Insert custom XML tag into a XML file in a bash script

So I'm trying to create a script using bash to arbitrarily run through an JBoss XML config file and when I see a values into it.

The XML below is the important snippet of the xml config file from a JBoss example, what i need to do si to fin then check if the tag is there if it isnt then add it in, if it is there then add the tag with the values in it. Would any am quite new with bash?

```
...
<server-groups>
    <server-group name="main-server-group" profile="full">
        <jvm name="default">
            <heap size="64m" max-size="512m"/>
                    <jvm-options>
                        <option value="-agentpath:"
<DT_HOME>/agent/lib/libdtagent.so"=name=<AgentName>,server=<dynaTraceCollectorName>"/>
                    </jvm-options>
            </jvm>
            <socket-binding-group ref="full-sockets"/>
        </server-group>
    </server-groups>
</domain>
```

/ bash   / scripting   / xml

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1   Look into using an xml parser. It will make life easier for you. – Raman Sailopal Aug 18 '17 at 13:46

With XMLStarlet, you can add a subnode to an element, or you can update an existing element. To cover both the case when the element exists and when it doesn't already exist, we can

1. Delete the element.

2. Add the element with the value that we want it to have.

Let's say the element that we want to add is `<newtag>` and that its value should be `tagval`. It should also have an attribute, `newattr`, with value `attrval`. This means that what we want to add is

```
<newtag newattr="attrval">tagval</newtag>
```

To delete the element:

```
$ xmlstarlet ed -d '//server-group/newtag' file.xml
```

To add the element with an attribute:

```
$ xmlstarlet ed -s '//server-group'        -t elem -n 'newtag'  -v 'tagval' \
               -s '//server-group/newtag' -t attr -n 'newattr' -v 'attrval' file.xml
```

Adding these together:

```
$ xmlstarlet ed -d '//server-group/newtag' \
               -s '//server-group'        -t elem -n 'newtag'  -v 'tagval' \
               -s '//server-group/newtag' -t attr -n 'newattr' -v 'attrval' file.xml
```

Given the input XML

```
<?xml version="1.0"?>
<server-groups>
  <server-group name="main-server-group" profile="full">
    <jvm name="default">
      <heap size="64m" max-size="512m"/>
      <jvm-options>
        <option value="somevalue"/>
      </jvm-options>
    </jvm>
    <socket-binding-group ref="full-sockets"/>
  </server-group>
</server-groups>
```

this results in the output

```
<?xml version="1.0"?>
<server-groups>
  <server-group name="main-server-group" profile="full">
    <jvm name="default">
      <heap size="64m" max-size="512m"/>
      <jvm-options>
        <option value="somevalue"/>
      </jvm-options>
    </jvm>
    <socket-binding-group ref="full-sockets"/>
    <newtag newattr="attrval">tagval</newtag>
  </server-group>
</server-groups>
```

Note that the XPath expression `//server-group` will match *all* `server_group` elements in the input XML. If you only want to match the one whose `name` attribute is `main-server-group`, you would have to change `//server-group` to `//server-group[@name="main-server-group"]`.

XMLStarlet is available from http://xmlstar.sourceforge.net/, but there's most likely a pre-packaged version available for your Unix already (use that). Sometimes, the XMLStarlet executable is called just `xml` rather than `xmlstarlet`.

edited Aug 18 '17 at 15:14   answered Aug 18 '17 at 14:07

Kusalananda
58.4k ● 8 ● 110 ● 187

Thanks :), will script and test it once I have my hands on a linux box XD, thats a great help. So can i pressume that XML starlet .*nix systems? – Hao-lin.Liang Aug 21 '17 at 8:55

@Hao-lin.Liang XMLStarlet is a Python program for use on Unix systems, yes. – Kusalananda Aug 21 '17 at 9:00