

# e<sup>2</sup> studio 2020-07 (R20200710-0958)

# **Release Note**

R20UT4817EG0100 Rev.1.00 July. 6<sup>th</sup>, 2020

#### Introduction

This document outlines the device support, new features added in 2020-07, fixed issues and open issues in e<sup>2</sup> studio 2020-07.

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#### 1. Product Information

#### 1.1 Supported Operating Systems

These operating systems are officially supported by e<sup>2</sup> studio:

- Windows 8.1 64-bit
- Windows 10 64-bit

e<sup>2</sup> studio 2020-07 now runs on Java 11 & does not support older Java versions.

#### 1.1.1 64-bit product version

Please note that 2020-04 and 2020-07 are the 64-bit product build versions of the tool.

We would like to state that the workspaces and projects from 7.x versions of  $e^2$  studio are fully compatible with 2020-07.

When opening a workspace from 7.x you will be shown a warning for and this is standard Eclipse behavior. This is shown because some metadata in the workspace can change between versions so a workspace will not always work with older versions of the tool.

- Projects are forward & backward compatible,
- Workspaces work when upgrading but it is not guaranteed to 100% work if you return the workspace to 7.8.

The switch to 64-bit has unfortunately meant that some functions have now been deprecated from the tooling due to this move for the base platform. The removed functionality is listed below:

- HEW Project Convertor
- Renesas RTOS views
- Mylyn integration
- Subversion integration

If you need this functionality then please remain on  $e^2$  studio 7.8.

In addition, this installer no longer supports RZ/G and Synergy families of devices. Both families are available in the  $e^2$  studio 7.8 installer. Synergy will be supported by the Synergy  $e^2$  studio platform installer into the future which is the best way to install this family and ensures  $e^2$  studio and SSP software compatibility.

The RZ/G family is available in the 7.8 installer and the Linux beta version. Linux tools are now only available in the Linux host beta version of  $e^2$  studio.



#### 1.2 Supported Toolchains

		Renesas	GNU Arm Embedded (*2)	Renesas GCC/ GNURZ/ARM (*3)	IAR (*4)	Green Hills (*5)
	RL78	Yes (CC-RL)	No	Yes	Yes	No
Family	RX	Yes (CC-RX)	No	Yes	Yes	No
ce Fa	RH850	No	No	No	Yes	Yes
Device	RZ/ARM	No	No (*1)	Yes	Yes	No
_	Synergy/ARM	No	Yes	No	Yes	No
	RA/ARM	No	Yes	No	Yes	No
	RE/ARM	No	Yes	No	Yes	No

The following toolchains are supported in e<sup>2</sup> studio 2020-07.

#### Note:

\*1: Project converter is available to convert from GNUARM RZ/none to GNU ARM Embedded toolchain.

\*2: The GCC toolchains for RZ Family and Renesas Synergy<sup>™</sup> are distributed via Arm Developer at <u>https://developer.arm.com/open-source/gnu-toolchain/gnu-rm</u> or Launchpad.net at: <u>https://launchpad.net/gcc-arm-embedded</u>. They are also available using the "Additional components" page in the e<sup>2</sup> studio installer. Supported ARM GCC versions vary from device family to device family. Please see the following table for more information:

Device Family	GCC distribution and version
RZ/A1, A2	6.3.1 (2017 q2)
RZ/G1, G2	Linaro 7.3.1
Synergy	SSP 1.6.x: 7.2.1
	SSP 1.7.x: 8.2.1
RA	FSP 1.1.0: 9.3.1

- \*3: Legacy GNUARM toolchains are available from <u>https://gcc-renesas.com/</u>. In addition, the latest RX and RL78 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 e<sup>2</sup> studio. These Eclipse plugins are provided by IAR and are not supported by Renesas.
- \*5: The Green Hills toolchain plugins are available within the e<sup>2</sup> studio product. These plugins are provided by Green Hills and are not supported by Renesas.



# 2. Device Support

#### 2.1 **Project Generator Support**

Note: The Renesas SH device family is no longer supported in e<sup>2</sup> studio.

Family	Group	Devices
EC-1	EC-1	R9A06G043
		R7FA2A1AB2CBT, R7FA2A1AB3CFJ, R7FA2A1AB3CFM,
	RA2A1	R7FA2A1AB3CNE, R7FA2A1AB3CNF
		R7FA4M1AB2CLJ, R7FA4M1AB3CFL, R7FA4M1AB3CFM,
	RA4M1	R7FA4M1AB3CFP, R7FA4M1AB3CNB, R7FA4M1AB3CNE,
		R7FA4M1AB3CNF
	RA6M1	R7FA6M1AD2CLJ, R7FA6M1AD3CFM, R7FA6M1AD3CFP, R7FA6M1AD3CNB
RA		R7FA6M2AD2CLK, R7FA6M2AD3CFB, R7FA6M2AD3CFP,
	RA6M2	R7FA6M2AF2CLK, R7FA6M2AF3CFB, R7FA6M2AF3CFP
		R7FA6M3AF2CBG, R7FA6M3AF2CLK, R7FA6M3AF3CFB,
	RA6M3	R7FA6M3AF3CFC, R7FA6M3AF3CFP, R7FA6M3AH2CBG,
	TAUNI3	R7FA6M3AH2CLK, R7FA6M3AH3CFB, R7FA6M3AH3CFC,
		R7FA6M3AH3CFP
	RA4W1	R7FA4W1AD2CNG
	RE01_1500KB	R7F0E014D2CFB, R7F0E014D2CFP, R7F0E015D2CFB,
		R7F0E015D2CFP, R7F0E016D2DBN, R7F0E017D2DBN
RE		R7F0E01082CFM, R7F0E01082CFP, R7F0E01082DBH, R7F0E01082DBR, R7F0E01082DNG, R7F0E01182CFM,
	RE01_256KB	R7F0E01182CFP, R7F0E01182DBH, R7F0E01182DBR,
		R7F0E01182DNG
	C1H	R7F701260, R7F701270,(Debug Support Only)
	C1M	R7F701263, R7F701271,(Debug Support Only)
	D1L1	R7F701401, R7F701421,(Debug Support Only)
	D1L2	R7F701402, R7F701422, (Debug Support Only)
	D1M1	R7F701404, R7F701405,(Debug Support Only)
	D1M1-V2	R7F701442, R7F701462,(Debug Support Only)
	D1M2	R7F701408, R7F701410, R7F701428, R7F701430,(Debug Support Only)
	E1L	R7F701201, R7F701205,(Debug Support Only)
	E1M-S	R7F701202, R7F701204,(Debug Support Only)
	E1M-S2	R7F701215, R7F701216,(Debug Support Only)
	-	R7F701Z05, R7F701Z06, R7F701Z07,(Debug Support Only)
RH850		· · · · · · · · · · · · · · · · · · ·
	F1H	R7F701501, R7F701502, R7F701503, R7F701506, R7F701507, R7F701508, R7F701511, R7F701512, R7F701513,(Debug Support Only)
		R7F701521, R7F701522, R7F701524, R7F701525,(Debug Support Only) R7F701542, R7F701543, R7F701546, R7F701547, R7F701557,
		R7F701542, R7F701543, R7F701540, R7F701547, R7F701563, R7F701566,
		R7F701567, R7F701577, R7F701580, R7F701581, R7F701582,
	F1K	R7F701583, R7F701586, R7F701587, R7F701597, R7F701602,
		R7F701603, R7F701610, R7F701611, R7F701612, R7F701613,
		R7F701620, R7F701621, R7F701622, R7F701623,(Debug Support Only)
	F1KH	R7F701708, R7F701709, R7F701710, R7F701711, R7F701714,
		R7F701715,(Debug Support Only)
		R7F701644, R7F701645, R7F701646, R7F701647, R7F701648,
	F1KM	R7F701649, R7F701650, R7F701651, R7F701652, R7F701653,
		R7F701684, R7F701685, R7F701686, R7F701687, R7F701688,

R7F701689, R7F701690, R7F701691, R7F701692, R7F701693, R7F701694, R7F701695, (Debug Support Only)

