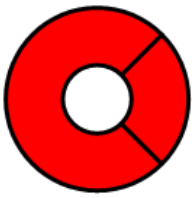
General Embedded C Library Manual

General Embedded C Libraries

An open source software library



Document status: ***Draft*** | *Preliminary* | *Release*

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Revision History

Revision	Author	Date	Changes/Remarks
V1.0	*Miklošič Ž.*	*16.10.2021*	*Initial document*

Contents

1 Workflow

1.1 Module structure

Each module has identical directory structure as shown from picture bellow:

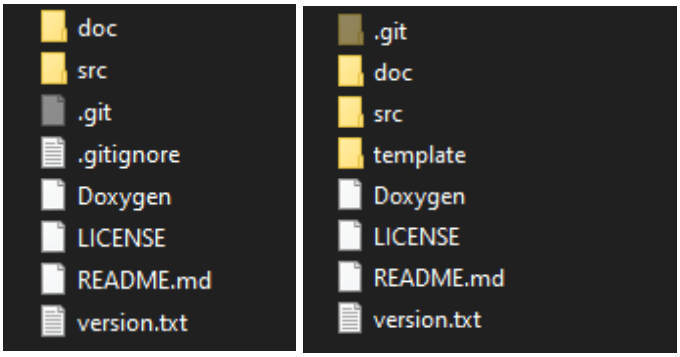
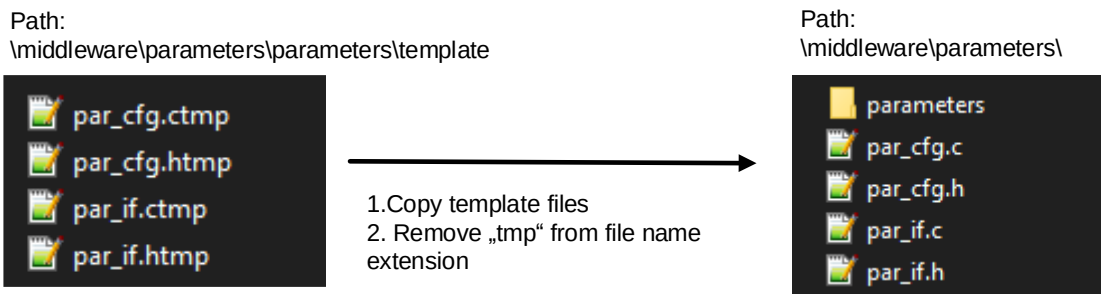


Figure 1 Top directory of each module. Simple module (left) and complex module (right)

More complex modules has also **template** folder where source code template files are prepared for user. When module has template folder its content must be copied and paste to one directory above the module directory. After coping it is mandatory to remove “tmp” string from file name extension.

E.g.:



Template files are used for module configuration for user application needs or to adapt module to specific platform needs.

1.2 Module usage

Each module usage is described in its repository main page.

1.3 Module dependencies

Each module dependencies are described in its repository main page.

1.4 Module API

Each module has Doxygen generated API description inside module **doc** directory.

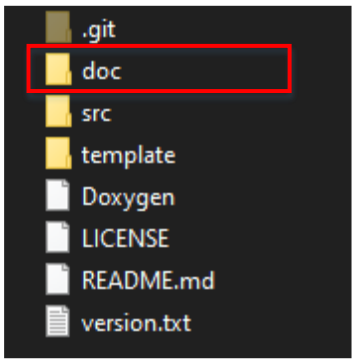


Figure 2 Module Doxygen documentation location

1.5 Git submodule

Each module shall be added to main project as git submodule.

