MIKROE Codegrip Suite for Linux and MacOS! User Guide

Contents

MIKROE Codegrip Suite for Linux and MacOS!

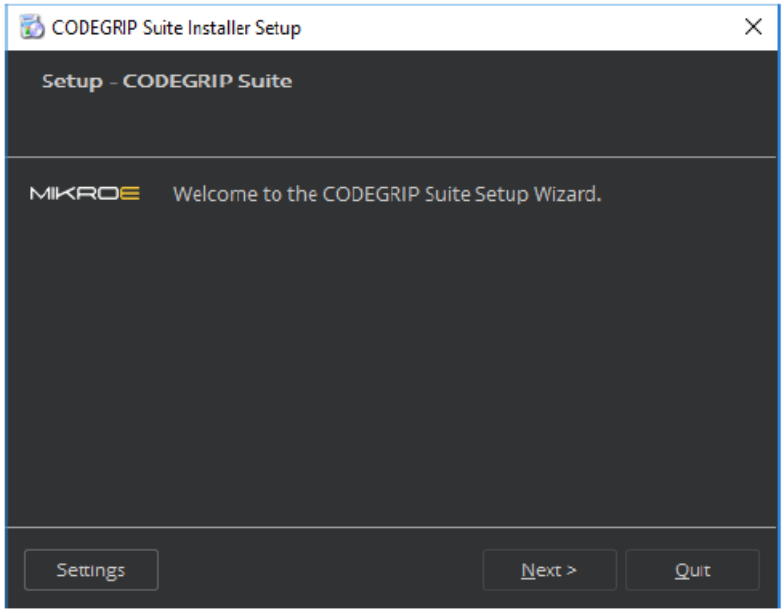
INTRODUCTION

UNI CODEGRIP is a unified solution, designed to perform programming and debugging tasks on a range of different microcontroller devices (MCUs) based on both the ARM® Cortex®-M, RISC-V and PIC®, dsPIC, PIC32 and AVR architectures from Microchip. By bridging differences between various MCUs, it allows a huge number of MCUs from several different MCU vendors to be programmed and debugged. Although the number of supported MCUs is absolutely huge, more MCUs might be added in the future, along with some new functionalities. Thanks to some advanced and unique features such as wireless connectivity and USB-C connector, the task of programming of a huge number of microcontrollers becomes seamless and effortless, providing users with both mobility and the complete control over the microcontroller programming and debugging process. The USB-C connector offers improved performance and reliability, compared to traditionally used USB Type A/B connectors. Wireless connectivity redefines the way the development board can be used. The graphical user interface (GUI) of the CODEGRIP Suite is clear, intuitive, and easy to learn, offering a very pleasant user experience. The embedded HELP system provides detailed guidelines for every aspect of the CODEGRIP Suite.

Installing CODEGRIP Suite

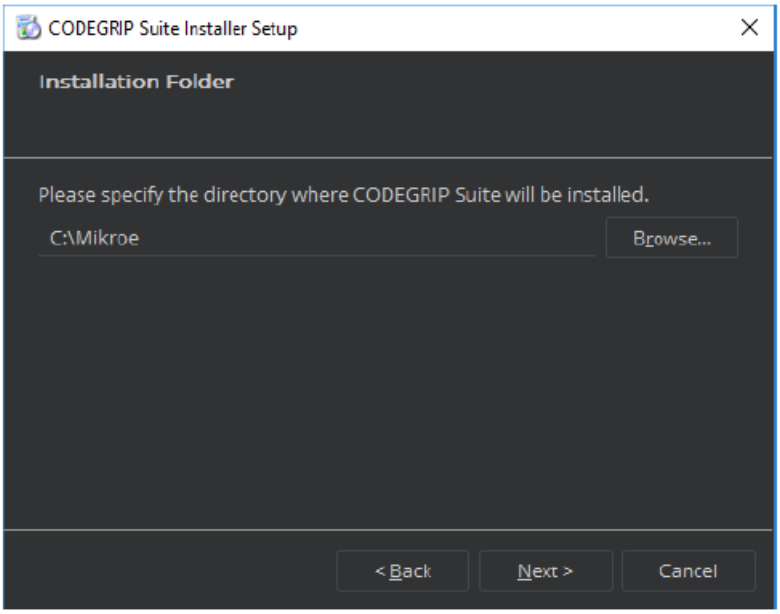
The installation process is easy and straightforward..
Download CODEGRIP Suite software application from the link **www.mikroe.com/setups/codegrip** Then follow the steps below.

1. **Step – Start the installation process**



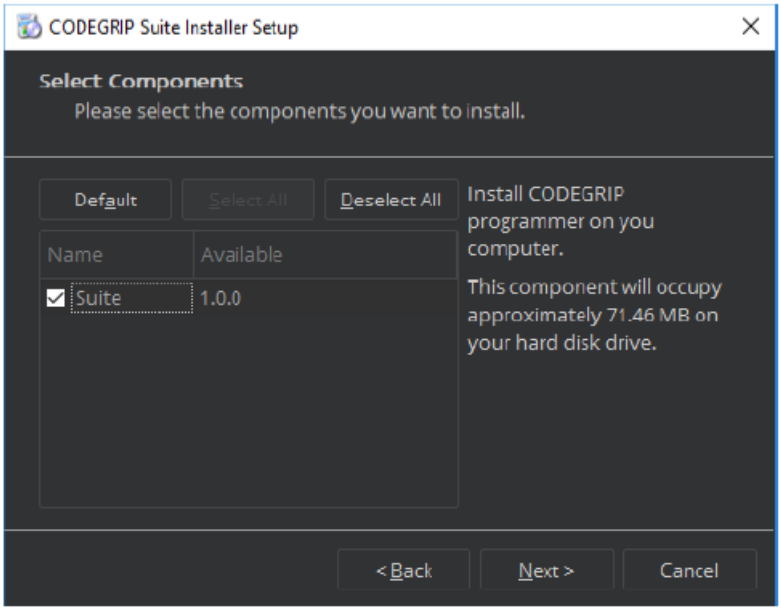
This is the welcome screen. Click Next to proceed or Quit to abort the installation. The installer will automatically check if there is a newer version available, if there is an Internet access. If you use a proxy server to access the internet, you can configure it by clicking the Settings button.

