

Fully-integrated Java development environment and solution for STM32 MCUs

Data brief

Features

A single DVD-ROM incorporating:

- STM32Java Software Development Kit built on MicroEJ[®], extending the Eclipse™ IDE
- Several Java Platforms (JPFs) for STM32: Quick Start JPFs and Production JPFs
- JPFs can be extended to support specific hardware of the application board
- Embedded (EmbJPF) and Simulation (SimJPF): the very same Java binary code functionally validated on the SimJPF runs on the sibling EmbJPF
- MicroUI (Micro User Interface) and MWT (Micro Widget Toolkit) graphical libraries:
 - Targets all major graphical display buffer organizations, monochrome and full color displays
 - Event engine to handle very efficiently and at high speed haptic sensor drivers: buttons, joystick, touch panel, etc.
- MicroUI (Micro User Interface) and MWT (Micro Widget Toolkit) new graphical libraries available from version 3:
 - UI Layer library: Chrom-ART Accelerator™ management for rich user interfaces.
 - UI Motion, UI transition libraries: to create specific pages motion (linear, ease, bounce, elastic)
- Tools included:
 - Font designer to design fonts in many ways
 - Story Board designer to quickly specify possible human-machine interaction with the application
 - Front Panel designer to extend the Java platform simulator
- Very small and efficient Java virtual machine:
 - Flash: less than 30 KB
 - RAM: less than 1.5 KB
 - Startup time: less than 2 ms at 120 MHz



- 1-year subscription, with hardware dongle

Description

Take advantage of the benefits of object-oriented programming in Java to develop general purpose STM32 applications, in particular, applications with a smartphone-like look and feel graphical user interface (GUI) with STM32Java.

All of the well known advantages of the Java design concepts are available: interface versus implementation, inheritance and composition, polymorphism, garbage collector (GC), multi-tasking, etc.

Software productivity, agility, scalability and security are improved compared to traditional developments in C/C++ code.

Applications can mix C code (legacy control/command code for example) with code developed in Java. STM32Java provides efficient mechanisms to interface the 2 worlds, Simple Native Interface to call C functions from Java code and Shielded Plug to exchange data between the 2 worlds.

STM32Java provides everything required to easily and very quickly develop feature-rich GUIs, relying on the Model-View-Controller (MVC) triad,

the best known solution to design flexible and easy to maintain GUIs.

Running STM32Java programs, requires features that are embedded on special STM32 MCU series. There are two sets of special part numbers enabled for Java: MCU part numbers ending with the letter 'J' (for mass production) and MCU part numbers ending with the letter 'U' (can only be ordered as samples).

For more information, visit www.stm32java.com.

1 Ordering information

STM32-JAVA can be ordered from your nearest ST distributor or sales office.

ST order code: STM32-JAVA.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
14-Dec-2012	1	Initial release.
28-Jan-2013	2	Added part numbering marking information in Description .
09-Apr-2013	3	Updated Disclaimer.
23-July-2014	4	Added new features available with the new package version 3.

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.

© 2014 STMicroelectronics – All rights reserved

