

CoCoA-5 - Feature #1487

EOF for OpenIFile

15 Sep 2020 13:11 - Julian Danner

Status:	Closed	Start date:	15 Sep 2020
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	Manual/documentation	Estimated time:	1.99 hour
Target version:	CoCoA-5.4.0	Spent time:	1.85 hour
Description			
To read a local file one needs to open an input device via <code>D:=OpenIFile("path_to_file")</code> and read it line-by-line via <code>GetLine(D)</code> . However, when the end of the file is reached, there is no indication of that, as <code>GetLine</code> still returns end-of-line characters. Instead of this behavior, I suggest that <code>GetLine</code> throws an error such that there is no ambiguity if the file's end has been reached.			

History

#1 - 05 Oct 2020 15:37 - John Abbott

- Category set to Manual/documentation
- Status changed from New to In Progress
- Target version set to CoCoA-5.4.0
- % Done changed from 0 to 20

According to the CoCoA-5 manual, **GetLine** returns a line **without** the following end-of-line character (ascii code 10 on my computer).

OBSOLETE: However, if one uses `GetLine` to read beyond the end of a file then a string containing *just an end-of-line character* is returned, and this is the signal that reading failed.

The source code `Interpreter.C:769` has a comment that throwing an exception ended up causing a crash (no idea why; I have also not verified).

WRONG/OBSOLETE: (correct soln is in comment 4 below) So it seems that the appropriate CoCoA-5 test for having reached end of input is:

```
str := GetLine(D);  
if str = "\n" then /*EOF reached*/; endif
```

Let me know if this works for you.

#2 - 05 Oct 2020 15:48 - John Abbott

I have improved the manual page for `GetLine`.

I have not understood why an empty string is returned when EOF has been reached; is that a bug or feature?

PS I have put in a commented out line which would yield "\n" when EOF has been reached after reading an empty line; do we want this?

#3 - 05 Oct 2020 16:13 - John Abbott

- *Status changed from In Progress to Resolved*
- *Assignee set to John Abbott*
- *% Done changed from 20 to 80*

It seems that the function **IsAtEOF** was not in the CoCoA manual; it is now!

This should surely resolve the problem!

#4 - 05 Oct 2020 16:18 - John Abbott

So now that **IsAtEOF** is visible, should attempting to read beyond EOF trigger an error? Probably "yes".

Opinions? Comments?

#5 - 05 Oct 2020 16:33 - Julian Danner

oh thanks, did not know that this function exists.

I also think that an error is appropriate, since there is no more next line that could be queried.

#6 - 09 Oct 2020 11:54 - John Abbott

I have improved the man page for GetLine -- it now refers also to the page for IsAtEOF.

#7 - 09 Oct 2020 13:45 - John Abbott

- *Status changed from Resolved to Closed*
- *% Done changed from 80 to 100*
- *Estimated time set to 1.99 h*

Resolved: use the function **IsAtEOF** (which existed but was not documented).