## STM32-JAVA



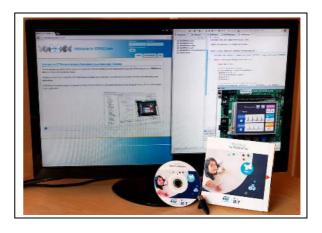
# Fully-integrated Java development environment and solution for STM32 MCUs

**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, rotary switch, joystick, touch panel, etc.
- 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 designing 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)
- 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 <i>Description</i> .

#### Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY TWO AUTHORIZED ST REPRESENTATIVES, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2013 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

