

SOLIDWORKS API Fundamentals – 2 days (14h)

**The "Introduction to Visual Basic.net" training is required for this class.*

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

2. The API Object Model

- SOLIDWORKS API Object Model
- Application Objects
- Connecting to New Documents
- Connecting to Existing Documents

3. Setting System Options and Document Properties

- User Preferences – System Option
- User Preferences – Document Properties
- Locating the Correct APIs and Enumeration Values
- User Preferences Tables for System Option, Document
- Properties and Menu Items

4. Automating Part Design

- Automation Tool for Parts

5. Assembly Automation

- Automation Tool for Assemblies

6. Drawing Automation

- Automating Drawing Creation

7. Selection and Traversal Techniques

- Programming with a Selected Object
- The SOLIDWORKS BREP Model
- Body and Face Traversal
- Feature Manager Traversal

8. Adding Custom Properties and Attributes

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

9. The SOLIDWORKS API SDK

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

10. Customizing the SOLIDWORKS User Interface

- 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

11. Notification

- Notification
- Notification in VBA
- Simple Notification
- Using Notifications in .NET

Course Objectives : At the end of each course, students will know the capabilities of the software and will be able to use the learned features.

Training Course : Training is given in class at SolidXperts or online where each student has access to a workstation or online product version.

Methodology : Training is based on case studies demonstrated by the instructor. At the end of each lesson, time will be given for exercises.

Competences Evaluation : During the classwork, the instructor will correct the exercises on-demand and explain the solutions to the entire class if needed.

Instructor : SolidXperts trainers are Certified SolidWorks Instructors (CSWI) and authorized by Emploi-Québec.

Course Materials : One or more training manuals are included with the training course.

Attestation : A certificate will be given to each student at the end of the course to attest to the successful completion of the requirements for the course.