e² studio 5.3.0

Release Note

Introduction

This document outlines the device support, new features added in 5.3.0, fixed issues and open issues in e² studio 5.3.0.

Contents

1. Product Information

1.1 Supported Operating Systems

These operating systems are officially supported by e² studio:

- Windows 7 32-bit

- Windows 7 64-bit

- Windows 8.1 32-bit

- Windows 8.1 64-bit

- Windows 10 32-bit

- Windows 10 64-bit

1.2 Supported Toolchains

The following toolchains are supported in e² studio 5.3.0.

		Renesas	Launchpad GCC (*2)	Renesas GCC/ KPIT GCC (*3)	IAR (*4)	Green Hills (*5)
Device Family	RL78	Yes (CC-RL)	No	Yes	Yes	No
	RX	Yes (CC-RX)	No	Yes	Yes	No
	RH850	No	No	No	Yes	Yes
	RZ/ARM	No	No (*1)	Yes	Yes	No
	Synergy/ARM	No	Yes	No	Yes	No
	SH	Yes (SHC)	No	Yes	No	No

Note:

*1: Converter is now available to convert RZ ARM-none GCC toolchain to use Launchpad GCC.

*2: The GNU Launchpad toolchain is distributed via the launchpad.net website and is available here: https://launchpad.net/gcc-arm-embedded.

*3: Legacy KPIT GCC toolchains are now available from www.renesas-gcc.com. In addition the latest RX and RL Renesas GCC toolchains are available from this website.

*4: The IAR toolchain plugins are available via the "Help"->"IAR Embedded Workbench plugin manager" menu in e2 studio. These Eclipse plugins are provided by IAR and are not supported by Renesas.

*5: The Green Hills toolchain plugins are available within the e² studio product. These plugins are provided by Green Hills and are not supported by Renesas.

2. Device Support

2.1 Project Generator Support

CPU	Family	Devices
RH850	C1H	R7F701260, R7F701270,(Debug Support Only)
	C1M	R7F701263, R7F701271,(Debug Support Only)
	E1L	R7F701201, R7F701205,(Debug Support Only)
	E1M-S	R7F701202, R7F701204,(Debug Support Only)
	-	R7F701Z05, R7F701Z06, R7F701Z07,(Debug Support Only)
	F1H	R7F701501, R7F701502, R7F701503, R7F701506, R7F701507, R7F701508, R7F701511, R7F701512, R7F701513,(Debug Support Only)
	F1H-GW	R7F701521, R7F701522, R7F701524, R7F701525,(Debug Support Only)
	F1L	R7F701002xAFP, R7F701003xAFP, R7F701006xAFP, R7F701007xAFP, R7F701008xAFP, R7F701009xAFP, R7F701010xAFP, R7F701011xAFP, R7F701012xAFP, R7F701013xAFP, R7F701014xAFP, R7F701015xAFP, R7F701016xAFP, R7F701017xAFP, R7F701018xAFP, R7F701019xAFP, R7F701020xAFP, R7F701021xAFP, R7F701022xAFP, R7F701023xAFP, R7F701024xAFP, R7F701025xAFP, R7F701026xAFP, R7F701027xAFP, R7F701028xAFP, R7F701029xAFP, R7F701030xAFP, R7F701032xAFP, R7F701033xAFP, R7F701034xAFP, R7F701040, R7F701041, R7F701042, R7F701043, R7F701044, R7F701045, R7F701046, R7F701047, R7F701048, R7F701049, R7F701050, R7F701051, R7F701052, R7F701053, R7F701054, R7F701055, R7F701056, R7F701057,(Debug Support Only)
	F1M	R7F701544, R7F701545, R7F701548, R7F701549, R7F701552, R7F701553, R7F701564, R7F701565, R7F701568, R7F701569, R7F701572, R7F701573,(Debug Support Only)
	P1M	R7F701304, R7F701305, R7F701310, R7F701311, R7F701312, R7F701313, R7F701314, R7F701315, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701323,(Debug Support Only)
	-	R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701071xAFP,(Debug Support Only)
RL78	D1A	R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F10CME, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DLD, R5F10DLE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F10TPJ
	F12	R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109GC, R5F109GD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109LE

F13	R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10ALC, R5F10ALD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10AME, R5F10AMF, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BGC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG
F14	R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE, R5F10PPF, R5F10PPG, R5F10PPH, R5F10PPJ
F15	R5F113GK, R5F113GL, R5F113LK, R5F113LL, R5F113MK, R5F113ML, R5F113PG, R5F113PH, R5F113PJ, R5F113PK, R5F113PL, R5F113TG, R5F113TH, R5F113TJ, R5F113TK, R5F113TL
F1A	R5F114GC, R5F114GD, R5F114GE, R5F114GF, R5F114GG
G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
G11	R5F1051A, R5F1054A, R5F1056A, R5F1057A, R5F1058A
G12	R5F10266, R5F10267, R5F10268, R5F10269, R5F1026A, R5F10277, R5F10278, R5F10279, R5F1027A, R5F102A7, R5F102A8, R5F102A9, R5F102AA, R5F10366, R5F10367, R5F10368, R5F10369, R5F1036A, R5F10377, R5F10378, R5F10379, R5F1037A, R5F103A7, R5F103A8, R5F103A9, R5F103AA

G13	R5F1006A, R5F1006C, R5F1006D, R5F1006E, R5F1007A, R5F1007C, R5F1007D, R5F1007E, R5F1008A, R5F1008C, R5F1008D, R5F1008E, R5F100AA, R5F100AC, R5F100AD, R5F100AE, R5F100AF, R5F100AG, R5F100BA, R5F100BC, R5F100BD, R5F100BE, R5F100BF, R5F100BG, R5F100CA, R5F100CC, R5F100CD, R5F100CE, R5F100CF, R5F100CG, R5F100EA, R5F100EC, R5F100ED, R5F100EE, R5F100EF, R5F100EG, R5F100EH, R5F100FA, R5F100FC, R5F100FD, R5F100FE, R5F100FF, R5F100FG, R5F100FH, R5F100FJ, R5F100FK, R5F100FL, R5F100GA, R5F100GC, R5F100GD, R5F100GE, R5F100GF, R5F100GG, R5F100GH, R5F100GJ, R5F100GK, R5F100GL, R5F100JC, R5F100JD, R5F100JE, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100JK, R5F100JL, R5F100LC, R5F100LD, R5F100LE, R5F100LF, R5F100LG, R5F100LH, R5F100LJ, R5F100LK, R5F100LL, R5F100MF, R5F100MG, R5F100MH, R5F100MJ, R5F100MK, R5F100ML, R5F100PF, R5F100PG, R5F100PH, R5F100PJ, R5F100PK, R5F100PL, R5F100SH, R5F100SJ, R5F100SK, R5F100SL, R5F1016A, R5F1016C, R5F1016D, R5F1016E, R5F1017A, R5F1017C, R5F1017D, R5F1017E, R5F1018A, R5F1018C, R5F1018D, R5F1018E, R5F101AA, R5F101AC, R5F101AD, R5F101AE, R5F101AF, R5F101AG, R5F101BA, R5F101BC, R5F101BD, R5F101BE, R5F101BF, R5F101BG, R5F101CA, R5F101CC, R5F101CD, R5F101CE, R5F101CF, R5F101CG, R5F101EA, R5F101EC, R5F101ED, R5F101EE, R5F101EF, R5F101EG, R5F101EH, R5F101FA, R5F101FC, R5F101FD, R5F101FE, R5F101FF, R5F101FG, R5F101FH, R5F101FJ, R5F101FK, R5F101FL, R5F101GA, R5F101GC, R5F101GD, R5F101GE, R5F101GF, R5F101GG, R5F101GH, R5F101GJ, R5F101GK, R5F101GL, R5F101JC, R5F101JD, R5F101JE, R5F101JF, R5F101JG, R5F101JH, R5F101JJ, R5F101JK, R5F101JL, R5F101LC, R5F101LD, R5F101LE, R5F101LF, R5F101LG, R5F101LH, R5F101LJ, R5F101LK, R5F101LL, R5F101MF, R5F101MG, R5F101MH, R5F101MJ, R5F101MK, R5F101ML, R5F101PF, R5F101PG, R5F101PH, R5F101PJ, R5F101PK, R5F101PL, R5F101SH, R5F101SJ, R5F101SK, R5F101SL
G14	R5F104AA, R5F104AC, R5F104AD, R5F104AE, R5F104AF, R5F104AG, R5F104BA, R5F104BC, R5F104BD, R5F104BE, R5F104BF, R5F104BG, R5F104CA, R5F104CC, R5F104CD, R5F104CE, R5F104CF, R5F104CG, R5F104EA, R5F104EC, R5F104ED, R5F104EE, R5F104EF, R5F104EG, R5F104EH, R5F104FA, R5F104FC, R5F104FD, R5F104FE, R5F104FF, R5F104FG, R5F104FH, R5F104FJ, R5F104GA, R5F104GC, R5F104GD, R5F104GE, R5F104GF, R5F104GG, R5F104GH, R5F104GJ, R5F104GK, R5F104GL, R5F104JC, R5F104JD, R5F104JE, R5F104JF, R5F104JG, R5F104JH, R5F104JJ, R5F104LC, R5F104LD, R5F104LE, R5F104LF, R5F104LG, R5F104LH, R5F104LJ, R5F104LK, R5F104LL, R5F104MF, R5F104MG, R5F104MH, R5F104MJ, R5F104MK, R5F104ML, R5F104PF, R5F104PG, R5F104PH, R5F104PJ, R5F104PK, R5F104PL
G1A	R5F10E8A, R5F10E8C, R5F10E8D, R5F10E8E, R5F10EBA, R5F10EBC, R5F10EBD, R5F10EBE, R5F10EGA, R5F10EGC, R5F10EGD, R5F10EGE, R5F10ELC, R5F10ELD, R5F10ELE
G1C	R5F10JBC, R5F10JGC, R5F10KBC, R5F10KGC
G1D	R5F11AGG, R5F11AGH, R5F11AGJ
G1E	R5F10FLC, R5F10FLD, R5F10FLE, R5F10FMC, R5F10FMD, R5F10FME
G1F	R5F11B7C, R5F11B7E, R5F11BBC, R5F11BBE, R5F11BCC, R5F11BCE, R5F11BGC, R5F11BGE, R5F11BLC, R5F11BLE

