

Question

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Generate object from %XML.Reader's Next method

Hi!

I have an issue when trying to generate an object when reading an XML file. All files I'll mention will be attached to this post as a PDF file, but it's really a ZIP one.

The XML file is used as a template to generate a PDF report through the JasperSoft Report API. I checked the file consistency, and it's all right. We are able to generate the PDF file with no issues. What we need to with Caché, is to read the XML file, correlate it to an object, so we can change properties from this file. The JasperSoft Studio and API capabilities are kinda lacking in a specific way, this is why we need to modify it from a default template, to a custom one, at runtime. The problem is that this is not a “ basic ” XML file, it contains two different XML Schemas, and two namespaces within it, so I guess that this is where my problem lies so far.

The idea is, in short:

Jasper Default JRXML template file Load it in Caché I modify some properties based on our internal needs
save the custom template send it to the API to generate the report delete the custom template.

I created two functions to illustrate what I'm able to do so far, and what my issue really is.

```
;
#include %occSAX
;
; Teste Table
;
; set sc=$$TesteTable^%CSWREPORTRG001()
TesteTable() ;
new sc,band,file,flg,i,object,reader,schemaComp,schemaRoot,status
;
kill reader
;
set file="C:\_jasper\basicTemplate.jrxml"
;
set reader=##class(%XML.Reader).%New()
set reader.SSLConfiguration=( "SSLPadraoCSW" )
set reader.SAXFlags=$$$SAXVALIDATIONSCHEMAFULLCHECKING
;
set schemaComp=
"http://jasperreports.sourceforge.net/jasperreports/components http://jasperreports.s
ourceforge.net/xsd/components.xsd"
set schemaRoot=
"http://jasperreports.sourceforge.net/jasperreports http://jasperreports.sourceforge.
net/xsd/jasperreport.xsd"
Set reader.SAXSchemaSpec=schemaRoot_", "_schemaComp
;
set status=reader.OpenFile(file)
;
```

```

w !,"status | "_$System.Status.DisplayError(status) ,!
;
do reader.Correlate("jasperReport",
"br.com.consistem.comp.jasper.jasperReport.v01.jasperReport")
do reader.Next(.object,.status)
;
w !,"status | "_$System.Status.DisplayError(status) ,!
;
zw object
;
set i=0,flg=0
for {
    try {
        set band=object.detail.band.GetAt(i).height
    } catch {
        set flg=$increment(flg)
        set band=""
    }
    ;
    write !,"band "_band_" | cont "_i
    ;
    quit:flg=2
    set i=$increment(i)
}
;
quit 1
;
; Teste No Table
;
; set sc=$$TesteNoTable^%CSWREPORTRG001()
TesteNoTable() ;
new sc,band,file,flg,i,object,reader,status
;
kill reader
;
set file="C:\_jasper\basicTemplate_NoTable.jrxml"
;
set reader=##class(%XML.Reader).%New()
set reader.SSLConfiguration=("SSLPadraoCSW")
;
set status=reader.OpenFile(file)
;
w !,"status | "_$System.Status.DisplayError(status) ,!
;
do reader.CorrelateRoot(
"br.com.consistem.comp.jasper.jasperReport.v01.jasperReport")
do reader.Next(.object,.status)
;
w !,"status | "_$System.Status.DisplayError(status) ,!
;
zw object
;
set i=0,flg=0
for {
    try {
        set band=object.detail.band.GetAt(i).height
    } catch {
        set flg=$increment(flg)
        set band=""

```

```

    }
    ;
    write !,"band "_band_" | cont "_i
    ;
    quit:flg=2
    set i=$increment(i)
}
;
quit 1

```

First, what I'm able to do. As you can see, in the `TesteNoTable()` function, I get to read the `basicTemplateNoTable.jrxml` file and generate an object from the `.Next` method. I'm using the `SSLConfiguration` property, so you would do in order for it to work. When the code gets to the for loop, it is able to read the band height property set on the XML file.



