e2studio 1.1.0.30 Release Note: 17th October 2012

New features in 1.1:

Component	Description
Debug configurations	Debug configuration options improved for RX and RL78. For example RX now supports external RAM configuration and flash overwrite options.
SH support	Build and debug support now available for the SH device. GNU SH and Renesas SH C toolchains are supported. E10A-USB debugger is supported. Device families are SH2 and SH2A.

SH supports the trace and evenpoints functionality in the same manner as RX and RL78. |
| Profile | Profile plugin developed. Any device that has trace functionality is supported. |
| Coverage | Coverage plugin developed to support RL78 IECUBE. |
| Memory | Enhanced memory plugin developed to provide endian aware rendering modes and improved memory fill capaiblity.

Importing memory via a file also has improved performance. |
Registers	Register radix can now be defined on a per register basis. It is saved to the debug configuration.
Project Wizard	Project wizard improved for easier device selection and nicer look and feel.
HEW Project Importer	New import facility to import projects from the HEW IDE to e2studio. Supports HEW 4.07 onwards and SH and RX projects.

Important workarounds useful to know when using 1.1.0.30:

ID	Component	Description
2037	Application	Symptoms: E2Studio is unable to connect to a debugger

Conditions: Occurs on the second instance of invoking the debugger (GDB server) after a failed first attempt at connection. If a connection issue occurs in the first instance, then a second attempt is made after trying to correct the hardware issue, a second instance of the process xxx-elf-gdb.exe may start, blocking any further connection attempt.

Workaround: Disconnect the debugger to release the USB driver. Then use CTRL+ALT+DEL to access the Windows Task Manager and find any xxx-elf-gdb.exe processes still running and terminate them. Ensure the hardware power and connection settings are correct, and that the correct MCU and debugger are configured in E2Studio and attempt to reconnect. |
| 901 | Application | Symptoms: A renamed project may fail to build

Conditions: Renaming a project can cause a previously valid project to fail the build process. The library becomes incorrectly named..

Workaround: The "Build Artifact" under C/C++ Build->Settings can be manually renamed |
| 2005 | RXC RX Build Plugin | Symptoms: "-rom" option (part of "Linker > User defined options") cannot be deleted and may cause a linker error if memory sections are changed

Conditions: If a –rom linker option exists in the Linker > User defined options, that does not match the sections, the linker will fail. Sections can be changed and the –rom option can be changed, but the –rom option will re-appear after the delete feature is invoked.

Workaround: Change the –rom option or sections to match each other even if it means creating empty sections. |
| 2010 | HEW Importer | Symptoms: Project fails to build after import from HEW

Conditions: If a long filename or path is used, and the HEW project importer is used, the project may fail to build.

Workaround: Move the original HEW project to a shallow directory structure (i.e.) C:\Workspace and import from there. |
| 1922 | Application | Symptoms: Project fails to build in first instance after archive project import (not from HEW)

Conditions: If an archived project is imported it may fail to build the first time, due to a residual .d file.

Workaround: Clean and Build a second time. |
| 1730 | Application | Symptoms: Macro expansion fails due to invalid Placeholder.

Conditions: Placeholder (being used in include path) corrupted if the source folder is deleted.
${workspace_loc:/${ProjName}/src}
becomes:
"${workspace_loc:/PlaceCorrupt/PlaceCorrupt/src}"

Workaround: If you intend to delete the source directory, the include paths need to be updated or removed from include path list prior to deleting the source directory. |

Fixed issues in 1.1.0.30

ID	Component	Description
1961	Application	Obsolete hardware debug plugins are not disabled which causes an exception when upgrading for 1.0.0.38 to 1.1.0.29. To remedy the problem in 1.1.0.29 do the following: 1. Close e2studio. 2. Browse to the folder C:\Renesas\e2studio\eclipse\plugins. 3. Delete the plugin named com.renesas.hardwaredebug.e1v850_1.0.1.201207131525.jar. 4. Re-start e2studio and view your debug configurations.

Fixed issues in 1.1.0.29

ID	Component	Description
1861	Application	Cannot connect to a RL78 G13 101GC with IECube. This affects more devices than just the 101GC.
1971	Application	When using coverage, lines not being marked covered when suspending via the suspend button on the Renesas Debug tool bar.
792	RX build plugin	Custom added build configuration results in project build failure. The error occurs as the linker section feature is not available for the newly added build configuration.
915	Application	When adding a new .src file to the project and build is initiated the source file is not built.
1856	Project Generation	Error when building project. After creating a new GNU project with default settings, it will sometimes fail to build (error from GNU RX project): **** Build of configuration HardwareDebug for project TestRx2 **** make all 'Invoking: Library Generator' rx-elf-libgen -o "libTestRx2.a" 'rx-elf-libgen' is not recognized as an internal or external command, operable program or batch file. make: *** [libTestRx2.a] Error 1
568	Real-time Memory	No context sensitive help exists in the real-time views.
468	Real-time Watch	Realtime Chart View only working for first hardware debug session
1901	Application	If you delete support files like the gdb or IO files for devices you can recover them by following these steps: Go to the internal directory under the e2studio folder. Edit the version_info.txt file and change the version number to be one less than the number currently in the file. Save the file and restart e2studio. e2studio will now begin copying the support files in the DebugComp, internal & utilities directories.
569	Real-time Memory	It is possible that after debug runs the real-time chart may stop working. Even if the real-time watch view is updating the chart does not. e2studio will require a restart to fix this problem.
870	Application	GNU RX Build component, building of Assembler file fails if workspace is located in the path with spaces.
1124	Real-time Watch	On adding an expression to the expressions view for the first time you may get a null pointer exception. On pressing "Add new expression" again you will be able to add an expression.
1176	Real-time Watch	Sometimes on suspend the expressions being monitored will disappear temporarily until the next time the debugger is resumed
1823	Real-time Watch	Expressoins view will display an error message for global variables/expressions saying target not available while running. This is confusing as it simply means that this variable is not being monitored in real-time. This message has been improved.
1150	Real-time Watch	When using the RL78 family (with limited realtime monitoring) there is no notification to the user that all available memory has been used in the Expressions View
1458	Project Generation	Imported projects contained toolchain directories of the original owner.
1789	Application	When using re-start with RL78 the temporary breakpoint set as main is not cleared correctly. This is only noticed when there is a loop right at the beginning of main. The address the breakpoint is set at for main is the start of the loop. The program appears to execute but stops after 5 or 6 iterations of the loop. To workaround this issue remove the breakpoint at main from the debugger start settings or add a line of code before the while loop - such as a nop.
530	Debug Configuration	"In the debug configurations, when clicking the 'Debugger' tab (e.g. from the 'Startup' tab), in my system it takes 4-5 seconds until the tab comes up during which the window is in an 'in-between' state."
1925	Application	If you can not change the number format of all the registes, please do the following: 1) Select all registers except the "General Registers" label. 2) Using context menu select "Register Format" and select "Default" 3) Un-select the registers. 4) From Number Format menu you will now be able to change the format of all registers.
370	Application	Following a product update the product version on the about box installation history does not get updated.
1107	Application	If you remove all the sections under Project->Properties->C/C++ Build->Settings->Sections, then apply the settings, close the properties dialog then re-open the sections section, causes an exception.

