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# STR91X-SK/IAR, STR7xx-SK/IAR

## IAR's complete, low cost starter kits for STR7 and STR9

Data Brief

The **KickStart Kits™** (STR711-SK/IAR, STR712-SK/IAR, STR730-SK/IAR, STR731-SK/IAR, STR750-SK/IAR and STR91X-SK/IAR) are IAR's complete, cost-effective solutions for starting application development and evaluating a full range of STMicroelectronic's ARM® core-based microcontrollers.

They come with all the hardware and software you need to start developing applications for a full range of STMicroelectronic's ARM7TDMI™ and ARM966E™ core-based microcontrollers. The kits include the KickStart Development Board with target microcontroller, the IAR *JLink* USB-to-JTAG debugger and *IAR Embedded Workbench® for ARM (EWARM)* integrated development environment with the 32KB KickStart version of the C/C++ compiler, built in Flash loader and sample projects for all device peripherals.

### Starter kit architecture

**JLink**– USB-to-JTAG in-circuit debugger/programmer integrates fully with EWARM, allowing you to download the application to your target and debug it while it runs on your ST ARM core-based microcontroller.

**KickStart development board**– evaluation board that provides a full range of features (I/Os, ADC, UART, SPI, I<sup>2</sup>C, USB...) to help you evaluate and start developing applications for the included microcontroller. The board is powered from the *JLink's* USB connection with the host PC.

**IAR development software**– a suite of software tools for all phases of application development that includes:

*IAR Embedded Workbench for ARM* integrated development environment with the *KickStart* 32KB C/C++ compiler to build the application and the *C-SPY™* debugger for debugging the application while it runs on your microcontroller.



*VisualSTATE® 20-state* version of IAR's graphical design environment with C/C++ code generator for developing application code based on machine states.

### Starter kit key features

#### JLink:

- Supplies power from USB connection via pin 19 of the JTAG connector (*no additional power supply required*).
- Download speed up to 50KB/sec
- Maximum JTAG speed 8MHz
- Auto speed recognition
- 20-pin standard JTAG connector
- USB and 20-pin flat cable included
- Level shifter for 3.3V to 5V conversion (STR73X-SK/IAR, STR750-SK/IAR, STR91X-SK/IAR)
- Supported platforms: Microsoft® Windows® 2000 and XP

**KickStart development board:**

The KickStart development boards are available for STR711F, STR712F, STR730F, STR731F and STR91xF microcontrollers. Key features for these boards are summarized in [Table 1](#):

**Table 1. KickStart development board key features**

Feature	Starter Kit					
	STR91X-SK/IAR	STR750-SK/IAR	STR731-SK/IAR	STR730-SK/IAR	STR712-SK/IAR	STR711-SK/IAR
Included STR7 microcontroller	STR912FW4	STR750FV2	STR731FV2	STR730FZ2	STR712FR2	STR711FR2
20-pin JTAG interface connector	Yes	Yes	Yes	Yes	Yes	Yes
38-pin trace tool connector	Yes	No	N/A	N/A	N/A	N/A
Power supply from JLink USB connection	Yes	Yes	Yes	Yes	Yes	Yes
Backup power supply	3V button battery	No	No	N/A	N/A	N/A
UART connector(s)	3	3	2	4	2	2
SPI	Yes	Yes	Yes	Yes	Yes	Yes
I <sup>2</sup> C	Yes	Yes	Yes	Yes	Yes	Yes
CAN connector	Yes	Yes	No	Yes	Yes	No
USB connector	Yes	Yes	Yes	No	No	Yes
Ethernet connector	Yes	No	No	No	No	No
User LEDs	16	16	2	16	2	2
LCD display	Yes (2x16)	Yes (2x16)	Yes (2x16)	Yes (2x16)	No	No
SD/MMC connector	Yes	Yes	No	No	No	No
Potentiometer connected to ADC	Yes	Yes	Yes	Yes	Yes	Yes
User push button(s)	2	4	2	4	2	2
Reset button	Yes	Yes	Yes	Yes	Yes	Yes
Wrap area	Yes	Yes	Yes	Yes	Yes	Yes
Motor control connector	Yes	No	No	No	No	No

**Software CD with:****IAR Embedded Workbench for ARM**

- KickStart 32KB C/C++ compiler
- C-SPY debugger
- Complete integration with *JLink-KS*
- Editor, linker and librarian tools
- Built-in Flash programming

**visualSTATE**

- Powerful code generator creates C/C++ that is absolutely consistent with the system design
- 20-state version included
- Automatic generation of design documentation
- Advanced verification and validation tools

**Additional support files**

- Sample projects for STR7 and STR9 peripherals, including ADC, CAN, I2C, SPI, UART, USB, Ethernet and more...
- Standard libraries for STR71xF, STR73xF, STR75xF, STR91xF, USB library for STR711F and Ethernet library for STR912F
- Quick start guide and tutorial

*Note: ARM®, ARM7TDMI™, ARM966E™ and Embedded Trace Macrocell™ are registered trademarks of ARM Limited in the EU and other countries.*

**Ordering information**

IAR KickStart kits can be ordered from IAR or from your nearest ST Distributor or sales office. Kits are currently available for the STR711F (ST order code: **STR711-SK/IAR**), STR712F (ST order code: **STR712-SK/IAR**), STR73xF (ST order code: **STR730-SK/IAR**), STR731F (ST order code: **STR731-SK/IAR**), STR75xF (ST order code: **STR750-SK/IAR**) and STR91xF (ST order code: **STR91X-SK/IAR**) microcontrollers.

For more information and complete documentation, please refer to [www.iar.com](http://www.iar.com) or the STMicroelectronics microcontroller support site, [www.st.com/mcu](http://www.st.com/mcu).

**Revision history**

Date	Revision	Changes
01-Apr-2005	1	Initial release.
27-Sep-2005	2	Added the STR730-SK/IAR and table of key features
7-Jun-2006	3	Added the STR91X-SK/IAR and the STR731-SK/IAR and key features
4-Oct-2006	4	Added the STR750-SK/IAR and key features

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