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**Mirth & Java Script (as well XSLT / JS)**

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02-21-2012, 04:46 AM

#1

[Mr.T](#)   
OBX.1 Kenobi

Join Date: Aug 2011  
Posts: 39

**Mirth & Java Script (as well XSLT / JS)**

Hey,

I am now searching for a few hours and did not find a suitable answer :/  
If I just did not find me I am already more than happy with a link giving me additional information.

My issue, I first used XSLT to analyze a XML input document (actually it is in CDA level 3) and created a HTML out of it. Since I have to insert it in a database now I figured out that maybe JS would be a better way for doing it because I can do it in one step. With XSLT I would have to create a simplified XML before - if I am incorrect feel free to me - I am new in this field.

But now to my main issue:

I wanted to make some simple tests, running through a XML file with JS. I read in some tutorials that it is possible to call nodes by getElementById or getElementByName. Unfortunately I was unable to do that, always getting the error:

Quote:

```
TypeError: Cannot find function getElementsByTagName in object ...
```

Maybe I am just initializing the msg (XML input) wrong, I was using the functions like this:

Quote:

```
var temp = msg.getElementsByTagName("Father")[0].firstChild.nodeValue;
```

As I thought the msg variable is already an XML type. Also tried to initialize it with: msg = new XML(msg.toString()) but did not work either.

I would really appreciate if you could tell me what I am doing wrong.

On the other way I found was doing it like this:

Quote:

```
for each (node in msg.children()) {...}
```

That may be a solution of well, but I just found this snippet without a lot of information (like other commands).

Thank you very much for your time and support!

[Quote](#)

02-21-2012, 04:54 AM

#2

[Mr.T](#)   
OBX.1 Kenobi

Join Date: Aug 2011  
Posts: 39



Oh one more thing:

Since I was already trying to invoke Java code as well (successfully 😊) I wanted to ask if you may think it is better to use an external Java code for the parsing. It is a really huge document I am dealing with - just text (CDA level three) and almost three MB.

Cheers and thanks again!

[Quote](#)

02-21-2012, 05:14 AM

#3

Join Date: Oct 2010  
Posts: 5,400



**narupley**   
Mirth Employee



The methods you're thinking of belong to the prototypes of Document, Node, Element, HTMLElement, etc. These are part of the so-called DOM (document object model) that browsers load up for you. The W3C simply provides some IDL standards for HTML, XML, the DOM, and many other application layer protocols and languages; ECMAScript by itself (and the Rhino engine that Mirth uses) has nothing to do with the DOM. There are ways to simulate a browser environment within a pure JavaScript setting, but it wouldn't really make sense to do it for Mirth.

What exactly are you trying to do? If you want to get all children of the root node with a QName of "Father", it'd be something like:

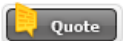
Code:

```
msg.elements('Father')
```

Or:

Code:

```
for each (father in msg.Father) {  
    // Do something  
}
```



02-21-2012, 05:26 AM

#4

**Mr.T**   
OBX.1 Kenobi

Join Date: Aug 2011  
Posts: 39



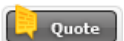
First of all thank you very much for your fast reply!  
Since I am new in this field i was guessing something like this but it was hard finding that answer 😊

That means I will try the way you supposed. Is there some kind of list with all possibilities I have with that approach?

What I have to do is go through the CDA document, read out the nodes I am interested and and save it in a database after all. I already worked with the saving stuff so this should not be a problem but how to analyze the document is kind of new for me. But with the for loop I can already get started i guess. Just interesting if there would be more possibilities like the DOM offers (first, last, find with Id / attribute,...)  
Hope I could make it clear what I want 😊

Thank you very much again!

Edit: Or would you suggest to invoke Java since it may offer more features.



