Release Notes

FlexPendant SDK

5.15

Revision: -

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Contents

Overview 5

1 Release Information 6

1.1 General 6

1.2 Contents 6

2 What's New in this Release? 7

2.1 FlexPendant on Developer Center 7

3 Late-breaking information 8

3.1 Overview 8

4 Problems Corrected 9

4.1 Corrected problems since FlexPendant SDK 5.14.03 9

5 Known Limitations 10

6 Installation Information 12

6.1 Hardware and Software requirements 12

6.2 Hardware requirements 13

6.3 Compatibility 13

7 Technical Support 14

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Overview

Description

This document provides information about the new features, problems corrected, and installation of FlexPendant SDK.

Product Overview

FlexPendant SDK can be used to develop customized operator screens for the FlexPendant.

No license is required to develop applications using FlexPendant SDK.

The option “FlexPendant Interface” is required on the IRC5 controller to execute FlexPendant applications.

FlexPendant SDK is included in the RobotStudio installer, which can be downloaded for free, from the RobotStudio web site:

http://www.abb.com/roboticssoftware

To get started, or to learn more, visit our Developer Center:
http://developercenter.robotstudio.com

Here you will also find the User Forum, where developers discuss software problems and solutions online:

http://www.robotstudio.com/forum

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1 Release Information

1.1 General

Release Name

The release name is FlexPendant SDK 5.15 and the build number is 5.15.0261.

Release Date

The release date is 12th of October, 2012.

1.2 Contents

.NET Assemblies

ABB.Robotics.dll

ABB.Robotics.Controllers.dll

ABB.Robotics.DataBinding.dll

ABB.Robotics.GTPU.dll

ABB.Robotics.GTPU.Windows.Forms.dll

ABB.Robotics.Taf.Base.dll

ABB.Robotics.Tps.Resources.dll

ABB.Robotics.Tps.SDK.Base.dll

ABB.Robotics.Tps.Taf.dll

ABB.Robotics.Tps.Windows.Forms.dll

Documentation

Reference Manual – FlexPendant SDK (Html Help). Documentation of class libraries with method signatures in C# and Visual Basic.

Application Manual – FlexPendant SDK (Html Help and PDF).

Style Guilde – FlexPendant SDK (Html Help).

After installation the documentation can be launched from the Windows Start Menu Programs\ABB Industrial IT\Robotics IT\Robot Studio 5.15\SDK.

The manuals and additional samples are also available at http://developercenter.robotstudio.com.

Tools

abbct.exe – ABB Compliance Tool. **abbct.exe** – ABB Compliance Tool. Verifies the FlexPendant application syntax and generates the *.gtpu.dll.

Visual Studio Project Templates

ABB Application – template for a basic FlexPendant application.

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2 What's New in this Release?

Overview

This section contains information about new features in this release.

2.1 FlexPendant on Developer Center

You can now access the FlexPendant Application and Reference Manual from http://developercenter.robotstudio.com.

To help you get started you will also find complete walk-through projects for download.

New content will continuously be published on the Developer Center.

2.1.1 I/O signal DataBinding walk-through

A Visual Studio project and instructions that walks you through the steps necessary to display I/O signals in a list view.

2.1.2 RAPID variable DataBinding walk-through

A Visual Studio project and instructions that walks you through the steps necessary to display RAPID variables in a list view.

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3 Late-breaking information

3.1 Overview

This section contains late-breaking information that will be included in the appropriate documents in the subsequent releases.

Nothing in this relase.

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4 Problems Corrected

Overview

This section describes the problems corrected in FlexPendant SDK.

4.1 Corrected problems since FlexPendant SDK 5.14.03

ID	Title
-	ListView Zoomable property doesn't work
-	Small TpsLabel was not truncated correct
-	TpsLabel don't hide tooltip when label is hidden
-	Graph control does not generate correct dsigner code
-	TpsLabel does not hide tooltip when label is hidden
DSE8329	Not possible to set the BorderStyle property NumPad on from the designer
-	Not possible to set the BorderStyle property on Tps-controls from the designer
DSE8330	Not possible to set NumPad.Target from the designer
DSE8371	Not possible to set CompactAlphaPad.Target from the designer
-	Plot data property in graph control is ingnored
DSE8372	Text in Numeric Up/Down cannot be vertically aligned
	PlotData properties in Graph Control ignored
DSE8719	NumEditor control needs property to hide/show the decimal point
DSE10615	Inconsistent fore color on CheckBox, Led, Switch, RadioButton and Button
-	NumericUpDown counter does not update fore color
-	NumericUpDown appearance wrong in designer and Virtual FlexPendant.
-	Wrong disabled color on CheckBox, Led, Switch and Button

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5 Known Limitations

Overview

This section describes known limitations in FlexPendant SDK.

***Visual Studio 2008 cannot attach to VirtualFlexPendant.exe 5.15**

VirtualFlexPendant.exe distributed with RobotStudio 5.15 and later is built with .NET 4.0. VisualStudio 2008 is not able attach and debug a .NET 4.0 application.