	G1G	R5F11EA8, R5F11EAA, R5F11EB8, R5F11EBA, R5F11EF8, R5F11EFA
	G1H	R5F11FLJ, R5F11FLK, R5F11FLL
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	I1C	R5F10NLE, R5F10NLG, R5F10NME, R5F10NMG, R5F10NMJ, R5F10NPG, R5F10NPJ
	I1D	R5F11768, R5F1176A, R5F11778, R5F1177A, R5F117A8, R5F117AA, R5F117AC, R5F117BA, R5F117BC, R5F117GA, R5F117GC
	I1E	R5F11CBC, R5F11CCC
	L12	R5F10RB8, R5F10RBA, R5F10RBC, R5F10RF8, R5F10RFA, R5F10RFC, R5F10RG8, R5F10RGA, R5F10RGC, R5F10RJ8, R5F10RJA, R5F10RJC, R5F10RLA, R5F10RLC
	L13	R5F10WLA, R5F10WLC, R5F10WLD, R5F10WLE, R5F10WLF, R5F10WLG, R5F10WMA, R5F10WMC, R5F10WMD, R5F10WME, R5F10WMF, R5F10WMG
	L1A	R5F11MMD, R5F11MME, R5F11MMF, R5F11MPE, R5F11MPF, R5F11MPG
	L1C	R5F110ME, R5F110MF, R5F110MG, R5F110MH, R5F110MJ, R5F110NE, R5F110NF, R5F110NG, R5F110NH, R5F110NJ, R5F110PE, R5F110PF, R5F110PG, R5F110PH, R5F110PJ, R5F111ME, R5F111MF, R5F111MG, R5F111MH, R5F111MJ, R5F111NE, R5F111NF, R5F111NG, R5F111NH, R5F111NJ, R5F111PE, R5F111PF, R5F111PG, R5F111PH, R5F111PJ
RX	110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
	113	R5F51135, R5F51136, R5F51137, R5F51138
	130	R5F51303, R5F51305
	210	R5F52103, R5F52104, R5F52105, R5F52106, R5F52107, R5F52108, R5F5210A, R5F5210B
	21A	R5F521A6, R5F521A7, R5F521A8
	220	R5F52201, R5F52203, R5F52205, R5F52206
	230	R5F52305, R5F52306
	231	R5F52315, R5F52316, R5F52317, R5F52318
	23T	R5F523T3, R5F523T5
	24T	R5F524T8, R5F524TA
	610	R5F56104, R5F56106, R5F56107, R5F56108
	621	R5F56216, R5F56217, R5F56218
	62G	R5F562G7, R5F562GA
	62N	R5F562N7, R5F562N8
	62T	R5F562T6, R5F562T7, R5F562TA
	630	R5F56307, R5F56308, R5F5630A, R5F5630B, R5F5630D, R5F5630E
	631	R5F56316, R5F56317, R5F56318, R5F5631A, R5F5631B, R5F5631D, R5F5631E, R5F5631F, R5F5631G, R5F5631J, R5F5631K, R5F5631M, R5F5631MF, R5F5631N, R5F5631P, R5F5631PF, R5F5631W, R5F5631Y, R5S56310
	634	R5F5634B, R5F5634B_5V, R5F5634D, R5F5634D_5V, R5F5634E, R5F5634E_5V

	63N	R5F563NA, R5F563NB, R5F563ND, R5F563NE, R5F563NF, R5F563NK, R5F563NW, R5F563NY
	63T	R5F563T4, R5F563T5, R5F563T6, R5F563TB, R5F563TB_5V, R5F563TC, R5F563TC_5V, R5F563TE, R5F563TE_5V
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	651	R5F56514, R5F56517, R5F56519
	65N	R5F565N4, R5F565N7, R5F565N9
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
RZ	A1	R7S721000, R7S721000_DualSPI, R7S721001, R7S721001_DualSPI, R7S721010, R7S721010_DualSPI, R7S721011, R7S721011_DualSPI, R7S721020, R7S721020_DualSPI, R7S721021, R7S721021_DualSPI, R7S721030, R7S721030_DualSPI, R7S721031, R7S721031_DualSPI, R7S721034, R7S721034_DualSPI
	T1	R7S910001, R7S910002, R7S910006, R7S910007, R7S910011, R7S910013, R7S910015, R7S910015_M3, R7S910016, R7S910016_M3, R7S910017, R7S910017_M3, R7S910018, R7S910018_M3, R7S910025, R7S910026, R7S910027, R7S910028, R7S910035, R7S910036, R7S910101, R7S910102, R7S910106, R7S910107, R7S910111, R7S910113, R7S910115, R7S910115_M3, R7S910116, R7S910116_M3, R7S910117, R7S910117_M3, R7S910118, R7S910118_M3, R7S910125, R7S910126, R7S910127, R7S910128, R7S910135, R7S910136
SH		CUSTOM_DEVICE_1, SH-2A_C_1C3A_3, SH-2A_C_1C3A_4, SH-2A_C_1C3A_5, SH-2A_C_1C3A_6, SH-2A_C_1C3A_F, SH-2_CUSTOM_MCU, SH2A_CUSTOM_MCU1, SH2A_CUSTOM_SOC_1, SH2A_CUSTOM_SOC_2, SH2A_CUSTOM_SOC_3, SH2A_CUSTOM_SOC_4, SH2A_CUSTOM_SOC_5, SH70835A, SH70835R, SH70845A, SH70845R, SH70855A, SH70855R, SH70865R, SH71243, SH71253, SH71464R, SH71494A, SH71494R, SH7214, SH72145AD, SH72145BD, SH72146AD, SH72146BD, SH72147AD, SH72147BD, SH7215, SH72165BD, SH72166AD, SH72166BD, SH72167AD, SH72167AD_Option, SH72167BD, SH72265, SH72266, SH72267, SH72275, SH72276, SH72277, SH72314L, SH72315A, SH72315L, SH72374A, SH72374B, SH72375B, SH72394A, SH72395A, SH72395B, SH72531, SH72531FCC, SH72531RFCC, SH72533, SH72533FCC, SH72543R, SH72544R, SH72546R, SH72612, SH7261_FPULess, SH72621, SH72622, SH72623, SH72624, SH72625, SH72626, SH72627, SH72631, SH72632, SH72633, SH72641, SH72642, SH72643, SH72644, SH72645, SH72646, SH72647, SH72660, SH72661, SH72662, SH72663, SH72670, SH72671, SH72672, SH72673, SH72680, SH72681, SH72691, SH7606, SH7618A, SH7671, SH7672, SH7673,(Debug Support Only)
	SH2	SH7047F, SH70834A, SH70844A, SH70854A, SH70865A, SH71242, SH71252, SH7144F, SH7145F, SH71464A, SH71491R, SH7615, SH7616, SH7618, SH7619
	SH2A-FPU	SH72394B
	SH2a	SH7201, SH7203, SH72165AD, SH72546RFCC, SH72611, SH72620, SH72630, SH72640, SH72690, SH7670
	SH2a (No FPU)	SH7206, SH7211, SH7243, SH7285, SH7286
Synergy *1	S124	R7FS124773A01CFM, R7FS124772A01CNB, R7FS124773A01CNB, R7FS124763A01CFM, R7FS124762A01CNB,R7FS124763A01CNB, R7FS124773A01CFL, R7FS124772A01CNE, ,R7FS124773A01CNE,

		R7FS124763A01CFL, R7FS124762A01CNE, R7FS124763A01CNE, R7FS124772A01CNF, R7FS124773A01CNF, R7FS124762A01CNF, R7FS124763A01CNF, R7FS124772A01CLM, R7FS124762A01CLM
	S3A7	R7FS3A77C2A01CLK, R7FS3A77C3A01CFB, R7FS3A77C2A01CBJ, R7FS3A77C3A01CFP, R7FS3A77C2A01CLJ, R7FS3A77C3A01CFM, R7FS3A77C2A01CNB, R7FS3A77C3A01CNB
	S7G2	R7FS7G27H2A01CBD, R7FS7G27G2A01CBD, R7FS7G27H2A01CBG, R7FS7G27G2A01CBG, R7FS7G27H2A01CFC, R7FS7G27H3A01CFC, R7FS7G27G2A01CFC,R7FS7G27G3A01CFC, R7FS7G27H2A01CLK, R7FS7G27G2A01CLK, R7FS7G27H3A01CFB, R7FS7G27G3A01CFB

Note: *1: The Synergy Software Package (SSP) can supply additional Synergy device support. Please check the release note for the SSP version you are using for additional device support.

