

CoCoALib - Bug #547

elim using RingTwinFloat triggers error "SERIOUS"

05 May 2014 19:44 - John Abbott

Status:	New	Start date:	05 May 2014
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Various	Estimated time:	20.00 hours
Target version:	CoCoALib-1.0	Spent time:	1.00 hour
Description			
The following (C5 input) provokes a SERIOUS error			
<pre>K := NewRingTwinFloat(1024); Ka ::= K[a[1]]; Coeffs := NewFractionField(Ka); R ::= Coeffs[x,y]; Use R; f := x^4 + 2*x^3 + 4/*a[2]*/x^2 + a[1]*x^1 + /*a[0]*/x^0; j := elim([x], Ideal(f, subst(f,x,x*y)));</pre>			
simpler example: see #2			
The fn throwing is RingTwinFloatImpl::myCompose			

History

#1 - 05 May 2014 19:46 - John Abbott

I tried the same input with lower precisions and got InsuffPrec errors; but when I quit CoCoA-5 there were quite a few malloc errors!

#2 - 06 May 2014 11:37 - Anna Maria Bigatti

simpler example: both NewFractionField and NewRingTwinFloat seems necessary to trigger the error

```
K := NewFractionField(NewPolyRing(NewRingTwinFloat(1024), ["a"]));

Use R ::= K[x,y];
f := x + 1;
I := Ideal(f, subst(f,x,x*y)); I;
j := elim([x], I);
```

#3 - 06 May 2014 11:41 - Anna Maria Bigatti

- Subject changed from SERIOUS: elim using RingTwinFloat to elim using RingTwinFloat triggers error "SERIOUS"

#4 - 15 Jun 2016 14:35 - John Abbott

I have confirmed that both examples still trigger ERR::SERIOUS with 5.1.5 on CoCoALib 0.99543.