Hence it is not possible to use RobotStudio and the Virtual FlexPendant to debug a FlexPendant SDK application from Visual Studio 2008.

Workaround #1: *Visual Studio 2010 or Visual Studio 2012 can be used for attaching and debugging VirtualFlexPendant.exe. You can open a code file from your Visual Studio 2008 project, from Visual Studio 2010 and set breakpoints. The debugger will hit the breakpoints and you can execute step vice etc.*

Workaround #2: *Do not uninstall RobotStudio 5.14.03 when installing RobotStudio 5.15.Visual Studio 2008 can attach to and debug the VirtualFlexPendant.exe 5.14.03.*

Visit http://www.robotstudio.com/forum for a step-by-step instruction.

Visual Studio 2008 cannot attach to VirtualFlexPendant.exe 5.15

VirtualFlexPendant.exe distributed with RobotStudio 5.15 and later is built with .NET

Error when opening the designer for the first time in a VB project

When creating a FPSDK project for VB using an empty form (the default) as the startup view, an error message may be displayed in the designer the first time the viewer is opened. The problem does not occur when the startup type is *Form*, or in C#. Work around: Close and re-open the designer.

Memory leak in ImageList.Dispose

Due to a Microsoft bug the ImageList.Dispose method does not work, causing a memory leak. Microsoft's advice is to set the ImageList to null instead of calling Dispose. This way the memory will correctly be reclaimed by the garbage collector.

avoid:
imageList.Dispose();

use:
imageList = null;

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RapidData.IsLocal returns true for shared data

In FlexPendant SDK the property IsLocal on the class RapidData, returns true for shared data, even though such data is visible from all modules.

The declarations of default zonedata and speeddata has been moved from module BASE.SYS in each task, and are now installed as shared data.

If an application used to create a RapidData object representing for example "v1000", the IsLocal property returned false in RobotWare 5.12, but will return true in RobotWare 5.13."

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6 Installation Information

Overview

You need administrator permissions on the computer that you are using.

Microsoft Visual Studio 2008 Professional development environment is required to develop FlexPendant SDK applications.

Visual Studio project templates and control templates, will be installed and made available to Visual Studio, by the FlexPendant SDK installation.

Note! It is required that Visual Studio is installed before FlexPendant SDK. If not, the templates will not to be installed.

To install FlexPendant SDK click RobotStudio on the RobotWare & RobotStudio DVD. If you select the default installation option **Complete**, FlexPendant SDK will be installed. If you want to install only FlexPendant SDK and not RobotStudio select the installation option **Custom**.

FlexPendant SDK 5.xx will be installed side by side with any previous major version of FlexPendant SDK 5.xx, while minor versions within a release will update to the latest one.

The default installation path is C:\Program Files\ABB Industrial IT\Robotics IT\SDK\FlexPendant SDK 5.15.

6.1 Hardware and Software requirements

Software requirements

PC software requirements

Operating Systems

Microsoft Windows XP SP3 – 32bit edition

Microsoft Windows 7 – 32bit edition

Microsoft Windows 7 – 64bit edition

Microsoft Windows 8 – 64bit edition

RobotStudio

RobotStudio 5.15 is needed for building a test system and for debugging and testing in the virtual environment.

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IRC5 software requirements

- RobotWare option "FlexPendant Interface" for communication with IRC5 controller.
- RobotWare version 5.15.

It is recommended that FlexPendant SDK 5.15 applications should be used with RobotWare 5.15.

Supported development environment:

Microsoft Visual Studio 2008 Professional is required to develop applications for the FlexPendant.

Note! FlexPendant SDK is developed and tested for the English version of Visual Studio.

Note! Microsoft Visual Studio 2010, or 2012 does not support Compact Framework application development, and as a consequence thereof, does not support FlexPendant application development.

6.2 Hardware requirements

FlexPendant

The following FlexPendant device versions are supported:

SxTPU-2 (executes with .NET CF 2.0 and WinCE 5.0)
SxTPU-3 (executes with .NET CF 3.5 and WinCE6.0)

6.3 Compatibility

The APIs in the FlexPendant SDK 5.15.xx are backwards compatible with the APIs in FlexPendant SDK 5.14. There are no breaking changes.

FlexPendant SDK compatibility between RobotWare releases cannot be absolutely guaranteed. The goal is to be 100% compatible and the development team tries hard to achieve this. Due to necessary upgrades in the Microsoft platforms or new demands breaking changes sometimes cannot be avoided.

Note! *Compatibility between a specific version of FlexPendant SDK and earlier versions of RobotWare can only be guaranteed within the same major release. (FP SDK 5.14.01 will be compatible with RW 5.14.02 etc).*

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7 Technical Support

For technical support please turn to your local ABB office.

http://www.abb.com/contacts

For help, advice and the latest updates visit the User Forum.

http://www.robotstudio.com/forum

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