2.2   Code Generator Support

CPU	Family	Devices
	D1A	R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F10CME, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DLD, R5F10DLE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F10TPJ
	F12	R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109GC, R5F109GD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109LE
RL78	F13	R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10ALC, R5F10ALD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10AME, R5F10AMF, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BGC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG
	F14	R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE, R5F10PPF, R5F10PPG, R5F10PPH, R5F10PPJ
	F15	R5F113GK, R5F113GL, R5F113LK, R5F113LL, R5F113MK, R5F113ML, R5F113PG, R5F113PH, R5F113PJ, R5F113PK, R5F113PL, R5F113TG, R5F113TH, R5F113TJ, R5F113TK, R5F113TL
	G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
	G11	R5F1056A, R5F1057A, R5F1058A
	G12	R5F10266, R5F10267, R5F10268, R5F10269, R5F1026A, R5F10277, R5F10278, R5F10279, R5F1027A, R5F102A7, R5F102A8, R5F102A9, R5F102AA, R5F10366, R5F10367, R5F10368, R5F10369, R5F1036A, R5F10377, R5F10378, R5F10379, R5F1037A, R5F103A7, R5F103A8, R5F103A9, R5F103AA

	R5F1006A, R5F1006C, R5F1006D, R5F1006E, R5F1007A, R5F1007C, R5F1007D, R5F1007E, R5F1008A, R5F1008C, R5F1008D, R5F1008E, R5F100AA, R5F100AC, R5F100AD, R5F100AE, R5F100AF, R5F100AG, R5F100BA, R5F100BC, R5F100BD, R5F100BE, R5F100BF, R5F100BG, R5F100CA, R5F100CC, R5F100CD, R5F100CE, R5F100CF, R5F100CG, R5F100EA, R5F100EC, R5F100ED, R5F100EE, R5F100EF, R5F100EG, R5F100EH, R5F100FA, R5F100FC, R5F100FD, R5F100FE, R5F100FF, R5F100FG, R5F100FH, R5F100FJ, R5F100FK, R5F100FL, R5F100GA, R5F100GC, R5F100GD, R5F100GE, R5F100GF, R5F100GG, R5F100GH, R5F100GJ, R5F100GK, R5F100GL, R5F100JC, R5F100JD, R5F100JE, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100JK, R5F100JL, R5F100LC, R5F100LD, R5F100LE, R5F100LF, R5F100LG, R5F100LH, R5F100LJ, R5F100LK, R5F100LL, R5F100MF, R5F100MG, R5F100MH, R5F100MJ, R5F100MK, R5F100ML, R5F100PF, R5F100PG, R5F100PH, R5F100PJ, R5F100PK, R5F100PL, R5F100SH, R5F100SJ, R5F100SK, R5F100SL, R5F1016A, R5F1016C, R5F1016D, R5F1016E, R5F1017A, R5F1017C, R5F1017D, R5F1017E, R5F1018A, R5F1018C, R5F1018D, R5F1018E, R5F101AA, R5F101AC, R5F101AD, R5F101AE, R5F101AF, R5F101AG, R5F101BA, R5F101BC, R5F101BD, R5F101BE, R5F101BF, R5F101BG, R5F101CA, R5F101CC, R5F101CD, R5F101CE, R5F101CF, R5F101CG, R5F101EA, R5F101EC, R5F101ED, R5F101EE, R5F101EF, R5F101EG, R5F101EH, R5F101FA, R5F101FC, R5F101FD, R5F101FE, R5F101FF, R5F101FG, R5F101FH, R5F101FJ, R5F101FK, R5F101FL, R5F101GA, R5F101GC, R5F101GD, R5F101GE, R5F101GF, R5F101GG, R5F101GH, R5F101GJ, R5F101GK, R5F101GL, R5F101JC, R5F101JD, R5F101JE, R5F101JF, R5F101JG, R5F101JH, R5F101JJ, R5F101JK, R5F101JL, R5F101LC, R5F101LD, R5F101LE, R5F101LF, R5F101LG, R5F101LH, R5F101LJ, R5F101LK, R5F101LL, R5F101MF, R5F101MG, R5F101MH, R5F101MJ, R5F101MK, R5F101ML, R5F101PF, R5F101PG, R5F101PH, R5F101PJ, R5F101PK, R5F101PL, R5F101SH, R5F101SJ,
G13	R5F101SK, R5F101SL
	R5F104AA, R5F104AC, R5F104AD, R5F104AE, R5F104AF, R5F104AG, R5F104BA, R5F104BC, R5F104BD, R5F104BE, R5F104BF, R5F104BG, R5F104CA, R5F104CC, R5F104CD, R5F104CE, R5F104CF, R5F104CG, R5F104EA, R5F104EC, R5F104ED, R5F104EE, R5F104EF, R5F104EG, R5F104EH, R5F104FA, R5F104FC, R5F104FD, R5F104FE, R5F104FF, R5F104FG, R5F104FH, R5F104FJ, R5F104GA, R5F104GC, R5F104GD, R5F104GE, R5F104GF, R5F104GG, R5F104GH, R5F104GJ, R5F104GK, R5F104GL, R5F104JC, R5F104JD, R5F104JE, R5F104JF, R5F104JG, R5F104JH, R5F104JJ, R5F104LC, R5F104LD, R5F104LE, R5F104LF, R5F104LG, R5F104LH, R5F104LJ, R5F104LK, R5F104LL, R5F104MF, R5F104MG, R5F104MH, R5F104MJ, R5F104MK, R5F104ML, R5F104PF,
G14	R5F104PG, R5F104PH, R5F104PJ, R5F104PK, R5F104PL
	R5F10E8A, R5F10E8C, R5F10E8D, R5F10E8E, R5F10EBA, R5F10EBC, R5F10EBD, R5F10EBE, R5F10EGA, R5F10EGC, R5F10EGD, R5F10EGE,
G1A	R5F10ELC, R5F10ELD, R5F10ELE
G1C	R5F10JBC, R5F10JGC, R5F10KBC, R5F10KGC
G1D	R5F11AGG, R5F11AGH, R5F11AGJ
G1E	R5F10FLC, R5F10FLD, R5F10FLE, R5F10FMC, R5F10FMD, R5F10FME
	R5F11B7C, R5F11B7E, R5F11BBC, R5F11BBE, R5F11BCC, R5F11BCE,
G1F	R5F11BGC, R5F11BGE, R5F11BLC, R5F11BLE

RENESAS

	G1G	R5F11EA8, R5F11EAA, R5F11EB8, R5F11EBA, R5F11EF8, R5F11EFA
	G1H	R5F11FLJ, R5F11FLK, R5F11FLL
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	I1C	R5F10NLE, R5F10NLG, R5F10NME, R5F10NMG, R5F10NMJ, R5F10NPJ
	I1D	R5F11768, R5F1176A, R5F11778, R5F1177A, R5F117A8, R5F117AA, R5F117AC, R5F117BA, R5F117BC, R5F117GA, R5F117GC
	I1E	R5F11CBC, R5F11CCC
	L12	R5F10RB8, R5F10RBA, R5F10RBC, R5F10RF8, R5F10RFA, R5F10RFC, R5F10RG8, R5F10RGA, R5F10RGC, R5F10RJ8, R5F10RJA, R5F10RJC, R5F10RLA, R5F10RLC
	L13	R5F10WLA, R5F10WLC, R5F10WLD, R5F10WLE, R5F10WLF, R5F10WLG, R5F10WMA, R5F10WMC, R5F10WMD, R5F10WME, R5F10WMF, R5F10WMG
	L1A	R5F11MMD, R5F11MME, R5F11MMF, R5F11MPE, R5F11MPF, R5F11MPG
	L1C	R5F110ME, R5F110MF, R5F110MG, R5F110MH, R5F110MJ, R5F110PE, R5F110PF, R5F110PG, R5F110PH, R5F110PJ, R5F111ME, R5F111MF, R5F111MG, R5F111MH, R5F111MJ, R5F111PE, R5F111PF, R5F111PG, R5F111PH, R5F111PJ
RX	110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
	113	R5F51135, R5F51136, R5F51137, R5F51138
	130	R5F51303, R5F51305
	230	R5F52305, R5F52306
	231	R5F52315, R5F52316, R5F52317, R5F52318
	23T	R5F523T3, R5F523T5
	24T	R5F524T8, R5F524TA
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	651	R5F56514, R5F56517, R5F56519
	65N	R5F565N4, R5F565N7, R5F565N9
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
RZ	T1	R7S910001, R7S910002, R7S910006, R7S910007, R7S910011, R7S910013, R7S910015, R7S910016, R7S910017, R7S910018, R7S910025, R7S910026, R7S910027, R7S910028, R7S910035, R7S910036, R7S910101, R7S910102, R7S910106, R7S910107, R7S910111, R7S910113, R7S910115, R7S910116, R7S910117, R7S910118, R7S910125, R7S910126, R7S910127, R7S910128, R7S910135, R7S910136

3.   Smart Manual Support

Smart manual support is delivered independently of e² studio releases when available. The following devices are available as of the 6th of October, 2016.

