RELEASE NOTES
JN51xx SDK Toolchain Installer
JN-SW-4041

Related Products and Versions

This document relates to:

- JN51xx SDK Toolchain Installer (JN-SW-4041) v1.1

CONTENTS

SDK SOFTWARE COMPONENTS

The following components are included in this JN51xx SDK Toolchain installer:

- Cygwin CLI (Command Line Interface)

- Eclipse IDE (Integrated Development Environment)

- JN51xx Compiler tools

- JN51xx Flash Programmer (for JN5148)

- Device drivers for FTDI Serial interface and AP114 JTAG programmer

Note: For JN516x, use the updated Flash Programmer tool available separately (JN-SW-4007).

SUPPORTED PRODUCTS

The SDK supports the following NXP products.

Chips	Modules	Evaluation Kits
JN5148-001	JN5148-001-M00 JN5148-001-M03 JN5148-001-M04	JN5148-EK010 JN5148-UG010
JN5168-001	JN5168-001-M00 JN5168-001-M03 JN5168-001-M05 JN5168-001-M06	JN516x-EK001
JN5164-001	-	-
JN5161-001	-	-

SOFTWARE INSTALLATION

First Time Installation

The SDK Toolchain for the JN51xx devices can be installed directly from the supplied installer. Follow the instructions within the installer to choose the install directory and to optionally install Cygwin and the Eclipse IDE (see below for instructions on maintaining an existing Eclipse set-up).

Please refer to the instructions in the *SDK Installation and User Guide (JN-UG-3064)* for installation and configuration instructions.

Note: The SDK can be installed on a machine on which the Jennic SDK Toolchain (JN-SW-4031) and SDK Libraries (JN-SW-4030) for the JN5121 and JN5139 have already been installed.

Before installing the SDK, please back up any existing Applications development directories.

Note: MD5 checksum for installer **JN-SW-4041-SDK-Toolchain-v1.1.exe** is:

ccacd8257a4895aeccb78e79f4c09ba1

Upgrade from Existing Release (Preserving Eclipse)

The v1.1 installer provides the option to preserve the current installation of the Eclipse IDE, together with its plug-ins and settings.

Note 1: The Eclipse plug-ins and settings are held in the main Eclipse directory and can be backed up by making a copy of this directory (e.g. **C:/Jennic/Tools/eclipse**).

Note 2: Do NOT use the 'Uninstall Jennic Toolchain' option via the Windows 'Programs' menu or the 'Add or Remove Programs' option via the Control Panel, as this will remove Eclipse and its settings. Instead, launch the Toolchain installer v1.1, which will first uninstall the Toolchain v1.0.

