RTEMS - 4.11.3 Release Notes

15 February 2018

RTEMS 4.11 Series Release Notes

These notes cover the dot releases:

- 4.11.3
- 4.11.2
- 4.11.1
- 4.11.0

Statistics

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Distribution

Summary

~~#2362~~ ramdisk_initialize() returns an error code and driver initialization error code is ignored in general
~~#2439~~ GCC 4.9.3 ARM build fails on OS X 10.11 (El Capitan)
~~#2460~~ arm-gic.h - GIC_ID_TO_TWO_BITS_REG_OFFSET(id) incorrectly defined
~~#2538~~ 4.11 tools on RSB 4.11 branch fail to build
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~~#2677~~ PowerPC BSP score603e PCI.c is broken on case insensitive file system
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~~#2910~~ RSB docs for Mavericks has Incorrect Formatting Markup
~~#2944~~ FAT data corruption during unmount()
~~#2964~~ fat: msdos_find_file_in_directory(..) doesn't reset LFN search appropriately
~~#2987~~ fat: msdos_dir_read(..) doesn't reset conversion output string length
~~#2988~~ Documentation link to the 4.11 release is broken.
~~#3004~~ Typos in RTEMS User Manual 4.11.99
~~#3024~~ dl04, dl05 build failes
~~#3031~~ Give docs.rtems.org and sync.rtems.org jails access to the TrueNAS storage.
~~#3065~~ RTEMS 4.11.2 avr build fails
~~#3066~~ RTEMS 4.11.2 LM32 build fails
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~~#3068~~ RTEMS 4.11.2 Moxie build fails
~~#3074~~ gcc version report for released tools is wrong.
~~#3075~~ rtems_interrupt_lock_acquire interface documentation issue in the "RTEMS C Users Guide"
~~#3092~~ ARM: Test spcontext01 fails on Cortex-R4
~~#3093~~ ARM: Validate IT[7:0] bit field in PSR on Thumb 2 targets
~~#3094~~ ARM: Back port Newlib patch to avoid warnings with -fno-short-enums
~~#3104~~ Shell internal commands should be public.
~~#3105~~ Invalid memory size configuration for POSIX keys
~~#3107~~ Building gcc-4.9.3 is broken on FreeBSD 11.1
~~#3108~~ Remove RSB ARM specific config file rtems-arm-gcc-4.9.3-newlib-2.2.0-20150423-1.cfg
~~#3119~~ Docs failed to build PDF with the latest Sphinx.
~~#3161~~ I2C EEPROM driver uses incorrect address format
~~#3162~~ I2C EEPROM driver uses incorrect program timeout handling
~~#3164~~ aio_cancel() does not destroy the corresponding condition variables
~~#3183~~ Build of RTEMS 4.11.2 using RSB fails for ARM
~~#3193~~ NOT released from source builder
~~#3196~~ 4-11.2 gdb generation fails
~~#3257~~ fat: Support files in the root directoy with the same name as the volume label
~~#3258~~ fat: Fix creation of files with a similar name to existing files in the directory
~~#3271~~ Avoid using multiprocessor.org in rtems source builder
~~#3274~~ RSB remove unused tool configuration files.
~~#3275~~ RSB do not build the kernel when released.
~~#3279~~ Make the XZ executable path based on the Darwin (MacOS) host.
~~#3289~~ RSB backport changes to support mailing list posting of builds.
~~#3295~~ 4.11: RSB `--source-only-download` does not download the source
~~#3297~~ 4.11: libtests in the testsuite does not set EXEEXT to .exe

Details

Ticket	Created	Resolution	Component	Reporter	Owner	Modified
~~#2362~~	3 years ago	wontfix	lib/block	mw	Chris Johns	4 days ago
Summary	ramdisk_initialize() returns an error code and driver initialization error code is ignored in general					
Description	If CONFIGURE_BDBUF_MAX_READ_AHEAD_BLOCKS is set too large, the initialization of the block device buffer can fail without any notice, causing problems downstream that are seemingly unrelated (such as trying to read from the device) and with misleading error codes. Tested on pc386 BSP Ran testsuites/samples/fileio/fileio.exe fine, initializing partition /dev/hda with result = 0 Modified testsuites/samples/fileio/system.h, setting CONFIGURE_BDBUF_MAX_READ_AHEAD_BLOCKS to 32 (rather than 2). Re-ran, and initializing partition /dev/hda fails with result = 3 (Invalid Name).					
~~#2439~~	2 years ago	fixed	tool/gcc	Chris Johns	Chris Johns	9 days ago
Summary	GCC 4.9.3 ARM build fails on OS X 10.11 (El Capitan)					
	Building 4.11/rtems-arm with the RSB fails with (error report attached):					

Description

```
/Users/chris/development/rtems/rsb/rtems-source-builder/rtems/build/arm-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-apple-darwin15.0.0-1/build/./gcc/xgcc -
B/Users/chris/development/rtems/rsb/rtems-source-builder/rtems/build/arm-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-apple-darwin15.0.0-1/build/./gcc/ -nostdinc -
B/Users/chris/development/rtems/rsb/rtems-source-builder/rtems/build/arm-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-apple-darwin15.0.0-1/build/arm-
rtems4.11/newlib/ -isystem /Users/chris/development/rtems/rsb/rtems-source-builder/rtems/build/arm-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-apple-darwin15.0.0-
1/build/arm-rtems4.11/newlib/targ-include -isystem /Users/chris/development/rtems/rsb/rtems-source-builder/rtems/build/arm-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-
x86_64-apple-darwin15.0.0-1/gcc-4.9.3/newlib/libc/include -B/Users/chris/development/rtems/4.11/arm-rtems4.11/bin/ -B/Users/chris/development/rtems/4.11/arm-
rtems4.11/lib/ -isystem /Users/chris/development/rtems/4.11/arm-rtems4.11/include -isystem /Users/chris/development/rtems/4.11/arm-rtems4.11/sys-include    -g -O2 -
mthumb -O2 -I../../../../gcc-4.9.3/libgcc/../newlib/libc/sys/rtems/include -g -O2 -DIN_GCC  -DCROSS_DIRECTORY_STRUCTURE  -W -Wall -Wno-narrowing -Wwrite-strings -Wcast-
qual -Wstrict-prototypes -Wmissing-prototypes -Wold-style-definition  -isystem ./include   -fno-inline -g -DIN_LIBGCC2 -fbuilding-libgcc -fno-stack-protector -Dinhibit_libc  -fno-
inline -I. -I. -I../../../../gcc -I../../../../gcc-4.9.3/libgcc -I../../../../gcc-4.9.3/libgcc/. -I../../../../gcc-4.9.3/libgcc/../gcc -I../../../../gcc-4.9.3/libgcc/../include  -DHAVE_CC_TLS  -o
_arm_unorddf2_s.o -MT _arm_unorddf2_s.o -MD -MP -MF _arm_unorddf2_s.dep -DSHARED -DL_arm_unorddf2 -xassembler-with-cpp -c ../../../../gcc-
4.9.3/libgcc/config/arm/lib1funcs.S
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S: Assembler messages:
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:567: Error: invalid constant (ff) after fixup
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:673: Error: invalid constant (ff) after fixup
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:689: Error: invalid constant (fd) after fixup
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:875: Error: invalid constant (ff) after fixup
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:912: Error: invalid constant (fd) after fixup
../../../../gcc-4.9.3/libgcc/config/arm/ieee754-df.S:985: Error: invalid constant (fd) after fixup
```

~~#2460~~	2 years ago	duplicate	arch/arm	Adit		11 days ago

Summary: arm-gic.h - GIC_ID_TO_TWO_BITS_REG_OFFSET(id) incorrectly defined

Description

This bug pertains to the ARM Generic Interrupt Controller (GIC) register utility functions in

`c/src/lib/libbsp/arm/shared/include/arm-gic.h`

The following routines all use the macro `GIC_ID_TO_TWO_BITS_REG_OFFSET(id)`:

```
gic_id_get_handling_mode
gic_id_set_handling_mode
gic_id_get_trigger_mode
gic_id_set_trigger_mode
```

These routines set the `GIC_ICFGRn` set of registers. These registers have 2-bit bit fields. Let's take the trigger mode routines as an example of the bug, but it applies to the handling mode as well. The GIC specification from ARM states that for a particular interrupt ID *m* the register *n* and bit field *F* is found by:

n = m DIV 16 F = m MOD 16

And the bit location in register *n* is defined as *[2F+1:2F]*. However, the macro `GIC_ID_TO_TWO_BITS_REG_OFFSET(id)` and the routines that use it, set bits *[F+1:F]*.

I have tested this by using the set_trigger_mode routine to set an interrupt to be edge triggered, but the correct bit does not get set, and the interrupt still behaves in a level triggered fashion. When I adjust the macro to have a `<< 1` it works correctly.

If someone can verify my logic at least, then I can submit a tested patch.

~~#2538~~	2 years ago	worksforme	tool/rsb	Joel Sherrill	Chris Johns	9 days ago

Summary: 4.11 tools on RSB 4.11 branch fail to build

Description

From the log building arm-rtems4.11 target. It is in rtems-tools and the ln only has one argument. Looks like I can expect all targets to fail.

+ /bin/rm -rf rtems-tools-4.11 + ln -s /data/home/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git + cd rtems-tools-4.11 /data/home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1/doit: line 85: cd: rtems-tools-4.11: No such file or directory shell cmd failed: /bin/sh -ex /data/home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1/doit error: building rtems-tools-4.11-1

~~#2578~~	2 years ago	wontfix	tool	Mario Gruber	Chris Johns	3 weeks ago

Summary: rtems-tools configure fails for Cxc builds

Description

Building rtems-tools for Cxc builds:

```
git checkout -b 4.11 origin/4.11 \
 && source-builder/sb-check \
 && cd rtems \
 && ../source-builder/sb-set-builder \
 --log=rsb-powerpc-rtems4.11-mingw.txt \
 --prefix=/opt/powerpc-rtems4.11-mingw \
 --host=i686-w64-mingw32 \
 --bset-tar-files \
 4.11/rtems-powerpc
```

dies at configuring package rtems-tools-4.11-1:

```
config: tools/rtems-tools-4.11-1.cfg
package: rtems-tools-4.11-1
...
+ echo ==> %build:
==> %build:
+ pwd
+ build_top=/tmp/rtems-source-builder/rtems/build/rtems-tools-4.11-1
+ test x86_64-linux-gnu != i686-w64-mingw32
+ RT_HOST=-host=i686-w64-mingw32
+ cd rtems-tools-4.11
+ ./waf configure -host=i686-w64-mingw32
+ --prefix=/opt/powerpc-rtems4.11-mingw
waf [commands] [options]

Main commands (example: ./waf build -j4)
  build    : executes the build
  clean    : cleans the project
...
+ ./waf
The project was not configured: run "waf configure" first!
shell cmd failed: /bin/sh -ex  /tmp/rtems-source-builder/rtems/build/rtems-tools-4.11-1/doit
error: building rtems-tools-4.11-1
  See error report: rsb-report-rtems-tools-4.11-1.txt
```

This is due to the -host command line argument, which is missing a hyphen.

I sent a patch to the mailing list:

https://lists.rtems.org/pipermail/devel/2016-January/013348.html

~~#2610~~	2 years ago	wontfix	tool	Chris Johns	Chris Johns	9 days ago

Summary: unhex.c does not build on MSYS2

Description

Building unhex.c on Windows gives the following error:

```
gcc -DHAVE_CONFIG_H -I. -I/c/opt/rtems/kernel/rtems.git/tools/build    -g -O2 -MT rtems-bin2c.o -MD -MP -MF .deps/rtems-bin2c.Tpo -c -o rtems-bin2c.o
/c/opt/rtems/kernel/rtems.git/tools/build/rtems-bin2c.c
In file included from C:/opt/rtems/kernel/rtems.git/tools/build/unhex.c:36:0:
C:/opt/rtems/kernel/rtems.git/tools/build/unhex.c: In function 'error':
C:/opt/rtems/kernel/rtems.git/tools/build/unhex.c:687:16: warning: '_errno' redeclared without dllimport attribute: previous dllimport ignored [-Wattributes]
    extern int errno;
               ^
```

~~#2639~~	2 years ago	duplicate	tool/rsb	Chris Johns	Chris Johns	10 months ago
Summary	RSB Long path support on Windows					
Description	Long path support on Windows requires the use of Unicode paths. The current path is not Unicode and some paths in C++ can be longer than 255 character when building the release candidates using the standard paths in the releases. The solution is to change paths.py so it's host call returns a Unicode string. The also requires changes to the macro key logic to convert any unicode string to an ascii string, all macro keys are ascii. Also the execute module needs to better manage Unicode strings.					
~~#2671~~	2 years ago	wontfix	tool/rsb	Joel Sherrill	Joel Sherrill	11 days ago
Summary	moxie tools fail to build on 4.11					
Description	I recall needing to sync the binutils and gcc. Checking an old install for 4.11, I noticed that the gcc seems to match what is configured but the binutils is older (2.25). [joel@rtbf64c ~]$ ~/rtems-4.11-work/tools/4.11/bin/moxie-rtems4.11-as --version GNU assembler (GNU Binutils) 2.25 Copyright (C) 2014 Free Software Foundation, Inc. This program is free software; you may redistribute it under the terms of the GNU General Public License version 3 or later. This program has absolutely no warranty. This assembler was configured for a target of `moxie-rtems4.11'. [joel@rtbf64c ~]$ ~/rtems-4.11-work/tools/4.11/bin/moxie-rtems4.11-gcc --version moxie-rtems4.11-gcc (GCC) 4.9.3 20150626 (RTEMS 4.11, RSB 075ed1c8e2363ec7fcfcaec6b648222597009f20, Newlib 2.2.0.20150423) Copyright (C) 2015 Free Software Foundation, Inc. This is free software; see the source for copying conditions. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. Error below: /home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/moxie-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-linux-gnu-1/build/./gcc/xgcc -B/home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/moxie-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-linux-gnu-1/build/./gcc/ -nostdinc -B/home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/moxie-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-linux-gnu-1/build/moxie-rtems4.11/newlib/ -isystem /home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/moxie-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-linux-gnu-1/build/moxie-rtems4.11/newlib/targ-include -isystem /home/joel/rtems-4.11-work/rtems-source-builder/rtems/build/moxie-rtems4.11-gcc-4.9.3-newlib-2.2.0.20150423-x86_64-linux-gnu-1/gcc-4.9.3/newlib/libc/include -B/home/joel/rtems-4.11-work/tools/4.11/moxie-rtems4.11/bin/ -B/home/joel/rtems-4.11-work/tools/4.11/moxie-rtems4.11/lib/ -isystem /home/joel/rtems-4.11-work/tools/4.11/moxie-rtems4.11/include -isystem /home/joel/rtems-4.11-work/tools/4.11/moxie-rtems4.11/sys-include -g -O2 -mel -O2 -I../../../../gcc-4.9.3/libgcc/../newlib/libc/sys/rtems/include -g -O2 -DIN_GCC -DCROSS_DIRECTORY_STRUCTURE -W -Wall -Wno-narrowing -Wwrite-strings -Wcast-qual -Wstrict-prototypes -Wmissing-prototypes -Wold-style-definition -isystem ./include -g -DIN_LIBGCC2 -fbuilding-libgcc -fno-stack-protector -Dinhibit_libc -I. -I. -I../../../../gcc -I../../../../gcc-4.9.3/libgcc -I../../../../gcc-4.9.3/libgcc/. -I../../../../gcc-4.9.3/libgcc/../gcc -I../../../../gcc-4.9.3/libgcc/../include -DHAVE_CC_TLS -DUSE_EMUTLS -o _ashldi3.o -MT _ashldi3.o -MD -MP -MF _ashldi3.dep -DL_ashldi3 -c ../../../../gcc-4.9.3/libgcc/libgcc2.c -fvisibility=hidden -DHIDE_EXPORTS /tmp/cctmIP4r.s: Assembler messages: /tmp/cctmIP4r.s:26: Error: unknown opcode sub.l $r1,$r2 Makefile:463: recipe for target '_negdi2.o' failed make[4]: **[_negdi2.o] Error 1 make[4]:** * Waiting for unfinished jobs.... /tmp/ccaQiOcs.s: /tmp/ccWFtlrs.s: Assembler messages: Assembler messages: /tmp/ccaQiOcs.s:22: Error: unknown opcode sub.l $r3,$r2 /tmp/ccWFtlrs.s:44: Error: unknown opcode mul.l $r12,$r6 /tmp/ccWFtlrs.s:46: Error: unknown opcode mul.l $r4,$r1 /tmp/ccWFtlrs.s:49: Error: unknown opcode mul.l $r8,$r1 /tmp/ccWFtlrs.s:52: Error: unknown opcode mul.l $r3,$r6 /tmp/ccWFtlrs.s:56: Error: unknown opcode add.l $r6,$r3 /tmp/ccWFtlrs.s:61: Error: unknown opcode add.l $r3,$r6 /tmp/ccWFtlrs.s:68: Error: unknown opcode add.l $r1,$r4 /tmp/ccWFtlrs.s:75: Error: unknown opcode add.l $r1,$r4 /tmp/ccWFtlrs.s:89: Error: unknown opcode mul.l $r0,$r4 /tmp/ccWFtlrs.s:93: Error: unknown opcode mul.l $r2,$r4 /tmp/ccWFtlrs.s:95: Error: unknown opcode add.l $r0,$r2 /tmp/ccWFtlrs.s:99: Error: unknown opcode add.l $r0,$r12 /tmp/ccWFtlrs.s:100: Error: unknown opcode add.l $r1,$r2 Makefile:463: recipe for target '_muldi3.o' failed make[4]: **[_muldi3.o] Error 1 make[4]:** * [_lshrdi3.o] Error 1							
~~#2677~~	23 months ago	wontfix	build	Chris Johns	Joel Sherrill	4 days ago
Summary	PowerPC BSP score603e PCI.c is broken on case insensitive file system					
Description	Any host, such as OX S, with a case insensitive file system does not build. PCI.c includes PCI.h. There must be a pci.h somewhere now.					
~~#2747~~	20 months ago	fixed	lib/dl	Patrick Gauvin	Chris Johns	7 days ago
Summary	dlerror non-conformance					
Description	Expected behavior of dlerror: - The error is cleared after each invocation - `NULL` is returned when no error is set - Return value is `char *`, not `const char *` http://pubs.opengroup.org/onlinepubs/9699919799/functions/dlerror.html I've attached patches that address these issues, please critique them and I will submit to the development mailing list. They should also apply to master, but they were generated against 4.11. Development Environment: - **RTEMS Version:** 4.11 (Branch "4.11", commit 3f72dda6ee518d3ea04341ad4df079ecb1895ef7) - **System Type:** ARM Cortex-A9, xilinx_zynq_a9_qemu BSP - **GCC Version:** arm-rtems4.11-gcc (GCC) 4.9.3 20150626 (RTEMS 4.11, RSB 1675a733536d1aec2020011e5e522497a442561a (HEAD, origin/4.11, 4.11), Newlib 2.2.0.20150423) - **RTEMS Configure Options:** ../rtems/configure --target=arm-rtems4.11 --enable-rtemsbsp="xilinx_zynq_a9_qemu xilinx_zynq_zedboard xilinx_zynq_csp_cots xilinx_zynq_csp_hybrid" --enable-tests=samples --enable-posix --prefix=$HOME/development/rtems/4.11 --disable-networking					
~~#2910~~	12 months ago	fixed	doc	Joel Sherrill	Chris Johns	10 days ago
Summary	RSB docs for Mavericks has Incorrect Formatting Markup					
Description	This section of the RSB has "+sb_check+" which I assume is supposed to be italics or bold. https://docs.rtems.org/branches/master/rsb/hosts.html#mavericks Also the formatting of the sentence on xz in the same section is odd.					
~~#2944~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT data corruption during unmount()					
Description	https://lists.rtems.org/pipermail/users/2017-March/031101.html In msdos_shut_down (msdos_fsunmount.c) there is a call to fat_file_close(..) which attempts to close a file descriptor and write a range of metadata to that file's director entry located in another cluster: - fat_file_write_first_cluster_num - fat_file_write_file_size - fat_file_write_time_and_date The problem is that this is the root node, and of course doesn't have a corresponding parent directory entry. In addition, the "parent directory entry" cluster number is initialised to 0x1 (FAT_ROOTDIR_CLUSTER_NUM) which is not working according to the FAT specification (cluster numbering starts at 2). This actually creates a critical bug that overwrites random data to above sectors, because 2 is subtracted from 1 to calculate the sector number of the cluster -> through a series of function calls -> leads to a sector number at the end of FAT2 (just below the start of the cluster region). The driver believes this is a FAT region (in fat_buf_release), writes the sector to what it "thinks" is FAT1, proceeds to copy the changes to FAT2 -> adds FAT_LENGTH (8161) to sector, leading to a write well into the cluster region, randomly overwriting files. The three function calls above lead to fsck complaining about disk structure: ######## fsck from util-linux 2.27.1 fsck.fat 3.0.28 (2015-05-16) 0x41: Dirty bit is set. Fs was not properly unmounted and some data may be corrupt. 1) Remove dirty bit 2) No action ? 2 There are differences between boot sector and its backup. This is mostly harmless. Differences: (offset:original/backup) 65:01/00 1) Copy original to backup 2) Copy backup to original 3) No action ? 3 / and /APPLICAT.ION					

share clusters. Truncating second to 0 bytes because first is FAT32 root dir.