02-21-2012, 05:43 AM

#5

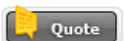


**narupley**   
Mirth Employee

Join Date: Oct 2010  
Posts: 5,400



There are actually! Check out the org.mozilla.javascript.xmlimpl package. I don't think there are inherent "first" and "last" methods, but you could write your own very easily... it'd basically be node.children()[0] and node.children()[node.children().length()-1], with a little more robust array bounds validation. For things like IDs, again you're thinking of the DOM, but if you had a node like <patient id='12345'/>, you can grab information with functions like hasXMLProperty, getXMLProperty, getAttributes, getPropertyList, etc. Hope that helps!



02-21-2012, 05:52 AM

#6

**Mr.T**   
OBX.1 Kenobi

Join Date: Aug 2011  
Posts: 39



Thx!!

I am pretty sure it will help me but honestly what do you mean with "check out..." 😊

I just googled it and dont find a readme or something where the commands are listed- or did you know that and meant something else?

The first and last just have been examples true but you got what I meant hehe.

Thanks



02-22-2012, 12:00 AM

#7

[Mr.T](#) 

OBX.1 Kenobi

Join Date: Aug 2011  
Posts: 39

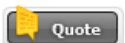


For all the others suffering with the same problem, here an overview I got as an answer in another thread:

[org.mozilla.javascript.xmlimpl.XML](http://org.mozilla.javascript.xmlimpl.XML)

If anyone has something better don't hesitate to post it 😊

Cheers and thx for all the support!



02-22-2012, 05:14 AM

#8




**narupley**   
Mirth Employee

Join Date: Oct 2010  
Posts: 5,400



I'm going to go ahead and copy this here, because it's probably more relevant to this thread:

Quote:

Originally Posted by **narupley** 

*Aha, well, that's getting into the realm of the differences between Java and JavaScript. I believe that in the context of a filter/transformer, msg and tmp inherit from the XML prototype as defined by ECMA. It's basically just an extension of ECMA-262; here's the E4X standard: <http://www.ecma-international.org/pu...T/Ecma-357.pdf>*

*I haven't really found any place online that truly digs down into the minute differences, but there are a few books out there that do a semi-decent job. I think some of the O'Reilly books on JavaScript and HTML go into some detail on the XML, XMLList, and XMLNode objects, among others.*

*Basically, the org.mozilla.javascript.xmlimpl package is a stepping stone, because the objects you're using are really E4X XML objects; it's a semi-major part of how Mirth transformers work in general. I'll be the first to admit that I don't know everything about it (there's a lot to know), but I do know that certain methods (basically emulated from the Java version, or acting as a simple passthrough to the Java method) exist in the XML prototype:*

- children
- copy
- setChildren
- setNamespace
- text
- length
- replace
- setName
- child
- nodeKind
- toString (obviously)
- elements
- settings
- childIndex
- contains
- hasSimpleContent
- hasComplexContent
- comments
- parent
- appendChild (very useful)
- prependChild


- name
- insertChildBefore
- attributes
- insertChildAfter
- some others I think....

*Now of course, if you create everything you need in Java, then you can include the appropriate libraries, use xmlimpl, and be a "purist." I find that the E4X method is actually easier and more intuitive, especially when your environment is ECMAScript. \*shrugs\* Pros and cons....*



02-22-2012, 06:14 AM

#9

**asulis**   
Mirth Guru

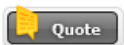
Join Date: Dec 2006  
Location: Cagliari, Sardinia, Italy  
Posts: 210



Maybe also E4X documentation could be useful to you:

<http://wso2.org/project/mashup/0.2/d...uickstart.html>

Regards  
Alessandro



02-22-2012, 06:23 AM

#10

 **narupley**   
Mirth Employee

Join Date: Oct 2010  
Posts: 5,400



Quote:

Originally Posted by **asulis**   
*Maybe also E4X documentation could be useful to you:*

<http://wso2.org/project/mashup/0.2/d...uickstart.html>

Regards  
Alessandro

Ah yes! That's sort of what I was looking for, but I guess I didn't look hard enough..



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