

## CoCoA-5 - Bug #1190

### HilbertBasisKer: SEGV (again)

19 Jun 2018 11:43 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	19 Jun 2018
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	Anna Maria Bigatti	<b>% Done:</b>	100%
<b>Category:</b>	bug	<b>Estimated time:</b>	3.51 hours
<b>Target version:</b>	CoCoA-5.2.4	<b>Spent time:</b>	3.40 hours
<b>Description</b> I get SEGV with the following input:  <pre>N := 9; M := mat([[ random(-99,99)   j in 1..2*N]   i in 1..N]); H := HilbertBasisKer(M);</pre>			
<b>Related issues:</b> Related to CoCoA-5 - Bug #226: HilbertBasis segv <span style="float: right;">Closed 10 Sep 2012</span>			

#### History

##### #1 - 19 Jun 2018 11:44 - John Abbott

CoCoA should never SEGV --> high priority.

Also it would help to make HilbertBasisKer interruptible.

##### #2 - 21 Jun 2018 18:18 - Anna Maria Bigatti

- Related to Bug #226: HilbertBasis segv added

##### #3 - 25 Jun 2018 08:59 - Anna Maria Bigatti

- Assignee set to Anna Maria Bigatti

- % Done changed from 0 to 80

The problem is that this is old C code (toric), thus it impossible to make it interruptible (we can interrupt it, of course, but I don't know how to clean the memory state)

In this example the input translated into the C data type gave a biterm with negative degree (entries are int). I do not dare changing int into long, but I added a check so that any exponent has upper limit maxint/numindets (functions PPs2Binom and MatKerToBListAndIndices in \$TmpToric.C\$).

##### #4 - 25 Jun 2018 11:31 - Anna Maria Bigatti

- Status changed from New to Feedback

- Estimated time set to 3.01 h

Added test. Checked in.

##### #5 - 25 Jun 2018 11:32 - Anna Maria Bigatti

- % Done changed from 80 to 90

- Estimated time changed from 3.01 h to 3.51 h

**#6 - 30 Jul 2018 14:15 - John Abbott**

- *Status changed from Feedback to Closed*

- *% Done changed from 90 to 100*

Closing