

Re: TreeView Dynamic XML Binding

Source:

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.framework.aspnet.webcontrols/2008-03/msg000>

- *From:* David R. Longnecker <dlongnecker@xxxxxxxxxxxxxxxxxxxx>
 - *Date:* Wed, 26 Mar 2008 19:33:38 +0000 (UTC)
-

Urr.. it'll need to be in `TreeNodePopulate`, not `TreeNodeDataBound`--at that point, the children are already there. Whoops!

-dl

--
David R. Longnecker
<http://blog.tiredstudent.com>

In the `TreeNodeDataBound` method, does adding the following speed it up at all?

```
e.Node.PopulateOnDemand = true;
```

-dl

--
David R. Longnecker
<http://blog.tiredstudent.com>

David,

I implemented your changes and the error goes away. However, I've lost the speed of the default functionality when loading it from the `XmlDataSource`. With your changes, the entire xml structure is included in the web page (which for the actual xml makes it very slow). This does not happen with the 'default' setting. I'll work on it some more. It seems as if the default settings are doing the populate on expand processing even though the property for `PopulateNodesFromClient` is true. I think it is a combination of not having all of the data downloaded and clicking a node that was expanded on the client that may cause the object is null error (just a guess). BTW, I needed to put the setting of the datasource in a `!this.IsPostBack` conditionally, otherwise the entire tree reset.

Thanks for your help.

Re: TreeView Dynamic XML Binding

Rich F.

"David R. Longnecker" <dlongnecker@xxxxxxxxxxxxxxxxxxx> wrote in message
news:a0e9b9da345828ca5d3990b6ca6a@xxxxxxxxxxxxxxxxxxxxxxxxxxx

Rich-

How are you implementing loading the data file on Page_Load?

Here's an example of loading the data file dynamically in code behind.

aspx :

```
<asp:TreeView ID="CompanyTreeXml" runat="server"
ExpandDepth="1" EnableClientScript="true"
PopulateNodesFromClient="true"
ontreenodedatabound="CompanyTreeXml_TreeNodeDataBound">
<NodeStyle ForeColor="Black" />
</asp:TreeView>
```

(Notice no DataSourceId attribute or XmlDataSource control).

code-behind:

```
protected void Page_Load(object sender, EventArgs e)
{
CompanyTreeXml.DataSource = new XmlDataSource {
DataFile =
"~/Company.xml" };
CompanyTreeXml.DataBind();
}
```

Programmatically loading the DataFile (and generating the XmlDataSource since XmlDataSource implements IHeirarchicalDataSource, which the TreeView will need) is taken care of in those two lines.

Now, with that, I need a bit more to understand what you're trying

to do. If you click on the tree node, say USAddress for example, and

click that word, the tree expands out—but that's because we're

telling it to .Expand rather than .Select.

I want the Expand/Collapse action to happen on the client but the

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Select

action to be a postback.

How would you know when the user wants to "select" and when they "expand"?

Side question:

It's not quite AJAX, but it is JavaScript that toggles the tables around.

If you view the source of a generated page, you can see the WebResource scripts and then the javascript method calls on each of the tree nodes.

For example, here's the HTML code generated by the root node,

Company:

```
<td>
```

```
<a id="CompanyTreeXmln0"
```

```
href="javascript:TreeView_ToggleNode(CompanyTreeXml_Data,0,document.
getElementById('CompanyTreeXmln0'),'
',document.getElementById('CompanyTreeXmln0Nodes'))">
```

```
</a>
```

```
</td>
```

```
<td class="CompanyTreeXml_2"
```

```
style="white-space:nowrap;">
```

```
<a class="CompanyTreeXml_0 CompanyTreeXml_1"
```

```
href="javascript:TreeView_ToggleNode(CompanyTreeXml_Data,0,document.
getElementById('CompanyTreeXmln0'),'
',document.getElementById('CompanyTreeXmln0Nodes'))"
id="CompanyTreeXmlt0">Company</a>
```

```
</td>
```

