Saxon - Bug #4721

NullPointerException for calling fn:apply on empty sequence

2020-09-04 17:44 - Martin Honnen

Status:	Closed		**Start date:**	2020-09-04
Priority:	Normal		**Due date:**	
Assignee:	Michael Kay		**% Done:**	100%
Category:	XPath conformance		**Estimated time:**	0:00 hour
Sprint/Milestone:			**Spent time:**	0:00 hour
Legacy ID:			**Fixed in Maintenance Release:**	9.9.1.8, 10.3
Applies to branch:	10, 9.9, trunk		**Platforms:**	
Fix Committed on Branch:	10, 9.9, trunk			

Description

I noticed that the simple XQuery () => apply([]) gives a NullPointerException in Saxon. Shouldn't it raise XPTY0004?

```
java -cp 'C:\Program Files\Saxonica\SaxonHE10-2J\saxon-he-10.2.jar' net.sf.saxon.Query -qs:"() =>
apply([])"
<?xml version="1.0" encoding="UTF-8"?>java.lang.NullPointerException
        at net.sf.saxon.functions.ApplyFn.call(ApplyFn.java:128)
        at net.sf.saxon.expr.FunctionCall.iterate(FunctionCall.java:548)
        at net.sf.saxon.expr.Expression.process(Expression.java:949)
        at net.sf.saxon.expr.SystemFunctionCall.process(SystemFunctionCall.java:481)
        at net.sf.saxon.query.XQueryExpression.run(XQueryExpression.java:455)
        at net.sf.saxon.s9api.XQueryEvaluator.run(XQueryEvaluator.java:370)
        at net.sf.saxon.Query.runQuery(Query.java:895)
        at net.sf.saxon.Query.doQuery(Query.java:423)
        at net.sf.saxon.Query.main(Query.java:97)
Fatal error during query: java.lang.NullPointerException:  (no message)
```

It is not particulary meaninful to pass the empty sequence but I guess Saxon doesn't want to acknowledge that with a NullPointerException and furthermore in real code using function-lookup(..) => apply([..]) it is easy to end up with an empty sequence erroneously passed in.

History

#1 - 2020-09-04 18:00 - Michael Kay

- Status changed from New to In Progress

Problem reproduced, QT3 test case fn-apply-17 created

#2 - 2020-09-04 18:04 - Michael Kay

The argument cardinality is incorrect in the function signature at XPath30FunctionSet.java line 54.

#3 - 2020-09-04 18:10 - Michael Kay

- Status changed from In Progress to Resolved

- Assignee set to Michael Kay

- Applies to branch trunk added

- Fix Committed on Branch 10, trunk added

Patch committed on 10.x and development branches.

#4 - 2020-10-16 14:52 - Michael Kay

- Fix Committed on Branch 9.9 added

Retrofitted the patch to the 9.9 branch.

#5 - 2020-10-22 18:20 - O'Neil Delpratt

- Fixed in Maintenance Release 9.9.1.8 added

Bug fix applied on the Saxon 9.9.1.8 maintenance release. Leaving open until applied on the Saxon 10 maintenance release.

#6 - 2020-10-28 18:57 - O'Neil Delpratt

Bug fix applied in the Saxon 10.3 maintenance release

#7 - 2020-10-28 19:12 - O'Neil Delpratt

- Status changed from Resolved to Closed

- % Done changed from 0 to 100

- Fixed in Maintenance Release 10.3 added