What’s New RobotStudio® 5.13.02

New Functionality RobotStudio 5.13.02

PC SDK and FlexPendant SDK 5.13.02 installed with RobotStudio

Version 5.13.02 of PC-SDK and FlexPendant SDK are installed with the Complete installation of RobotStudio and can optionally be installed with the Custom installation option.

New generation of positioner libraries


Note: The new libraries are not saved as libraries by default, they are stored in the station. A consequence is that part positions can be modified. To prevent the library from being accidentally modified, you should save it as a library.

New paint robot IRB5500 ProcessArm

A variant of the IRB5500 with process arm is available in RobotStudio 5.13.02.

Updated demo station for Smart Components

The demo station for Smart Components named ‘Smart Component Solar Simulation.rspag’ has been updated with randomized input positions and a sensor that reads positions and feeds the virtual controller during run-time.
New Functionality RobotStudio 5.13.01

PC SDK and FlexPendant SDK 5.13.01 installed with RobotStudio

Version 5.13.01 of PC-SDK and FlexPendant SDK are installed with the Complete installation of RobotStudio and can optionally be installed with the Custom installation option.

Smart Components

New base component: MoveAlongCurve
A base component that moves an object along a geometric curve at a specified speed

Show/Hide available for Queue Components
Some people find it too time consuming for show/hide operations of several object to use SmartComponents. That is why Show/Hide is now available for Queues.

New base component: Simulation Events
To get events for simulation start and stop.

New base component: JointReader
Reads the joint values of a mechanism. Similar to PositionSensor.

Offline

Baseframe values can be copied between mechanical units
A copy function is now available in the System Configuration dialog, so that a baseframe value can be copied to another single mechunit
**New Functionality RobotStudio 5.13**

**Smart Components**

Smart Components offers a new way of creating simulations by adding behavior to the simulated objects. It brings life to the graphical component libraries by the addition of so-called *Base Smart Components* for basic motion, signal logic, arithmetic, parametric modeling, sensors etc, etc. Moreover, Smart Component authoring can be separated from its use in a simulation. The internal logic of the user-created, composite Smart Component is hidden to the component user that only needs to know how to connect it to other high-level Smart Components of the simulation. This allows Smart Components for common equipment to be re-used over and over again, thus saving valuable time.

The Base Smart Components available in RobotStudio 5.13 will cover the most cases, which removes the need for customization in e.g. Visual Studio Tools for Applications (VSTA). Advanced users still have the possibility to develop their own customized smart components using Microsoft Visual Studio C# or any other programming language that supports Microsoft .NET Framework.

Smart Components is a replacement to the Event Manager. Instead of adding the simulation logic to the centralized Event Manager, the logic is distributed to the simulation objects themselves. However, the Event Manager will still be available for backwards compatibility.
The Document Manager allows you to search and browse RobotStudio documents like libraries, geometries and so on in large numbers and from different locations. Commonly used folders can be added to a gallery such as the standard gallery for ABB Library components. Two modes are supported: Searching and Browsing.

ScreenMaker

ScreenMaker is fully integrated with RobotStudio and need no longer be installed as a separate product. It allows easy creation of FlexPendant operator panels.
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What’s New RobotStudio 5.13.02

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Developer Tools
PC-SDK and FlexPendant SDK are now integrated in the RobotStudio installer and can be installed with the Complete or Custom installation option.

Targets on Edge
Support for target creation using geometry.

Start and Stop of Tasks in Offline browser
Tasks (both motion tasks and background tasks) can be selectively started and stopped from the Offline browser.
**Improved support for task frame alignment**

It is easier to define and modify the task frame in RobotStudio 5.13. By default, the task frame is aligned with the robot base frame in ‘System From Layout’. This corresponds to setting the base frame translation and rotation equal to zero in the Motion Configuration database of the controller (MOC.CFG).

When moving the task frame, the user gets the options to move or keep the base frame location. Correspondingly, when adjusting the base frame using the Set Position tool, the user gets the option to adjust the task frame.

**Place by Two Frames**

New place option

**Support for LOCAL procedures in RAPID**

RobotStudio now supports RAPID procedures declared as LOCAL.
Mirror function

Geometric entities such as parts, bodies, and curves can now be mirrored around its local origin.