARAMETRIC 4.0 INTERFACE

Learn many of the new interface enhancements designed to improve modeling productivity. First, you will explore the new mini toolbar and its usage. Second, you’ll discover the new geometry selection filter which takes the place of the Smart selection filter and how it makes you more efficient.

Be taught how to customize the mini toolbar and other areas of the UI. Learn about the new full screen capabilities of Creo Parametric, as well as the new Notification Center.

Finally, become skilled at creating appearance states as well as examine the new Keyshot-enabled real-time rendering capabilities of Creo Parametric 4.0.

MASTERING CAD DRIVEN PRODUCT STRUCTURE MANAGEMENT WITH PTC WINDCHILL PDMLINK 11.0

Learn how to create and manage a CAD-driven product structure. Study how to use a combined Enterprise top-down and bottom-up approach when working with product structures.

Additionally, you will be exposed to Windchill tools and processes all while acquiring best practices for advanced component creation and management techniques in the product development process.
**MONITORING PTC WINDCHILL 11.0 PERFORMANCE USING THE PTC SYSTEM MONITOR**

**OFFERED:** Monday – May 22nd  
**TIME:** 8:00 AM – 5:00 PM  
**LEVEL:** Intermediate  
**TOPICS:** IT Infrastructure  
**PRODUCT FAMILY:** Windchill  
**INVESTMENT:** $295.00

Learn how to install, configure and use information from the PTC System Monitor to manage and troubleshoot Windchill system performance.

Discover how to implement dashboards, end user tracking, reporting, and diagnostic capabilities to improve issue resolution times and technical support efficiency.

**REGISTER NOW**

---

**IMPROVING ACCESS TO YOUR PRODUCT INFORMATION USING PTC NAVIGATE**

**OFFERED:** Wednesday – May 24th  
**TIME:** 10:00 AM – 12:00 PM  
**LEVEL:** Introductory  
**TOPICS:** Data Management  
**PRODUCT FAMILY:** Windchill  
**INVESTMENT:** VIP All Access Pass Only

Learn how PTC Navigate apps enable users to quickly and easily access specific Windchill information. Discover how PTC Navigate apps simplify and improve access to the Windchill data, such as design files, drawings, parts, bill of materials and documents.

Additionally, be taught to configure miscellaneous preferences in PTC Navigate apps to display various search filters in the user interface.

**SECURE VIP PASS**
THE JOURNEY BEFORE THE JOURNEY — UNDERSTANDING SERVICE AND PARTS
INFORMATION VALUE READY DEPLOYMENT BEST PRACTICES

OFFERED: Wednesday – May 24th
TIME: 10:00 AM – 12:00 PM
LEVEL: Applicable to All
TOPICS: Service Parts Management
PRODUCT FAMILY: Windchill
PREREQUISITE: Windchill Experience is Helpful, but Not Required.
INVESTMENT: VIP All Access Pass Only

In the world of smart, connected products, digital twins and Augmented Reality, service information is now more important than ever. Historically, service information is pre-published, quickly out of date, and not specific to as-built products. While companies transition to new methods of service delivery, their existing service content needs to be prepared.

Attendees will be introduced to Service and Parts information best practices. These practices help achieve the goals of accessing up-to-date digital service information and parts catalogs. Putting an organization’s feet squarely in the Understand segment of the Service Journey, this training course is intended for those who need to understand the best practices involved with creating, managing and delivering service information. People in related roles will also benefit from taking this training course.

MANAGING PTC CREO PARAMETRIC DATA WITH
PTC WINDCHILL PDMLINK 11.0

OFFERED: Thursday – May 25th
TIME: 8:00 AM – 5:00 PM
LEVEL: Intermediate
TOPICS: Data Management
PRODUCT FAMILY: Windchill
INVESTMENT: $295.00

Learn key capabilities and features of Windchill PDMLink CAD Data Management and how to use Windchill PDMLink to manage Creo Parametric design information. Specifically, you will focus on the day-to-day data management tasks required by the Creo Parametric user community, including how to use the CAD data structure to associate and build the product structure.

