This document outlines the device support, new features added in 4.3.0, fixed issues and open issues in e² studio 4.3.0.

1. Project Generator Support

CPU Family	Group	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)
	E1x-FCC1	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
	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
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	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
	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, R5F5631N, R5F5631P, R5F5631W, R5F5631Y, R5S56310 R5F5631MF, R5F5631PF,(Debug Support Only)
	634	R5F5634B, R5F5634D, R5F5634E R5F5634B_5V, R5F5634D_5V, R5F5634E_5V,(Debug Support Only)
	63N	R5F563NA, R5F563NB, R5F563ND, R5F563NE, R5F563NF, R5F563NK, R5F563NW, R5F563NY
	63T	R5F563T4, R5F563T5, R5F563T6, R5F563TB, R5F563TC, R5F563TE R5F563TB_5V, R5F563TC_5V, R5F563TE_5V,(Debug Support Only)
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
RZ	A1	R7S72100, R7S721001, R7S72101, R7S72102 R7S721001_DualSPI, R7S721020, R7S721020_DualSPI, R7S721021, R7S721021_DualSPI,(Debug Support Only)
	T1	R7S910001, R7S910002, R7S910006, R7S910007, R7S910011, R7S910013, R7S910015, R7S910015_M3, R7S910016, R7S910016_M3, R7S910017, R7S910017_M3, R7S910018, R7S910018_M3, R7S910025, R7S910026, R7S910027, R7S910028, R7S910101, R7S910102, R7S910106, R7S910107, R7S910111, R7S910113, R7S910115, R7S910115_M3, R7S910116, R7S910116_M3, R7S910117, R7S910117_M3, R7S910118, R7S910118_M3, R7S910125, R7S910126, R7S910127, R7S910128
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	S7G2	R7FS7G27H2A01CBD, R7FS7G27G2A01CBD, R7FS7G27H2A01CBG, R7FS7G27G2A01CBG, R7FS7G27H2A01CFC, R7FS7G27H3A01CFC, R7FS7G27G2A01CFC,R7FS7G27G3A01CFC, R7FS7G27H2A01CLK, R7FS7G27G2A01CLK, R7FS7G27H3A01CFB, R7FS7G27G3A01CFB
	S3A7	R7FS3A77C2A01CLK, R7FS3A77C3A01CFB, R7FS3A77C2A01CBJ, R7FS3A77C3A01CFP, R7FS3A77C2A01CLJ, R7FS3A77C3A01CFM, R7FS3A77C2A01CNB, R7FS3A77C3A01CNB
	S124	R7FS124773A01CFM, R7FS124772A01CNB, R7FS124773A01CNB, R7FS124763A01CFM, R7FS124762A01CNB,R7FS124763A01CNB, R7FS124773A01CFL, R7FS124772A01CNE, ,R7FS124773A01CNE, R7FS124763A01CFL, R7FS124762A01CNE, R7FS124763A01CNE, R7FS124772A01CNF, R7FS124773A01CNF, R7FS124762A01CNF, R7FS124763A01CNF, R7FS124772A01CLM, R7FS124762A01CLM

2. Code Generator Support

CPU Family	Group	Devices
RL78	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
	G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
	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,

