

AutoDevKit Studio for 32-bit power architecture MCUs



Product summary	
AutoDevKit Studio for 32-bit power architecture MCUs	STSW-AUTODEVKIT

Features

- Contains cross-platform compatible software components
- Dedicated welcome pages with last updates and pointer to key applications
- Open-source integrated development environment (IDE) based on Eclipse with new look and feel
- Code, Makefiles, ELF, and doc generation based on a template structure and XML technologies easily exportable to other development environments
- Direct access to the PLS debugging UDE starter kit version software
- Direct access to OpenOCD Debugger
- Updates managed through an Eclipse standard dedicated market place
- Free license GCC GNU C compiler component provided through the market place
- Each software component has:
 - An MCU-independent API
 - A GUI for visual configuration
 - A demo sample
 - Software documentation
- The software component automatically proposes a configuration and an allocation for the MCU required peripherals
- Through the provided GUI, you can customize the allocation using other available MCU peripherals
- The software automatically prompts for conflicts and/or inconsistencies during the allocation
- The allocated pins can be browsed in the AutoDevKit Studio PinMap editor
- Premium features have been added in the installation: GTM, artificial intelligence, [AutoDevKit](#), and motor control (refer to dedicated ST web pages for access and installation details)
- Compatible with a wide range of SPC5 automotive-grade microcontrollers

Applications

- Automotive and Transportation
- Second-tier automotive
- Delivery & logistic on-street robots
- Automated healthcare tools transporting patients
- High reliability applications requiring automotive safety and reliability

Description

The AutoDevKit Studio combines [AutoDevKit](#) with [SPC5-STUDIO](#).

The [AutoDevKit](#) library contains software components for functional boards.

Each component has a specific API to control the specific functional board.

The API consists of a set with two types of "methods": one type that is very high level and easy-to-use even to hardware inexperienced users; the other type is able to access very low-level board/chip advanced functionalities and features.

The `AutoDevKit` components are provided with a graphical user interface for easy configuration and setup. Once the configuration is completed for each component, the **[Allocate]** button is used for pin allocation.

During the allocation phase, the library configures the peripherals and all the necessary pins to run the components, checking for conflicts on MCU peripherals and pins already allocated automatically or manually through the `AutoDevKit Studio PinMap` editor. If conflicts are spotted, the software reports appropriate alerts.

Once the `AutoDevKit Studio` project is saved, pin allocation and configuration are saved as well. The `PinMap` editor shows and allows modifications of the allocated pins.

Through the `Import Sample Application` button, it is possible to install some demo samples that contain simple main () functions where a basic usage of the component API is shown.

For the `AutoDevKit Studio` latest list of components and APIs, refer to the relevant release note available at www.st.com.

1 STSW-AUTODEVKIT installation in SPC5-STUDIO/Eclipse/ AutoDevKit Studio

- Step 1.** Download the zip file www.st.com/autodevkitsw
- Step 2.** Uncompress the zip file
- Step 3.** Launch the .exe file
- Step 4.** Accept the license
- Step 5.** Ignore warnings

Revision history

Table 1. Document revision history

Date	Version	Changes
06-Mar-2019	1	Initial release.
12-Dec-2022	2	Updated all contents.
03-Apr-2023	3	Modified title in cover page. Updated Section 1 STSW-AUTODEVKIT installation in SPC5-STUDIO/Eclipse/AutoDevKit Studio.

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