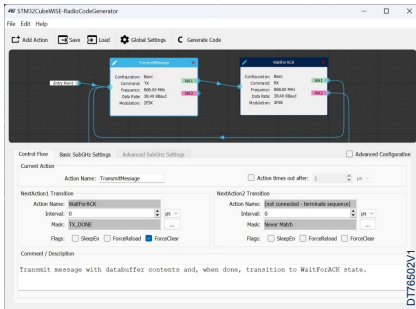# Graphical user interface for RF transceiver action flow graphs on STM32WL3x microcontrollers

Features

- Easy-to-use graphical user interface to build flow graphs for the MRSUBG embedded sequencer
- Intuitive menu for saving flow graphs or loading saved configurations
- Generation of C-code project, compliant with IAR Embedded Workbench®, MDK-ARM, and STM32CubeIDE (GCC compilers) for Arm® Cortex®-M cores

Description

The STM32CubeWiSE-RadioCodeGenerator (STM32CubeWiSEcg) is a graphical application to create flow graphs for the STM32WL3x MRSUBG embedded sequencer, a state machine-like mechanism for the autonomous management of RF transfers.

The flow graphs specify the transceiver actions to be executed under various conditions, utilizing the MRSUBG driver.

STM32CubeWiSE-RadioCodeGenerator assists developers in creating source code for the STM32WL3x MRSUBG embedded sequencer by providing a graphical interface to:

- Build flow graphs
- Export the generated flow graphs as C source code for integration into users applications

The application main window consists of two sections:

- Toolbar: Used to create new actions, load and save flow graphs.
- Visual representation: A drag-and-drop interface displaying the logical and temporal structure of the flow graphs.

Additionally, the visual representation section displays the configuration parameters of the selected action.

Product status link
STM32CubeWiSEcg

DB5420 - Rev 1 - November 2024
For further information contact your local STMicroelectronics sales office.

www.st.com

1 General information

STM32CubeWiSEcg builds flow graphs for STM32WL3x microcontrollers based on the Arm® Cortex®-M0+ processor.

Note: *Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.*

arm

1.1 Ordering information

STM32CubeWiSEcg is available for free download from the *www.st.com* website.

1.2 What is STM32Cube?

STM32Cube is an STMicroelectronics original initiative to improve designer productivity significantly by reducing development effort, time, and cost. STM32Cube covers the whole STM32 portfolio.

STM32Cube includes:

- A set of user-friendly software development tools to cover project development from conception to realization, among which are:
  - STM32CubeMX, a graphical software configuration tool that allows the automatic generation of C initialization code using graphical wizards
  - STM32CubeIDE, an all-in-one development tool with peripheral configuration, code generation, code compilation, and debug features
  - STM32CubeCLT, an all-in-one command-line development toolset with code compilation, board programming, and debug features
  - STM32CubeProgrammer (STM32CubeProg), a programming tool available in graphical and command-line versions
  - STM32CubeMonitor (STM32CubeMonitor, STM32CubeMonPwr, STM32CubeMonRF, STM32CubeMonUCPD), powerful monitoring tools to fine-tune the behavior and performance of STM32 applications in real time
- STM32Cube MCU and MPU Packages, comprehensive embedded-software platforms specific to each microcontroller and microprocessor series (such as STM32CubeWL3 for the STM32WL3x product line), which include:
  - STM32Cube hardware abstraction layer (HAL), ensuring maximized portability across the STM32 portfolio
  - STM32Cube low-layer APIs, ensuring the best performance and footprints with a high degree of user control over hardware
  - A consistent set of middleware components such as FreeRTOS™ kernel, FatFS, and Sigfox™
  - All embedded software utilities with full sets of peripheral and applicative examples
- STM32Cube Expansion Packages, which contain embedded software components that complement the functionalities of the STM32Cube MCU and MPU Packages with:
  - Middleware extensions and applicative layers
  - Examples running on some specific STMicroelectronics development boards

2 License

STM32CubeWiSEcg is delivered under the SLA0048 software license agreement and its Additional License Terms.

Revision history

Table 1. Document revision history

Date	Revision	Changes
15-Nov-2024	1	Initial release.

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