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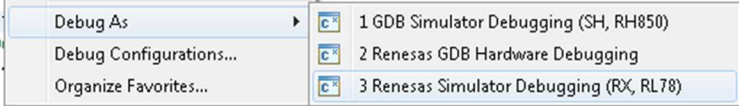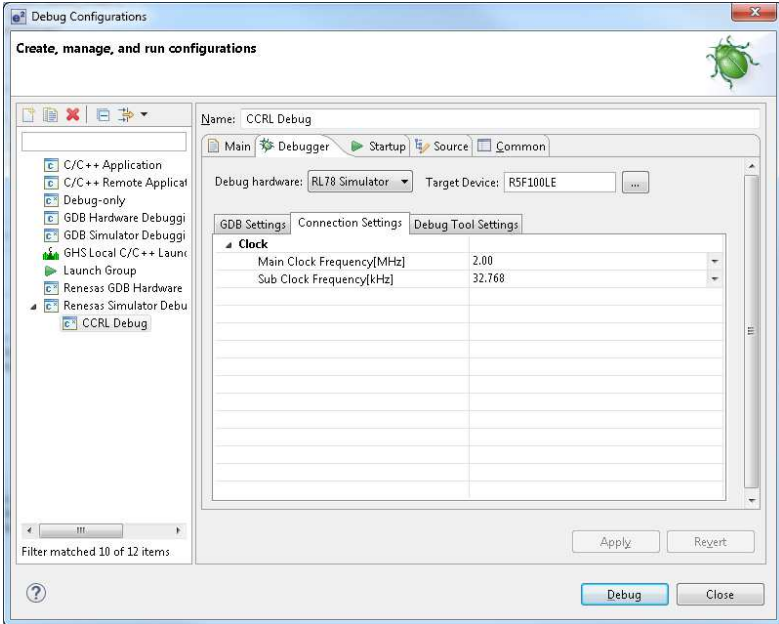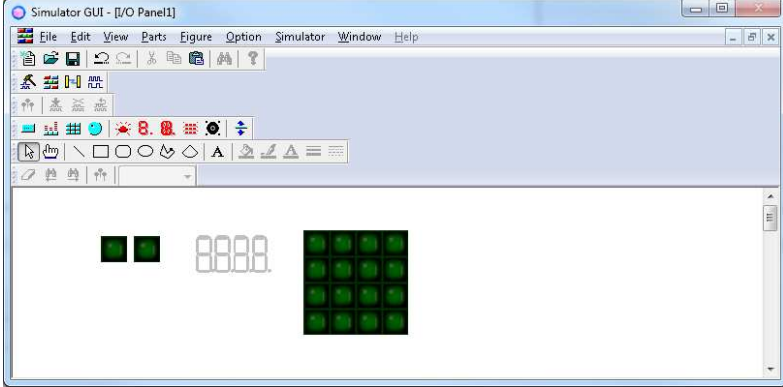|		
		R5F101FF, R5F101FG, R5F101FH, R5F101FJ, R5F101FK, R5F101FL, R5F101GA, R5F101GC, R5F101GD, R5F101GE, R5F101GF, R5F101GG, R5F101GH, R5F101GJ, R5F101GK, R5F101GL, R5F101JC, R5F101JD, R5F101JE, R5F101JF, R5F101JG, R5F101JH, R5F101JJ, R5F101JK, R5F101JL, R5F101LC, R5F101LD, R5F101LE, R5F101LF, R5F101LG, 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
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	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
	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

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	231	R5F52315, R5F52316, R5F52317, R5F52318
	23T	R5F523T3, R5F523T5
	24T	R5F524T8, R5F524TA
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
RZ	T1	R7S910001, R7S910002, R7S910006, R7S910007, R7S910011, R7S910013, R7S910015, R7S910016, R7S910017, R7S910018, R7S910101, R7S910102, R7S910106, R7S910107, R7S910111, R7S910113, R7S910115, R7S910116, R7S910117, R7S910118

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3. Current Smart Manual support

Smart manual support is delivered independently of e^2 studio releases when available. The following devices are available as of the 26th of January, 2016.

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

4.   What is new in 4.3.0?

Component	Description
RL78 Simulator	The RL78 simulator has been added to the debug options for the RL78 device family. You can launch this via the debug menu.
	The debug configuration has options for the RL78 Simulator configuration.
	When the debugger is launched on G13 device, an external window is displayed. This is the Simulator GUI that allows interaction with the simulator like a real target system.

| Consumption Current Plugin | This plugin is for use with the RL78 Simulator. The plugin shows the expected current consumption from the RL78 device during execution.

