

CoCoA-5 - Bug #878

RingElem applied to a symbol (repr as a string)

09 May 2016 11:25 - John Abbott

Status:	Closed	Start date:	09 May 2016
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	enhancing/improving	Estimated time:	1.80 hour
Target version:	CoCoA-5.2.0 spring 2017	Spent time:	1.35 hour
Description			
The current design for converting a symbol (repr as a string) into a RINGELEM is inconvenient.			
I wanted to do this while demo-ing CoCoA-5 and ended up being rather confused.			
The function RingElem works only for symbols without indices; if there are indices then they must be specified using a rather unnatural and awkward syntax e.g. RingElem(P, ["a", 2]) to get a[2].			
The call RingElem(P, "a[2]") produces the unhelpful/misleading error "illegal symbol head".			
In contrast, the function ReadExpr(P, "a[2]") does work.			
Related issues:			
Related to CoCoA-5 - Feature #606: Evaluate in ring operator (was called :: i...		Closed	19 Mar 2014
Related to CoCoA-5 - Design #1051: ReadExpr(P, string) and RingElem(P, string)		Closed	24 Apr 2017

History

#1 - 09 May 2016 11:29 - John Abbott

Personally I find the situation described quite confusing.

It is not clear to me why ReadExpr is not already included in RingElem.

#2 - 09 May 2016 17:01 - John Abbott

- Related to Feature #606: Evaluate in ring operator (was called :: in CoCoA-4) added

#3 - 25 Apr 2017 17:57 - John Abbott

- Related to Design #1051: ReadExpr(P, string) and RingElem(P, string) added

#4 - 26 Apr 2017 10:36 - Anna Maria Bigatti

- Assignee set to Anna Maria Bigatti

- Target version changed from CoCoA-5.?? to CoCoA-5.2.0 spring 2017

- % Done changed from 0 to 90

Fixed, now calls ReadExpr.

Documented.

I kept the syntax RingElem(P, ["a", i]) because it allows variable indices.

Not sure how useful this really is, but it works.

#5 - 26 Apr 2017 13:28 - John Abbott

- Status changed from New to Resolved

- Estimated time set to 1.80 h

As already indicated in the description, I do not much like the awkward syntax `RingElem(P, ["a",i])`.

I do see the potential utility of being able to specify the indices as values of variables, and surely `RingElem(P, "a["+sprintf(i)+"]")` is even worse than the "awkward syntax".

What about `RingElem(P, "a", [i])`? Or we could even do `RingElem(P, symbol("a",i))` where `symbol` in CoCoA-5 could just return the string `"a[" + sprintf(i) + "]"`

Or should we just wait until the function is really needed? The `sprint` solution can be used by anyone...

#6 - 26 Apr 2017 13:34 - Anna Maria Bigatti

John Abbott wrote:

Or should we just wait until the function is really needed? The `sprint` solution can be used by anyone...

I do not think it is of any use, now that we can use `sprint`.
And I think it's NOT worth thinking about it.
But I do not feel like gratuitously remove it or change it.

#7 - 27 Apr 2017 14:34 - Anna Maria Bigatti

- *Status changed from Resolved to Closed*

- *% Done changed from 90 to 100*