If that HTML is a bit heavy (for a single node on your TreeView),

I'd recommend checking out the CSS Friendly Adapters (<http://www.codeplex.com/cssfriendly>). It started out as a MS

project, it's now on CodePlex. That same code with the adapters

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looks like:

```
<span class="AspNet-TreeView-ClickableNonLink"
onclick="ExpandCollapse__AspNetTreeView(this.parentNode.getElementsB
y
TagName('span')[0])"
onmouseover="Hover__AspNetTreeView(this)"
onmouseout="UnHover__AspNetTreeView(this)">
Company</span>
HTH.
-dl
```

--
David R. Longnecker
<http://blog.tiredstudent.com>

David,

Thanks – quick and great response.

It actually addressed one issue I was interested in and that is turning off the postback at all nodes and expand/collapse images. This opens up my research into the use of the other events. Implementing as you suggest removed the error. However, it is not exactly the result I was looking for. I want the Expand/Collapse action to happen on the client but the Select action to be a postback. This works fine when I explicitly set the DataFile on the aspx page, as in your code below. However, when I dynamically set the DataFile in the Page_Load, the postback generates the null reference error when clicking the tree node. Any suggesting into what is causing this?

Your response brings up a side question. When I implemented it and debug on the TreeNodeDataBound event, it fires when expanding. Is this using AJAX? I'm moving directly from .NET 1.1 to 3.5, so much of this is new to me.

Thanks again.

Re: TreeView Dynamic XML Binding

"David R. Longnecker"

<dlongnecker@xxxxxxxxxxxxxxxxxxxx> wrote

in

message

news:a0e9b9da344298ca5ca0634b8a3a@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Rich-

If I understand correctly,
you're trying to create a
TreeView
based off of an XML file
and retain the
expand/collapse
functionality but AVOID
the postbacks and flicker,
correct?

You can do this by setting
the SelectAction to Expand
when you
databind your nodes. Here's
some sample code I
whipped up using
your XML:

aspx:

```
<asp:TreeView
ID="CompanyTreeXml"
runat="server"
DataSourceID="CompanyXml"
ExpandDepth="1"
EnableClientScript="true"
PopulateNodesFromClient="true"
ontreenodedatabound="CompanyTreeXml_TreeNodeDataBound">
</asp:TreeView>
<asp:XmlDataSource
ID="CompanyXml"
runat="server"
DataFile="~/Company.xml">
</asp:XmlDataSource>
code-behind:
protected void
CompanyTreeXml_TreeNodeDataBound(object
sender,
TreeNodeEventArgs e)
{
e.Node.SelectAction =
```

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```
TreeNodeSelectAction.Expand;  
}
```

At this point, CSS or a NodeStyle would be required because the TreeView generates any Expandable node as a hyperlink and any non-expanding node as plain text. Since EnableClientScript is still enabled, the control generates the according JavaScript and the Expand links do not fire postbacks. By default, I think, the TreeNodeSelectAction is set to Select, not Expand, which fires the SelectedNodeChanged event.

Hope this helps!

-dl

--

David R. Longnecker
<http://blog.tiredstudent.com>

I'm dynamically binding an XmlDataSource to an xml file in the Page_Load event. This XmlDataSource control is the DataSourceID for a TreeView control. I'm receiving a null reference error prior to

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entering the
Page_Load
event when
selecting a
tree text
value.

```
Page_Load  
code  
snippet:  
cSchemaXML.DataFile  
=  
@"D:\Schemas\2008\Schema_Tree.xml";
```

Note: The
file path
above will
be
calculated
once I get it
working.
This is for
testing only.
The code is
not in a
!this.IsPostBack
conditional.