The graph is updated when the debugger suspends.
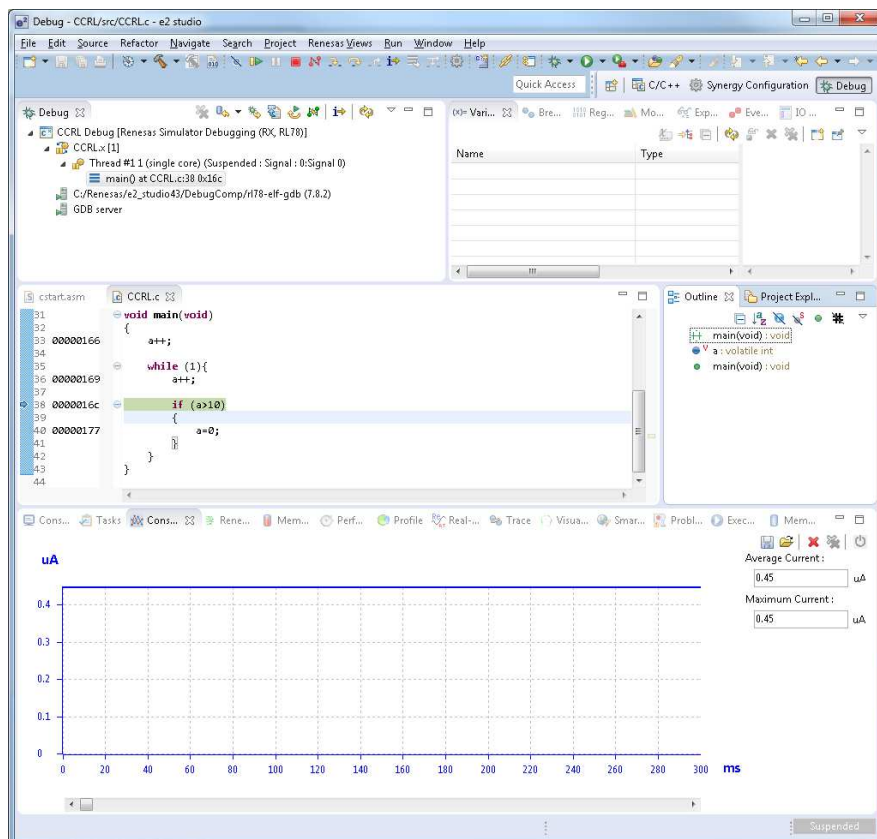
Supported Target:
Renesas RL78 Simulator
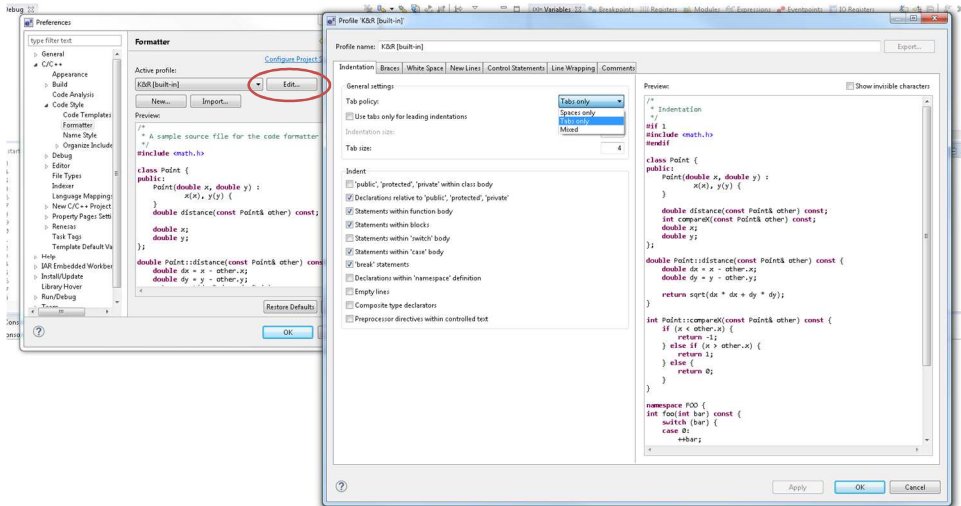
Supported Devices:
RL78/G13. |
|---|---|

5.   Useful workarounds and information for 4.3

ID	Component	Workaround or information
	Application	This version of e² studio is based on Eclipse Luna SR2 and CDT 8.6. 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 Luna release see here: https://projects.eclipse.org/releases/luna http://archive.eclipse.org/eclipse/downloads/drops4/R-4.4-201406061215/news/ CDT: https://wiki.eclipse.org/CDT/User/NewIn86 The Eclipse bug tracker is here: https://bugs.eclipse.org/bugs/ The bug list for Luna is available using the following query: https://bugs.eclipse.org/bugs/buglist.cgi?bug_status=RESOLVED&bug_status=VERIFIED&bug_status=CLOSED&classification=Eclipse&list_id=12238007&product=Platform&query_format=advanced&resolution=FIXED&target_milestone=4.4&target_milestone=4.4%20M1&target_milestone=4.4%20M2&target_milestone=4.4%20M3&target_milestone=4.4%20M4&target_milestone=4.4%20M5&target_milestone=4.4%20M6&target_milestone=4.4%20M7&target_milestone=4.4%20RC1&target_milestone=4.4%20RC2&target_milestone=4.4%20RC3&target_milestone=4.4%20RC4&target_milestone=4.4.1&target_milestone=4.4.2 Bug List for CDT is: https://bugs.eclipse.org/bugs/buglist.cgi?bug_status=RESOLVED&bug_status=VERIFIED&bug_status=CLOSED&classification=Tools&list_id=12238014&product=CDT&query_format=advanced&resolution=FIXED&target_milestone=8.5&target_milestone=8.6.0
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'.