R7F701002xAFP, R7F701003xAFP, R7F701010xAFP, R7F701012xAFP, R7F701017xAFP, R7F7010113xAFP, R7F701016xAFP, R7F701017xAFP, R7F701018xAFP, R7F701018xAFP, R7F701016xAFP, R7F701012xAFP, R7F701025xAFP, R7F701012xAFP, R7F701024xAFP, R7F701025xAFP, R7F701022xAFP, R7F701023xAFP, R7F701023xAFP, R7F701030xAFP, R7F701033xAFP, R7F701034xAFP, R7F701030xAFP, R7F701033xAFP, R7F701034xAFP, R7F701030, R7F701035, R7F701032, R7F701048, R7F701049, R7F701050, R7F701056, R7F701052, R7F701048, R7F701049, R7F701050, R7F701056, R7F701052, R7F701048, R7F701054, R7F701055, R7F701056, R7F701052, R7F701054, R7F701054, R7F701055, R7F701056, R7F701052, R7F701545, R7F701548, R7F701552, F1M           F1W         R7F70152, R7F701548, R7F701549, R7F701552, F1M           F1W         R7F70152, R7F701548, R7F701549, R7F701552, R7F701572, R7F701573, Debug Support Only)           P1H-C         R7F701380, R7F701390, R7F701391, R7F701312, R7F701396EBG, R7F701390, R7F701391, R7F701312, P1M           P1H-C         R7F701380, R7F701390, R7F701391, R7F701312, R7F701308, R7F701338, R7F701390, R7F701391, R7F701312, P1M           P1M-C         R7F70137, R7F70138, R7F701390, R7F701397, R7F701391, R7F701380, R7F701381, R7F701390, R7F701397, R7F701397, R7F701391, R7F701360, R7F701381, R7F701392, R7F701383, R7F701384, R7F701380, R7F701384, R7F701382, R7F701383, R7F701384, R7F701060xAFP, R7F701062xAFP, R7F701071xAFP, (Debug Support Only)           R47F701060xAFP, R7F701060xAFP, R7F701071xAFP, (Debug Support Only)           R7F701060xAFP, R7F701060xAFP, R7F7010383, R7F701384, R7F701080, R7F10980, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10096, R5F10966, R5F10080, R5F10080, R5F10096, R5F10096, R5F10966, R5F10080, R5F10080, R5F10080, R5F10960			
R7F701012xAFP, R7F701013xAFP, R7F701015xAFP, R7F70102xAFP, R7F7010125xAFP, R7F701025xAFP, R7F701023xAFP, R7F70102xAFP, R7F701025xAFP, R7F701025xAFP, R7F701023xAFP, R7F701023xAFP, R7F701025xAFP, R7F701030xAFP, R7F701033xAFP, R7F701033xAFP, R7F701034xAFP, R7F701030xAFP, R7F701035, R7F701033xAFP, R7F701034xAFP, R7F701030, R7F701050, R7F701052, R7F701048, R7F701049, R7F701050, R7F701056, R7F701052, R7F701048, R7F701049, R7F701050, R7F701056, R7F701052, R7F701054, R7F701054, R7F701553, R7F701552, F1M           R7F701544, R7F701545, R7F701548, R7F7015549, R7F701552, R7F701052, R7F701545, R7F701548, R7F701572, R7F701552, R7F701572, R7F701573, Debug Support Only)           P1H-C         R7F701388, R7F701389, R7F701390, R7F701391, Debug Support Only)           P1H-C         R7F701388, R7F701389, R7F701390, R7F701318, R7F701312, R7F701302, R7F701314, R7F701335, R7F701318, R7F701312, P1M           P1H-C         R7F701372, R7F701312, R7F701337, R8F701319, R7F701320, R7F701314, R7F701335, R7F701337, R6G, Debug Support Only)           R7F701388, R7F701388, R7F701337, R7F701388, R7F701389, R7F701380, R7F701384, R7F701382, R7F701383, R7F701384, R7F701380, R7F701384, R7F701382, R7F701383, R7F701384, R7F701386, R7F701386, R7F701382, R7F701383, R7F701384, R7F701386, R7F701386, R7F701382, R7F701065, R5F1000D, R7F701067xAFP, R7F701065xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701065xAFP, R7F701064xAFP, R7F701085, R5F1000D, R5F100CGB, R5F100SC, R5F100SD, R5F100DG, R5F100DL, R5F100BC, R5F100BC, R5F100BD, R5F100BC, R5F100DL, R5F109BA, R5F100BC, R5F100BA, R5F100BA, R5F100BA, R5F100BA, R5F100BA, R5F100BA, R5F100BA, R5F100BA, R5F109BA, R5F100BA, R5F100BA			
R7F701020xAPP, R7F701021xAFP, R7F70103xAFP, R7F70102xAFP, R7F70102xAFP, R7F701021xAFP, R7F701030xAFP, R7F701032xAFP, R7F701023xAFP, R7F701023xAFP, R7F701030xAFP, R7F701032xAFP, R7F701033xAFP, R7F701034xAFP, R7F701030xAFP, R7F701032xAFP, R7F701032xAFP, R7F701034xAFP, R7F701030xAFP, R7F701034, R7F701042, R7F701048, R7F701049, R7F701030, R7F701041, R7F701042, R7F701048, R7F701049, R7F701050, R7F701046, R7F701052, R7F701054, R7F701056, R7F701056, R7F701052, R7F7010564, R7F701056, R7F7010569, R7F701053, R7F701564, R7F701366, R7F701569, R7F701573, (Debug Support Only)           P1H-C         R7F701654, R7F70130, R7F701372EABG, R7F701370AEEBG, R7F701316AB, R7F701372EABG, R7F701373, R7F701371EABG, R7F701372EABG, R7F701373, R7F70131, R7F701318, R7F701311, R7F701312, P1H-C           R7F701374XBG, R7F701374, R7F701372, R7F701312, P1H-C         R7F70132, R7F701374, R7F701332, R7F701312, R7F701300, R7F701374, R7F701374, R7F701372, R7F701312, P1M-R7F701300, R7F701374, R7F701377, R7F701373, R7F701312, P1M-R7F701300, R7F701374, R7F701377, R7F701373, R7F701379, P7F701060xAFP, R7F7010362, R7F701374, R7F701378, R7F701379, P1M-E           R7F701325, R7F70136, R7F701377, R7F701378, R7F70138, R7F701384, R7F701308, R7F701381, R7F701377, R7F701373, R7F701378, R7F701384, R7F701067xAFP, R7F701062xAFP, R7F701038, R7F70138, R5F100ABL, R5F100ABL, R5F100ABL, R5F100ABL, R5F100ABL, R5F100BL, R5F100ABL, R5F100BC, R5F100BL, R5F100BL, R5F100BL, R5F100BC, R5F100BC, R5F100BL, R5F100BL, R5F100BL, R5F100BL, R5F100BBL, R5F100BL, R5F100BL, R5F100BL, R5F100BL, R5F100BBL, R5F100BBL, R5F100ABC, R5F100BL, R5F100BL, R5F100BL, R5F100B			
F1L         R7F701020xAFP, R7F70102xAFP, R7F70102xAFP, R7F70102xAFP, R7F70102xAFP, R7F70102xAFP, R7F70102xAFP, R7F70103xAFP, R7F701044, R7F701046, R7F701046, R7F701054, R7F701054, R7F701056, R7F701057, R7F701547, R7F701354, R7F701568, R7F701372EABG, R7F701572, R7F7013704EEBG, R7F701372CABG, R7F701372EABG, R7F7013704EEBG, R7F701372CABG, R7F701314, R7F701312, R7F701332, R7F701334, R7F701334, R7F701314, R7F701312, R7F701334, R7F701334, R7F701334, R7F701314, R7F701312, R7F701332, R7F701334, R7F701314, R7F701312, R7F701332, R7F701334, R7F701332, R7F701334, R7F701332, R7F701334, R7F701332, R7F701334, R7F701332, R7F701334, R7F701335, R7F701334, R7F701332, R7F701338, R7F701379, P1M-C           R7F70130, R7F701376, R7F701377, R7F701388, R7F701384, R7F701388, R7F701386, R7F701384, R7F701388, R7F701384, R7F701388, R7F701384, R7F701388, R7F701384, R7F701388, R7F701384, R7F701384, R7F701386, R7F701384, R7F701386, R7F101394, R7F701386, R7F101394, R7F701386, R7F101394, R7F701386, R7F101064xAFP, R7F701065xAFP, -           R7F70106xAFP, R7F70106xAFP, R7F701064xAFP, R7F701065xAFP, -         R7F70106xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, -           R7F70106xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, -         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, -           R7F70106xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, -         R7F701065xAFP, R7F701062xAFP, R7F701065xAFP, -           R7F70106xAFP, R7F701065xAFP, R7F701065xAFP, -         R7F701065xAFP, R7F701065xAFP, R7F701065xAFP, -			
F1L         R7F701024xAFP, R7F701025xAFP, R7F701025xAFP, R7F701032xAFP, R7F701053, R7F701056, R7F701056, R7F701056, R7F701052, R7F701053, R7F701056, R7F701050, R7F701030, R7F701030, R7F7010312, R7F701030, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F7010312, R7F701032, R0FP, R7F701032, R0FP, R7F701032, R0FP, R7F701032, R7F7010			
PIL         R7F701028xAFP, R7F701030xAFP, R7F701030xAFP, R7F701032xAFP, R7F701033xAFP, R7F701044, R7F701040, R7F701046, R7F701042, R7F701043, R7F701044, R7F701056, R7F701056, R7F701052, R7F701053, R7F701054, R7F701055, R7F701056, R7F701052, R7F7010564, R7F7010568, R7F7010589, R7F701552, R7F701564, R7F701546, R7F701568, R7F701552,           F1M         R7F701047, R7F701545, R7F701548, R7F701058, R7F7010589, R7F701572, R7F701564, R7F701566, R7F7013568, R7F701552,           P1H-C         R7F701372EBG, R7F7013564, R7F7013914, B058, R7F701357, R7F7013704EEBG, R7F7013374, B05, R7F701391, D0ebug Support Only)           P1H-C         R7F701304EEBG, R7F701305, R7F701311, R7F701312, R7F701312, R7F701304, R7F701336, R7F701310, R7F701311, R7F701312, R7F701334, R7F701321, R7F701316, R7F701311, R7F701319, R7F70133, R7F701314, R7F701322, R7F701333, R046, (Debug Support Only)           P1M-C         R7F701374, R7F701374, R7F701374, R7F701374, R7F701379, R7F701320, R7F701374, R7F701322, R7F701374, R7F701379, P1M-E         R7F701375, R7F701374, R7F70137, R7F701378, R7F701384, R7F701038, R7F701381, R7F701382, R7F701038, R7F701384, R7F701060xAFP, R7F701062xAFP, R7F701062xAFP, R7F701065xAFP, R7F701067xAFP, R7F701062xAFP, R7F701065xAFP, R7F701065xAFP, R7F701067xAFP, R7F701062xAFP, R7F701065xAFP, R7F701065xAFP, R7F701067xAFP, R7F701062xAFP, R5F100DC, R5F100CD, R5F100CM, R5F100CC, R5F100CD, R5F100CD, R5F100CD, R5F100CM, R5F100CB, R5F100SD, R5F100SD, R5F100BD, R5F100BD, R5F100AG, R5F100AG, R5F100SD, R5F100SD, R5F100BD, R5F100AG, R5F100AG, R5F100SD, R5F100DC, R5F100AD, R5F100AA, R5F100AC, R5F100AD, R5F100AD, R5F100AD, R5F100AD, R5F100AE, R5F100AD, R5F100AD, R5F100AD, R5F100AD, R5F100AE, R5F100AD, R5F100AD, R5F100AD, R5F100AD, R5F100AE, R5F100BL, R5F100AD, R5F100AD, R5F100AD, R5F100AE, R5F100BL, R5F100AD, R5F100AD, R5F100AD, R5F100AE, R5F100BL, R5F100AD, R5F10			
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R7F701042, R7F701043, R7F701044, R7F701045, R7F701051, R7F701052, R7F701053, R7F701054, R7F701056, R7F701056, R7F701052, R7F701053, R7F701054, R7F701055, R7F701056, R7F701553, R7F701564, R7F701548, R7F701569, R7F701572, R7F701573, (Debug Support Only)           P1H-C         R7F70170AEEBG, R7F701374, R8G, R7F701372EABG, R7F701370AEEBG, R7F701390, R7F701391, R7F701391, R7F701304, R7F701305, R7F701310, R7F701391, (Debug Support Only)           P1L-C         R7F701384, R7F701390, R7F701390, R7F701391, R7F701311, R7F701304, R7F701305, R7F701310, R7F701311, R7F701312, P1M           R7F701304, R7F701314, R7F701310, R7F701311, R7F701312, P1M         R7F701304, R7F701310, R7F701310, R7F701314, R7F701314, R7F701304, R7F701324, R7F701325, R7F701338, R7F701338, R7F701373, R7F701324, R7F701327, R7F701338, R7F701379, P1M-E           R7F701305, R7F701376, R7F701377, R7F701383, R7F701384, R7F701080, R7F701384, R7F701377, R7F701071, R7F701084, R7F701080, R7F701386, (Debug Support Only)           R7F701080, R7F701384, R7F701377, R7F701071, R7F701084, R7F701080, R7F701386, R7F701376, R7F701071, R7F701084, R7F701080, R7F701082, R7F701071, R7F701084, R7F701080, R7F701082, R7F701071, R7F701084, R7F701080, R7F701080, R7F701082, R7F701071, R7F701085, R7F701084, R7F701080, R7F100B2, R5F100B2, R5F100B4, R7F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100B4, R5F100			
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R7F701052, R7F701053, R7F701054, R7F701055, R7F701056, R7F701057, (Debug Support Only)           F1M         R7F701544, R7F701546, R7F701548, R7F701568, R7F701552,           F1M         R7F701572, R7F701573, (Debug Support Only)           P1H-C         R7F701304, R7F701306, R7F701391, CD568, R7F701372EABG,           P1H-C         R7F701304, R7F701306, R7F701301, R7F701311, R7F701312,           P1L-C         R7F701304, R7F701305, R7F701310, R7F701311, R7F701312,           P1M         R7F701304, R7F701315, R7F701311, R7F701311, R7F701319,           R7F701302, R7F701321, R7F701322, R7F7013723, (Debug Support Only)           R7F701302, R7F701321, R7F701322, R7F701378, R7F701379,           P1M-C         R7F701375, R7F701376, R7F701377, R7F701378, R7F701384,           R7F701306, R7F701381, R7F701382, R7F701383, R7F701384,           R7F701060xAFP, R7F7010362, RAF701052, R7F701071xAFP, (Debug Support Only)           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701069xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701069xAFP, R7F701064xAFP, R7F701065, R5F100CD,           R8F1006B, R5F1006C, R5F1006D, R5F100DD, R5F100DD,           R8F1006K, R5F100FL, R5F100FL, R5F100DL,           R8F1006K, R5F100FL, R5F100FL, R5F100DL, R5F100FL,           R7F701060xAFP, R7F701380, R5F1098C, R5F1098C,           R8F1006K, R5F1009C, R5F10090, R5F10096L, R5F10096L, <td></td> <td></td> <td></td>			
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R7F701572, R7F701573, (Debug Support Only)           P1H-C         R7F701371EABG, R7F701371EABG, R7F701390EABG, (Debug Support Only)           P1L-C         R7F701304, R7F701390, R7F701391, (Debug Support Only)           R7F701304, R7F701309, R7F701310, R7F701311, R7F701312,           P1M         R7F701321, R7F701316, R7F701311, R7F701312,           P1M         R7F701321, R7F701312, R7F701323, (Debug Support Only)           R7F701373, R7F701376, R7F701377, R7F7013378, R7F701379,           P1M-C         R7F701376, R7F701377, R7F701378, R7F701383, R7F701384,           R7F701385, R7F701386, R7F701378, R7F701383, R7F701384,           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           R7F701060xAFP, R7F7010062, R5F100DLD, R5F100EDLD,           R5F100CGB, R5F10DGC, R5F100GD, R5F100DLD, R5F100DLD,           R5F10066, R5F100DDE, R5F100DE, R5F100DE, R5F100DE, R5F100PG, R5F100PG, R5F100PG, R5F100PG, R5F100PG, R5F100PG, R5F100PG, R5F100PG, R5F100AG, R5F100AG, R5F100AG, R5F100AG, R5F		F1M	
P1H-C         R7F701370AEEBG, R7F701371EABG, R7F701372EABG, R7F701396EABG, (Debug Support Only)           P1L-C         R7F701388, R7F701389, R7F701391, (Debug Support Only)           R7F701304, R7F701305, R7F701310, R7F701311, R7F701312, P1M         R7F701320, R7F701321, R7F701318, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701328, Debug Support Only)           P1M-C         R7F701373xABG, R7F701374, R7F701328, R7F701376, R7F701376, R7F701376, R7F701376, R7F701376, R7F701376, R7F701376, R7F701376, R7F701383, R7F701384, R7F701380, R7F701381, R7F701377, R7F701383, R7F701384, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F7010607AFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701062xAFP, R7F701071xAFP, (Debug Support Only)           R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)         R5F10CGG, R5F10DGG, R5F10DGD, R5F10DLD, R5F10DM4, R5F10DDFL, R5F10DDFL, R5F10DDSK, R5F10DLD,           D1A         R5F10DBC, R5F10DGD, R5F10DDG, R5F10DDL, R5F10DM4, R5F10DPL, R5F10DSX, R5F10DSL, R5F10DSL, R5F10DSL, R5F109A, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109BA, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F10AGA, R5F10AAC, R5F10AAB, R5F10AAB, R5F109AB, R5F109AB, R5F10ALG, R5F10AAG, R5F10AAB, R5F10ABB, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAG, R5F10AAB, R5F10ABA, R5F10AAA, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAG, R5F10AAB, R5F10ABA, R5F10AAB, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABA, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABB, R5F10ABA, R5F10AAA, R5F10AAA, R5F10AAB, R5F10AAB, R5F10ABA, R5F10BBG, R5F10BBC, R5F10AAA, R5F10AAB, R5F10AAGA, R5F10ABA, R5F10ABBA, R5F10ABA, R5F10BAD, R5F10BA			
PTH-C         R7F701396EABG,(Debug Support Only)           P1L-C         R7F701388, R7F701389, R7F701390, R7F701391, R7F701312, R7F701304, R7F701315, R7F701311, R7F701311, R7F701312, R7F701313, R7F701314, R7F701315, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701323,(Debug Support Only)           P1M-C         R7F701373xABG, R7F701374xAFP, R7F701397xABG,(Debug Support Only)           P1M-C         R7F701380, R7F701376, R7F701372, R7F701378, R7F701379, R7F701380, R7F701386, (Debug Support Only)           P1M-E         R7F701386, R7F701386, (Debug Support Only)           R7F701386, R7F701386, R7F701388, R7F701383, R7F701384, R7F701060xAFP, R7F701082, R7F701383, R7F701384, R7F701067xAFP, R7F701069xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701074xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10CDD, R5F10CMD, R5F10CME, R5F10DMC, R5F10DDME, R5F10DMF, R5F10DMG, R5F10DM, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DM, R5F10DPL, R5F10DDM, R5F10DDK, R5F10DMG, R5F100BA, R5F1098A, R5F1098A, R5F1098A, R5F1098A, R5F1098A, R5F1098A, R5F1098A, R5F1098B, R5F1098A, R5F1098B, R5F1098B, R5F1098B, R5F1098C, R5F1098D, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1098B, R5F1094B, R5F1		DALLO	