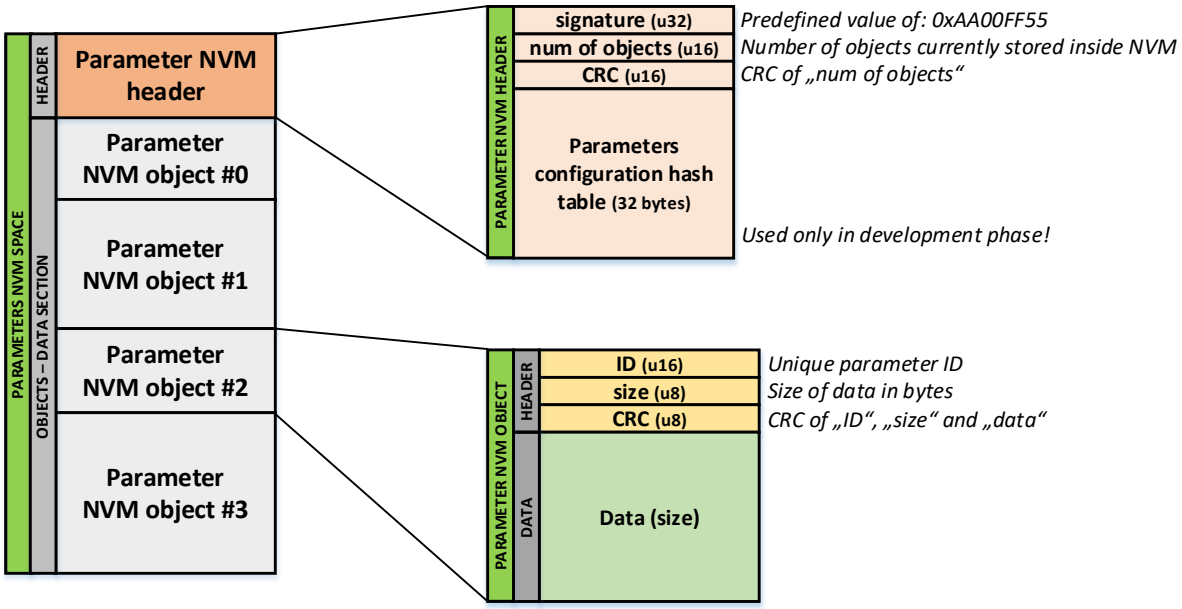
2 Parameters

2.1 Features

Link to github: https://github.com/GeneralEmbeddedCLibraries/parameters

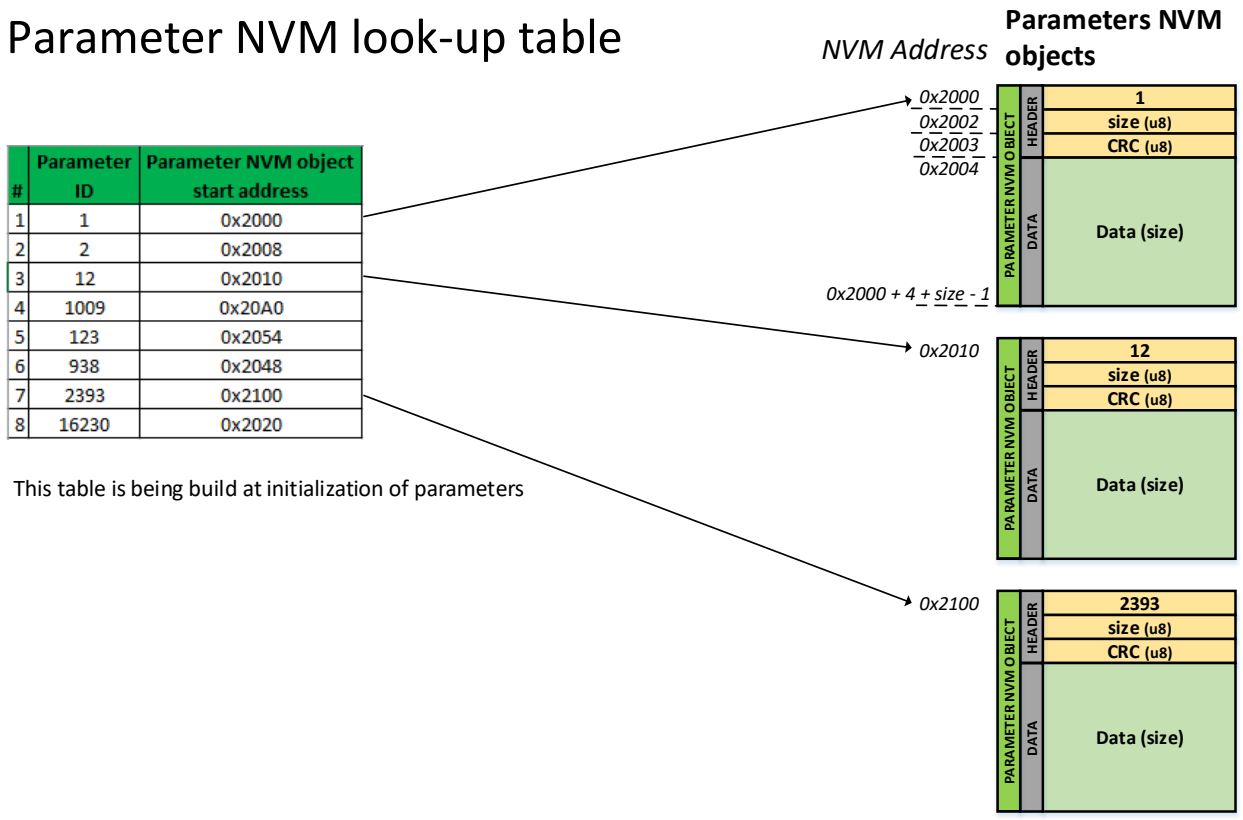
2.3 Persistent parameters

2.3.1 NVM structure



2.4.1 NVM look-up table

Purpose of NVM look-up table is linkage between parameter ID and its start location in NVM space. When storing single parameter to NVM this information is mandatory to know.