/APPLICAT.ION

File size is 4096 bytes, cluster chain length is 0 bytes. Truncating file to 0 bytes.

Perform changes ? (y/n) n /dev/sdm1: 14 files, 1600/1044483 clusters

########

In particular the "shared cluster" problem is caused by fat_file_write_first_cluster_num, which adds a directory entry to the root directory cluster pointing at itself; e.g. there is a directory entry in cluster 2 pointing to a file in cluster 2. (Note: this occurs because we have fixed the "point to cluster # 1 issue" by reading the relative location of the root cluster node from the FAT volume info strcture).

Removing the function call in msdos_shut_down (..) to close the root file descriptor solves the problem perfectly (clean fsck). However, we're a bit unsure about the intent behind closing the root directory.

~~#2964~~	11 months ago	fixed	fs/fat	slemstick	Sebastian Huber	4 months ago
Summary	fat: msdos_find_file_in_directory(..) doesn't reset LFN search appropriately					

Description

We have a volume that has a lot of free'd up directory entries, one of which looks like this:

- 1-> old LFN end entry n
- 2-> old LFN end entry n - 1
- 3-> old SHORT entry freed with byte [0] = 0xe5

and one remaining file, named slemstick.tar.gz, which resides AFTER this in the directory structure (and is NOT deleted). The old, deleted LFN above (consisting of three consequtive directory entries) earlier contained slemstick.tar.gz, such that the old filename still exist in the old LFN entries 1 and 2 above - but the SHORT entry (3) has been freed by setting byte[0] to 0xe5.

The problem is that, when the filename search algorithm in msdos_find_file_in_directory(..) encounters the LFN entries 1 and 2, it starts parsing them as normal LFN entries. When it encounters the SHORT entry 3) above, the variable entry_empty is set and the algorithm continues to parse the remaining directory entries by skipping entry 3). As a consequence, it never finds the actual file in the directory entries below.

A working fix to our problem is to add this clause in side the "else if(entry_empty)" if check around line ~1400 in msdos_misc.c:

https://pastebin.com/guW5JPfT

Which resets the search algorithm, if a short directory entry that has been freed is found while searching for a long file name.

Can anyone comment on this patch?

~~#2987~~	10 months ago	fixed	fs/fat	slemstick	Sebastian Huber	4 months ago
Summary	fat: msdos_dir_read(..) doesn't reset conversion output string length					

Description

msdos_dir_read(..) uses a conversion function, convert_handler->utf16_to_utf8, to convert LFN directory entry names in utf16 format to utf8.

However, the conversion handler sets the string length of the output utf8 string as well. That variable: **string_size** in msdos_dir_read(..) is never re-initialised in the search algorithm. When the volume becomes sufficiently fragmented, de-allocated LFN directory entry checksums will cause the filename search algorithm to fail, effectively breaking the current attempt to concatenate directory entry filename chunks, but the output string size is now much shorter (10 characters, where it should be **sizeof(tmp_dirent.d_name)**). Consequently, msdos_dir_read(..) will continue to parse directory entries with a much smaller output string size.

The end result is that attempts to read file names from a directory will output truncated file names (for example, readdir() will "work" as normal but the output filenames are too short). Any attempt to open these truncated file names will, of course, fail.

~~#2988~~	10 months ago	fixed	doc	Chris Johns	chrisj@...	4 months ago
Summary	Documentation link to the 4.11 release is broken.					

Description

The link on docs.rtems.org to the latest release is broken. I suspect an issue in the catalogue Javascript code.

~~#3004~~	10 months ago	fixed	doc	Linda Huxley	Chris Johns	10 days ago
Summary	Typos in RTEMS User Manual 4.11.99					

Description

There are a couple of apparent typos in section "5.2 Releases" in the Note box near the bottom of the section. The following switch is mentioned twice:

--with-rtemsbsp

However, I can't find that switch anywhere in the RSB source code. Should that read:

--with-rtems-bsp

Thare are a couple of typos in section "5.2.1. RTEMS Tools and Kernel":

$ mv rtems-source-builder-4.11.0 4.110 $ cd 4.11.0

That should read:

$ mv rtems-source-builder-4.11.0 4.11.0 $ cd 4.11.0/rtems

~~#3024~~	9 months ago	fixed	lib/dl	Pavel	Chris Johns	4 days ago
Summary	dl04, dl05 build failes					

Description

Building rtems-4.11.2-rc4 with "--enable-tests" option fails with error from depcomp: "depcomp: Variables source, object and depmode must be set"

The reason (in my opinion) is empty CXXDEPMODE variable in Makefiles generated for dl04 and dl05.

I changed it to depmode=gcc for dl04 and depmode=gcc3 for dl05 just to check, it helped.

But I don't know the right value for this variable.

target - i386-rtems4.11 bsp - pc486 version - rtems-4.11.2-rc4 (version downloaded by rtems-source-builder-4.11.2-rc4)

~~#3031~~	8 months ago	fixed	doc	Chris Johns	Amar Takhar	4 months ago
Summary	Give docs.rtems.org and sync.rtems.org jails access to the TrueNAS storage.					

Description

Giving jails such as docs and sync access to an area of the TrueNAS storage would make building and moving of the docs from sync to the docs website much simpler.

Currently I build the docs on a server in Sydney, copy them to the RTEMS FTP server using an ssh key and docs.rtems.org picks up the copy. I like to make the whole process local to the RTEMS servers and not rely on gear here with my dodgy connection and me needing to monitor it.

~~#3065~~	7 months ago	invalid	build	Chris Johns	chrisj@...	11 days ago
Summary	RTEMS 4.11.2 avr build fails					

Description

```
checking for scandir... no
../../../../../rtems-4.11.2/c/src/../../cpukit/configure: 5249: Syntax error: Bad fd number
configure: error: /bin/sh '../../../../../rtems-4.11.2/c/src/../../cpukit/configure' failed for ../../cpukit
```

~~#3066~~	7 months ago	wontfix	tool/gcc	Chris Johns		4 days ago
Summary	RTEMS 4.11.2 LM32 build fails					

Description

C++ sample does not build:

Description

```
Making all in iostream
gmake[6]: Entering directory '/build/rtems/releases/build/4.11.2/rtems-source-builder-4.11.2/rtems/build/lm32-rtems4.11-kernel-4.11.2-1/lm32-rtems4.11-kernel-4.11.2-1-4.11.2/build/lm32-rtems4.11/c/lm32_evr/testsuites/samples/iostream'
lm32-rtems4.11-g++ -B../../../../../lm32_evr/lib/ -specs bsp_specs -qrtems -DHAVE_CONFIG_H -I. -I../../../../../../../rtems-4.11.2/c/src/../../testsuites/samples/iostream -I..     -O0 -g -Wall -Wmissing-prototypes -Wimplicit-function-declaration -Wstrict-prototypes -Wnested-externs -MT init.o -MD -MP -MF .deps/init.Tpo -c -o init.o ../../../../../../../rtems-4.11.2/c/src/../../testsuites/samples/iostream/init.cc
cc1plus: warning: command line option '-Wmissing-prototypes' is valid for C/ObjC but not for C++
cc1plus: warning: command line option '-Wimplicit-function-declaration' is valid for C/ObjC but not for C++
cc1plus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC but not for C++
cc1plus: warning: command line option '-Wnested-externs' is valid for C/ObjC but not for C++
mv -f .deps/init.Tpo .deps/init.Po
lm32-rtems4.11-g++ -B../../../../../lm32_evr/lib/ -specs bsp_specs -qrtems -O0 -g -Wall -Wmissing-prototypes -Wimplicit-function-declaration -Wstrict-prototypes -Wnested-externs       -o cxx_iostream.exe init.o
`.gcc_except_table._ZN9__gnu_cxx7__mutexD2Ev' referenced in section `.rodata.cst4' of /build/rtems/releases/build/4.11.2/rtems-source-builder-4.11.2/rtems/build/tmp/sb-chris/4.11/rtems-lm32.bset/build/rtems/releases/4.11.2/bin/../lib/gcc/lm32-rtems4.11/4.9.3/libstdc++.a(eh_terminate.o): defined in discarded section `.gcc_except_table._ZN9__gnu_cxx7__mutexD2Ev[_ZN9__gnu_cxx7__mutexD5Ev]' of /build/rtems/releases/build/4.11.2/rtems-source-builder-4.11.2/rtems/build/tmp/sb-chris/4.11/rtems-lm32.bset/build/rtems/releases/4.11.2/bin/../lib/gcc/lm32-rtems4.11/4.9.3/libstdc++.a(eh_terminate.o)
`.gcc_except_table._ZN9__gnu_cxx7__mutexD2Ev' referenced in section `.rodata.cst4' of /build/rtems/releases/build/4.11.2/rtems-source-builder-4.11.2/rtems/build/tmp/sb-chris/4.11/rtems-lm32.bset/build/rtems/releases/4.11.2/bin/../lib/gcc/lm32-rtems4.11/4.9.3/libstdc++.a(new_handler.o): defined in discarded section `.gcc_except_table._ZN9__gnu_cxx7__mutexD2Ev[_ZN9__gnu_cxx7__mutexD5Ev]' of /build/rtems/releases/build/4.11.2/rtems-source-builder-4.11.2/rtems/build/tmp/sb-chris/4.11/rtems-lm32.bset/build/rtems/releases/4.11.2/bin/../lib/gcc/lm32-rtems4.11/4.9.3/libstdc++.a(new_handler.o)
```

~~#3067~~	7 months ago	wontfix	tool/gcc	Chris Johns		4 days ago

Summary: RTEMS 4.11.2 M32C build fails

Description:

CPU Top does not build:

```
m32c-rtems4.11-gcc --pipe -DHAVE_CONFIG_H   -I.. -I../../cpukit/../../../m32csim/lib/include   -g -O0 -MT monitor/mon-queue.o -MD -MP -MF $depbase.Tpo -c -o monitor/mon-queue.o ../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/monitor/mon-queue.c &&\
mv -f $depbase.Tpo $depbase.Po
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c: In function 'print_memsize':
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c:159:20: warning: integer overflow in expression [-Woverflow]
  if (size > (1024 * 1024))
                    ^
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c:161:40: warning: integer overflow in expression [-Woverflow]
                        size / (1024 * 1024), label);
                                        ^
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c:161:32: warning: division by zero [-Wdiv-by-zero]
                        size / (1024 * 1024), label);
                               ^
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c: In function 'rtems_cpuusage_top_thread':
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c:309:33: warning: cast to pointer from integer of different size [-Wint-to-pointer-cast]
  rtems_cpu_usage_data*  data = (rtems_cpu_usage_data*) arg;
                                ^
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c: In function 'rtems_cpu_usage_top_with_plugin':
../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/cpuuse/cpuusagetop.c:617:36: warning: cast from pointer to integer of different size [-Wpointer-to-int-cast]
    id, rtems_cpuusage_top_thread, (rtems_task_argument) &data
                                    ^
depbase=`echo monitor/mon-driver.o | sed 's|[^/]*$|.deps/&|;s|\.o$||'`;\
m32c-rtems4.11-gcc --pipe -DHAVE_CONFIG_H   -I.. -I../../cpukit/../../../m32csim/lib/include   -g -O0 -MT monitor/mon-driver.o -MD -MP -MF $depbase.Tpo -c -o monitor/mon-driver.o ../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/monitor/mon-driver.c &&\
mv -f $depbase.Tpo $depbase.Po
depbase=`echo monitor/mon-itask.o | sed 's|[^/]*$|.deps/&|;s|\.o$||'`;\
m32c-rtems4.11-gcc --pipe -DHAVE_CONFIG_H   -I.. -I../../cpukit/../../../m32csim/lib/include   -g -O0 -MT monitor/mon-itask.o -MD -MP -MF $depbase.Tpo -c -o monitor/mon-itask.o ../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/monitor/mon-itask.c &&\
mv -f $depbase.Tpo $depbase.Po
In file included from ../../../../../../rtems-4.11.2/c/src/../../cpukit/libmisc/dummy/default-configuration.c:113:0:
../../cpukit/../../../m32csim/lib/include/rtems/confdefs.h: At top level:
../../cpukit/../../../m32csim/lib/include/rtems/confdefs.h:1483:46: warning: cast from pointer to integer of different size [-Wpointer-to-int-cast]
  #define CONFIGURE_INIT_TASK_ARGUMENTS     ((rtems_task_argument) &bsp_boot_cmdline)
                                             ^
../../cpukit/../../../m32csim/lib/include/rtems/confdefs.h:1514:7: note: in expansion of macro 'CONFIGURE_INIT_TASK_ARGUMENTS'
     CONFIGURE_INIT_TASK_ARGUMENTS
     ^
../../cpukit/../../../m32csim/lib/include/rtems/confdefs.h:1515:5: error: initializer element is not constant
   }
   ^
../../cpukit/../../../m32csim/lib/include/rtems/confdefs.h:1515:5: error: (near initialization for 'Initialization_tasks[0].argument')
```

~~#3068~~	7 months ago	wontfix	tool/gcc	Chris Johns		4 days ago

Summary: RTEMS 4.11.2 Moxie build fails

Description:

C++ sample fails to build:

~~#3074~~	7 months ago	fixed	tool/rsb	Chris Johns	Chris Johns	8 days ago
Summary	gcc version report for released tools is wrong					
Description	RTEMS 4.11.2 Released Tools version is wrong. $ /opt/work/rtems/4.11/bin/arm-rtems4.11-gcc --version arm-rtems4.11-gcc (GCC) 4.9.3 20150626 (RTEMS 4.11, RSB no repo, Newlib 2.2.0.20150423) Copyright (C) 2015 Free Software Foundation, Inc. This is free software; see the source for copying conditions. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. The RSB field should be 4.11.2.					
~~#3075~~	7 months ago	fixed	doc	Jeffrey Hill	Sebastian Huber	4 months ago
Summary	rtems_interrupt_lock_acquire interface documentation issue in the "RTEMS C Users Guide"					

Description	I suspect that in this section I should indicate that the second argument is "rtems_interrupt_level * level" instead of "rtems_interrupt_level level". Furthermore, perhaps it should state that the interrupt cache type of opaque context inside of "level" to be restored when the lock is released. Also, perhaps a better argument name would be "pPrvCtx"? The documentation might also divulge additional functional details about what occurs on an SMP system. Does it prevent interrupts from running on all CPUs simultaneously when the lock is acquired? It does say something about an SMP lock, but that perhaps is an implementation detail, and not a functional description of what the function does.
	