		If skip all breakpoints is clicked with the target running & multiple breakpoints are set, GDB returns the following error and the debug session is terminated.

961,041 ~"Interrupted while waiting for the program.\n"
961,041 ~"Give up (and stop debugging it)? (y or n) [answered Y; input not from terminal]\n"
961,042 =thread-group-exited,id="42000"
961,042 29^error,msg="unknown error"
961,042 (gdb) |
| 91 | Application | When running in non-stop mode this no longer happens for any of the devices. (RX, RL78, SH) |
| 1511 | Application | If a variable value is changed within the Variable or Expressions window it does not update inside the memory view. (Although it does if you perform a step). |
| 1276 | Application | When creating a new project the src folder is the only one considered valid for build source by default.

Currently the project folder is not a valid location for source files. Files added here are not automatically built. |
| 127 | Application | The default for the registers window should be hex not decimal. |
| 1315 | Application | Following an import into 1.1 the RX_Converter.exe tool needs to be removed from the post build steps.
This tool is now included in the user interface. |
| 558 | Application | The CPU reset in the Renesas debug view does not highlight the PC in the editor. A message is now displayed to tell the user about this so there should be less confusion. |
| 880 | RX build plugin | The default iodefine.h file for an RX62N is incorrect when using little endian data.

With an example project using the ADC, Accelerometer, Temp Sensor & LCD on the RX62N RDK. When compiled for Big Endian all function correctly. Switching to little endian causes the LCD to stop functioning. |
| 1478 | Trace plugin | Saved SH Trace cannot be loaded back into the view. |
| 1874 | Application | Deleting directory can cause e2studio to lock up.
Withing e2studio, delete the "src" directory.
From file system, copy another directory with source code to your project and rename to "src" (case sensitive).
Refresh within e2studio.
All new source files are "excluded", and cannot be "included" ("exclude from build management mechanism does not work). |
| 609 | Application | Some options are not updated for all the configurations after updating the options on selecting All Configurations
Latest development environment. |
| 1481 | RX build plugin | User can not remove the last section in Sections viewer list-box. RX C build plugin. |
| 854 | Real-time Chart | All realtime views will accept an inverval of no less than 100 milliseconds. |
| 1855 | Application | Sometimes when attempting to delete a project, with remove from disk checked, the operations fails due to an open file.

The error message displayed is:

Problems encountered while deleting resources.
  Could not delete '/TestRx1'.
    Problems encountered while deleting files.
      Could not delete: C:\e2studio_images\1_1\22\jubula_test_workspace\TestRx1\.info. |
| 737 | Application | When restart is used the target does not stop at the breakpoint set in the Start-up tab in debug configurations. |
| 793 | Real-time Watch | Realtime Views sometimes stop updating after 5 minutes. When this happens all the views stop updating simultaneously. Manually refreshing does not fix the issue.

Terminating and re-connecting to the target should solve the problem. |
| 1286 | Debug Configuration | The Launch Configuration created during Project Generation should be created in the Project. |
| 1202 | Real-time Watch | Adding an Icon to identify which expressions are monitored in real time would help the user. |
| 1262 | Debug Configuration | Change default GDB & Io File paths to be relative to eclipse home.

GDB location should be specified by ${eclipse_home} placeholder.

Now the debugger configurations are shared and therefore exported with the project the GDB location needs to be eclipse directory location independent. |
1406	Profile plugin	Profile View is not displaying results profile results for IECube since labels are not being set for the trace records.
322	GDB	Initial debug view is at incorrect address. Caused by an erroneous PC register value.
298	Application	While the target is running the "restart" button is active. If the "restart" button is pressed while running and a software breakpoint is hit the debugger provides no indication that the target has stopped. If the "pause" button is pressed at this point, the PC is shown at the breakpoint location.
1203	RX build plugin	When building with the Renesas CCRX toolchain with many files the link can fail.

This is because the constructed command line is too long.

To avoid this - use the external sub-command file option. |
| 1811 | Real-time Memory | Real-time memory update does not work for RDK RX63N. The function works correctly in the expressions view but not the memory view. |
| 1006 | GDB server | When debugging with RL78, a reload operation can cause GDB to GPF.

This is easily reproduced when using real-time updating in the expressions and chart views.

It can also happen with other devices such as RX but is less easy to reproduce. |
| 1436 | GDB server EXEC | Creating an OA eventpoint with RL78, setting the data compare to more than 1 bytes of data causes the eventpoint not to set.
e.g A compare with fc works but 3fc fails |
| 783 | RX build plugin | -nofpu option for RX200 is not passed when switched from RX600 to RX200. |

