

Re: Maple's "fd" crash code, and FORTRAN in Maple

Source: <http://sci.tech-archive.net/Archive/sci.math.symbolic/2005-06/msg00071.html>

- *From:* Craig Carey <research@xxxxxxxxx>
 - *Date:* Thu, 23 Jun 2005 21:07:42 +1200
-

On Wed, 22 Jun 2005 15:25:12 +0200, Christopher Creutzig <christopher@xxxxxxxxx> wrote:

>Craig Carey wrote:

>

>> A MuPad person (Mr Christopher Creutzig), said earlier at sci.math.symbolic,
>> that some of Maple was in FORTRAN.

>

> Did I? I can't remember knowing or saying something to this end, and
>groups.google.com only turns up some speculation of mine in 2003 that
>Maple *might* include some Fortran, which was based on the cooperation
>with NAG.

>

I guess I got the quote right. Anyway the percentage ws not indicated.

Can you get the percentage of FORTRAN in Maple ?. Why doesn't Maplesoft monitor the sci.math.symbolic group and visit and assert that Maple does not contain FORTRAN?.

>> | unknown software exception (0xc00000fd) at 0x00245713.

....

> Blame Microsoft. At the point where the message is printed, Maple is
>no longer running, the message is generated by the operating system.
>According to msdn, the fd is ?STATUS_STACK_OVERFLOW?, usually caused by
>a recursion nested too deeply.

There is not an explanation here of the big variability in time, for the crash to appear. Excessive recursion can be caused by a bug and not only by the input data.

Windows 2003 does not produce 2 hex numbers and memory runs low. So Maple too, can catch the exception and produce something better than 2 hexadecimal number.

Re: Maple's "fd" crash code, and FORTRAN in Maple

A quick estimate is that Maple should not cost more than about US\$15.

That "fd" hints at giving up crisis inside of Maplesoft.
Maybe that alone causes bugs to be left uncorrected.

Here is my list some categories thatr the source code of symbolic algebra solver software, can be allocated to. Debugging bugs in category 1 can be swift.

* 1: Swapping & changing pieces of expression structures.

Also: the 3GL code supporting the user-side language.

* 2 intricate maths algorithms.

* 3 parser code [guessing and workarounds.]

* 4 GUI code [coding can require persistence and debugging]

* 5 bug-free memory management code. [Gets debugged and left alone]

Debugging category 2 problems might be very slow, occasionally.

Let me summarize a little:

(-) Mr B was almost saying that Maplesoft has a long queue (large set) of bugs,

(+) I say that most of the bugs reall can be removed rapidly. I.e. long queues of Maple bugs could be shorted at a fast speed (or categories 1 and some of category 2).

Here is a character profile of a speculated-to-exist Maplesoft programmer..

+ Mr Apple Bonfire (of MapleCore) loses hope on 3GL bugs long before
+ other programmers would.

+

+ Bug removal is a project, and it can be left unfinished over years (just
+ like placing 3,000 small cardboard boxes against an office wall).

+

+ Mr Bonfire's enthusiasm can falter in maybe 40 minutes. That is quick
+ enough to seem suspect.

+

+ But maybe the company views debugging as a way to lose customers.

Re: Maple's "fd" crash code, and FORTRAN in Maple

Here is a backtrace report from my Tope program.
It improves on the 2 hexadecimal "fd" numbers of the corporation.

The text of the call history is in a dark green colour:

Tope 21-June-2005

1: 3*(p or q);

SYSTEM.ASSERTIONS.ASSERT_FAILURE

Message: tp-m1.adb:1570

007216B1 in ada.exceptions.process_raise_exception at a-except.adb:1320

00723C07 in system.assertions.raise_assert_failure at s-assert.adb:46

0065D26F in tp.m1.debug.check at tp-m1.adb:1570

00655EB0 in tp.m1.g2.assign_fast at tp-m1.adb:156

00657504 in tp.m1.g2.replace_top_with_part_thunk at tp-m1.adb:356

0065732A in tp.m1.g2.b4_replace_top_with_part_delicately at tp-m1.adb:342

006570B6 in tp.m1.g2.b4_fixup_assume_booleans at tp-m1.adb:314

00663EF5 in tp.m2.b4_merge_associative at tp-m2.adb:523

0066D9CA in tp.rats.numbers.multiply_ass_fast at tp-rats-numbers.adb:242

006BCB14 in tope2_model.act at tp-model2.adb:1846

2:

A rising topic might be:
their efficiency at successfully closing incoming bug reports about Maple.

Craig Carey

• *Follow-Ups:*

◆ *Re: Maple's "fd" crash code, and FORTRAN in Maple*

◇ *From:* Christopher Creutzig

• *References:*

◆ *Re: Maple's "fd" crash code, and FORTRAN in Maple*

◇ *From:* Christopher Creutzig

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