

## “Intro To Ajax” Sample Code

### Getting an XHR Object portably:

```
function getXmlHttp(){
    var http, last_e;

    try{ http = new XMLHttpRequest(); }catch(e){}

    // IE branch, uses MSIE-specific "conditional comments"
    /*@cc_on @*/
    /*@if (@_jscript_version >= 5)
    if(!http){
        var progIds = [
            'Msxml2.XMLHTTP',
            'Microsoft.XMLHTTP',
            'Msxml2.XMLHTTP.4.0'
        ];
        for(var i=0; i<progIds.length; ++i){
            var objectType = progIds[i];
            try{
                http = new ActiveXObject(objectType);
            }catch(e){ last_e = e; }
        }
    }
    @end @*/
    return http; // XHR object
}
```

### A Simple “GET” Request

```
var xhrObj = getXmlHttp(); // from prev slide

// URL must be on the same domain!
var getUrl = "thinger.xml?thud=thonk";

// tell it where to go and what verb to use
xhrObj.open("GET", getUrl);

xhrObj.onreadystatechange = function(){
```

```
// we got *something* back
if(4==xhrObj.readyState){ // need to check xhrObj.status!
    // xhrObj.responseText;
    // xhrObj.responseXML;

    alert(xhrObj.responseText);
}else{
    // can handle other network events here
}
}
xhrObj.send(null);
```

### **XHR DOM Traversal:**

```
var xhrObj = getXmlHttp(); // from prev slides
xhrObj.open("GET", "thinger.xml");

xhrObj.onreadystatechange = function(){
    if(4==xhrObj.readyState){
        var doc = xhrObj.responseXML.documentElement;
        var thinger = doc.getElementsByTagName("thinger")[0];
        alert(thinger.firstChild.nodeValue);
    }
}
xhrObj.send(null);
```

### **Mozilla XSLT Example:**

```
var xhrObj = getXmlHttp();
xhrObj.open("GET", "thinger.xml", false); // get it synchronously
xhrObj.send(null);
var sourceDoc = xhrObj.responseXML;

// get the transform document synchronously
var xhrObj2 = getXmlHttp();
xhrObj2.open("GET", "thinger.xsl", false);
xhrObj2.send(null);
```

Prepared for OSCON '07 by Alex Russell

```
// XSLTProcessor is Mozilla-specific
var processor = new XSLTProcessor();
processor.importStylesheet(xhrObj2.responseXML);
var fragment = processor.transformToFragment(sourceDoc, document);
dojo.require("dojox.data.dom"); // hand-waving about Dojo here
document.getElementById("xsltout").value = dojox.data.dom.innerXML(fragment);
```

### **MSIE XSLT Example:**

```
var sourceDoc = new ActiveXObject("Microsoft.XMLDOM")
sourceDoc.async = false
sourceDoc.load("thinger.xml")

var xslDoc = new ActiveXObject("Microsoft.XMLDOM")
xslDoc.async = false
xslDoc.load("thinger.xsl")

var result = sourceDoc.transformNode(xslDoc);
document.getElementById("iexsltout").value = result;
```

### **JSON Example:**

```
var xhrObj = getXmlHttp(); // from prev slides
xhrObj.open("GET", "thinger.json");

xhrObj.onreadystatechange = function(){
    if(4==xhrObj.readyState){
        var jsonText = xhrObj.responseText;
        // note the "()" around the JSON!
        var jsonObj = eval( "(" + jsonText + ")" );
        alert(jsonObj.node.thinger);
    }
}
xhrObj.send(null);
```

## Ajax With Dojo:

```
var args = {
    url: "resources/thinger.cgi",
    load: function(data){
        // handle success here
    },

    // optional properties
    contents: { foo: "bar", baz: "thud" },
    handleAs: "json",
    error: function(err){
        // handle failure here
    }
};

var requestObj = dojo.xhrGet(args);
```

## Discoverability CGI:

```
#!/usr/bin/env python

import simplejson # download from the python cheeseshop
import sys, os, cgi, cgiib; cgiib.enable()

funcs = simplejson.load(open("funcnames.json"))
query = cgi.FieldStorage().getfirst("q", "")
result = [ key for key in funcs if key.startswith(query) ]
result.sort()
print """Content-Type: text/html\n\n"""
print simplejson.dumps(result)
```

## Discoverability JavaScript:

```
var timer = null;
var lastq = null;
function startLiveSearch(query){
    if(timer){ clearTimeout(timer); }
    if(query == lastq){ return; }
    lastq = query;
    timer = setTimeout(function(){
        dojo.byId("status").innerHTML = "searching...";
        dojo.xhrGet({
            url: "resources/funcnames.cgi",
            content: { q: query },
            handleAs: "json",
            load: function(data){
                dojo.byId("results").innerHTML = data.join("<br />");
                dojo.byId("status").innerHTML = "";
            }
        });
    }, 200);
}
```

## Transitions:

```
dojo.require("dojo.fx");

function getAndFade(node, url){
    dojo.xhrGet({
        url: url,
        load: function(data){
            var fo = dojo.fadeOut({node: node});
            dojo.connect(fo, "onEnd", function(){ node.innerHTML = data; });
            dojo.fx.chain([fo, dojo.fadeIn({node: node})]).play(100);
        }
    });
}
```

## Yahoo Search JavaScript:

```
dojo.require("dojo.rpc.JsonpService");
var ysvc = new dojo.rpc.JsonpService(
    dojo.moduleUrl("dojox.rpc", "yahoo.smd")
);

function outputResults(results){
    results = results.ResultSet;
    dojo.byId("totalResults").innerHTML = results.totalResultsAvailable;
    var fp = results.firstResultPosition;
    dojo.byId("numResults").innerHTML =
        fp+"-"+(fp+(results.totalResultsReturned-1));
    var resultCtr = dojo.byId("xdomainResults");
    while(resultCtr.firstChild){
        resultCtr.removeChild(resultCtr.firstChild);
    }
    dojo.forEach(results.Result, function(item){
        var listing = document.createElement("div");
        var lTitle = document.createElement("a");
        lTitle.href=item.Url;
        lTitle.style.fontSize = "1.3em";
        lTitle.innerHTML = item.Title;
        listing.appendChild(lTitle);
        var lSummary = document.createElement("p");
        lSummary.innerHTML = item.Summary;
        listing.appendChild(lSummary);
        resultCtr.appendChild(listing);
    });
}

function xDomainSearch(term){
    ysvc.webSearch({query: term}).addCallback(outputResults);
}
```