



SolidWorks API Fundamentals

Prerequisites	Length	Description
SolidWorks Essentials or equivalent experience & Visual Basic Programming.	3 Days	API Fundamentals teaches students how to use the SolidWorks API (Application Programming Interface) to automate and customize SolidWorks.

Using the Macro Recorder

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

The API Object Model

- Application Objects
- Connecting to New, Existing Documents

Setting System Options & Document Properties

- User Preferences – System Options, Document Properties
- Locating the Correct APIs & Enumeration Values
- User Preference Tables for System Options, Document Properties

Automating Part Design

Assembly Automation

Drawing Automation

Selection & Traversal Techniques

- Programming with a Selected Object
- The SolidWorks BREP Model
- Body & Face, FeatureManager Traversal

Adding Custom Properties & Attributes

- Configurations with Custom Properties
- File Summary Information
- The Attribute Objects
- Document, Face Attributes

The SolidWorks API SDK

- The API SDK
- Creating a VB.NET, C#, C++ Add-In
- Choosing a Programming Language

Customizing the SolidWorks User Interface

- Understanding the Add-In Code
- Property Pages
- Property Page Groups & Controls
- Removing Menus & Toolbars
- Other Areas of Customization

Notifications

- Notifications in VBA
- Using Notifications in .NET

Appendix

- Macro Feature
- Batch Conversion 1, 2
- Assembly Transversal
- Custom Model View

Did You Know?

- CAD MicroSolutions keeps class sizes small (8 or less) to ensure that each student receives personal attention.
- A professionally catered lunch is provided each day.
- Our instructors have the highest level of certifications attainable.
- Our professional training facility is outfitted with optimized Dell and Boxx Workstations with 3DConnexion 3D Controllers.
- All attendees that successfully complete the course receive an official course certificate from *Dassault Systemes SolidWorks Corporation* recognizing their achievement.

***The CAD MicroSolutions Difference:
Certified Training That Delivers Peak Performance***