The first screen of the uninstall process for the Toolchain v1.0 provides a number of options – make sure you select '**Yes**' to preserve the current Eclipse set-up and installation.
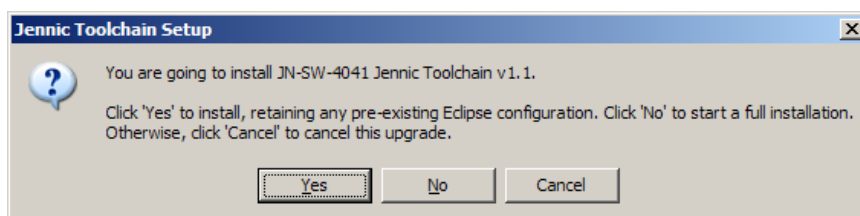
On the screen to select the components to be installed, the Eclipse option is automatically unselected - **do not select this option**, otherwise your existing Eclipse settings will be overwritten.
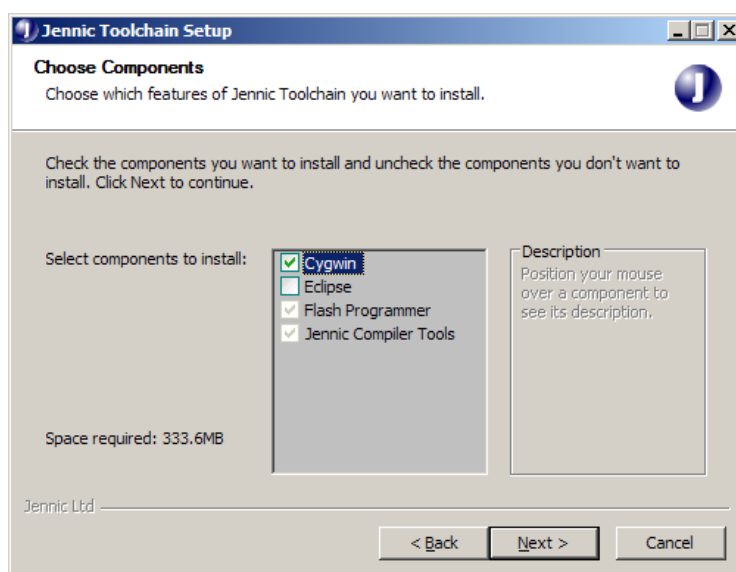
Note 3: Following installation of v1.1 of the toolchain, when you next uninstall you will get the following message box during the uninstall process:
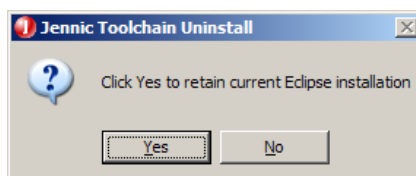
If you select '**Yes**' then your Eclipse folder (e.g. **C:\Jennic\Tools\eclipse**) will be retained.

COMPONENTS & VERSION NUMBERS

This release includes the following component versions:

Component	Version
Cygwin CLI	v2.1 (Jennic)
Eclipse IDE	Ganymede-SR2-win32
HW Debug tools	v1.0
JN51xx Compiler tools	BA Toolchain v4.1.2
JN51xx Flash programmer *	v1.6.6
FTDI Serial Interface	CDM 2.04.16 WHQL Certified
Atomic Programming AP114 JTAG programmer	v1.0
Daintree Sniffer binary	v1.0

* The JN51xx Flash Programmer tool supplied in the SDK Toolchain v1.1 can only be used with the JN5148 device. An updated tool is available separately (JN-SW-4007) for use with the JN516x devices.

RELEASE DETAILS (v1.1)

1.1 Cygwin CLI (Command Line Interface)

NXP provides a minimal installation of Cygwin.

Note: A full installation of Cygwin may also be used with the JN51xx SDK Toolchain.

1.1.1 New Features

None

1.1.2 Bug Fixes

The following bugs have been fixed in this release:

ID	Severity	Description
CRO05	Minor	Eclipse gives warning message as make is unable to find file **cygwin/etc/setup/installed.db**
CRO83	Minor	**Jennic_Cygwin.bat** changes directory to **/cygdrive/C/Jennic/cygwin/jennic/SDK/Application** instead of **/cygdrive/C/Jennic/cygwin/Jennic/Application**
CRO91	Minor	When choosing 'no cygwin' in the Toolchain installer, an empty **cygwin/bin** is created – does not affect CYGNUS registry key.
CRO94	Minor	If a second installation is used, the Bash shortcut may refer to the most recent installation.
CRO131	Minor	**grep.exe** may hang due to missing DLL

1.1.3 Known Issues

Note: If a second copy of Cygwin is installed on a machine, the paths and registry entries may need to be checked to verify that they point to the appropriate version.

The following known issues remain in this release:

ID	Severity	Description
CRO95	Minor	**Issue**: If second Cygwin installed, the additional Cygwin commands may not be recognised. **Note**: Verify environment path is directed to newer Cygwin installation.
CRO96	Minor	**Issue**: If second Cygwin installed, the registry entry for Cygwin mount point may be overwritten.

1.2 Eclipse IDE (Integrated Development Environment)

The Eclipse IDE from www.eclipse.org is now provided for application development. Release Ganymede-SR2-win32 is included in this installer.

Please see the *SDK Installation and User Guide (JN-UG-3064)* for details of post-installation configuration.