2. **Step – Select the destination folder**



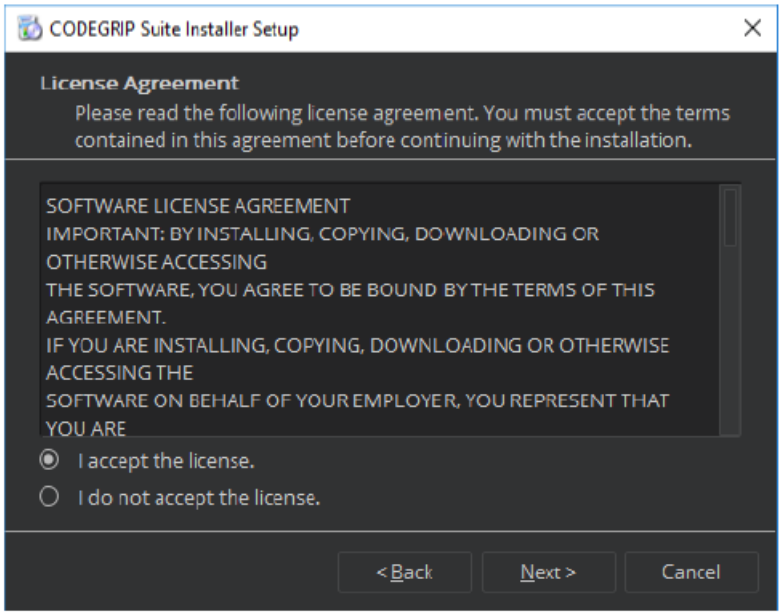
The destination folder can be selected on this screen. Use the suggested destination folder or select a different folder by clicking the Browse button. Click Next to proceed, Back to return to the previous screen, or Cancel to abort the installation process.

3. **Step – Select the components to install**



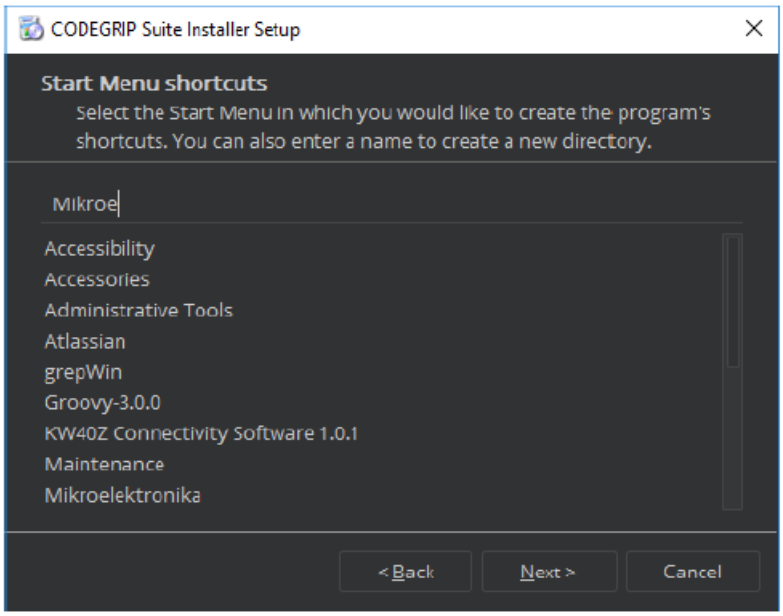
On this screen, you can choose which options you want to install. Buttons above the list of available options allow you to select or deselect all the options, or to select the default set of options. Currently, there is only a single installation option available, but more may be added in the future. Press Next to continue.

4. **Step – License agreement**



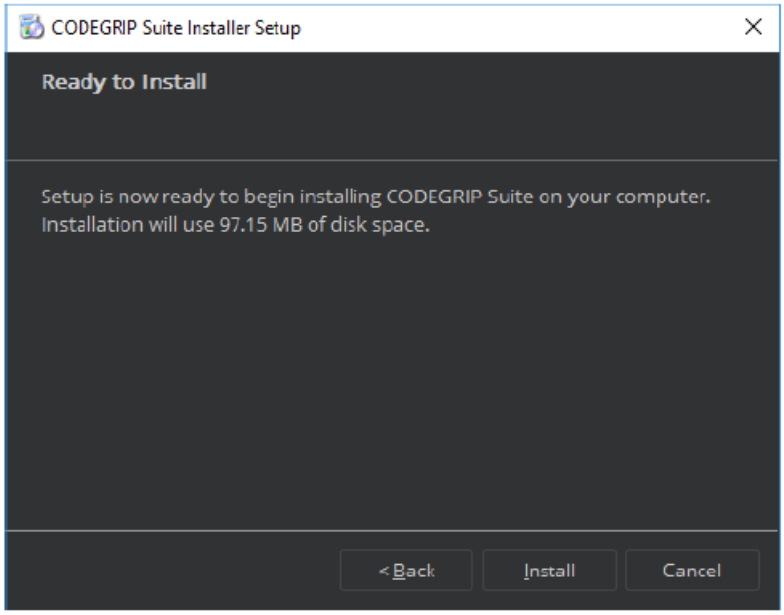
Carefully read the End User License Agreement (EULA). Select the desired option and click Next to proceed. Note that if you do not agree with the license, you will not be able to proceed with the installation.

