



STM32F10xxx debug application examples

Introduction

This application note is intended to provide practical application examples of the STM32F10xxx Firmware Library use in debug mode.

This document, its associated firmware, and other such application notes are written to accompany the STM32F10xxx firmware library. These are available for download from the STMicroelectronics website: www.st.com.

1 How to use the STM32F10xxx firmware library in debug mode

1.1 Overview

This section describes how to use the STM32F10xxx firmware library in debug mode.

1.2 Firmware description

The example given below demonstrates the STM32F10xxx firmware library in debug mode.

To enter the debug mode, it is necessary to define the `DEBUG` label in the `stm32f10x_conf.h` file. This creates a pointer to the peripheral structure in SRAM. Debugging consequently becomes easier and all register settings can be obtained by dumping a peripheral variable.

When the debug mode is selected, the `assert_param` macro is expanded and runtime checking is enabled in the firmware library code. Runtime checking is used to check that all the library function input values are within the parameter-allowed values.

The associated program simulates a wrong parameter passed to the library function and the error source is printed on HyperTerminal (through USART1).

Note: The debug mode increases the code size and reduces the code performance. For this reason, it is recommended to use it only when debugging the application, and to remove it from the final application code.

This firmware is provided as *Debug example* in the STM32F10xxx firmware library, available from the STMicroelectronics microcontrollers website.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
14-Jun-2007	1	Initial release.
09-Oct-2007	2	assert macro replaced by assert_param macro in Section 1.2: Firmware description .

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