- RX62G
- RX62T
- RX63N
- RX63T
- RX64M
- RX71M
- RX110
- RX111
- RX113
- RX210
- RX220
- RX631
- RX651

4. What is new in 5.3.0?

Component	Device	Description
Renesas Build plugins	RL78 and RX	Support added for the latest CCRX and CCRL compilers. * CC-RX V2.06.00 -misra2012: Add rule numbers CC-RL V1.04.00 -misra2012: Add rule numbers -msg_lang
Misra C Plugin	RX, RL78	A new plugin named Misra-C plug-in has been developed to check and display MISRA-C messages in the problem view when you open or save a source file. This plug-in supports the following features: Display the explanation of rule in problem view: When you open a source file. When you save a source file. Applies the rules for Misra-C plug-in when:: You set settings in compiler page You set settings in the advanced option tab Import pattern of rule number Output the result document Customize the format of document Supported compiler: CC-RX V2.06.00 CC-RL V1.04.00
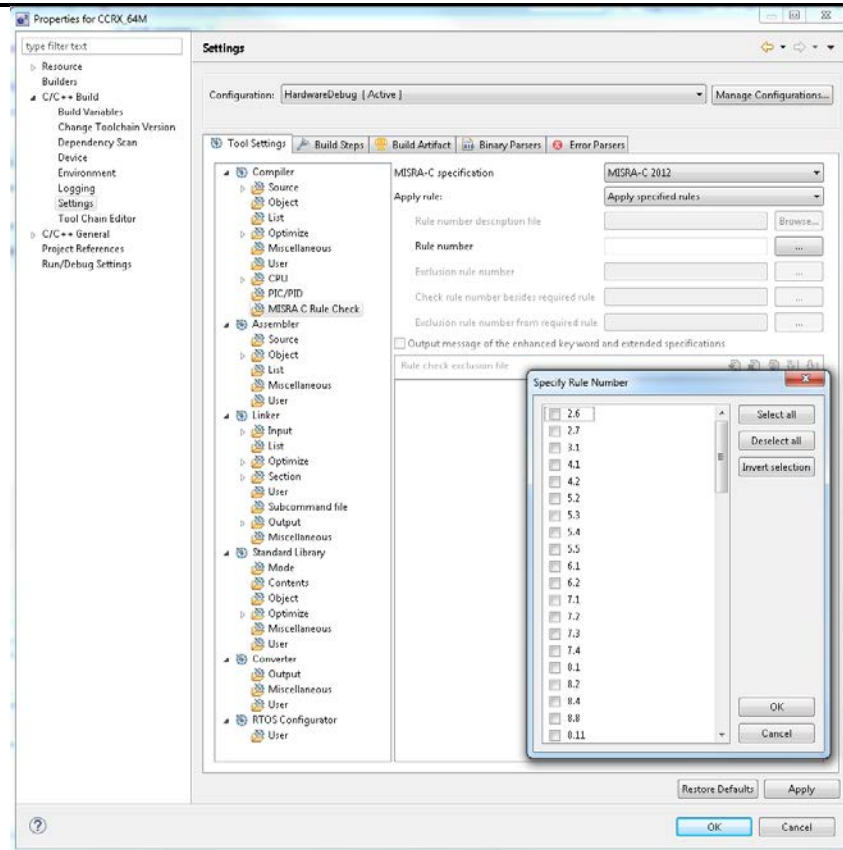
Project Generator	RX	The FIT Module Download feature available in the project generator has been enhanced to make it easier to find the RX driver packages.
		The "Show RX Driver Package only" option will now be checked by default, allowing you easily to view and download FIT modules for RX devices.
		This will enable users to easily see the core RX driver modules more easily.
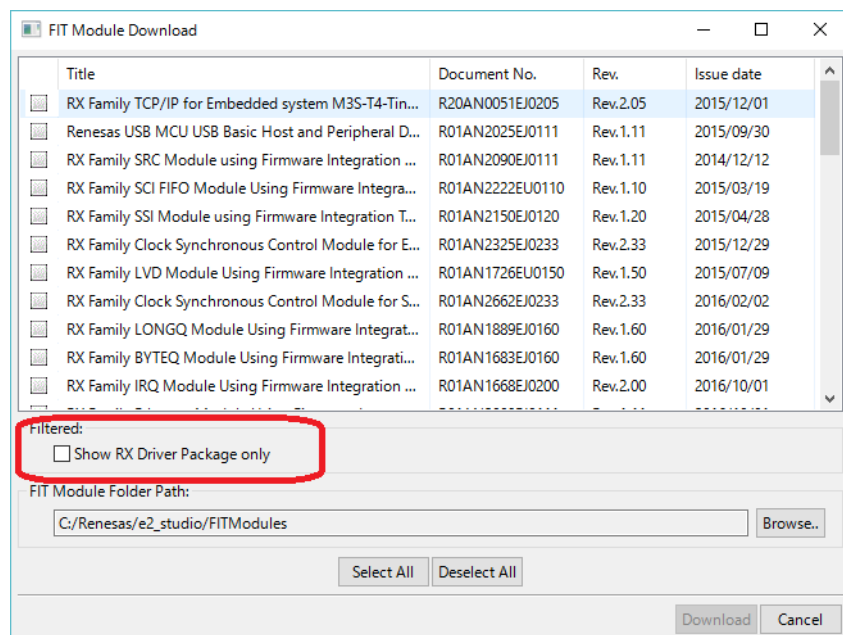
CS+ importer	RL78	A check box has been added to the Import of the CA78K0R projects of CS+ for automatic generation of project startup files. This will make the porting activity for CA78K0R more user friendly.

Synergy Debugger	Synergy	Enable debugging of Synergy devices (e.g. S3A7) in low-power mode. An additional option "Low Power Handling" has been added to the debug configuration "Connection Settings" tab. Select this option to enable low-power mode debugging. When used in this mode, the debugger will not be able to execute a breakpoint. Please note, the "Low Power Handling" mode is not selected by default and the debugger will cancel any low-power mode settings set by the program.
RL78 Simulator	RL78	The RL78 simulator will support RL78/G12 peripheral functions. When the user selects a RL78/G12 device and is debugging with the simulator the simulator GUI window will be open and peripheral functions can be simulated.
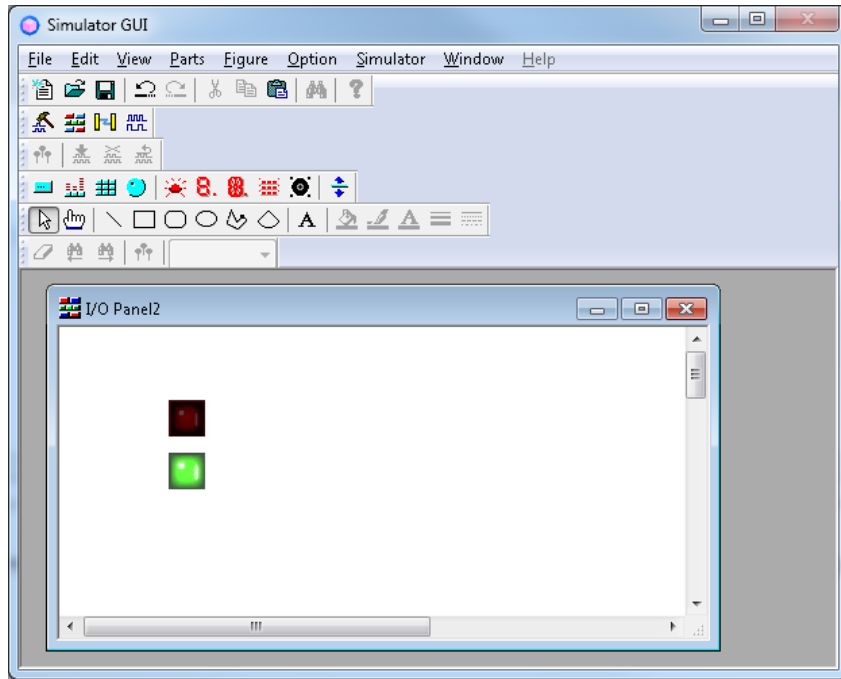
Current Consumption	RL78	RL78/G10 peripheral simulator will support current consumption function.
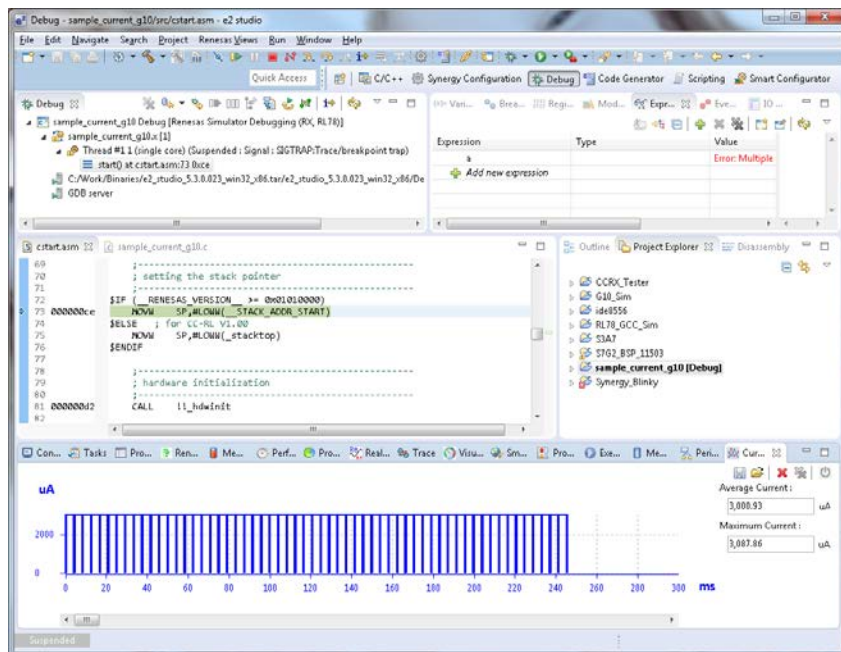
J-link Support RX	RX	The following additional processors can be debugged via J-Link: RX130 RX230/RX231/RX23T/RX24T RX71M

Renesas Synergy	Synergy	The user interface of the Synergy User Pack exporter has been improved following feedback from customers. Some customers have experienced issues with their custom boards not being displayed.

This was due to the version information staying at the same versions and not changing the variant of the component.

In addition some of the information was hidden in the advanced sub-dialog for editing component properties.

In addition a text field on the initial pack page stating the location and name of the new pack has been added. If there is a clash of names then a warning icon is shown to the user.