5. **Step – Select the start menu shortcuts**



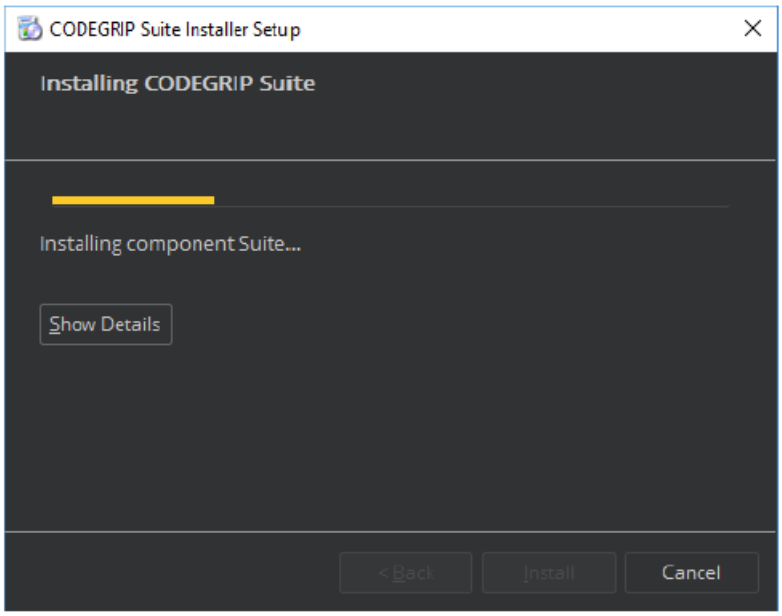
Windows Start Menu shortcuts folder can be selected on this screen. You can use the suggested name or use a custom folder name. Press Next to proceed, Back to return to the previous screen, or Cancel to quit the installation.

6. **Step – Start the installation process**



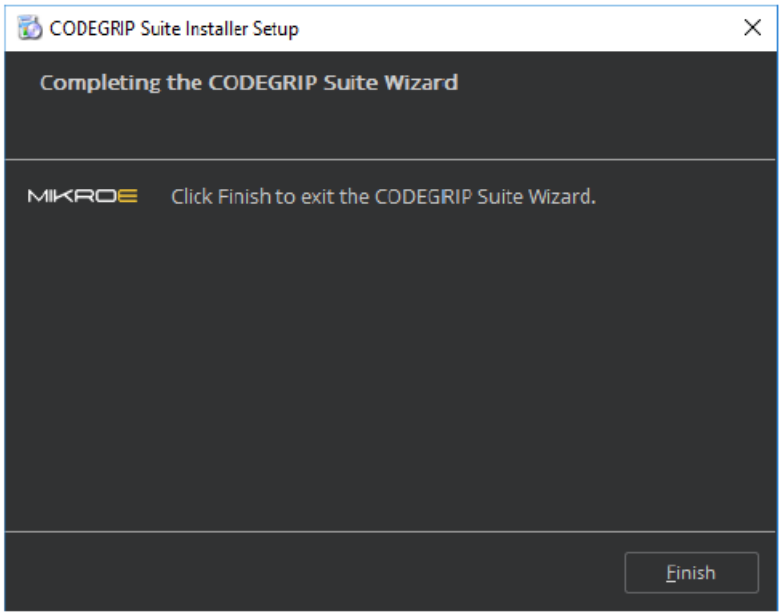
After all the installation options are properly configured, the installation process can now be started by clicking the Install button.

7. **Step – Installation progress**



The installation progress is indicated by the progress bar on this screen. Click the Show Details button to monitor the installation process more closely.

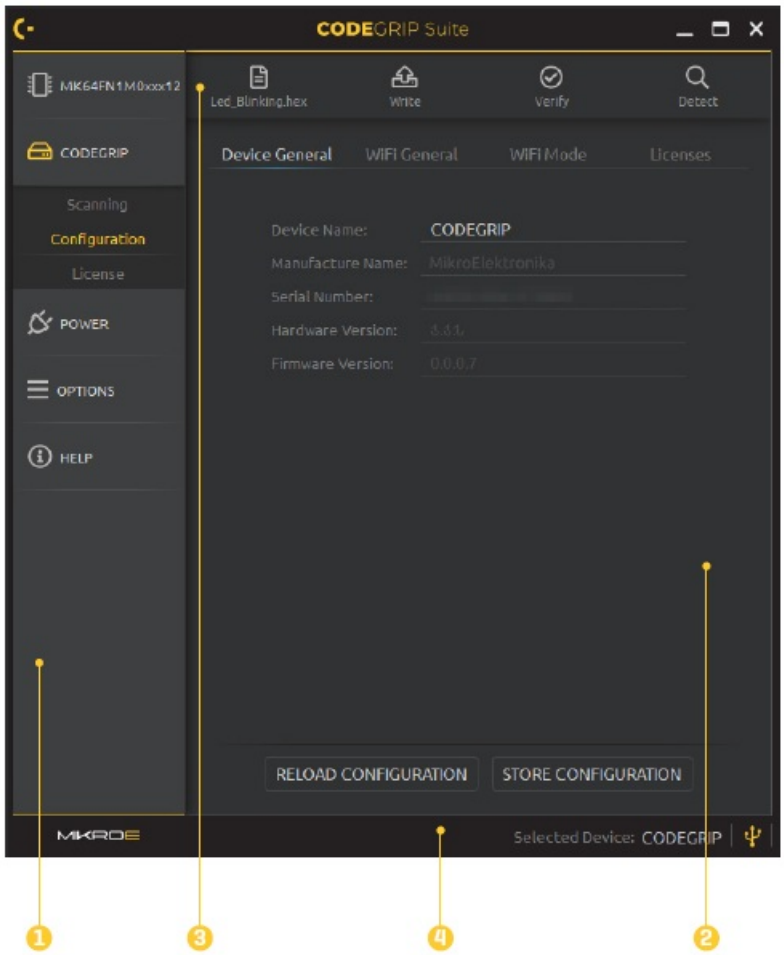
8. **Step – Finish the installation process**



