

**Appendix B.**  
**control.php**  
**Main Interface File**

The portions of code that will be of importance to someone wishing to work further on this project have been color coded for ease of use. The red portion (bottom of page 7) is where the slider bar is actually placed on the page; the code is fairly straightforward and easy to understand. It simply uses a series of div containers (the code for which are in css/screen.css) to position the slider on the page with some initial values. The blue code (pages 11-12 and 14) is also fairly straightforward but does require a little explanation. On page 11 the slider is instantiated (the Yahoo slider documentation at <http://developer.yahoo.com/yui/slider/> explains this in easy-to-read detail). The only difference is that an HTTP GET request is fired off each time the slider is moved to a simple PHP script (Appendix C). It gives the current values for pan, tilt, and zoom as these are the parameters the camera code have been designed to take. The code on page 14 is also rather simple, it just takes the current value and updates the position of the slider. The only thing to take note of is if the slider is not on a scale of 200 (which is the default) you must use a scaling value to properly display the slider movement. This was done in sliders 3-6 (tilt, which is -25 to 25, and zoom, which is 1 to 1023) and the code is easily decipherable.

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head >

    <meta http-equiv="content-script-type" content="text/javascript">
    <meta http-equiv="content-type" content="text/html; charset=windows-1252">

<script language="javascript" type="text/javascript">
var request = false;
try {
    request = new XMLHttpRequest();
} catch (trymicrosoft) {
    try {
        request = new ActiveXObject("Msxml2.XMLHTTP");
    } catch (othermicrosoft) {
        try {
            request = new ActiveXObject("Microsoft.XMLHTTP");
        } catch (failed) {
            request = false;
        }
    }
}

if (!request)
    alert("Error initializing XMLHttpRequest!");

function bug() {
    if (request.readyState == 4) {
        if (request.status == 200) {
            document.getElementById("bug").innerHTML = db;
        } else
            alert("Status is " + request.status);
    }
}

function clearPage() {
    if (request.readyState == 4) {
        if (request.status == 200) {
            var response = request.responseText.split("|");
            document.getElementById("debugdata").innerHTML =
                "";
        } else
            alert("Status is " + request.status);
    }
}

```

```
function updatePage3() {
  if (request.readyState == 4) {
    if (request.status == 200) {
      var response = request.responseText.split("|");
      document.getElementById("debugdata").innerHTML =
        response[0].replace(/\n/g, "");
    } else
      alert("Status is " + request.status);
  }
}
```

```
function onC1() {
  var k1 = document.getElementById("kramerOn").value;
  var url = "cameraOneOn.php"
  request.open("GET", url, true);
  request.onreadystatechange = updatePage;
  request.send(null);
}
```

</script>

```
<title>CS Conference Room</title>
<style type="text/css" media="screen">
```

```
body {
  color:#333;
  background-color:#eee;
  margin:20px;
  padding:0px;
  font:11px verdana, arial, helvetica, sans-serif;
}
```

```
h1 {
  margin:0px 0px 15px 0px;
  padding:0px;
  font-size:28px;
  font-weight:900;
  color:#ccc;
}
```

```
h2 {
  font:bold 12px/14px verdana, arial, helvetica, sans-serif;
  margin:0px 0px 5px 0px;
  padding:0px;
}
```

```
p {
  font:11px/20px verdana, arial, helvetica, sans-serif;
```

```

        margin:0px 0px 16px 0px;
        padding:0px;
    }
.Content>p {margin:0px;}
.Content>p+p {text-indent:30px;}

a {
    color:red;
    font-size:11px;
    font-family:verdana, arial, helvetica, sans-serif;
    font-weight:600;
    text-decoration:none;
}
a:link {color:red;}
a:visited {color:#red;}
a:hover {background-color:white;}

/* All the content boxes belong to the content class. */
.content {
    position:relative; /* Position is declared "relative" to gain control of stacking order (z-index). */
    width:auto;
    min-width:120px;
    margin:0px 210px 20px 170px;
    border:1px solid black;
    background-color:white;
    padding:10px;
    z-index:3; /* This allows the content to overlap the right menu in narrow windows in good
browsers. */
}