R1F201304, R7F201305, R7F201310, R7F201311, R7F201312,           P1M         R7F201313, R7F201314, R7F201315, R7F201318, R7F201319, R7F701320, R7F701322, R7F701322, R7F701323, (Debug Support Only)           P1M-C         R7F201373xABG, R7F701377, R7F701397, xABG, (Debug Support Only)           R7F701370, R7F701375, R7F701377, R7F701378, R7F701379, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386, (Debug Support Only)           R7F701080, R7F701386, R7F701382, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R5F10064, R5F100DC, R5F100DG, R5F100FG, R5F100HD, R5F100FL, R5F10DPL, R5F10DFJ, R5F10DFJ, R5F10DLD, R5F100FL, R5F100AD, R5F10DPL, R5F10DF, R5F100FG, R5F10DFJ, R5F100AD, R5F10DAC, R5F100FG, R5F100AC, R5F100AD, R5F100AE, R5F100FG, R5F109GC, R5F109GD, R5F109GD, R5F109GE, R5F109AD, R5F109AE, R5F109ALC, R5F100AD, R5F109GD, R5F10AGA, R5F10AAC, R5F10AAD, R5F10AAC, R5F10AAD, R5F10AAG, R5F10AAC, R5F10AAG, R5F10AAC, R5F10AAC, R5F10AAD, R5F10AAC, R5F10AAC, R5F10AAD, R5F10AAC, R5F10AAD, R5F10AAD, R5F10AAD, R5F10AAD, R5F10AAC, R5F10ABAC, R5F10AAD, R5F10AAC, R5F10AAD,		PIH-C	
P1M         R7F701304, R7F701305, R7F701310, R7F701311, R7F701312, R7F701313, R7F701314, R7F701315, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701323, (Debug Support Only)           P1M-C         R7F701373xABG, R7F701374, AAFP, R7F701373, R7F701379, R7F701380, R7F701380, R7F701382, R7F701383, R7F701384, R7F701380, R7F701386, (Debug Support Only)           R7F701320, R7F701385, R7F701382, R7F701382, R7F701383, R7F701065xAFP, R7F701080, R7F701386, (Debug Support Only)           R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F7010064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701005xAFP, R7F7010065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701005, R5F10DLD, R5F100CME, R5F10DDGC, R5F10DGD, R5F10DMF, R5F10DDDJ, R5F100EB, R5F10DDE, R5F10DDF, R5F10DMF, R5F10DMG, R5F100EB, R5F10DDE, R5F10DDF, R5F10DMF, R5F10DMG, R5F100BA, R5F10DPL, R5F10DBF, R5F10DMF, R5F10DBJ, R5F109BA, R5F10968, R5F1096A, R5F1096B, R5F1096D, R5F1096D, R5F109BA, R5F10968, R5F1096A, R5F1096B, R5F1096D, R5F109BA, R5F109BA, R5F109AA, R5F109AB, R5F109BB, R5F109BA, R5F109BA, R5F109BA, R5F109AA, R5F109AB, R5F109BC, R5F109BA, R5F109BA, R5F109BA, R5F109AA, R5F109AB, R5F109BC, R5F109BA, R5F109BA, R5F109BA, R5F109AA, R5F10AGA, R5F10AGA, R5F10AGA, R5F10AABD, R5F109AA, R5F10AGA, R5F10AGA, R5F10AGA, R5F10AABD, R5F10AAB, R5F10AAGA, R5F10AAC, R5F10AABD, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAGA, R5F10AAC, R5F10AABD, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAGA, R5F10AAB, R5F10ABAC, R5F10AAA, R5F10AAC, R5F10BAD, R5F10ABE, R5F10ABA, R5F10ABG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAE, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAE, R5F10BAG, R5F10BA		P1L-C	R7F701388, R7F701389, R7F701390, R7F701391,(Debug Support Only)
P1M         R7F701313, R7F701314, R7F701315, R7F701318, R7F701319, R7F701320, R7F701321, R7F701322, R7F701332, (Debug Support Only)           P1M-C         R7F701373xABG, R7F701374xAFP, R7F701397xABG, (Debug Support Only)           P1M-E         R7F701375, R7F701376, R7F701377, R7F701387, R7F701379, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386, (Debug Support Only)           R7F701360, R7F701386, CDebug Support Only)         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10DLD, R5F10DLD, R5F10CME, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F100LE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DH, R5F10DPE, R5F10DMF, R5F10DMG, R5F10PJ, R5F10DB4, R5F10DPE, R5F10DPG, R5F10DG0, R5F10D9E, R5F10DFJ, R5F10968, R5F109AB, R5F1096B, R5F1096C, R5F109AE, R5F1096E, R5F109AA, R5F109AB, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109B4, R5F109GC, R5F109B0, R5F109B2, R5F109B4, R5F109B4, R5F109B4, R5F109G0, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F109AB, R5F10AGA, R5F10ABC, R5F109AB, R5F109AB, R5F10AGA, R5F10AAB, R5F10ABC, R5F10AAB, R5F10ABD, R5F10AAB, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10ABA, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10ABC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10ABA, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABC, R5F10AAB, R5F10AAB, R5F10ABB, R5F10BAB, R5F10BAB, R5F10AAC, R5F10ABA, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BAC, R5F10BAD, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BAC, R5F10ABA, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BAC, R5F10BAD, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BABC, R5F10BABD, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BAB, R5F10BA			
P1M-C         R7F701373xABG, R7F701374xAFP, R7F701397xABG, (Debug Support Only)           R7F701375, R7F701376, R7F701377, R7F701378, R7F701379, P1M-E         R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386, (Debug Support Only)           R7F701385, R7F701386, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10LDD, R5F10DMD, R5F10DLE, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DMD, R5F10DLE, R5F10DDC, R5F10DGD, R5F10DGE, R5F10DMG, R5F10DLE, R5F10DDE, R5F10DME, R5F10DMG, R5F10DMG, R5F10DHX, R5F10DPL, R5F10DDF, R5F10DDG, R5F10DBJ, R5F10988, R5F10986, R5F10960, R5F10980, R5F10984, R5F1099A, R5F10980, R5F10980, R5F10980, R5F10984, R5F10984, R5F1094A, R5F10980, R5F10980, R5F10980, R5F10980, R5F10984, R5F1094A, R5F10980, R5F10980, R5F10940, R5F10984, R5F1094A, R5F10980, R5F10980, R5F10940, R5F10984, R5F1094A, R5F10980, R5F10980, R5F10940, R5F10984, R5F10984, R5F1094A, R5F10940, R5F10940, R5F10940, R5F10940, R5F10940, R5F10940, R5F10940, R5F10940, R5F10404, R5F10940, R5F10940, R5F10940, R5F10940, R5F10940, R5F104040, R5F104040, R5F104040, R5F10440, R5F10404, R5F104040, R5F104040, R5F104040, R5F10440, R5F10404, R5F104040, R5F104040, R5F104040, R5F10440, R5F10404, R5F104040, R5F104040, R5F104040, R5F10440, R5F10404, R5F104046, R5F104040, R5F104040, R5F10440, R5F10404, R5F104040, R5F104040, R5F104040, R5F10440, R5F10404, R5F104046, R5F104040, R5F104040, R5F104040, R5F104044, R5F104046, R5F104040, R5F104040, R5F104040, R5F104044, R5F104046, R5F104040, R5F104040, R5F104040, R5F104044, R5F104046, R5F104040, R5F104040, R5F104044, R5F104046, R5F104040, R5F104040, R5F104044, R5F104046, R5F104046, R5F104040, R5F104044, R5F104046, R5F104046, R5F104040, R5F104044, R5F104044, R5F104044, R5F104046, R5F104044, R5F10444, R5F104040, R5F		P1M	
PTIM-C         Only)           R7F701375, R7F701376, R7F701377, R7F701378, R7F701379, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701385, R7F701382, R7F701383, R7F701384, R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701060xAFP, R7F701069xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701069xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701069xAFP, R7F701071xAFP,(Debug Support Only)           R85F100CGB, R5F10CGC, R5F100CDD, R5F100LD, R5F10DLD,           R1A         R5F10DBL, R5F10DPF, R5F10DPF, R5F10DPJ,           R5F100DLE, R5F10DPE, R5F10DPF, R5F10DPJ,           R5F100PK, R5F10DPL, R5F10DPF, R5F10DSL, R5F100PJ,           R5F10988, R5F10960, R5F10960, R5F1090D, R5F10960, R5F10960,           R5F10988, R5F10980, R5F10980, R5F1099D, R5F10980, R5F10984,           R5F10980, R5F10990, R5F10990, R5F10900, R5F1090B,           R5F10980, R5F10990, R5F10980, R5F10940, R5F10940, R5F10940,           R5F100A0, R5F10900, R5F10900, R5F100A0, R5F100A0,           R5F100A0, R5F10900, R5F10900, R5F100A0, R5F100A0,           R5F100A0, R5F10900, R5F100A0, R5F10A0A0,           R5F100A0, R5F100A0, R5F100A0, R5F100A0,           R5F100A0, R5F100A0, R5F100A0,           R5F100A0, R5F100A0, R5F100A0,           R5F100A0, R5F100A0,           R5F100A0, R5F100B0,			R7F701320, R7F701321, R7F701322, R7F701323,(Debug Support Only)
Unity         R7F701375, R7F701376, R7F701377, R7F701378, R7F701379, R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386, (Debug Support Only)           R7F701385, R7F701386, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701385, R7F701386, (Debug Support Only)           R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701062xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701062xAFP, R7F701064xAFP, R7F701064xAFP, R7F701065xAFP,           -         R5F100CG, R5F10DGC, R5F10DBC, R5F10DFJ,           R5F10DL, R5F10DPL, R5F10DFD, R5F10DFD, R5F100FD,         R5F10106G, R5F10096, R5F1096G, R5F1096G, R5F1096B, R5F1096B,           R5F10AGA, R5F109GD, R5F109GD, R5F10AGD, R5F10AGD, R5F10AGC,         R5F10AAG, R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGC,           R5F10AGA, R5F10BAE, R5F10AGC, R5F10AGD, R5F10AGC,         R5F10AAG, R5F10BAE, R5F10BAF, R5F10BAC,           R13         R5F10BAD, R5F10BAE, R5F10BBF, R5F1			R7F701373xABG, R7F701374xAFP, R7F701397xABG,(Debug Support
P1M-E         R7F701380, R7F701381, R7F701382, R7F701383, R7F701384, R7F701385, R7F701386, (Debug Support Only)           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP, R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F10CME, R5F10DGC, R5F10DGE, R5F10DGE, R5F10DDG, R5F10DLE, R5F10DMD, R5F10DGE, R5F10DGE, R5F10DPJ, R5F10DMK, R5F10DPL, R5F10DF, R5F10DPG, R5F10DPJ, R5F10DMK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F109AB, R5F109AB, R5F109AA, R5F1096A, R5F1096B, R5F1096C, R5F109AB, R5F109BA, R5F109BB, R5F1096A, R5F109AD, R5F109AD, R5F109AB, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109AD, R5F109AB, R5F109BB, R5F109BB, R5F109BC, R5F109BD, R5F109AB, R5F109AB, R5F109BB, R5F109BC, R5F109AB, R5F109AB, R5F109AB, R5F10AAD, R5F10AGA, R5F10A6C, R5F10AAB, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AGA, R5F10AGA, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AGA, R5F10ABA, R5F10AAB, R5F10ABB, R5F10AAD, R5F10AGA, R5F10ABA, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABD, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABD, R5F10ABB, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABD, R5F10ABB, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABD, R5F10AAB, R5F10ABA, R5F10ABA, R5F10ABC, R5F10ABB, R5F10ABB, R5F10ABA, R5F10ABC, R5F10ABB, R5F10ABB, R5F10ABA, R5F10ABA, R5F10ABC, R5F10BAD, R5F10BBE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BBE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BBE, R5F10PBD, R5F10BBE, R5F10BBC, R5F10PAD, R5F10BLE, R5F10PBD, R5F10PBB, R5F10BBC, R5F10PAD, R5F10BLE, R5F10PBD, R5F10PBB, R5F10PBD, R5F10PAD, R5F10PLF, R5F10PBD, R5F10PBE, R5F10PBD, R5F10PAD, R5F10PLF, R5F10PBD, R5F10PBE, R5F10PBB, R5F10PAD, R5F10PAE, R5F10PBB, R5F10PBB, R5F10		F IM-C	
RTF701385, R7F701386, (Debug Support Only)           R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701060xAFP, R7F701062xAFP, R7F701064xAFP, R7F701065xAFP,           -         R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD,           R5F10DLE, R5F10DBC, R5F10DMF, R5F10DMF, R5F10DDF,           R5F10DLE, R5F10DLE, R5F10DME, R5F10DMF, R5F10DMF, R5F10DPJ,           R5F10DPK, R5F10DPE, R5F10DSJ, R5F10DSL, R5F10PJ,           R5F10DPK, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E,           R5F109AA, R5F109AB, R5F109BD, R5F109BE, R5F109AE, R5F109BA,           F12         R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109AE, R5F109BA,           R510         R5F109BD, R5F109BD, R5F109BE, R5F109AB,           R5F109BL, R5F109BL         R5F109BL, R5F109AB, R5F109AB,           R5F109BL, R5F10AGA, R5F10AGA, R5F109AB, R5F109LC,         R5F109AD, R5F10AGA, R5F10AGA, R5F10ABC, R5F10ABD,           R12         R5F10AAD, R5F10AGC, R5F10AAB, R5F10ABC, R5F10ABD,           R5F10AAD, R5F10AGA, R5F10AGA, R5F10ABC, R5F10ABC,         R5F10AAD, R5F10AGA, R5F10ABC, R5F10ABC,           R5F10AAB, R5F10AGA, R5F10AA, R5F10ABC, R5F10ABD,         R5F10AAD, R5F10AGA, R5F10ABC, R5F10ABC, R5F10ABC,           R5F10AGA, R5F10AGA, R5F10AGA, R5F10ABC, R5F10ABC,         R5F10AGA, R5F10ABE, R5F10ABC, R5F10ABC,           R5F10AGA, R5F10AGA, R5F10ABE, R5F10ABC, R5F10ABC, <td></td> <td></td> <td></td>			
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-         R7F701067xAFP, R7F701069xAFP, R7F701071xAFP, (Debug Support Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F10CME, R5F10DGC, R5F10DGD, R5F10DDG, R5F10DLD,           D1A         R5F10CGE, R5F10DDE, R5F10DDF, R5F10DMG, R5F10DH, R5F10DE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F100PK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F1096E, R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F1096A, R5F109BD, R5F109BD, R5F109AE, R5F109BA, R5F109AA, R5F109BB, R5F109BD, R5F109BD, R5F109BE, R5F109GB, R5F109AA, R5F109BD, R5F109BD, R5F109BE, R5F109GB, R5F109AD, R5F109BD, R5F109BD, R5F109BD, R5F109BB, R5F109GB, R5F10AAD, R5F10AGC, R5F10A6D, R5F10A6C, R5F10AAD, R5F109LC, R5F104DD, R5F109LE           RL78         R5F10A6A, R5F10AGC, R5F10A6D, R5F10A6C, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AGA, R5F10AAB, R5F10AAB, R5F10AABD, R5F10AABE, R5F10AGG, R5F10AAB, R5F10AABC, R5F10AAC, R5F10AAD, R5F10AABE, R5F10AAB, R5F10AABC, R5F10AAC, R5F10ABD, R5F10ABE, R5F10ABC, R5F10AAG, R5F10ABD, R5F10BAD, R5F10BAE, R5F10ABC, R5F10ABG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BME, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10BME, R5F10PGE, R5F10PGF, R5F10PBD, R5F10PGB, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGB, R5F10PGB, R5F10PGD, R5F10PGE, R5F10PLE, R5F10PLG, R5F10PGH, R5F10PGF, R5F10PMF, R5F10PLE, R5F10PLG, R5F10PLH, R5F10PH, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PHJ, R5F10P			
Only)           R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F100LB, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DLD,           D1A         R5F10CME, R5F10DGC, R5F10DDG, R5F10DMF, R5F10DMG, R5F10DLJ, R5F10DPL, R5F10DPF, R5F10DPG, R5F10DPJ,           R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F10PJ,           R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E,           R5F1098B, R5F109BC, R5F109BD, R5F109BC, R5F109AA, R5F109BB,           R51090G, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109BA,           F12         R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109AA, R5F109CB,           R5F109LD, R5F109BC, R5F109BD, R5F109BB, R5F109LA, R5F109LC,         R5F109LD, R5F109BC, R5F109BD, R5F109BB, R5F109LA,           R5F109LD, R5F109BL         R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAA, R5F10AAC,           R5F10AAA, R5F10AAC, R5F10AAB, R5F10ABC, R5F10AABD,         R5F10AAD, R5F10AAC, R5F10AAB, R5F10ABC, R5F10AABD,           R178         R5F10AAG, R5F10AAG, R5F10AAC, R5F10AAB, R5F10AAC,           R5F10AAB, R5F10AAG, R5F10ABA, R5F10ABC, R5F10ABA,         R5F10AAB,           R178         R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABC, R5F10ABB,           R178         R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABC,           R5F10AAB, R5F10BAB, R5F10BAB, R5F10ABC,         R5F10AAB, R5F10BAB, R5F10ABC,           R5F10AB, R5F10BAB, R5F10BBB, R5F10BBC,         R5F10BAB, R5F10BBB, R5F10BBB, R5F10BBC,           R5F10BAD, R5F10BBB, R5F10BBB, R5F10BBB, R5F10BBC,			
