

CoCoA-5 - Bug #1531

CRASH: arithmetic with HilbertSeries (tagged object)

05 Nov 2020 14:41 - John Abbott

Status:	Closed	Start date:	05 Nov 2020
Priority:	High	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	bug	Estimated time:	0.99 hour
Target version:	CoCoA-5.4.0	Spent time:	1.00 hour
Description			
The following input causes an assertion failure, followed by abort:			
<pre>// use R ::= QQ[x,y,z]; 1 + HilbertSeries(R);</pre>			
The response is			
<pre>--> WARNING: I'm implicitly untagging the right operand; use untagged() to avoid this warning --> 1 + HilbertSeries(R); --> ^ CoCoAInterpreter: Interpreter.C:1448: bool CoCoA::InterpreterNS::TYPE::isProperSubtypeOf(int) const: Assertion `false' failed. Process cocoa5 aborted (core dumped)</pre>			

History

#1 - 05 Nov 2020 15:07 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

The troublesome call is on line 1536 of Interpreter.C.

The problem is that rightType has dispatchIndex equal to -1 (meaning tagged, I suppose).

I guess what happened is the following:

the first attempt with leftType->isProperSubtypeOf fails, so it falls through to line 1536...

Perhaps there should be a check right before 1536, if rightType->dispatchIndex is negative then an error should be thrown.

Or perhaps just change Interpreter.C at line 1448 to throw a normal error rather than @assert(false). What should the err mesg say?

Or maybe 1536 should call rightOp->getType()->isProperSybtypeOf(...). **This seems plausible**

#2 - 05 Nov 2020 15:12 - John Abbott

- Priority changed from Normal to High

- % Done changed from 10 to 20

- % Done changed from 80 to 100

- Estimated time set to 0.99 h

There is already a test in **exbugs.cocoa5**

Closing after 11 months in feedback.