	7.4.8 INTERRUPT_LOCK_ACQUIRE - Acquire an ISR Lock
	CALLING SEQUENCE:
	
	void rtems_interrupt_lock_acquire(
	  rtems_interrupt_lock *lock,
	  rtems_interrupt_level level
	);					

~~#3092~~	6 months ago	fixed	score	Sebastian Huber	Sebastian Huber	6 months ago
Summary	ARM: Test spcontext01 fails on Cortex-R4					
~~#3093~~	6 months ago	fixed	score	Sebastian Huber	Sebastian Huber	6 months ago
Summary	ARM: Validate IT[7:0] bit field in PSR on Thumb 2 targets					
Description	The context validation function did not take care of the IT[7:0] bit field of the PSR. Add a code block that validates this processor state.					
~~#3094~~	6 months ago	fixed	tool	Sebastian Huber	Sebastian Huber	6 months ago
Summary	ARM: Back port Newlib patch to avoid warnings with -fno-short-enums					
Description	Some architectures like ARM encode the short enum option state in the object file and the linker checks that this option is consistent for all objects of an executable. In case applications use -fno-short-enums, then this leads to linker warnings. Use the enum packed attribute for the relevant enums to avoid the -fshort-enums compiler option. This attribute is at least available on GCC, LLVM/clang and the Intel compiler.					
~~#3104~~	6 months ago	fixed	shell	Chris Johns	Chris Johns	10 days ago
Summary	Shell internal commands should be public.					
Description	This is back port of the patch on development. See ~~#3096~~.					
~~#3105~~	6 months ago	fixed	config	Sebastian Huber	Sebastian Huber	6 months ago
Summary	Invalid memory size configuration for POSIX keys					
Description	The unlimited objects option is available for POSIX key value pairs. This flag must be removed for the memory size configuration.					
~~#3107~~	6 months ago	fixed	tool/gcc	Chris Johns	Chris Johns	4 months ago
Summary	Building gcc-4.9.3 is broken on FreeBSD 11.1					
Description	Building GCC breaks on FreeBDS 11.1. See https://bugs.freebsd.org/bugzilla/show_bug.cgi?id=212465 for details.					
~~#3108~~	6 months ago	fixed	tool/rsb	Chris Johns	Chris Johns	6 months ago
Summary	Remove RSB ARM specific config file rtems-arm-gcc-4.9.3-newlib-2.2.0-20150423-1.cfg					
Description	Move the patches in the ARM buildste file.					
~~#3119~~	6 months ago	fixed	doc	Chris Johns	Chris Johns	4 months ago
Summary	Docs failed to build PDF with the latest Sphinx.					
Description	Back port the master (4.12) fix.					
~~#3161~~	5 months ago	fixed	score	Sebastian Huber	Sebastian Huber	5 months ago
Summary	I2C EEPROM driver uses incorrect address format					
Description	The I2C EEPROM driver must send the MSB of the address bytes first.					
~~#3162~~	5 months ago	fixed	score	Sebastian Huber	Sebastian Huber	5 months ago
Summary	I2C EEPROM driver uses incorrect program timeout handling					
Description	The RTEMS_MILLISECONDS_TO_TICKS() macro doesn't round up. Do not use it to calculate the program timeout in ticks. Check program done condition after the timeout check to account for pre-emptions.					
~~#3164~~	4 months ago	fixed	score	Sebastian Huber	Sebastian Huber	4 months ago
Summary	aio_cancel() does not destroy the corresponding condition variables					

~~#3183~~	4 months ago	fixed	arch/arm	Steen Palm	Chris Johns	9 days ago
Summary	Build of RTEMS 4.11.2 using RSB fails for ARM					
Description	I have built release 4.11.2 of RTEMS for ERC32, and it can successfully run the hello example using the SPARC gdb. I'm now trying to build RTEMS for ARM using RSB 4.11.2, but RSB fails after it has built the kernel, while it is making a hello example test. The strange thing is that RSB is attempting to use a file that is part of the RTEMS built for ERC32 - a file that does not exist. The prefix for the ERC32 RTEMS is /home/smile/dev/rtems/4.11/erc32 and /home/smile/dev/rtems/4.11/arm for the ARM RTEMS. Used build command: ../source-builder/sb-set-builder --prefix=$HOME/dev/rtems/4.11/arm 4.11/rtems-arm Extract from the log file rsb-report-arm-rtems4.11-kernel-4.11.2-1.txt: ... make all-am make[5]: Entering directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites/samples' BSP Testsuite Data: all tests Making all in hello make[6]: Entering directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites/samples/hello' arm-rtems4.11-gcc -B../../../../../nds/lib/ -specs bsp_specs -qrtems -DHAVE_CONFIG_H -I. -I../../../../../../../rtems-4.11.2/c/src/../../testsuites/samples/hello -I.. -mcpu=arm9tdmi -O2 -Wall -Wmissing-prototypes -Wimplicit-function-declaration -Wstrict-prototypes -Wnested-externs -MT init.o -MD -MP -MF .deps/init.Tpo -c -o init.o ../../../../../../../rtems-4.11.2/c/src/../../testsuites/samples/hello/init.c mv -f .deps/init.Tpo .deps/init.Po arm-rtems4.11-gcc -B../../../../../nds/lib/ -specs bsp_specs -qrtems -mcpu=arm9tdmi -O2 -Wall -Wmissing-prototypes -Wimplicit-function-declaration -Wstrict-prototypes -Wnested-externs -mcpu=arm9tdmi -o hello.exe init.o arm-rtems4.11-nm -g -n hello.exe > hello.num arm-rtems4.11-size hello.exe text data bss dec hex filename 145504 2384 4043392 4191280 3ff430 hello.exe arm-rtems4.11-objcopy -O binary hello.exe hello.bin ../../../../../nds/build-tools/ndstool -c hello.nds -9 hello.bin -7 /home/smile/dev/rtems/4.11/erc32/sparc-rtems4.11/erc32/lib/coproc.bin Cannot open file '/home/smile/dev/rtems/4.11/erc32/sparc-rtems4.11/erc32/lib/coproc.bin'. Nintendo DS rom tool compiled for rtems - Oct 10 2017 by Rafael Vuijk, Dave Murphy, Alexei Karpenko Makefile:626: recipe for target 'hello.exe' failed make[6]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites/samples/hello' make[6]: *** [hello.exe] Error 1 make[5]:** * [all-local] Error 1 make[4]: *** [all] Error 2 make[3]:** * [all-recursive] Error 1 make[2]: *** [all-recursive] Error 1 Makefile:583: recipe for target 'all-local' failed make[5]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites/samples' Makefile:245: recipe for target 'all' failed make[4]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites/samples' Makefile:313: recipe for target 'all-recursive' failed make[3]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds/testsuites' Makefile:424: recipe for target 'all-recursive' failed make[2]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c/nds' make[1]:** * [all-recursive] Error 1 Makefile:286: recipe for target 'all-recursive' failed make[1]: Leaving directory '/home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/arm-rtems4.11-kernel-4.11.2-1-4.11.2/build/arm-rtems4.11/c' make: *** [all-recursive] Error 1 Makefile:410: recipe for target 'all-recursive' failed shell cmd failed: /bin/sh -ex /home/smile/dev/rtems/4.11/rtems-source-builder-4.11.2/rtems/build/arm-rtems4.11-kernel-4.11.2-1/doit error: building arm-rtems4.11-kernel-4.11.2-1**						
~~#3193~~	4 months ago	fixed	tool/rsb	Ben	Chris Johns	9 days ago
Summary	NOT released from source builder					
Description	Download 4-11.2 Running resource builder gives for each call to sb-check, sb-set-builder : a first line NOT RELEASED. This suggest a not released package which may be trusted but not guaranteed					
~~#3196~~	4 months ago	wontfix	tool/rsb	Ben		11 days ago
Summary	4-11.2 gdb generation fails					
Description	4-11.2 source building fails during gdb generation on Linux Mint 17.1 "checking for python2.7" is followed by "python missing are unusable" this is due to an #include "Python.h" that fails NOTE: the source building package of 4-11.2 that is used, generates a NOT RELEASED message at the start; a ticket has been raised for this					
~~#3257~~	2 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	2 months ago
Summary	fat: Support files in the root directoy with the same name as the volume label					
Description	Take care that a file in the root directory with the same name as the volume name can be found.					
~~#3258~~	2 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	2 months ago
Summary	fat: Fix creation of files with a similar name to existing files in the directory					
Description	If there is already a file with a long file name it isn't possible to create a second file which has a name that ends on the first files name (for example ets.beam and sets.beam).					
~~#3271~~	5 weeks ago	fixed	tool/rsb	mholm	Chris Johns	8 days ago
Summary	Avoid using multiprocessor.org in rtems source builder					
Description	The multiprocessor.org website is used to download e.g. mpc in many of the GCC build descriptions. Recently the website underwent some changes and re-organised the download directories which have broken at least the 4.11 branch of RSB, but probably many other branches. Having discussed this with Andreas Enge (maintainer of MPC), he suggests that the gnu mirror is used instead: *I see, thank you for the info. Actually, I reorganised the web site, so the tool is permanently broken. They should not use multiprecision.org, but instead the official GNU ftp site:* https://ftp.gnu.org/gnu/mpc/ It would probably be good to use the GNU mirror also for MPFR and GMP and others if they aren't already.					
~~#3274~~	4 weeks ago	fixed	tool/rsb	Chris Johns		4 weeks ago
Summary	RSB remove unused tool configuration files.					
Description	Remove and clean up the configuration files that are not used on the branch.					
~~#3275~~	4 weeks ago	fixed	tool/rsb	Chris Johns	Chris Johns <chrisj@...>	4 weeks ago
Summary	RSB do not build the kernel when released.					
Description	Do not build the RTEMS kernel by default when released.					
~~#3279~~	3 weeks ago	fixed	tool/rsb	Chris Johns	Chris Johns	3 weeks ago
Summary	Make the XZ executable path based on the Darwin (MacOS) host.					
Description	The Darwin configuration expects the tool to be in `/usr/local/bin` however the `xz` is not part of the Xcode command line tools and may be built to a different path. Make the configuration path base.					
~~#3289~~	11 days ago	fixed	tool/rsb	Chris Johns	Chris Johns	10 days ago
Summary	RSB backport changes to support mailing list posting of builds.					
Description	To help the long term support of the 4.11 branch back port the RSB changes to support mailing list posting of builds.					
~~#3295~~	8 days ago	fixed	tool/rsb	Chris Johns	Chris Johns	8 days ago
Summary	4.11: RSB `--source-only-download` does not download the source					
Description	The option expansion is missing `--with-download'.					
~~#3297~~	8 days ago	fixed	build	Chris Johns	Chris Johns	7 days ago

Summary	4.11: libtests in the testsuite does not set EXEEXT to .exe
Description	A check of the 4.11 branch shows: `$ grep "EXEEXT =" `find sparc-rtems4.11/c/erc32/testsuites/ -name Makefile` [removed some lines] sparc-rtems4.11/c/erc32/testsuites/psxtmtests/psxtmcond05/Makefile:EXEEXT = .exe sparc-rtems4.11/c/erc32/testsuites/psxtmtests/psxtmkey02/Makefile:EXEEXT = .exe sparc-rtems4.11/c/erc32/testsuites/Makefile:EXEEXT = .exe sparc-rtems4.11/c/erc32/testsuites/libtests/block16/Makefile:EXEEXT = sparc-rtems4.11/c/erc32/testsuites/libtests/heapwalk/Makefile:EXEEXT = [removed some lines]

Last modified on Jul 11, 2017, 1:07:38 AM

4.11.2 (open)

Statistics

Total	47
Fixed	39
Invalid	1
Works for me	0
Duplicate	1
Won't fix	6

Distribution

Summary

~~#1523~~ gethostbyname is not reenterant.
~~#2002~~ ioctl recursive perimeter lock driver deadlock vulnerability
~~#2058~~ RPC library audit required
~~#2324~~ Documentation and quick start for the RSB
~~#2388~~ [PATCH] [NFS client] Remove old CVS keywords
~~#2401~~ ARMv7M: Default exception handler doesn't support FPU
~~#2479~~ RTEMS Source Builder gets wrong version of rtems-tools for rtems4-11.
~~#2499~~ RSB 4.11 broken on FreeBSD 10 with default prefix.
~~#2622~~ FAT file corruption when pre-empted while appending to a file
~~#2670~~ epiphany tools fail to build on 4.11
~~#2708~~ rtems-bsp shell script does not list the available BSPS
~~#2755~~ FAT mkdir() broken
~~#2758~~ SDCard driver for QoriQ
~~#2815~~ Add Preferred waf to top of various repositories
~~#2827~~ rtems-bsps broken on 4.11 branch
~~#2886~~ RTEMS version is wrong on 4.11 branch
~~#2907~~ BSP Script v4.11 Fix
~~#2908~~ FAT filename comparison is broken
~~#2913~~ RTEMS FAT32 formatter does not set the not dirty and no IO error bits
~~#2914~~ termios: Race condition in raw input buffer handling
~~#2915~~ termios: Potential infinite loop in canonical mode
~~#2928~~ FAT filename comparision is broken while using the UTF-8 support
~~#2929~~ FAT long file names accross cluster boundaries may be broken
~~#2934~~ FAT long file name padding is broken
~~#2936~~ Deadlock in filesystem location management
~~#2937~~ FAT race condition msdos_dir_read()
~~#2939~~ FAT file name search may not consider long file names
~~#2940~~ rtems-docs output and catalogue.xml verison numbering is wrong.
~~#2947~~ FreeBSD 11.0 check warnings for makeinfo and install-info
~~#2948~~ ARM: Optimize IEEE-754 sqrt implementation
~~#2950~~ doxygen does not install on sync.rtems.org
~~#2952~~ Support a release candidates residing in an `rc` directory.
~~#2953~~ Change Trac time format to absolute.
~~#2955~~ Backport libdl fixes to the 4.11 branch.
~~#2956~~ Backport rtems-tester qemu console fix.
~~#2989~~ doxygen crashes on sync.rtems.org
~~#2996~~ source download for RTEMS 4.11.2-rc1 Release
~~#3002~~ Incorrect bit reference in ARM GIC
~~#3005~~ Typo in RTEMS Source Builder 4.11.99
~~#3030~~ lm32-rtems4.11-gdb does not build on Windows.
~~#3033~~ MIPS does not build on FreeBSD
~~#3035~~ 4.11/rtems-moxie does not build.
~~#3042~~ 4.11/rtems-bfin does not build on Windows
~~#3044~~ 4.11/rtems-h8300 does not build on Windows.
~~#3045~~ 4.11/rtems-h8300 does not build on Windows
~~#3060~~ ARMv7-M interrupt processing is broken
~~#3064~~ RSB does not handle the `--rsb-file` option named sources with releases.

Details

Ticket	Created	Resolution	Component	Reporter	Owner	Modified
~~#1523~~	8 years ago	wontfix	network/legacy	Chris Johns	Chris Johns	11 months ago
Summary	gethostbyname is not reenterant.					
Description	The gethostbyname call uses global static data and therefore is not reenterant.					
~~#2002~~	6 years ago	wontfix	network/legacy	Jeffrey Hill	Joel Sherrill	11 months ago
Summary	ioctl recursive perimeter lock driver deadlock vulnerability					

In summary, a generalized deadlock potential exists any time rtems_bsdnet_ioctl calls rtems_bsdnet_ifconfig which calls the driver, and the driver tries to release the bsd networking semaphore, but the lock count doesn't decrement to zero, so the lock is never released.

What happened to me (when writing an Altera Triple Speed Ethernet Driver for NIOS2) was as follows (names here are slightly different than reality). Of course other scenarios are possible.

user calls rtems_bsdnet_ioctl which takes bsd stack lock, it calls rtems_bsdnet_ifconfig which locks bsd stack recursively, it calls driver_ioctl function when setting IF_UP flag to true, it calls driver_begin_communicating and it discovers it is already communicating, it calls driver_stop_communicating which iscovers that tx/rx threads are running, it calls bsd_locking_semaphore_release while waiting for the tx/rx threads to shutdown rip

I fixed this of by changing to a noop if they set IF_UP flag and the driver is already up and running, but sometimes that might be less than robust because we are not forcing a restart of the auxiliary threads. Furthermore, if the user sets the UP flag to false then we cant avoid this issue; we will definitely need to release the lock when the driver threads are forced to exit?

POTENTIAL FIX: Usually what is done is to make a rtems_bsdnet_ifconfig_nolock_private function and then call it form both rtems_bsdnet_ioctl and rtems_bsdnet_ifconfig; presumably the perimeter functions must lock only once on the way in, or in any case thats a common convention with multi-threaded code.

On Jan 30, 2012, at 12:30 PM, Hill, Jeffrey O wrote:

> From: Eric Norum Sent: Monday, January 30, 2012 11:21 AM To: Hill, Jeffrey O Cc: Till Straumann Subject: Re: rtems bsd network deadlock potential

Description

The network mutex is to be taken whenever making the transition from 'user' code from 'kernel' code. I did this because the BSD kernel from which the networking code was lifted was, like many (all?) old UNIXes, non-reentrant. It's possible that over the years some code has been added to the IOCTL support that ends up calling a 'user' level routine from 'kernel' level which then calls some 'kernel' code again. This should be fixed. kernel code should never call user code -- just to avoid the nested mutex problem that Jeff is reporting. Perhaps some IOCTL routine need to be split up with a user-level wrapper that takes the mutex then calls the kernel level routine -- and that kernel level routine should be what any other kernel level code invokes.

I'm afraid that I don't have time to look at this now.

On Jan 30, 2012, at 9:30 AM, Hill, Jeffrey O wrote:

> It could well be that the intention is that rtems_bsdnet_ioctl()

executes

> atomically w/o the driver temporarily releasing the lock and doing communication. That could alter internal state in unintended ways.
>
> Ok, maybe this is just part of the design, but I am left with some

doubts if this type of (taking the lock twice to prevent the state from changing while in the driver) enforcement policy is applied uniformly. It might even be that this is in place purely because of accidental inconsistencies in the way the lock is acquired on the way in.

> Considering this further, isn't it quite routine and normal for the

driver to shutdown auxiliary threads (which take the lock) when inside the driver ioctl function if the user sets the UP flag to false? Presumably this can't be done reliably w/o releasing the lock in the driver?

> Of course the RTEMS designers, who know all of the consequences will

need to decide. I am only identifying what appear to be issues when I see them.

> Jeff
>
> > From: Till Straumann Sent: Monday, January 30, 2012 10:07 AM To: Hill, Jeffrey O Cc: Eric Norum Subject: Re: rtems bsd network deadlock potential
> >
> > I see. However, I'm not sure if that is not a programming error in the driver. It could well be that the intention is that rtems_bsdnet_ioctl()

executes

> > atomically w/o the driver temporarily releasing the lock and doing communication. That could alter internal state in unintended ways.
> >
> > T.
> >
> > On 01/30/2012 10:58 AM, Hill, Jeffrey O wrote:
> >
> > > Hi Till,
> > >
> > > What happened to me was as follows (names are slightly different than

reality), but of course other scenarios are possible.

> > > rtems_bsdnet_ioctl calls (it locks), it calls rtems_bsdnet_ifconfig calls (it locks recursively), it calls driver_ioctl function (because IF_UP flag is being set to true), it

calls

> > > driver_begin_communicating (which discovers that it is already

communicating), it calls

> > > driver_stop_communicating (which discovers that tx/rx threads are

running), it calls

> > > bsd_locking_semaphore_release (while waiting for the tx/rx threads to

shutdown)

> > > rip
> > >
> > > I fixed this of course by changing to a noop if they set IF_UP flag

and

> > the driver is already up and running, but sometimes that might be less robust because we are not forcing a restart of the auxiliary threads.
> > > In summary, a generalized deadlock potential exists any time
> > >
> > > rtems_bsdnet_ioctl calls rtems_bsdnet_ifconfig which calls the driver,

and

> > the driver tries to release the semaphore, but the lock count doesn't decrement to zero, so the lock is never released.
> > > Usually what is done is to make a rtems_bsdnet_ifconfig_nolock_private
> > >
> > > and then call it form both rtems_bsdnet_ioctl and

rtems_bsdnet_ifconfig;

> > the perimeter functions must lock only once on the way in.
> > > Jeff
> > >
> > > > From: Till Straumann Sent: Friday, January 27, 2012 3:36 PM To: Hill, Jeffrey O Cc: Eric Norum Subject: Re: rtems bsd network deadlock potential
> > > >
> > > > Maybe I'm missing something but AFAIK the networking semaphore is basically a mutex which you can take multiple times from the same thread.
> > > >
> > > > Could you please explain in more detail?
> > > >
> > > > T.
> > > >
> > > > On 01/27/2012 04:28 PM, Hill, Jeffrey O wrote:
> > > >
> > > > > Hi Eric, Till,
> > > > >
> > > > > FWIW, I noticed today that there is a situation where

rtems_bsdnet_ioctl

> > > calls rtems_bsdnet_ifconfig, but both functions take the bsd

networking

> > semaphore resulting in a recursive reference counted lock. Therefore

if

> > the driver's implementation of ioctl calls rtems_bsdnet_event_receive there will be a deadlock (because the internal attempt to unlock is silently unsuccessful). I will no-doubt try to come up with a

workaround

> > but perhaps the situation is somewhat precarious.
> > > Is this serious enough that I should report a bug to the RTEMS bug

tracking system?