1.2.1 New Features

ID	Severity	Description
CRO80	Minor	Launch configuration added to make option for programming **HWDebug** binary into device available in External Tools menu

1.3 Debugging Tools

Initialisation and binary files to support GDB-based debug are included. Versions HWDebug v1.1 and SWDebug v1.0 are included.

1.4 JN51xx Compiler Tools

The SDK includes the GCC compiler and toolchain with support for the ba2 architecture of the JN5148 and JN516x. BA Toolchain v4.1.2 is included.

1.5 JN51xx Flash Programmer

The Flash programmer has been updated to v1.6.6 to support the JN5148 device and additional 4-Mb devices.

For JN516x, use the updated Flash Programmer tool available separately (JN-SW-4007).

1.5.1 New Features

The following features have been added to this release:

ID	Description
CRO150	Ability to program MAC address from a file

1.5.2 Bug Fixes

The following bugs have been fixed in this release:

ID	Severity	Description
CRO68	Minor	When specifying the MAC address, a warning is generated indicating that the MAC address is invalid – indicated by 0xffffffffffffffff
CRO69	Minor	Auto-increment address option is always greyed out when user has specified MAC address

CRO70	Minor	Higher baud rate is not set unless it is changed in the drop-down box
CRO181	Minor	Window may be resized – required if Windows custom fonts mean 'program' button is not visible

1.5.3 Known Issues

None

1.6 Device Drivers

1.6.1 FTDI Serial Interface

Drivers updated to FTDI release CDM 2.04.16 WHQL Certified.

1.6.2 AP114 JTAG Programmer

Atomic Programming JTAG interface driver, V1.0 release included.

1.6.3 Daintree Sniffer

Daintree sniffer binary to add support for JN5148 device (v1.0).

1.7 Installer and General Issues

1.7.1 Shortcuts

Shortcuts in the 'Programs' menu are located in a 'JN-SW-404x products' sub-menu to differentiate from previous SDK releases:

Programs > Jennic > JN-SW-404x products

1.7.2 New Features

The following features have been added to this release:

ID	Description
CRO141	Option to install/uninstall for 'All users'
CRO171	Option to maintain existing Eclipse installation and settings across uninstall/installation of toolchain

1.7.3 Bug Fixes

The following bugs have been fixed in this release:

ID	Severity	Description
CRO67	Minor	Start menu option for Eclipse created under Jennic menu when Eclipse not installed via Jennic installer

CRO92	Minor	Microsoft Vista does not delete the Start menu icons on uninstall
CRO93, CRO90	Minor	If both JN-SW-403x and JN-SW-404x are installed and then one is removed, both uninstaller options may be deleted
CRO89	Minor	Start menu icon deletion on uninstall on Windows Vista

1.7.4 Known Issues

ID	Severity	Description

CRO234	Minor	**Issue**: When installation is changed from 'Single user' to 'All users', the uninstaller target in the Start menu must be modified.
		Workaround: After installing the v1.1 toolchain, the uninstaller target properties must be corrected as follows:
		1) Browse to
		Start > Programs > Jennic > JN-SW-404x products > Uninstall JN-SW-4041 Toolchain
		2) Right-click and select 'properties'.
		3) Select Shortcut tab.
		4) Modify Target
		from
		`"C:\Documents and Settings\<USERNAME>\Application Data\Jennic\updates\JN404x\uninstall_JN-SW-4041-SDK-Toolchain.exe"`
		to
		`"C:\Documents and Settings\All Users\Application Data\Jennic\updates\JN404x\uninstall_JN-SW-4041-SDK-Toolchain.exe"`
		5) Modify 'Start in'
		from
		`"C:\Documents and Settings\<USERNAME>\Start Menu\Programs\Jennic\JN-SW-404x products"`
		to
		`"C:\Documents and Settings\All Users\Application Data\Jennic\updates\JN404x"`

RELEASE HISTORY (v1.0)

1.1 Cygwin CLI (Command Line Interface)

Jennic provides a minimal installation of Cygwin. This release includes additional utilities to improve command line usability. Utilities added include:

less, locate, which, whereis, diff, chmod, chown, gzip, top, tar

Note: A full installation of Cygwin may also be used with the Jennic SDK Toolchain.

