

## CoCoALib - Feature #1457

### Make SmoothFactor interruptible

10 May 2020 11:54 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	10 May 2020
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	John Abbott	<b>% Done:</b>	100%
<b>Category:</b>	Improving	<b>Estimated time:</b>	0.99 hour
<b>Target version:</b>	CoCoALib-0.99800	<b>Spent time:</b>	0.95 hour
<b>Description</b>			
The following is disappointingly slow:			
<pre>N := factorial(1000000); facs := SmoothFactor(N, 1000000);</pre>			
Slow and not interruptible.			
Make it interruptible!			
<b>Related issues:</b>			
Related to CoCoALib - Feature #718: Insert calls to CheckForInterrupt		<b>Closed</b>	<b>21 May 2015</b>
Related to CoCoALib - Bug #1458: Redesign interrupt mechanism?		<b>Rejected</b>	<b>10 May 2020</b>

### History

#### #1 - 10 May 2020 11:54 - John Abbott

- Related to Feature #718: Insert calls to CheckForInterrupt added

#### #2 - 10 May 2020 11:54 - John Abbott

- Related to Bug #971: CheckForInterrupt does not work in the expected way added

#### #3 - 10 May 2020 11:54 - John Abbott

- Related to Design #1086: New design for interrupt mechanism added

#### #4 - 10 May 2020 11:55 - John Abbott

- Related to deleted (Bug #971: CheckForInterrupt does not work in the expected way)

#### #5 - 10 May 2020 11:55 - John Abbott

- Related to deleted (Design #1086: New design for interrupt mechanism)

#### #6 - 10 May 2020 11:57 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 50

- Estimated time set to 0.50 h

I have added the obvious call to CheckForInterrupt in the main loop in SmoothFactor (just for BigInt).

Testing led to a surprise -- see related issue.

#### #7 - 10 May 2020 12:06 - John Abbott

- Related to Bug #1458: Redesign interrupt mechanism? added

**#8 - 16 Jun 2020 16:29 - John Abbott**

- Status changed from *In Progress* to *Resolved*

- % Done changed from 50 to 80

The problem is that SmoothFactor has two (nested) loops either of which can be slow; but I had inserted a call to CheckForInterrupt only in the outer loop.

Now it seems to work fine.

**#9 - 16 Jun 2020 20:01 - John Abbott**

- Status changed from *Resolved* to *Feedback*

- % Done changed from 80 to 90

- Estimated time changed from 0.50 h to 0.99 h

Speed test was OK. Also improved impl of SmoothFactor, but see [#1463](#).

Checked in.

**#10 - 26 Oct 2020 21:37 - John Abbott**

- Status changed from *Feedback* to *Closed*

- % Done changed from 90 to 100