> > > #0 (rtems_bsdnet_event_receive(event_in=8, option_set=0, ticks=0,

event_out=0xa7a9f4) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/rtems/rtems_glue.c:687)

> > > ~~#1~~ 0x5f34 alt_tse_soft_tx_stop(pSoftSgdmaTx=0xb24084)

(/home/hill/nios2-

> > rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:206)
> > > ~~#2~~ 0x5fa8 alt_tse_soft_tx_destroy(pSoftSgdmaTx=0xb24084)
> > >
> > > (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:216)
> > > ~~#3~~ 0x8808 alt_tse_stop_comm(ifp=0xb23c3c) (/home/hill/nios2-

rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:1554)

#4 0x88a8 alt_tse_start_comm(pParm=0xb23c3c) (/home/hill/nios2-

rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:1576)

#5 0x8a90 alt_tse_start_comm_no_status(pParm=0xb23c3c)

(/home/hill/nios2-rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:1651)

#6 0xe5a8 ether_ioctl(ifp=0xb23c3c, command=1, data=<value

optimized

out>) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/net/if_ethersubr.c:838)

#7 0x8bc0 alt_tse_ioctl(ifp=0xb23c3c, cmmd=2149607692,

data=0xb24648

"\210F\262") (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/network/if_alttse.c:1680)

#8 0x3272c in_ifinit(ifp=0xb23c3c, ia=0xb24648, sin=<value

optimized

out>, scrub=1) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/netinet/in.c:480)

#9 0x331a0 in_control(so=<value optimized out>, cmd=2149607692,

data=0xa7aba0 "tse0", ifp=0xb23c3c) (/home/hill/nios2-

rtems/rtems/rtems-

4.11.0-/cpukit/libnetworking/netinet/in.c:312)

#10 0x2632c old_control(so=0x0, cmd=10987900, data=0xa7a9f4

"\034\252\247", ifp=<value optimized out>) (/home/hill/nios2- rtems/rtems/rtems-4.11.0-

/cpukit/libnetworking/kern/uipc_socket2.c:801)

#11 0xfcc8 ifioctl(so=0xb23e08, cmd=1, data=0xa7aba0 "tse0",

p=<value

optimized out>) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/net/if.c:605)

#12 0x1c3e8 so_ioctl(iop=0xaf2544, command=1, buffer=<value

optimized out>) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/rtems/rtems_syscall.c:713)

#13 (rtems_bsdnet_ioctl(iop=0xaf2544, command=1, buffer=<value

optimized out>) (/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/rtems/rtems_syscall.c:731)

#14 0x3093c ioctl(fd=<value optimized out>, command=1)

(/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libcsupport/src/ioctl.c:50)

#15 0x194b8 rtems_bsdnet_ifconfig(ifname=0x4afb4 "tse0",

cmd=2149607692, param=0xa7abe0) (/home/hill/nios2-rtems/rtems/rtems- 4.11.0-/cpukit/libnetworking/rtems/rtems_glue.c:1114)

#16 0x19718 rtems_bsdnet_setup_interface(name=0x4afb4 "tse0",

ip_address=0x4afbc "128.165.34.102", ip_netmask=0x4afcc

"255.255.255.0")

(/home/hill/nios2-rtems/rtems/rtems-4.11.0- /cpukit/libnetworking/rtems/rtems_glue.c:879)

#17 0x19d88 rtems_bsdnet_setup() (/home/hill/nios2-

rtems/rtems/rtems-4.11.0-

/cpukit/libnetworking/rtems/rtems_glue.c:959)

#18 (rtems_bsdnet_initialize_network() (/home/hill/nios2-

rtems/rtems/rtems-4.11.0-

/cpukit/libnetworking/rtems/rtems_glue.c:1018)

#19 0x360 Init(ignored=336840) (init.c:51) #20 0x3a268 _Thread_Handler() (/home/hill/nios2-rtems/rtems/rtems-

4.11.0-/cpukit/score/src/threadhandler.c:157)

#21 0x132c boot_card(cmdline=0xa74338 "DD\247") (/home/hill/nios2-

rtems/rtems/rtems-4.11.0- /c/src/lib/libbsp/nios2/neek/../../shared/bootcard.c:268)

#22 (0x00000000 in ??() (??:??)

Jeff

-- Eric Norum

-- Eric Norum

#2058	6 years ago	wontfix	network/legacy	Sebastian Huber	Eric Norum	6 months ago
Summary	RPC library audit required					
Description	The RPC library needs an audit to verify that it is up to data. Some security problems existed in the SUN implementation, e.g http://www.cert.org/advisories/CA-2003-10.html Maybe it makes sense to use the recent FreeBSD or OpenBSD version.					
#2324	3 years ago	fixed	doc	punitvara	Chris Johns	4 months ago
Summary	Documentation and quick start for the RSB					
Description	https://ftp.rtems.org/pub/rtems/people/chrisj/source-builder/source-builder.html In this guide 2.5. Distributing and Archiving A Build It would be better if **$ cd $ cd development/rtems/src/rtems-source-builder/rtems/tar $ tar --strip-components=3 -xjf rtems-4.11-sparc-rtems4.11-1.tar.bz2 instead of $ cd $ tar --strip-components=3 -xjf rtems-4.11-sparc-rtems4.11-1.tar.bz2** **because cd leads to home directory and no tar file actually will be created at home directory .Every time it will be created at development/rtems/src/rtems-source-builder/rtems/tar and for extract the file ,user need migrate to this directory.**					
#2388	3 years ago	fixed	fs	Nick Withers	Nick Withers <nick.withers@...>	12 months ago
Summary	[PATCH] [NFS client] Remove old CVS keywords					
Description	The NFS client code in 4.11 and master at least contains CVS keywords that are printed to screen and no longer expanded in the post-CVS world					
#2401	2 years ago	fixed	score	Martin Galvan	Sudarshan Rajagopalan <sudarshan.rajagopalan@...>	12 months ago
Summary	ARMv7M: Default exception handler doesn't support FPU					
Description	On exception entry, _ARMV7M_Exception_default stores the previous Stack Pointer in a CPU_Exception_frame. The SP can be MSP or PSP, depending on the mode in which the exception was taken. To know this, we must check the value of LR. Right now the code checks whether it should store MSP or PSP by comparing LR to -3 (0xFFFFFFFD). However, this doesn't work if we're using an FPU since the error code would be either 0xFFFFFFE9 or 0xFFFFFFED. The result is that we always end up selecting MSP. This bug was found by Sudarshan Rajagopalan in the RTEMS git master.					
#2479	2 years ago	fixed	tool	Mike Westfall		11 months ago

Summary	RTEMS Source Builder gets wrong version of rtems-tools for rtems4-11.
Description	When building the tool chain for RTEMS 4.11, RSB gets the 4.12 version of rtems-tools.

~~#2499~~	2 years ago	invalid	tool/gdb	Chris Johns		11 months ago

Summary	RSB 4.11 broken on FreeBSD 10 with default prefix.
Description	Building gdb-7.9 with the default prefix on FreeBSD results in iconv not being found and used when linking.

~~#2622~~	2 years ago	fixed	fs/fat	Stella Laurenzo	Sebastian Huber	4 months ago

Summary: FAT file corruption when pre-empted while appending to a file

Description:

We've been circling around some odd problems for a while where some of our files end up with garbage sequences in them. I'll save you the hand-wringing diagnostic steps, and jump to the conclusion: when opening and appending to an existing file, sometimes a cluster gets written that contains data from another concurrent write operation (to a different file). An isolated repro is hard to get, but we wedged our code into a state where we can repro it 100% of the time.

I traced the problem down to this sequence (introduced in commit 42a22f0824c4618b864582804ce1440b548a462f - 2012):

In fat_file_write_fat32_or_non_root_dir:

```
if (file_cln_initial < file_cln_cnt)
   overwrite_cluster = true;
```

Triggers (in fat_block_write):

```
if (   overwrite_block
   || (bytes_to_write == fs_info->vol.bytes_per_block))
{
   rc = fat_buf_access(fs_info, sec_num, FAT_OP_TYPE_GET, &blk_buf);
}
else {
   rc = fat_buf_access(fs_info, sec_num, FAT_OP_TYPE_READ, &blk_buf);
}
```

I have a task that wakes up every 5s, opens the file for append, and writes some hundreds of bytes. With a little bit of logging, we find that each operation that does not extend past the first cluster (4KiB) takes the FAT_OP_TYPE_READ branch. Then as soon as the first write to the second file cluster is made (which is usually an overflow from a user-level write that spanned the 4K boundary), all future writes take the FAT_OP_TYPE_GET branch.

I was convinced for a while that perhaps some proximate code of ours was corrupting some bit of accounting, but upon reading through what this is doing, I cannot wrap my head around how the intention was correct. The "if (file_cln_initial < file_cln_cnt)" condition could be unpacked to:

```
if (fat_fd->map.file_cln < (seek_disk_cln - start_disk_cln))
```

I don't see how this arithmetic is correct. We are comparing a file cln to the delta between two disk clns, which unless if I am missing something, is meaningless. Also, we are getting the file cln from the cache, the interpretation of which depends entirely on the operation that took place when it was queried (which is in fat_file_write).

I think the only way this makes sense is if this check were instead passing if we are writing to the last cluster of the file at offset 0 within the cluster. At any other time, this needs to be a read-modify-write because we can't just overwrite the cluster. I'm not sure how to express this, though.

It turns out that for many operations without considering pre-emption, the buffer you get back with fat_buf_access(FAT_OP_TYPE_GET) is populated with the cluster data. When writing sequentially to a file from a single task, this seems to hold together. However, being pre-empted by a higher priority writer may cause some buffer churn and will result in writing a cluster that has the beginning corrupted. We see this as periodic corruption, the beginning of which is always aligned to a 4KiB file offset boundary.

If we hard-code overwrite_cluster to always be false, we do not experience corruption (assuming some performance penalty in these corner cases).

Can someone either confirm or explain what this code is (supposed to be) doing? I'm not ruling out that we are causing a problem here, but right now I am leaning to a defect in the filesystem.

~~#2670~~	2 years ago	wontfix	tool/rsb	Joel Sherrill	Chris Johns	11 months ago

Summary: epiphany tools fail to build on 4.11

Description:

Looks like an incorrect hash but could be something more subtle.

script: 80: build_top=$(pwd) script: 81: gcc_source=epiphany-gcc-f7051762470c42ce7f01baa7edeb113d51c7dd72 script: 82: source_dir_gcc=${gcc_source} source setup: epiphany-rtems4.11-gcc-4.9.1-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1: source gcc -q -n ${gcc_source} making dir: /home/joel/rtems-4.11-work/rtems-source-builder/rtems/sources download: https://github.com/adapteva/epiphany-gcc/archive/f7051762470c42ce7f01baa7edeb113d51c7dd72.zip -> sources/f7051762470c42ce7f01baa7edeb113d51c7dd72.zip download: https://github.com/adapteva/epiphany-gcc/archive/f7051762470c42ce7f01baa7edeb113d51c7dd72.zip -> sources/f7051762470c42ce7f01baa7edeb113d51c7dd72.zip

redirect: https://codeload.github.com/adapteva/epiphany-gcc/zip/f7051762470c42ce7f01baa7edeb113d51c7dd72 redirect: https://codeload.github.com/adapteva/epiphany-gcc/zip/f7051762470c42ce7f01baa7edeb113d51c7dd72

checksums: f7051762470c42ce7f01baa7edeb113d51c7dd72.zip: e089e67261c96c746e685bba018581f0 => c43c2e631418e932e2048607b694e99a warning: checksum error: f7051762470c42ce7f01baa7edeb113d51c7dd72.zip error: checksum failure file: sources/f7051762470c42ce7f01baa7edeb113d51c7dd72.zip

See error report: rsb-report-epiphany-rtems4.11-gcc-4.9.1-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1.txt

Build Set: Time 0:08:36.503865

~~#2708~~	21 months ago	fixed	unspecified	koreny	Chris Johns	11 months ago

Summary: □rtems-bsp shell script does not list the available BSPS□

Description:

It seems rtems-bsps does not work properly□ loadrun@debian:~/code/rtems/rtems/4.11.0-rc3/rtems-4.11.0-rc3$ sh rtems-bsps find: paths must precede expression: 5 Usage: find [-H] [-L] [-P] [-Olevel] [-D help|tree|search|stat|rates|opt|exec] [path...] [expression] RTEMS 4.11

Architectures: 0 BSP Count: 0

loadrun@debian:~/code/rtems/rtems/4.11.0-rc3/rtems-4.11.0-rc3$ uname -a Linux debian 3.16.0-4-686-pae ~~#1~~ SMP Debian 3.16.7-ckt25-1 (2016-03-06) i686 GNU/Linux

~~#2755~~	19 months ago	fixed	fs/fat	snob-wolpike	Sebastian Huber	4 months ago

Summary: FAT mkdir() broken

Description:

FAT implementation in RTEMS incorrectly create directories. Reproducing is extremly simple:

- Run any application using 'mkdir()' on mounted FAT partition.
- Run fsck under any operating system (Linux, MacOSX, Windows)
- You will get smth like this:

```
sudo fsck_msdos /dev/rdisk3s1
** /dev/rdisk3s1
** Phase 1 - Preparing FAT
** Phase 2 - Checking Directories
Directory /0 has size != 0
Correct? [yn]
```

Both 4.11 and 4.12 have this bug.

~~#2758~~	19 months ago	wontfix	bsps	snob-wolpike		12 months ago

Summary: SDCard driver for QoriQ

Description: SDCard driver for QoriQ CPU family. Tested on P2020, Kontron COMe-cP2020 board.

Description	Usage example:
	`bsp_register_esdhc_memcard();`
	`rc = rtems_bdpart_register_from_disk("/dev/memcard");`

~~#2815~~	15 months ago	fixed	build	Joel Sherrill	Chris Johns	4 months ago
Summary	Add Preferred waf to top of various repositories					
Description	The proper version of waf needs to be placed at the top of each repo. This is missing from at least rtems-libbsd.					
~~#2827~~	15 months ago	fixed	unspecified	Joel Sherrill	Chris Johns	11 months ago
Summary	rtems-bsps broken on 4.11 branch					
Description	Looks like at least this patch was not backported: commit 8aa75d0cb18c25fab2078a7641bd823bf0e93999 Author: Chris Johns <chrisj@...> Date: Wed Jul 6 13:01:39 2016 +1000 Config (.cfg) files are only valid if deeper than 5. Probably worth a double check to ensure that the patch from Pavel to remove GNU find dependencies is also on the 4.11 branch.					
~~#2886~~	13 months ago	wontfix	unspecified	Sebastian Huber	Sebastian Huber	11 months ago
Summary	RTEMS version is wrong on 4.11 branch					
Description	cat find -name version.m4 AC_DEFUN([RTEMS_VERSIONING], m4_define([_RTEMS_VERSION],[4.10.99.0])) m4_define([_RTEMS_API],[4.11]) AC_DEFUN([RTEMS_VERSIONING], m4_define([_RTEMS_VERSION],[4.10.99.0])) m4_define([_RTEMS_API],[4.11]) AC_DEFUN([RTEMS_VERSIONING], m4_define([_RTEMS_VERSION],[4.10.99.0])) m4_define([_RTEMS_API],[4.11]) AC_DEFUN([RTEMS_VERSIONING], m4_define([_RTEMS_VERSION],[4.10.99.0])) m4_define([_RTEMS_API],[4.11])					
~~#2907~~	12 months ago	fixed	bsps	Joey DiGiorgio		6 months ago
Summary	BSP Script v4.11 Fix					
Description	After some discussions on the mailing list, it seems that the "rtems_bsps" script in v4.11 never got a patch fixing the find command used to list available BSPs. Below is a patch I used to get things working. diff -rupN RTEMS_v4.11.0/rtems-bsps RTEMS_v4.11.0_Fixed/rtems-bsps --- RTEMS_OS_v4.11.0_New_Source/rtems-bsps 2017-02-10 12:52:01.875581452 -0500 +++ RTEMS_v4.11.0_Source/rtems-bsps 2017-02-10 12:06:15.587126976 -0500 @@ -5,7 +5,7 @@ base_e=$(echo ${base} \| sed -e 's/\ last_arch="" -cfg_list=$(LANG=C LC_COLLATE=C find ${base} -depth 5 -name *.cfg \| sort) +cfg_list=$(LANG=C LC_COLLATE=C find ${base} -mindepth 5 -name *.cfg | sort) max_bsp_len=0 arch_count=0					
~~#2908~~	12 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT filename comparison is broken					
Description	For a filename match the entry must match without anything remaining.					
~~#2913~~	12 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	RTEMS FAT32 formatter does not set the not dirty and no IO error bits					
Description	On FAT12 and FAT32 the FAT table entry 1 contains one bit to indicate that the filesystem is not dirty and one bit that no IO error occurred. Set these bits in the formatter to prevent a warning if mounted on Windows.					
~~#2914~~	12 months ago	fixed	score	Sebastian Huber	Sebastian Huber	12 months ago
Summary	termios: Race condition in raw input buffer handling					
Description	Use the device lock to protect the raw input buffer management, e.g. tail, head and buffer content updates.					
~~#2915~~	12 months ago	fixed	score	Sebastian Huber	Sebastian Huber	12 months ago
Summary	termios: Potential infinite loop in canonical mode					
Description	In canonical mode, the raw input buffer or the canonical buffer may overflow without an end of line. Avoid an infinite loop in this case.					
~~#2928~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT filename comparision is broken while using the UTF-8 support					
Description	The handling of a maximum 8.3 short file name is broken while using the UTF-8 support. A simple "touch txtvsbin.txt" doesn't work.					
~~#2929~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT long file names accross cluster boundaries may be broken					
Description	The procedure to create a long file name directory entry may not work correctly in case a cluster boundary is crossed. Simplify msdos_add_file() to avoid a potential issue.					
~~#2934~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT long file name padding is broken					
Description	In msdos_add_file() the padding of long file names with 0xff is broken. This leads to problems on some Windows systems.					
~~#2936~~	11 months ago	fixed	fs	Sebastian Huber	Sebastian Huber	11 months ago
Summary	Deadlock in filesystem location management					
Description	Always perform a deferred location release to avoid a deadlock on the file system instance locks, for example during a chdir().					
~~#2937~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT race condition msdos_dir_read()					
Description	Obtain file system instance lock before member access.					
~~#2939~~	11 months ago	fixed	fs/fat	Sebastian Huber	Sebastian Huber	4 months ago
Summary	FAT file name search may not consider long file names					
Descripti	Do not use our long file name entry count to optimize the file name search. The Unicode comparison must be taken into account.					