		There are problems debugging RX big endian debuggers.
1767	Application	Error message is shown at connection stating it cannot find a file with the extension .mon.
1875	Application	Hex endian is the default memory rendering and is not endian aware. We will default instead to Hex Integer which is a new memory renderer provided in e2studio.
1723	RX build plugin	'Reneasas compiler inbuilt macros /defines' are not currently used in the dependency scanning process when using the Renesas compiler.
1570	Debug Configuration	The default value for the RL78's verify on writing to memory should be 'yes' but is actually 'no'
698	Debug Configuration	In the debug configuration for RX E1 the debug configuration dialog is not remembering the voltage choice of 5V.
1449	Application	Default C++ project for RX630E with E1 emulator does not build. Also affects RX210 projects. A workaround is to delete the .option_bytes & .endian_bytes sections.
939	RX build plugin	Linker section editor user interface needs improvement for CCRX. Unable to add section without selecting existing section & UI does not indicate this. As a result unable to add section before start of current sections without convoluted process rearranging sections after creating new section This also seems to be an issue with the GNU section editor.
882	Application	Eventpoints are project based in e2studio rather than workspace based. A side-effect of this limitation is that eventpoints can only be set in project source code.
842	RX build plugin	Summary of issues with RXC Section editor: Cannot set section to address of 0, this sets to follow on from previous. Clearing address should set to follow on from previous Unable to add section without selecting existing section & UI does not indicate this. As a result unable to add section before start of current sections without convoluted process rearranging sections after creating new section. This also seems to be an issue with the GNU section editor. When opening or importing any RXC project created prior to version 1.0.0.38 the sections will need to be corrected before building.
1468	Application	e2studio/GDB not preventing loading to invalid memory. Loading code to address 0xFFE00000 on RX62N generates no errors or warnings. In HEW, this was caught on download. Mechanism should allow loading code to Internal RAM/Flash or external memory(if expanded mode).
1081	GDB server	Trace is taking up to one minute to return in IECube and sometimes timing out This is only noticable on the IECube target where the trace buffer is full with 65536 records
1236	GDB server	Reset->Reload->Run functionality can cause target stability problems. This is due to the asynchronous nature of these features - operating them in close succession can cause a GDB error.
1469	Application	Using debug configuration startup "set breakpoint at:" only works once after starting a debug session. Subsequent reset/go sequences no longer stop.
1549	Event points plugin	The dialog allows for adding a 3rd OA eventpoint to the sequence (which the hardware does not support)
1498	Debug Configuration	GDB location should be specified by ${eclipse_home} placeholder. Now the debugger configurations are shared and therefore exported with the project the GDB location needs to be eclipse directory location independent.
1239	Application	e2Studio tries to integrate the Toolchain even after the toolchain is un-installed from the machine. This can cause problems on e2studio start-up.
1479	Debug Configuration	External Memory Area bus width needs to allow 32 bit. On some RX devices (RX621, RX62N, RX630, RX631 and RX63N) external memory areas should have 32 bit as a selectable bus width.
112	Application	When using the RX C compiler, value assignments to ports (declared in the header files) are shown as syntax errors in the editor view.
1285	Debug Configuration	RX Debug Options need to allow setup of external memory areas. When 'Register Setting' is set to 'On-Chip ROM Ext. ON' HEW allows the specification of External Memory Areas.
1254	Real-time Memory	Dialog to indicate maximum memory reached for RL78 real-time memory appearing twice.
826	Application	e2studio seems to lock-up on repeated clicks of the restart toolbar button. Condition being that said button is clicked as soon as enabled during a restart.
490	Application	e2studio current GDB versions do not support the python scripting switches.
1351	Application	Installer does not install VS2008 redist under Windows 8. Following installation on Windows 8. When launching the debugger it fails with a side-by-side error. If you then install: http://www.microsoft.com/en-us/download/confirmation.aspx?id=5582 It fixed the issue and connection was successful.
1330	Application	The .linker files are only updated/refreshed from the build settings after a build. If you change the linker settings and then do not perform a build and then export an error occurs. It states a resource is out of step with the file system.
181	Application	Status of memory window not properly maintained through debug connection. When the debugger connection is terminated and re-established a new memory monitor is required to get updates again. This is an Eclipse bug in the standard memory view.

308	Application	When using the Renesas RX C toolchain in e2studio, updating a header file will not force the managed build system to rebuild files which include that header.
1261	RX build plugin	When using RX C build pluin and adding the following command to the user options of the compiler the build fails. -define=LED1=P5_5 This is valid syntax for the defines command.
608	RX build plugin	Message is displayed every time 'Restore default' is pressed. Go to Library generator -> Settings. Select Restore defaults. Following message is displayed: "Please note that reserving registers for use by the fast interrupt is incompatible with pre-built system libraries".
690	Application	The JTAG frequency in Eclipse is not used for Segger connected devices. Interface to the Segger device is currently done through the J-link application. This applies to any other settings defined by the J-Link application to setup the Segger chip.
1008	Application	In the linker user options, there is: -rom=D=R,D_1=R_1,D_2=R_2 This option needs to modified (to add sections). Modifying this line appears to work, but once changes are applied the new line is in place, but also a second line with the original contents are still in place.
184	Application	The general registers view should be able to show registers as floating point values. In addition need to show PSW/FPSO as enumerated bits, etc.
617	Debug Configuration	V850: Options in Debugger configuration > debugger tab are not saved when user clicks apply button of Debugger configuration.
971	Application	Source file icon decoration for per-file build settings is missing from the project explorer view.
1122	Real-time Watch	With realtime enabled, the program suspended, and modified source code (causing a reloaded project) then resuming the program can cause the GDB server to crash.
180	Application	Hex display rendering of memory does not correctly handle endian. Suggest to use the traditional rendering or use the memory browser.
1190	GDB server	Running e2studio from a path with a space will cause a crash in the GDB server during debug connection
238	Application	Dependency to be handled in case CPU is changed from RX200 to RX600 under compiler CPU, then library generator and assembler should also be updated with the latest CPU option. This does not work as expected currently. CPU option is not correctly passed to assembler and library generator during project build.
987	Application	Exporting project if linker sections are modified and not saved generates an error. Resource not synchronized is the message.
1037	Project Generation	GNURL78: .rodata section should be within Flash Mirror Area.
672	Application	RXC Errors not being parsed into Problems View.
996	Application	"No toolchain installed" dialog message from e2studio on start-up when no GCC toolchains installed. This occurs even when a valid CCRX Renesas toolchain is present.
787	Application	Changing the path for the Linker Archive and then clicking Apply and OK does not result in the path being changed when visiting the dialog again.
183	Application	Memory window does not support floating point rendering option.
982	Application	Section names are limited to 20 characters for RX C when this limitation was not in HEW.
928	Application	Build fails when user add multiple commands in post-build.
384	Project Generation	Currently the project generator wizard pages in KE/E2S are designed using the fixed size, i.e, the layout size and the components are organized according to the standard resolution for Windows 7 OS. However, if opening the e2studio IDE on the another platform (e.g., Linux or Windows OS with different resolution), the resolution of the native OS may not support the current resolution.
911	RX build plugin	'-undef' option is not passed to libgen for any GNU projects.
927	Application	Go to Assembler -> Object. mpid option is available for selection This option should not be present as the compiler > CPU > 'Generate position independent code and date' option should take care of passing to assembler as well.
910	Application	For GNU projects. The "Store string consts in the writable data segment (-fwritable-strings) option is not displayed in e2studio user interface.
918	Application	Build file -lang option is passed incorrectly when compared to standard project build.
941	Application	RL78 G13 project build fails for cpu type R5F1018A.
897	RX build plugin	The name of sections in the linker section editor is limited to 20 characters. This needs to be extended to match the compiler limitations.
766	Project Generation	Project generated for RXC 1.01 toolchain has a bad vector_table.c which has a syntax error. For workaround, generate a 1.02.00 project and swap the toolchain to 1.01.00.
845	Application	Linker section editor allows to add spaces in the Section name field.
717	Application	Changes made to build settings between clicking Apply and OK are not saved to the settings. When visiting the dialog the settings are not present.
559	Application	Reload image should have a checkbox remembering your choice.
688	Real-time Watch	Real time expression not working without re-connect. The first time the project is opened and debugged it not possible to view anything in the real time expressions window. The debugger must be disconnected and reconnected to start the updates. New additions etc then work OK.
545	Project Generation	Build steps dialog does not allow multiple pre-build steps.
708	Trace plugin	Trace address filter end range value gets converted to decimal from hex display.
179	RX build plugin	Changing toolchain version (via C/C++ Build -> Change Toolchain Version) does not change the include paths set in the compiler options.
847	RX build plugin	Linker section options are enabled when user opts to use external linker script.
726	Application	RX630 could not be connected using JTAG switch.

