PTC® University

System Administration of PTC Windchill 11.0

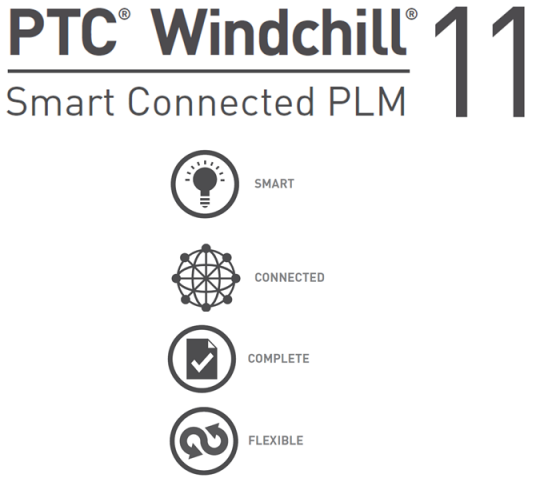
Overview

Course Code	TRN-4830-T
Course Length	24 Hours

In this course, you will gain an understanding of how to perform routine Windchill system administration tasks, including how to manage Windchill services and optimize Windchill components for performance. You will focus on daily, weekly, and monthly system maintenance tasks required by the Windchill system administrators. You will also learn how to implement file vaulting and content replication. Other topics that will be reviewed include managing the Windchill database, troubleshooting background queues, improving workflow performance, optimizing visualization publishing process, and setting up the client environment.

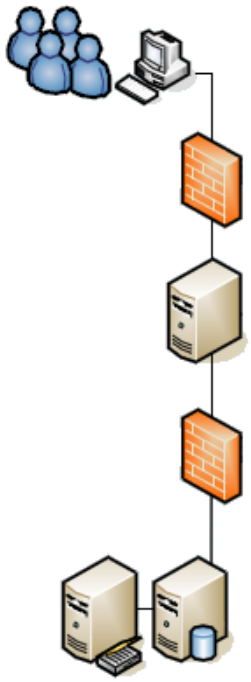
At the end of each module, you will complete a set of review questions to reinforce critical topics from that module. At the end of the course, you will complete a course assessment in PTC University Proficiency intended to evaluate your understanding of the course as a whole.

This course has been developed using Windchill 11.0 F000.



Course Objectives

- Understand Windchill architecture.
- Start and stop Windchill components.
- Manage Windchill configuration properties.
- Implement file vaulting and content replication.
- Tune Windchill components for performance.
- Tune Windchill workflows for performance.
- Manage background queues.
- Manage visualization publishing system.
- Manage Windchill database.
- Manage system backups.
- Manage Windchill system logs and alerts.
- Monitor daily, weekly, and monthly administration tasks.
- Configure browser and JAVA settings for clients.



Prerequisites

- Familiarity with the Windchill PDMLink 11.0 or Windchill ProjectLink 11.0 user interface.
- Familiarity with the Windows command prompt and the ability to form and execute basic SQL statements.

Audience

- This course is intended for System Administrators and Application Developers. People in related roles will also benefit from taking this course.

Agenda

Day 1

Module	1	Introduction to the Windchill System Environment
Module	2	Managing Windchill Services
Module	3	Managing Windchill Properties
Module	4	File Vaulting and Replication Overview
Module	5	Implementing File Vaults

Day 2

Module	6	Implementing Content Replication
Module	7	Tuning Windchill Server
Module	8	Managing Background Queues
Module	9	Managing Your Visualization Publishing System
Module	10	Tuning Workflow Processes
Module	11	Windchill Backup and Recovery

Day 3

Module	12	Managing Log Files and Alerts
Module	13	Daily System Monitoring Tasks
Module	14	Weekly System Monitoring Tasks
Module	15	Monthly System Monitoring Tasks
Module	16	Setting Up the Client Environment
Module	17	Miscellaneous System Enhancements

Module 10. Tuning Workflow Processes

i. Workflow Queues
ii. Pool Queues
iii. Monitoring Workflow Queue Entries
iv. Configuring Queue Pooling
v. After Queue Pooling
vi. Configuring Dedicated Workflow Queues
vii. Tagging Dedicated Workflow Queues
viii. After Dedicated Queues

