

CoCoA-5 - Bug #1397

Crashes if CoCoAHelp.xml is missing

21 Jan 2020 15:33 - John Abbott

Status:	Closed	Start date:	21 Jan 2020
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	bug	Estimated time:	0.00 hour
Target version:	CoCoA-5.4.0	Spent time:	1.70 hour
<b>Description</b> If I make a manual query when the file CoCoAHelp.xml is not found where expected, an UNCAUGHT CoCoA ERROR happens, and the interpreter exits (crashes).  It would be better if it did not exit.			
<b>Related issues:</b> Related to CoCoA-5 - Design #1631: Use filesystem::path instead of string (pa... Related to CoCoA-5 - Design #1504: OnlineHelp: XMLFileName			
		New	12 Nov 2021
		Closed	08 Oct 2020

History

#1 - 22 Jan 2020 10:03 - Anna Maria Bigatti

ouch!  
it should never happen, really.  
But it is **bad**. I'll fixi it.

#2 - 22 Jan 2020 10:07 - Anna Maria Bigatti

I see that this give error with no crash (loading extra manuals). This was what worried me most.

```
ReloadMan(["aksjf"]);
```

#3 - 22 Jan 2020 10:46 - Anna Maria Bigatti

- Status changed from New to In Progress
- Assignee set to Anna Maria Bigatti
- % Done changed from 0 to 20

The problem is in the constructor (I think)

```
index::index()
{
    std::ostringstream os; // does not print
    myLoad(os);
}
```

If myLoad fails, then UniqueIndex does not exist.  
I guess this has to be fixed separating creation and initialization, but this is a very pervasive change.

hmmm, not today :-(

#### #4 - 13 Feb 2020 15:34 - John Abbott

- Target version changed from CoCoA-5.3.0 to CoCoA-5.4.0

#### #5 - 04 Nov 2021 23:21 - John Abbott

If CoCoAHelp.xml is missing then the installation is broken (or there is a wrong path).  
Crashing/aborting may be a reasonable action in these circumstances (who know what else is broken).  
There should nevertheless be a helpful message printed on std::cerr before crashing.

#### #6 - 04 Nov 2021 23:24 - John Abbott

- Status changed from In Progress to Resolved

- % Done changed from 20 to 80

I have just tried, and CoCoA-5 no longer crashes. It also produced a fairly reasonable error message.  
Maybe the error message could be improved (made more comprehensible to non-expert users).

#### #7 - 10 Nov 2021 18:27 - John Abbott

I have modified the error message slightly. Now it gives:

```
/**/ ?abc
--> ERROR: CoCoA-5 manual missing (or not readable); it should be in /home/jabbott/Work/CoCoALib-0.99/src/CoCo
A-5/packages/./CoCoAManual/CoCoAHelp.xml
--> [CoCoALib] OnlineHelp::OpenXMLManual()
--> ?abc
--> ^^^^
```

I think this may be more comprehensible. Anna, what do you think?

#### #8 - 10 Nov 2021 18:29 - John Abbott

It would be nice (& cleaner) if we could get rid of packages/./.  
I think this should be possible.

#### #9 - 10 Nov 2021 18:43 - John Abbott

There is a stackoverflow thread about getting dirname: <https://stackoverflow.com/questions/3071665/getting-a-directory-name-from-a-filename>

Apparently in C++17 one do something like the following:

```
#include <iostream>
#include <filesystem>
namespace fs = std::filesystem;
int main()
{
    for(fs::path p : {" /var/tmp/example.txt", "/", "/var/tmp/."})
        std::cout << "The parent path of " << p
```

```
<< " is " << p.parent_path() << '\n';  
}
```

Of course, we're using C++14. But BOOST offers something similar...  
According to the same stackoverflow thread, with BOOST one can do the following:

```
boost::filesystem::path p("C:\\folder\\foo.txt");  
boost::filesystem::path dir = p.parent_path();
```

#### #10 - 10 Nov 2021 18:57 - John Abbott

We probably need to change the fn CoCoAManFileName (around line 950 in OnlineHelp.C).  
The return type should be a "path" (initially boost::filesystem::path)

```
const boost::filesystem::path& CoCoAManFileName()  
{  
    static const boost::filesystem::path UniqueCopy(boost::filesystem::path(packageDir).parent_path() / "CoCoAMa  
nual/CoCoAHelp.xml");  
    return UniqueCopy;  
}
```

**NOTE** should we also change the (global) variable packageDir so that it has type boost::filesystem::path? Probably!

#### #11 - 12 Nov 2021 10:21 - John Abbott

- Related to Design #1631: Use filesystem::path instead of string (packageDir, CoCoAManFileName) added

#### #12 - 12 Nov 2021 10:23 - Anna Maria Bigatti

- Status changed from Resolved to Closed  
- % Done changed from 80 to 100

No longer crashes. So that's good.  
Now we just need to clean up the path, but that's in a new issue [#1631](#)

#### #13 - 23 Feb 2022 11:50 - Anna Maria Bigatti

- Related to Design #1504: OnlineHelp: XMLFileName added