RL78         R5F10CGB, R5F10CGC, R5F10CGD, R5F10CLD, R5F10CMD, R5F100ME, R5F10DGC, R5F10DGD, R5F10DDG, R5F10DLD,           D1A         R5F10DLE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F109A, R5F109A, R5F109AC, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109BD, R5F109AB, R5F109BB, R5F109GC, R5F109GD, R5F109BD, R5F109BA, R5F109AE, R5F109GB, R5F109GC, R5F109GD, R5F109BD, R5F109LA, R5F109LB, R5F109GB, R5F109LD, R5F109LE           RL78         R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AGA, R5F10AGC, R5F10AGD, R5F10AAB, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AGA, R5F10AGC, R5F10AGC, R5F10AAB, R5F10AAC, R5F10AAD, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAD, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10ABD, R5F10AAC, R5F10AAB, R5F10AAB, R5F10ABF, R5F10ABD, R5F10AAC, R5F10BAD, R5F10BAE, R5F10ABF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10PAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10BBG, R5F10BAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10BBG, R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PAD, R5F10PAE, R5F10PBG, R5F10PBE, R5F10PFG, R5F10PAD, R5F10PAE, R5F10PBG,		-	
RL78         R5F10CME, R5F10DGC, R5F10DGD, R5F10DGE, R5F10DLD, R5F10DLE, R5F10DDE, R5F10DPF, R5F10DMF, R5F10DMG, R5F10DPK, R5F10DPL, R5F10DPF, R5F10DSK, R5F1096L, R5F1096B, R5F109AA, R5F1096A, R5F1096B, R5F1096C, R5F1096B, R5F1096A, R5F109AA, R5F109AA, R5F109AB, R5F109AD, R5F109AD, R5F109BA, R5F109BB, R5F109BD, R5F109BD, R5F109BE, R5F109AB, R5F109BA, R5F109GC, R5F109GD, R5F109BD, R5F109BE, R5F109AA, R5F109BA, R5F109LD, R5F109BD, R5F109GE, R5F109AA, R5F109AB, R5F109LD, R5F109BD, R5F109GE, R5F10AAA, R5F10AAA, R5F10AAA, R5F10AGC, R5F10A6D, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AABA, R5F10AAC, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AGA, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AGA, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AGA, R5F10ABA, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AGA, R5F10ABA, R5F10ABC, R5F10AAB, R5F10AAB, R5F10AGB, R5F10ABA, R5F10ABC, R5F10AAB, R5F10ABB, R5F10AGB, R5F10ABA, R5F10ABG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10ABF, R5F10AAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BBE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10PAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10PGD, R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10PGD, R5F10PAD, R5F10PAE, R5F10PAG, R5F10PAB, R5F10PGD, R5F10PAGE, R5F10PAE, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAF, R5F10PAF, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAF, R5F10PAF, R5F10PAF, R5F10PAB, R5F10PAB, R5F10PAF, R5F10PAF, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAF, R5F10PAF, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAF, R5F10PAF, R5F10PAF, R5F10PAB, R5F10PAB,			
D1A         R5F10DLE, R5F10DMD, R5F10DME, R5F10DMF, R5F10DMG, R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSL, R5F10DSL, R5F1096E, R5F109AA, R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BD, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109BD, R5F109BD, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109LD, R5F109LE           R12         R5F109AC, R5F109GD, R5F109BD, R5F109AA, R5F109GB, R5F109LD, R5F109LE           R5F10AAA, R5F10AAC, R5F10AGD, R5F10AGE, R5F109LA, R5F109LC, R5F10ADA, R5F10AAE, R5F10AGA, R5F10AGE, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AAA, R5F10AAC, R5F10AAB, R5F10AAB, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AGA, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAB, R5F10AAG, R5F10AAE, R5F10ABA, R5F10AAB, R5F10AAE, R5F10AAB, R5F10AAB, R5F10AAB, R5F10ABC, R5F10AAE, R5F10AAB, R5F10AAB, R5F10ABA, R5F10ABC, R5F10AAE, R5F10AAB, R5F10AAB, R5F10ABF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BBF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BBF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BAE, R5F10BBF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BAD, R5F10PAE, R5F10PBD, R5F10BBG, R5F10BBC, R5F10BAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PLF, R5F10PLG, R5F10PGH, R5F10PGJ, R5F10PAE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PAE, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F10DMJ, R5F10DPE, R5F10DPF, R5F10DPG, R5F10DPJ, R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F10TPJ           R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E, R5F109AA, R5F109BB, R5F109BD, R5F109AD, R5F109AE, R5F109BA, F12           F12         R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109GC, R5F109BD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109DE           R5F109AA, R5F10AGA, R5F10AGA, R5F10AAA, R5F10AAA, R5F10AAC, R5F109LD, R5F109LE           R5F10AAD, R5F10AGA, R5F10AGA, R5F10ABD, R5F10ABD, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AAG, R5F10ABC, R5F10AABD,           F13         R5F10AGF, R5F10AGG, R5F10AAG, R5F10ABC, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10PAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10PAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAG           R5F10PAD, R5F10PAE, R5F10PBD, R5F10PAE, R5F10PAE, R5F10PAD, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAD, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAD, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAD, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F10PAE, R5F1		D1A	
R5F10DPK, R5F10DPL, R5F10DSJ, R5F10DSK, R5F10DSL, R5F10TPJ           R5F10968, R5F1096A, R5F1096B, R5F1096C, R5F1096D, R5F1096E,           R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA,           F12         R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB,           R5F109C, R5F109BD, R5F109BD, R5F109BE, R5F109LB, R5F109LC,         R5F109LD,           R5F109LD, R5F109LE         R5F10AGA, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AAA, R5F10AAC,           R5F10AAD, R5F10AGC, R5F10AGA, R5F10AGC, R5F10AAB, R5F10AAC,         R5F10AAD, R5F10AGA, R5F10AAC,           R5F10AAD, R5F10AGA, R5F10AGC, R5F10AGD, R5F10ABD,         R5F10AGF, R5F10AGA, R5F10AGC, R5F10AGC, R5F10ABD,           R178         R5F10AABE, R5F10AGA, R5F10AAC, R5F10AAG, R5F10AAC,           R5F10AAD, R5F10AGA, R5F10ABA, R5F10ABC, R5F10ABD,         R5F10AGF, R5F10AGG, R5F10AGC, R5F10ABC, R5F10ABC,           R5F10ABD, R5F10BAB, R5F10ABC, R5F10ABC, R5F10ABC,         R5F10AAGF, R5F10ABAE, R5F10AMF, R5F10AMG, R5F10BBC,           R5F10BAD, R5F10BAB, R5F10BAB, R5F10BAG, R5F10BBC,         R5F10BAD, R5F10BBE, R5F10BBF, R5F10BAG, R5F10BBC,           R5F10BAD, R5F10BAB, R5F10BBF, R5F10BBG, R5F10BMC,         R5F10BAD, R5F10BLF, R5F10BLF, R5F10BBG, R5F10BME,           R5F10BAG         R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10PBD,           R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBB, R5F10PGD,         R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBD, R5F10PGD,           R5F10PAD, R5F10PAE, R5F10PGG, R5F10PGH, R5F10PLJ, R5F10PME,         R5F1		Dirt	
R12         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         R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGG, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10AGC, R5F10ADD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10AGG, R5F10AAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BBD, R5F10BBE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BLE, R5F10BGF, R5F10BGG, R5F10BBC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BGG, R5F10BAC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BDD, R5F10BLE, R5F10BAF, R5F10BAG, R5F10BAC, R5F10BAD, R5F10PAE, R5F10BAF, R5F10BAG, R5F10PAD, R5F10BAD, R5F10PAE, R5F10PAD, R5F10PAB, R5F10PAD, R5F10PAD, R5F10PAE, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAD, R5F10PAE, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10PAB, R5F10			
F12         R5F109AA, R5F109AB, R5F109AC, R5F109AD, R5F109AE, R5F109BA, R5F109BB, R5F109BC, R5F109BD, R5F109BE, R5F109GA, R5F109GB, R5F109GC, R5F109GD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109LE           RL78         R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGG, R5F10AGC, R5F10AGD, R5F10ABE, R5F10AGF, R5F10AGG, R5F10AGC, R5F10ABC, R5F10ALE, R5F10ALF, R5F10AGF, R5F10AGG, R5F10AME, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BAD, R5F10BAE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BGF, R5F10BBG, R5F10BMF, R5F10BBD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG           F14         R5F10PLE, R5F10PLF, R5F10PLG, R5F10PMJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F109GC, R5F109GD, R5F109GE, R5F109LA, R5F109LB, R5F109LC, R5F109LD, R5F109LE           RL78         R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10AGA, R5F10ABA, 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, R5F10BBC, R5F10BBD, R5F10BGE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BGE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BLE, R5F10BLF, R5F10BBG, R5F10BBG, R5F10BMF, R5F10BMG           F14         R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F109LD, R5F109LE           RL78         R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10ABE, R5F10AGG, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10AGC, R5F10ALD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10ALG, R5F10AME, R5F10AMF, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BGD, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBF, R5F10BBC, R5F10PAD, R5F10PAD, R5F10PBD, R5F10PBE, R5F10PBD, R5F10PBD, R5F10PBE, R5F10PBD, R5F10PBL, R5F10PBL, R5F10PME, R5F10PBC, R5F10PBC, R5F10PBC, R5F10PBC, R5F10PME, R5F10PMF, R5F10PMF, R5F10PMF, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,		F12	
RL78         R5F10A6A, R5F10A6C, R5F10A6D, R5F10A6E, R5F10AAA, R5F10AAC, R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, R5F10ABE, R5F10AGG, R5F10AGC, R5F10AGD, R5F10AGE, R5F10AGF, R5F10AGG, R5F10ALC, R5F10ALD, R5F10ALE, R5F10ALF, R5F10ALG, R5F10AME, R5F10AMF, R5F10AMG, R5F10BAC, R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC, R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BBC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BGC, R5F10BGD, R5F10BLE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG           F14         R5F10PAE, R5F10PAE, R5F10PMG, R5F10PMG, R5F10PMG, R5F10PMF, R5F10PMG, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
RL78 R5F10AAD, R5F10AAE, R5F10ABA, R5F10ABC, R5F10ABD, RL78 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, R5F10BBC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			,
RL78 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 R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
F13 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 R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,	<b>B</b> 1 <b>B</b> 0		
<ul> <li>F13</li> <li>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</li> <li>F14</li> <li>R5F10PLE, R5F10PLF, R5F10PLG, R5F10PML, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,</li> </ul>	RL/8		
F13       R5F10BAD, R5F10BAE, R5F10BAF, R5F10BAG, R5F10BBC,         R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BGC,       R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC,         R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF,       R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF,         R5F10BMG       R5F10PAD, R5F10PAE, R5F10PGG, R5F10PGB, R5F10PGD,         F14       R5F10PLE, R5F10PLF, R5F10PLG, R5F10PMH, R5F10PPE,			
R5F10BBD, R5F10BBE, R5F10BBF, R5F10BBG, R5F10BGC, R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, <u>R5F10BMG</u> R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,		F13	
R5F10BGD, R5F10BGE, R5F10BGF, R5F10BGG, R5F10BLC, R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F10BLD, R5F10BLE, R5F10BLF, R5F10BLG, R5F10BME, R5F10BMF, R5F10BMG R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F10BMG R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F10PAD, R5F10PAE, R5F10PBD, R5F10PBE, R5F10PGD, R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
R5F10PGE, R5F10PGF, R5F10PGG, R5F10PGH, R5F10PGJ, F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
F14 R5F10PLE, R5F10PLF, R5F10PLG, R5F10PLH, R5F10PLJ, R5F10PME, R5F10PMF, R5F10PMG, R5F10PMH, R5F10PMJ, R5F10PPE,			
		F14	
R5F10PPF, R5F10PPG, R5F10PPH, R5F10PPJ			
			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
F1E	R5F11KLE, R5F11KLF, R5F11KLG, R5F11LLE, R5F11LLF, R5F11LLG
G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
G11	R5F1051A, R5F1054A, R5F1056A, R5F1057A, R5F1058A
-	R5F10266, R5F10267, R5F10268, R5F10269, R5F1026A, R5F10277,
G12	R5F10278, R5F10279, R5F1027A, R5F102A7, R5F102A8, R5F102A9, R5F102AA, R5F10366, R5F10367, R5F10368, R5F10369, R5F1036A, R5F10377, R5F10378, R5F10379, R5F1037A, R5F103A7, R5F103A8, R5F103A9, R5F103AA
G13	R5F100A9, R5F100AA R5F100A, R5F1006C, R5F1006D, R5F1006E, R5F1007A, R5F1007C, R5F1007D, R5F1007E, R5F1008A, R5F1008C, R5F1008D, R5F1008G, R5F100AA, R5F100AC, R5F100AD, R5F100AE, R5F100BF, R5F100BG, R5F100EA, R5F100BC, R5F100DD, R5F100EE, R5F100EF, R5F100CG, R5F100EA, R5F100EC, R5F100FD, R5F100FD, R5F100FF, R5F100FF, R5F100EA, R5F100FA, R5F100FJ, R5F100FD, R5F100FE, R5F100FF, R5F100GC, R5F100GD, R5F100FJ, R5F100FK, R5F100FE, R5F100GA, R5F100GC, R5F100GD, R5F100GE, R5F100GF, R5F100GG, R5F100GH, R5F100GJ, R5F100GK, R5F100GL, R5F100JC, R5F100JD, R5F100JE, R5F100JF, R5F100JG, R5F100GL, R5F100JC, R5F100JA, R5F100JE, R5F100JF, R5F100JG, R5F100JL, R5F100JC, R5F100JK, R5F100JE, R5F100JF, R5F100LD, R5F100JL, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100LD, R5F100JL, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100LD, R5F100JL, R5F100JF, R5F100JG, R5F100JH, R5F100JJ, R5F100LD, R5F100JL, R5F100JF, R5F100JG, R5F100DH, R5F100JJ, R5F100HX, R5F100DL, R5F100JF, R5F100DG, R5F100DH, R5F100JJ, R5F101AA, R5F100DL, R5F100SH, R5F100SJ, R5F100SK, R5F100SL, R5F101AA, R5F101AC, R5F1016D, R5F1016E, R5F101AF, R5F101AG, R5F101AA, R5F101AC, R5F101AD, R5F1018E, R5F101AF, R5F101AG, R5F101AA, R5F101AC, R5F101AD, R5F101AE, R5F101AF, R5F101AG, R5F101AA, R5F101AC, R5F101AD, R5F101AF, R5F101AF, R5F101AG, R5F101AA, R5F101AC, R5F101AB, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AG, R5F101AH, R5F101AJ, R5F101AF, R5F101AF, R5F101AF, R5F101AG, R5F101AH, R5F101AF, R5F101AF, R5F101AF, R5F101AF, R5F101AG, R5F101AF
G13A	R5F140FK, R5F140FL, R5F140GK, R5F140GL, R5F140LK, R5F140LL, R5F140PK, R5F140PL
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, R5F104JF, R5F104LG, R5F104HH, R5F104LJ, R5F104LK, R5F104LL, R5F104HF, R5F104MG, R5F104MH, R5F104MJ, R5F104MK, R5F104ML, R5F104PF, R5F104PG, R5F104PH, R5F104PJ, R5F104PK, R5F104PL
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	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
	G1K	R5F11VBG, R5F11VLG
	G1M	R5F11W67, R5F11W68
	G1N	R5F11Y67, R5F11Y68
	G1P	R5F11Z7A, R5F11ZBA
	H1D	R5F11NGF, R5F11NGG, R5F11NLF, R5F11NLG, R5F11NME, R5F11NMF, R5F11NMG, R5F11PLF, R5F11PLG, R5F11RMG
	I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
	I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
	I1C	R5F10NLE, R5F10NLG, R5F10NME, R5F10NMG, R5F10NMJ, R5F10NPG, R5F10NPJ
	I1C-2	R5F11TLE, R5F11TLG
	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
	110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
	113	R5F51135, R5F51136, R5F51137, R5F51138
	130	R5F51303, R5F51305, R5F51305B, R5F51306, R5F51306B, R5F51307, R5F51308
RX	13T	R5F513T3, R5F513T5
	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