Participants will also be taught how to use Windchill to perform basic PDM functions on Creo Parametric CAD Documents and their associated Windchill parts. After completing this training, attendees will be able to perform basic Windchill PDMLink CAD data management tasks and activities. Don’t miss your chance to have a better understanding of Windchill CAD Data Management processes.
PTC WINDCHILL 11.0 SYSTEM MAINTENANCE

Learn about the overall Windchill system monitoring and maintenance mechanism. Specifically, you will focus on the daily, weekly and monthly system maintenance tasks required by the Windchill system administrators. Understand how to manage Windchill log files, database alerts and system services. Be trained to monitor file vaults and control critical system backup procedures.

Additionally, you will learn system monitoring requirements; however, the use of the PTC System Monitor (dynaTrace) in the execution of the monitoring activities will not be covered.

THE WINDCHILL SERVICE INFORMATION MANAGER 11.0 SERVICE AND PARTS INFORMATION PROCESS OVERVIEW

Learn the Service and Parts Information solution’s best practices! Be taught each best practice’s sub-step and become familiar with the various software application germane to the solution.

This course is intended for those who need to understand the proven methods involved with creating, managing and delivering service information. People in related roles will also benefit from taking this course.
THE WINDCHILL SERVICE INFORMATION MANAGER 11.0 INFORMATION RELEASE AND DELIVERY PROCESS

Explore the overall Release and Deliver process. Investigate the configuration processes and use the Task Manager to add collections. You will also use the Task Manager to add service information to InService.

Gain knowledge about different troubleshooting procedures – Review the release and deliver best practices, including its sub-steps. This course is intended for anyone who delivers multi-language service information using InService and using Windchill Service Information Manager. Anyone evaluating Windchill Service Information Manager will also benefit from this course.

TRAINING COURSES & CLASSES | BY PRODUCT

THINGWORX FUNDAMENTALS

This introductory course will teach attendees how to model, connect, analyze and build Internet of Things applications using ThingWorx. Experience the ThingWorx Development Process as a framework for planning and designing an IoT solution, which attendees then apply to a business case in the training exercises.

By the end of the training session you will have a solid grasp of how to create an IoT application and an introductory skill set in IoT development with ThingWorx.
THINGWORX MODELING FUNDAMENTALS

OFFERED: Monday – May 22nd & Thursday – May 25th
TIME: 8:00 AM – 5:00 PM
LEVEL: Intermediate
TOPICS: Smart Connected Products
PREREQUISITE: Completion of ThingWorx Fundamentals or Knowledge of ThingWorx Composer & IoT Solution Architecture
PRODUCT FAMILY: ThingWorx
INVESTMENT: $295.00

This course focuses on architecture and tools used to model an IoT solution in ThingWorx.

Be introduced to the Modeling Framework, which provides guidance for planning and designing an IoT model that is effective and scalable. Using a business case, attendees apply the Modeling Framework to design and build the model for a sample IoT solution.

LEVERAGING THE PTC NAVIGATE FRAMEWORK AND THINGWORX INTEGRATION HUB TO CREATE MODULAR CUSTOM APPS

OFFERED: Monday – May 22nd
TIME: 8:00 AM – 5:00 PM
LEVEL: Advance / Expert
TOPICS: Smart Connected Products
PREREQUISITE: Completion of Introductions to ThingWorx or Strong Knowledge of ThingWorx Modeling
PRODUCT FAMILY: ThingWorx
INVESTMENT: $295.00

Expand your understanding of PTC Navigate and how to develop and extend modular role-based apps and integrations. Begin with an overview of what PTC Navigate and role-based apps are and how to tailor existing apps. Next, you discover what Integration Hub is, its benefits and architecture, as well as how to use it in the context of PTC Navigate.