2.5.1 Loading persistent parameters from NVM at start-up

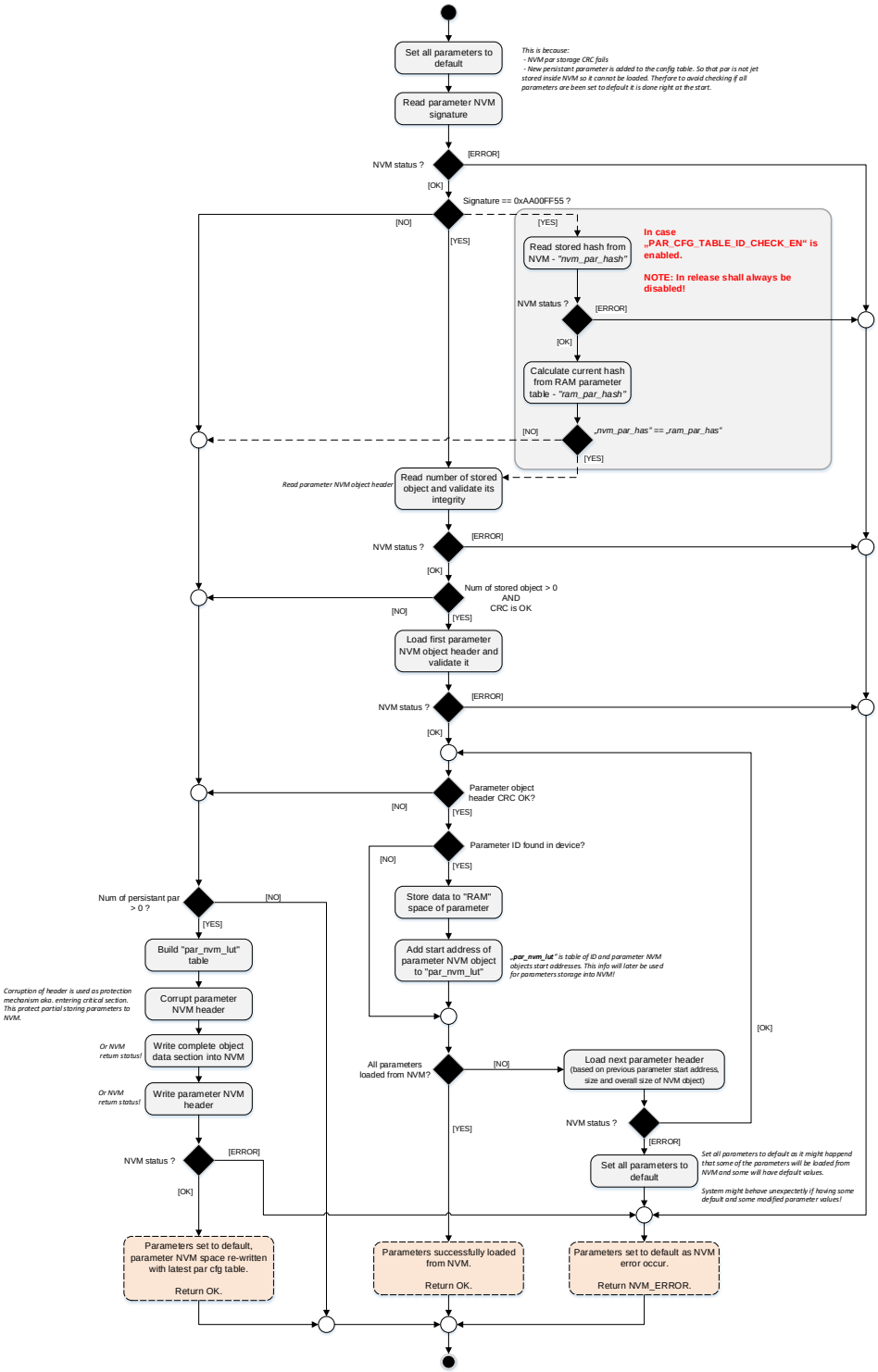


Figure 3 Loading parameter at starup