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	23E-A	R5F523E5A, R5F523E6A
	23T	R5F523T3, R5F523T5
	23W	R5F523W7, R5F523W8
	24T	R5F524T8, R5F524TA, R5F524TB, R5F524TC, R5F524TE
	24U	R5F524UB, R5F524UC, R5F524UE
	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, R5F563NY, R5F563NY
	63T	R5F563T4, R5F563T5, R5F563T6, R5F563TB, R5F563TB_5V, R5F563TC, R5F563TC_5V, R5F563TE, R5F563TE_5V
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	651	R5F56514, R5F56517, R5F56519, R5F5651C, R5F5651C_DUAL, R5F5651E, R5F5651E_DUAL R5F56519DMB, R5F5651EDMB, R5F5651EDMB_DUAL,(Debug Support Only)
	65N	R5F565N4, R5F565N7, R5F565N9, R5F565NC, R5F565NC_DUAL, R5F565NE, R5F565NE_DUAL R5F565N9DMB, R5F565NEDMB, R5F565NEDMB_DUAL,(Debug Support Only)
	66N	R5F566ND, R5F566ND_DUAL, R5F566NN, R5F566NN_DUAL
	66T	R5F566TA, R5F566TE, R5F566TF, R5F566TK
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
	72M	R5F572MD, R5F572MD_DUAL, R5F572MN, R5F572MN_DUAL
	72N	R5F572ND, R5F572ND_DUAL, R5F572NN, R5F572NN_DUAL
	72T	R5F572TF, R5F572TK
	-	R0E5571MLDMBXX,(Debug Support Only)
	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
RZ	A2	R7S921040, R7S921041, R7S921042, R7S921043, R7S921045, R7S921046, R7S921047, R7S921048, R7S921051, R7S921052, R7S921053, R7S921056, R7S921057, R7S921058
	G1E	R8A77450, R8A77450_Core1,(Debug Support Only)
	G1M	R8A77430, R8A77430_Core1,(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, 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
T1-M	R7S910020, R7S910021, R7S910022, R7S910023, R7S910120, R7S910121, R7S910122, R7S910123