~~#2940~~	11 months ago	fixed	doc	Chris Johns	Chris Johns	4 months ago
Summary	rtems-docs output and catalogue.xml verison numbering is wrong.					
Description	The version number management in rtems-docs.git is mixed up and it is not possible to embed a suitable release number in the release build of the documentation. Remove the version and release from each doc's `conf.py` and move it into the `common/waf.py` support. Provide a command line option `--release` to specify the release string. Default the version to the branch number, eg `4.11 (branch)`.					
~~#2947~~	11 months ago	fixed	tool/rsb	Chris Johns	Chris Johns	11 months ago
Summary	FreeBSD 11.0 check warnings for makeinfo and install-info					
Description	These have moved and the check needs to know.					
~~#2948~~	11 months ago	fixed	tool	Sebastian Huber	Sebastian Huber	11 months ago
Summary	ARM: Optimize IEEE-754 sqrt implementation					
Description	Use the vsqrt.f64 and vsqrt.f32 instructions if available. https://sourceware.org/git/gitweb.cgi?p=newlib-cygwin.git;a=commit;h=baf32fb85fd6ef5e3e5975a357a40de72dc92e15					
~~#2950~~	11 months ago	fixed	admin	Chris Johns	Amar Takhar	10 months ago
Summary	doxygen does not install on sync.rtems.org					
Description	The dependent package graphviz does not install: [sync.rtems.org] [1/2] Extracting graphviz-2.40.1: 0%/usr/local/lib/libpkg.so.4: Undefined symbol "utimensat" The doxygen command is needed to build doxygen documentation for a release.					
~~#2952~~	11 months ago	fixed	tool/rsb	Chris Johns	Chris Johns	10 months ago
Summary	Support a release candidates residing in an `rc` directory.					
Description	Update the RSB to look for release candidate packages in an `rc` directory. This removes these packages from the main release directory and stops them cluttering the main release directory keeping the focus on the releases.					
~~#2953~~	11 months ago	fixed	admin	Chris Johns	amar@...	10 months ago
Summary	Change Trac time format to absolute.					
Description	Setting the Trac default time format to absolute makes better printed reports as the real time is displayed rather than the time being relative to time the report is printed. Applying the change via the Trac Admin results with the post timing out and I do not know if this is expected given trac,ini is (was) read-only.					
~~#2955~~	11 months ago	fixed	lib/dl	Chris Johns	chrisj@...	11 months ago
Summary	Backport libdl fixes to the 4.11 branch.					
Description	Back port the patches from tickets ~~#2754~~ and ~~#2767~~ to the 4.11 branch.					
~~#2956~~	11 months ago	fixed	unspecified	Chris Johns	Chris Johns	4 months ago
Summary	Backport rtems-tester qemu console fix.					
Description	Backport Ric's fix to the qemu console: https://git.rtems.org/rtems-tools/commit/tester/rtems/testing/qemu.cfg?id=92935ed1a3b5cefa37d7ee5701276cd8383e170e					
~~#2989~~	10 months ago	fixed	admin	Chris Johns	Amar Takhar	10 months ago
Summary	doxygen crashes on sync.rtems.org					
Description	Attempting to create a release on sync.rtems.org results in a core being dumped: Running dot for graph 3822/7363 Running dot for graph 3823/7363 Segmentation fault (core dumped) Run doxygen on a recent RTEMS kernel. This does not happen another 11.0 machine I have. That version of doxygen is 1.8.12 and sync.rtems.org as 1.8.13. I have seen other erratic behaviour such as git not working, disks not					
~~#2996~~	10 months ago	fixed	unspecified	tnagy	Chris Johns	7 months ago
Summary	source download for RTEMS 4.11.2-rc1 Release					
Description	A while back Following the instructions on https://ftp.rtems.org/pub/rtems/releases/4.11/rc/4.11.2-rc1/ and running: ../source-builder/sb-set-builder --prefix=$HOME/development/rtems/4.11.2-rc1 4.11/rtems-sparc making dir: /home/user/development/rtems/rtems-source-builder-4.11.2-rc1/rtems/sources download: ftp://ftp.rtems.org/pub/rtems/releases/4.11/4.11.2-rc1/rtems-tools-4.11.2-rc1.tar.xz -> sources/rtems-tools-4.11.2-rc1.tar.xz download: ftp://ftp.rtems.org/pub/rtems/releases/4.11/4.11.2-rc1/rtems-tools-4.11.2-rc1.tar.xz -> sources/rtems-tools-4.11.2-rc1.tar.xz download: ftp://ftp.rtems.org/pub/rtems/releases/4.11/4.11.2-rc1/rtems-tools-4.11.2-rc1.tar.xz: error: <urlopen error ftp error: 550 Failed to change directory.> error: downloading ftp://ftp.rtems.org/pub/rtems/releases/4.11/4.11.2-rc1/rtems-tools-4.11.2-rc1.tar.xz: all paths have failed, giving up The path does not exist. I tried to change the path in source-builder/defaults.mc: rtems_release_url: none, none, 'https://ftp.rtems.org/pub/rtems/releases/%{rtems_version}' As it seems *very* strange that ftp is used by default when https should work. In the end, i downloaded the files such as rtems-source-builder-4.11.2-rc1.tar.xz and placed them in the folder sources/ and then the build worked.					
~~#3002~~	10 months ago	fixed	bsps	munster	Sebastian Huber	9 months ago
Summary	Incorrect bit reference in ARM GIC					
Description	Incorrect bit reference in /c/src/lib/libbsp/arm/shared/include/arm-gic.h, line 46. The macro GIC_ID_TO_TWO_BITS_REG_OFFSET supposed to convert interrupt ID to an index of a **two-bit** field in a register. The correct way is: `#define GIC_ID_TO_TWO_BITS_REG_OFFSET(id) (((id) & 0xfU) << 1)`					
~~#3005~~	10 months ago	fixed	doc	Linda Huxley	chrisj@...	4 months ago
Summary	Typo in RTEMS Source Builder 4.11.99					
Description	Working from a clean Ubuntu 16.04 install, the following commands in section "3.1.4 Ubuntu" fail to install a working copy of GIT and RSB fails immediately: $ sudo apt-get build-dep binutils gcc g++ gdb unzip git $ sudo apt-get install python2.7-dev The following commands appear to work: $ sudo apt-get build-dep binutils gcc g++ gdb unzip $ sudo apt-get install python2.7-dev git					
~~#3030~~	8 months ago	fixed	unspecified	Chris Johns	Chris Johns	6 months ago
Summary	lm32-rtems4.11-gdb does not build on Windows.					
Description	Building LM32 on Windows fails in the simulator. The patch: https://git.rtems.org/rtems-tools/tree/tools/4.11/gdb/lm32/gdb-7.9-lm32uart.diff					

does not clean up the Window build.

~~#3033~~	8 months ago	fixed	unspecified	Chris Johns	Chris Johns	8 months ago
Summary	MIPS does not build on FreeBSD					
~~#3035~~	8 months ago	fixed	tool/binutils	Chris Johns	Chris Johns	8 months ago
Summary	4.11/rtems-moxie does not build.					
Description	Moxie on 4.11 does not build because of asm errors. The compile will build with binutils-2.25 and moxie should be down graded to use that version.					
~~#3042~~	8 months ago	fixed	tool/gcc	Chris Johns	joel.sherrill@...	4 months ago
Summary	4.11/rtems-bfin does not build on Windows					
Description	The attached RSB report details the failure. The `cfns.gperf` changes need to be ported to the bfin specific version of gcc. This gcc is used because the standard 4.11 does not build due to a gcc ICE.					
~~#3044~~	8 months ago	fixed	tool/gdb	Chris Johns	Chris Johns	8 months ago
Summary	4.11/rtems-h8300 does not build on Windows.					
Description	The attached RSB report details the failure. The simulator does not build on Windows.					
~~#3045~~	8 months ago	duplicate	tool/gdb	Chris Johns	Chris Johns	8 months ago
Summary	4.11/rtems-h8300 does not build on Windows					
Description	The attached RSB report details the failure. The simulator does not build on Windows.					
~~#3060~~	8 months ago	fixed	score	Sebastian Huber	Sebastian Huber	7 months ago
Summary	ARMv7-M interrupt processing is broken					
Description	Right after a "msr basepri_max, %[basepri]" instruction an interrupt service may still take place (observed at least on Cortex-M7). However, pendable service calls that are activated during this interrupt service may be delayed until interrupts are enable again. The _ARMV7M_Pendable_service_call() does currently not check that a thread dispatch is allowed. Move this test from _ARMV7M_Interrupt_service_leave() to _ARMV7M_Pendable_service_call().					
#3064	7 months ago	fixed	tool/rsb	Chris Johns	Chris Johns	2 weeks ago
Summary	RSB does not handle the `--rsb-file` option named sources with releases.					
Description	The RBS needs to handle the `--rsb-file` option when downloading release sources. The RSB currently attempts to use the path in the config file however the file in the `sources` is the name given to `--rsb-file`.					

Last modified on Apr 7, 2017, 12:23:49 AM

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4.11 4.11.2 release

4.11.1 (17 November 2017)

Statistics

Total	59
Fixed	55
Invalid	1
Works for me	0
Duplicate	1
Won't fix	2

Distribution

Summary

~~#2119~~ Could the software be downloaded at the beginning?
~~#2121~~ CVS command failure clean up.
~~#2124~~ Strict order mutex introduces unbounded priority inversion
~~#2243~~ c/src/lib/libbsp/arm/nds/libfat/source/directory.c:768: possible bad compare ?
~~#2274~~ Enable libgomp build in GCC
~~#2286~~ cpustdatomic.h on 16 and 64 bit architectures
~~#2287~~ RTEMS printf warnings - newlib's inttypes.h and gcc's newlib-stdint.h
~~#2298~~ sptls01 fails on sis
~~#2309~~ RSB get stuck building: expat-2.1.0-x86_64-w64-mingw32-1
~~#2312~~ rtems-tools built in RSB on Linux fails to install
~~#2317~~ fsfseeko01 invalid on some architectures
~~#2318~~ Wrong alignment of ARM exception frame
~~#2326~~ Or1k bsp not supported for c++ usage
~~#2328~~ _CORE_message_queue_Insert_message() not ISR proof
~~#2329~~ or1k Linking error on C++ tests
~~#2332~~ rtemstools cannot be built by RSB under MinGW32
~~#2345~~ BSP spec file error.
~~#2358~~ Interrupt latency problem in _POSIX_Timer_Insert_helper()
~~#2364~~ pc386 build fails
~~#2369~~ [PowerPC Book E] Invalid mftb instruction in _CPU_Counter_read()
~~#2373~~ PowerPC BSPs that do not build
~~#2374~~ RSB builds 3rd party packages as Canadian Cross (Cxc) packages
~~#2378~~ ampolish3 script can't always find perl
~~#2379~~ Ensure ada-tests build
~~#2380~~ Incorrect title for C User's Guide in info output
~~#2384~~ [PATCH] [NFS client] Respect 2^32 - 1 B NFSv2 maximum file size
~~#2402~~ pthread_cancel() invalidates the thread identifier
~~#2405~~ CppCheck errors being reported throughout the code
~~#2410~~ rtems_dhcp.c fails to compile ("free" requires an extra argument)
~~#2411~~ dumpbuf.c compiles with warnings
~~#2416~~ Beaglebone: bsp.h missing clobber in inline assembly.
~~#2418~~ rtems_waf: SMP support is broken
~~#2435~~ gpio functions in bsp name improvement
~~#2437~~ if pax is not found by configure, the tests fail to build un-gracefully.
~~#2438~~ ARM cache problem after libdl load
~~#2440~~ rtems_waf: Install is broken for version != 4.11
~~#2465~~ Update Hello World Instructions to include MSYS2
~~#2495~~ RSB 4.11 tool build broken
~~#2497~~ Beaglebone Black: rtems_gpio_bsp_disable_interrupt disables all the GPIO interrupts
~~#2505~~ beagle sdcard.sh has hard-coded rtems arm-rtems4.11-objcopy
~~#2508~~ Remove LICENSE.WEBSERVER
~~#2511~~ WorkSpace wiki page
~~#2512~~ RTEMSReferences automatically deleting content
~~#2525~~ RSB Python scripts may refer to Python3
~~#2535~~ Shell: printf() format specifiers do not match parameter types
~~#2579~~ Add per-section compilation and linking support to powerpc/motorola_powerpc
~~#2589~~ Update Applications Ada User's Guide
~~#2594~~ Update POSIX 1003.1 Compliance Guide
~~#2595~~ Update Filesystem Design Guide
~~#2645~~ RSB qemu bset issues and failure
~~#2646~~ glib cfg file is missing hash. Fails in release mode
~~#2721~~ sem_init() does not honour SEM_VALUE_MAX
~~#2731~~ rtems/c/src/lib/libbsp/arm/raspberrypi/console/console_select.c:98]: (warning) Found calculation inside sizeof().
~~#2756~~ MSDOS_MAX_DIR_LENGHT typo
~~#2772~~ Enhancement for more general real-time model
~~#2785~~ loctl extension for termios
~~#2801~~ Invalid configuration option used in virtex bsp headers
~~#2812~~ Remove Texinfo Documentation
~~#2813~~ 4.11.0 has incorrect version information

Details

Ticket	Resolution	Component	Reporter	Owner
~~#2119~~	fixed	tool/rsb	cynt6007	Chris Johns
Summary	Could the software be downloaded at the beginning?			
Description	I really appreciate having the RTEMS Source Builder! Could we change the software to download first, then build? If we did that, then we would not be tied to the internet for the rest of the build... Thanks!			
~~#2121~~	wontfix	tool/rsb	Chris Johns	Chris Johns
Summary	CVS command failure clean up.			
Description	If a CVS checkout command fails it is best to clean up the directory or at least determine the state of the directory before a checkout. Better error report to the user could also help.			
~~#2124~~	fixed	score	Gedare	Gedare

Summary	Strict order mutex introduces unbounded priority inversion
Description	The option to ENABLE_STRICT_ORDER_MUTEX is not implemented correctly. It can introduce an unbounded priority inversion in certain circumstances. See http://www.rtems.com/ml/rtems-users/2009/may/msg00093.html and the spsem02 test case http://www.rtems.org/pipermail/rtems-devel/2013-May/003154.html

~~#2243~~	fixed	fs/fat	David Binderman	
Summary	c/src/lib/libbsp/arm/nds/libfat/source/directory.c:768: possible bad compare ?			
Description	[rtems/c/src/lib/libbsp/arm/nds/libfat/source/directory.c:768]: (warning) Char literal compared with pointer 'tmpCharPtr'. Did you intend to dereference it? while ((tmpCharPtr != '\0') && (j < 12)) {			
~~#2274~~	fixed	tool/gcc	Sebastian Huber	Sebastian Huber
Summary	Enable libgomp build in GCC			
Description	libgomp is the support library for OpenMP code emitted by GCC. Adding support for RTEMS needs roughly the following steps: • Move <semaphore.h> header file from RTEMS to Newlib. Due to license issue use the one provided by FreeBSD and modify it accordingly. • Add Autoconf code to detect presence of Newlib <semaphore.h>. • Add RTEMS tweaks to libgomp configure script. • Add RTEMS specific link-time configuration to select a special memory allocator for libgomp. • Add ability to control thread scheduler, priority, stack size, etc. via application configuration options/handler. • Add standard OpenMP tests to RTEMS testsuite. • Add documentation to user manual. • Do performance tests. • Add dedicated low-overhead barriers.			
~~#2286~~	fixed	unspecified	Joel Sherrill	Gedare
Summary	cpustdatomic.h on 16 and 64 bit architectures			
Description	Gedare.. sending this one to you since I think you will have a quick solution to this based on your sparc64 porting experience. This warning occurs 1908 times in the build of the two sparc64 BSPs: ../../cpukit/../../../usiii/lib/include/rtems/score/cpustdatomic.h: In function '_CPU_atomic_Fetch_sub_ptr': ../../cpukit/../../../usiii/lib/include/rtems/score/cpustdatomic.h:374:10: warning: cast to pointer from integer of different size [-Wint-to-pointer-cast] return (void *) val; It also occurs on the m32c/m32csim and h8300/h8sxsim but not h8300/h8sim. It would clean up the build logs a lot to get rid of it.			
~~#2287~~	fixed	tool/newlib	Joel Sherrill	Joel Sherrill
Summary	RTEMS printf warnings - newlib's inttypes.h and gcc's newlib-stdint.h			
Description	This is a ticket to track the thread and proposed patch here: https://sourceware.org/ml/newlib/2014/msg00804.html There is an inconsistency between newlib's inttypes.h and gcc's newlib-stdint.h which makes it impossible to resolve some printf() warnings across all targets. The solution is to make newlib-stdint.h use the same logic as glibc-stdint.h (which the patch does) or use per-architecture conditionals in newlib's inttypes.h to detect the inconsistencies and define the correct PRIxxx types. I would like to see this resolved before 4.11 but will let it slide until 4.11.1.			
~~#2298~~	fixed	unspecified	Joel Sherrill	Sebastian Huber
Summary	sptls01 fails on sis			
Description	This fails on sis. Marking for milestone 4.11 until Sebastian gets a chance to look at it and decide if this should work. Starting program: /users/joel/rtems-4.11-work/b-sis/sparc-rtems4.11/c/sis/testsuites/sptests/sptls01/sptls01.exe * **BEGIN OF TEST SPTLS 1** * TLS item = 0 ../../../../../../../rtems/c/src/../../testsuites/sptests/sptls01/init.c: 36 tls_item == expected [Inferior 1 (process 42000) exited normally]			
~~#2309~~	fixed	tool/rsb	Cesar Perez	
Summary	RSB get stuck building: expat-2.1.0-x86_64-w64-mingw32-1			
Description	When running: "$ ../source-builder/sb-set-builder --log=1-sparc.txt --prefix=$HOME/development/rtems/4.11 4.11/rtems-sparc" the execution get stuck building: expat-2.1.0-x86_64-w64-mingw32-1 The following errors are indicated in config.log: gcc: error: unrecognized command line option '-V' gcc: fatal error: no input files compilation terminated. gcc: error: unrecognized command line option '-qversion' gcc: fatal error: no input files compilation terminated.			
~~#2312~~	fixed	unspecified	Chris Johns	Chris Johns
Summary	rtems-tools built in RSB on Linux fails to install			
Description	Recently I have received reports of RTEMS Tools not installing when built inside the RSB. SO far I have only received these reports on Linux. The logs show waf fails to install with an error message similar to: + install /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-joel/users/joel/rtems-4.11-work/tools/bin/rtems-test (from tester/rtems-test) + install /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-joel/users/joel/rtems-4.11-work/tools/share/rtems/tester/config/base.cfg (from tester/config/base.cfg) + install /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-joel/users/joel/rtems-4.11-work/tools/share/rtems/tester/config/checks.cfg (from tester/config/checks.cfg) Waf: Leaving directory `/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/build' Build failed Traceback (most recent call last): File "/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/.waf-1.7.16-9ca17eb492c97b689870b4ff9db75880/waflib/Task.py", line 123, in process ret=self.run() File "/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/.waf-1.7.16-9ca17eb492c97b689870b4ff9db75880/waflib/Task.py", line 47, in run return m1(self) File "/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/.waf-1.7.16-9ca17eb492c97b689870b4ff9db75880/waflib/Build.py", line 460, in run return self.generator.exec_task() File "/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/.waf-1.7.16-9ca17eb492c97b689870b4ff9db75880/waflib/Build.py", line 476, in exec_install_files self.generator.bld.do_install(y.abspath(),destfile,self.chmod) File "/users/joel/rtems-4.11-work/rtems-source-builder/rtems/sources/git/rtems-tools.git/.waf-1.7.16-9ca17eb492c97b689870b4ff9db75880/waflib/Build.py", line 517, in do_install shutil.copy2(src,tgt) File "/usr/lib64/python2.7/shutil.py", line 131, in copy2 copystat(src, dst) File "/usr/lib64/python2.7/shutil.py", line 98, in copystat os.utime(dst, (st.st_atime, st.st_mtime)) OSError: [Errno 2] No such file or directory: '/users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-joel/users/joel/rtems-4.11-work/tools/bin/rtems-test' shell cmd failed: /bin/sh -ex /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/rtems-tools-HEAD-1/doit error: building rtems-tools-HEAD-1 See error report: rsb-report-rtems-tools-HEAD-1.txt Build Set: Time 0:17:12.968852			

~~#2317~~	fixed	unspecified	Joel Sherrill	Sebastian Huber
Summary	fsfseeko01 invalid on some architectures			
Description	There is a target dependent issue with fsfseeko01. The value it seeks to does not necessarily overflow. On some targets, it remains a valid value. I haven't checked every target but I recall seeing this test fail during my earlier test runs. So far I can confirm this test is not valid on the lm32 and or1k. Works: sparc, psim, jmr3904 Fails: lm32, or1k, simsh I am not sure how the logic fails but give instructions, we can probe the gcc's and see what is reported and slipping through. The test attempts to pass in an invalid seek value based on the size of some types and this logic must not be right on all targets. *** BEGIN OF TEST FSFSEEKO 1** * Breakpoint 3, test () at ../../../../../../../rtems/c/src/../../testsuites/fstests/fsfseeko01/init.c:61 61 rv = fseeko(file, off, SEEK_SET); (gdb) n 62 rtems_test_assert(rv == 0); (gdb) 63 rtems_test_assert(errno == 0); (gdb) 65 errno = 0; (gdb) 66 actual_long_off = ftell(file); (gdb) p off $1 = 2147483647 (gdb) n 67 rtems_test_assert(actual_long_off == -1L); (gdb) p actual_long_off $2 = 2147483647 (gdb)			

~~#2318~~	fixed	score	Daniel Krüger	Sebastian Huber
Summary	Wrong alignment of ARM exception frame			
Description	The stack pointer must be aligned on 8 byte boundary on ARM, so the size of the exception frame must be a multiple of 8 bytes. Otherwise we might/will get an alignment fault, when executing code in the data abort handler for example. See the attached patch.			