2.5.2 Storing all persistent parameter to NVM

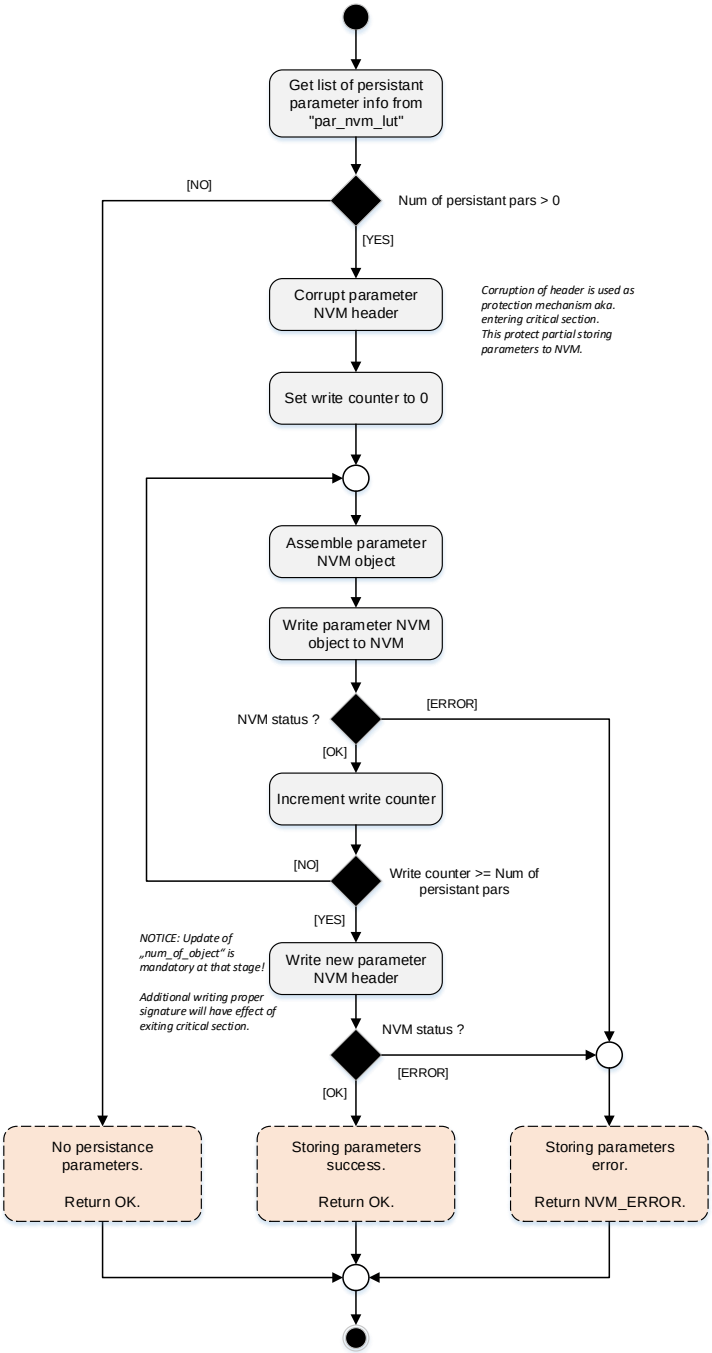


Figure 4 Storing persistent parameter to NVM