Gain deep insight into various concepts such as Resource Modeling, Capabilities, Connectors, Resource Providers and Micro services. Attendees will work through the process of configuring existing Resource Providers and Connectors and develop their own custom Resource Providers and Connectors. Finally, attendees learn how custom apps can be created in PTC Navigate to unleash the value of IoT.
Are you interested in how to make connected devices more secure or how connected devices get hacked? If so, then this is the course for you! Be taught next generation information security skills set to empower you to success in the IoT era. Instructed by the same elite security researchers who organize IoT hacking events – including the famous IoT Village.

Learn the fundamentals of security in the context of the Internet of Things from a hacker’s perspective! Through a mixture of lecture, group exercise and hands-on modules, this course will jumpstart your IoT security and hacking career, and deliver significant returns for your organization that can be measured in employee knowledge and enterprise readiness.

The content structure will take you through a skills progression, with each module building on the previous:

1. **Module 1**: Common Security Goals
2. **Module 2**: Understanding Risk
3. **Module 3**: Secure Design Principles
4. **Module 4**: Deep Dive into Product Security
5. **Module 5**: Hacking Methodology
6. **Module 6**: Tools and Techniques
7. **Module 7**: Detection and Prevention
8. **Module 8**: Applying Lessons to the Real World

You will be trained how to use a range of software-based tools that are integral to device analysis. These include (but not limited to): nmap, netcat, Nessus, Shodan, Wireshark, Burp Suite, Spike and other fuzzers, Gdb & other debuggers, basic binary/static analysis such as grep, strings, IDA and exploitation tools like Metaploit.

About Intendent Security Evaluators (ISE):
ISE is an independent security firm in Baltimore, Maryland dedicated to aggressive defense strategies through advanced science. Their elite team of analysts and developers use scientific approaches to improve clients’ overall security posture, protect digital assets, harden existing technologies, secure infrastructures and work with development teams to ensure product security before deployment.
### CREATING AN AUGMENTED REALITY EXPERIENCE WITH THINGWORX STUDIO

**OFFERED:** Wednesday – May 24th  
**TIME:** 10:00 AM – 12:00 PM  
**LEVEL:** Applicable to All  
**TOPICS:** Augmented Reality & Virtual Reality  
**PRODUCT FAMILY:** ThingWorx  
**INVESTMENT:** VIP All Access Pass Only

You will be introduced to ThingWorx Studio and how it can be used to build an Augmented Reality (AR) experience. Learn how to add 3-D models and a ThingMark to the experience, as well as add 3-D labels and images. Attendees will then publish the AR experience and view it using ThingWorx View.

While this content is targeted for Application Developers, any learner can follow the documented examples and participate in the experience to gain an understanding of how ThingWorx Studio supports delivering AR experiences.

### BUILDING A BUSINESS CASE FOR IOT

**OFFERED:** Wednesday – May 24th  
**TIME:** 10:00 AM – 12:00 PM  
**LEVEL:** Applicable to All  
**TOPICS:** IoT Strategies and Business Models  
**PRODUCT FAMILY:** ThingWorx  
**INVESTMENT:** VIP All Access Pass Only

This seminar will provide you with a strategic framework to identify business opportunities in IoT. You will cover customer value roadmaps, product and service requirements and business models to consider as you invest or expand your IoT footprint.

The session will be organized as a collection of lectures, demos and discussions. All stakeholders in IoT (technical, business, marketing, partners, etc.) are encouraged to participate.
APPLYING MACHINE LEARNING USING THINGWORX ANALYTICS

**OFFERED:** Thursday – May 25th  
**TIME:** 8:00 AM – 5:00 PM  
**LEVEL:** Intermediate  
**TOPICS:** Analytics & Big Data  
**PREREQUISITE:** Fundamental Knowledge of ThingWorx Composer and IoT Solution Architecture  
**PRODUCT FAMILY:** ThingWorx  
**INVESTMENT:** $295.00

Learn the basic concepts associated with Analytics. This course will introduce attendees to the ThingWorx Analytics process and its applications. Using a business case, attendees apply the Analytics process to design and build the model for a sample IoT solution.

You will learn the basic terminology used in ThingWorx Analytics and what type of information results from the Analytics process.