1.1.1 New Features

The following features have been added to this release

ID	Severity	Description
#15	Minor	Cygwin utilities added to improve command line usability: Less, locate, vim, which, whereis, diff, chmod, chown, bunzip2, bzip2, gzip, top, tar
#9	Minor	Cygwin updated to include binaries based upon coreutils v6.10 package

1.1.2 Known Issues

Note: If a second copy of Cygwin is installed on a machine, the paths and registry entries may need to be checked to verify that they point to the appropriate version.

The following known issues remain in this release:

ID	Severity	Description
#83	Minor	**Issue**: **Jennic_Cygwin.bat** does a cd to **/cygdrive/C/Jennic/cygwin/jennic/SDK/Application** instead of **/cygdrive/C/Jennic/cygwin/Jennic/Application** **Workaround**: Correct the entry in file **C/Jennic/cygwin/Jennic_Cygwin.bat**.
#91	Minor	When choosing 'no cygwin' in the Toolchain installer, an empty **cygwin/bin** is created – does not affect CYGNUS registry key.
#94	Minor	**Issue**: If a second installation is used, the Bash shortcut may refer to the most recent installation. **Workaround**: Edit shortcut properties using the **File>Properties** menu.
#95	Minor	**Issue**: If second Cygwin installation installed, the additional Cygwin commands may not be recognised. **Note**: Verify environment path is directed to newer Cygwin installation.
#96	Minor	**Issue**: If second Cygwin installation installed, the registry entry for Cygwin mount point may be overwritten.

1.2 Eclipse IDE (Integrated Development Environment)

The Eclipse IDE from www.eclipse.org is now provided for application development. Release Ganymede-SR2-win32 is included in this installer.

Please see the Eclipse IDE User Guide (JN-UG-3063) for details on post-installation configuration.

1.3 Debugging Tools

Initialisation and binary files to support GDB-based debug are included. Versions HWDebug v1.1 and SWDebug v1.0 are included.

1.4 JN51xx Compiler Tools

The SDK includes the GCC compiler and toolchain with support for the ba2 architecture of the JN5148. BA Toolchain v4.1.2 is included.

1.5 JN51xx Flash Programmer

The Flash programmer has been updated to v1.6.1 to support the JN5148 device and additional 4-Mb devices.

1.5.1 New Features

The following features have been added to this release:

ID	Description
TR92	Option to re-programme MAC ID added.

1.5.2 Bug Fixes

The following bugs have been fixed in this release:

ID	Severity	Description
#79	Minor	Flash CLI command does not return serial port to previous baud rate on closing port.

1.5.3 Known Issues

The following known issues remain in this release:

ID	Severity	Description
#70	Minor	Higher baud rate is not set unless it is changed in the drop-down box.
#68	Minor	When specifying the MAC address, a warning is still generated indicating the MAC is invalid - all 0xff.

1.6 Device Drivers

1.6.1 FTDI Serial Interface

Drivers updated to FTDI release CDM 2.04.16 WHQL Certified.

1.6.2 AP114 JTAG Programmer

Atomic Programming JTAG interface driver, V1.0 release included.

1.6.3 Daintree Sniffer

Daintree sniffer binary to add support for JN5148 device (v1.0).

1.7 Installer and General Issues

1.7.1 Shortcuts

Shortcuts in the program menu are located in a 'JN-SW-404x products' sub-menu to differentiate from previous SDK releases:

Programs > Jennic > JN-SW-404x products

1.7.2 Known Issues

The following known issues remain in this release:

ID	Severity	Description
#67	Minor	Eclipse start menu option created under Jennic menu when Eclipse not installed via Jennic installer.
#92	Minor	Microsoft Vista does not delete the start menu icons on uninstall.
#93	Minor	If both JN-SW-403x and JN-SW-404x are installed – the second uninstaller option may also be deleted when one package is uninstalled