Fixed issues in 1.0.1.18

ID	Component	Description
1424	GDB Server	Connection for RX630E with JTAG connection was failing.
1307	GDB Server	Connection for RX630E with Segger emulator was failing.
1281	Build plugin	Linker archive paths were accepting Eclipse placeholders and then changing back to absolute paths. Fix now allows placeholders correctly and an additional placeholder ${TCINSTALL} has been added. Projects will default to this when created. Note: Changes also made to the compiler include paths but these do not default to the new placeholder when a new project is created. This will be rectified in a later release.
1361	IO view plugin	Latest IO files for RX added.
1365	Application	RL78 device support updated. 1) RL78/G13: Device file DR5F101AG.DVF udated: - correction of internal Flash memory size: 128KB (previous 96KB) - correction of internal Flash memory size: 12KB (previous 8KB) 2) RL78/G14 Device file DR5F104BD.DVF updated: - correction of internal Flash memory size: 48KB (previous 32KB) - correction of internal Flash memory size: 5.5KB (previous 4KB) 3) RL78/L12 All device files updated to V1.01: The interrupt request name of the vector table address (0044H) has been changed to INTLCD (previous name: INTLCD0)
1371	Project Generator	RX62N IO define file updated for the Renesas RX compiler.

Fixed issues in 1.0.1.14

ID	Component	Description
166	RL78 build plugin	Build file for RX C rebuilds file every time rather than only building when changes are needed.
279	Application	GDB server and port number although configurable are currently hard coded.
576	Real-time Watch	Structure dereferencing not available in the real time expression window.
791	Application	Importing projects does not allow an easy way to move the toolchain path if the toolchain is either in a different location or does not exist.
876	Application	Unable to set OA Address range for RX targets. Workaround: set another eventpoint first to channel 0.
902	Application	After adding a new build configuration the new configuration cannot be built successfully.
490	Application	e2studio current GDB versions do not support the python scripting switches.
1054	Application	Only two RL78/D1A devices are currently supported. R5F10DPG , R5F10DPJ. More devices are required to be added.
1249	Application	Realtime does not work with old RL78 launch configurations
1245	GDB Server EXEC	RL78 realtime only allows monitoring of 8 bytes.

Open issues in 1.01.00.30

ID	Component	Description
16	Application	When debugging Segger J-Link application using RX, at the first (invalid) breakpoint, it shows garbage values for global variables.
17	IO view plugin	There are some IO Registers where the same memory address holds 2 registers with difference access sizes. These registers are general a read-only register and another register used for writing which is write-only. These registers are currently all listed as R/W in the IO Map file and so the view will attempt to display values for the wrote-only registers. When it does this the bytes are displayed reversed.
40	Application	The message "Error: Unable to create variable object" is sometimes shown during debugging when stepping out of functions.
41	Application	Register values have incorrect initial values when using the RX Simulator or RX hardware debugging. Initially, R0 values are same as ISP in E2S whereas R0 values are same as USP in the HEW environment. R0 is alias to USP. Later on the R0 values are same as ISP / USP depending on the stack usage. Incorrect Accumulator value is displayed (i.e, Accumulator is 0, when checked on command line as well, gdb does not update accumulator values). This is a RX Simulator issue.
72	IO view plugin	All IO registers for RX devices are listed as Read/Write? in the IO xml files used by the IO view, even though some are read or write only.
110	Application	e2studio needs permissions to write to the installation directory. This is a standard Eclipse problem however you may experience issues registering your toolchains or performing updates if you do not have administration access when using directories with restricted access.
220	GDB server	e2-server-gdb executable currently causes a security alert in Windows when executed for the first time. The publisher is currently undefined also. Accepting the dialog allows normal operation to proceed.
268	Application	When debugging in e2studio only the file name is used to match breakpoints when debugging. So a breakpoints set in a different project to the one being debugged can cause breakpoints to be set on the debugger, if the file name matches. There is no indication in the breakpoints view which project a breakpoint is in, but the marker will only appear in the correct file.
301	Trace plugin	Trace buffer full functionality needs addition. New checkbox needs adding to the GUI.

