

board test

date & test version:

date [<date>]

test version [v0.2.0]

system:

core [<core>]

cpu [<cpu>]

#n cpus [<#count>]

frequency [<cpu_freq>]

board [<board>]

versions:

linux [<#linux>+<#patch_id>]

rtai [<#rtai>+<#patch_id>]

gcc [<#gcc>]

toolchain [<toolchain>]

patch, configure, compile

linux:

1 linux patch [**PASSED**/**FAILED**]

1.1 successful hunks [<#count>]

1.2 failed hunks [<#count>]

1.3 configure [**PASSED**/**BLOCKED**/**FAILED**]

1.4 compile [**PASSED**/**BLOCKED**/**FAILED**]

rtai:

2 rtai patch [**INTEGRATED**/**PASSED**/**FAILED**]

2.1 successful hunks [<#count>]

2.2 failed hunks [<#count>]

2.3 configure [**PASSED**/**BLOCKED**/**FAILED**]

2.4 compile [**PASSED**/**BLOCKED**/**FAILED**]

basic tests

loading/unloading kernel modules:

- load: insmod rtai_hal.ko ; insmod rtai_{sched|lxrt}.ko ; insmod rtai_msg.ko ; insmod
rtai_sem.ko ; insmod rtai_mbx.ko ; insmod rtai_fifos.ko ; insmod rtai_shm.ko

- unload: rmmmod rtai_shm rtai_fifos rtai_mbx rtai_sem rtai_msg rtai_{sched|lxrt} rtai_hal

3.1 kernel modules

3.1.1 load/unload (sched) [**PASSED**/**FAILED**]

3.1.2 load/unload (sched) [**PASSED**/**BLOCKED**/**FAILED**]

3.1.3 load/unload (lxrt) [**PASSED**/**BLOCKED**/**FAILED**]

3.1.4 load/unload (lxrt) [**PASSED**/**BLOCKED**/**FAILED**]

latency test:

settings: rtai_sched.ko, period: 1ms, sysload: dd /dev/urandom /dev/null

- system load: dd if=/dev/urandom of=/dev/null bs=1024 count=1000000 # 1GB

- kernelspace: insmod latency_rt.ko timer_mode={0|1} period=1000000

- userspace: testsuite/user/latency/latency & # (latency.c: #define TIMER_MODE {0|1})

- display: testsuite/{kern|user}/latency/display

3.2 latency: idle system

3.2.1 kernelspace, oneshot [**PASSED**/**BLOCKED**/**FAILED**]

3.2.2 kernelspace, periodic [**PASSED**/**BLOCKED**/**FAILED**]

3.2.3 userspace, oneshot [**PASSED**/**BLOCKED**/**FAILED**]

3.2.4 userspace, periodic [**PASSED**/**BLOCKED**/**FAILED**]

3.3 latency: system under load

3.3.1 kernelspace, oneshot [PASSED/BLOCKED/FAILED]
3.3.2 kernelspace, periodic [PASSED/BLOCKED/FAILED]
3.3.3 userspace, oneshot [PASSED/BLOCKED/FAILED]
3.3.4 userspace, periodic [PASSED/BLOCKED/FAILED]

preempt test:

settings: rtai_sched.ko, sysload: dd /dev/urandom /dev/null
- system load: dd if=/dev/urandom of=/dev/null bs=1024 count=1000000 # 1GB
- kernelspace: insmod preempt_rt.ko
- userspace: testsuite/user/preempt/preempt &
- display: testsuite/{kern|user}/preempt/display

3.4 preempt: idle system

3.4.1 kernelspace [PASSED/BLOCKED/FAILED]
3.4.3 userspace [PASSED/BLOCKED/FAILED]
3.5 preempt: system under load
3.5.1 kernelspace [PASSED/BLOCKED/FAILED]
3.5.3 userspace [PASSED/BLOCKED/FAILED]

switch test:

settings: rtai_sched.ko, sysload: dd /dev/urandom /dev/null
- system load: dd if=/dev/urandom of=/dev/null bs=1024 count=1000000 # 1GB
- kernelspace: insmod switches_rt.ko
- userspace: testsuite/user/switches/switches

3.6 switch: idle system

3.6.1 kernelspace [PASSED/BLOCKED/FAILED]
3.6.3 userspace [PASSED/BLOCKED/FAILED]
3.6 switch: system under load
3.7.1 kernelspace [PASSED/BLOCKED/FAILED]
3.7.3 userspace [PASSED/BLOCKED/FAILED]

latency test, 12h (user/oneshot/load):

3.8 latency: 12h [PASSED/BLOCKED/FAILED]

performance

3.2/3.3 latency test [min___][avg___][max___]

idle kernelspace oneshot [____][____][____]/[BLOCKED/FAILED]
idle kernelspace periodic [____][____][____]/[BLOCKED/FAILED]
idle userspace oneshot [____][____][____]/[BLOCKED/FAILED]
idle userspace periodic [____][____][____]/[BLOCKED/FAILED]
load kernelspace oneshot [____][____][____]/[BLOCKED/FAILED]
load kernelspace periodic [____][____][____]/[BLOCKED/FAILED]
load userspace oneshot [____][____][____]/[BLOCKED/FAILED]
load userspace periodic [____][____][____]/[BLOCKED/FAILED]

3.4/3.5 preempt test [min___][avg___][max___][j-fast][j-slow]

idle kernelspace [____][____][____][____][____]/[BLOCKED/FAILED]
idle userspace [____][____][____][____][____]/[BLOCKED/FAILED]
load kernelspace [____][____][____][____][____]/[BLOCKED/FAILED]
load userspace [____][____][____][____][____]/[BLOCKED/FAILED]

3.6 switch test [susp/res][sem:sig/wait][rpc:rcv-ret]

idle kernelspace [____][____][____]/[BLOCKED/FAILED]
idle userspace [____][____][____]/[BLOCKED/FAILED]
load kernelspace [____][____][____]/[BLOCKED/FAILED]
load userspace [____][____][____]/[BLOCKED/FAILED]

3.8 latency test, 12h [min___][avg___][max___]

load userspace oneshot [____][____][____]/[BLOCKED/FAILED]