

# Using XML with E4X

## Modify HTTPService to return E4X format

1. In **AdobeODT.mxml**, locate the **HTTPService** call.
2. Add the `resultFormat` property with a value of `e4x`.

```
<mx:HTTPService id="rooms"
    url="assets/roomList.xml"
    result="httpResultHandler(event)"
    fault="httpFaultHandler(event)"
    resultFormat="e4x" />
```

3. Locate the **Script** block and import the `XMLListCollection` class after the last import statement.

```
import mx.collections.XMLListCollection;
```

4. Change the **roomList** variable type to `XMLListCollection`;

```
private var roomList:XMLListCollection;
```

5. Create and instantiate a bindable private variable named `searchList` datatyped to `XMLListCollection`.

```
[Bindable] private var selectedOptions:ArrayCollection = new
ArrayCollection();
```

6. Locate the **httpResultHandler** function and within the function as the first line, create and instantiate a locale variable named `xList` datatyped as `XMLList`. Pass `event.result` as `XML` as the parameter.

```
var xList:XMLList = new XMLList(event.result as XML);
```

7. Create a new `XMLListCollection` and use the `children()` method of `xList` as the parameter. Assign this to **roomList** as the new value.

```
roomList = new XMLListCollection(xList.children());
```

## Modify component for XML data

8. Open **RoomRenderer.mxml** and locate the **Script** block.  
Remove the **ArrayCollection** class.
9. Locate the **createlist** function and change the **eData** parameter type to `XMLList`.

```
private function createlist(eData:XMLList):String{  
    . . .
```

10. Within the function, remove the value of **a** and instantiate as a new `Array`.

```
var a:Array = new Array();
```

11. Using `for each`, use the `child()` method in `eData` to retrieve the event and set it as `sData` datatype as `String`.
12. Add the **sData** value to the **a Array** using the `push()` method.

```
for each (var sData:String in eData.child('event'))  
    a.push(sData);
```

Your code should appear as follows:

```
private function createlist(eData:XMLList):String{  
    var a:Array = new Array();  
    for each (var sData:String in eData.child('event'))  
        a.push(sData);  
  
    eventList = a.toString();  
    return eventList;  
}
```

13. Locate the last **Text** control.
14. Change the **text** value from **data.eventtypes.event** to `data.eventtypes`.

```
<mx:Text x="10" y="160"  
text="{createlist(data.eventtypes)}"/>
```

15. Save the file and run.  
You should not see a difference in the appearance of your application.

## Create search component

16. In **AdobeODT.mxml**, locate the **Label** control with the text **Rooms Available**.
17. Remove the **Label** control.
18. In the **Navigator** view, right click on the components folder and select **New > MXML Component**.
19. The filename is Search and is based on Form. Remove the **width** and **height** values.
20. Click **Finish**.
21. Within the **Form**, add `FormItem` tags with a `label` property having a value of Room Size For: and a `direction` property that has a value of horizontal.

```
<mx:FormItem label="Room Size For:" direction="horizontal">
</mx:FormItem>
```

22. Within the **FormItem** container add a `TextInput` control with an `id` property having a value of size, add a `restrict` property that has a value of 0-9 and add a `width` property that has a value of 75.

```
<mx:TextInput id="size" restrict="0-9" width="75"/>
```

23. Add a `Button` control with a `label` property having a value of Search and a `click` event that has a handler named `search()`.

```
<mx:Button label="Search" click="search()"/>
```

24. Add another `Button` control with a `label` property having a value Reset and a `click` event that has a handler named `reset()`.

```
<mx:Button label="Reset" click="reset()"/>
```

25. Save the file.

## Create a custom event class

26. From the **events** folder open **OpenSelectEvent.as**.
27. Save it as `SearchEvent.as`.
28. In the file, change the class definition from **OpenSelectEvent** to `SearchEvent`.

```
public class SearchEvent extends Event
```

29. Change the **option** variable from **option** to `num` and change the datatype from **String** to `int`.

```
public var num:int;
```

30. Change the constructor parameter from **option:String** to `num:int`.  
31. Within the constructor change the **this.option = option** to `this.num = num`.

```
this.num = num;
```