364	Application	In case of MinGW toolchain projects - Whenever you add any include path in the compiler / assembler include path option, it is displayed in the Project Explorer -> <prj_name> -> Includes. In case of KPIT / Renesas toolchain projects - Whenever you add any include path in compiler / assembler include path option, it is not displayed in the Project Explorer -> <prj_name> -> Includes. It only displays the default include paths added during project generation. The include paths are shown in the build option preferences as you would expect.
373	GDB server	e2studio does not support debugging using multiple E1 emulators connected to the system. There is no way to select which emulator you would like to connect to.
392	GDB server FFW	When using a brand new RX62N RDK with the Segger J-link if the board is brand new you cannot connect to the device the first time. The second time if you use the debug button on the debug configuration page and press debug instead it works correctly.
398	GDB server	FMtool for Romless devices not implemented. In the debugger settings in HEW you choose a mot file and address which then gets downloaded during the connection process. This is not implemented in e2studio. This will be supported for SH only in 1.1.
419	Project Generation	When using the project generators some settings are not remembered correctly when moving forward in the wizard and then stepping back. The 'CPU Type' information is not saved, while some of the additional options are remembered and some not.
452	Trace plugin	Trace view - save and load trace data. When trace data is saved the save dialog defaults to .xml extension rather than .rtt. This means that the saved data is not loaded back into the view. Also the load dialog defaults to .xml, but does not load the trace data back into the trace view regardless of the file type. Illegal trace files are not flagged as non standard trace files as per requirements.
471	GDB	All 16 bit registers on the RL78 display 20 bits, the only such register in CubeSuite? is 'PC'.
475	GDB server EXEC	Once a debug session has been terminated when using an IECUBE another connection is not possible until the IECUBE had been unplugged from the machine.
478	Event points plugin	Clicking on column headers in Eventpoints view does not order entries.
480	Event points plugin	Unable to add eventpoints using the insert key.
481	Event points plugin	Clicking on OK of the Trace Configuration dialog does not download changes to the device. Expected Result Clicking on the OK button should commit all of the changes made in the dialog back into the main events points list, the updates will then be downloaded to the device if connected. In reality, the eventpoints are added to the main eventpoint list in the Eventpoints view but do not appear to get downloaded to the device.
482	Event points plugin	Browse (...) remaining disabled on Eventpoints view. Open the Eventpoints view. Double click on the Event Break eventpoint category. Select OR in the Trigger combo box. Click Add on the Edit Trace dialog. Click on the ... button alongside the Address text control. A dialog should appear with a list of address labels but the ... button remains disabled
525	GDB server	When Move to Line is used with RX targets the program is resumed from the selected line, the expected behaviour is that the program would remain suspended.
540	GDB server	When the refresh interval is <120 msecs the Realtime views are not updating. First observed in Realtime Expressions, but will probably affect Chart and Memory too. Inreasing the refresh interval to 200 msecs is a workaround.
549	Application	When entering address, compare and mask values for an eventpoint, hex digits are assumed. The dialog should assume field values are decimal unless prefixed by a modifier such as "0x" for hex. This is for consistency with data entry and presentation throughout Eclipse/CDT.
567	Real-time Memory	It is not possible to edit series name in the real-time chart view.
593	Application	Error Parser tab displays non accessible IDs.
628	Application	When instruction stepping into code, PC is sometimes not correctly placed. When this happens the home button does not restore the PC location correctly. Clicking the current stack frame in the Renesas debug view does remedy the issue.
652	Application	Custom debug configuration. Warning message to be generated if custom.bat is empty Test case : to check if the default settings of predefined Custom Debug launch configuration are correct. Steps: 1. Create a project for custom debug configuration. Select Custom Debug' on 'Select default debug settings' page while creating the project. 2. Don't update custom.bat with any path. 3. Build the project 4. click debug icon. If user has not specified any path in custom.bat and clicks the debug button, user should get warning message that file is empty.
663	Debug Configuration	When changing the project in the debug configurations tab - a dialogue appears asking if changes want to be saved regardless of whether changes have actually occurred.
671	Application	There is no library project type available in e2studio.
700	Application	RL78 Importing projects from 64bit to 32bit machines does not work seamlessly. The path changes are not remembered in Linker > Archives in the Archive search directories. When doing builds this is not always remembered.

711	Application	Un-installing HEW, un-installed RXC toolchains 1.1.0 and 1.2.0 However the entry in TC_supported remains as expected, but due to this E2S allows to create projects for RXC toolchains and fails during project build.
722	Trace plugin	Using Find on "Address" allows the entry of a case insensitive hex number. However on "Destination Address" a case sensitive string is required. This needs to be made clearer on the UI.
723	Event points plugin	The "Add..." button is greyed out when trying to add a "Before PC" in the Eventpoint window. Can only be added from the source code windows.
762	GDB server FFW	GDB server takes a long time to terminate when previous debug session used real-time update. Tested using RX63N and E1.
785	Trace plugin	Bus mode records sometimes fail to update if rapid cycling through the available trace modes.
789	Trace plugin	The trace plugin data field if find & filter is set does not remember its value. When reopened the data option has both fields populated with a numerical number not entered by the user.
801	GDB server	RL78 program execution not stopping for OA eventpoints set between ranges. 1. Create an Event break OA eventpoint 2. Enter an address in the address field 2. Select Range in the address conditions 3. Enter an end address 4. Eventpoint dosen't trigger when an address between the range specified is reached and program execution dosen't stop
802	GDB server	RL78 program execution stopping on word access when byte access is specified.
803	GDB server	RL78 program execution stopping on 'Equal' when 'Not Equal' is specified in the Comapre Settings.
804	Event points plugin	Long should be removed from the size combo for Data Settings for RL78.
811	GDB server	Trigger Count not supported for RL78 but is still available in the Eventpoint View.
816	GDB server	Data Access mask not working for address values for RL78. Program execution stops each time the address is accessed no matter what value it contains.
820	GDB server	Address mask not working for RL78. Program execution does not stop, expecting to see program execution stopping everytime we access an address ending in e8.
822	Project Generation	org.eclipse.cdt.ui is delayed due to common utilities instantiated. Toolchain validation holds up the loading of org.eclipse.cdt.UI which the IAR plugin depends upon. If this is delayed the IAR plugin will not start up causing the editor to fail with exceptions. Registering toolchains and then restarting should remedy the problem.
827	Advanced Debug Manager (ADM)	Setting "Force Hardware Breakpoints" in the debug configuration will cause eventpoints to stop functioning.
831	Real-time Watch	Record sometimes saves blank file. When using the record feature in the real-time expressions view the saved file is sometimes empty.
846	Application	HEW debug fails for RX200, RX63N. HEW debugging templates do not exist for RX200 and RX63N.
873	Debug Configuration	No Renesas GDB hardware launch shortcut for IAR & Green Hills plugins. Launch shortcut needs manual creation.
874	Event points plugin	Execution Address Eventpoints with trigger count do not work with Breakpoints on Segger RX. Setting an execution address eventpoint with a trigger count on Segger JLink RX62N is not possible if any breakpoints exist, including the default at main. If an execution address eventpoint with a trigger count is set with a breakpoint both the eventpoint & the breakpoint do not function. Multiple breakpoints are set then only 1 does not work. Additional eventpoints function as normal.
877	Debug Configuration	IOView is populated for the incorrect target for debug-only projects. If you open the debug configuration dialog the IOView is populated with the correct target information.
879	Trace plugin	Find and filter are greyed out after closing trace view. The only way to activate find and filter options is to resume debugging and suspend.
887	Trace plugin	Trace address filter end range value gets set to the start range after reopening dialog.
901	Application	Building a project after renaming fails to build. "Artifact Name" is not being changed. Build Artifact needs to be manually modified after this operation. Using ${ProjName} avoids this issue as the build artifact is automatically updated. However with GCC tools the linker archive options also need to be manually modified.
903	Project Generation	When attempted to rename the project in e2studio, the new binary gets created with the previous project name and not with the modified project name.
904	Application	Warnings are duplicated as errors in the problems view when using the CCRX compiler.
909	Application	Selecting "Inhibit all warning messages" does not disable advanced warnings.
919	Application	UTF-8 Input character code (-utf8 option) and output character code (-outcode=utf8) are being set in dialogs but not being passed to the compiler at build time. These codes can only be applied in conjunction with C99 option, but even when selected, still does not work.
930	GDB server	Unlimited number of Event Break eventpoints allowed on RL78 devices
934	Event points plugin	Eventpoints view toolbar label not updating for RL78 eventpoints.
935	GDB server	RL78 G14-2 only allows one Event Break eventpoint
936	Application	Duplicate Address is allowed in Linker->Section for GNURX and other targets.
938	GDB server	Program Execution not stopping for Event Break OA eventpoints using IECube with RL78.
940	Application	Debugging on the E2S(1.0.0.36) using 'F5' (step into) does not work as expected when stepping into disassembly (mixed mode). The button 'F5' has the same response as F6 (step over).
1021	Installer	Repair from Add/Remove/Programs does not work for e2studio.
1065	Application	Build console arrows (Next and previous) does not work as expected. On selecting 'Next' arrow, the listed errors are not scanned/visited through.
1103	Debug Configuration	The V850E JTag Break Option - 'stop emulation of peripherals when stopping' has not been implemented in the debugger options.
1131	GDB server	"Add Watchpoint" from Variables window context menu crashes the debugger.