~~#2326~~	fixed	bsps	Alexander Krutwig	
Summary	Or1k bsp not supported for c++ usage			
Description	When ENABLE_RTEMS_CXX=yes, or1k build does not work properly. In file included from ../../../../../rtems/c/src/librtems++/src/rtemsInterrupt.cc:19:0: ../../../../or1ksim/lib/include/rtems++/rtemsInterrupt.h:96:1: error: expected '}' at end of input } gmake[3]: *** [src/librtems_a-rtemsInterrupt.o] Error 1 gmake[3]: * Waiting for unfinished jobs.... ../../../../../rtems/c/src/librtems++/src/rtemsStatusCode.cc:74:1: error: expected '}' at end of input** **}** **../../../../../rtems/c/src/librtems++/src/rtemsEvent.cc:73:1: error: expected '}' at end of input** **}** **../../../../../rtems/c/src/librtems++/src/rtemsTimer.cc:99:1: error: expected '}' at end of input** **}** gmake[3]: *** [src/librtems_a-rtemsStatusCode.o] Error 1 gmake[3]: * [src/librtems_a-rtemsEvent.o] Error 1 gmake[3]: * [src/librtems_a-rtemsTimer.o] Error 1 ../../../../../rtems/c/src/librtems++/src/rtemsSemaphore.cc:173:1: error: expected '}' at end of input** **}** **../../../../../rtems/c/src/librtems++/src/rtemsMessageQueue.cc:163:1: error: expected '}' at end of input** **}** gmake[3]: *** [src/librtems_a-rtemsSemaphore.o] Error 1 gmake[3]: * [src/librtems_a-rtemsMessageQueue.o] Error 1 ../../../../../rtems/c/src/librtems++/src/rtemsTask.cc: In member function 'const rtems_status_code rtemsTask::get_note(uint32_t, uint32_t&)': ../../../../../rtems/c/src/librtems++/src/rtemsTask.cc:269:26: warning: 'rtems_status_code rtems_task_get_note(rtems_id, uint32_t, uint32_t*)' is deprecated (declared at ../../../../or1ksim/lib/include/rtems/rtems/tasks.h:286) [-Wdeprecated-declarations]** **return set_status_code(rtems_task_get_note(id, notepad, &note));** **../../../../../rtems/c/src/librtems++/src/rtemsTask.cc:269:64: warning: 'rtems_status_code rtems_task_get_note(rtems_id, uint32_t, uint32_t*)' is deprecated (declared at ../../../../or1ksim/lib/include/rtems/rtems/tasks.h:286) [-Wdeprecated-declarations]** **return set_status_code(rtems_task_get_note(id, notepad, &note));** **../../../../../rtems/c/src/librtems++/src/rtemsTask.cc: In member function 'const rtems_status_code rtemsTask::set_note(uint32_t, uint32_t)': ../../../../../rtems/c/src/librtems++/src/rtemsTask.cc:275:26: warning: 'rtems_status_code rtems_task_set_note(rtems_id, uint32_t, uint32_t)' is deprecated (declared at ../../../../or1ksim/lib/include/rtems/rtems/tasks.h:309) [-Wdeprecated-declarations]** **return set_status_code(rtems_task_set_note(id, notepad, note));** **../../../../../rtems/c/src/librtems++/src/rtemsTask.cc:275:63: warning: 'rtems_status_code rtems_task_set_note(rtems_id, uint32_t, uint32_t)' is deprecated (declared at ../../../../or1ksim/lib/include/rtems/rtems/tasks.h:309) [-Wdeprecated-declarations]** **return set_status_code(rtems_task_set_note(id, notepad, note));** **../../../../../rtems/c/src/librtems++/src/rtemsTask.cc: At global scope: ../../../../../rtems/c/src/librtems++/src/rtemsTask.cc:286:1: error: expected '}' at end of input** **}** gmake[3]: *** [src/librtems_a-rtemsTask.o] Error 1 gmake[3]: Leaving directory `/scratch/git-rtems-testing/rtems/build-or1k-or1ksim-rtems/or1k-rtems4.11/c/or1ksim/librtems++' gmake[2]: \* [all-recursive] Error 1 gmake[2]: Leaving directory `/scratch/git-rtems-testing/rtems/build-or1k-or1ksim-rtems/or1k-rtems4.11/c/or1ksim' gmake[1]: * [all-recursive] Error 1 gmake[1]: Leaving directory `/scratch/git-rtems-testing/rtems/build-or1k-or1ksim-rtems/or1k-rtems4.11/c' make: * [all-recursive] Error 1**			

~~#2328~~	fixed	unspecified	Sebastian Huber	
Summary	_CORE_message_queue_Insert_message() not ISR proof			
Description	In case the submit type is not CORE_MESSAGE_QUEUE_SEND_REQUEST or CORE_MESSAGE_QUEUE_URGENT_REQUEST, then we insert the message in priority order. The linear search is not atomic, thus message insertions by higher priority interrupts will corrupt it.			

~~#2329~~	fixed	unspecified	Joel Sherrill	Hesham ALMatary <heshamelmatary@...>
Summary	or1k Linking error on C++ tests			
Description	I fixed the header file issue in 2326. This is a new issue which is either a linker script or tools issue not having everything right for C++. gmake[6]: Entering directory `/users/joel/rtems-4.11-work/rtems-testing/rtems/build-or1k-or1ksim-rtems/or1k-rtems4.11/c/or1ksim/testsuites/samples/iostream' or1k-rtems4.11-g++ -B../../../../or1ksim/lib/ -specs bsp_specs -qrtems -O2 -O0 -g -Wall -Wmissing-prototypes -Wimplicit-function-declaration -Wstrict-prototypes -Wnested-externs -O2 -o cxx_iostream.exe init.o init.o: In function `static_initialization_and_destruction_0': /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/include/c++/iostream:74: undefined reference to `dso_handle' /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/include/c++/iostream:74: undefined reference to `dso_handle' /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/libstdc++.a(atomicity.o): In function `get_atomic_mutex': /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/or1k-rtems4.11-gcc-4.8.3-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1/build/or1k-rtems4.11/libstdc++-v3/src/c++98/atomicity.cc:33: undefined reference to `dso_handle' /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/or1k-rtems4.11-gcc-4.8.3-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1/build/or1k-rtems4.11/libstdc++-v3/src/c++98/atomicity.cc:33: undefined reference to `dso_handle' /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/libstdc++.a(eh_alloc.o): In function `static_initialization_and_destruction_0': /users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/or1k-rtems4.11-gcc-4.8.3-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1/build/or1k-rtems4.11/libstdc++-v3/libsupc++/../../../../gcc-4.8.3/libstdc++-v3/libsupc++/eh_alloc.cc:96: undefined reference to `dso_handle' /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/libstdc++.a(eh_alloc.o):/users/joel/rtems-4.11-work/rtems-source-builder/rtems/build/or1k-rtems4.11-gcc-4.8.3-newlib-ef23a12ff8f840cc571e47870cd5f4ad6bca4553-x86_64-linux-gnu-1/build/or1k-rtems4.11/libstdc++-v3/libsupc++/../../../../gcc-4.8.3/libstdc++-v3/libsupc++/eh_alloc.cc:96: more undefined references to `dso_handle' follow /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/../../../../or1k-rtems4.11/bin/ld: cxx_iostream.exe: hidden symbol `dso_handle' isn't defined /users/joel/rtems-4.11-work/tools/lib/gcc/or1k-rtems4.11/4.8.3/../../../../or1k-rtems4.11/bin/ld: final link failed: Bad value collect2: error: ld returned 1 exit status gmake[6]: *** [cxx_iostream.exe] Error 1**			

#2332	fixed	tool	Daniel Krüger	
Summary	rtemstools cannot be built by RSB under MinGW32			

I want to built the Toolchain for RTEMS on Windows 7 SP1 (32 bit with MinGW32/MSYS2), but that fails during built of the RTEMS tools. The build environment has been setup as the documentation of the RTEMS Source Builder suggests.

rsb-report-autoconf-2.69-i686-w32-mingw32-1.txt:

```
RTEMS Tools Project - Source Builder Error Report
 Build: error: building rtH1
 Command Line: ../source-builder/sb-set-builder --log=l-arm.txt --prefix=C:/msys32/opt/rtems-4.11 4.11/rtems-arm
 Python: 2.7.9 (default, Dec 10 2014, 12:24:55) [MSC v.1500 32 bit (Intel)]
 P:\SW\gitrepo\rtems-source-builder.git/origin/b65c131f2e11e352fde6efa0ec2fe5000dad3a4a-modified
 Windows
Tail of the build log:
script: 56:
script: 57: export CFLAGS_FOR_TARGET
script: 58: export CXXFLAGS_FOR_TARGET
script: 59: # Set up the path. Put the CXC path first.
script: 60: if test -n "${SB_TMPBINDIR}" ; then
script: 61:  PATH="${SB_TMPBINDIR}:$PATH"
script: 62: fi
script: 63: if test -n "${SB_TMPCXCBINDIR}" ; then
script: 64:  PATH="${SB_TMPCXCBINDIR}:$PATH"
script: 65: fi
script: 66: if test -n "${SB_EXTRAPATH}" ; then
script: 67:  PATH="${SB_EXTRAPATH}:$PATH"
script: 68: fi
script: 69:
script: 70:
script: 71: export PATH
script: 72: # Default environment set up.
script: 73: LANG=C
script: 74: export LANG
script: 75: unset DISPLAY || :
script: 76: umask 022
script: 77: cd "/C/Projekte/rtems-source-builder/rtems/build/rtH1"
script: 78: echo "=> rtems-tools-HEAD-1:"
script: 79: echo "==> %prep:"
script: 80: build_top=$(pwd)
script: 81: source_dir_rtems_tools="rtems-tools-HEAD-1"
source setup: rtems-tools-HEAD-1: source rtems-tools -q -D -n rtems-tools-HEAD-1
Creating source directory: sources\git
making dir: C:\Projekte\rtems-source-builder\rtems\sources\git
git: clone: git://git.rtems.org/rtems-tools.git -> sources\git\rtems-tools.git
git: reset: git://git.rtems.org/rtems-tools.git
git: checkout: git://git.rtems.org/rtems-tools.git => master
git: pull: git://git.rtems.org/rtems-tools.git
script: 82: cd /C/Projekte/rtems-source-builder/rtems/build/rtH1
script: 83: ln -s /C/Projekte/rtems-source-builder/rtems/sources/git/rtems-tools.git ${source_dir_rtems_tools}
script: 84: cd rtems-tools-HEAD-1
script: 85: chmod -R a+rX,g-w,o-w .
script: 86: cd ${build_top}
script: 87: SB_CXC="no"
script: 88: echo "==> clean %{buildroot}: ${SB_BUILD_ROOT}"
script: 89: rm -rf ${SB_BUILD_ROOT}
script: 90: /bin/mkdir -p ${SB_BUILD_ROOT}
script: 91: echo "==> %build:"
script: 92: build_top=$(pwd)
script: 93: if test "i686-w32-mingw32" != "i686-w32-mingw32" ; then
script: 94: RT_HOST="-host=i686-w32-mingw32"
script: 95: else
script: 96: RT_HOST=
script: 97: fi
script: 98: cd ${source_dir_rtems_tools}
script: 99: ./waf configure ${RT_HOST} --prefix=/C/msys32/opt/rtems-4.11
script:100: ./waf
script:101: cd ${build_top}
script:102: echo "==> %install:"
script:103: build_top=$(pwd)
script:104: rm -rf $SB_BUILD_ROOT
script:105: cd ${source_dir_rtems_tools}
script:106: ./waf --destdir=$SB_BUILD_ROOT install
script:107: cd ${build_top}
script:108: echo "==> %clean:"
removing: C:\Projekte\rtems-source-builder\rtems\build\rtH1
making dir: C:\Projekte\rtems-source-builder\rtems\build\rtH1
write script: /C/Projekte/rtems-source-builder/rtems/build/rtH1/doit
building: rtems-tools-HEAD-1
run: sh -ex  /C/Projekte/rtems-source-builder/rtems/build/rtH1/doit
+ export
'SB_ORIG_PATH=/mingw32/bin:/usr/local/bin:/usr/bin:/usr/bin:/c/Python27:/c/Windows/system32:/c/Windows:/c/Windows/System32/Wbem:/c/Windows/System32/WindowsPowe
rShell/v1.0:/c/opt/rtems-4.11/bin:/c/opt/gdc/bin:/c/opt/arm-gdcproject-linux-gnueabi/bin:/c/Program Files/Microsoft SQL Server/100/Tools/Binn:/c/Program Files/Microsoft SQL
Server/100/DTS/Binn:/c/Program Files/TortoiseGit/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl'
+
SB_ORIG_PATH='/mingw32/bin:/usr/local/bin:/usr/bin:/usr/bin:/c/Python27:/c/Windows/system32:/c/Windows:/c/Windows/System32/Wbem:/c/Windows/System32/WindowsPowe
rShell/v1.0:/c/opt/rtems-4.11/bin:/c/opt/gdc/bin:/c/opt/arm-gdcproject-linux-gnueabi/bin:/c/Program Files/Microsoft SQL Server/100/Tools/Binn:/c/Program Files/Microsoft SQL
Server/100/DTS/Binn:/c/Program Files/TortoiseGit/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl'
+ SB_PREFIX=/C/msys32/opt/rtems-4.11
++ echo /C/msys32/opt/rtems-4.11
++ sed -e 's/^\///'
+ SB_PREFIX_CLEAN=C/msys32/opt/rtems-4.11
+ SB_SOURCE_DIR=/C/Projekte/rtems-source-builder/rtems/sources
+ SB_BUILD_DIR=/C/Projekte/rtems-source-builder/rtems/build/rtH1
+ SB_HOST_CFLAGS='-O2 -pipe '
+ SB_HOST_CXXFLAGS='-O2 -pipe '
+ SB_HOST_LDFLAGS=-L/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/lib
+ SB_BUILD_CFLAGS='-O2 -pipe -I/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/include'
+ SB_BUILD_CXXFLAGS='-O2 -pipe -I/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/include'
+ SB_BUILD_LDFLAGS=-L/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/lib
+ SB_CFLAGS='-O2 -pipe -I/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/include '
+ SB_CXXFLAGS='-O2 -pipe -I/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/include '
+ SB_ARCH=i686
+ SB_OS=win32
+ export SB_SOURCE_DIR SB_BUILD_DIR SB_ARCH SB_OS
+ export SB_HOST_CFLAGS SB_HOST_CXXFLAGS SB_HOST_LDFLAGS
+ export SB_BUILD_CFLAGS SB_BUILD_CXXFLAGS SB_BUILD_LDFLAGS
+ export SB_CFLAGS SB_CXXFLAGS
+ SB_DOC_DIR=/C/msys32/opt/rtems-4.11/share/doc
```

