IDE Setup Guidelines

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IDE setup guidelines are an essential component of any software development process. These guidelines provide developers with a clear and concise set of instructions for setting up their Integrated Development Environment (IDE) for a particular project. By following these guidelines, developers can ensure that their IDE is configured correctly, and that they have access to all the necessary tools and resources for successful development.

The IDE setup guidelines typically include instructions for installing and configuring the IDE itself, any necessary plugins or extensions, and any additional tools or libraries required for the project. They may also include guidelines for organizing project files, setting up version control systems, and configuring the build and deployment process.

By providing a clear and well-documented IDE setup process, developers can save time and minimize errors when setting up their development environment. Additionally, by following consistent and standardized setup guidelines, development teams can ensure that all members are working with the same tools and configurations, improving collaboration and reducing the likelihood of compatibility issues.

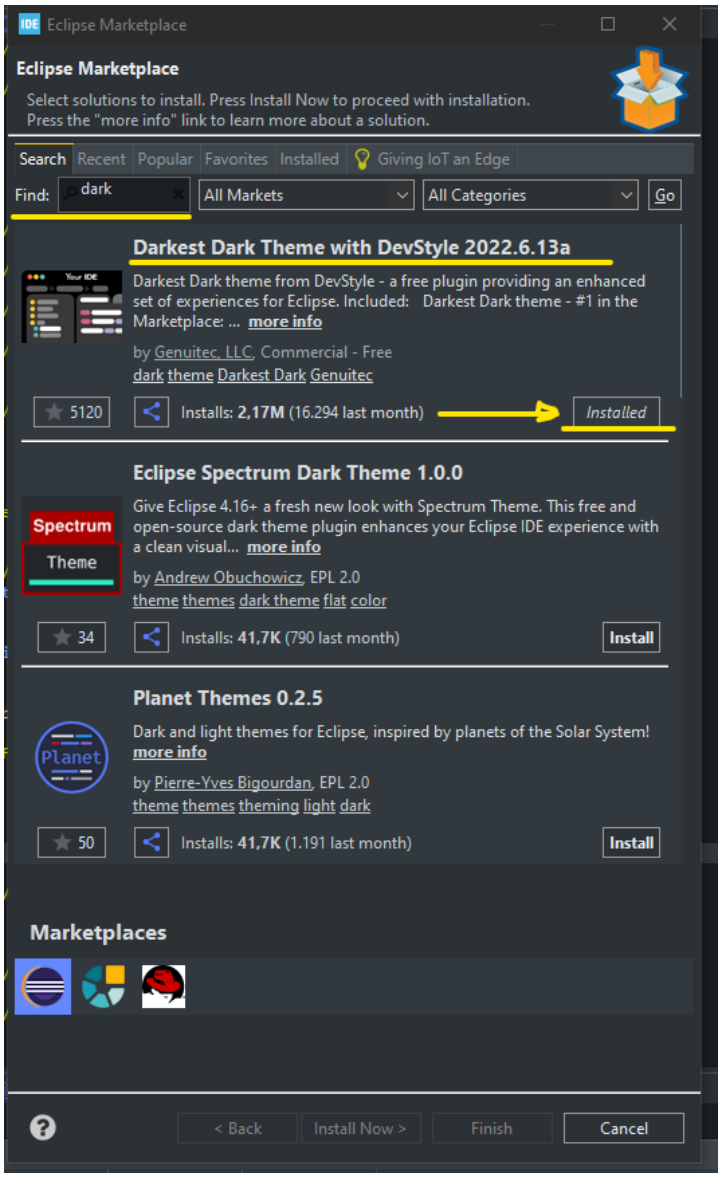
DRAFT DOCUMENT

STM32Cube IDE

Darkest Dark Theme

To improve readability plug in “Darkest Dark Theme” can be downloaded from Eclipse Marketplace by following these steps:

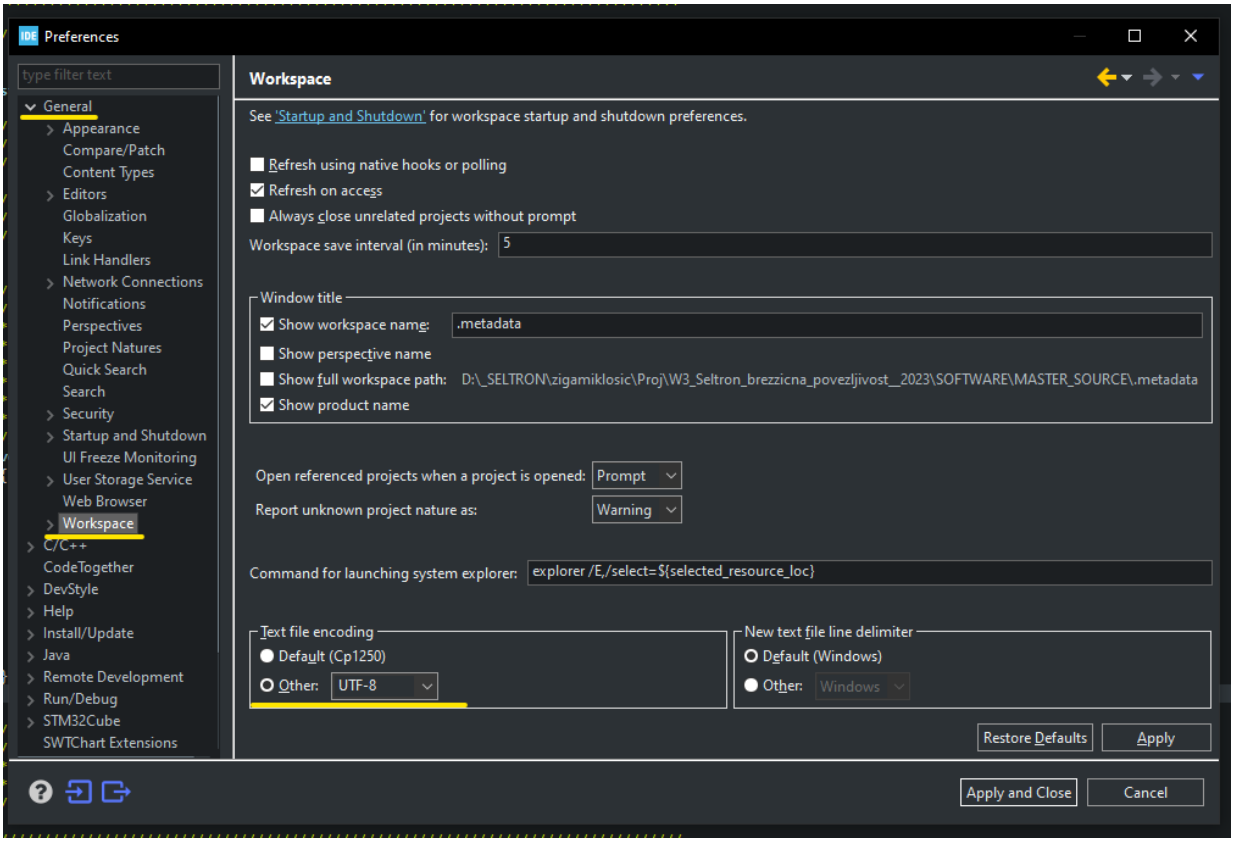
Help->Eclipse Marketspace…



Text file encoding

Text file shall be ***UTF-8*** encoded. To setup encoding in STM32CubeIDE:

Window->Preferences->General->Workspace->Text file encoding

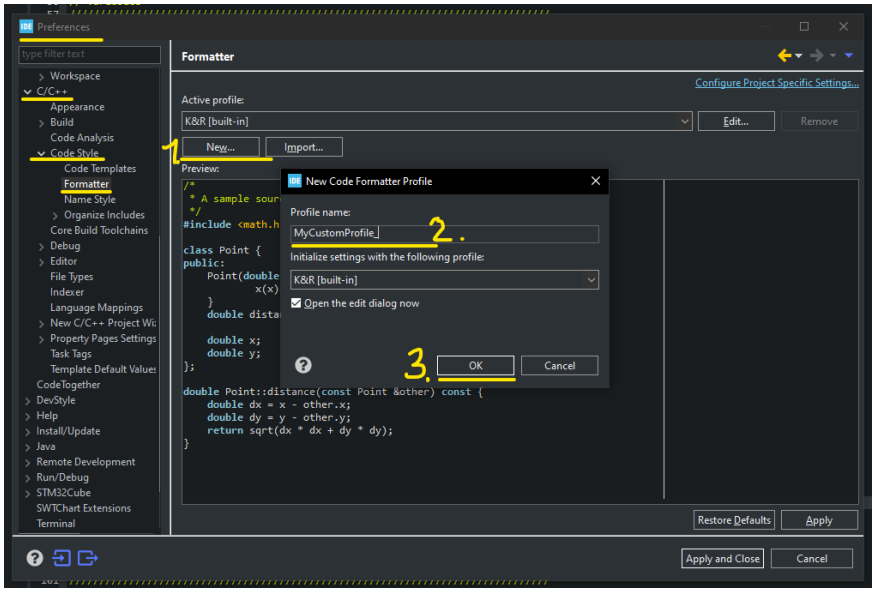


Spaces instead of tabs

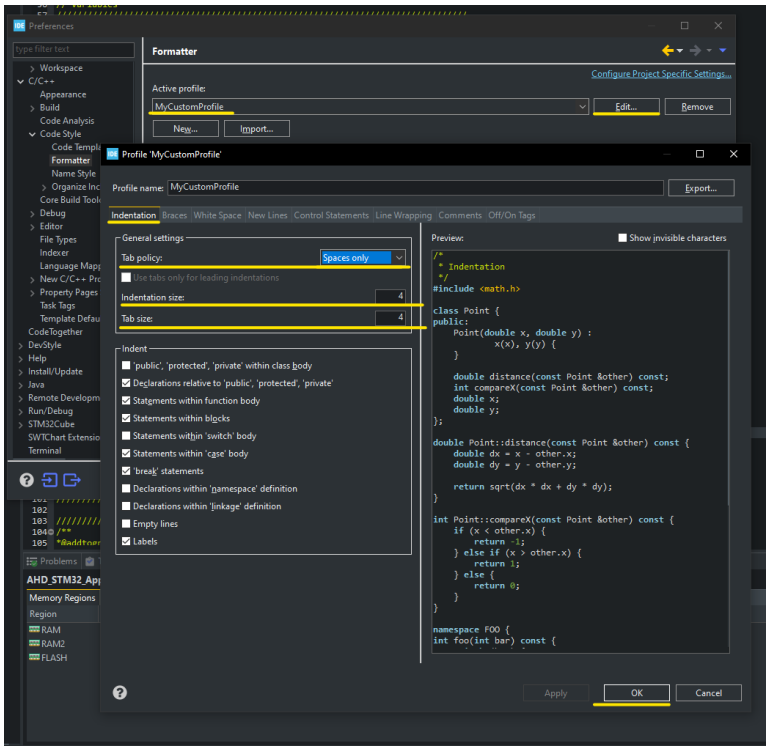
Different text editors or IDEs may interpret tabs differently, resulting in inconsistent indentation or misaligned code. In contrast, using spaces for indentation ensures that the code will be displayed consistently across different platforms and editors, making it easier for developers to read and understand the code.

To change tabs with spaces following steps must be applied:

1. ***Create new Formater profile: Window->Preferences->C/C++->Code Style->Formatter->New..***

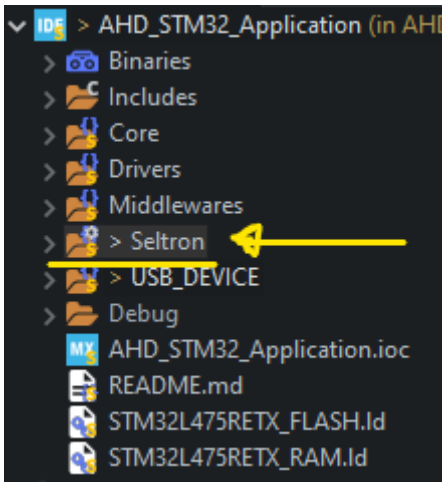


2. ***Select new custom profile and click "Edit". New window will appear, select "Indentation" tab and change "Tab policy" to "Spaces Only". Set Indentation and tab size to 4.***



