

Saxon - Bug #2830

position() inside of xsl:for-each-group select="copy-of(root/items/item)" group-adjacent="foo" in streamed mode is wrong

2016-07-10 17:12 - Martin Honnen

Status:	Closed	Start date:	2016-07-10
Priority:	Normal	Due date:	
Assignee:	Michael Kay	% Done:	100%
Category:	Streaming	Estimated time:	0:00 hour
Sprint/Milestone:		Spent time:	0:00 hour
Legacy ID:		Fix Committed on Branch:	9.7, trunk
Applies to branch:	9.7, trunk	Fixed in Maintenance Release:	9.7.0.7

Description

I have run into a problem with Saxon Saxon-EE 9.7.0.6J using the position() function inside of a <xsl:for-each-group select="copy-of(root/items/item)" group-adjacent="foo"> with a streamable mode, it does not output consecutive numbers 1, 2, 3, 4, ... as it does with a non-streamable mode but rather the position of the first item of the group in the original group population (e.g. @1, 3, 4, 6, 7@).

The reduced XSLT is

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:math="http://www.w3.org/2005/xpath-functions/math" exclude-result-prefixes="xs math"
  version="3.0">

  <xsl:output indent="yes"/>
  <xsl:strip-space elements="*" />

  <xsl:mode streamable="yes" />

  <xsl:template match="/">
    <root>
      <xsl:for-each-group select="copy-of(root/items/item)" group-adjacent="foo">
        <group key="{current-grouping-key()}" group-nr="{position()}">
          <xsl:copy-of select="current-group()" />
        </group>
      </xsl:for-each-group>
    </root>
  </xsl:template>

</xsl:stylesheet>
```

And input sample is

```
<?xml version="1.0" encoding="UTF-8"?>
<root>
  <items>
    <item id="i1">
      <foo>a</foo>
    </item>
    <item id="i2">
      <foo>a</foo>
    </item>
    <item id="i3">
```

```

        <foo>b</foo>
    </item>
    <item id="i4">
        <foo>c</foo>
    </item>
    <item id="i5">
        <foo>c</foo>
    </item>
    <item id="i6">
        <foo>d</foo>
    </item>
    <item id="i7">
        <foo>e</foo>
    </item>
</items>
</root>

```

the result I get when running Saxon 9.7 EE from the command line is:

```

<?xml version="1.0" encoding="UTF-8"?>
<root>
  <group key="a" group-nr="1">
    <item id="i1">
      <foo>a</foo>
    </item>
    <item id="i2">
      <foo>a</foo>
    </item>
  </group>
  <group key="b" group-nr="3">
    <item id="i3">
      <foo>b</foo>
    </item>
  </group>
  <group key="c" group-nr="4">
    <item id="i4">
      <foo>c</foo>
    </item>
    <item id="i5">
      <foo>c</foo>
    </item>
  </group>
  <group key="d" group-nr="6">
    <item id="i6">
      <foo>d</foo>
    </item>
  </group>
  <group key="e" group-nr="7">
    <item id="i7">
      <foo>e</foo>
    </item>
  </group>

```

so the group-nr values are wrong. Additionally the closing </root> tag is missing. When I change the mode to @streamable="no" @, I get the wanted, correct result:

```

<?xml version="1.0" encoding="UTF-8"?>
<root>
  <group key="a" group-nr="1">
    <item id="i1">
      <foo>a</foo>

```

```
</item>
  <item id="i2">
    <foo>a</foo>
  </item>
</group>
<group key="b" group-nr="2">
  <item id="i3">
    <foo>b</foo>
  </item>
</group>
<group key="c" group-nr="3">
  <item id="i4">
    <foo>c</foo>
  </item>
  <item id="i5">
    <foo>c</foo>
  </item>
</group>
<group key="d" group-nr="4">
  <item id="i6">
    <foo>d</foo>
  </item>
</group>
<group key="e" group-nr="5">
  <item id="i7">
    <foo>e</foo>
  </item>
</group>
</root>
```

Exselt also gives the the right position() numbers for the streamable mode version so the problem appears to be a bug in Saxon.

History

#1 - 2016-07-11 01:05 - Michael Kay

- Status changed from New to In Progress
- Assignee set to Michael Kay
- Priority changed from Low to Normal

Created test case si-group-034.

#2 - 2016-07-11 11:35 - Michael Kay

- Status changed from In Progress to Resolved
- Applies to branch 9.8 added
- Fix Committed on Branch 9.7, 9.8 added

Patched in ForEachGroupAdjunct.GroupedGroundedFeed on the 9.7 and 9.8 branches.

The problem is specific to a streaming xsl:for-each-group where the select expression is consuming and grounded.

#3 - 2016-07-15 16:22 - O'Neil Delpratt

- % Done changed from 0 to 100
- Fixed in Maintenance Release 9.7.0.7 added

Bug fix applied in the Saxon 9.7.0.7 maintenance release.

#4 - 2016-07-15 16:26 - O'Neil Delpratt

- Status changed from Resolved to Closed

#5 - 2017-05-23 16:09 - O'Neil Delpratt

- Applies to branch trunk added

- Applies to branch deleted (9.8)

#6 - 2017-05-23 18:16 - O'Neil Delpratt

- Fix Committed on Branch trunk added

- Fix Committed on Branch deleted (9.8)