

CoCoA-5 - Slug #687

Builtin fn makes unnecessary copy of arg

19 Apr 2015 20:36 - John Abbott

Status:	Closed	Start date:	19 Apr 2015
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	enhancing/improving	Estimated time:	0.75 hour
Target version:	CoCoA-5.4.0	Spent time:	1.15 hour
Description			
While testing/profiling IndetsIn (defined in BuiltinOneLiners.C) I noticed that the arg was copied by the fn, making it needlessly slow. Investigate!			
Related issues:			
Related to CoCoALib - Feature #658: Indets actually in a poly (or vector or m...		Closed	22 Jan 2015
Related to CoCoA-5 - Slug #31: theValue makes copy		In Progress	15 Nov 2011

History

#1 - 19 Apr 2015 20:47 - John Abbott

I ran the following test:

```
f := x+y+z+1;
f99 := f^99; // this is slow (~10s on my machine)
t0 := CpuTime();
for i := 1 to 100 do
  NoPrint := IndetsIn(f99);
endfor;
println "Loop time: ", TimeFrom(t0);
```

This reports a loop time of almost 10s.

An essentially identical test in CoCoALib is too fast to measure (less than 0.001s).

So the "overhead" is more than 99% -- wholly unacceptable!

#2 - 28 May 2021 15:31 - John Abbott

- Status changed from New to Closed
- Assignee set to John Abbott
- Target version changed from CoCoA-5.?.? to CoCoA-5.4.0
- % Done changed from 0 to 100
- Estimated time set to 0.75 h

Now it takes 0.001s. No idea why it is fast now and not before.

Closing.

#3 - 28 May 2021 15:43 - Anna Maria Bigatti

John Abbott wrote:

Now it takes 0.001s. No idea why it is fast now and not before.

I guess it was for the move constructor

```
RingElem(RingElem&& copy); // move ctor
```

defined in ring.H

```
// Revision 1.63 2020/10/05 19:30:31 abbot  
// Summary: Added move ctor
```