Click the Finish button to close the Setup Wizard. The installation of the CODEGRIP Suite is now complete.

CODEGRIP Suite overview

The CODEGRIP Suite GUI is divided into several sections (areas), each containing a set of tools and options. By following a logical concept, each menu function is easily accessible, making navigation through complex menu structures easy and simple.

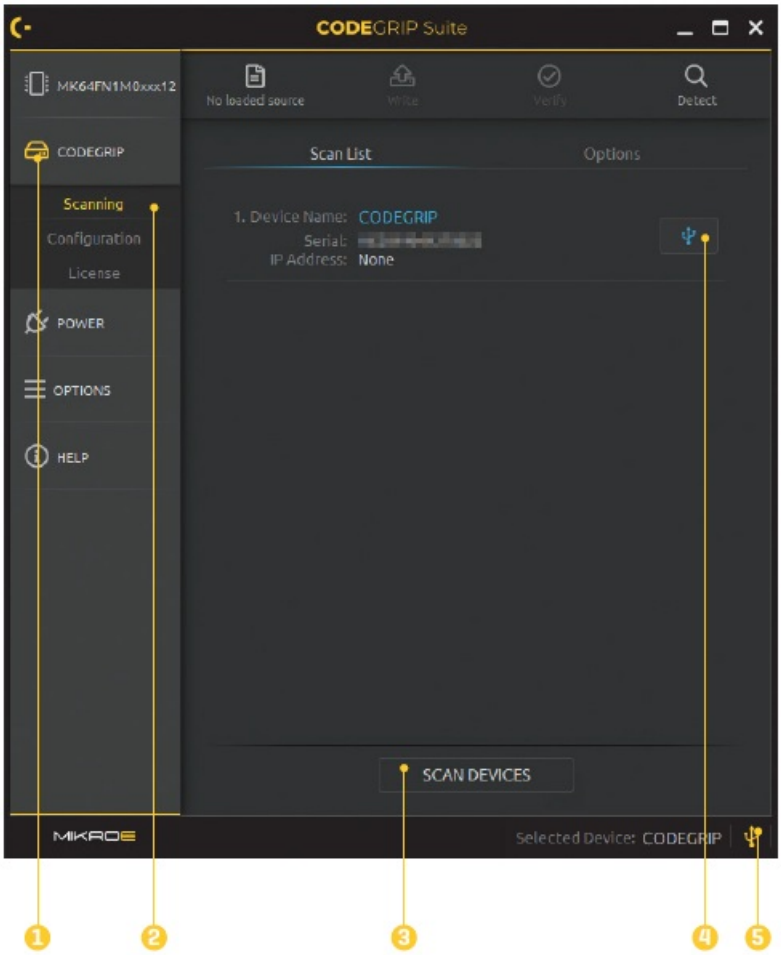


1. Menu section
2. Menu Item section
3. Shortcut bar
4. Status bar

This document will guide you through a typical MCU programming scenario. You will get familiar with the basic concepts of the CODEGRIP Suite. If you require more detailed information about all the features provided by CODEGRIP, please refer to the corresponding manual on the following link www.mikroe.com/manual/codegrip