The wizard now looks like this:
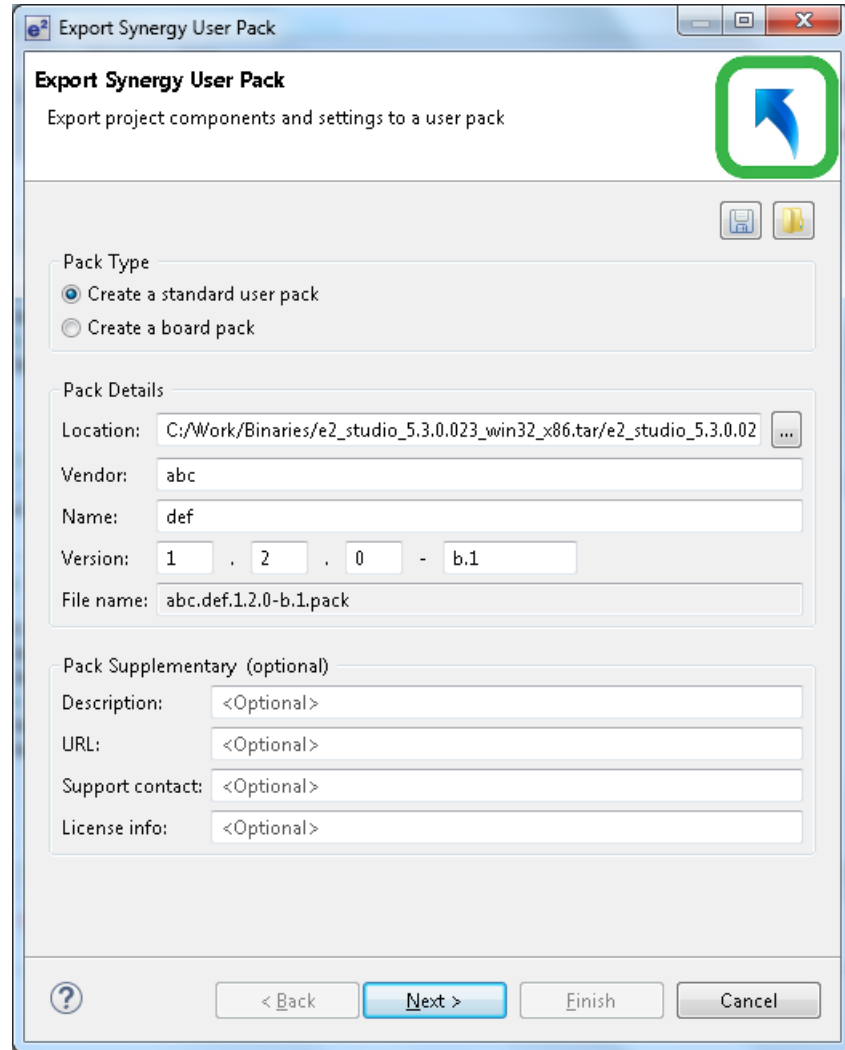
Renesas	Synergy	For easy command line build of Synergy e2 studio now generates a
Synergy		makefile.init file. This allows you to change directory to the build configuration on the command line and type make.

For easy command line build of Synergy e2 studio now generates a makefile.init file. This allows you to change directory to the build configuration on the command line and type make.

This will then launch the makefile and build the project without any further configuration.

In this case the makefile.init file will be created in the directory for each build configuration.

Renesas Synergy	Synergy	It is only possible to generate a C++ Synergy project generator with SSP 1.2 version or greater. If using an older SSP the wizard will not allow you to press finish and inform you the reason why. In addition when using a C++ project type the Synergy wizard will now generate C++ entry source files more suitable for use with C++.
Renesas Synergy	Synergy	A new preference has been added that allows the user to switch off the live web-based display on Summary page. This will also revert the project summary to a simple text view as this uses the same web UI control. The preference is available here:
Renesas Synergy	Synergy	The following e2 studio default build setting changes have been be made for new Synergy projects: GCC: Add Linker Flag: --specs=nano.specs This flag will enable use of reduced size Newlib nano libraries, by enabling this driver specifications in the toolchain it will link with newlib-nano libraries instead of normal libraries. e2 studio is currently using normal library by default. IAR: Remove Optimization: --no_code_motion It has been decided to remove this flag globally from all build settings.
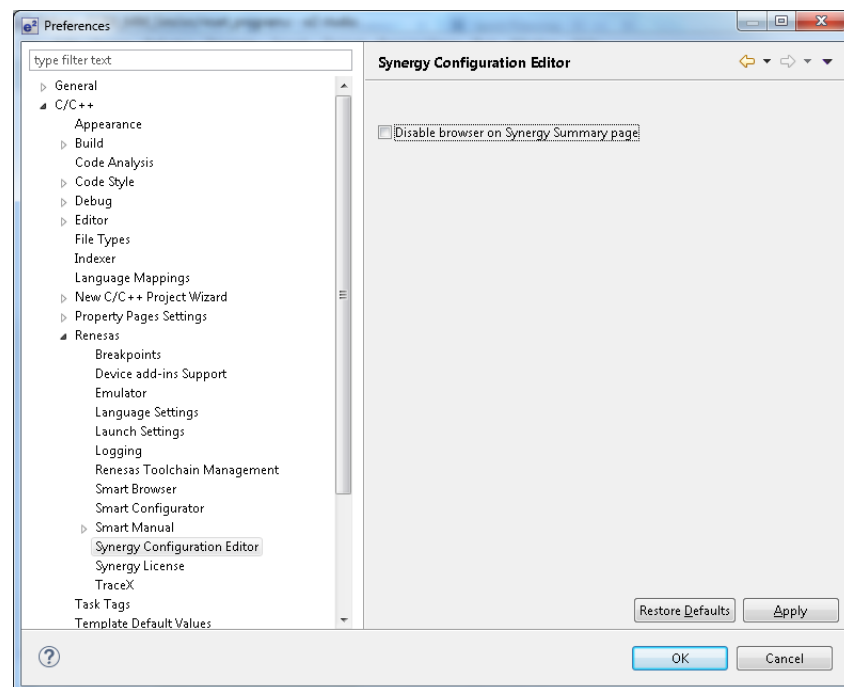
Optimization Assistant	RX, RL78	The optimization assistant plugin has been enhanced to improve the sorting of time measurement results. With the previous behavior the results are displayed in a list. e.g. **Previous behavior:** After the measurement, the results are displayed in a list. The result is sorted by function name (a -> z, 9 -> 0): sub3 67500 sub20 0 sub2 500750 sub19 334167 **New behavior:** After the measurement, the results are displayed in a list. The results are sorted by execution time (largest -> smallest) and then by function name (a -> z, 9 -> 0): sub19 334167 sub3 67500 sub2 50750 sub20 0
Smart Configurator	RX	The smart configurator has been updated to support RX651/N.

5.   Useful workarounds and information for 5.3.0

Please visit the Renesas FAQ for e² studio for the latest up to date information:

https://www.renesas.com/search/keyword-search.html#genre=designsupport&ds_resourcename=faq&toollayer=studio

ID	Component	Workaround or information
	Application	This version of e² studio is based on Eclipse Mars.2 and CDT 8.8. This release note does not describe the Eclipse framework and CDT plugin issues and fixes. You can find the detailed information on the sites below: For information on the Mars release see here: https://projects.eclipse.org/releases/mars CDT: https://wiki.eclipse.org/CDT/User/NewIn88 The Eclipse bug tracker is here: https://bugs.eclipse.org/bugs/
5954	Application	If you experience the error message "org.eclipse.swt.SWTError: No more handles" this can be caused by certain multi-monitor software and the Eclipse framework. If this error occurs there are 2 workarounds: 1. Use a single monitor display. 2. Uninstall the multiple monitor software from your graphics chipset vendor and revert to the standard Windows multi-monitor feature.
6981	RL78 Debugging	When debugging IAR C source file with an OCD emulator (E1), the Monitor program area (0x00002-0x00003) is used. So this area must be excluded from usable address space. Please add '-HFF' in the linker option. - Open Property. - Select [C/C++ build]-[Settings] at left side. - Select 'IAR RL78 Xlink linker' at right side, add '-HFF' at the textbox 'command'. Not doing this will cause problems with connection and download when using interrupts.
NA	Application	If you are experiencing slow building of projects within e² studio there are some possibilities to improve. The system environment will attempt to find the make.exe tool via the system environment. If you ensure the directory make resides in is at the start of the path variable it will find it more quickly. Especially important if there are network drives in the path. In the project properties, C/C++ Build tab, behavior tab you can switch on parallel build. This will take advantage of the multi-cores on your host machine if it has them.
NA	RZ GCC	In 3.0 the KPIT GCC RZ toolchain was supported at version 14.01. This version is no longer supported within e² studio.

