

Saxon/C - Bug #2772

Static variable environ resetting its value to zero and crashes Python test

2016-06-03 17:57 - O'Neil Delpratt

Status:	Closed	Start date:	2016-06-03
Priority:	Normal	Due date:	
Assignee:	O'Neil Delpratt	% Done:	100%
Category:	C++ API	Estimated time:	0:00 hour
Sprint/Milestone:		Spent time:	0:00 hour
Found in version:	1.0.1	Platforms:	
Fixed in version:	1.0.2		

Description

The static variable environ is being reset to zero in multi-threaded applications. Reproduced in a python test: testXPathSingle.

Bug issue started in <https://saxonica.plan.io/boards/4/topics/6413>:

The problem and solution to this problem is described here:

<http://stackoverflow.com/questions/4448296/static-variable-resetting-its-value-to-0-on-its-own-apparently>

The variable is identified as static:

```
static sxnc_environment * environ;
```

which means each compilation unit will get its own copy of the variable. Instead it should be declare with extern in the header file:

```
extern static sxnc_environment * environ;
```

and initialise it in the implementation file

```
sxnc_environment * SaxonProcessor::environ = 0;
```

History

#1 - 2016-06-03 18:06 - O'Neil Delpratt

- Status changed from In Progress to Resolved

- % Done changed from 0 to 100

The same fix should be applied to the static variable jvmCreatedCPP.

Bug fixed and committed to subversion

#2 - 2016-06-16 16:37 - O'Neil Delpratt

The initial fix did not work because you cannot mix extern and static in C++. I reverted back to using static variables.

The fix was to make the method getStringValue in XdmItem as virtual.

#3 - 2016-07-20 14:13 - O'Neil Delpratt

- Fixed in version set to 1.0.2

Bug fix applied in the Saxon/C 1.0.2 maintenance release

#4 - 2016-07-20 14:13 - O'Neil Delpratt

- Status changed from Resolved to Closed