during runtime procedure

2.5.3 Storing single parameter

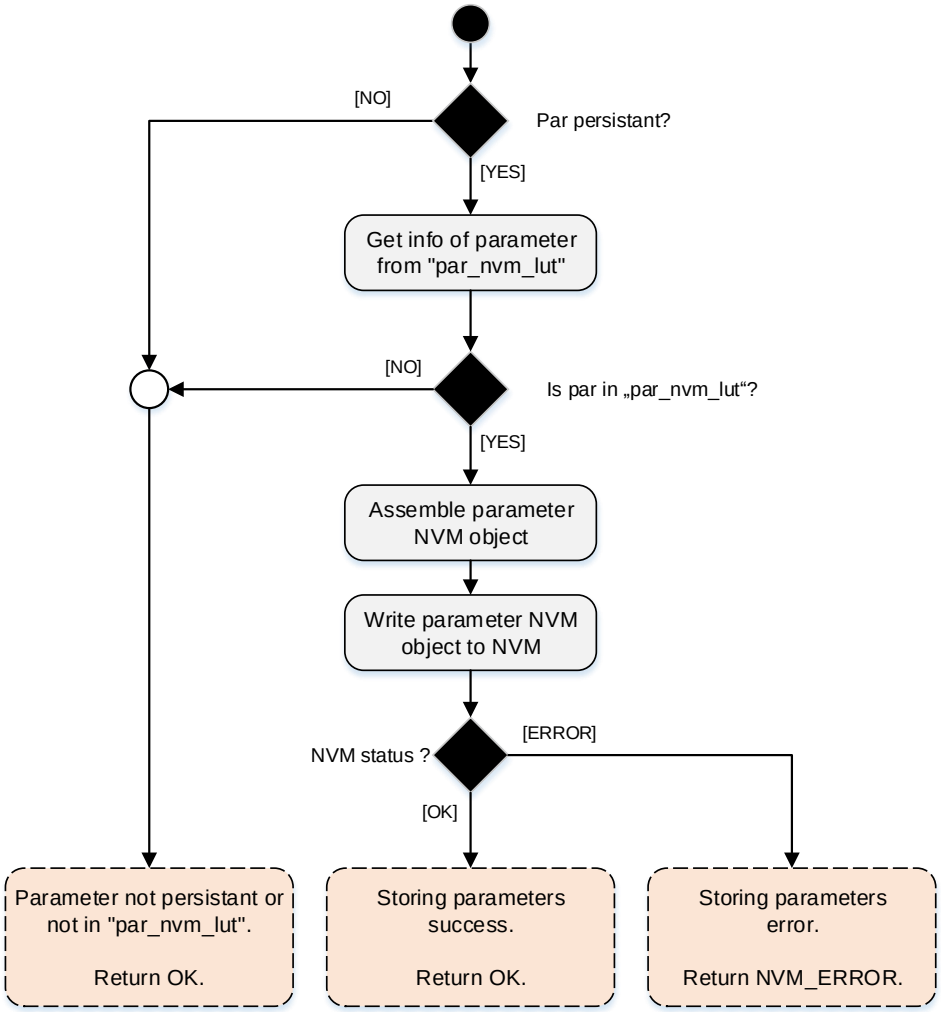


Figure 5 Storing single parameter to NVM