#pageHeader h1 {
    position:absolute;
    background: transparent url(main.jpg) no-repeat top left;
    border:0px dashed grey;
    left:50%;
    margin-left:-350px;
    margin-top:0px;
    width: 700px;
    height: 50px;
}
#pageHeader h1 span {
    display:none
}

#debugdata {
    background-color:#eee;

```

```
        max-width:650px;
    }

#navAlpha {
    position:absolute;
    left:50%;
    width:700px;
    margin-top:60px;
    margin-left:-350px;
    height: auto;
    border:0px dashed grey;
    background-color:white;
    /*padding:10px;*/
    z-index:2;
```

/\* Here is the ugly brilliant hack that protects IE5/Win from its own stupidity. Thanks to Tantek Celik for the hack and to Eric Costello for publicizing it. IE5/Win incorrectly parses the "\}\'" value, prematurely closing the style declaration. The incorrect IE5/Win value is above, while the correct value is below. See <http://glish.com/css/hacks.asp> for details. \*/

```
    voice-family: "\}\'";
    voice-family:inherit;
    width:700px;
}
```

/\* I've heard this called the "be nice to Opera 5" rule. Basically, it feeds correct length values to user agents that exhibit the parsing error exploited above yet get the CSS box model right and understand the CSS2 parent-child selector. ALWAYS include a "be nice to Opera 5" rule every time you use the Tantek Celik hack (above). \*/

```
#navAlpha { width:700px;}
```

```
#projector {
    position:absolute;
    left:50%;
    width:250px;
    top:10px;
    margin-left:-300px;
    height: auto;
    border:1px dashed grey;
    background-color:white;
    /*padding:10px;*/
    z-index:2;
```

```
/* Again, the ugly brilliant hack. */
    voice-family: "\}\'";
    #voice-family:inherit;
    width:250px;
```

```

    }
/* Again, "be nice to Opera 5". */
#projector { width:250px;}

#kramer {
    position:absolute;
    left:50%;
    width:auto;
    min-width:200px;
    top:10px;
    margin-left:+50px;
    height: auto;
    border:1px dashed grey;
    background-color:white;
    /*padding:10px;*/
    z-index:2;

/* Again, the ugly brilliant hack. */
    voice-family: "\}{}";
    #voice-family:inherit;
    width:auto;
    }
/* Again, "be nice to Opera 5". */
#kramer { width:auto;}

#navBeta {
    position:absolute;
    left:50%;
    width:700px;
    top:60px;
    margin-left:-350px;
    border:0px dashed grey;
    background-color:white;
    z-index:1;
/* Again, the ugly brilliant hack. */
    voice-family: "\}{}";
    voice-family:inherit;
    width:700px;
    }
/* Again, "be nice to Opera 5". */
#navBeta { width:700px;}
</style>
<link rel="stylesheet" type="text/css" href="css/screen.css">
<link rel="stylesheet" type="text/css" href="slider.css">
</head>

```

```

<body>

<div id="pageHeader">
  <a href="control.php"><h1><span>conf</span></h1></a>
</div>

<div id="navBeta">
<br>
  <center><h2>Cameras</h2>
  <p>

    <div id="horizWrapper">
<center>Front Camera<br>
<form action="POST">
<input type="radio" name="camera1" id="camOneOn" onChange="updatePage3()" value="1"> On
<input type="radio" name="camera1" id="camOneOff" value="0" checked> Off<br>
</form></center>
</div>

<div id="horizWrapper">
<center>Side Camera<br>
<form action="POST"><center>
<input type="radio" name="camera2" id="camTwoOn" onChange="onC2()" value="1"> On
<input type="radio" name="camera2" id="camTwoOff" value="0" checked> Off<br>
</form></center>
</div><br>