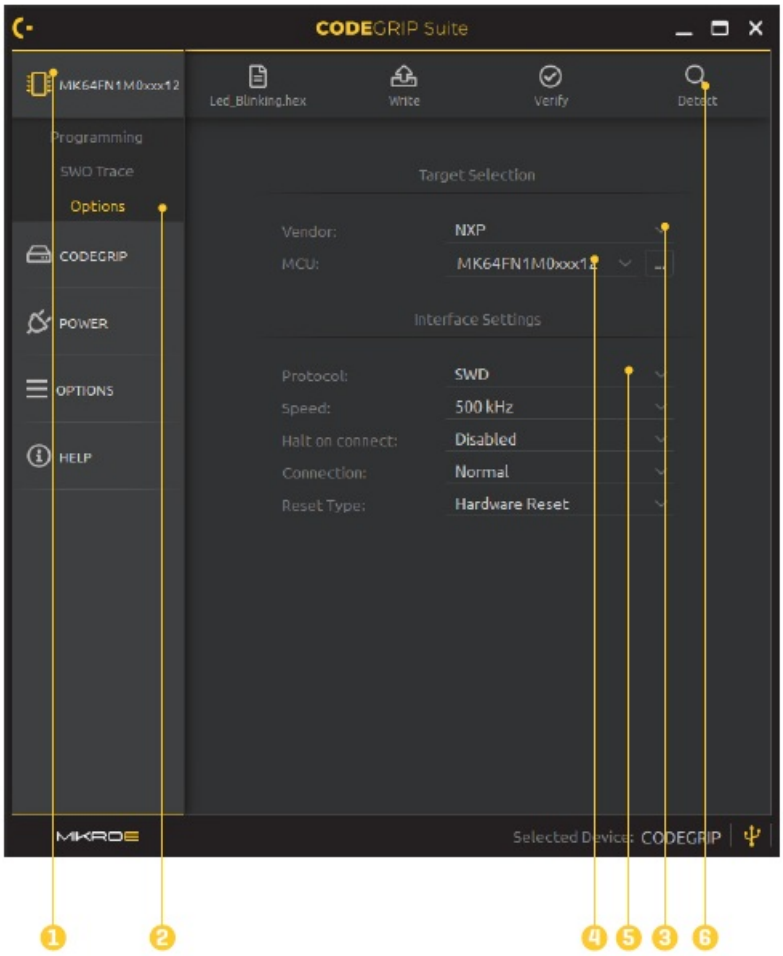
Programming over USB-C

1. **Connect to CODEGRIP over USB**



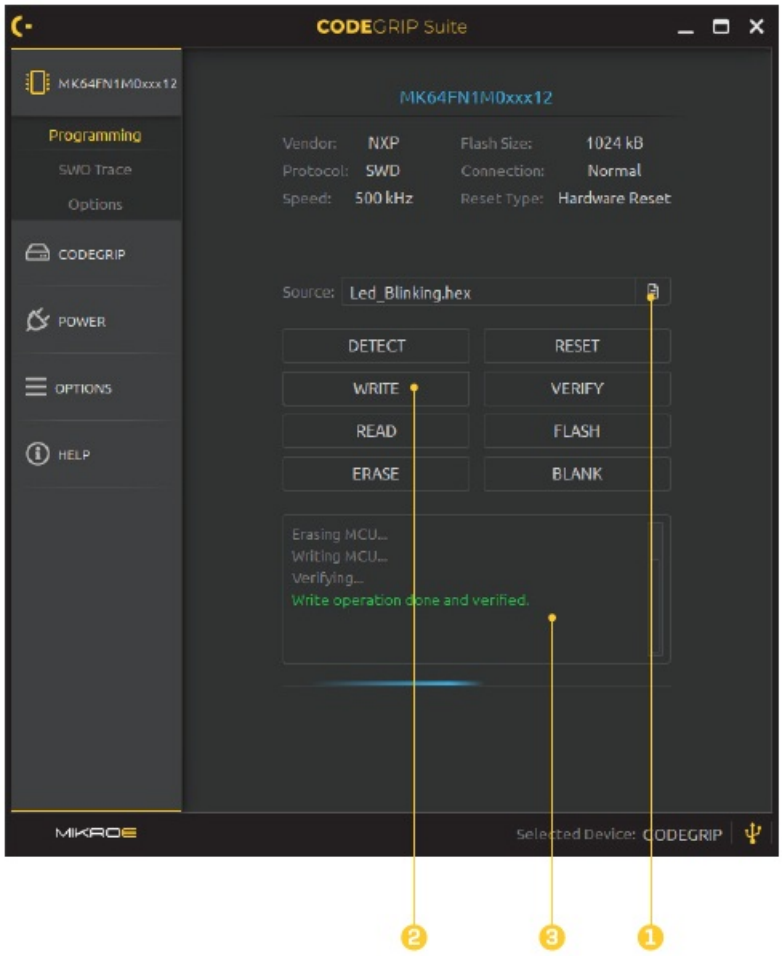
Connect the CODEGRIP with a PC using the USB-C cable. If everything was connected properly, POWER, ACTIVE and USB LINK LED indicators on the CODEGRIP device should be ON. When the ACTIVE LED indicator stops blinking, the CODEGRIP is ready to be used. Open the CODEGRIP menu (1) and select the newly unfolded Scanning menu item (2). SCAN DEVICES (3) to get a list of available CODEGRIP devices. To connect with your CODEGRIP over USB cable click the USB Link button (4). If more then one CODEGRIP is available, identify yours by it’s serial number printed on the bottom side. The USB Link indicator (5) will turn yellow upon successful connection.

2. **Programming setup**



Open TARGET menu (1) and select the Options menu item (2). Set up target MCU either by selecting vendor first (3) or by directly entering MCU name in the MCU drop-down list (4). To narrow down the list of available MCUs, start typing the name of the MCU manually (4). The list will be dynamically filtered while typing. Then select the programming protocol (5) to match your hardware setup. Confirm the communication with the target MCU by clicking the Detect button located on the Shortcuts bar (6). A small pop-up window will display the confirmation message.