```
Aspx page  
snippet:  
<asp:TreeView  
ID="cSchemaTree"  
runat="server"  
DataSourceID="cSchemaXML"  
ExpandDepth="1">  
</asp:TreeView>  
<asp:XmlDataSource  
ID="cSchemaXML"  
runat="server"></asp:XmlDataSource>
```

When I
click on the
tree node
(not the
Expand
icon) for the
select
processing,
a null
reference
error (see
below) is
displayed.
The only

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way I can
get this to
work
without a
the error is
to
disable
client
side code:
EnableClientScript="False"
I prefer not
to suffer the
flashing and
time
required
during
postbacks.
I'm simply
trying to
display the
xml element
tree
structure.
The xml
being
displayed is
nested
elements,
each
containing
one
attribute. If
I set the
DataFile in
the
XmlDataSource
control
directly,
everything
works fine.
Do I need to
set DataFile
someplace
other than
in the
Page_Load
event?
Some other
solution?
Note: If I
click a tree

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node that is part of the initial display (based on the ExpandDepth setting) I do not get the error until I expand the tree and then click the node (or one of the expanded nodes). This may indicate some variance between the viewstate and the returned tree structure (only a guess). Sample XML – the actual xml is much more complex and nested much deeper, but this gives the idea.

```
<Company
FullPath="Company">
  <Name
FullPath="Company/Name"/>
  <Address
FullPath="Company/Address">
    <USAddress
FullPath="Company/Address/USAddress">
      <Street
FullPath="Company/Address/USAddress/Street"
/>
```

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```
<City
FullPath="Company/Address/USAddress/City"/>
<State
FullPath="Company/Address/USAddress/State"
/>
<ZipCode
FullPath="Company/Address/USAddress/ZipCode"
/>
</USAddress>
<ForeignAddress
FullPath="Company/Address/ForeignAddress"
>
<Street
FullPath="Company/Address/USAddress/Street"
/>
<City
FullPath="Company/Address/USAddress/City"/>
<StateOrProvince
FullPath="Company/Address/USAddress/StateOrProvince"
/>
<PostalCode
FullPath="Company/Address/USAddress/PostalCode"
/>
<Country
FullPath="Company/Address/ForeignAddress/Country"
/>
</ForeignAddress>
</Address>
</Company>
```

The error
returned
when
clicking the
tree node is:
Server Error
in '/'
Application.

-
--
--

Object
reference
not set to an
instance of
an object.
Description:
An
unhandled
exception

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occurred
during the
execution
of
the
current web
request.

Please
review the
stack trace
for more
information
about the
error and
where it
originated
in the code.

Exception

Details:

System.NullReferenceException:

Object
reference
not

set to an
instance of
an object.

Source

Error:

An
unhandled
exception
was
generated
during the
execution of
the
current web
request.

Information
regarding
the origin
and
location
of the
exception
can be
identified
using the
exception
stack
trace

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below.
Stack
Trace:

```
[NullReferenceException:  
Object  
reference  
not set to an  
instance  
of  
an  
object.]  
System.Xml.XmlLoader.Load(XmlDocument  
doc,  
XmlReader  
reader,  
Boolean  
preserveWhitespace)  
+24  
System.Xml.XmlDocument.Load(XmlReader  
reader) +96  
System.Web.UI.WebControls.XmlDataSource.PopulateXmlDocument  
c  
um  
en  
t  
document,  
CacheDependency&  
dataCacheDependency,  
CacheDependency&  
transformCacheDependency)  
+305  
System.Web.UI.WebControls.XmlDataSource.GetXmlDocument()  
+154  
System.Web.UI.WebControls.XmlHierarchicalDataSourceView.Select  
+14  
System.Web.UI.WebControls.TreeView.DataBindNode(TreeNode  
node)  
+126  
System.Web.UI.WebControls.TreeView.PopulateNode(TreeNode  
node)  
+27  
System.Web.UI.WebControls.TreeView.LoadPostData(String  
postDataKey,  
NameValueCollection  
postCollection)  
+1082  
System.Web.UI.WebControls.TreeView.System.Web.UI.IPostBackD  
d  
le  
r.
```

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LoadPostData(String
postDataKey,
NameValueCollection
postCollection)

+11

System.Web.UI.Page.ProcessPostData(NameValueCollection
postData,
Boolean
fBeforeLoad)

+661

System.Web.UI.Page.ProcessRequestMain(Boolean
includeStagesBeforeAsyncPoint,
Boolean
includeStagesAfterAsyncPoint)

+1194

Thanks for
any help –
Rich F.