  <div id="horizWrapper">
    <div
      id="horizBGDiv"
      name="horizBGDiv"
      tabindex="0"
      x2:role="role:slider"
      state:valuenow="0"
      state:valuemin="-100"
      state:valuemax="100"
      onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
    <div id="horizHandleDiv" ></div>
    </div>

    <div id="horizValueDiv">
      <form name="formH" onsubmit="return updateHoriz()">
        <input name="horizVal" id="horizVal" type="text" value="0" size="4" maxlength="4" />
        <input type="button" value="PAN" onclick="updateHoriz()" />
      </form>
    </div>
  </div>

```

</div>

```
<div id="horizWrapper">
  <div
    id="h2"
    name="h2"
    tabindex="0"
    x2:role="role:slider"
    state:valuenow="0"
    state:valuemin="-100"
    state:valuemax="100"
    onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
  <div id="horiz2" ></div>
</div>
```

```
<div id="horizValueDiv">
  <form name="formH2" onsubmit="return updateHoriz2()">
  <input name="h2Val" id="h2Val" type="text" value="0" size="4" maxlength="4" />
  <input type="button" value="PAN" onclick="updateHoriz2()" />
  </form>
</div>
</div>
```

<br><br><br><br><br><br>

```
<div id="horizWrapper">
  <div
    id="h3"
    name="h3"
    tabindex="0"
    x2:role="role:slider"
    state:valuenow="0"
    state:valuemin="-25"
    state:valuemax="25"
    onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
  <div id="horiz3" ></div>
</div>
```

```
<div id="horizValueDiv">
  <form name="formH3" onsubmit="return updateHoriz3()">
  <input name="h3Val" id="h3Val" type="text" value="0" size="4" maxlength="4" />
  <input type="button" value="TILT" onclick="updateHoriz3()" />
  </form>
</div>
</div>
```



```
<div id="horizWrapper">
  <div
    id="h4"
    name="h4"
    tabindex="0"
    x2:role="role:slider"
    state:valuenow="0"
    state:valuemin="-100"
    state:valuemax="100"
    onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
  <div id="horiz4" ></div>
</div>
```

```
<div id="horizValueDiv">
  <form name="formH4" onsubmit="return updateHoriz4()">
    <input name="h4Val" id="h4Val" type="text" value="0" size="4" maxlength="4" />
    <input type="button" value="TILT" onclick="updateHoriz4()" />
  </form>
```

```
</div>
```

```
</div>
```

```
<br><br><br><br><br><br>
```

```
<div id="horizWrapper">
  <div
    id="h5"
    name="h5"
    tabindex="0"
    x2:role="role:slider"
    state:valuenow="1"
    state:valuemin="1"
    state:valuemax="1023"
    onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
  <div id="horiz5" ></div>
</div>
```

```
<div id="horizValueDiv">
  <form name="formH5" onsubmit="return updateHoriz5()">
    <input name="h5Val" id="h5Val" type="text" value="0" size="4" maxlength="4" />
    <input type="button" value="ZOOM" onclick="updateHoriz5()" />
  </form>
```

```
</div>
```

```
</div>
```

```
<div id="horizWrapper">
  <div
    id="h6"
    name="h6"
    tabindex="0"
    x2:role="role:slider"
    state:valuenow="0"
    state:valuemin="-100"
    state:valuemax="100"
    onkeypress="return handleHorizSliderKey(this, YAHOO.util.Event.getEvent(event))" >
    <div id="horiz6" ></div>
  </div>
```

```
<div id="horizValueDiv">
  <form name="formH6" onsubmit="return updateHoriz6()">
    <input name="h6Val" id="h6Val" type="text" value="0" size="4" maxlength="4" />
    <input type="button" value="ZOOM" onclick="updateHoriz6()" />
  </form>
</div>
</div>
```

```
<br><br><br><br><br><br>
```

```
Debug Mode&nbsp;<a onClick="debug()">On</a><a onClick="debug2()">Off</a>
```

```
  <div id="debugdata"></div>
<br>
<br>
</center>
<br>
Click <a href="devel.php">here</a> for a glimpse of works-in-progress.
</div>
</div>
```