1152	GDB	The following message is sometimes being returned from GDB with RL78 on a suspend event, the debug session cannot be resumed. The workaround is to stop an start the debug session. 565,173 (gdb) 565,360 218-var-update 1 var15 565,376 218error,msg="Remote failure reply: E98300003403029FE90300000000009F0000000000000000000000000\ 000000000060000BE020000F6FD0000"
1231	GDB server	Adding a Event Break eventpoint using a label and then resuming fails to apply the eventpoint. Workaround: Use the Apply button after creating the eventpoint.
1255	GDB server	For RL78 the expressions View can only monitor 8 chars (each 1 byte), should be able to monitor 16 bytes
1263	Application	RX200 CPU selection should not be supported for toolchains =< 1.00.01 for the CCRX Renesas toolchain. This toolchain does not support RX200
1264	Application	"Data record header" option should be passed to converter instead of linker phase. Steps to reproduce: 1. Create RXC project. 2. Select Linker -> Output -> Data record header -> S1. Workaround : The '-record=s1' or 'S2' etc option should can be set as user defined option in the converter phase.
1287	Application	When debugging using RX63N using the Ethernet is blocked because the trace is setup to use TRCLK. Ethernet needs P83 but this cannot be accessed.
1289	IAR plugins	IAR build plugin. Folder names containing . are sometimes cut off and not displayed correctly in 'Browse for folder Window when browsing for the location of the Embedded Workbench.
1352	Application	GNU Linker section : Deleting section using delete button (keyboard) does not work.
1354	Real-time Watch	Pre-increment of a global variable can cause inconsistencies in the expressions view for this value. It is due to a problem with CDT: https://bugs.eclipse.org/bugs/show_bug.cgi?id=252099
1388	Coverage plugin	The user is not prompted for Coverage data to be cleared from the current debug session.
1404	Trace plugin	The trace acquisition dialog always displays a trace capacity of 1M Byte even if the targets trace capacity is different.
1417	Application	e2studio aborts on startup if too many hardware breakpoints have been specified. NOTES: 1: The boundary of the problem is on setting 4 hardware breakpoints. 2: That problem reported by the dialogue box talks about software breakpoints, when the option to use only hardware breakpoints has been selected. 3: The debug session must be setup to use only hardware breakpoints. 4: For SH2/SH2A targets in general, there does not seem to be any direct relationship between the maximum number of hardware breakpoints supported by the target and the number of preset breakpoints required to cause the problem. However that said, the issue is consistantly activated when the number of preset breakpoints is either the same as the maximum supported by the hardware or one or two less than this figure. This may be due to the data held in the target descriptors of the GDB server.
1422	GDB	When debugging some RX projects, after hitting some breakpoints the session hangs while retrieving stack data & the session must be terminated. The same module downloaded and debugged though HEW does not display this issue. Comparing the two it appears GDB is attempting to load more stack levels than actually exist.
1460	Application	Project builds, but rx_convertor.exe fails when on network drive.
1482	RX build plugin	#NAME?
1483	RX build plugin	â€œrx_converter.exeâ€program is invoked when â€œ-form=libraryâ€ or â€œ-form=relocatableâ€ option of Linker is specified. Causes an input file error in the converter.
1484	RX build plugin	The relation between â€œ-showâ€and â€œ-formâ€ options of Linker was not correct. An unnecessary warning is displayed.
1485	Application	The edited address value in Memory window does not highlighted in red but does update.
1486	Application	Breakpoint properties do not work when set in the CDT dialogs. For example using the filter operation and removing the breakpoint for the process being debugged.
1522	HEW Project Converter	GNURX:Libgen crashes when user imports project (with fatal errors) from HEW.
1523	HEW Project Converter	HEW import page is displayed even when user tries to import normal project (other than HEW project).
1531	Application	The edited value in Expressions window is not highlighted. The expressions are not updated in SR1 in the following circumstances: 1. When editing in-place within the expressions window. 2. Modifying the value of the expressions in the memory window. 3. When the target suspends and the views refresh. In each of these cases any expressions with modified values should be highlighted in yellow.
1532	Application	The edited value in Registers window was not highlighted when modifying the value in the registers window. The edited value should be yellow highlighted. Note: This appears to work for the first edited register okay following a target suspend. However any subsequent modifications are not highlighted.