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		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. In e² studio 2.1 or later this now defaults to on for new projects.
NA	RZ GCC	In 3.0 the KPIT GCC RZ toolchain was support at version 14.01. This version is no longer supported within e² studio. KPIT have modified the name of their ARM toolchain to be ARM-none-eabi to follow standard ARM naming convention like other GCC toolchain vendors. The toolchain is available at version 14.01 and 14.02 from the KPIT website. The binaries in the 14.01 version is identical to that 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	GCC Build Plugin	The GNU toolchain linker file format was changed in 3.0. This means projects that are developed in 3.0 or later and opened in 2.x will still continue to build. However you may experience issues visiting the GCC Linker Sections user interface.
5041	Code Generator	Code Generator can delete user code between /* Start */ End comments in some situations. Using the code generator if the following code is placed in the main function: //if(data_in!=0xAA){ On a line by itself, all of the main code will be removed when Generate Code button is pressed. The key issue is that the {brace is on the same line as the comment.
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. Also ensure that the HEW project is relocated before importing into e² studio.
2421	Debug Configurations	Debug configurations have been modified since e² studio 2.x. So although you can re-use the workspace and projects from e² studio 1.x when you open the debug launch configuration for the first time it is updated. Before doing this you should back-up the .launch file if you need to keep a 1.x version.
NA	Application	It is not possible to import e² studio 1.x projects which are for the V850 device into e² studio 2.0.

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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 this 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 CCRX 1.02.01 toolchain. To ensure this behaves correctly you will need to use CCRX 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/CCRL 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	CCRX to GNU RX Converter	When converting from CCRX 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.

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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:

6.   Fixed issues in 4.3.0.7

ID	Component	Description
8180	Segger J-Link	Segger J-link has been updated to version 5.10g. This is to resolve some problems when debugging ARM devices and Synergy specifically.
7052	RZ Debugging	RZ/T1 device authentication has now been implemented when using the Segger J-link debugger.
7572	RL78 project Generation	When using a RL78 G10 device with the GDB simulator the project build fails. This was due to the same RAM size. The stack size limit needed reduction within the linker script.
7807	Performance Analysis	When using the RX debugger with performance analysis when the debugger halts the timer 1 and timer 2 values show the same value even when they should not.
7893	Renesas Synergy	After Synergy project creation if you press the debug button to launch the recently created debug configuration it does not work. Pressing Renesas Hardware Debugging should launch the debugger like other device families.
7920	Coverage	In certain situations when using the RX64M with coverage feature a NullPtrException can occur. This can be the situation when the debugger configuration is set to "trace" and in the coverage plugin address ranges have been setup.
7972	RZ/T1	Updated iodefine.h for RZ/T1 to avoid issues for USB and Ethernet.
7973	RZ/T1	Dummy write added to HVA0 in the init_icu() start-up code for RZ/T1. This avoids an issue which was found with the ICU.
8062	Renesas Synergy	Setting a breakpoint can sometimes cause e2 studio to go into Semi-hosting mode and attempt to read data from the device. This can cause a target exception. To work around, turn off the Renesas Debug Virtual Console.

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8086	Coverage	In some cases the coverage view never completes the coverage data request. This can be seen in certain situations using the RX64M when large address ranges are set.

7. Open issues in 4.3.0.7

ID	Component	Description
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.
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.
1616	RX GCC build plugin	The options of a Build Configuration were not correct after specifying Multiple Configurations... functionality.
1642	Application	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.
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.
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
1859	GDB server RX	Program execution stops inside a range when Range Exclusive is specified in the address settings for OA event points.
1889	Application	Due to file extension issue with .s and .S and due to known bug, e2studio users will not 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
1982	CCRX Build plugin	For Renesas CCRX the Converter phase gets invoked even when using the external linker subcommand option. This should not happen.
2299	RX GCC build plugin	It is possible for .c and .C files to be treated in the same manner in certain situations which is not correct. (.C extension is changed to .c during project build).