```
<br><br><br>
```

```
<script type="text/javascript" src="js/YAHOO.js" ></script>
<script type="text/javascript" src="js/log.js" ></script>
<script type="text/javascript" src="js/color.js" ></script>
<script type="text/javascript" src="js/key.js" ></script>
<script type="text/javascript" src="js/event.js" ></script>
<script type="text/javascript" src="js/dom.js" ></script>
<script type="text/javascript" src="js/animation.js" ></script>
<script type="text/javascript" src="js/dragdrop.js" ></script>
```

```
<script type="text/javascript" src="js/slider.js" ></script>
```

```
// JAVASCRIPT SLIDER CODE STARTS HERE
```

```
<script type="text/javascript">
```

```
var gLogger;  
var scaleFactorTilt = 4;  
var scaleFactorZoom = .1955034213;
```

```
function init() {  
    if (typeof(ygLogger) != "undefined") {  
        ygLogger.init(document.getElementById("logDiv"));  
        gLogger = new ygLogger("slider.php");  
    }  
}
```

```
standardSliderInit();
```

```
}
```

```
window.onload = init;
```

```
var db = 0;
```

```
function debug() {  
    db = 1;  
    updatePage3();  
}
```

```
function debug2() {  
    db = 0;  
    clearPage();  
}
```

```
// SLIDERS 'N STUFF
```

```
var slider1, slider2, slider3, slider4, slider5, slider6;
```

```
function standardSliderInit() {
```

```
    slider1 = YAHOO.widget.Slider.getHorizSlider("horizBGDiv", "horizHandleDiv", 100, 100);
```

```
    slider1.onChange = function(offsetFromStart) {  
        document.getElementById("horizVal").value = offsetFromStart;
```

```
    var p = document.getElementById("horizVal").value;  
    var t = document.getElementById("h3Val").value;  
    var z = document.getElementById("h5Val").value;
```

```
    var url = "cameraOneOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
```

```
    request.open("GET", url, true);
    if (db == 1) {
        request.onreadystatechange = updatePage3;
    }
    request.send(null);
}
```

```
    slider2 = YAHOO.widget.Slider.getHorizSlider("h2", "horiz2", 100, 100);
```

```
    slider2.onChange = function(offsetFromStart2) {
        document.getElementById("h2Val").value = offsetFromStart2;
        var p = document.getElementById("h2Val").value;
        var t = document.getElementById("h4Val").value;
        var z = document.getElementById("h6Val").value;

        var url = "cameraTwoOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
        request.open("GET", url, true);
    if (db == 1) {
        request.onreadystatechange = updatePage3;
    }
    request.send(null);

    }
```

```
    slider3 = YAHOO.widget.Slider.getHorizSlider("h3", "horiz3", 100, 100);
```

```
    slider3.onChange = function(offsetFromStart) {
        var actualValue = parseInt(offsetFromStart/scaleFactorTilt);
        document.getElementById("h3Val").value = actualValue;

        var p = document.getElementById("horizVal").value;
        var t = document.getElementById("h3Val").value;
        var z = document.getElementById("h5Val").value;

        var url = "cameraOneOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
        request.open("GET", url, true);
    if (db == 1) {
        request.onreadystatechange = updatePage3;
    }
    request.send(null);

    }
```

```
    slider4 = YAHOO.widget.Slider.getHorizSlider("h4", "horiz4", 100, 100);
```