3. **Programming the MCU**

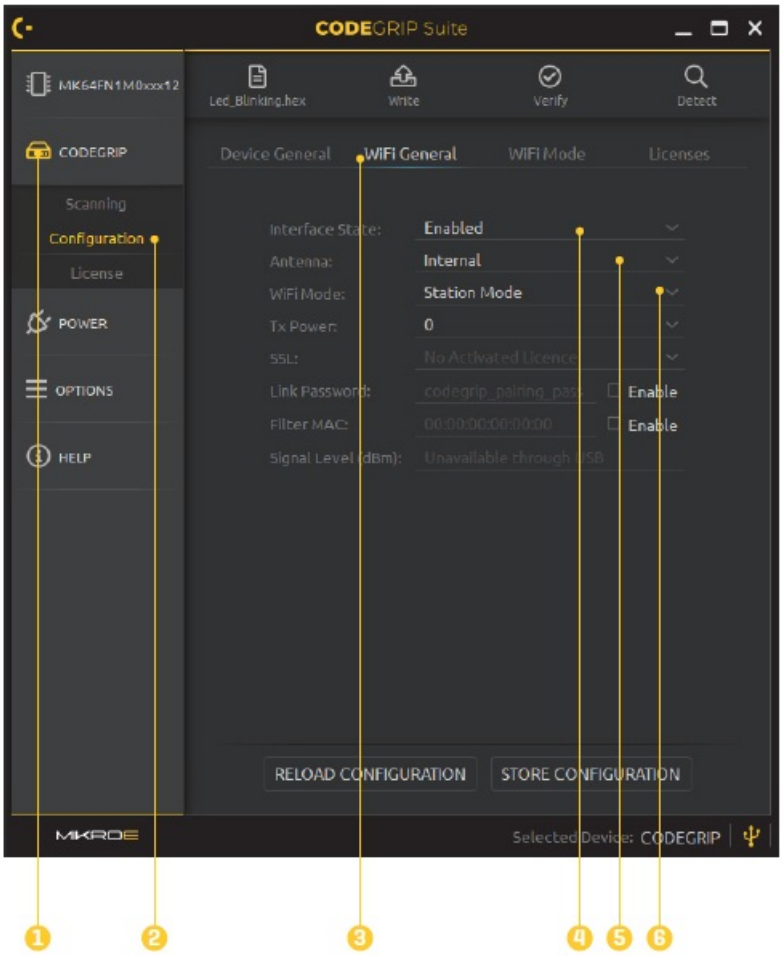


Load the .bin or .hex file by using the Browse button (1). Click the WRITE button (2) to program the target MCU. The progress bar will indicate the programming process, while the programming status will be reported in the message area (3).

Programming over WiFi

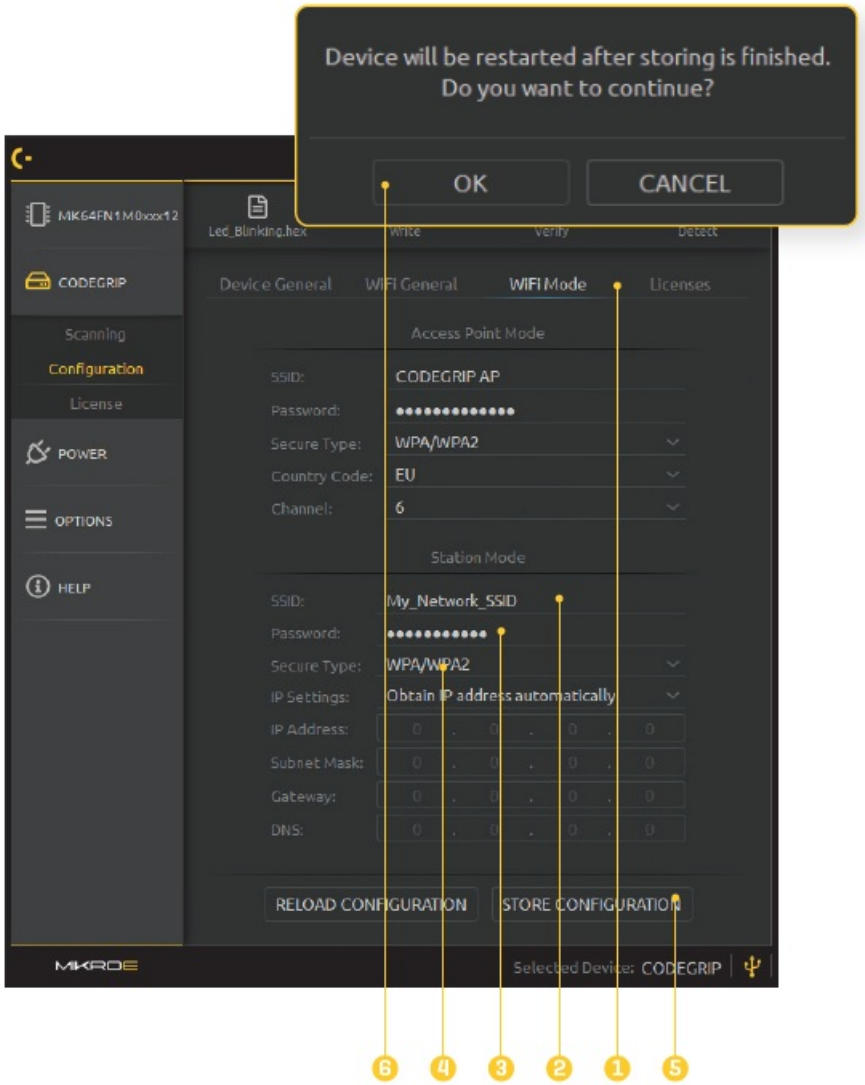
Programming over the WiFi network is a unique feature provided by CODEGRIP allowing to program the MCU remotely. However, this is an optional feature of CODEGRIP and requires a WiFi license. For more information about the licensing process, please refer to Licensing chapter. To configure CODEGRIP to use the WiFi network, a one-time setup through the USB cable is required. Make sure that the CODEGRIP is properly connected as previously described in Connect to CODEGRIP over USB section of the previous chapter and then proceed as follows.

