Saxon/C - Bug #5070

Core dump calling declare_namespace

2021-08-27 14:23 - Jacob smith

Status:	AwaitingInfo		**Start date:**	2021-08-27
Priority:	High		**Due date:**	
Assignee:	O'Neil Delpratt		**% Done:**	0%
Category:	Python		**Estimated time:**	0:00 hour
Sprint/Milestone:			**Spent time:**	0:00 hour
Found in version:	1.2.1		**Platforms:**	
Fixed in version:				

Description

My environment is a homebrew Python3 (3.9); I installed Cython (not sure of the version), and built as per the instructions.

The version of Saxon/C is 1.2.1 HE and/or EE.

```
#!/usr/bin/env python3

import os
import sys

cnlDir                      = os.path.dirname(os.path.realpath(__file__))
SAXONC_HOME                 = os.path.abspath(cnlDir + '/../tools/saxonc')
SAXONC_PYHOME               = SAXONC_HOME + '/Saxon.C.API/python-saxon/'

sys.path.append(SAXONC_PYHOME)
os.environ['SAXONC_HOME']   = SAXONC_HOME

import saxonc

if __name__ == '__main__':
    xdocPath        = os.path.abspath(os.path.expanduser(sys.argv[1]))

    with saxonc.PySaxonProcessor() as saxp:
        xpath       = saxp.new_xpath_processor()
        xpath.declare_namespace('uncle', 'http://apple.com/ns/bob/uncle')
        xdoc        = saxp.parse_xml(xml_file_name=xdocPath)
        xpath.set_context(xdm_item=xdoc)
        results     = xpath.evaluate('.//*:decTree[@spec]')
        print(f'Num results: {results.size}')
        for II in range(results.size):
            repr    = str(results.item_at(II).get_node_value())
            print(repr.split('\n')[0])
```

History

#1 - 2021-08-27 14:24 - Jacob smith

The line xpath.declare_namespace(...) results in a core dump.

#2 - 2021-08-28 09:11 - O'Neil Delpratt

- Category set to Python

- Assignee set to O'Neil Delpratt

Thanks for reporting the problem you have found. This does look like the problem that was reported [#4513](#). But to investigate the underlying problem if you are running this python script from the linux command-line is it possible you can run the command with gdb. For example:

```
gdb python3
handle SIG35 noprint nostop
run script.py
```

Replace script.py with the name of your file. Please send us the error.

#3 - 2021-08-28 10:20 - O'Neil Delpratt

Hi,

There is a bug in the XPathProcessor.cpp file in the declareNamespace method. It has incorrect method signature in the JNI. See line 254:

```
(jmethodID) SaxonProcessor::sxn_environ->env->GetMethodID(cppClass, "declareNamespace",
  "(Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;)V");
```

Replace with the following code:

```
(jmethodID) SaxonProcessor::sxn_environ->env->GetMethodID(cppClass, "declareNamespace",
  "(Ljava/lang/String;Ljava/lang/String;)V");
```

Then rebuild the python library.

This is what was mentioned in the forum post: https://saxonica.plan.io/boards/3/topics/7804

I ran a similar code logic to you and it works for me after I applied the fix.

#4 - 2021-08-28 10:20 - O'Neil Delpratt

- Status changed from New to AwaitingInfo

#5 - 2021-08-31 21:49 - Jacob smith

This patch fixes the issue I was seeing.