32. Locate the **clone** function.  
33. Within the function change the return event from **OptionSelectEvent** to `SearchEvent` and change the parameter from **option** to `num`.

```
return new SearchEvent(type, num);
```

34. Save the file.

## Create event handlers for search form

35. Return to **Search.mxml**.  
36. After the beginning **Form** tag, create a `Script` block.  
37. Within the **Script** block import the `SearchEvent` class.

```
import events.SearchEvent;
```

38. Create a private function named `search` that takes no parameter and returns `void`.  
39. Within the function create a variable named `searchObjEvent` datatyped as `SearchEvent`.  
40. Assign to the `searchObjEvent` variable a new `SearchEvent` and pass two parameters: `searchEvent` and `size.text` cast as a `Number`.  
41. Using the `dispatchEvent()` method `dispatch` `searchObjEvent`.

```
private function search():void{  
  
    var searObjEvent:SearchEvent = new  
    SearchEvent("searchEvent", Number(size.text));
```

```
        dispatchEvent(searchObjEvent);
    }
```

42. Create a private function named `reset` that takes no parameter and returns `void`.
43. Within the function create a variable named `resetListEvent` datatyped as `Event`. To the `resetListEvent` variable assign a new `Event` and pass one parameter named `resetList`.
44. Using the `dispatchEvent()` method dispatch `resetListEvent`.

```
private function reset():void{
    var resetListEvent:Event = new Event("resetList");
    dispatchEvent(resetListEvent);
}
```

45. After the **Script** block, create Metadata tags.

```
<mx:Metadata>
</mx:Metadata>
```

46. Between the tags, create an `Event` with a name of `searchEvent` and a type of `events.SearchEvent`.

```
[Event(name="searchEvent", type="events.SearchEvent")]
```

47. Add another `Event` with a name of `resetList` and type of `flash.events.Event`.

```
[Event(name="resetList", type="flash.events.Event")]
```

48. Save the file.

## Use the search component

49. Return to **AdobeODT.mxml** and locate the **ReservationForm** component.
50. Before the **ReservationForm** add the **Search** component from the `comp` namespace. Add the following properties:
  - a. `x = 10`
  - b. `y = 105`

- c. `searchEvent = search(event)`
- d. `resetList = resetList(event)`

Your code should appear as follows:

```
<comp:Search x="10" y="105"  
  searchEvent="search(event)"  
  resetList="resetList(event)"/>
```

51. Locate the **Script** block and after the last import statement, import the SearchEvent class.

```
import events.SearchEvent;
```

52. Before the end of the **Script** block, create a private function named search that takes one parameter named event datatyped as SearchEvent. The function returns void.

53. Create and instantiate another local variable named newXML datatyped as XML and pass <rooms></rooms> as the parameter.

54. Create another local variable named r1 datatyped as XMLList and has a value of roomList.source.

```
var newXML:XML = new XML('<rooms></rooms>');  
var r1:XMLList = roomList.source;
```

55. Using for each loop over r1 and set the XML value to x datatyped as XML.

```
for each (var x:XML in r1){  
  
}
```

56. Within the loop create a conditional. Use the child() method of x to get the capacity and evaluate to see if it is greater or equal to event.num.

57. If the conditional evaluates to true, use the appendChild() method of newXML and pass x as the parameter.

```
for each (var x:XML in r1){  
  if (x.child('capacity') >= event.num){  
  
    newXML.appendChild(x);
```

```
    }  
}
```

58. After the loop, use the `children()` method of `newXML` as the parameter to instantiate a new `XMLList` object. Assign it to `searchList.source`.

```
searchList.source = new XMLList(newXML.children());
```

59. Assign `searchList.source` to `dg.dataProvider`.

```
dg.dataProvider = searchList.source;
```

60. Before the end of the **Script** block, create a private function named `resetList` that takes one parameter named `event` datatyped as `Event`. The function returns `void`.

61. Within the function assign the `roomList.source` to `dg.dataProvider`.

```
private function resetList(event:Event):void{  
    dg.dataProvider = roomList.source;  
}
```

62. Save the file and run.

Enter a 150 into the search field and click the **Search** button. You should see all rooms that have a capacity of 150 and higher. Click the **Reset** button. You should see all the rooms again.