## 2.2 Code Generator Support

Family	Group	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
	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
	F1E	R5F11KLE, R5F11KLF, R5F11KLG, R5F11LLE, R5F11LLF, R5F11LLG
	G10	R5F10Y14, R5F10Y16, R5F10Y17, R5F10Y44, R5F10Y46, R5F10Y47
	G11	R5F1051A, R5F1054A, R5F1056A, R5F1057A, R5F1058A
RL78	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,
G13	R5F101PJ, R5F101PK, R5F101PL, R5F101SH, R5F101SJ, R5F101SK, R5F101SL
C124	R5F140FK, R5F140FL, R5F140GK, R5F140GL, R5F140LK, R5F140LL, R5F140PK,
G13A	R5F140PL

	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,
G14	R5F104PL
	R5F10E8A, R5F10E8C, R5F10E8D, R5F10E8E, R5F10EBA, R5F10EBC, R5F10EBD,
	R5F10EBE, R5F10EGA, R5F10EGC, R5F10EGD, R5F10EGE, R5F10ELC, R5F10ELD,
G1A	R5F10ELE
G1C	R5F10JBC, R5F10JGC, R5F10KBC, R5F10KGC
G1D	R5F11AGG, R5F11AGH, R5F11AGJ
G1E	R5F10FLC, R5F10FLD, R5F10FLE, R5F10FMC, R5F10FMD, R5F10FME

	R5F11B7C, R5F11B7E, R5F11BBC, R5F11BBE, R5F11BCC, R5F11BCE, R5F11BGC,
G1F	R5F11BGE, R5F11BLC, R5F11BLE
G1G	R5F11EA8, R5F11EAA, R5F11EB8, R5F11EBA, R5F11EF8, R5F11EFA
G1H	R5F11FLJ, R5F11FLK, R5F11FLL
	R5F11NGF, R5F11NGG, R5F11NLF, R5F11NLG, R5F11NME, R5F11NMF,
H1D	R5F11NMG, R5F11PLF, R5F11PLG, R5F11RMG
I1A	R5F1076C, R5F107AC, R5F107AE, R5F107DE
I1B	R5F10MME, R5F10MMG, R5F10MPE, R5F10MPG
I1C	R5F10NLE, R5F10NLG, R5F10NME, R5F10NMG, R5F10NMJ, R5F10NPJ
I1C-2	R5F11TLE, R5F11TLG
	R5F11768, R5F1176A, R5F11778, R5F1177A, R5F117A8, R5F117AA, R5F117AC,
I1D	R5F117BA, R5F117BC, R5F117GA, R5F117GC
I1E	R5F11CBC, R5F11CCC
	R5F10RB8, R5F10RBA, R5F10RBC, R5F10RF8, R5F10RFA, R5F10RFC, R5F10RG8,
L12	R5F10RGA, R5F10RGC, R5F10RJ8, R5F10RJA, R5F10RJC, R5F10RLA, R5F10RLC
	R5F10WLA, R5F10WLC, R5F10WLD, R5F10WLE, R5F10WLF, R5F10WLG,
L13	R5F10WMA, R5F10WMC, R5F10WMD, R5F10WME, R5F10WMF, R5F10WMG
L1A	R5F11MMD, R5F11MME, R5F11MMF, R5F11MPE, R5F11MPF, R5F11MPG
	R5F110ME, R5F110MF, R5F110MG, R5F110MH, R5F110MJ, R5F110PE, R5F110PF,
	R5F110PG, R5F110PH, R5F110PJ, R5F111ME, R5F111MF, R5F111MG, R5F111MH,
L1C	R5F111MJ, R5F111PE, R5F111PF, R5F111PG, R5F111PH, R5F111PJ
110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118,
111	R5F5111J
113	R5F51135, R5F51136, R5F51137, R5F51138
130	R5F51303, R5F51305
230	R5F52305, R5F52306
231	R5F52315, R5F52316, R5F52317, R5F52318
23T	R5F523T3, R5F523T5
24T	R5F524T8, R5F524TA, R5F524TB, R5F524TC, R5F524TE
24U	R5F524UB, R5F524UC, R5F524UE
64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
651	R5F56514, R5F56517, R5F56519
65N	R5F565N4, R5F565N7, R5F565N9
71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
1 71/1	

RX



		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,
RZ	T1	R7S910135, R7S910136



# 2.3 Smart Configurator Support

Family	Group	Devices
	110	R5F51101, R5F51103, R5F51104, R5F51105, R5F5110H, R5F5110J
	111	R5F51111, R5F51113, R5F51114, R5F51115, R5F51116, R5F51117, R5F51118, R5F5111J
	113	R5F51135, R5F51136, R5F51137, R5F51138
	130	R5F51303, R5F51305, R5F51305B, R5F51306, R5F51306B, R5F51307, R5F51308
	13T	R5F513T3, R5F513T5
	230	R5F52305, R5F52306
	231	R5F52315, R5F52316, R5F52317, R5F52318
	23E-A	R5F523E5A, R5F523E6A
	23T	R5F523T3, R5F523T5
	23W	R5F523W7, R5F523W8
	24T	R5F524T8, R5F524TA, R5F524TB, R5F524TC, R5F524TE
	24U	R5F524UB, R5F524UC, R5F524UE
	64M	R5F564MF, R5F564MG, R5F564MJ, R5F564ML
	651	R5F56514, R5F56517, R5F56519, R5F5651C, R5F5651C_DUAL, R5F5651E, R5F5651E_DUAL
	65N	R5F565N4, R5F565N7, R5F565N9, R5F565NC, R5F565NC_DUAL, R5F565NE, R5F565NE_DUAL
	66N	R5F566ND, R5F566ND_DUAL, R5F566NN, R5F566NN_DUAL
	66T	R5F566TA, R5F566TE, R5F566TF, R5F566TK
	71M	R5F571MF, R5F571MG, R5F571MJ, R5F571ML
	72M	R5F572MD, R5F572MD_DUAL, R5F572MN, R5F572MN_DUAL
	72N	R5F572ND, R5F572ND_DUAL, R5F572NN, R5F572NN_DUAL
RX	72T	R5F572TF, R5F572TK
RZ	A2	R7S921040, R7S921041, R7S921042, R7S921043, R7S921045, R7S921046, R7S921047, R7S921048, R7S921051, R7S921052, R7S921053, R7S921056, R7S921057, R7S921058
	RA2A1	R7FA2A1AB2CBT, R7FA2A1AB3CFJ, R7FA2A1AB3CFM, R7FA2A1AB3CNE, R7FA2A1AB3CNF
RA	RA4M1	R7FA4M1AB2CLJ, R7FA4M1AB3CFL, R7FA4M1AB3CFM, R7FA4M1AB3CFP, R7FA4M1AB3CNB, R7FA4M1AB3CNE, R7FA4M1AB3CNF
	RA6M1	R7FA6M1AD2CLJ, R7FA6M1AD3CFM, R7FA6M1AD3CFP, R7FA6M1AD3CNB

DAGMO	R7FA6M2AD2CLK, R7FA6M2AD3CFB, R7FA6M2AD3CFP, R7FA6M2AF2CLK,
RA6M2	R7FA6M2AF3CFB, R7FA6M2AF3CFP

R7FA6M3AF2CBG, R7FA6M3AF2CLK, R7FA6M3AF3CFB, R7FA6M3AF3CFC, RA6M3 R7FA6M3AF3CFP, R7FA6M3AH2CBG, R7FA6M3AH2CLK, R7FA6M3AH3CFB, R7FA6M3AH3CFC, R7FA6M3AH3CFP

RA4W1 R7FA4W1AD2CNG



#### 3. Smart Manual Support

Smart manual support is delivered independently of e<sup>2</sup> studio releases when available. The following devices are available as of July 2020:

- RX110
- RX111
- RX113
- RX130
- RX210
- RX220
- RX230
- RX231
- RX23E-A
- RX24U
- RX24T
- RX62G
- RX62T
- RX631
- RX63N
- RX63T
- RX651
- RX64M
- RX65N
- RX66T
- RX71M
- RX72M
- RX72T

- RL78/G10
- RL78/G11
- RL78/G12
- RL78/G13
- RL78/G14
- RL78/G1F
- RL78/L12
- RL78/L13
- RZ/A1H
- RZ/A1L
- RZ/A2M
- RZ/T1



#### 4. What is new in 2020-07?

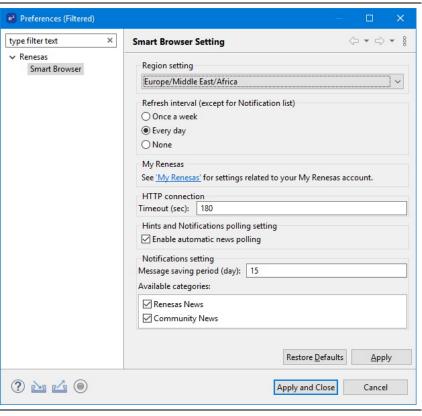
Component	Device	Description
		2020-07 is based on the updated Eclipse Platform 2020-03 & CDT 9.11 which includes new features & performance improvements.
Application	All	Various changes have been made which can be viewed in the link below:
		https://wiki.eclipse.org/CDT/User/NewIn911

The Renesas Preferences have moved from "C/C++" -> "Renesas" to "Renesas" in the root of the preferences dialog. This makes it easier to find.

	Preferences		– <b>D</b> X
	type filter text	Renesas	<p td="" ↔="" ↔<=""></p>
Application All	<ul> <li>General</li> <li>C/C++</li> <li>Help</li> <li>Install/Update</li> <li>Java <ul> <li>Library Hover</li> <li>LinkerScript</li> <li>MCU</li> <li>Oomph</li> <li>Remote Development</li> <li>Renesas</li> <li>Breakpoints <ul> <li>Device add-ins Suppc</li> <li>Emulator</li> <li>FSP Configuration Ed</li> <li>Launch Settings</li> <li>Logging</li> <li>Module Download</li> <li>My Renesas</li> <li>Renesas Toolchain M</li> <li>Smart Browser</li> <li>Smart Configurator</li> <li>Smart Demo</li> </ul> </li> </ul></li></ul>	Restore Defaults Apply	

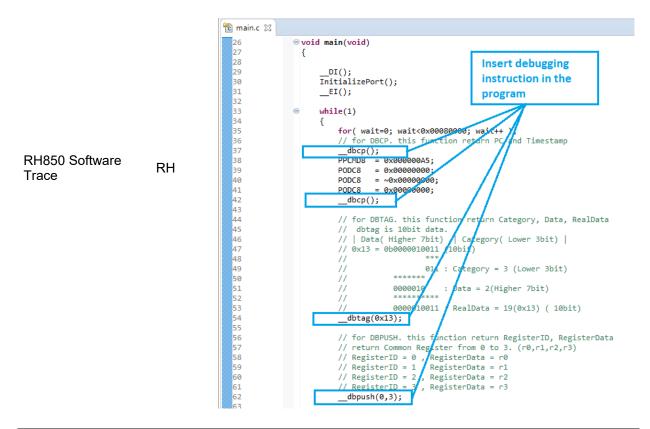
		The Smart Browser News and Hint notification pop-up will be closed automatically after being displayed for 15 seconds.
Smart Browser	All	The pop-up can be disabled by unchecking all news polling listed in the following dialog:





RH850 supports software trace, which is an extension of the E2 emulator.

Devices of the RH850 family support debugging instructions (DBCP, DBTAG, DBPUSH) for the output of software trace data.





This function helps the user to embed debugging instructions in the program to be executed as checkpoints or for the purpose of the output of specific information or register values and output of the history execution to the emulator side as trace data. The type of software trace can be selected on Acquisition dialog.

Trace Acquisition	×
Trace Mode:	Fill until stop $$
Trace Output:	Trace output $\sim$
Trace Type:	Branch+Data access $\sim$
Trace Capacity (frames) :	~
Timestamp Frequency Divider:	~
Enable Timestamp Display:	
Bus Master Of Data Access:	CPU ~
Software Trace:	Internal Trace the DBCP Trace the DBTAG Trace the fetch address of the DBTAG Trace the DBPUSH Trace the fetch address of the DBPUSH
Start address for Access(without data)	
End address for Access(without data)	
	OK Cancel

Use "get\_sfttrc" monitor command on Debugger Console view to get software trace and output to Console view.

To output the software trace result to an external file, enter the file path in command. Enter "True" or "False" to append data to file or not.

	🕒 🕶 🗖 🔲 Console 🗱 🕮 Registers 🦏 Progress 🖹 Problems 🏟 Smart Browser 🔅 Debug Shell 📋 Memory	-
RH850_F1L DebugOnly (Renesas GDB Hardware Debugging) v850-elf-gdb (7.8.2)		🖸 = (
<pre>requestion 14301 2000mb, Trace/Pragmint trap. setSouth 14 plus 0, at CUMENTANDAMENDANDANDAN, IT/TestProject/Mail.cll 4</pre>	* 19450_110.0005/00-001_000000.00000144.00070 89450_110.0005/00-000000000000000000000000000000	
*	*	

FreeRTOS Configurator The FreeRTOS Configurator has been improved.

It is now possible to create FreeRTOS (with IoT libraries) projects with GCC for RX.

RX, RZ



The RTOS package location is also added to preferences and you can change it.