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.
2486	Profile plugin	Acquiring profile results can take a very long time following RX Simulator debugging.
2537	Performance Analysis	Performance Analysis: Performance time is not updating following changes to start and stop performance addresses. For the G13 IEcube it supports one run/break timer. Currently e2 studio is setting the support to 3.
2716	GDB server RL78	Before PC events on IECube has a hard coded limit of 4.
2762	Application	When using assembly code within a C source file, Codan errors can be observed in the editor. Even though the project builds successfully.
2859	CDT	When using IAR projects the SFR names (e.g. PIOR1_bit.no1) are not understood correctly in the editor.
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.
3526	Profile plugin	In some cases when using RX with the CCRX compiler the profile view does not display the source file name and path in the window.
3626	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.
3663	Application	With 2 targets connected, clicking between the two debug contexts in the Debug View will update the source addresses in the open Editor files. However changing debug context does not seem to get detected if clicking on the top-level of the debug context rather than on the lower level.
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.
3950	Application	Breakpoints cannot be unset within the editor when code is #ifdef out. These breakpoints will need to be removed from the breakpoints plugin.

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4189	Project Generation	It is not possible to build project which has more than 98 characters in its project name.
4191	GDB server RX	When using Segger JLink, with the "Force Hardware Breakpoints" debug option enabled, adding more than the maximum amount of breakpoints for a device and then removing some can lead to none of the breakpoints firing. Workaround is to add a single breakpoint back in to trigger the reapply of all others.
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.
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
4450	CCRX Build plugin	Linker section settings of Renesas toolchain are not getting saved for multiple configurations.
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.
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.
4597	Application	In some cases when a before PC eventpoint is set just after a break point, the program execution will not stop at the address the eventpoint is located at.
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.
4783	Performance Analysis	The option to Reset timer before each run, which is setup on the "Performance Analysis" dialog box is not reflected for RL78. The specification for RL78 is that the values are reset all of the time so the option has no meaning.
4819	CCRX Build plugin	Individual compile is not execute when Level2 is specified at the "Perform inter-module optimization".
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.

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.
5041	CodeGenerator plugin	Code Generator can delete user code between /* Start */ End comments in some situations. Using the code generator if the following code is placed in the main function: //if(data_in!=0xAA){ on a line by itself, all of the main code will be removed when Generate Code button is pressed. The key issue is that the { brace is on the same line as the coment.
5083	CubeSuite+ importer/exporter	Folder level options are not converted correctly
5124	Application	Active configuration lost while importing project (which is exported as file system).
5171	CCRX Build plugin	Files included in the Pre-include build options are not analyzed for the pre-processor statement in the editor. This can give the impression that code is not included in the build when it is.
5179	CubeSuite+ importer/exporter	When CubeSuite+ project imports to e2 studio, Build cannot perform sometimes. [Workaround] Please add the <root folder> to "C/C++ General -> Paths and Symbol -> Source Location"
5201	Application	If you create a project and debug session for a GDB simulator before executing a hardware debug session it will fail. This is because the debugger support is not unpacked until a hardware debug session is used. To work around setup and launch a hardware debug session. You do not actually need hardware to do this.
5290	CCRX Build plugin	When you add a new configuration, please do not specify 'Default Configuration' as a configuration used as a base. If you specify the 'Default Configuration', the configuration which does not operate correctly is created.
5467	Memory View plugin	Settings in the 'Format' dialog (Memory view) are not restored.
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.

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5551	Application	If the maximum number of break points are used for RX with E1/E20 emulator, the connection or the program execution may fail. In this case, please reduce the using break points.
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)
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.
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.
5669	GDB server	An invisible breakpoint is left in the project following a 'Move To Line' operation. Program execution continues to halt at this location once the Move to Line operation has been performed.
5721	CDT	When modifying code that changes the line an already set breakpoint is located at the breakpoint is not moved according to the modification.
5770	Application	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).
5852	Application	PC set in the debug configuration is not set following launch for the Renesas RX and GDB RL78 simulators.
5911	DS-5 importer	The current DS-5 importer in e2 studio imports KPIT GNU "Application" project types only. Other projects cannot be imported at this time.
6208	GDB server RX	When debugging with RX there are problems with setting breakpoints when the hardware breakpoint resources have been exhausted and the software breakpoint setting also fails. In this case the breakpoint appears to be valid but the debugger will not stop. This can often be seen when the option "Program re-writes internal Data Flash" is set to yes. As this means software breakpoints cannot be set.
6350	Application	NullPointerException is observed when adding a custom configuration and selecting the same configuration within the â€˜Multiple Configuration' selection at the same time. This issue only occurs if user has not applied after creating new configurations: https://bugs.eclipse.org/bugs/show_bug.cgi?id=352047
6394	GDB server RX	Trace Record event point does not filter correctly with Segger RX63N.