1533	RX build plugin	Both Error and Warning messages are displayed with the same content on Problems window in Build time when the system include files are scanned as dependencies for C++ projects.
1546	Project Generation	Device type 72691 is not available for SH project. Workaround: create a SH project using "Other" target device. From debug configuration select new for the project, select target device from list.
1559	GDB server EXEC	Setting a software breakpoint in an invalid memory region can crash the GDB server.
1561	Application	When local options are set for a file or folder the "Reset to Defaults" on the build options properties does not clear the local option setting for the selection.
1562	Application	When creating a new project and at the stage of selecting devices through the editing of the device combo box, characters must be entered in upper case. It should not matter if upper or lower case is used.
1593	Event points plugin	When changing the address of an eventpoint set from the source editor a marker should be created at the new location & the old one removed. Currently marker at old location is removed but no new marker is created.
1595	Application	Renaming a project using the right click menu in the project explorer causes its respective debug configuration to disappear.
1616	RX build plugin	The options of a Build Configuration were not correct after specifying Multiple Configurations... functionality.
1625	Application	Build settings done through "All configuration" option are not reflected for some configurations.
1640	Application	After creation a project cannot be deleted straight away. If the user waits around 30 seconds the project can then be deleted.
1642	Application	Erase flash on startup option on RL78 should be executed once. When e2studio connects successfully to RL78 target and erases the flash, this option should return to false, so that flashing is not done everytime target is connected.
1645	Event points plugin	For the SH7216 target (and most likely other targets), when using the address conditions and associated mask, the boolean parameter (parameter 17) 'address mask compare type' is not being set to true.
1649	Application	When using Data Access eventpoints (on SH target hardware) specifying "Not Equals" for an address mask has no effect. The default of "Equals" is always used.
1651	Application	SH data access events points must stipulate word width as byte, word (16bit) or long (32bit). Therefore the option 'Not Specified' is not permitted.
1674	Application	GUI is using the wrong limit on the number of pass counts for the SH7216. The pass count being reported by the GDB server is 4096. But the GUI is not even allowing a pass count of 1.
1675	Event points plugin	GUI not permitting 32 bit data mask value (e.g. ffffffff) to be set for the SH 7216 target, reporting invalid data mask.
1696	Real-time Watch	When the debugger is suspended the expression view will always show the values of variables at the top of the stack frame. If you want to see the values of variables based on the selected stack frame please only use the variables view and close the expressions view.
1697	Application	Variables view not always updating based on selected stack frame. If a stack based variable has been monitored as an expression & a stack frame selected with the expression view open, then when switching to the variables view an incorrect value for the variable is displayed. This only happens when a stack frame is selected with the expressions view open but the variables view hidden. Selecting further frames with the variables view open will work as expected.
1702	Application	Plain text export does not represent the format and layout of the view. e.g. Floating Point view should yield floating point output, a 2 column 16 bit unsigned int view should yield similar text output. Plain text output is always 32-bit hex (with endian problems).
1713	GDB Server SH	There are build issues when creating a SH7086 project. The main source file is empty.
1717	RX build plugin	There is no UI support for customizing the linkage order.
1722	Application	Debug session for new RX62T never makes it to main() - When only using hardware breakpoints.
1726	Application	E1RL78 Connection can fail. Failure to connect can be caused if an area of flash used by the debugger gets corrupted. This can be worked around by setting the debugger configuration / connection settings tab option "Erase Flash ROM When starting" to Yes. Once connection is established OK, the option can be reset to No.
1730	Application	Deleting a source directory causes the placeholder (being used in include path) to become corrupted. ${workspace_loc:/${ProjName}/src} becomes: "${workspace_loc:/PlaceCorrupt/PlaceCorrupt/src}" If you intend to delete the source, the include paths also need update and therefore updating / removing the source path from include path list prior to deleting the source directory will avoid path corruption.
1742	Debug Configuration	When the project has been selected to use SH. The user is prompted to select the launch configuration on clicking 'run'. The launch configuration should be automatically selected correctly.
1744	Application	No entry of Hello world project under Executable project.
1750	HEW Project Converter	The HEW project importer does not import the linkage order from HEW. e2studio does not have the facility to define the linkage order.
1751	RX build plugin	-start option should be added to the sub-command file. If many sections are defined it is possible to exceed the Windows command line length.
1754	RL78 build plugin	On building an RL78 R5F104LE G14 target a warning about an invalid path to an include directory is created. It seems that when a new project is created, the project generator enters both the valid path (else the project would not build)and the invalid path (that results in the warning being created). I have also seen this warning for projects of other targets.
1763	RX build plugin	RXC - For Compiler > Object > Output file type : "Assembler code(*.src)", the *.src files are deleted after project is built . Actual (After build is complete) : rm src/sbrk.src src/dbsct.src src/interrupt_handlers.src src/reset_program.src src/RXC.src src/idcode.src src/vector_table.src - all file are removed.