The screenshot shows the Cache TRM:3548 (CACHE) window. The menu bar includes 'Arquivo', 'Editar', and 'Ajuda'. The main text area displays XML data with various properties like `r%sortField`, `i%style`, `r%style`, `i%subDataset`, `r%subDataset`, `i%summary`, `r%summary`, `i%template`, `r%template`, `i%title`, `r%title`, `i%variable`, and `r%variable`. Below the XML data, there is a table with two columns: 'band' and 'cont'. The table contains four rows of data: 'band | cont 0', 'band 65 | cont 1', 'band 65 | cont 2', and 'band | cont 3'. The prompt 'COMP65>' is visible at the bottom left of the window.

```

Cache TRM:3548 (CACHE)
Arquivo  Editar  Ajuda
|
|      r%sortField = ""    <Set>
|      i%style = $lb("br.com.consistem.comp.jasper.jasperReport.v01.style"
|,"jasperReport5",15,"many",1,1)    <Set>
|      r%style = ""    <Set>
|      i%subDataset = $lb("br.com.consistem.comp.jasper.jasperReport.v01.subDat
|aset","jasperReport6",15,"many",1,1)    <Set>
|      r%subDataset = "26@%Library.RelationshipObject"    <Set>
|      i%summary = ""
|      r%summary = ""
|      i%template = $lb("br.com.consistem.comp.jasper.jasperReport.v01.templa
|te","jasperReport3",15,"many",1,1)    <Set>
|      r%template = ""    <Set>
|      i%title = ""
|      r%title = ""
|      i%variable = $lb("br.com.consistem.comp.jasper.jasperReport.v01.variab
|le","jasperReport11",15,"many",1,1)    <Set>
|      r%variable = ""    <Set>
+-----+
band | cont 0
band 65 | cont 1
band 65 | cont 2
band | cont 3
COMP65>

```



```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Created with Jaspersoft Studio version 6.9.0.final using JasperReports Library version 6.9.0-cb8f9004be492ccc537180b4 -->
<jasperReport xmlns="http://jasperreports.sourceforge.net/jasperreports" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  <subDataset name="tableDs" uuid="5e1569fb-d5d5-4e8a-b38d-3f2b45f5c812">
    <property name="com.jaspersoft.studio.data.defaultdataadapter" value="New Data Adapter (4)"/>
    <queryString language="json">
      <![CDATA[asdasdasd]]>
    </queryString>
  </subDataset>
  <queryString>
    <![CDATA[]]>
  </queryString>
  <detail>
    <band height="65" splitType="Stretch">
      <staticText>
        <reportElement x="227" y="0" width="100" height="20" uuid="19a8dda4-fd6f-4c32-8f63-d97062161269"/>
        <textElement textAlignment="Center"/>
        <text><![CDATA[Static Text]]></text>
      </staticText>
      <textField>
        <reportElement x="30" y="30" width="100" height="30" uuid="d1d59d9e-0fe7-425c-a2fb-f6ffcfb5875d"/>
        <textFieldExpression><![CDATA["Text Field"]]></textFieldExpression>
      </textField>
      <textField>
        <reportElement x="227" y="30" width="100" height="30" uuid="e0b6689d-03aa-419c-a7cf-4167c3bb0074"/>
        <textElement textAlignment="Center"/>
        <textFieldExpression><![CDATA["Text Field"]]></textFieldExpression>
      </textField>
      <textField>
        <reportElement x="430" y="30" width="100" height="30" uuid="bdb11bd1-a981-4d4e-a26e-39891cb54e04"/>
        <textElement textAlignment="Right"/>
        <textFieldExpression><![CDATA["Text Field"]]></textFieldExpression>
      </textField>
    </band>
    <band height="65"/>
  </detail>
</jasperReport>
```

As you can see in the images above, the XML file has two bands with height set to 65, and I'm able to create an object and read it.

Now, what I can't. When reading a different XML file, which contains another XML Schema within, and a different namespace set to it, I'm unable to get to the same properties from the object.