```

        slider4.onChange = function(offsetFromStart) {
            var actualValue = parseInt(offsetFromStart/scaleFactorTilt);
                document.getElementById("h4Val").value = actualValue;
var p = document.getElementById("h2Val").value;
var t = document.getElementById("h4Val").value;
var z = document.getElementById("h6Val").value;

var url = "cameraTwoOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
request.open("GET", url, true);
if (db == 1) {
    request.onreadystatechange = updatePage3;
}
    request.send(null);
        }

        slider5 = YAHOO.widget.Slider.getHorizSlider("h5", "horiz5", 0, 200);

        slider5.onChange = function(offsetFromStart) {
            var actualValue = parseInt(offsetFromStart/scaleFactorZoom);
                document.getElementById("h5Val").value = actualValue;

var p = document.getElementById("horizVal").value;
var t = document.getElementById("h3Val").value;
var z = document.getElementById("h5Val").value;

var url = "cameraOneOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
request.open("GET", url, true);
if (db == 1) {
    request.onreadystatechange = updatePage3;
}
    request.send(null);
        }

        slider6 = YAHOO.widget.Slider.getHorizSlider("h6", "horiz6", 0, 200);

        slider6.onChange = function(offsetFromStart) {
            var actualValue = parseInt(offsetFromStart/scaleFactorZoom);
                document.getElementById("h6Val").value = actualValue;
var p = document.getElementById("h2Val").value;
var t = document.getElementById("h4Val").value;
var z = document.getElementById("h6Val").value;

var url = "cameraTwoOn.php?p=" + escape(p) + "&t=" + escape(t) + "&z=" + escape(z);
request.open("GET", url, true);
if (db == 1) {
    request.onreadystatechange = updatePage3;
}

```

```

}
    request.send(null);

    }

}

function updateVert() {
    var v = parseFloat(document.forms['formV']['vertVal'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider7.setValue(Math.round(v));
    return false;
}

function updateHoriz() {
    var v = parseFloat(document.forms['formH']['horizVal'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider1.setValue(Math.round(v));
    return false;
}

function updateHoriz2() {
    var v = parseFloat(document.forms['formH2']['h2Val'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider2.setValue(Math.round(v));
    return false;
}

function updateHoriz3() {
    var v = parseFloat(document.forms['formH3']['h3Val'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider3.setValue(Math.round(v*scaleFactorTilt));
    return false;
}

function updateHoriz4() {
    var v = parseFloat(document.forms['formH4']['h4Val'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider4.setValue(Math.round(v*scaleFactorTilt));
    return false;
}

function updateHoriz5() {
    var v = parseFloat(document.forms['formH5']['h5Val'].value, 10);
    if ( isNaN(v) ) v = 0;
    slider5.setValue(Math.round(v*scaleFactorZoom));
}

```

```

        return false;
    }

    function updateHoriz6() {
        var v = parseFloat(document.forms['formH6']['h6Val'].value, 10);
        if ( isNaN(v) ) v = 0;
        slider6.setValue(Math.round(v*scaleFactorZoom));
        return false;
    }

// accessibility keypress test
function handleHorizSliderKey(slider, ev) {
    if (gLogger) gLogger.debug("horizontal slider keypress");

    // Firefox 1.5+ only at this point
    if (!slider.getAttributeNS) {
        return true;
    }

    // var valueNow = parseInt(slider.getAttributeNS("http://www.w3.org/2005/07/aaa",
"valuenow"));

    var valueNow = slider2.getValue();

    var valueMin = parseInt(slider.getAttributeNS("http://www.w3.org/2005/07/aaa", "valuemin"));
    var valueMax = parseInt(slider.getAttributeNS("http://www.w3.org/2005/07/aaa", "valuemax"));

    var delta = 0;

    var kc = ev.keyCode;

    if (gLogger) gLogger.debug("keycode: " + kc);

    if (kc == YAHOO.util.Key.DOM_VK_LEFT) {
        delta = -25;
    } else if (kc == YAHOO.util.Key.DOM_VK_RIGHT) {
        delta = 25;
    } else if (kc == YAHOO.util.Key.DOM_VK_HOME) {
        delta = -( valueNow - valueMin );
    } else if (kc == YAHOO.util.Key.DOM_VK_END) {
        delta = valueMax - valueNow;
    } else {
        return true;
    }

    valueNow += delta;

```

```
slider2.setValue(valueNow, true);

slider.setAttributeNS("http://www.w3.org/2005/07/aaa", "valuenow", valueNow);

// displaySlider(slider);

return false;
}

</script>
</body>
</html>
```