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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.
6450	Application	When "Prevent debugger from re-writing on-chip Program ROM" is checked and "Force Hardware Breakpoints" is set to No setting breakpoint fails and the program will not execute.
6463	Application	Memory view requires manual refresh to see changes when downloading auxiliary file.
6484	Application	Additional build tabs contributed by other third party tools can be hidden by e2 studio. Â This is caused by Renesas/KPIT build plugins replacing the standard build settings page with a custom one.
6529	CDT	After restart on occasion the disassembly window can be empty. Refreshing the window or stepping works around the problem.
6549	GDB server RX	The Profile View 'Execution Time' and 'Average Execution Time' columns are showing as zero after suspending the current debug session (for all targets).
6557	GDB Server RH850	Breakpoints are not always being cleared completely when a breakpoint is removed.
6566	Real-time Watch	In some situations the RH850 multicore real-time expression update does not work.
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.
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.
6657	Coverage plugin	If the workspace is copied or moved from the original folder, coverage information may not be displayed. Please re-build the program in the new workspace.
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 instead.
6704	Profile plugin	For RZ/T1 target a user can select Profile View. When selecting button 'Turn Profiling On' this is allowed to be enabled although this is not supported.
6817	Waveform plugin	If address of variable is changed then this address should be updated in waveform view as well, but it is not so.
6852	Project Generation	Combination of "C++ project" and "CC-RL" toolchain is selectable. But, "CC-RL" toolchain does not support "C++ project". So, do not select the combination of "C++ project" and "CC-RL" toolchain.

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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.
7005	Application	Debugging with the RL78 GDB simulator with the IAR project generators is not straight forward. The default IAR debug configuration uses the GDB executable name "GDB". This launch will not work and you need to point it at "rl78-elf-gdb.exe" included in the e2 studio debugcomp directory. However if you have not launched a Renesas debug configuration it won't be present. On the first launch of a Renesas debug configuration for RL78 the file is uncompressed from the package zip file. So to work around you need to launch a RL78 E1 session first so the GDB application for RL78 exists.
7057	Event points plugin	When adding an event point to an external source code file. (File added using "Link to file in the file system" option). There can be problems adding the event point in this case.
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.
7298	Application	When font size is changed as magnified, some of components of the dialog can be hidden with magnified fonts. In this case, please resize and expand dialog size.
7305	Application	The build throws an exception when setting '-no-keep-memory' and '-mrelax' options at the same time for a GNURX project.
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.
7350	Trace plugin	If the selected line of Debug View is changed, the contents of Trace View will be cleared. To avoid this, please set "Pin to Debug Context" option in Trace View.
7351	Trace plugin	Trace view should maintain Filter and Find settings to each ADM debug context. When changing debug session in [Debug] view, Filter and Find settings is set to default value.
7355	GDB server RX	When connecting to RX63x, RX64x, RX7xx, RX2xx, or RX1xx with user-boot mode, it will fail. Please do not use user boot mode for these devices.

7380	GDB server RX	When connecting with RX simulator, Profile view does not show any information. Profile view sometimes show some information, it is not correct information.
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.
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.
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.
7456	GDB server RL78	The option "Low voltage OCD board" in the debug configuration for RL78 E2 Lite is not supported. Please don't set this option to "Yes".
7457	GDB server RL78	The option "Hot Plug" in the debug configuration for RL78 E2 Lite is not supported. Please don't set this option to "Yes".
7468	GDB server RX	When using the RX Simulator the trace view does not show correct source and disassembly information when these two modes are enabled.
7491	Application	The Insert Spaces for Tab feature in the Eclipse editor does not work. This is an Eclipse platform issue.
7497	CCRX Build plugin	'''Problem''' When a project which specifies MISRA-C option changed the toolchain version, the MISRA-C option is deleted. '''Workaround''' Please re-specify the MISRA-C option.
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.