Module 11. Windchill Backup and Recovery

i. Windchill Backup Architecture
ii. Windchill Data Repositories
iii. Types of Backup
iv. Performing a Cold Backup
v. Recovering from a Cold Backup
vi. Performing a Hot Backup
vii. Recovering from a Hot Backup
viii. Oracle Backup and Recovery Using Enterprise Manager
ix. Oracle Archive Log Mode
x. Oracle Flash Recovery Area
xi. Oracle Suggested Backup Strategy
xii. Suspending Background Queues
xiii. Read Only Mode for Vaults
xiv. Generating Vault Backup Information
xv. The WContentVerify Tool
xvi. Mirroring the Local Cache Vault
xvii. Rebuilding Replica Vaults
xviii. Backing up the Windchill Directory Server
xix. Backing Up LDAP Data Using the Backup Command
xx. Restoring Windchill Directory Server
xxi. Backing Up LDAP Directory Data Using Control Panel
xxii. Restoring LDAP Directory Data Using Control Panel
xxiii. Exporting LDAP Data
xxiv. Importing LDAP Data

Module 12. Managing Log Files and Alerts

i. Windchill Logging Mechanism
ii. Windchill Log Properties
iii. Setting Windchill Log Levels
iv. Populating JMX-Administrators

v. Viewing Windchill Log Files
vi. Managing Log Files Using JConsole
vii. System Error Reporting
viii. Using the Persisted Log Events Page
ix. The Log Event Details Page
x. The Log File Viewer Page
xi. Administration Actions After Receiving Error Reports
xii. System Configuration Collector
xiii. Performance Advisor for PTC Windchill
xiv. Indexing Administration
xv. SQL Server Log File Viewer
xvi. Setting up SQL Server Alert Notifications
xvii. Oracle Alerts
xviii. Setting Up a Mail Server for Oracle Alerts
xix. Setting Up Direct Oracle Alert Notifications
xx. Setting Metric Thresholds for Oracle Alerts
xxi. Managing Directory Server Logs
xxii. Managing Web Server Logs

Knowledge Check Questions

Module 13. Daily System Monitoring Tasks

i. Daily System Monitoring Tasks Checklist
ii. Perform and Verify Scheduled System Backups
iii. The Server Status Page
iv. PTC System Monitor
v. System Monitoring Using JMX Clients
vi. Monitoring CPU and Memory Usage by Windchill Processes
vii. System Components Availability
viii. Monitoring Queues Using Queue Manager
ix. Monitoring Queues Using JMX Clients
x. Monitoring Queues Using Queue Analyzer
xi. Queue and Workflow Health Check Script
xii. Monitor File Vaults
xiii. Monitoring Vaults Using the System Configuration Collector
xiv. Review Application Server Logs
xv. Review Database Logs
xvi. Check Database Schema Statistics
xvii. Monitor Network Health
xviii. Review PTC Technical Support Subscription E-mails

Knowledge Check Questions

Module 14. Weekly System Monitoring Tasks

i. Weekly System Monitoring Tasks Checklist
ii. Monitor Disk Space Usage
iii. Identifying BLOBS That Have Not Been Vaulted
iv. Remove Unreferenced Files from File Vaults
v. The RemoveUnreferencedFiles Tool
vi. Automated Cleanup of Replica Vaults
vii. Generating Unreferenced Files Report
viii. Defragment Windows Disks
ix. Check Performance Using Monitoring Tools
x. Perform Database Maintenance

Knowledge Check Questions

Module 15. Monthly System Monitoring Tasks

i. Monthly System Monitoring Tasks Checklist
ii. Execute Performance Benchmarks
iii. Windchill File Server Test
iv. Perform Database Diagnostics
v. Resolve Disconnected Principals
vi. Cleaning up Data for Deleted Users
vii. Evaluate System Settings Using Windchill Configuration Assistant
viii. Generate Throughput and Security Audit Reports
ix. Perform Workgroup Manager Maintenance Tasks
x. Review Windchill and Creo Settings
xi. Purge Obsolete or Unused Data
xii. Apply Maintenance Patches and Updates
xiii. Clone Production Server to Test Server
xiv. Yearly Administrative Tasks

Knowledge Check Questions

Module 16. Setting Up the Client Environment

i. Setting Up Your Browser
ii. Browser's ActiveX Settings
iii. Pop-Up Blocker Interference
iv. Browser Locale Settings
v. Memory Allocation for Applets
vi. Installing Creo View
vii. Installing Desktop Integration
viii. Setting Your Preferred File Server Site
ix. Product Structure Explorer Preferences
x. Configuring the Windchill Home Page

Knowledge Check Questions

Module 17. Miscellaneous System Enhancements

i. Browser Support
ii. Database Support
iii. Java Support
iv. Platform Support
v. Web Server and Servlet Engine Support
vi. Windchill Software Matrices

Knowledge Check Questions