

CoCoA-5 - Bug #94

Default reason for protected variables

29 Feb 2012 12:08 - John Abbott

Status:	Closed	Start date:	29 Feb 2012
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	Parser/Interpreter	Estimated time:	3.00 hours
Target version:	CoCoA-5.1.0 Easter14	Spent time:	2.95 hours
Description			
Attempting to set a variable which has been protect-ed without an explicit reason produces an unsatisfactory error message:			
<pre>ERROR: Cannot set "N" (no reason given)</pre>			
Expressed this way, it seems that CoCoA-5 itself is unable to determine the reason. I suggest a better default message for the reason, <i>e.g.</i> variable protected by user			
I recall the syntax for giving a reason: Protect N: "reason"; The resulting error message will then look like:			
<pre>ERROR: Cannot set "N" because "reason"</pre>			
I observe also that the formats of the error messages are slightly different: one puts the reason in brackets, the other inserts the word <i>because</i> . JAA has a mild preference for more consistency in the formats. What do you think?			
Related issues:			
Related to CoCoA-5 - Bug #102: Packages: should exported functions be automat...		Closed	09 Mar 2012
Related to CoCoA-5 - Feature #531: Package protected variables should know wh...		Closed	09 Apr 2014

History

#1 - 18 Apr 2012 17:04 - John Abbott

I suggest the following format for the error message:

```
ERROR: Cannot set "N" -- reason
```

The suggested changes are:

- replace the word because by a double minus
- no double quotes around the reason
- the default reason is variable protected by user

Grammatically a colon would be better than the double minus, but I think it may look odd (I'll try).

#2 - 18 Apr 2012 22:01 - John Abbott

- % Done changed from 0 to 10
- Estimated time set to 3.00 h

After trying some possibilities, my preference is now for the reason to appear in brackets, like this:

```
ZZ:=0;  
ERROR: Cannot set "ZZ" (it is a system-protected variable)  
A:=0;  
ERROR: Cannot set "A" (variable protected by user)
```

I'm not yet sure what the best "template" is for general reasons; my current suggestion is

```
ERROR: Cannot set "A" (variable protected by XXX)
```

So the "reason" is regarded as identifying who applied the protection (rather than why it was applied).

I was thinking of a template reason being variable protected by package YYY.
Another reason could be variable protected by Define command.

Once we have decided what to do, the implementation should be very quick. Testing might take some time though.

#3 - 23 Jan 2013 12:33 - Anna Maria Bigatti

- Category set to Parser/Interpreter

#4 - 08 Feb 2014 00:41 - John Abbott

I'd like to resolve & close this issue in the near future!

#5 - 02 Apr 2014 17:33 - Anna Maria Bigatti

- Target version set to CoCoA-5.1.0 Easter14

#6 - 09 Apr 2014 15:44 - John Abbott

- Status changed from New to Feedback
- Assignee set to John Abbott
- % Done changed from 10 to 90

I have implemented the suggestion in comment-2.

Changing status to feedback.

#7 - 24 Apr 2014 13:16 - John Abbott

- *Status changed from Feedback to Closed*

- *% Done changed from 90 to 100*

Closing after interactive testing with Anna. Made some minor variations on the suggestions in comment-2.

Test cases:

assign to user-protected variable (user gave no special reason)

assign to user protected variable (user did give a special reason)

reprotect user-protected variable (user gave no special reason)

reprotect user-protected variable (user did give a special reason)

Also checked system protected variables (*e.g.* ZZ and loop variables),
an package-exported variables (*e.g.* HilbertFn)