Description

```
+ export SB_DOC_DIR
+ SB_PACKAGE_NAME=rtems-tools-HEAD-1
+ SB_PACKAGE_BUILDNAME=rtH1
+ SB_PACKAGE_VERSION=HEAD
+ SB_PACKAGE_RELEASE=1
+ export SB_PACKAGE_NAME SB_PACKAGE_VERSION SB_PACKAGE_RELEASE
+ export SB_PREFIX
+ SB_BUILD_DIR=/C/Projekte/rtems-source-builder/rtems/build/rtH1
+ SB_BUILD_ROOT=/C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion
+ SB_BUILD_ROOT_BINDIR=/C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion/C/msys32/opt/rtems-4.11/bin
+ export SB_BUILD_ROOT SB_BUILD_DIR SB_BUILD_ROOT_BINDIR
+ SB_BUILD_CXC_DIR=/C/Projekte/rtems-source-builder/rtems/build/rtH1-cxc
+ SB_BUILD_CXC_ROOT=/C/Projekte/rtems-source-builder/rtems/build/tmp/rtH1-produktion-cxc
+ SB_BUILD_CXC_ROOT_BINDIR=/C/Projekte/rtems-source-builder/rtems/build/tmp/rtH1-produktion-cxc/C/msys32/opt/rtems-4.11/bin
+ export SB_BUILD_CXC_ROOT SB_BUILD_CXC_DIR SB_BUILD_CXC_ROOT_BINDIR
+ SB_TMPROOT=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm
+ SB_TMPPREFIX=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11
+ SB_TMPBINDIR=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/bin
+ export SB_TMPROOT SB_TMPPREFIX SB_TMPBINDIR
+ SB_TMPCXCROOT=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm
+ SB_TMPCXCPREFIX=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion-cxc/4.11/rtems-arm/C/msys32/opt/rtems-4.11
+ SB_TMPCXCBINDIR=/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion-cxc/4.11/rtems-arm/C/msys32/opt/rtems-4.11/bin
+ export SB_TMPCXCROOT SB_TMPCXCPREFIX SB_TMPCXCBINDIR
+ SB_EXTRAPATH=/C/Projekte/rtems-source-builder/source-builder
+ export CFLAGS_FOR_TARGET
+ export CXXFLAGS_FOR_TARGET
+ test -n /C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-4.11/bin
+ PATH='/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-
4.11/bin:/mingw32/bin:/usr/local/bin:/usr/bin:/usr/bin:/c/Python27:/c/Windows/system32:/c/Windows:/c/Windows/System32/Wbem:/c/Windows/System32/WindowsPowerShell/v
1.0:/c/opt/rtems-4.11/bin:/c/opt/gdc/bin:/c/opt/arm-gdcproject-linux-gnueabi/bin:/c/Program Files/Microsoft SQL Server/100/Tools/Binn:/c/Program Files/Microsoft SQL
Server/100/DTS/Binn:/c/Program Files/TortoiseGit/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl'
+ test -n /C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion-cxc/4.11/rtems-arm/C/msys32/opt/rtems-4.11/bin
+ PATH='/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion-cxc/4.11/rtems-arm/C/msys32/opt/rtems-4.11/bin:/C/Projekte/rtems-source-
builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-
4.11/bin:/mingw32/bin:/usr/local/bin:/usr/bin:/usr/bin:/c/Python27:/c/Windows/system32:/c/Windows:/c/Windows/System32/Wbem:/c/Windows/System32/WindowsPowerShell/v
1.0:/c/opt/rtems-4.11/bin:/c/opt/gdc/bin:/c/opt/arm-gdcproject-linux-gnueabi/bin:/c/Program Files/Microsoft SQL Server/100/Tools/Binn:/c/Program Files/Microsoft SQL
Server/100/DTS/Binn:/c/Program Files/TortoiseGit/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl'
+ test -n /C/Projekte/rtems-source-builder/source-builder
+ PATH='/C/Projekte/rtems-source-builder/source-builder:/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion-cxc/4.11/rtems-arm/C/msys32/opt/rtems-
4.11/bin:/C/Projekte/rtems-source-builder/rtems/build/tmp/sb-produktion/4.11/rtems-arm/C/msys32/opt/rtems-
4.11/bin:/mingw32/bin:/usr/local/bin:/usr/bin:/usr/bin:/c/Python27:/c/Windows/system32:/c/Windows:/c/Windows/System32/Wbem:/c/Windows/System32/WindowsPowerShell/v
1.0:/c/opt/rtems-4.11/bin:/c/opt/gdc/bin:/c/opt/arm-gdcproject-linux-gnueabi/bin:/c/Program Files/Microsoft SQL Server/100/Tools/Binn:/c/Program Files/Microsoft SQL
Server/100/DTS/Binn:/c/Program Files/TortoiseGit/bin:/usr/bin/site_perl:/usr/bin/vendor_perl:/usr/bin/core_perl'
+ export PATH
+ LANG=C
+ export LANG
+ unset DISPLAY
+ umask 022
+ cd /C/Projekte/rtems-source-builder/rtems/build/rtH1
+ echo '=> rtems-tools-HEAD-1:'
+ echo '==> %prep:'
=> rtems-tools-HEAD-1:
==> %prep:
++ pwd
+ build_top=/C/Projekte/rtems-source-builder/rtems/build/rtH1
+ source_dir_rtems_tools=rtems-tools-HEAD-1
+ cd /C/Projekte/rtems-source-builder/rtems/build/rtH1
+ ln -s /C/Projekte/rtems-source-builder/rtems/sources/git/rtems-tools.git rtems-tools-HEAD-1
+ cd rtems-tools-HEAD-1
+ chmod -R a+rX,g-w,o-w .
+ cd /C/Projekte/rtems-source-builder/rtems/build/rtH1
+ SB_CXC=no
+ echo '==> clean %{buildroot}: /C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion'
==> clean %{buildroot}: /C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion
+ rm -rf /C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion
+ /bin/mkdir -p /C/Projekte/rtems-source-builder/rtems/build/tmp/rtems-tools-HEAD-1-root-produktion
+ echo '==> %build:'
==> %build:
++ pwd
+ build_top=/C/Projekte/rtems-source-builder/rtems/build/rtH1
+ test i686-w32-mingw32 '!=' i686-w32-mingw32
+ RT_HOST=
+ cd rtems-tools-HEAD-1
+ ./waf configure --prefix=/C/msys32/opt/rtems-4.11
Setting top to                           : C:\Projekte\rtems-source-builder\rtems\build\rtH1\rtems-tools-HEAD-1
Setting out to                           : C:\Projekte\rtems-source-builder\rtems\build\rtH1\rtems-tools-HEAD-1\build
Checking for 'msvc' (C compiler)         : c:\Program Files\Microsoft Visual Studio 10.0\VC\BIN\CL.exe
Checking for 'msvc' (C++ compiler)       : c:\Program Files\Microsoft Visual Studio 10.0\VC\BIN\CL.exe
Checking for header alloca.h             : not found
Checking for header fcntl.h              : yes
Checking for header process.h            : yes
Checking for header stdlib.h             : yes
Checking for header string.h             : yes
Checking for header strings.h            : not found
Checking for header sys/file.h           : not found
Checking for header sys/stat.h           : yes
Checking for header sys/time.h           : not found
Checking for header sys/types.h          : yes
Checking for header sys/wait.h           : not found
Checking for header unistd.h             : not found
Checking for header vfork.h              : not found
Checking for function getrusage          : not found
Checking for header sys/wait.h           : not found
Checking for function kill               : not found
Checking for function open64             : not found
Checking for function stat64             : not found
Checking for program 'python'            : C:\Python27\python.exe
Checking for python version              : (2, 7, 9, 'final', 0)
Checking for python version              : (2, 7, 9, 'final', 0)
'configure' finished successfully (2.803s)
+ ./waf
Waf: Entering directory `C:\Projekte\rtems-source-builder\rtems\build\rtH1\rtems-tools-HEAD-1\build'
[  1/236] Compiling rtemstoolkit\elftoolchain\libelf\libelf_convert.m4
[  2/236] Compiling rtemstoolkit\elftoolchain\libelf\libelf_fsize.m4
[  3/236] Compiling rtemstoolkit\elftoolchain\libelf\libelf_msize.m4
[  4/236] Compiling rtemstoolkit\elftoolchain\libelf\elf.c
elf.c

c:\projekte\rtems-source-builder\rtems\build\rth1\rtems-tools-head-1\rtemstoolkit\elftoolchain\libelf\libelf.h(32) : fatal error C1083: Datei (Include) kann nicht ge”ffnet werden:
```

```
"sys/param.h": No such file or directory


cl : Befehlszeile warning D9002 : Unbekannte Option "-pipe" wird ignoriert.

cl : Befehlszeile warning D9002 : Unbekannte Option "-g" wird ignoriert.


Waf: Leaving directory `C:\Projekte\rtems-source-builder\rtems\build\rtH1\rtems-tools-HEAD-1\build'
Build failed
 -> task in 'elf' failed (exit status 2):
 {task 26199408: c elf.c -> elf.c.4.o}
['c:\\Program Files\\Microsoft Visual Studio 10.0\\VC\\BIN\\CL.exe', '/nologo', '-pipe', '-g', '-O2', '/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-
1\\build', '/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-1\\build\\rtemstoolkit\\elftoolchain\\libelf', '/IC:\\Projekte\\rtems-source-
builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-1\\rtemstoolkit\\elftoolchain\\libelf', '/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-
1\\build\\rtemstoolkit\\elftoolchain\\common', '/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-1\\rtemstoolkit\\elftoolchain\\common',
'/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-1\\build\\rtemstoolkit\\win32', '/IC:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-
HEAD-1\\rtemstoolkit\\win32', '/Ic:\\Program Files\\Microsoft Visual Studio 10.0\\VC\\INCLUDE', '/Ic:\\Program Files\\Microsoft Visual Studio 10.0\\VC\\ATLMFC\\INCLUDE',
'/Ic:\\Program Files\\Microsoft SDKs\\Windows\\v7.0A\\include', '/DPYTHONDIR="C:\\Python27\\Lib\\site-packages"', '/DPYTHONARCHDIR="C:\\Python27\\Lib\\site-packages"', '',
'..\\rtemstoolkit\\elftoolchain\\libelf\\elf.c', '/FC', '/c', '/Fo', 'C:\\Projekte\\rtems-source-builder\\rtems\\build\\rtH1\\rtems-tools-HEAD-
1\\build\\rtemstoolkit\\elftoolchain\\libelf\\elf.c.4.o']
shell cmd failed: sh -ex  /C/Projekte/rtems-source-builder/rtems/build/rtH1/doit
error: building rtH1
```

#2345	fixed	bsps	Chris Johns	
Summary	BSP spec file error.			
Description	The BSP specs files have an error. See the devel list thread https://lists.rtems.org/pipermail/devel/2015-May/011256.html for details.			

#2358	fixed	score	Sebastian Huber	
Summary	Interrupt latency problem in _POSIX_Timer_Insert_helper()			
Description	Interrupts are disabled arround a _Watchdog_Insert() in _POSIX_Timer_Insert_helper().			

#2364	fixed	unspecified	hermann19829	Joel Sherrill <joel.sherrill@...>
Summary	pc386 build fails			

Description

When building RTEMS for pc386 *make all* fails after executing bootstrap and configure by

```
../rtems/configure --target=i386-rtems4.11 --enable-rtemsbsp=pc386 --enable-tests=samples --disable-posix
```

at entering *.../samples/hello* with *undefined reference to pthread_mutex_trylock* and *undefined reference to pthread_mutex_unlock*

When commenting lines 869-874, 891-892, 899-901 in *development/rtems/src/rtems/c/src/lib/libbsp/i386/pc386/console/fb_vesa_rm.c* the build succeeds.

```
860 rtems_device_driver
861 frame_buffer_open(
862     rtems_device_major_number  major,
863     rtems_device_minor_number  minor,
864     void                       *arg
865 )
866 {
867     printk( FB_VESA_NAME " open device\n" );
868
869     //if (pthread_mutex_trylock(&vesa_mutex) != 0)
870     //{
871     //    printk( FB_VESA_NAME " could not lock vesa_mutex\n" );
872
873     //    return RTEMS_UNSATISFIED;
874     //}
875
876     return RTEMS_SUCCESSFUL;
877
878 }
879
880 /*
881  * fb_vesa device driver CLOSE entry point
882  */
883 rtems_device_driver
884 frame_buffer_close(
885     rtems_device_major_number  major,
886     rtems_device_minor_number  minor,
887     void                       *arg
888 )
889 {
890   printk( FB_VESA_NAME " close device\n" );
891   //if (pthread_mutex_unlock(&vesa_mutex) == 0)
892   //{
893       /* restore previous state.  for VGA this means return to text mode.
894        * leave out if graphics hardware has been initialized in
895        * frame_buffer_initialize() */
896
897       printk(FB_VESA_NAME ": close called.\n" );
898       return RTEMS_SUCCESSFUL;
899   //}
900
901   //return RTEMS_UNSATISFIED;
902 }
```

#2369	fixed	unspecified	Nick Withers	Nick Withers <nick.withers@...>
Summary	[PowerPC Book E] Invalid mftb instruction in _CPU_Counter_read()			

_CPU_Counter_read(), called e.g., when RTEMS profiling is enabled, attempts to use the *mftb* instruction to access the time base. This instruction does not exist on Book E processors (such as the e500 used in the MVME3100) and causes an exception on those architectures.

At least RTEMS profiling therefore does not work at least with the *mvme3100* BSP.

This...:

Description

```
diff --git a/cpukit/score/cpu/powerpc/rtems/score/cpu.h b/cpukit/score/cpu/powerpc/rtems/score/cpu.h
index 06cab2c..45298a4 100644
--- a/cpukit/score/cpu/powerpc/rtems/score/cpu.h
+++ b/cpukit/score/cpu/powerpc/rtems/score/cpu.h
@@ -842,7 +842,7 @@ static inline CPU_Counter_ticks _CPU_Counter_read( void )
   /* Use Alternate Time Base */
   __asm__ volatile( "mfspr %0, 526" : "=r" (value) );
 #else
-  __asm__ volatile( "mftb %0" : "=r" (value) );
+  __asm__ volatile( "mfspr %0, 268" : "=r" (value) );
 #endif

   return value;
```

...sorts it out on the *mvme3100* and I don't *think* will break anything for other BSPs (I believe SPR 268 is always valid).

I wonder if we wouldn't be better off using *PPC_Get_timebase_register()*, though, which also checks the upper 32-bits of the timebase? Maybe that doesn't matter for the cases where *_CPU_Counter_read()* 's called?

~~#2373~~	fixed	bsps	Joel Sherrill	Sebastian Huber

Summary: PowerPC BSPs that do not build

Description:

This is a 4.11 branching blocker!!

powerpc-br_uid powerpc-hsc_cm01 powerpc-mpc8309som powerpc-mpc8313erdb powerpc-mpc8349eamds

See https://lists.rtems.org/pipermail/users/2015-July/029230.html

~~#2374~~	fixed	tool/rsb	Chris Johns	Chris Johns

Summary: RSB builds 3rd party packages as Canadian Cross (Cxc) packages

Description:

The RSB builds the NetSMP package as Canadian Cross (Cxc) so does not install the built package. Cxc packages are not installed because they have prefix paths that may not exist on a build machine plus what is built is not for the build machine so installing is disabled.

Fixing the Cxc logic in the RSB results in the Cxc of ming32 built on FreeBSD to fail.

~~#2378~~	fixed	unspecified	Joel Sherrill	Joel Sherrill

Summary: ampolish3 script can't always find perl

Description:

Posted to devel@ https://lists.rtems.org/pipermail/devel/2015-July/011984.html

diff --git a/ampolish3 b/ampolish3 index aaa9757..23c2855 100755 --- a/ampolish3 +++ b/ampolish3 @@ -1,4 +1,4 @@ -#! /usr/bin/perl -w +#! /usr/bin/env perl

```
# # Copyright (C) 2005, 2006 Ralf Cors<C3><A9>pius, Ulm, Germany #
```

~~#2379~~	fixed	unspecified	Joel Sherrill	Joel Sherrill

Summary: Ensure ada-tests build

Description: There is a compile error in ada-tests/support/init.c.

~~#2380~~	fixed	doc	Joel Sherrill	Joel Sherrill

Summary: Incorrect title for C User's Guide in info output

Description:

I usually read RTEMS document in Info file format, and I found that C Users' Guide is not correctly set for its dir entry, and hence couldn't be found after 'make install'. This is just a one line fix as follows:

In doc/user/c_user.texi:

-* RTEMS C User: (C Users Guide). The C User's Guide. +* RTEMS C User: (c_user). The C User's Guide.

After this fix, configure with --enable-docs and make install, C Users' Guide can be found by Emacs Info reader without modifying dir entry. Thanks.

~~#2384~~	fixed	fs	Nick Withers	Nick Withers <nick.withers@...>

Summary: [PATCH] [NFS client] Respect 2^{32} - 1 B NFSv2 maximum file size

Description:

The RTEMS NFS(v2) client in at least 4.11 and master does not range check *off_t* values before assigning them into NFSv2's on-the-wire 32-bit unsigned file offset field.

Reads from and writes to an offset at or above 4 GiB will currently silently be remapped to the mod 2^{32} location (on two's complement machines at least).

The attached patch checks for negative offsets [1] and out of [0 - UINT32_MAX)-range access in nfs_file_read(), nfs_file_write() and nfs_file_ftruncate(). It doesn't touch the lseek() implementation, so an lseek() past NFSv2 range will still "succeed" - a subsequent read or write there won't. I think this is POSIX-compliant [2], however.

[1] Perhaps unnecessary if it's impossible for a negative offset to be obtained without e.g., an application user twiddling things they shouldn't? lseek() at least does correctly error on obtaining negative offsets

[2] e.g., http://pubs.opengroup.org/onlinepubs/009695399/functions/lseek.html doesn't explicitly seem to require lseek() to fail for out-of range offsets that aren't negative, and it mustn't do a resize itself

~~#2402~~	fixed	unspecified	Sebastian Huber	Sebastian Huber <sebastian.huber@...>

Summary: pthread_cancel() invalidates the thread identifier

Description: A thread that calls pthread_cancel() is no longer able to do a pthread_join() afterwards. This problem appears in a least one GCC test case (libstdc++-v3/testsuite/30_threads/thread/native_handle/cancel.cc).

~~#2405~~	fixed	unspecified	Martin Galvan	Martin Galvan <martin.galvan@...>

Summary: CppCheck? errors being reported throughout the code

Description:

I performed a run of `cppcheck --enable-all` on the git master and the following items were reported as 'error':

```
[c/src/lib/libbsp/shared/umon/umon.h:21]: (error) Invalid number of character ({) when these macros are defined: '__cplusplus'.
[cpukit/libmisc/dumpbuf/dumpbuf.c:69]: (error) Undefined behavior: Variable 'line_buffer' is used as parameter and destination in s[n]printf().
[cpukit/libmisc/dumpbuf/dumpbuf.c:76]: (error) Undefined behavior: Variable 'line_buffer' is used as parameter and destination in s[n]printf().
[cpukit/libnetworking/rtems/rtems_dhcp.c:401]: (error) Common realloc mistake: 'dhcp_hostname' nulled but not freed upon failure
[cpukit/posix/include/rtems/posix/ptimer.h:33]: (error) Invalid number of character ({) when these macros are defined: '__cplusplus'.
[cpukit/rtems/include/rtems/rtems/dpmemimpl.h:104]: (error) Invalid number of character ({) when these macros are defined: '__cplusplus'.
[tools/cpu/nios2/memory.c:99]: (error) Uninitialized variable: memory
[tools/cpu/nios2/ptf.c:582]: (error) Memory leak: new_prefix
```

Notice I ran cppcheck mostly on the modules I'm currently using (that means most BSPs weren't checked). Some other errors may show up when running it on the entire source.

~~#2410~~	fixed	unspecified	Martin Galvan	Martin Galvan <martin.galvan@...>

Summary: rtems_dhcp.c fails to compile ("free" requires an extra argument)

Description:

When trying to compile rtems_dhcp.c, compilation will fail with the following error:

../../../../../../trunk/c/src/../../cpukit/libnetworking/rtems/rtems_dhcp.c:408:32: error: macro "free" requires 2 arguments, but only 1 given

```
free (dhcp_hostname);
```

~~#2411~~	fixed	unspecified	Martin Galvan	Martin Galvan <martin.galvan@...>

Summary: dumpbuf.c compiles with warnings

Description

Compiling dumpbuf.c causes the following warning to be issued multiple times:

```
warning: pointer targets in passing argument 1 of 'snprintf' differ in signedness [-Wpointer-sign]
```

This seems to happen because `line_buffer` is declared as `unsigned`.

~~#2416~~	fixed	unspecified	Marcos Diaz	Marcos Diaz <marcos.diaz@...>

Summary: Beaglebone: bsp.h missing clobber in inline assembly.

Description: flush_data_cache uses R0 directly but doesn't list it as a clobbered register. Compiling with -O3 made this code break, since the function that calls flush_data_cache already uses r0.

