

QGIS Application - Bug report #6812

Label direction symbol not quoted on save ?

2012-12-03 06:38 AM - Sandro Santilli

Status: Closed	
Priority: Normal	
Assignee: Larry Shaffer	
Category: Project Loading/Saving	
Affected QGIS version: master	Regression?: No
Operating System:	Easy fix?: No
Pull Request or Patch supplied:	Resolution: invalid
Crashes QGIS or corrupts data:	Copied to github as #: 15957
Description	
<p>The current topoviewer db_manager plugin ships templates for layer styles. The templates are saved with "Save Style" so I know they were working before saving them. On applying them I get an error "unrecognized character". The referenced line is this one:</p> <pre><property key="labeling/leftDirectionSymbol" value="< "/></pre> <p>I guess the problem is the unescaped '<' character. That's line 80 of next_right.qml in the code base.</p> <p>Indeed the same error occurs with the next_left.qml file, where the '>' character is used instead.</p> <p>So, haven't tested but I believe the problem is in style saving failing to encode those characters.</p> <p>I'm assigning to Larry as he's the one adding the custom direction character support.</p>	

History

#1 - 2012-12-16 03:09 PM - Larry Shaffer

- Status changed from Open to Feedback

Hi Sandro,

Unfortunately, I can not replicate this issue. The new labeling settings are saved to the project XML file using the [QgsMapLayer::writeCustomProperties](#) method, which uses [QDomElement::setAttribute](#) method, which *does* encode the following xml special characters ["< &] (not including brackets), but *does NOT* encode [' >].

I cleared all (left|right)DirectionSymbol properties from a project file, then opened that project, turned on direction symbols (defaults to and >) and saved the project. When I opened the project file in a text editor, the default properties were saved as:

```
<property key="labeling/leftDirectionSymbol" value="&lt;"/>
<property key="labeling/rightDirectionSymbol" value=">"/>
```

When saved to a style.qml and reloaded, I got no errors. I also got no errors when loading it using [QgsMapLayer::loadNamedStyle](#) through Python. The right direction symbol of > was not encoded because XML does not define it as a special character (only when used in the]]> sequence). Not sure why the

apostrophe is not encoded.

I am not sure how your project file ended up with an unencoded , or how you got the error when loading a named .qml style for the > character, since such operations also use the opposite **QDomElement::attribute** method, which should allow > in the attribute value.

As a test, I added the following to QgsMapLayer:

```
QString QgsMapLayer::encodeCustomPropertyValue( const QString& txt ) const
{
    QString tmp;
    for ( int i = 0; i < txt.size(); ++i )
    {
        QChar c( txt.at( i ) );
        switch ( c.unicode() )
        {
            case '>':
                tmp += "&gt;";
                break;
            case '\\':
                tmp += "&apos;";
                break;
            default:
                tmp += c;
                break;
        }
    }
    return tmp;
}
```

```
QString QgsMapLayer::decodeCustomPropertyValue( const QString& txt )
{
    QString tmp( txt );
    tmp.replace( "&apos;", "'" );
    tmp.replace( "&gt;", ">" );

    return tmp;
}
```

Then set left/right direction symbols to and '>' which ended up as follows in the project file:

```
<property key="labeling/leftDirectionSymbol" value="&lt;&amp;apos;&amp;quot;"/>
<property key="labeling/rightDirectionSymbol" value="&quot;&amp;&amp;apos;&amp;gt;"/>
```

Obviously, setAttribute is double-encoding the ampersands. However, even though this loaded and worked fine (also upon saving and loading a .qml file), it should be unnecessary.

Could you please try deleting all (left|right)DirectionSymbol properties from your project file, or just the layer in question, then set the symbols via the GUI and save the project and style for the layer? Then, try to reload the style for the layer via the GUI and Python and see if you get the errors again?

It could be a bug in the Qt version you are using.

#2 - 2012-12-17 01:17 AM - Sandro Santilli

I couldn't trigger an error either, but I confirm I get unquoted brackets in the file.

Funny enough, it's just the rightDirectionSymbol, not the leftDirectionSymbol.

I added a space before the leftDirectionSymbol and after the rightDirectionSymbol, so maybe that part is significant.

Here's a grep in the project file (if hub won't mangle it):

```
$ grep DirectionSymbol ~/Desktop/proj_with_line_directions.qgs
<property key="labeling/addDirectionSymbol" value="true"/>
<property key="labeling/leftDirectionSymbol" value=" &lt;"/>
<property key="labeling/placeDirectionSymbol" value="0"/>
<property key="labeling/reverseDirectionSymbol" value="false"/>
<property key="labeling/rightDirectionSymbol" value="> "/>
```

```
$ grep DirectionSymbol ~/Desktop/style_with_line_directions.qml
<property key="labeling/addDirectionSymbol" value="true"/>
<property key="labeling/leftDirectionSymbol" value=" &lt;"/>
<property key="labeling/placeDirectionSymbol" value="0"/>
<property key="labeling/reverseDirectionSymbol" value="false"/>
<property key="labeling/rightDirectionSymbol" value="> "/>
```

Note that when I reported the error I was getting it from a python plugin (db_manager) using layerloadNamedStyle, so the core may be more fault tolerant than the python XML parser maybe...

#3 - 2013-02-17 01:20 AM - Jürgen Fischer

- Status changed from Feedback to Open

#4 - 2013-02-17 11:49 PM - Sandro Santilli

- Resolution set to invalid

- Status changed from Open to Closed

I just tried again and can confirm that:

1. the "greater-than" symbol isn't quoted (also confirmed by Larry above)
2. only the "less-than" symbol triggers problems (not anymore user errors now, btw, but wrong XML interpretation)

Maybe the unencoded "less-than" symbol I entered manually. Will close this ticket as invalid.