

***RTEMS* News**

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Versions and Tools

Current RTEMS Releases

- **2007/03/07: rtems-4.7.0 released**
- **2007/04/13: rtems-4.7.1 released**
- **2007/03/13 rtems-4.7.99.1 released**

Host Toolset Versions

- **For rtems-4.7.x:**
 - **gcc-4.1.1/newlib-1.15.0**
 - **binutils-2.17**
- **For rtems-4.8:**
 - **gcc-4.1.2/newlib-1.15.0**
 - **binutils-2.17**

Host Platform News

Primary supported Host Platforms:

- Linux
- Win32/cygwin
- **New:** Win32/MinGW (set up and currently supported by Chris Johns, Cybertec, Australia)

Zoo Of Target BSPs

sh

simsh4
gensh1
gensh2
gensh4
shsim

Sparc

leon
leon2
leon3
erc32

hppa1.1

pxfl
simhppa

new rtems-4.7

rem. rtems-4.7

new rtems-4.8

i386

go32
pc386
ts_386ex
Force386
i386ex

Arm7/9

armulator
csb337
gbag
p32
csb336
edb7312
vegaplus

h8300

h8sim

ColdFire

uC5282
mcf5206elite
av5282
idp

MIPS

csb350
hurricane
rbtx4938
jmr3904
p4000
genmongoos
ev
rbtx4925
p4000

TI c4x

c4xsim

M68k

gen68302
mrm332
mvme162
sim68000
dmv152
gen68340
mvme136
mvme167
efi332
gen68360
mvme147
ods68302
csb360
efi68k

BlackFin

ezKit533

PowerPC

eth_comm
mvme2307
score603e
gen405
mbx8xx

mvme5500

gen5200

mcp750

ss555

dmv177

motorola_ppc
ppcn_60x
ep1a
mpc8260ads
psim

virtex

nios

nios2_iss

FPGA Based BSPs

Among others, rtems-4.8 offers two BSPs for processor cores embedded in FPGA

- NIOS-II (Altera)
- PowerPC/Virtex (Xilinx)

New class of devices can be designed with embedded and changeable hardware support for

- Digital Filters, Transformations
- Specialized “soft” hardware
- others...

Major RTEMS 4.7 Changes

- Efforts to reduce minimum code size
- Stack checker uses additional rule
- Speedup of FAT filesystem performance
- Classic API ADA bindings updated
 - And many more...

Major RTEMS 4.8 Changes

- **Further efforts to reduce minimum code size**
 - assert uses printf or BSP-specific replacement routine
- **Additions to POSIX API:**
 - Barriers, spinlocks, rwlocks
- **Addition of nanosecond support to clock API**
- **Improvements of “Capture Engine” for system event tracking, adapted to nanosecond resolution**
- **Rework of source code structure for PowerPC exception handling**
 - Transition from “copied” to “shared” code

And many more...

Funding

Some desired projects require either

- . Substantial funding of one party**
- or**
- . Shared funding of multiple parties**

Candidates:

- . Update of TCP/IP stack**
- . Addition of a proper USB stack**

Infrastructure Changes

Hardware

- Better servers at rtems.org

Software Changes

- RTEMS Wiki established <http://www.rtems.org/Wiki>
- Bug database switched from GNATS to Bugzilla
- Mailing lists managed with GNU mailman
- Yum/APT repository for GNU/Linux ROMs

Coming soon:

- European mirror site at <http://www.rtems.de>

RTEMS Training

Regular Open Classes are held in:

- **Huntsville, Alabama (organized by OAR Corp)**
- **Munich, Germany (organized by embedded brains GmbH)**

Specialized and On-Site classes available on request



RTEMS Commercial Support

Support available in:

- **USA: OAR Corporation, Huntsville, Alabama**
- **Australia: Cybertec, Gladesville**
- **Germany: embedded brains GmbH, Bavaria, Puchheim**
 - **near munich, close to the center of Europe**

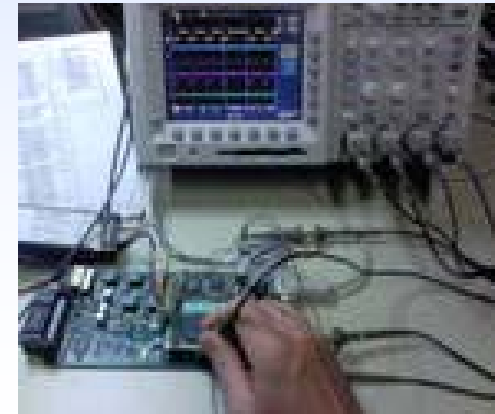
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General Activities

**Embedded HW and SW
development**

Customer ranges

- **Industrial**
- **Automotive**
- **Telecommunications**
- **Aerospace**



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RTEMS Activities

Training

BSP ports

Application support

Turn-key RTEMS environment setup for customer specific hardware

Consulting and On-Site support

RTEMS Pointers

<http://www.rtems.com>

- Main website with sources, tools, CVS,
- Documentation and Wiki
- Mailing list archive

<http://www.embedded-brains.de/>

- Products and support services for RTEMS/embedded design

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