The file contains a table element, which requires another XML Scheme set to it.

```

<band height="65">
  <componentElement>
    <reportElement x="0" y="30" width="550" height="15" uuid="e9bec52c-a02f-4bc5-aa9b-0ad511ee2126">
      <property name="com.jaspersoft.studio.layout" value="com.jaspersoft.studio.editor.layout.VerticalRowLayout"/>
      <property name="com.jaspersoft.studio.table.style.table_header" value="Table 6_TH"/>
      <property name="com.jaspersoft.studio.table.style.column_header" value="Table 6_CH"/>
      <property name="com.jaspersoft.studio.table.style.detail" value="Table 6_TD"/>
      <property name="com.jaspersoft.studio.components.autoresize.next" value="true"/>
    </reportElement>
    <jr:table xmlns:jr="http://jasperreports.sourceforge.net/jasperreports/components" xsi:schemaLocation="http://jasperreports.sourceforge.net/jasperreports/components http://jasperreports.sourceforge.net/jasperreports/components-6.0.0-SNAPSHOT.jar" >
      <datasetRun subDataset="legenda" uuid="31657cbd-33dd-472b-8c73-3859f9f895be"/>
      <jr:column width="390" uuid="5ce9ff5b-c500-45c3-844b-8a4d0b0f67b5">
        <property name="com.jaspersoft.studio.components.table.model.column.name" value="Column1"/>
        <jr:detailCell style="Table 6_TD" height="15">
          <box>
            <topPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
            <leftPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
            <bottomPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
            <rightPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
          </box>
          <staticText>
            <reportElement x="0" y="0" width="390" height="15" uuid="3eba2a3d-8fb1-4274-8e54-526c02aae777">
              <text><![CDATA[Static Text]]></text>
            </reportElement>
            <staticText>
              <reportElement x="0" y="0" width="390" height="15" uuid="3eba2a3d-8fb1-4274-8e54-526c02aae777">
                <text><![CDATA[Static Text]]></text>
              </reportElement>
            </staticText>
          </jr:detailCell>
        </jr:column>
        <jr:column width="412" uuid="d920b763-28d8-4839-a33e-a52b697d40b3">
          <property name="com.jaspersoft.studio.components.table.model.column.name" value="Column2"/>
          <jr:detailCell style="Table 6_TD" height="15">
            <property name="com.jaspersoft.studio.unit.height" value="px"/>
            <box>
              <topPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
              <leftPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
              <bottomPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
              <rightPen lineWidth="0.0" lineStyle="Solid" lineColor="#000000"/>
            </box>
            <staticText>
              <reportElement x="0" y="0" width="412" height="15" uuid="bc2e10a4-9146-437f-823d-6d3037149811">
                <textElement textAlignment="Right"/>
                <text><![CDATA[Static Text]]></text>
              </reportElement>
              <staticText>
                <reportElement x="0" y="0" width="412" height="15" uuid="bc2e10a4-9146-437f-823d-6d3037149811">
                  <textElement textAlignment="Right"/>
                  <text><![CDATA[Static Text]]></text>
                </reportElement>
              </staticText>
            </jr:detailCell>
          </jr:column>
        </jr:table>

```

Initially, using the same code to read it, I get an error when using the OpenFile method. I figured I need the \$\$\$\$SAXVALIDATIONSCHEMAFULLCHECKING flag set to the SAXFlags property of the %XML.Reader object. After this, I can open the file, but then I'm unable to get to the table's properties, or even get the same properties I got when loading the simpler XML file. I also specified the Schemas related to this file on the SAXSchemaSpec property, to no success.

```

/COMP65>set sc=$$TesteTable^%CSWREPORTRG001()

status | 1

status | 1
object=""

band | cont 0
band | cont 1
COMP65>

```

I tried multiple configurations for the Correlate method regarding the namespace and classes it uses, then set different flags to the reader object based in [this document](#), to no luck.

Please, let me know if anyone was able to Correlate this correctly and get an object from an XML file this complex.

[#XML](#) [#Caché](#)

Product version: Caché 2018.1

\$ZV: Cache for Windows (x86-64) 2018.1.3 (Build 414U) Mon Oct 28 2019 11:18:40 EDT

Source URL: <https://community.intersystems.com/post/generate-object-xmlreaders-next-method>