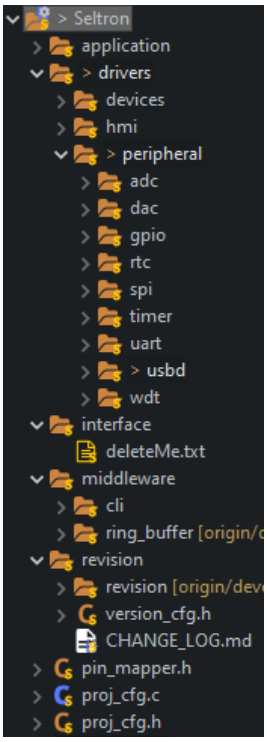
Folder/File structure of the project

As STM32 provides CubeMX application for automatically generation of low level drivers there is a need to make a clear separation between Seltron and STM32 created/developed code. To make a separation introduce ***"Seltron"*** source folder as shown in picture below:



All code developed from Seltron shall be places in the specified folder. In that way it can easily distinguish core origin.

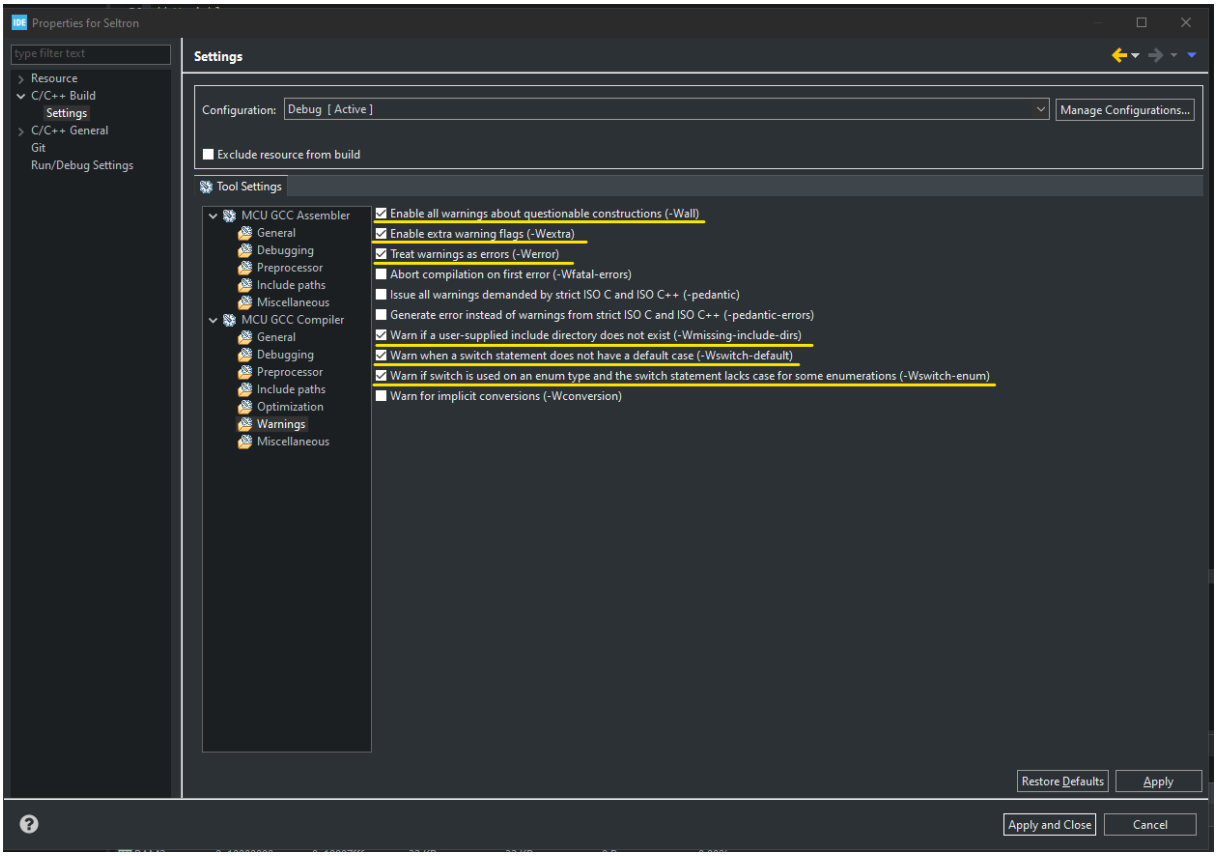
Furthermore, it is encouraged to follow further folder/file structure convention:



Compiler warnings

Enable warnings for “Seltron” folder as shown in picture below by:

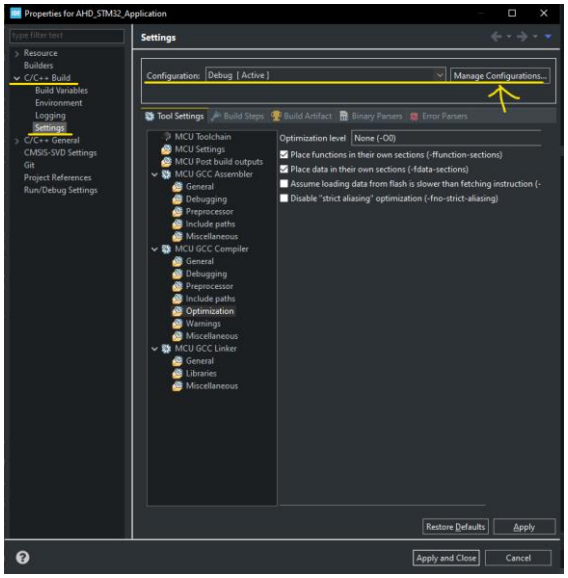
Right click on “Seltron” folder->C/C++ Build->Settings->MCU GCC Compiler->Warnings



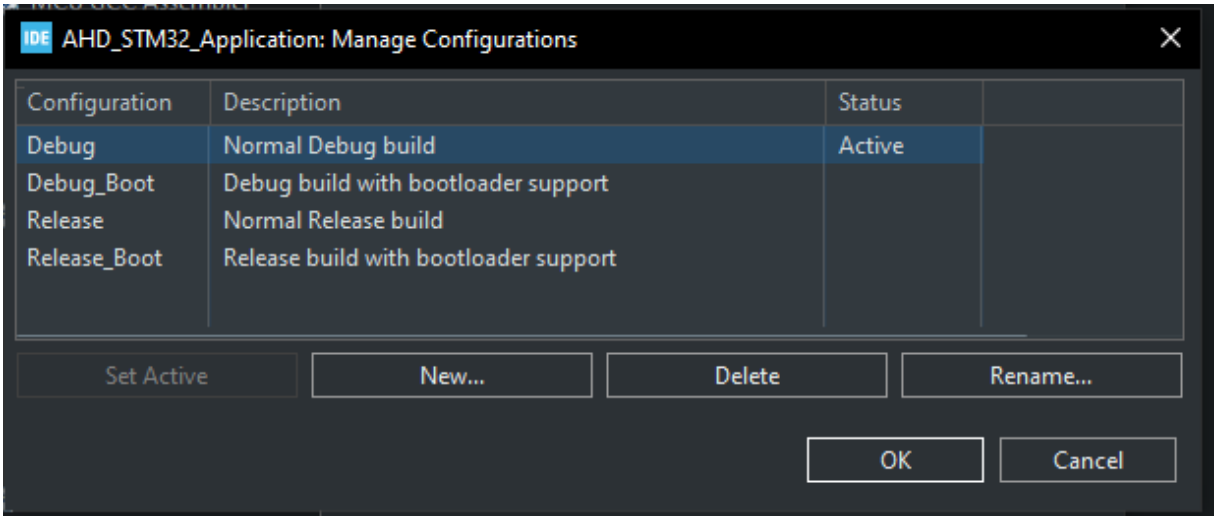
Build configurations

To setup build configs go to:

Properties->C/C++ Build->Settings->Manage Configurations…



Manage Configurations will pop-up new window where build configurations can be created and edited:



Each project shall have following build configurations:

Build configuration name	Preprocessor symbols	Optimization level
Debug	DEBUG	-O0/-Og
Release		-Os /-O2/-O3
Debug_Boot	DEBUG __BOOTLOADER_SUPPORT__	-O0/-Og
Release_Boot	__BOOTLOADER_SUPPORT__	-Os /-O2/-O3