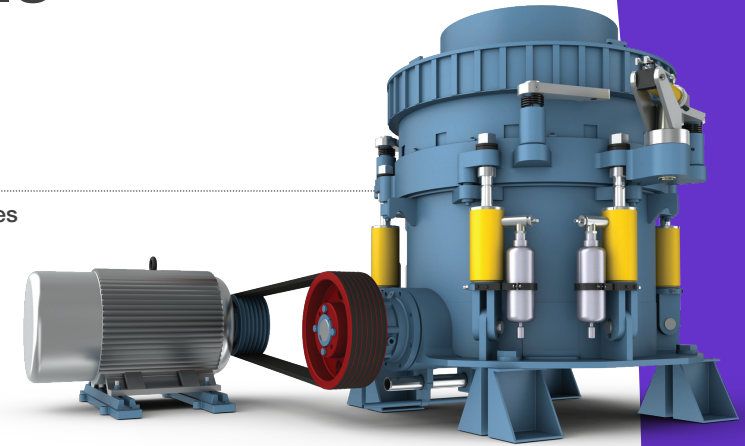


SolidWorks API Fundamentals 2012 Training Course

Course Outline Duration: 3 days • Prerequisites: SolidWorks Essentials, Visual Basic programming.

- LESSON 1** Using the Macro Recorder
- LESSON 2** The API Object Model
- LESSON 3** Setting System Options and Document Properties
- LESSON 4** Automating Part Design
- LESSON 5** Assembly Automation
- LESSON 6** Drawing Automation
- LESSON 7** Selection and Traversal Techniques
- LESSON 8** Adding Custom Properties and Attributes
- LESSON 9** The SolidWorks API SDK
- LESSON 10** Customizing the SolidWorks User Interface
- LESSON 11** Notifications



Training Content

LESSON 1

Using the Macro Recorder

- Macro Recording
- Macro Toolbar
- Understanding How Macro Code Works
- Understanding How to Call Members on API Interfaces
- Passing Parameters
- Cleaning Up Code
- Adding Forms to a Macro

LESSON 2

The API Object Model

- SolidWorks API Object Model
- Application Objects
- Case Study: Connecting to New Documents
- Case Study: Connecting to Existing Documents

LESSON 3

Setting System Options and Document Properties

- User Preferences - System Options

- User Preferences - Document Properties
- Locating the Correct APIs and Enumeration Values
- UserPreference Tables For System Options, Document Properties, and Menu Items

LESSON 4

Automating Part Design

- Case Study: Automation Tool for Parts

LESSON 5

Assembly Automation

- Case Study: Automation Tool for Assemblies

LESSON 6

Drawing Automation

- Case Study: Automating Drawing Creation

LESSON 7

Selection and Traversal Techniques

- Case Study: Programming With a Selected Object

- The SolidWorks BREP Model
- Case Study: Body and Face Traversal
- Case Study: Feature Manager Traversal

LESSON 8

Adding Custom Properties and Attributes

- Case Study: Custom Properties
- Case Study: Configurations With Custom Properties
- Case Study: File Summary Information
- Case Study: Document Attributes
- The Attribute Objects
- Case Study: Face Attributes

LESSON 9

The SolidWorks API SDK

- The API SDK
- Case Study: Creating a VB.NET Add-In
- Case Study: Creating a C# Add-In
- Case Study: C++ Add-Ins
- Choosing a Programming Language

LESSON 10

Customizing the SolidWorks User Interface

- Case Study: Customizing the UI With VB.NET
- Understanding The Add-in Code
- Property Pages
- Property Page Groups and Controls
- Removing Menus and Toolbars
- Other Areas of Customization

LESSON 11

Notifications

- Notifications
- Notifications in VBA
- Case Study: Simple Notification
- Case Study: Using Notifications in .NET

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