

# STR9-DK/RAIS, STX-PRO/RAIS

Raisonance's unlimited development tool bundles for STM32, STR7 and STR9

Data Brief

# Features

- In-circuit debugger/programmer with industry standard JTAG application board interface and USB connection to the host PC.
- RIDE unlimited version that drives RLink and Signum's JTAGjet, and offers seamless control of software development tools and GNU C/C++ compiler from an intuitive GUI.
- Signum's JTAGjet (in the STR9-DK/RAIS), with support for execution tracing during debugging, so that users can take advantage of the STR9's Embedded Trace Macrocell<sup>TM</sup>.
- Raisonance's RLink (in the STX-PRO/RAIS) that allows in-circuit programming and debugging of a range of 32- and 8-bit STMicrocontrollers.
- Unlimited, optimizing GNU C/C++ compiler.

The REva modular evaluation board with the STR9-DK/RAIS helps evaluation of a range of ST microcontrollers and device features.

- Motherboard provides general evaluation features including LEDs, push buttons, switches, temperature sensor, potentiometer and interfaces for I2C, SPI and UART.
- Daughterboard features specific components for the STR912FAW4, including the MCU itself, ETM trace connector and Ethernet connector. Daughterboards are interchangeable and plug into a standard SO-DIMM connector found on all REva motherboards.

# Description

The Professional Kit (STX-PRO/RAIS) and the STR9 Professional Developer Kit (STR9-DK/RAIS) provide cost-effective, unlimited application development solutions for STMicroelectronics Cortex<sup>™</sup>-M3, ARM7TDMI<sup>™</sup> and ARM966E<sup>™</sup> core-based microcontrollers.



The tools contain everything required to develop STM32 and STR7/9 applications including incircuit debugger/programmer, Raisonance Integrated Development Environment (RIDE) and GNU C/C++ compiler.

The STR9-DK/RAIS includes extras such as Signum's JTAGjet supporting unlimited execution trace and REva evaluation board with STR91xF and plenty of code samples to help users get started with peripherals such as Ethernet and USB.

October 2008

Rev 2

For further information contact your local STMicroelectronics sales office.

1/4

# **Development tool key features**

#### In-circuit debugger/programmer

Raisonance RLink (standalone in STX-PRO/RAIS, embedded in STR9-DK/RAIS).

- USB host PC interface
- Industry standard JTAG application interface
- RLink also includes SWIM, ICC and JTAG connection adapters for in-circuit debugging/programming of 8-bit STM8, ST7 and uPSD microcontroller families.

Signum JTAGjet (in STR9-DK/RAIS).

- USB host PC interface
- Trace connection for the STR9's Embedded Trace Macrocell™
- 2 Mbyte trace buffer
- Industry standard JTAG application interface

#### **Raisonance integrated development environment (RIDE)**

RIDE drives both the RLink in-circuit debugger/programmer and the Signum JTAGjet incircuit debugger/programmer with trace for use with the STR9 microcontroller's ETM<sup>™</sup>.

- Unlimited version (in STX-PRO/RAIS)
- Seamless control of GNU C/C++ toolset
- High-level language debugger
- SIMICE simulator for STM32, STR7 and STR9
- Color syntax highlighting editor and Project manager

### **REva evaluation board (in STR9-DK/RAIS)**

This innovative modular platform consists of a motherboard daughter board and a limited embedded RLink in-circuit programmer and debugger.

- REva motherboard
  - 1 standard 72-pin SO-DIMM connector to plug in daughter boards.
  - Digital and analog I/O evaluation features, including on-board LEDs, buttons, switches, external analog connector, temperature sensor and potentiometer
  - I<sup>2</sup>C EEPROM and bus extension connector
  - RS-232 driver and 2 DB9 connectors
  - Prototyping area
  - V<sub>DD</sub> settings for 1.8V, 3.3V and 5V
  - USB powered, no external power required
  - Embedded RLink (32K limited version) for in-circuit debugging and in-circuit programming.
- REva STR91xF daughterboard with STR912FAW4 (LQFP128 package), clock selector and other device dependant features, Ethernet connector and ETM trace connector.

# **Ordering information**

Raisonance development tool bundles can be ordered from your nearest ST Distributor or sales office, Raisonance (*www.raisonance.com*), or from Signum (*www.signum.com*).

The following tool bundles are currently available:

Table 1. Order codes

Order code	In-circuit debugger/programmer	Integrated development environment	C/C++ compiler	Evaluation board
STX-PRO/RAIS	Unlimited RLink (no trace)	RIDE	GNU C/C++	No
STR9-DK/RAIS	JTAGjet with trace support, 32K limited RLink	RIDE	GNU C/C++	REva with STR912FAW4

RIDE also supports application development and debugging for the 8-bit STM8, ST7 and uPSD microcontroller families. RIDE provides the same seamless integration of compilers and assemblers for these families and supports a range of debugging tools and emulators.

For more information, documentation and downloads, refer to *www.raisonance.com* or the STMicroelectronics microcontroller support site, *www.st.com*.

# **Revision history**

Date	Revision	Changes		
27-Jun-2006	1	Initial release.		
23-Oct-2008	2	Updated to include STM32, STM8 and SWIM.		

Table 2.Document revision history



#### 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 AN AUTHORIZED ST REPRESENTATIVE, 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.

© 2008 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 - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

