
STM32L1xx standard peripherals library

Data brief

Features

- Low level drivers covering all STM32L1xx peripherals, developed in 'Strict ANSI-C'
- 83 examples for 24 different peripherals
- Template project for 3 different IDEs

Description

The STM32L1xx standard peripherals library, called STSW-STM32077, covers 3 abstraction levels, and includes a complete register address mapping with all bits, bitfields and registers declared in C. This avoids a cumbersome task and more important, it brings the benefits of a bug free reference mapping file, speeding up the early project phase.

The STSW-STM32077 also includes a collection of routines and data structures covering all peripheral functions (drivers with common API). It can directly be used as a reference framework, since it also includes macros for supporting core-related intrinsic features, common constants, and definition of data types.

Moreover a set of examples covering all available peripherals with template projects for the most common development tools. With the appropriate hardware evaluation board, this allows to get started with a brand-new micro within few hours.

Each driver consists of a set of functions covering all peripheral features. The development of each driver is driven by a common API (application programming interface) which standardizes the driver structure, the functions and the parameter names.

The driver source code is developed in 'Strict ANSI-C' (relaxed ANSI-C for projects and example files). It is fully documented and is MISRA®-C 2004 compliant. Writing the whole library in 'Strict ANSI-C' makes it independent from the development tools. Only the start-up files

depend on the development tools. Thanks to the standard peripherals library, low-level implementation details are transparent so that reusing code on a different MCU requires only to reconfigure the compiler. As a result, developers can easily migrate designs across the STM32 series to quickly bring product line extensions to market without any redesign. In addition, the library is built around a modular architecture that makes it easy to tailor and run it on the same MCU using hardware platforms different from ST evaluation boards.

Ordering information

STSW-STM32077 is available for free download from STMicroelectronics.

Revision history

Table 1. Document revision history

Date	Revision	Changes
04-May-2015	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2015 STMicroelectronics – All rights reserved