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["+sprint(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[" + sprint(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 gratuituosly 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