Preferences			-		$\times$
type filter text		Module Downloa	ad		⇒ ▼ 8
✓ Renesas Breakpoints Device add-ins :	^ Suppo	Location settings	C:\Users\a5087001\.eclipse\com.renesas.platfor	Browse	
Emulator Launch Settings		Location (RX):	C:\Users\a5087001\.eclipse\com.renesas.platfor C:\Users\a5087001\.eclipse\com.renesas.platfor	Browse Browse	
Logging Module Downlo My Renesas	oad	Location (RTOS):	C:\Users\a5087001\.eclipse\com.renesas.platfor	<u>B</u> rowse	_
Renesas Toolcha Smart Browser	ain Mar				
✓ Smart Configura Component					
MCU Packag Pin Errors/W			Restore <u>D</u> efaults	Appl	у
? 2 2 0		1	Apply and Close	Cancel	

Numerous improvements have been made to the RX Smart Configurator and these are listed below:

1. AFE driver component is supported in the RX23E-A device, it mainly includes two functionalities as below:

#### AFE driver setting configuration AFE multiplexed pin connection display

Software component configuratio	Configure		
Components 🕴 🔁 🖪 😨 🋸 🔻	Configure		
1 - C	Setting Analog pins' connection		
type filter text	Note		
V 😂 Startup	AIN6 ~ AIN11 pins conversion accuracy will be d	egraded if set the same pin in S12AD.	
V 😂 Generic	Bias output setting		
😜 r_bsp	Enable bias voltage output		
✓      ⇔ Drivers     ✓      ⇔ A/D Converter	AIN0 pin output	AIN1 pin output	
Config_AFE	AIN2 pin output	AIN3 pin output	
	AIN4 pin output	AIN5 pin output	
	AIN6 pin output	AIN7 pin output AIN9 pin output	
	AIN8 pin output	AIN9 pin output	
	Excitation current output setting Enable excitation current output		
	Operation mode	2-channel output mode $\sim$	
	Excitation current	50 µA $\sim$	
	IEXC0 output pin	Output disabled 🗸	
	IEXC0 disconnect detection assist		
	IEXC1 output pin	Output disabled V	
	IEXC1 disconnect detection assist		
	IEXC2 output pin	Output disabled	
	IEXC2 disconnect detection assist		
	IEXC3 output pin	Output disabled 🗸	
	IEXC3 disconnect detection assist		
	Low level voltage detection setting Enable LVDET0 low voltage detection		
	Detection voltage	1.86 V 🗸	

2. 'Creation Date' attribute value in the code generation driver file can be turned off by Smart configurator preference setting.

3. CMOS output/N-Channel open drain, High drive settings are open for configuration in PORT driver component even pins are not used as GPIO.

4. Power pins of all RX devices in the 'Pin' page become read-only.

Smart Configurator

RX

5. Improved the "Overview" page so that components that not available in the current project is displayed with a gray icon.

6. Improved the pin CSV report to lay out pin function information by peripherals in separate columns.

7. Fixed the pin conflict checking so that mutually exclusive pins (e.g. RXD/SMISO) do not show a warning when configured with "r\_sci\_rx" but show a warning if both pins are used concurrently.

8. Improved the device change migration report to include Pin, Interrupt information.



#### 5. Useful workarounds and information for 2020-07

Please visit the Renesas FAQ for **e**<sup>2</sup> studio for the latest up to date information:

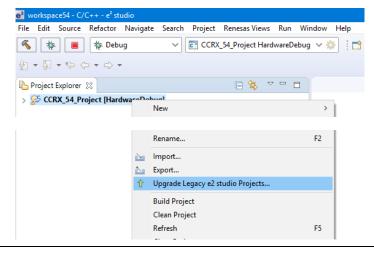
#### Online FAQ link.

ID	Component	Workaround or information
	Application	When using the check for updates feature within $e^2$ studio and updating from 7.0.x to 7.1.x the initial restart after the update fails. An error message is displayed. Subsequent launches of $e^2$ studio work without issue.
		This is caused by the update to Java.
	SH support	The Renesas SH device family is no longer supported in e <sup>2</sup> studio.
		If you need to use the SH device support, please use $e^2$ studio 5.4 or earlier.
	Importing old projects into 6.x	All projects being migrated into the latest e <sup>2</sup> studio from e <sup>2</sup> studio 5.4 and earlier versions will need to be migrated to the new builder plugins. The new builder plugins have different user interface pages and different option IDs. Upon opening an older workspace, the following dialog would be displayed:
		el Older Workspace Version X
		Workspace '/C:/Users/b3800109/e2_studio/workspace54/' was written with an older version of the product and will be updated. Updating the workspace can make it incompatible with older versions of the product.
		Are you sure you want to continue with this workspace?
		Do not warn again about workspace versions OK Cancel

Clicking OK will update the workspace to the newer e<sup>2</sup> studio.

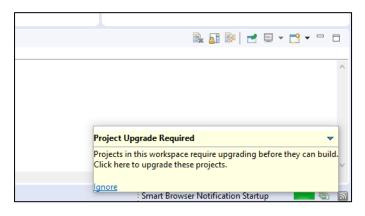
Importing an existing project to the workspace or opening a workspace with old projects will automatically start the legacy project upgrade procedure.

If for some reason this process does not start it is also possible to launch the "Upgrade Legacy of e2 studio Projects..." from the project context menu.





The automatic system pops up a message bubble in the bottom left of the  $e^2$  studio application window.



After selecting the menu item or clicking the bubble the following dialog will be shown:

e <sup>2</sup>	_		×
Upgrade Legacy e2 studio Projects			
8 You must select at least 1 project			
CCRX_54_Project [HardwareDebug]			
?	<u>F</u> inish	Cancel	

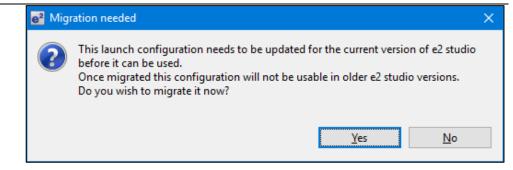
To upgrade the project, click the corresponding check box and then click Finish. Note, this will update the project to the latest build plugins and options. Before doing this, you should ensure your project is backed up as this operation is not reversible.

It is possible to upgrade multiple projects in a single operation.

For the GCC toolchains for RX, RL and GNUARM-NONE have been made to the build options which mean we cannot guarantee the same binary output after upgrade. Please consider this before upgrading.

Another consideration for migration is that debug configurations when opened in 6.0 will also need to be migrated. The following message will be displayed.





Please ensure that your projects are backed up or in revision control before migration allowing you to return to older versions if required.

# ToolchainBefore e² studio 6.0 the toolchain management facility automatically upgraded or<br/>downgraded the imported project to the latest tools installed on the host<br/>machine.

This no longer happens in the latest  $e^2$  studio. Instead the toolchain remains the same and user operation is the only way to change the toolchain version.

This operation is now available within the build settings on the toolchain tab. An example of CCRX is shown below:

	Properties for CCRX_54_Proje	ect
	type filter text	Settings
	<ul> <li>Resource Builders</li> <li>C/C++ Build Build Variables Environment</li> </ul>	Configuration: HardwareDebug [Active]
	Logging Settings Tool Chain Editor > C/C++ General Project References Run/Debug Settings	<ul> <li>Tool Settings Toolchain Device Build Steps Current Toolchain Toolchain: Renesas CCRX Version: v2.06.00</li> </ul>
	Kun/Debug Settings	Change Toolchain
		Toolchain: Renesas CCRX Version: v2.06.00
RZ Toolchain	error message is displation of the now legacy KPIT	ain version does not exist and build is performed, then an layed, and the build will fail. GNU ARM-NONE toolchain is still supported within the e <sup>2</sup> v using the gnuarmeclipse plugins.
		<sup>2</sup> studio now supports the GNU ARM Launchpad om <u>https://launchpad.net/gcc-arm-embedded</u> .
	provided in the same r	toolchain is that it does not have a standard library builder manner as the legacy KPIT ARM-NONE toolchain. To use aunchpad and gain access to the more efficient optlib nload is required.
		ed within the e <sup>2</sup> studio installer or directly from here: m/rz/rz-download-toolchains/
	Once integrated it is po tab of the build setting	ossible to integrate the library generator from the toolchain is page.



		e Properties for GCC_RZ	
		type filter text Settings	
		<ul> <li>&gt; Resource Builders</li> <li>&gt; C/C++ Build</li> <li>Build Variables Environment Logging</li> <li>&gt; Tool Settings</li> <li>&gt; Toolchain</li> <li>&gt;</li></ul>	
		Settings Tool Chain Editor       Current Toolchain Toolchain: KPIT GNUARM-NONE-EABI Toolchain Project References Run/Debug Settings         Change Toolchain Toolchain: KPIT GNUARM-NONE-EABI Toolchain Version: v16.01         Change Toolchain Toolchain: KPIT GNUARM-NONE-EABI Toolchain Version: v16.01         Change Toolchain Toolchain: KPIT GNUARM-NONE-EABI Toolchain Version: v16.01         Create Library generator         Create Library generator" option. Once checked the library generator	
		(libgen) is added to the available tool settings.	
	QE compatibility	If QE for TCP/IP V1.0.0 is used, please update it to V1.0.1. Other QE series can be used with e <sup>2</sup> studio 6.0.	
		What is QE? https://www.renesas.com/qe	
		Details of QE for TCP/IP https://www.renesas.com/qe-tcpip	
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:	
		<ol> <li>Use a single monitor display.</li> <li>Uninstall the multiple monitor software from your graphics chipset vendor and revert to the standard Windows multi-monitor feature.</li> </ol>	
6981	RL78 Debugging	When debugging IAR C source file with an OCD emulator (E1), the Monitor program area (0x00002-0x00003) is used.	
		Therefore, this area must be excluded from usable address space. Please add '-HFF' in the linker option.	
		1. Open Property.	
		<ol> <li>Select [C/C++ build]-[Settings] at left side.</li> <li>Select 'IAR RL78 Xlink linker' at right side, add '-HFF' at the textbox 'command'.</li> </ol>	
		Not doing this will cause problems with connection and download when using interrupts.	
NA	Application	If you are experiencing slow building of projects within e <sup>2</sup> 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.	

RENESAS

		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 e <sup>2</sup> 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 <u>www.gcc-renesas.com</u> 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 e <sup>2</sup> studio and can be selected from the project wizard.
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, or even after rebuild index.
		Indexer buffer can be insufficient to process whole project. Please try giving larger values for the following configurations.
		Open preferences dialog through "Window"->" Preferences" menu. In "C/C++" -> "Indexer" tree, you will indexer configuration as shown below:



		e <sup>2</sup> Preferences	— 🗆 X
		type filter text	Indexer $\diamondsuit \checkmark \checkmark \checkmark$
		<ul> <li>&gt; General</li> <li>&gt; C/C++</li> <li>Appearance</li> <li>&gt; Build</li> <li>Code Analysis</li> <li>&gt; Code Style</li> <li>&gt; Debug</li> <li>&gt; Editor</li> <li>File Types</li> <li>Indexer</li> <li>Language Mappings</li> <li>&gt; New C/C++ Project Wiz</li> <li>&gt; Property Pages Settings</li> <li>&gt; Renesas</li> <li>Task Tags</li> <li>Template Default Values</li> <li>&gt; Help</li> <li>&gt; IAR Embedded Workbench</li> <li>Vertall// Indete</li> </ul>	<ul> <li>Enable indexer</li> <li>Indexer options</li> <li>Index source files not included in the build</li> <li>Index unused headers</li> <li>Index all header variants</li> <li>Index all variants of specific headers:</li> <li>Index source and header files opened in editor</li> <li>Allow heuristic resolution of includes</li> <li>Skip files larger than:</li> <li>8</li> <li>MB</li> <li>Skip included files larger thar:</li> <li>16</li> <li>MB</li> <li>Skip implicit references (e.g. overloaded operators)</li> <li>Skip type and macro references (Search for these references will not work)</li> </ul>
2728	GDB	index. Step into does not alwa	ch red-framed variables, then rebuild project or rebuild ys work when using the CC-RX 1.02.01 toolchain.
			correctly you will need to use CC-RX 2.00.00 or greater ebug information is corrected in this release.
NA	Eventpoints	to Target" toolbar butto	ways work just after they are set, you can use the "Apply n in the Eventpoint view to send the Eventpoints to the vill always ensure the debugger target has all the required ore execution starts.
5772	IAR Plugins	The IAR Plugin Manage RL78, RH850 and RZ (	er is included in e <sup>2</sup> studio and provides support for RX, ARM).
		•	allation and configuration of IAR toolchain plugins. You Help -> IAR Embedded Workbench plugin manager.
6184	RL78/CC-RL debugging	please specify the follow	
7217	Application	The restore default sett	Set enable/disable on-chip debug by link option ings does not restore all the options set during project sets the defaults to the base settings for the device family
7524	RZ/T1	In a RZ/T1 RAM-based	project, the "Reload" function does not work.
	Debugging	Reloading or re-downlo content is erased.	ading during debugging resets the device and the RAM
		To continue the debugg	jing, disconnect and connect the debugger again.
	Use spaces as tabs		nave settings for use spaces as tabs. The option on the e conflicts with the CDT formatter settings.
		To change the use spa	ces as tabs option in e² studio please use this page:

## Release Note

Open filter ind         Formation         Formation         Formation         Export         Formation         Export         Formation         Export         Export<	2 Preferences	🐞 🗞 👻 🍇 👔 📩 M 🔅 💌 👘 👘 👘 👘 👘 👘 👘 Variables 🕄 💁 Breakcoints 💷 Registers 🛋 Modules 🛠 Excressions 🧬 Eventuoints 🔲 D Registers 👘 dig
) nomesset # 170 { Int injuit by you count { is with ( hor) { can by is a count } with y : 	Age of the test Construction of	Performant     Performant     Import     Import       Performant     Base Model     Control Statements     Import       Performant     Import     Import     Import       Tab proje     Import     Import     Import       Import     Import     Import     Import <td< th=""></td<>

	Installer problems	In some situations, the AVG virus checker appears to interfere with the e <sup>2</sup> 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.
	Green Hills RH850 Projects	When debugging the RH850 object built with the Green Hills compiler in e <sup>2</sup> studio, specify the following option for the compiler option: -gtws
		The GUI setting menu is as follows.
		[GHS C Compiler for V800 Standalone]-[Debugging Option]
		"Generate Target-Walkable Stack" -> On
		If this option is not specified, Step Over and Step Return may not work properly.
17052	Debugging	When debugging using a project with duplicate filenames that are in different source folders problems can be seen with breakpoint setting.
		When a breakpoint is set at a source line in this file it will also stop at the same source line in the other same named file when execution passes through.
18505	RZ debugging	When debugging with RZ/T1 in certain situations you may experience problems stepping:
		If the following conditions are met:
		<ol> <li>Code is located close to address 0x0</li> <li>There is very little library code included into the project</li> <li>There are unused functions in the program</li> </ol>
		The possibility arises that the code cannot be debugged. This due togc- sections linker option which removes the unused functions but not the related debug information.
		There are several solutions to this problem: a. disablegc-sections until those functions are used b. remove the unused functions



e² studi	o 2020-07	Release Note
	RZ GCC Build	In the latest e <sup>2</sup> studio, the RZ import functionality has been improved. However, there are still possibilities of older projects causing problems when imported into e <sup>2</sup> studio.
		In older versions of the RZ build plugins the FPU option was not being handled correctly. When setting the "Soft" Floating point ABI the command line was still receiving <code>-mfpu=vfpv3</code> incorrectly. This can now cause problems with older start-up code in older RZ projects.
		After import if you see an error relating to this please add <code>-mfpu=vfpv3</code> to the "Other Assembler Flags" page of the Assembler tool.
		In addition, when migrating some RZ/A1 projects you may experience import problems unless you build the project in 5.4 first.
	RZ DS-5 Project Import	When a DS-5 project is imported into $e^2$ studio the environment variables for Path and TCInstall are copied from the DS-5 environment.
	import	This is not correct. The way to correct this problem is to delete both paths and replace them with correct values to your toolchain. If you are unsure how to correct this, please create a new project and copy the values from this to the converted project.
	RX & RL78 GCC Project Import	When importing a KPIT RL78/RX Library C/C++ project from e <sup>2</sup> studio 5.4 or before the build artifact settings are not correct.
		The output prefix should be set to "lib" but is in fact empty.
	RZ/G debug	In the case of debugging Linux application for RZ/G, the following error messages are shown in GDB server console when pushing [Step in] button or [Step Over] button. These messages can be ignored because the Step debugging should work properly even with these messages.
		Examples of error messages: PassthroughTargetCommunication::sendResponse error 42 46 PassthroughTargetCommunication::sendResponse error 10 15 PassthroughTargetCommunication::sendResponse error 42 46
21863	RX & RL Debugging	In previous releases there were some problems with stepping in some situations when using the CCRX and CCRL toolchains.
		A fix has been made to the debug object converter. To see this improvement please clean and rebuild the project. The debug information will then be updated, and the stepping will be more correct and reliable.
	Code Generator	When using multiple installations of e <sup>2</sup> studio on your machine you may find that subsequent installations do not work correctly with the code generator.
	registration	The effect is that the code generator cannot be created or added to projects. Existing projects can be used by the code generator views appear empty.
		If this is the case, then the code generator must be manually registered. To do this execute the following tool:
		e.g. C:\Renesas\e2_studip\eclipse\plugins\com.renesas.cg_2.11.0.v20180 601-1047\CodeGenerator\Tools\register COM.bat

25278	Synergy debugging	When loading Symbols from multiple .elf files compiled using the IAR toolchain, the user will need to add ".text" before place in FLASH_region command inside the .icf Script.
		e.g.
		".text":
		place in FLASH_region { block LOCK_LOOKUP,
		ro, ro section .rodata,
		block QSPI NON RETENTIVE INIT BLOCK,
		block RAM_INIT_CODE,
25273	RZ Device	<pre>block USB_DEV_DESC_BLK }; When changing the device from a RZ/A1 and attempting to swap to a RZ/T1 the</pre>
20210	Migration	device migration is not successful.
		The source code is not migrated successfully, and the build fails.
		This is due to the different start-up code structure between these devices.
		In this case please create a new project and copy the required source to the newly created project.
25195	RZ/A2M Smart	When creating a project of RZ / A2M, the following Warning is displayed in the Problems view for the src / renesas / configuration folder.
	Configurator	"Invalid project path: Include path not found"
		[Morkersund]
		[Workaround]
		Delete the specification of this folder with the compile option include path setting.
24883	R2/A2M	RZ / A2M project generated by $e^2$ studio does not support GCC ARM 7.x or later. Please use GCC ARM 6.3.
27913	GDB server RL78	When debugging with an EZ cube, real-time refresh significantly slows down debugging features and it makes e <sup>2</sup> studio look like suspended.
12123	Linker Script Editor	The Linker Script Editor may report errors when using some Wild Identifiers such as 1file.o and *filename.o
		Although these are valid file names and valid identifiers according to the Linker Script syntax, they need to be quoted when using the Linker Script Editor.
		(e.g. "1file.o" and "*filename.o").
	RZ/G Linux Platform	When using RZ/G Linux Platform Tools, gnu.io.rxtx plug-ins should be installed same as Nebula plug-ins.
	Tools	Please follow the below steps to install gnu.io.rxtx plug-ins.
		Start the e <sup>2</sup> studio and select [Help] -> [Install New Software] from the menu bar to open the [Install] dialog box.
		Click on the [Add] button, enter "GNU RXTX Plugin Update Site" as a name and " <u>http://rxtx.qbang.org/eclipse/</u> " as a location, and click on the [OK] button.



Name:	GNU RXTX Plugin Update Site	L <u>o</u> cal
Location: http://rxtx.qbang.org/eclipse/		Archive

Select [RXTX 2.1-7r4] -> [RXTX End-User Runtime] from the list, click on the [Next] button, confirm the license, and install the plug-ins.

Available Software Check the items that you wish to install.	
Check the items that you wish to install.	(S) Harris
Work with: http://ntb.qbang.org/eclipse/	Manage
type filter text	]
Name Version	
WID RXTX 2.1-7r3         2.1.7.3_v20070718-7B57e7TAX/MAAqAqGr           Image: RXTX End-User Runtime         2.1.7.3_v20070718-47B57e7TAX/MAAqAqGr           Image: RXTX Extender SDK         2.1.7.3_v20070718-417C7CP1Bh_dDhQLBr8	
WILL RXTX 2.1-7r4         2.1.7.4_v20071016-7B57e7UAXMAAqGAGf           Up: RXTX End-User Runtime         2.1.7.4_v20071016-47B57e7UAXMAAqGAGf           Up: RXTX Extender SDK         2.1.7.4_v20071016-417C7DP1Bh_eEaQJBrH	
Select All Deselect All 1 item selected	
Details	5
☑ Show only the latest versions of available software       ☑ Hide items that are already installed         ☑ Group items by category       What is <u>already installed</u> ?	
Show only software applicable to target environment           Image: Software applicable in the software i	
② < Back Next > Einish	Cancel
32564 MyRenesas Due to differences in the login data between 7.8 and the 2020-04 e <sup>2</sup> s later) version the FreeRTOS download feature does not work in 7.7/8 has logged into MyRenesas or changed their login data details using you previously used 7.7/8 prior to using 2020-04 and have not chang login details, then both versions will work correctly. If you need to use MyRenesas in older versions of e <sup>2</sup> studio after logg using 2020-04 then you will need to close all e <sup>2</sup> studio instances and file "%USERPROFILE%\.eclipse\org.eclipse.equinox.security\secure_storage" that doing this will remove stored passwords for any Eclipse-based a	B if the user 2020-04. If ed your ging in delete the ". Be aware
32543 QE When updating e <sup>2</sup> studio versions using an installer any installed QE removed and then must be reinstalled. To preserve QE tools during a use the "Check for Updates" function in the "Help" menu to perform a online update.	an update
30689 J-link It is now possible to configure J-Link to select a remote IP name or ad	ddress.
However currently the user interface does not support this feature.	
It can be supported by adding extra commands in the debug configur Under the Jlink section in the Debug Connection settings you can sel	

RENESAS

		IP. If IP is selected, then you will need to specify an IP address/name and optionally a port number.
		GDB Server expects the command line parameter (examples): -uSelect= IP=192.168.56.1:8080 -uSelect= IP=localhost:0 -uSelect= IP=jlink.segger.com
30613	RH850	When viewing flash memory in the Memory View, it can be confusing as the values for this memory type can be random for unwritten blank flash memory regions.
		This can then result in many false positives for memory changes, resulting in more memory changes than expected. (red text)
		To fix this the debugger supports detection and filling of blank addresses areas with a user specified hex byte value.
		There is currently no user interface support for this feature. So, you need to add the following command parameters to the additional commands section of the debug configuration. The GDB command line option is: -uBlankFlaskFill=BB with the blank fill value being 0xBB. Specifying this value enables the feature, by default it is off.
33914	RE	Program does not step correctly for RE (SOTB) when library generator enabled.
		Selecting an ARM GCC toolchain that has libgen installed when creating a new project, will cause the program to go to the default handler when stepping, after returning from function on SOTB board. There are 2 workarounds for this:
		<ol> <li>Use a toolchain that does not have libgen installed</li> <li>Choose the options: Project-built, Optimized for Library Generator when creating the project and change the selected options to Pre-built, Newlib after the project was created, by going to Settings-&gt;Library Generator.</li> </ol>



## 6. Open Issues in 2020-07

Open issues in the e<sup>2</sup> studio 2020-07 product will be kept up to date <u>here</u>:

Please visit to see the latest open issue list.



## 7. Appendix

#### 7.1 Website and Support

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http://www.renesas.com/

Inquiries

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

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Privacy Policy:

https://www.renesas.com/privacy.html



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Refer to "http://www.renesas.com/" for the latest and detailed information Renesas Electronics America Inc. I Murphy Ranch Road, Milpitas, CA 95035, U.S.A. +1-408-432-8888, Fax: +1-408-434-5351 Renesas Electronics Canada Limited 9251 Yonge Street, Suite 8309 Richmond Hill, Ontario Canada L4C 9T3 Tel: +1-905-237-2004 Renesas Electronics Europe Limited Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K Tel: +44-1628-651-700, Fax: +44-1628-651-804 Renesas Electronics Europe GmbH Arcadiastrasse 10, 40472 Düsseldorf, German Tel: +49-211-6503-0, Fax: +49-211-6503-1327 Renesas Electronics (China) Co., Ltd. Room 1709 Quantum Plaza, No.27 ZhichunLu, Haidian District, Beijing, 100191 P. R. China Tel: +86-10-8235-1155, Fax: +86-10-8235-7679 Renesas Electronics (Shanghai) Co., Ltd. Unit 301, Tower A, Central Towers, 555 Langao Road, Putuo District, Shanghai, 200333 P. R. China Tel: +86-21-2226-0888, Fax: +86-21-2226-0999 Renesas Electronics Hong Kong Limited Unit 1601-1611, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong Tel: +852-2265-6688, Fax: +852 2886-9022 Renesas Electronics Taiwan Co., Ltd. 13F, No. 363, Fu Shing North Road, Taipei 10543, Taiwan Tel: +886-2-8175-9600, Fax: +886 2-8175-9670 Renesas Electronics Singapore Pte. Ltd. 80 Bendemeer Road, Unit #06-02 Hyflux Innovation Centre, Singapore 339949 Tel: +65-6213-0200, Fax: +65-6213-0300 Renesas Electronics Malaysia Sdn.Bhd. Unit 1207, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia Tel: +60-3-7955-9390, Fax: +60-3-7955-9510 Renesas Electronics India Pvt. Ltd. No.777C, 100 Feet Road, HAL 2nd Stage, Indiranagar, Bangalore 560 038, India Tel: +91-80-67208700, Fax: +91-80-67208777 Renesas Electronics Korea Co., Ltd. 17F, KAMCO Yangjae Tower, 262, Gangnam-daero, Gangnam-gu, Seoul, 06265 Korea Tel: +82-2-558-3737, Fax: +82-2-558-5338