1. **WiFi mode setup**



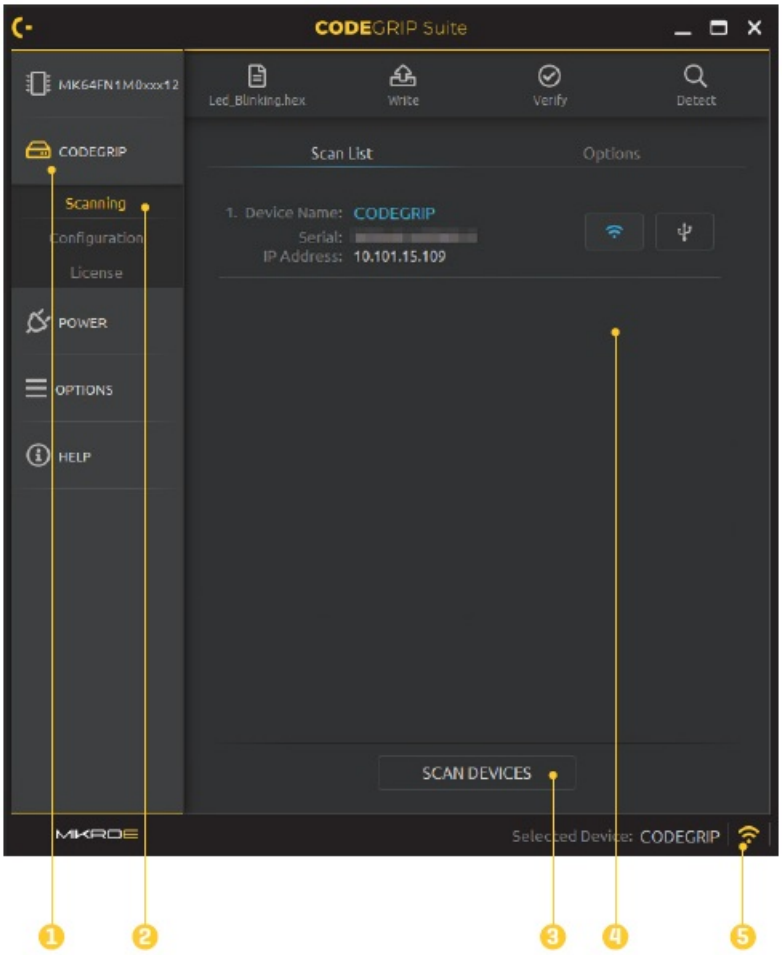
Open the CODEGRIP menu (1) nd select the newly unfolded Configuration menu item (2). Click on the WiFi General tab (3). Enable WiFi in the Interface State drop-down menu (4). Choose the Antenna (5) type to match your hardware setup. Select the Station Mode from the WiFi Mode drop-down menu (6).

2. **WiFi network setup**



Click on the WiFi Mode tab (1) and fill in the respective fields in the Station Mode section as follows. Type in the WiFi network name in the SSID text field (2) and the WiFi network password in the Password text field (3). Select the security type used by the WiFi network from the Secure Type drop-down menu. Available options are Open, WEP, WPA/WPA2 (4). Click the STORE CONFIGURATION button (5). A pop-up window will display a notification, explaining that the CODEGRIP will be restarted. Click OK button (6) to proceed.