		KPIT modified the name of their ARM toolchain to be ARM-none-eabi to follow standard ARM naming convention like other GCC toolchain vendors. The ARM-none toolchain is available at versions 14.01, 14.02 and 16.01 from the www.gcc-renesas.com website. The binaries in the 14.01 version are identical to those used in the 14.01 RZ toolchain. Once the toolchain is installed your projects will be imported and ported to ensure there is as little disruption as possible due to this change.
NA	KPIT GCC	The KPIT toolchains are now no longer supported by the www.kpitgnutools.com website. Support is now available from the www.gcc-renesas.com website. In addition, there are two new releases for the GNU toolchains for RX and RL78. These are now named Renesas GCC for RX and Renesas GCC for RL78. Both integrate into e² studio 5.2 and can be selected from the project wizard as seen in the image below:
2010	HEW Importer	Symptoms: Project fails to build after importing a legacy project 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. Also, ensure that the HEW project is relocated before importing into e² studio.
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.
2762	CODAN	When using assembly code within a C source file, CODAN errors can be observed in the editor. Even though the project builds successfully. We do not have a workaround for this at this time. On occasion you may also see CODAN errors for C source files. This is normally a case of the indexer needing to be refreshed.
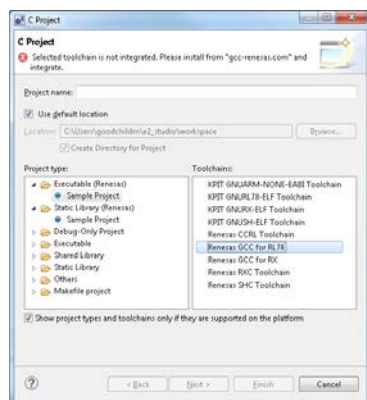
		Right click on the project, select Index->Freshen all files. Then right click again select Index-Rebuild. This should solve unexpected CODAN errors in C source files.
2728	GDB	Step into does not always work when using the CC-RX 1.02.01 toolchain. To ensure this behaves correctly you will need to use CC-RX 2.00.00 or greater as this issue with the debug information is corrected in this release.
NA	Eventpoints	If eventpoints do not always work just after they are set, you can use the "Apply to Target" toolbar button in the Eventpoint view to send the Eventpoints to the target manually. This will always ensure the debugger target has all the required eventpoint updates before execution starts.
5772	IAR Plugins	The IAR Plugin Manager is now included in e² studio. This provides support for RX, RL78, RH850 and RZ (ARM). This is a tool, which simplifies installation and configuration of IAR toolchain plugins. You can access this though Help -> IAR Embedded Workbench plugin manager.
5903	Code Generator	For the following RL78 code generator project, "Peripheral Functions" view tabs may not be operated with double-clicking "Peripheral Functions" branch of Project Explorer view. After creating/loading the project, please show "Code Preview" view by double-clicking of "Code preview" branch at Project Explorer tree at first. Then, please access Code Generator setting tabs by double-clicking Project Explorer tree or using pull-down menu by pressing triangle button at the up-right corner of Peripheral Functions view. RL78/G12, RL78/G13, RL78/G14, RL78/G1A, RL78/I1A, RL78/F13, RL78/F14, RL78/F12, RL78/L12
6184	RL78/CC-RL debugging	When the load module for RL78/G10 which created at CC-RL is debugged in E1, please specify the following option: [Linker] -> [Device] -> "Set enable/disable on-chip debug by link option
5995	CC-RX to GNU RX Converter	When converting from CC-RX to GCC projects some comments like //* comment */ are left intact which will result in an error if standard is set to C89. Changing the standard to C99 or above will fix this problem.
7217	Application	The restore default settings does not restore all of the options set during project generation. Instead, it sets the defaults to the base settings for the device family in use.
7524	RZ/T1 Debugging	In a RZ/T1 RAM-based project, the "Reload" function does not work. Reloading or re-downloading during debugging resets the device and the RAM content is erased. To continue the debugging, disconnect and connect the debugger again.
	Use spaces as tabs	Eclipse and CDT both have settings for use spaces as tabs. The option on the Editor preferences page conflicts with the CDT formatter settings. To change the use spaces as tabs option in e² studio please use this page:
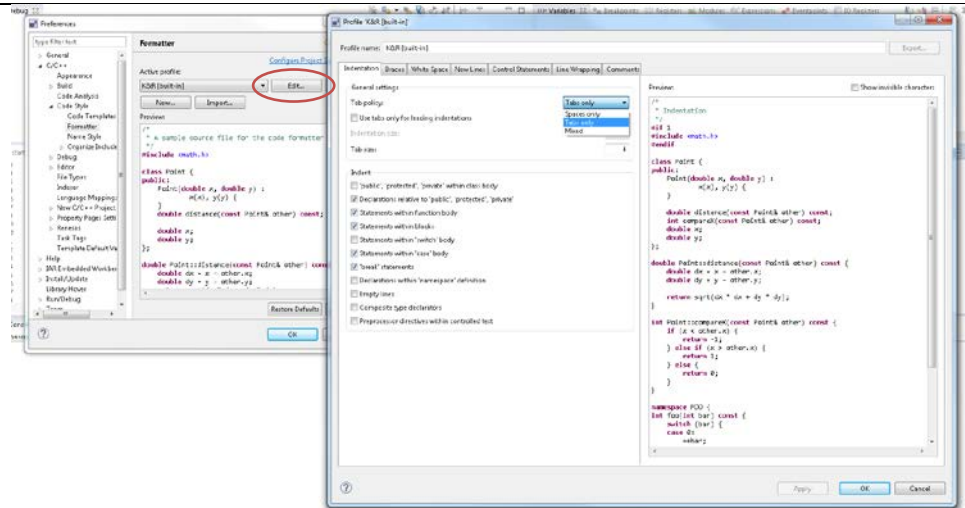
Installer problems	In some situations, the AVG virus checker appears to interfere with the e² studio installation process. If you experience such a problem, please temporarily disable the AVG tool and try the installation again.	
Antivirus	In some situations the Norton anti-virus tool can interfere with the building of Renesas Synergy projects. If possible please disable the antivirus program when building Renesas Synergy projects on systems with Norton Antivirus installed.	

6.   Open Issues in 5.3.0

Key	Component/S	Release Note
IDE-11662	Renesas Synergy	PC sampling data may not appear if the sampling rate is set too high. Drop the sampling rate to a slower speed if this is the case.
IDE-11656	RL78 GCC build plugin	When downgrading a project created by GNURL78 v15.02 -> v14.03 the subsequent build may fail The workaround for this is to use "change toolchain version" if a downgrade is required.
IDE-11651	Renesas Synergy	When using the headless build functionality with Synergy the build will not execute unless the license file for the SSP is defined correctly. This is the current specification for headless build.
IDE-11649	Partner OS plugin	On some occasions, the Partner OS view for ThreadX and Synergy does not display any data or just *********. If this happens you can disable the "RTOS Integration in Debug View" which is an option available in the Debug Configuration for Synergy on the "Debut Tool Settings" tab. This should then allow the Partner OS view to operate correctly.
IDE-11641	Renesas Synergy	When using SSP 1.2 you can experience CODAN syntax error failures. The reason is that some header files necessary for the SSP BSP component are not generated at project generation time. When these files are generated either via "Generate Project Content" or via the Synergy build the CODAN errors should be removed.
IDE-11571	GDB server RL78, Performance Analysis	When debugging RL78/SDMA1 device with E1 emulator, the result of Run-Break Timer is not indicated after program is stopped by software breakpoint. In the case of hardware breakpoint, the result is indicated once every two times.
IDE-11524	IO view plugin	In the case of Bit SFR length is more than 5 bit, specified value is not written to Bit SFR correctly. In this case, please write the value by using parent SFR.
IDE-11513	Eclipse Platform	In some situations the Norton anti-virus tool can interfere with the building of Renesas Synergy projects. If possible please disable the antivirus program when building Renesas Synergy projects on systems with Norton Antivirus installed.
IDE-11498	CCRX Build plugin	[Issue] When the endian option is altered with selected "All configurations", the endian option of only active configuration for the assembler was updated. [Workaround]

Please alter the endian option with each configuration if you want to change the endian option of all configuration.

IDE-11484	CodeGenerator plugin, FIT Configurator	When r_bsp_config.h file is loaded, an error icon is displayed in the code generator. You can remove the error icon by switching tabs. However, please don't set HOCO to system clock source and PLL clock source.
IDE-11474	MISRA-C plugin	Misra-C rule does not check Misra-C rule when user uses "Replace with" function in Pop up menu. Note: This issue doesn't occur when user uses "Replace with" function with closed file. Workaround: After used "Replace with" function, user should re-open the source file for checking Misra-C rule again.
IDE-11473	MISRA-C plugin	Existing violation in Problem view cannot change language when e2 Studio changes language.
IDE-11472	MISRA-C plugin	Violations list still display when user changes language of source file from C89 to C99.
IDE-11471	MISRA-C plugin	Existing violations in Problems view cannot be removed when user changes toolchain version (Change from support toolchain to nonsupport toolchain).
IDE-11468	MISRA-C plugin	Misra-C properties page cannot update when user changes version of toolchain. Workaround: After change tool chain version and user should press OK to close the dialog, when Misra-C page open again, it can show correct information with new toolchain version of plugin.
IDE-11416	CodeGenerator plugin, IAR plugins	Code Generator doesn't support IAR Toolchain project.
IDE-11383	Visual Expressions plugin	Visual Expressions data is saved to the workspace not the project. It is treated like user level data such as window positions or breakpoint setup. This means it is not exported with the project.
IDE-11045	CodeGenerator plugin	For RL78/G1F, AVREFP and AVREFM should be disabled if ADC were used for VDD/VSS reference voltages.
IDE-11011	Renesas Synergy	When using high-definition 4K displays the e2 studio can have issues on some dialogs. In particular when using the Synergy project wizard the user cannot see the link to change the license file. To avoid this issue please use a lower resolution to setup this area initially or you may be able to tab to the hidden control.
IDE-10677	GDB Server RZ	When program is downloaded, debugger does not start from reset vector.

		It should start from the suitable address for each boot mode. But it does not start correct address when SD or eMMC boot mode.
IDE-10569	Renesas Synergy	When a project is set to generate an assembly listing and a selected .c file is built using "Build File", a listing file $@.lst is generated in the Debug folder. This is unexpected. The expected output is a listing file in ~/Debug/src-path/filename.o.lst NOTE: On a general 'Build Project' command everything works as expected.
IDE-10423	RL78 Debugger	Erase flash on start-up 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 every time target is connected.
IDE-10409	Renesas Synergy	After a reset operation the CoreSight ITM trace is not setup again and ITM trace data is not displayed by e2 studio. To work around this please disable and then re-enable the Coresight ITM Live Trace Console view.
IDE-10348	RZ Debugger	On RZ devices the trace output will only work for code that executes from where it is downloaded. Code that is copied from Flash to RAM before being executed will show as having no records (for those sections that have been copied).
IDE-10160	CCRL Build plugin, Project Generation	When debugging using the device R5F10Y16 either with the standard project or the code generated project they can be problems debugging. To avoid this please ensure you select the On-Chip debug and RRM/DMM functions in the project generator. They are not on by default when entering or building for a debug session.
IDE-10147	Renesas Synergy	When using the Synergy configurator if the device is changed on the BSP tab the build options are now modified. However if the configuration is not saved the project options will still reflect the change made on the BSP tab if the core type was changed. E.g. from a Cortex M4 (S3A7, S7G2) to a S124 or S128.
IDE-10126	FIT Configurator	In the pin configuration view for RX210 69/64/48pin packages displayed when r_rspi_smstr_rx FIT module with pin configuration information is imported, PA5 can be selected for RSPCKA, but PA5 is not available for RX210 69/64/48pin packages. Please do not select PA5 for RSPCKA.
IDE-10120	FIT Configurator	In the pin Configuration view for RX210 145/144pin package displayed when r_sci_rx FIT module with pin configuration information is imported, P70 cannot be selected for SCK4.