7508	Application	'''Problem''' An error occurs by project operation when the character besides ASCII cord was used for the file name or the folder name. '''Workaround''' Please don't use the character besides ASCII cord for the file name or the folder name.
7524	GDB Server RZ	For RAM based RZ-T1 projects a re-download of code will trigger a reset that erases the RAM making further debugger operation impossible. The workaround is to instead disconnect and then reconnect.
7533	Performance Analysis	Performance Analysis view does not show time result (even 0) if the time taken is very short (less than 1 unit of the emulator or device).
7546	Smart Browser	PDF file is associated with Microsoft Edge by default in Windows 10. However, Smart Browser and Smart Manual will not be able to recognize that the Microsoft Edge is associated with a PDF. Please install the PDF viewer such as Adobe Reader and specify the application of default to open the PDF file.
7547	Smart Manual plugin	PDF file is associated with Windows Edge by default in Windows 10. However, Smart Browser and Smart Manual will not be able to recognize that the Windows Edge is associated with a PDF. Please install the PDF viewer such as Adobe Reader and specify the application of default to open the PDF file.

7570	Application	Iodefine.h files for RX230 and RX231 were incorrect about portj. st_portj.ODR0.BIT.B3 is incorrect. st_portj.ODR0.BIT.B6 is correct. Please correct it as follows. (see code below)

Iodefine.h files for RX230 and RX231 were incorrect about portj.

st_portj.ODR0.BIT.B3 is incorrect.

st_portj.ODR0.BIT.B6 is correct.

Please correct it as follows.

```
---<incorrect>--------------------------------------------------------
struct st_portj {
        :
    union {
        unsigned char BYTE;
        struct {
            unsigned char :4;
            unsigned char B3:1; <-- B3 does not exist.
            unsigned char :3;
        } BIT;
    } ODR0;
        :
}
-----------------------------------------------------------------

---<correct>----------------------------------------------------------
struct st_portj {
        :
    union {
        unsigned char BYTE;
        struct {
            unsigned char :1;
            unsigned char B6:1;
            unsigned char :6;
        } BIT;
    } ODR0;
        :
}
-----------------------------------------------------------------
```

7572	TargetInformationTool	GNURL78 (G10 - R5F10Y14): Project build fails for debug configuration when using the GDB simulator. G10 - R5F10Y14 has a small RAM area. We need to reduce the stack size limit. Reducing the stack size limit from 0x64 to 0x32 (i.e. modifying PROVIDE (stack_size = 0x64) to PROVIDE (stack_size = 0x32) in the linker script) builds the project successfully.
7588	Application	Start / Stop Function Settings for RL78 are sent once on connecting. If the address for start function or stop function is changed by building the program, please disconnect from target and reconnect again.
7592	GDB server RL78	For RL78 E2 Lite, please use RESET# for the pin which has multiple functions of both RESET# and PORT.
7597	IAR plugins	When cleaning a Synergy project which uses the IAR toolchain, the clean can fail with a "Command-line too long" error.
7607	RL78 GCC build plugin	When creating a GNU RL78 project for the RL78 G13 device. Changing the optimization settings can cause the -mmul option 'Use RL78 hardware multiply instructions for G13' the build settings. Re-visit the build settings and re-enable this option if it is desired.
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. '''Workaround''' When you'd like to use the project dependency, please specify a child project in [Project Reference].
7628	CodeGenerator plugin	When using the code generator on Turkish windows there can be an issue which can cause an exception. This is caused by the letter 'I' not being processed correctly within the code generator. Swapping to use English region solves the problem.
7660	RL78 GCC build plugin	Project build fails for RL78 GCC when adding the __far keyword in the code. To fix this issue, you need to add the PROVIDE (__rl78_abs__ = 0) macro in your RL78 linker scripts.
7689	CCRX Build plugin	When using the Renesas CCRX toolchain the -space option of linker cannot be specified.
7720	GDB Server RZ	The Cortex M3 does not stop at entry address when multicore debug is performed. When the debugger connects to the CM3 core, the CM3 core runs for a short time. The Segger J-Link log shows the Cortex M3 core is not halted and it runs for a few ms when the debugger connects to the CM3 core.