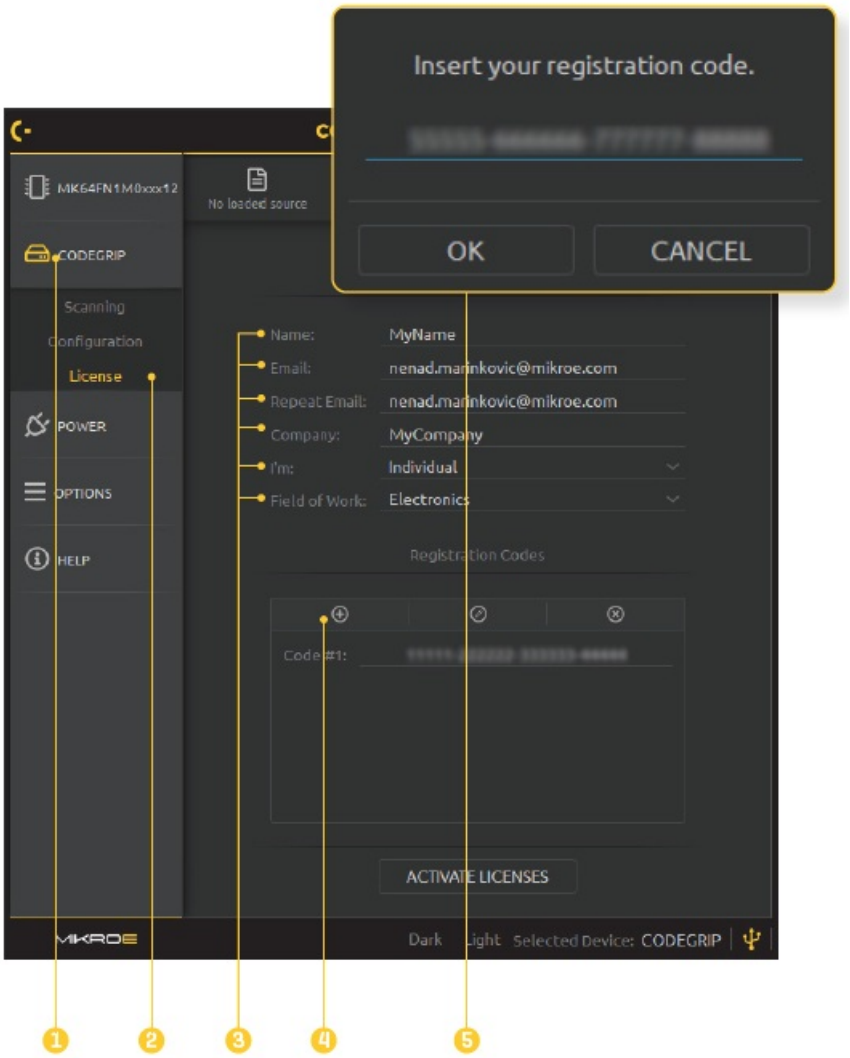
3. **Connect to CODEGRIP over WiFi**



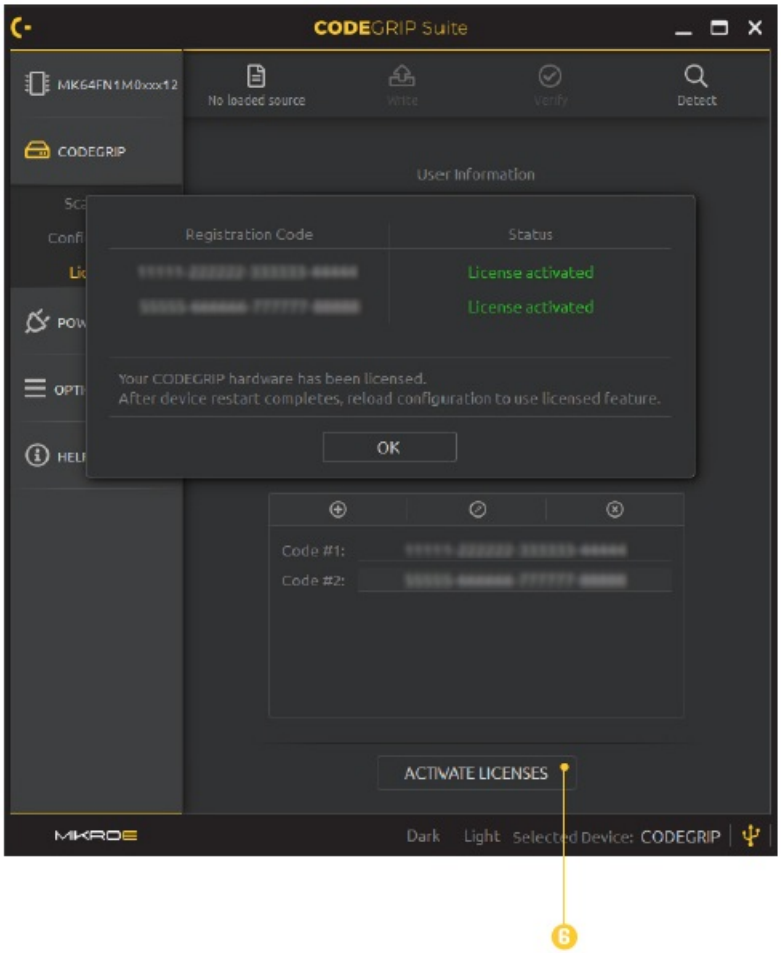
The CODEGRIP will now be reset. After the ACTIVITY LED stops blinking, the CODEGRIP is ready to be used. Open the CODEGRIP menu (1) and select the newly unfolded Scanning menu item (2). SCAN DEVICES (3) to get a list of available CODEGRIP devices. To connect with your CODEGRIP over WiFi click the WiFi Link button (4). If more then one CODEGRIP is available, identify yours by it's serial number printed on the bottom side. The WiFi Link indicator (5) will turn yellow upon successful connection. Continue with programming the MCU as described in Programming Setup and Programming the MCU sections of the previous chapter.

Licensing

Some features of the CODEGRIP such as the functionality of the WiFi module, and the SSL security, require licensing. If no valid license is found, these options will be unavailable in the CODEGRIP Suite. Open the CODEGRIP menu (1) and select the newly unfolded License menu item (2). Fill in the user registration information (3). All fields are mandatory in order to proceed with the licensing process. Click on the + button (4) and a dialog window will pop up. Enter your registration code in the text field (5) and click the OK button. The entered registration code will appear in the Registration Codes subsection.



After a valid registration code(s) is added, click on the ACTIVATE LICENSES button (6). A confirmation window will appear, suggesting that you should reload the CODEGRIP configuration. Click the OK button to close this window.



Once the licensing process is successfully completed, the licenses will be permanently stored within the CODEGRIP device.
For WiFi license, please visit: **www.mikroe.com/codegrip-wifi-license**
For SSL security license, please visit: **www.mikroe.com/codegrip-ssl-license**

NOTE: Each registration code is used to permanently unlock a feature within the CODEGRIP device, after which it expires. Repeated attempts to use the same registration code will result with an error message.

DISCLAIMER

HIGH RISK ACTIVITIES

The products of MikroElektronika are not fault – tolerant nor designed, manufactured or intended for use or resale as on – line control equipment in hazardous environments requiring fail – safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines or weapons systems in which the failure of Software could lead directly to death, personal injury or

severe physical or environmental damage (‘High Risk Activities’). MikroElektronika and its suppliers specifically disclaim any expressed or implied warranty of fitness for High Risk Activities.

TRADEMARKS

CODEGRIP Quick Start Guide

If you want to learn more about our products, please visit our website at www.mikroe.com
If you are experiencing some problems with any of our products or just need additional information, please place your ticket at **www.mikroe.com/support**
If you have any questions, comments or business proposals, do not hesitate to contact us at **office@mikroe.com**

Documents / Resources

	**MIKROE Codegrip Suite for Linux and MacOS!** [pdf] User Guide Codegrip Suite for Linux and MacOS, Codegrip Suite, Suite for Linux and MacOS, Suite, Codegrip

References

- **MikroElektronika support is here to help - MIKROE**