IDE-10111	FIT Configurator	If r_s12ad_rx FIT module with pin configuration information is imported, FIT Configurator shows A000 in pin configuration view for 38 and 40 pin package of RX110/RX111. A000 pin is not supported by these device packages. Please do not enable A000 pin for these device packages.
DE-10108		When hitting Disconnect on a running debug session (with breakpoints in use) the debugger will error and fail to disconnect Workaround: Only click Disconnect when the session is paused (the Disconnect operation will return the device to the running state automatically)
IDE-10061	Eclipse Platform	The e2 studio installer can fail when installing to machines where the user name has spaces included in the name. If you can login with another user name such as "Administrator" then this problem can be avoided.
IDE-10019	Renesas Synergy	When using the Launchpad GNU ARM plugins pressing reset defaults does not change the defaults back to those used when the project was created. Instead it reverts to the default options for this set of build plugins.
IDE-9972	Eclipse Platform	In rare cases e2 studio may fail to launch after updating, either using the installer or though the online update mechanism, instead displaying a dialog "An error has occurred". If this happens e2 studio needs to be re-installed.
IDE-9873	Smart Manual plugin	"Show in Smart Manual view" button does not work correctly when the active project does not contain file which showing on editor.
IDE-9696	Profile plugin	The execution count/execution time of some functions is increased when Profile is enabled and the user program is reset.
IDE-9685	Performance Analysis	When "Pin to Debug Context" is selected, Performance Analysis view, Profile view, Trace view, Coverage view could be displayed incorrectly sometimes.
IDE-9612	Renesas Synergy	On Synergy devices, repeated setting of Trace Start and Stop eventpoints can lead to a situation where the eventpoints fail to set. Workaround: Disconnect and reconnect.
IDE-9554	Expressions view	For RL78/G10 devices there can be issues where global variables and local variables are showing incorrect data. This is due to some problems with the linker sections. GCC uses 24 bytes of memory (0xFFEC8 to 0xFFEE0) as pseudo registers. In the attached project the stack begins at FFED8 (0xFFEC8 < FFED8 < 0xFFEE0) and grows down overlapping with this area of memory.
IDE-9533	RL78 Debugger	When the failsafe break is configured to "Stop on read from uninitialized RAM" on the RL78 IECUBE the break occurs but the cause is not clear.

IDE-9507	Application	Setting a breakpoint to a function which is referenced from an expression in the expression view causes the debugger to hang when execution is resumed. When this happens e2 studio must be restarted to resume normal operation. Steps: Add a function "test(int)" Set a breakpoint in it Add an expression "test(5)" Resume
IDE-9494	Application	Users may misunderstand the data order in the memory view due to the address column heading. The "Address" caption of Memory view is always the like "0 - 3", "4 - 7" regardless of the endian which is selected..
IDE-9393	Synergy Debugger	On Synergy devices the default "Core Clock" value for SWV usage should be set to the same as the system clock (in Mhz). For S7 devices (where the trace clock is halved) this should be set at half the system clock.
IDE-9338	Event points plugin	The event count on Eventpoint View shows the total event count including hardware break points which are set on source view as line break points. Events which can be set in Eventpoint view may be less than displayed.
IDE-9309	Application	Problem (condition): The editor view might not show an address for .src file if two or more sections are defined in a .src file and other section defined in other file is located between these sections. Disassembly View (Mix mode) does not show source line in this case. Following cases cause problem. Case (1) file1.src : SECTION_A, SECTION_B file2.src : SECTION_C Section linkage order : SECTION_A, SECTION_C, SECTION_B (SECTION_B is not next of SECTION_A.) Case (2) file1.src : SECTION_A, SECTION_B file2.src : SECTION_A Section linkage order : SECTION_A(file1.src), SECTION_A(file2.src), SECTION_B (SECTION_B is not next of SECTION_A(file1.src)) Workaround: Separate .src file for each section that are located at not next address. Case (1) file1_1.src : SECTION_A file1_2.src : SECTION_B file2.src : SECTION_C Case (2) file1_1.src : SECTION_A

file1_2.src : SECTION_B
file2.src : SECTION_A

IDE-9101	Application	If GDB is unable to set a breakpoint during the launch then the whole launch will be aborted. Removing the breakpoint(s) will allow the launch to complete successfully.
IDE-9090	GDB	When the same symbol files are downloaded on to 2 different processes and the User sets a source breakpoint, GDB will set the breakpoint on both processes. This will cause the system to appear to have only half the number of breakpoints.
IDE-9057	Renesas Synergy	Trace find and filter functionality is currently not supported for ARM-based devices
IDE-9045	Application	Project based variables in the debug configuration are not evaluated correctly at launch and the launch then fails. This is caused by the project based variables being evaluated on the context of the active project not the specified project in the debug configuration. Using variables with a workspace context work correctly.
IDE-9032	Application	Rename and Import existing C/C++ project does not have the same restrictions as new project wizard.
IDE-8980		When using the eclipsec.exe tool and running headless builds it is possible to see an error created as seen below: A message box is displayed that states "An error has occurred. See the log file <name>.log" This is due to the eclipsec.exe not picking up the correct Java version. To work around this issue please copy eclipse.ini to eclipsec.ini and execute the headless build again.
IDE-8875	Memory View plugin	e2 studio can crash when the memory view Find/Replace/Fill feature has a start address larger than the end address.
IDE-8726	Renesas Synergy	When using a placeholder in the Synergy license dialog it throws an exception. Please use a full path to the file.
IDE-8725	GDB	If the software break points are used even if they are not allowed, GDB will fail to debug. For example, setting software breakpoints in trusted memory area for RXv2 core, or in CS0 area for Internal ROM disabled extended mode will cause this. Please use hardware breakpoints in this case.
IDE-8711	Application, Event points plugin	When the timer start/stop events are set in Editor view of RX, the message to notify the limit number may not be displayed.
IDE-8651	Application	If during the update process you see a message similar to: "Backup of file c:\renesas\e2studio\eclipse\e2studio.exe failed. File that was copied to backup could not be deleted: c:\renesas\e2studio\eclipse\e2studio.exe"

		Then this can be avoided by renaming the e2studio.exe executable after the check for updates process has started.
IDE-8627		On some systems you may encounter an error when launching the system explorer from the Project Explorer context menu. If using this causes e2 studio to freeze or context menus to stop displaying you should terminate the e2 studio process.
IDE-8596	RL78 Debugger	In some cases a CC-RL project does not step over and step return correctly when using the RL78 Simulator.
IDE-8592	GDB	After connection with hotplug for RL78, 'step return' and 'step over' execution may not work. Please use a hardware break and resume command.
IDE-8579	GDB server RX	In Profile view, execution time for each function is calculated for the function which is returned out. If the execution stopped at the middle of the function, execution time of the function may not be added.
IDE-8555	Renesas Synergy, Project Generation	When using Turkish Windows with Synergy you may experience problems creating a project. Please use English language settings for your host OS and re-try if you experience this.
IDE-8503	GDB server RL78	The devices with a SmartAnalog(e.g.RL78/I1E) will not be able to memory read during execution.
IDE-8461	Renesas Synergy	On Synergy S3-based devices the trace can sometimes fail with 0 records.
IDE-8450	Application	When minimizing a view such as Expressions, Registers or IO Registers and the restoring the view it can appear blank. If this happens repeat the operation and the view contents will be visible again.
IDE-8438	Debug Configuration	If more than 16 non-adjacent items are selected from the "Internal Flash Memory Overwrite" dialog, only the first items will be valid. Others will be discarded.
IDE-8415	GDB server RX	Selecting more than 16 non-adjacent items from the "Internal Flash Memory Overwrite" dialog will cause the connection to an RX device to fail.
IDE-8304	RX GCC build plugin	When mixing .s and .S files in the same project a build error occurs.
IDE-8303	Profile plugin	An internal error for "Acquiring Profile Result" may be shown when the program stops/starts
IDE-8302	GDB server	Semi-hosting file access may fail after console output though stdout via Semi-hosting printf. ///----------------example of code------------------ printf("Hello\n); /* file IO may fail with this line */ pFile=fopen("c:\\alphabet.txt","wt");

```
for (c = 'A' ; c <= 'Z' ; c++)
{
  putc (c , pFile);
}
fclose (pFile);
```

