

# **SDK SPECIFICATION**

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## **FA-1010 SDK**

Software Development Kit

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1<sup>st</sup> Edition

FAApiLib Version: 2.0.0.0 - Higher

Supported FA-1010 versions: Software 4.09 or higher
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## Edition Revision History

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Edit.	Rev.	Date	Description	Section/Page
1	-	2017/05/30	First Edition	

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# 1. Overview

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The FA-1010 SDK is a Software Development Kit allows users on Windows 7, 8.1 and 10 to quickly develop applications and control FA-1010 units from Windows PCs.

## 2. Operational Environments

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Framework	.NET Framework 4.0 client Profile
Language	Managed codes C#
	Unmanaged codes C/C++
Microsoft Visual C++ 2012 Runtime	

## 3. Restrictions

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The following operational restrictions apply to FA-1010 control programs that were created using the FA-1010 SDK.

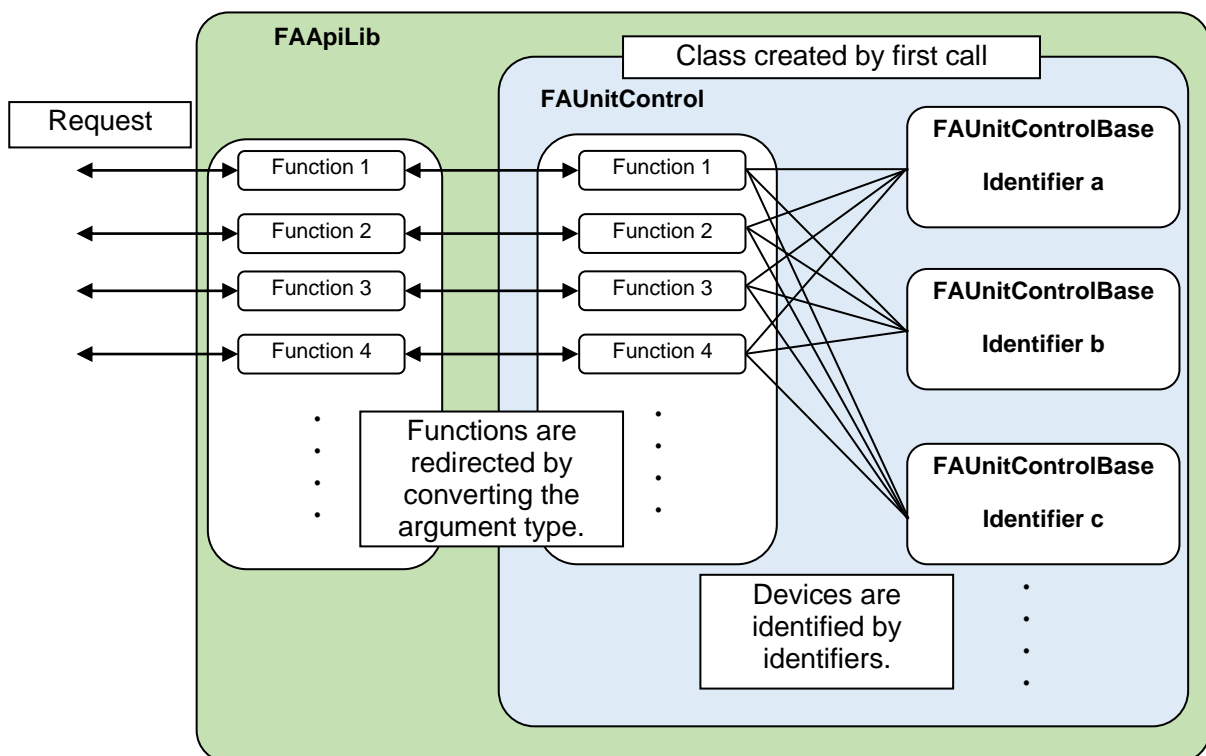
- Programs run only on 32-bit Windows.
- FA-1010GUI control over an FA-1010 is disabled while an FA-1010 SDK control program on the computer is connected to the FA-1010 unit.
- The SDK does not support an API that imports or exports parameter settings from FA-1010 units.

## 4. Program Structure

### ◆ Unmanaged Function Library

Unmanaged functions are implemented as a library in the API for development use, which is defined as “**FAApiLib**.” This allows users to call public methods and properties in **RemoteControl** and **ParameterWrapper** as functions.

A class should be created and maintained in the library the first time a method or property is called, because classes cannot be handed over to calling objects. Although users don’t need to be aware of these classes, the initialization function must be called each time when a device is connected. An identifier that is returned when creating a class is used for function calls to identify connection devices in the class.



## 5. Instructions (When Creating Control Programs)

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- (1) Open the supplied CD-ROM and copy the bin folder in the CD-ROM to your computer.
- (2) In the Windows **Start** menu, go to **All Programs** and open the **Accessories** folder.
- (3) Right-click the **Command Prompt** and select “**Run as administrator**.” Do **not** close the command prompt window until this procedure is finished.
- (4) In the Command prompt, type the following command:  
**PATH=%WINDIR%\Microsoft.NET\Framework\v4.0.xxxxx**

**xxxxx**: number sequence may differ depending on the system environment.

- (5) In the Command prompt, go to the “**bin/Registration\_Unregistration**” folder that was copied from the CD-ROM in Step (1).

Command example) **cd c:\bin\Registration\_Unregistration\**

- (7) In the Command prompt, type the following command:  
**RegisterFAUnitControl**
- (8) When the message “Registration completed successfully” appears, the API is successfully registered and available. Close the command prompt.

### IMPORTANT

Do not move the bin folder after the API registration.
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## 6. How to Distribute Programs Created with the SDK

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- (1) Install the **Visual C++ 2012 Redistributable Package**.
- (2) Distribute the following files with your program.
  - FAApiLib.dll
  - ForA.FA1010.ParameterWrapper.dll
  - ForA.FA505.ParameterWrapper.dll
  - ForA.FAUnitControl.dll
  - ForA.RemoteContontrol.dll
- (3) Register **FoA.FAUnitControl.dll** as a **COM** component using **RegAsm.exe** or installer functions in the .NET Framework.

## 7. API Specifications

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Refer to the separate file “FA1010\_505\_API\_Reference-J-V2.xlsx” for details.