1769	Application	SHC: 'Output file type':-code=asmcode differences for per file v/s project settings. Build the single file and the option -code=asmcode will passed to compiler . Now build the complete project and the '-code=asmcode' option is not passed while building the reset_program.c.
1773	RX build plugin	RXC > Compiler (C/C++) > Object > checkbox : "Suppress DIVS, DIVU, and FDIV instruction generation" not available in e2studio. command : -nouse_div_inst This option is available from RXC 1.2.0 version onwards.
1778	Application	When setting the 'Internal Flash Memory Overwrite' debug option, it is possible to exceed the maximum number of non-continuous memory blocks supported. No warning is given if this limit is exceeded. When setting this option ensure the limit (16 for RX devices) is not exceeded.
1786	SH build plugin	The range button is available on the Eventpoints Data Access Settings tab of an OA address point even though these eventpoints are unavailable on the SH target.
1790	Real-time Watch	Real-time expression settings are not saved when the application exits.
1791	Application	The PC can sometimes disappear from the disassembly window. This is due to the view getting the current stack frame confused. When this occurs clicking the home button on the disassembly view does not force the view to the program counter. As a workaround, clicking the Top Stack Frame in the Renesas Debug View will cause the view to jump to the PC.
1792	GDB Server SH	Trace Fill until Full or Stop has no effect for some SH targets. Defaulting to "Fill until stop".
1795	Application	Real time memory monitoring is limited to 16 bytes in RL78 which includes memory and expressions. The Real-time Ranges dialog on the memory view does not give warning why it will not allow the user to exceed this.
1796	Application	Memory ranges set for real-time monitoring using the E1 with RL78 are not saved at the end of a session.
1801	Application	Debug configuration button does not show last configuration. The tooltip shows "Debug RX630E" but when the button is pressed "RX62T" is launched, and "RX62T" is the one at the head of the list also.
1802	GDB Server SH	Unable to apply SH OA event point when Compare Settings chekbox is checked.
1804	Application	After reload of modified file near breakpoints, do a reset and go - the breakpoints were shown in the source and breakpoint view but the target did not stop. After a step over a breakpoint the target stopped correctly at all breakpoints. This was found on RX62T.
1806	GDB server	There is currently a limit of 11 to the stack trace depth that will be shown in the Renesas Debug View. This can be increased to n by executing the command from the GDB console: set backtrace limit <n>
1807	Trace plugin	While source mode is enabled on the trace view if you swap or cycle to another view, before returning to the trace view. The contents of the view will be removed. To obtain the source view again please follow these steps: Enable Bus mode on the trace view, disable source mode on the trace view, renable source mode and then disable Bus mode.
1808	HEW Project Converter	Import a HEW RX project in e2studio using the HEW project importer. Check : Project > Properties > Compiler > Source > Include file directories. Paths are duplicated
1815	Real-time Watch	Currently there is no manual refresh menu item for the Variables and Expression view. The refresh menu item will be available in CDT 8.0 release.
1840	Application	Every now and then (in this case after switching project), when building a project has been completed, the build progress bar hangs indicating that the build is still in progress when clearly it is not.
1841	HEW Project Converter	Importing HEW project generates warning in e2studio for 'src' directory.
1846	HEW Project Converter	HEW Importer: Compiler > Warnings > Advance > Enable All check-box is not mapped. All warnings checkboxes are checked as expected, however the 'Enable All' option is not checked.
1847	Debug Configuration	Unable to create a project for the following target in project generation Toolchain : GNUSH v12.01 Target : R5F71374FPV Emulator : E10A SH2
1859	GDB server	Program execution stops inside a range when Range Exclusive is specified in the address settings for OA event points.
1863	HEW Project Converter	HEW makefile project import in not supported in e2studio 1.1.
1866	Application	Dependency scan fails for if linked resource file is renamed.
1880	Application	Using the Renesas Quick Settings set the warning messages to off. Using Renesas Tool Settings set Inhibit All warning messages to on. The Advanced settings are set to on but the settings are greyed out. The build output displays warnings when none are expected.
1882	Application	Access to real-time refresh interval UI requires an expression to be defined. It should be possible to adjust the real-time refresh interval without adding an expression or even opening the Expressions view.
1885	Real-time Watch	Realtime expressions view can become out of date on suspend when compared to the value in the memory window. This is due to the timing of the update against the suspend. A further step operation will refresh the view or you can see the value in memory. This only affects the values being viewed in real-time.

1889	Application	Due to file extension issue with .s and .S and due to known bug, e2studio users wont be able to use .s or .S effectively to pre-process assembly files that need GCC. Hence we suggest renaming these files to use: .S -> .asm .s -> .src
1891	Application	When an RX hardware debug session is executing the reset button can be operated but does nothing. In RL78 the debugger is reset correctly.
1904	Profile plugin	Profile view: Go to source throws an exception if no file path is defined in profiler.
1912	Trace plugin	
1918	Application	Dependency scanning for Renesas assembly files does not work.
1921	Application	If you wish to run the makefile from the command line the system environment or the required configuration to set-up the environment needs to be manually added to the make file. This can be done by using the makefile.init file.
1922	Application	This problem occurs for all toolchains following import. Following an import and build the project is built successfully however the .d files are deleted so when building again the entire project is re-built. This only occurs once - after this second build operation is normal.
1927	Event points plugin	Trace Record execution address eventpoints are allowed with e2Studio, these are not available with HEW, should only allow Trace Record eventpoints of type data access to make consistent with HEW.
1932	Application	From the memory view, the memory load feature does not work for reloading data into external flash.
1933	Application	Provided GNURX and RXC samples are not using the latest iodefine.h files which are shipped with the product.
1936	Coverage plugin	When using the IECUBE for RL78 the source lines for coverage are not being highlighted correctly in some cases.
1937	Project Generation	When you have many projects in the workspace and a toolchain is removed. Numerous dialogs informing the toolchain has been removed are shown on top of each other.
1939	RX build plugin	Conditional header file scanning dependencies can fail for existing projects.
1940	Real-time Watch	Deleting 1 of 2 instances of an expression being monitored in real time, takes the second instance out of real time monitoring mode.
1946	RX build plugin	For the Renesas CCRX compiler, dependency scanning fails to scan the options specified under compiler > user defined options for defines, includes and un-defines.
1948	Application	When moving the position of real-time chart when it is updating it causes e2studio to hang.
1950	HEW Project Converter	A user tries to import a already imported project (in a different workspace) again. However the project is deleted from the previous workspace. This results in the following error message "The selected .hwp file overlaps the location of another project". See attached dialog. This is because when the project is removed from the project tree the Eclipse projects are not physically removed. Deleting the Eclipse project files from the directory allows the operation to continue.
1951	Profile plugin	If you import a v850 debug-only project with a debug configuration and attempt to either debug the project; you will get problem occured message which will say "Unknown Debug Hardware 'E1 (V850)'". E1 (V850) hardware is not available in e2studio 1.1
1954	Profile plugin	Profile address filter throws number format exception. Enter a valid address e.g. FFF8006E, into the filter which is listed within the profile view. If unsuccessful the follwoing exception is raised: ava.lang.NumberFormatException?: For input string: "FFF8006E"
1956	Installer	Uninstalling e2studio can remove installed toolchains if they reside in the same directory. To fix this issue you need to run a repair on the removed toolchains.
1957	RX build plugin	Dependency scanning fails for files at relative path with spaces.
1965	GDB server EXEC	RL78 IECUBE performance appears less than CubeSuite+ and the E1 in e2studio
1966	Profile plugin	Retrieval and display of profile data is taking a very long time (5 minutes) when using RL78 IECUBE. Waiting this time will show the results correctly.