IDE-8165	TargetInformationTool	For the devices: DR7F0C8066 DR7F0C8076 DR7F0C8086 DR7F0C8096 The stack size should be 0x64 but is in fact 0x32. You can modify this in the linker sections after the project is created.
IDE-8099	Application	When using Ubuntu using Unity there is an issue which causes e2 studio to crash. When hovering over the breakpoint types the e2 studio application crashes. Caused by Ubuntu/Eclipse issue, see Eclipse Bug 419729. Workaround is given but cannot be added to product automatically.
IDE-7619	CCRX Build plugin	Problem: When the [C/C++ General] > [Paths and Symbols] > [References] is specified, build warning occurs. And, .x file is not created at the time of using Renesas Toolchain. Workarounds: When you'd like to use the project dependency, please specify a child project in [Project Reference].
IDE-7524	GDB Server RZ	For RAM based RZ-T1 projects a redownload of code will trigger a reset that erases the RAM making further debugger operation impossible. The workaround is to instead disconnect and then reconnect.
IDE-7508	Application	Problem: An error occurs by project operation when a non-ASCII character was used for the file name or the folder name. Workarounds: Please don't use non-ASCII characters for the file name or the folder name.
IDE-7498	Application	Multi-byte characters can cause a compilation failure when used as a build configuration name in e2 studio. Therefore, multi-byte characters should NOT be applied to debug/build configuration names. Note: This issue affect both for configuration management dialog and the configuration creation dialog of Optimization Assistant.
IDE-7423	CDT	In some cases the disassembly view does not refresh correctly on suspend. When this problem happens the refresh

		operation does not fix the problem. To restore the functionality close and re-open the view.
IDE-7419	Application	In older versions of e2 studio the RL78 debugger would protect OCD memory areas for the E1 emulator. However in some cases this would cause issues. This is no longer done and GCC projects will work well. If you are using IAR projects this may cause some problems for your debugging. A new GDB monitor command has been added to protect/overwrite memory. This will allow the same behavior as e2 studio 3.x. e.g. monitor protect_memory, fef00, 100, ff Any attempt to write to address 0xfef00 to 0xfefff will cause 0xff to be written instead. A warning message will be shown in the GDB server console window. This can be added to the initialization commands within the debug configuration for the RL78 E1 emulator.
IDE-7412	GDB server RL78	When using RL78 the HL register value cannot be modified in some circumstances. This will only occur when bank 0 is not selected. Changing HL value only ever causes Bank 0 HL to change. View will always show current bank value. Values not in bank 0 can still be changed by accessing bank registers directly.
IDE-7403	CDT	The setting 'Use a fixed build configuration' in the dialog, Properties->C/C++ General->Indexer is not saved when the user checks it. This can be caused by visiting the properties, modifying the indexer setting and then visiting settings. If you do not visit settings the option is stored correctly.
IDE-7333	Real-time Watch	When using the RX Simulator with real-time expressions if you use 1ms real-time interval the expression view goes blank. On suspend, e2 studio appears to hang while messages are processed. Reverting the interval to 10ms works well.
IDE-7298	Application	When font size is changed as magnified, some user interface controls are hidden. The only workaround for this issue is to apply smaller system font size.
IDE-7277	IAR plugins	In some cases the IAR project importer does not perfectly import all set build options. One example is the -HFF command line option that can be specified in the command line options text box for the linker.

IDE-6859	CDT	In some cases after reload symbols are not being updated correctly. Appears to be related to caching with CDT. GDB symbol information is correctly updated, and expressions which directly access fields in structures updated correctly, but overall structures are not correct.
IDE-6852	Project Generation	"C++ project" generation accepts "CC-RL" toolchain. However, "CC-RL" toolchain does not support C++ expressions. Therefore, a generated project with the combination of "C++ project" and "CC-RL" toolchain works as a C project.
IDE-6701	GDB server RX	For RX devices, when 'step' command is invoked for WAIT instruction, GDB might report an error. Please use 'resume' command for WAIT instruction as workaround.
IDE-6657	Coverage plugin	If the workspace is copied or moved from the original folder, coverage information may not be displayed. To solve this issue, please re-build the program in the new workspace.
IDE-6616	Event points plugin	When adding a new Data Access eventpoint, the Compare value (on the Data Access Settings tab) is always converted to hex and subsequently displayed in hex even if the value entered does not include an 0x prefix.
IDE-6605	Event points plugin	The enable state of eventpoints for any debug configuration is not restored when the debug configuration is launched for the first time after e2 studio is started. In subsequent launches the eventpoints are enabled/disabled appropriately.
IDE-6566	Real-time Watch	In some situations the RH850 multicore realtime expression update does not work.
IDE-6529	CDT	After restart on occasion the disassembly window can be empty. Refreshing the window or stepping works around the problem.
IDE-6493	Debug Configuration	For the debug configuration of RX, 'Operating Frequency [MHz]' is not validated and therefore wrong values can be accepted with no warnings. Please confirm if the appropriate value is configured as operating frequency.
IDE-6463	Memory View plugin	Memory view requires manual refresh to see changes when downloading auxiliary file.
IDE-6408	Debug Configuration	When User boot mode is selected at the setting for Mode pin in CPU Operating Mode, the warning for USB boot program is displayed even if the device does not have USB boot program. Please click 'yes' if the device does not have USB boot program.
IDE-6350	Application	NullPointerException is observed when adding a custom configuration and selecting the same configuration within the 'Multiple Configuration…' selection at the same time. This issue only occurs if user has not applied after creating

		new config: https://bugs.eclipse.org/bugs/show_bug.cgi?id=352047
IDE-5780	GDB Server RH850	The counter of the event points in Eventpoint view will not be counted correctly.
IDE-5770	GDB server RX, IO view plugin	RX targets and IO registers greater than 1 byte. e.g. winA 0x88028 winB 0x8802a View register in both IO view and register view. Value in memory view is reversed. This is because the IO, (like all RX memory for little endian targets is reversed).
IDE-5668	Coverage plugin	In some cases when using the Coverage facility with the RL78 IECUBE some lines are shown as 'branch' or partial coverage when they should be 100% covered.
IDE-5637	Multicore	For RH850 multicore devices, disassembly result may be different from the expected. In this case, please refresh the view after changing the debug context to the other PE.
IDE-5632	Multicore	When using multicore projects the Debug View may show an incorrect name for the second loaded module (as a duplicate of the first)
IDE-5547	GDB Server RH850	To use the data access events as trace start, trace stop or trace record for RH850 with E1 emulator, please do not use the "Compare Settings" condition for the event.
IDE-5171	CCRX Build plugin	As editor behavior, files included in the Pre-include build options look like unrecognized as pre-processor statements. However, those files will be actually included in the build process.
IDE-4982	GDB server RX	When a data access event for RX is set with the data mask value as 0, the comparison will be treated as "Equals" and the data mask value will be treated as 0xFFFFFFFF.
IDE-4876	Debug Configuration, GDB server RX	When debugging with RX, if the settings are in flash write mode, the debugger features are not available. If the ID code is changed or the communication I/F is FINE, reading memory will fail after download finished. Please disconnect from emulator and pull USB cable out in this case.
IDE-4869	Memory View plugin	The "Memory" view always opened on launch of a debug session. It should not be re-opened on launch if it has been closed in the previous debug session.
IDE-4607	GDB server	When sub menu "Add Watchpoint" is performed from a Memory view, it seems to have been registered correctly in the Breakpoints view even if there is an error condition. An error occurs by "Add Watchpoint", when the maximum number of events was exceeded, or when a ROM area is specified.

IDE-4515	CCRX Build plugin	When building projects with CCRX that are in deep directory structures it is possible to experience build issues. e2 studio is unable to build projects which create command lines greater than 8191 characters.
IDE-4492	Application	The Module View of e2 studio does not display any information when an executable which includes debug information was downloaded to the target.
IDE-4438	Application	The e2 studio debugger (GDB) does not deal correctly with this RL78 mnemonic. It uses the wrong instruction code: Mnemonic: DIVWU Instruction code: (Wrong) CEFB04 (Correct) CEFB0B
IDE-4350	CubeSuite+ importer/exporter	When importing a project from CubeSuite+ to e2 studio the "toolchain version is changed" dialog is always displayed. This is because the version string in imported project file and the toolchain information in e2 studio does not match. Ignoring this dialog and continuing should result in a successful import.
IDE-4189	Project Generation	It is not possible to build project which has more than 98 characters in its project name.
IDE-3950	Application	Breakpoints cannot be unset on editor if the codes are out of #ifdef close. Those breakpoints can be removed in Breakpoints View.
IDE-3928	CCRX Build plugin	By default the e2 studio editor character code is set to UTF-8. This means it is possible to enter characters that are then not supported by default by the CCRX toolchain. CCRX default input is SJIS. To enable UTF-8 for the toolchain you must first select C99 support.
IDE-3626	GDB server RL78, Trace plugin	Snapshot trace - adding IO register eventpoints increases the data shown in the trace view, but as they were removed there was no change in the data shown.
IDE-3389	Application	When debugging files with the same name show source addresses even though it may not be correct for the file in question. The full file path is not considered just the filename and current debug context. This can lead to e2 studio showing addresses unnecessarily.
IDE-2762	Application	CODAN does not recognize compiler-dependent expressions as well as assembly code expressions. CODAN errors can be ignored if the project is built successfully.
IDE-2716	GDB server RL78	Before PC events on IECube temporarily hard coded limit of 4.
IDE-2416	Project Generation	Use of duplicate register is allowed for RXC project generation. 1. Create RXC project

		2. Go to RXC Global option page, select "ROM" -> "R8" 3. Select the same value for any other register (e.g. "RAM" -> "R8"), it gives error message and prevents the user from project creation. 4. Now select "R8" again for "RAM" register. It doesn't show any error message and allows user to create the project.
IDE-2246	Event points plugin, GDB server RX	The trigger count for data access event for RX simulator will be ignored.
IDE-1982	CCRX Build plugin	For Renesas CCRX the Converter phase gets invoked even when using the external linker subcommand option. This should not happen.
IDE-1889	RX GCC build plugin	Due to file extension issue with .s and .S and due to known bug, e2studio users won't 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
IDE-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
IDE-1778	Debug Configuration	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.
IDE-1616	RX GCC build plugin	The options of a Build Configuration were not correct after specifying Multiple Configurations... functionality.
IDE-874	GDB server RX	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.

7.   Appendix

7.1   Website and Support

Renesas Electronics Website
   http://www.renesas.com/

Inquiries
   http://www.renesas.com/contact/

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