

# Re: Updated procstat(1)

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*Source:* <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/hackers/2007-11/msg00318.html>

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- *From:* Wesley Shields <[wxs@xxxxxxxxxxxxxxxx](mailto:wxs@xxxxxxxxxxxxxxxx)>
  - *Date:* Tue, 27 Nov 2007 23:21:52 -0500
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On Tue, Nov 27, 2007 at 05:18:47PM +0000, Robert Watson wrote:

The last of these required new kernel changes, including an MD component. I've tested the MD parts only on i386, although I have quick hacks at what they should look like on amd64, arm, powerpc, sparc64, sun4v. I don't promise these compile or work, but they might do.

The kernel build didn't work on AMD64...

```
cc -c -O2 -frename-registers -pipe -fno-strict-aliasing -std=c99 -g -Wall -Wredundant-decls
-Wnested-externs -Wstrict-prototypes -Wmissing-prototypes -Wpointer-arith -Winline -Wcast-qual
-Wundef -Wno-pointer-sign -fformat-extensions -nostdinc -I. -I/usr/src/sys -I/usr/src/sys/contrib/altq
-D_KERNEL -DHAVE_KERNEL_OPTION_HEADERS -include opt_global.h -fno-common
-finline-limit=8000 --param inline-unit-growth=100 --param large-function-growth=1000
-fno-omit-frame-pointer -mcmmodel=kernel -mno-red-zone -mfpmath=387 -mno-sse -mno-sse2
-mno-mmx -mno-3dnow -msoft-float -fno-asynchronous-unwind-tables -ffreestanding -Werror
/usr/src/sys/amd64/amd64/db_trace.c
cc1: warnings being treated as errors
/usr/src/sys/amd64/amd64/db_trace.c: In function 'stack_save_td':
/usr/src/sys/amd64/amd64/db_trace.c:535: warning: type defaults to 'int' in declaration of 'rbp'
/usr/src/sys/amd64/amd64/db_trace.c:537: warning: implicit declaration of function 'TD_IS_SWWAPPED'
/usr/src/sys/amd64/amd64/db_trace.c:537: warning: nested extern declaration of 'TD_IS_SWWAPPED'
*** Error code 1
```

Stop in /usr/obj/usr/src/sys/GENERIC.

\*\*\* Error code 1

Stop in /usr/src.

\*\*\* Error code 1

Stop in /usr/src.

wxs@ack /usr/src %

Here's an updated patch to sys/amd64/amd64/db\_trace.c (it's a diff against revision 1.81). It changes "register rbp" to be "register\_t rbp" and fixes the extra "W" in TD\_IS\_SWWAPPED. The kernel built fine after these changes. I'll test it out tomorrow.

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```
--- sys/amd64/amd64/db_trace.c.orig 2007-11-15 17:00:56.000000000 -0500
+++ sys/amd64/amd64/db_trace.c 2007-11-27 22:59:29.000000000 -0500
@@ -505,15 +505,13 @@
ctx->pcb_rip, count));
}

-void
-stack_save(struct stack *st)
+static void
+stack_capture(struct stack *st, register_t rbp)
{
struct amd64_frame *frame;
vm_offset_t callpc;
- register_t rbp;

stack_zero(st);
- __asm __volatile("movq %%rbp,%0" : "=r" (rbp));
frame = (struct amd64_frame *)rbp;
while (1) {
if (!INKERNEL((long)frame))
@@ -531,6 +529,29 @@
}
}

+void
```