~~#2418~~	fixed	unspecified	Sebastian Huber	Chris Johns

Summary: rtems_waf: SMP support is broken

Description:

waf configure --prefix=/opt/rtems-4.12 --rtems=/opt/rtems-4.12 --rtems-tools=/opt/rtems-4.12 --rtems-bsps=arm/altcycv_devkit_smp --rtems-version=4.12

leads to

Checking for RTEMS headers : no One of the tests has failed, see the config.log for more information (complete log in /scratch/git-rtems-libbsd/build/config.log)

due to Checking for RTEMS headers ==> #include <rtems.h>

int main() {

    return 0;

}

<== [1/2] [32mcxx: build/.conf_check_43c32d88444a1ba1e9b68cfe1006373a/test.cpp -> build/.conf_check_43c32d88444a1ba1e9b68cfe1006373a/testbuild/test.cpp.1.o [0m ['/opt/rtems-4.12/bin/arm-rtems4.12-g++', '-qrtems', '-B/opt/rtems-4.12/arm-rtems4.12/lib/', '-B/opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/', '--specs', 'bsp_specs', '-march=armv7-a', '-march=armv7-a', '-mthumb', '-mthumb', '-mfpu=neon', '-mfpu=neon', '-mfloat-abi=hard', '-mfloat-abi=hard', '-mtune=cortex-a9', '-mtune=cortex-a9', '../test.cpp', '-c', '-o', 'test.cpp.1.o'] err: In file included from /opt/rtems-4.12/lib64/gcc/arm-rtems4.12/5.2.1/include/c++/atomic:38:0,

    from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/score/cpustdatomic.h:32, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/score/cpuatomic.h:12, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/score/atomic.h:20, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/score/thread.h:24, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/score/heap.h:22, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems/rtems/types.h:26, from /opt/rtems-4.12/arm-rtems4.12/altcycv_devkit_smp/lib/include/rtems.h:31, from ../test.cpp:1:

/opt/rtems-4.12/lib64/gcc/arm-rtems4.12/5.2.1/include/c++/bits/c++0x_warning.h:32:2: error: #error This file requires compiler and library support for the ISO C++ 2011 standard. This support is currently experimental, and must be enabled with the -std=c++11 or -std=gnu++11 compiler options.

    #error This file requires compiler and library support for the \

~~#2435~~	fixed	unspecified	Ben Gras	Sudarshan Rajagopalan <sudarshan.rajagopalan@...>

Summary: gpio functions in bsp name improvement

Description:

Fixes GPIO APIs Naming Convention and Comments.

Thanks to Sudarshan Rajagopalan <sudarshan.rajagopalan@...> for reporting this and the patch. Slightly revised patch will follow that auto-closes this bug.

This change renames these gpio-specific functions:

rtems_bsp_enable_interrupt rtems_bsp_disable_interrupt rtems_bsp_select_specific_io

to

rtems_gpio_bsp_enable_interrupt rtems_gpio_bsp_disable_interrupt rtems_gpio_bsp_select_specific_io

~~#2437~~	fixed	unspecified	Ben Gras	Ben Gras <beng@...>

Summary: if pax is not found by configure, the tests fail to build un-gracefully.

Description:

If pax is not found by configure, the empty PAX variable is used in e.g. this line:

    $(PAX) -w -f $@ $<

Causing the 'w' command to be invoked:

    21:37:25 up 6 min, 3 users, load average: 1,90, 1,14, 0,49

USER TTY LOGIN@ IDLE JCPU PCPU WHAT ../../../../../../tools/build/rtems-bin2c -C dl.tar dl-tar.c ../../../../../../tools/build/rtems-bin2c -H dl.tar dl-tar.h cannot open dl.tar for reading cannot open dl.tar for reading make[6]: *** [dl-tar.c] Error 1 make[6]:** * Waiting for unfinished jobs.... make[6]: *** [dl-tar.h] Error 1 make[6]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c/beagleboneblack/testsuites/libtests/dl01' make[5]:** \* [all-local] Error 1 make[5]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c/beagleboneblack/testsuites/libtests' make[4]: *** [all] Error 2 make[4]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c/beagleboneblack/testsuites/libtests' make[3]:** \* [all-recursive] Error 1 make[3]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c/beagleboneblack/testsuites' make[2]: *** [all-recursive] Error 1 make[2]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c/beagleboneblack' make[1]:** \* [all-recursive] Error 1 make[1]: Leaving directory `/home/beng/development/rtems/b-beagle/arm-rtems4.11/c' make: *** [all-recursive] Error 1**

I am preparing a proposed fix that fails more gracefully in the configure phase.

Thanks to several reporters of this problem, most recently Debajyoti Majumdar and Claudio Scordino, while trying to build the tests with the Beagle BSP.

~~#2438~~	fixed	lib/dl	Patrick Gauvin	Chris Johns

Summary: ARM cache problem after libdl load

Description:

- **RTEMS Version:** Branch "4.11", commit edf77328c1813e15a293841dd33995fb11bd4bec
- **System type:** ARM Cortex-A9, Xilinx Zynq 7020, xilinx_zynq_zedboard BSP
- **Compiler toolchain version:** GCC 4.9.3, Newlib 2.2.0.20150423, Binutils 2.24
- **RTEMS configure options:** `--target=arm-rtems4.11 --enable-rtemsbsp="xilinx_zynq_a9_qemu xilinx_zynq_zedboard" --enable-posix --prefix=$HOME/development/rtems/4.11 --enable-tests`
- **Code used to reproduce:** testsuites/libtests/dl01

Expected Behavior

Successful execution of the loaded function from dl-o1.o. Note that the dl01 example runs successfully in QEMU with the xilinx_zynq_a9_qemu BSP.

Actual Behavior

System crash on execution of loaded code. After the first branch is taken to loaded code (dl-load.c:54), GDB indicates that the processor is executing instructions at the correct address, but they do not behave as expected, eventually leading to the system rebooting.

After discussion on the users mailing list, it was found that flushing the data cache and invalidating the instruction cache before calling the loaded function resulted in its successful execution. This was tested by adding the following at dl-load.c:54:

```
rtems_cache_flush_entire_data();
rtems_cache_invalidate_entire_instruction();
```

~~#2440~~	fixed	build	Sebastian Huber	

Summary: rtems_waf: Install is broken for version != 4.11

Description:

"waf install" is broken for version != 4.11 due to use of hard-coded

default_version = '4.11'

in rtems.py.

~~#2465~~	wontfix	doc	Joel Sherrill	Chris Johns
Summary	Update Hello World Instructions to include MSYS2			
Description	A ticket to prod Chris into adding to the (GSOC Getting Started) MSYS2 instructions. This needs to be done in time for Google Code-In.			
~~#2495~~	fixed	tool/rsb	Joel Sherrill	Chris Johns
Summary	RSB 4.11 tool build broken			
Description	Multiple targets: powerpc and i386 Multiple hosts: Ubuntu Wheezy, Debian Jessie, Fedora recent, and CentOS 6 + cd /home/joel/rtems-hilo-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1 + echo '=> rtems-tools-4.11-1:' + echo '==> %prep:' ++ pwd + build_top=/home/joel/rtems-hilo-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1 + rtems_tools_source=rtems-tools-4.11 + cd /home/joel/rtems-hilo-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1 + /bin/rm -rf rtems-tools-4.11 + ln -s /home/joel/rtems-hilo-work/rtems-source-builder/rtems/sources/git/rtems-tools.git + cd rtems-tools-4.11 /home/joel/rtems-hilo-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1/doit: line 85: cd: rtems-tools-4.11: No such file or directory shell cmd failed: /bin/sh -ex /home/joel/rtems-hilo-work/rtems-source-builder/rtems/build/rtems-tools-4.11-1/doit error: building rtems-tools-4.11-1			
~~#2497~~	fixed	unspecified	Martin Galvan	Ben Gras
Summary	Beaglebone Black: rtems_gpio_bsp_disable_interrupt disables all the GPIO interrupts			
Description	While testing the BBB GPIO code we noticed `rtems_gpio_bsp_disable_interrupt` seems to disable the interrupts for all the pins, not just the one that actually caused the interrupt.			
~~#2505~~	fixed	unspecified	Ben Gras	Ben Gras
Summary	beagle sdcard.sh has hard-coded rtems arm-rtems4.11-objcopy			

Description	(This is the script that generates an SD card image ready to boot RTEMS.)
	
	switching to the rtems 4.12 toolchain requires this:
	
	`+++ b/c/src/lib/libbsp/arm/beagle/simscripts/sdcard.sh`
	`@@ -59,7 +59,7 @@ $PREFIX/bin/newfs_msdos -r 1 -m 0xf8 -c 4 -F16 -h 64 -u 32 -S 512 -s $FATSIZE -`
	
	` # Prepare the executable.`
	` base=`basename $executable``
	`-$PREFIX/bin/arm-rtems4.11-objcopy $executable -O binary $TMPDIR/$base.bin`
	`+$PREFIX/bin/arm-rtems4.12-objcopy $executable -O binary $TMPDIR/$base.bin`
	` gzip -9 $TMPDIR/$base.bin`
	` $PREFIX/bin/mkimage -A arm -O rtems -T kernel -a 0x80000000 -e 0x80000000 -n RTEMS -d $TMPDIR/$base.bin.gz $TMPDIR/$ap`
	` echo "setenv bootdelay 5`
	
	Of course I'm open to a cleaner fix.			

~~#2508~~	fixed	unspecified	Joel Sherrill	Joel Sherrill <joel@...>
Summary	Remove LICENSE.WEBSERVER			
Description	This file is for the GoAhead? webserver and no longer should be in the tree. Filing a ticket because I think this file is also on branches where the GoAhead? webserver is no longer present. We also may want to add a note to the file on the rtems.org website to indicate that this webserver was removed as of 4.11? release series. This just needs some homework and a doublecheck.			
~~#2511~~	fixed	doc	Ralph Holmes	
Summary	WorkSpace? wiki page			
Description	A page named 'WorkSpace?' is referenced from https://devel.rtems.org/wiki/Debugging/Start, although the links are dead. I'm not sure whether there is supposed to be an actual page on 'WorkSpace?', or if this is just caused by WikiFormatting.			
~~#2512~~	fixed	doc	Tan Gemicioglu	
Summary	RTEMSReferences automatically deleting content			
Description	I've looked through the diff's for changes made to https://devel.rtems.org/wiki/TBR/Website/RTEMSReferences and the page is repeatedly deleting content from the bottom of the page as more references are added. This is most likely due to the page reaching maximum page size as different versions had around the same character count (64800~) as plain text. According to http://trac.edgewall.org/wiki/TracIni this size can be configured from the trac.ini file, with the [wiki] max_size variable. Another alternative is to create a seperate page for each year so that it doesn't exceed the size limit.			
~~#2525~~	invalid	tool/rsb	Darshit	
Summary	RSB Python scripts may refer to Python3			
Description	The RSB python scripts all have the same shebang line: `#!/usr/bin/env python` However, on certain systems, most notably Arch Linux, the default python environment is Python3. This causes all the RSB scripts to fail. Instead, a simple approach would be to explicitly invoke the Python2 environment. All systems that ship only Python2 also have the python2 symlink. I've attached patch I made by changing all the shebang lines to python2. With these changes, I am still unable to completely build the SPARC tools on my machine. Some more Python related issues it seems. I shall debug those and either ask for further help later, or provide a patch Do let me know if anything else is required.			
~~#2535~~	fixed	shell	Nick Withers	
Summary	Shell: printf() format specifiers do not match parameter types			
Description	e.g.: `(void)snprintf(buf, sizeof(buf), "%llu", (long long)howmany(maxblock, blocksize));`			
~~#2579~~	fixed	unspecified	Ralph Holmes	
Summary	Add per-section compilation and linking support to powerpc/motorola_powerpc			
Description	As per #2577, per-section compilation and linking support should be added to this BSP. Since it uses the powerpc shared linker script, this only needs to have the necessary optimisations added.			
~~#2589~~	fixed	doc	Chris Johns	Joel Sherrill
Summary	Update Applications Ada User's Guide			
Description	Update the Applications Ada User's Guide to REST format.			
~~#2594~~	fixed	doc	Chris Johns	
Summary	Update POSIX 1003.1 Compliance Guide			
Description	Update the POSIX 1003.1 Compliance Guide to REST format.			
~~#2595~~	fixed	doc	Chris Johns	
Summary	Update Filesystem Design Guide			

Description	Update the Filesystem Design Guide to REST format.			
#2645	fixed	unspecified	Joel Sherrill	Chris Johns
Summary	RSB qemu bset issues and failure			
Description	Trying to build qemu on RSB master, I got errors for qemu_version and rtems_version not being defined. I added the following lines to bare/config/devel/qemu.bset which may or may not be correct but seemed to work. %define qemu_version 42d58e7c6760cb9c55627c28ae538e27dcf2f144 %define rtems_version 4.12 May also be broken on 4.11 branch. Did not check. ../source-builder/sb-set-builder --log=l-qemu.txt --prefix=/home/joel/rtems-class-201604/tools/4.12 devel/qemu			
#2646	fixed	tool/rsb	Joel Sherrill	Chris Johns
Summary	glib cfg file is missing hash. Fails in release mode			
Description	glib is missing the hash. Following patch should fix it. Found on master, likely impacts all branches. diff --git a/bare/config/devel/glib-2.39.3-1.cfg b/bare/config/devel/glib-2.39.3-1.cfg index 405e511..ab289db 100644 --- a/bare/config/devel/glib-2.39.3-1.cfg +++ b/bare/config/devel/glib-2.39.3-1.cfg @@ -11,6 +11,7 @@ %define glib_version_major 2.39 %define glib_version_minor 3 %define glib_version %{glib_version_major}.%{glib_version_minor} +%hash md5 glib-%{glib_version}.tar.xz c8ddc045e12cfafdea607c138f3f8429 # # The GLib build instructions. We use 2.x.x Release 1.			
#2721	fixed	unspecified	Sebastian Huber	Sebastian Huber <sebastian.huber@...>
Summary	sem_init() does not honour SEM_VALUE_MAX			
Description	sem_init() succeeds even if the initial value exceeds SEM_VALUE_MAX.			
#2731	fixed	unspecified	David Binderman	Gedare Bloom <gedare@...>
Summary	rtems/c/src/lib/libbsp/arm/raspberrypi/console/console_select.c:98]: (warning) Found calculation inside sizeof().			

Description	Source code is
	if (strncmp(opt, "fbcons", sizeof("fbcons" - 1)) == 0) {
	Maybe better code
	if (strncmp(opt, "fbcons", sizeof("fbcons") - 1) == 0) {			

#2756	fixed	fs	snob-wolpike	
Summary	MSDOS_MAX_DIR_LENGHT typo			
Description	MSDOS_MAX_DIR_LENGHT -> MSDOS_MAX_DIR_LENGTH $ ack LENGHT msdos.h 239:#define MSDOS_MAX_DIR_LENGHT 0x200000 /* 2,097,152 bytes */ msdos_create.c 193: fat_fd->size_limit = MSDOS_MAX_DIR_LENGHT; msdos_initsupp.c 100: fat_fd->size_limit = MSDOS_MAX_DIR_LENGHT; msdos_misc.c 391: fat_fd->size_limit = MSDOS_MAX_DIR_LENGHT; 584: fat_fd->size_limit = MSDOS_MAX_DIR_LENGHT; 653: fat_fd->size_limit = MSDOS_MAX_DIR_LENGHT; P.S. Goes unnoticed since original 2002 commit.			
#2772	duplicate	score	Kuan-Hsun Chen	
Summary	Enhancement for more general real-time model			
Description	In the current implementation, if a task period is time out, the next call of rtems_rate_monotonic_period() will only release one following job and manipulate the task period with the calling moment + the next length of period. With the assumption that implicit/constraint deadline and hard real-time model, the above mechanism is okay. However, it is not applicable for more general task models, e.g., soft real-time task, arbitrary deadline, mixed-criticality system [1-4]. It is in fact changing the behaviour of periodic/sporadic tasks, where the task period becomes unpredictable and shifted . Also, there maybe more than one postponed instances due to the preemption. Although there is no standard requirement in reality for deadline misses, with this enhancement, the postponed jobs will be released with the correct number without shifting the periodicity of tasks. In fact, this way of handling is already widely considered in academia from 90s [2] until now [3] or even on multicores as well [4]. I refine the following four files and handle this requirement individually. The overhead seems to me negligible. cpukit/rtems/include/rtems/rtems/ratemon.h cpukit/rtems/include/rtems/rtems/ratemonimpl.h cpukit/rtems/src/ratemontimeout.c cpukit/rtems/src/ratemonperiod.c I believe this patch is good for further use in more general real-time task models. This enhancement only affect those timeout cases without changing any behaviour in normal cases. To demonstrate the differences, a heuristic example is prepared in testsuites/sptests/sprmsched01 to show the benefit of the enhancement: Given two tasks with implicit deadline that task deadline is equal to its period. Task 1 period is 10000 ticks, whereas task 2 is 2000 ticks. Task 1 has the execution time 6000 ticks, and task 2 has 1000 ticks. Assume Task 1 has a higher priority than task 2. Task 1 only executes 2 times. In the expected result, we can observe that the postponed jobs are continuously released till there is no postponed job left, and the task period will still keep as it is. (Job 3-7 in task 2 are postponed jobs) [1] Buttazzo et al., Soft Real-Time Systems: Predictability vs. Efficiency, Springer 2005, http://www.springer.com/gp/book/9780387237015 [2] Lehoczky et al., Fixed priority scheduling of periodic task sets with arbitrary deadlines, RTSS 1990, http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=128748 [3] Georg von der Brüggen et al., Systems with Dynamic Real-Time Guarantees in Uncertain and Faulty Execution Environments, RTSS'16, accepted. [4] Huang et al., Response time bounds for sporadic arbitrary-deadline tasks under global fixed-priority scheduling on multiprocessors, RTNS 2015, http://dl.acm.org/citation.cfm?doid=2597457.2597459			
#2785	fixed	score	Alexander Krutwig	Sebastian Huber
Summary	Ioctl extension for termios			
Description	The termios driver shall be extended that I/O control commands can be handled.			
#2801	fixed	unspecified	Tim Cussins	Tim Cussins <timcussins@...>
Summary	Invalid configuration option used in virtex bsp headers			
Description	virtex4 and virtex5 bsp headers (bsp.h) define CONFIGURE_INTERRUPT_STACK_MEMORY, which causes confdefs.h to choke. As discussed on mailing list, they should instead set BSP_INTERRUPT_STACK_SIZE.			
#2812	fixed	doc	Joel Sherrill	Chris Johns
Summary	Remove Texinfo Documentation			
	With the converted documentation now suitable for public distribution and the new Sphinx documentation being the official documentation source, the Texinfo documentation source in the development tree needs to be removed.			

Description	The patch is against the master but should apply easily to 4.11. Patch is too large to attach. Placed it at: ftp://ftp.rtems.org/pub/rtems/people/joel/patches/0001-Remove-texinfo-format-documentation.-Replaced-by-Sph.patch.xz Chris, please apply and commit to 4.11 and master when it makes sense in the 4.11 release sequence. Then close this ticket. Thanks.

~~#2813~~	fixed	unspecified	Joel Sherrill	Chris Johns

Summary	4.11.0 has incorrect version information
Description	The version info in the tarball is wrong. We need to review Makefile.maint and make sure we are doing similar actions. The version.m4 files definitely need to be updated.

Last modified on Mar 23, 2017, 4:18:04 AM

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4.11 4.11.1 release

4.11.0 (16 November 2017)

Statistics

Total	0
Fixed	0
Invalid	0
Works for me	0
Duplicate	0
Won't fix	0

Distribution

Summary

No results

Details

Ticket	Resolution	Component	Reporter	Owner
No tickets found				

Last modified on Mar 23, 2017, 4:16:22 AM

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4.11 4.11.0 release