

## Release Notes: GCC 4.8.0.201602-GNURX

30<sup>th</sup> of June, 2016

CyberThor Studios Ltd. is releasing the GCC 4.8.0.201602-GNURX, a cross compiler tool for Renesas RX micro-controllers.

### SALIENT FEATURES

The GCC 4.8.0.201602-GNURX toolchain is based on:

- ❖ GCC 4.8.4 [released]
- ❖ Binutils 2.24 [released]
- ❖ Newlib 2.2.0 [released]
- ❖ GDB 7.8.2 [released]

The latest patches are applied to GCC, Binutils and Newlib sources.

### ABOUT GCC 4.8.0.201602-GNURX

Release Version:	GCC 4.8.0.201602-GNURX
Release Date:	30 <sup>th</sup> of June, 2016
Platforms Supported:	Red Hat GNU/Linux v8.0 or later (or compatible distribution) Windows XP, Windows 7, Windows 8, Windows 10
Language:	C, C99, C++
Targets:	RX100 RX200 RX600 RX64M RX700
Object File Format:	ELF



## CHANGES IN THE GCC 4.8.0.201602-GNURX

This section describes the fixes made in the GCC 4.8.0.201602-GNURX release.

### GCC/Binutils:

1. The GNURX toolchain function 'builtin\_rx\_xchg' failed with speed optimization -O3. The function call 'builtin\_rx\_xchg(src, dest)' should have exchanged the contents of src and dest, but it didn't.

This issue has been fixed.

2. The GNURX objdump option --architecture=rx/rxv2 didn't do anything different while disassembling the output. The objdump utility generates same output for both the options '--architecture=rx/rxv2'.

This issue has been fixed.

3. The GNURX 'objdump' utility generated identical instructions for different opcodes. The instruction ".byte 0x80, 0x00" is disassembled as 'mov.b r0, [r0]' instead of 'mov.b r0, 0[r0]'

This issue has been fixed.

4. The GNURX toolchain generated incorrect instruction for fsub with 3 operands for RXV2. Instruction 'fsub src, src2, dest' generated 'dest = src - src2', when it should have generated 'dest = src2 - src'.

This issue has been fixed.

### INSTALLER and RPM:

1. The GCC 4.8.0.201602-GNURX Installer onwards supports the 'Custom Installation' and 'Default Installation' modes. The 'Default Installation' mode is set by default where the tools are installed into the default location at "C:\Program Files\GCC 4.8.0.201602-GNURX" and the user's username and activation key are silently accepted if cached in the registry.
2. The GNURX ABI (Application Binary Interface) is made available on our GNU Tools support website (<https://gcc-renesas.com>) and also provided along with Linux RPM and Windows installer.

### Notes:

This installer does not provide an option to integrate the GNURX toolchain with e2 studio, as the e2 studio IDE will automatically detect the GNURX toolchain installation on start-up for integration. Alternatively, you may use the 'Toolchain Management' feature in e2 studio to achieve this.

For details on e2 studio please visit the following link below:

[http://www.renesas.com/products/tools/ide/ide\\_e2studio/index.jsp](http://www.renesas.com/products/tools/ide/ide_e2studio/index.jsp)

There is no support in this installer to integrate toolchain with the HEW IDE.



## FREE SUPPORT FOR GCC 4.8.0.201602-GNURX

For free technical support, please register at  
<https://gcc-renesas.com>

For your feedback and suggestions, please visit  
<https://gcc-renesas.com/help/contact-us/>