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7729	CDT	Renaming header files within the e2 studio IDE can affect the ordering of the dependency scanning. After renaming the header file is modified to be inside <> instead of "" and is placed at the top of the file.
7739	GDB Server RH850	Real-time memory refresh for RH850 will terminate the program execution shortly.
7755	Device Support RX	Memory Usage view is not available with the projects for RX230 and RX231 groups. RX23T group's project may not able to obtain accurate results because address range 0x00004000 - 0x00004A7F is regarded as out of memory. Memory Region configuration features are not available for RX230 and RX231 groups. On RX23T group's project, address range between 0x00004000 and 0x00004A7F is hidden on configuration dialog. On RX634 group's project, address ranges of IO register are hidden.
7761	Application	The linker map file for the RZ GNU can be generated as the wrong name when it is created.
7807	Performance Analysis	Timer 1 and Timer 2 show same result value in Performance Analysis view although timer start event and timer stop event are different between Timer 1 and Timer 2. In this case, please use only Timer 1.
7809	Event points plugin	Some event points are sometimes duplicated in Event points view when re-connecting to debugger. In this case, please connect to debugger again or delete duplicated event points and create event points again.
7818	HEW Project Converter	[Problem] (Import project from HEW) When a project which the debugging option is specified by HEW is imported, the debugging option is lost. [Workaround] Please re-specify the debugging option to a project.
7826	CodeGenerator plugin	In the case where a workspace has several projects including Code Generator, the confirmation dialog to save Code Generator settings appears one time when exiting e2 studio, and settings for only the active project is saved. The Code Generator settings of other projects are lost. Please select [File]-[Save all] menu to save Code Generator setting of all projects before existing e2 studio.

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7830	CodeGenerator plugin	Please declare the local variable in the top of user code area braces.
		
		`E.g.`
		
		`void main(void)`
		
		`{`
		
		`  R_MAIN_UserInit();`
		
		`  /* Start user code. Do not edit comment generated here */`
		
		`  {   // add`
		
		`  uint8_t val1;        // e.g. local variable`
		
		`  uint16_t val2 = 8;  // e.g. local variable`
		
		`  val1++;`
		
		`  val2++;`
		
		`  while (1U)`
		
		`   {`
		
		`     ...`
		
		`   }`
		
		`  }  // add`
		
		` /* End user code. Do not edit comment generated here */`
		
		`}`

7854	IO view plugin	Some IORs registered in Selected Registers tab cannot be expanded in IO Register view. In this case, please refer to All Registers tab.
7980	Load Module Conversion	When using CCRL and CCRX toolchains there can be problems locating the assembly file paths when debugging. [Problem] When two or more code sections are specified in one assembler source file, source line debugging cannot work in the assembler source file. [Workaround] Specify only one code section in one assembler source file.
7989	Profile plugin	When Profile View is opened and is enabled after connection, the view may show the duplicated lines. To avoid this, please open the view and enable it before connection.

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8172	GDB Server RL78	If the simulator is disconnected during program execution, an error "E2 Server GDB has stopped working" may occur. Even after this error has occurred, the simulator can be reconnected.
8197	Consumption Current Plugin	If there are many changing points during measurement of the "Consumption Current", the chart display of "Consumption Current" may take long time. For example, if the number of changing points is over 10000, the displaying time becomes 30 seconds.
8275	RX Simulator	When the debug hardware is RX Simulator and the Target Device is RX64M or RX71M, if one of the following conditions is satisfied, the connection will fail. - In the compiler option for RXC, '-isa=rxv1' is specified or '-cpu=rx200' is specified. - In the compiler option for KPIT GNURX, '-mcpu=rx64m' is not specified. - 'Symbols only' is selected at 'Load image and symbols' in Startup of Debug Configurations. In this case, please add the option string '-rx-force-v2' at GDB Command on GDB Settings in Debugger of Debug Configurations.

Renesas Synergy specific open items:

ID	Component	Description
6945	Renesas Synergy	When using the Synergy configurator. If you rename a thread and generate code, a new thread_entry.c file will be created with template content, and old thread_entry.c file will remain in project. If you have edited thread_entry.c your changes are not moved to new file. The old file remains in project but will not be called.
7111	Renesas Synergy	In some cases when debugging with Synergy the expressions view can disagree with the underlying value of the variable in the memory view. To avoid this you can use the real-time memory feature or remove and add the variable back into the expressions window.
7551	Renesas Synergy	#error is not reported as an error when building with the IAR toolchain. This can be resolved by enabling the GCC error parser.
7591	Renesas Synergy	When cleaning IAR Synergy projects it is possible for the clean to fail
7672	Renesas Synergy	When building ThreadX source with IAR compiler the warning "Pa050, Non-native end of line" is generated on many source files. This is a known issue. If this behaviour is not desirable please suppress the warning in the IAR build settings.
7756	Renesas Synergy	e2 studio only supports CMSIS packs which meet the 1.2 CMSIS pack specification.

| 7853 | Renesas Synergy | When using the Launchpad toolchain the linker script file is not set as a dependent file in the build.

Changing the linker script does not cause a rebuild. |
| 8273 | Renesas Synergy | When using Synergy and the linker script is changed from the default. It is reset back to default when the Synergy builder executes |