



How to Display Weather Data on a Web Page

Displaying your weather station's data on the Internet is a great way to disseminate it — whether for general public information or to make it available simultaneously to multiple parties involved in an Incident Response, for example, responders, dispatchers, and commanders.

With Columbia Weather Systems weather stations there are two ways to get the weather data onto a web site – WeatherMaster Software™ and the Weather MicroServer.™ *This paper gives the procedure for posting weather data to the Internet using the Weather MicroServer.* (For information on using WeatherMaster to upload weather data, please refer to the WeatherMaster User Manual.)

Setting this up is a fairly straightforward two-step process. You need to set up a web page to receive the XML file data and you need to modify the settings in the MicroServer browser interface.

Please note: To display your weather data on a website in this method, your server must support .php files.

Setting up the Web Page

Columbia Weather Systems	
Hillsboro, Oregon Time Stamp: 2016/01/27 11:55:31	
Wind Speed 4.8 MPH	Wind Direction 352°
3-Sec Avg. 3.8 MPH	3-Sec Avg. 353°
2-Min Avg. 3.1 MPH	2-Min Avg. 355°
10-Min Avg. 4.8 MPH	10-Min Avg. 338°
Air Temperature 45.3° F	Avg. Temperature Today 48.4° F
Heat Index 45.8° F	Dew Point 38.4° F
Wind Chill 45.3° F	Relative Humidity 88%
Barometric Pressure 30.14 in. Hg.	Density Altitude -818 Feet
Rain for the Day 0.81 inches	Rain for the Week 8.78 inches
Rain for the Month 5.34 inches	Rain for the Year 5.34 inches
Rain Intensity Inches	Rain Duration Seconds

Create a web page that will draw the data from the XML file and present it in formatted text/graphics.

You can see an example on our website at:

http://www.columbiaweather.com/orionweather_3.php

You can see the HTML code for this page in Appendix A.

It begins with the following code:

```
<?php
$orionData = readOrionData();
function readOrionData()
{
    $orionDataUrl = "orion52.xml";

    $orionData = array();
    $xml = new SimpleXMLElement($orionDataUrl, 0, true);
    foreach ($xml->meas as $meas)
    {
        $orionData[(string) $meas['name']] = (string) $meas;
    }
    return $orionData;
}
?>
```

"orion52.xml" is the designated name of the XML file Columbia Weather uploads to our website. You can name your file whatever you want.

To display a parameter value the syntax is: `<?php echo $orionData['parameter name'];?>`

For example, to display wind speed use the following: `<?php echo $orionData['mtWindSpeed'];?>`

XML parameter names are listed in the *Weather MicroServer User Manual*, Section 3: Operation, under the heading Measurements Definition.

Setting Up the MicroServer

You can set your Weather MicroServer to FTP the XML weather data file to your website automatically. The unit will FTP the file every 15 seconds.

In the MicroServer browser interface, click on Data Output to bring up the screen shown at right.

Make sure the FTP Output: is [Enabled].

Enter your FTP URL followed by /filename.xml. You can use any file name you want.

For example: ftp://www.yourURL.com/filename.xml

As another example, ours is:

ftp://www.columbiaweather.com/orion52.xml
(Recall the filename from the web page.)

Enter your website's FTP user and password. If you do not know what it is, contact your network administrator.

Set the Output Format: to [XML].

Click on the [Apply Changes] button.

At this point an XML file will be uploaded to your website.

About CWS

Columbia Weather Systems' goal is to help organizations leverage weather data to optimize resources and save lives. During the past decade, CWS has been at the forefront of innovation, utilizing cutting-edge technology to capture and communicate weather data wherever it is needed.

Hundreds of organizations rely on CWS weather stations to monitor and disseminate weather information to manage operations, prepare for emergencies, and help mitigate disasters.

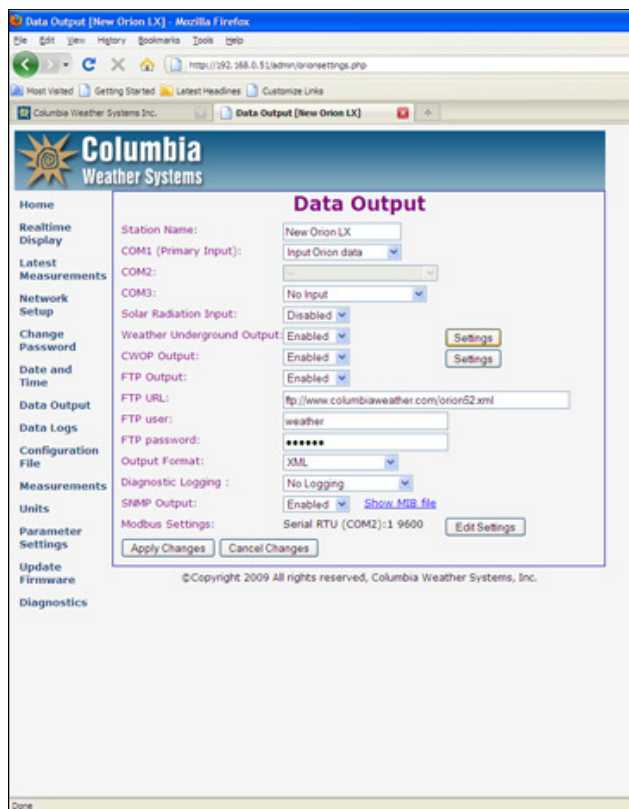
For more information, contact Columbia Weather Systems, Inc.

Email info@columbiaweather.com

Call toll-free in US and Canada 1 888-508-7375

Phone 503-629-0887

www.columbiaweather.com



Appendix A: HTML Code for CWS Web Page

```
<?php
$orionData = readOrionData();
function readOrionData()
{
    $orionDataURL = "orion52.xml";

    $orionData = array();
    $xml = new SimpleXMLElement($orionDataURL, 0, true);
    foreach ($xml->meas as $meas)
    {
        $orionData[(string) $meas['name']] = (string) $meas;
    }
    return $orionData;
}

?>

<html xmlns="http://www.w3.org/1999/xhtml" >
<head>
<title>Columbia Weather Systems Inc.</title>
<style type="text/css" media="screen">

.nav { width:730px; background-image: url("http://www.columbiaweather.com/Images/MenuBar.gif"); }
.nav td a { font: 12px Arial, Helvetica, san-sarif; color: #333366; text-decoration: none; font-weight: bold }
.nav td a:hover { color: #FFFFFF; }

.head { background-image: url("http://www.columbiaweather.com/Images/Header.gif"); }

H1 { font: 15px Arial, Helvetica, san-sarif; color: #115F88; font-weight: bold; margin-bottom: 0%; margin-top: 1% }

TD { font: 12px Arial, Helvetica, san-sarif; color: #336699 }

.location { font: 15px Arial, Helvetica, san-sarif; color: #336699; font-weight: bold; }
.parameter { font: 17px Arial, Helvetica, san-sarif; color: #333366; font-weight: bold; }
.value { font: 17px Arial, Helvetica, san-sarif; color: #6E5A3C; font-weight: bold; }

.contact { font: 12px Arial, Helvetica, san-sarif; color: #336699; font-weight: bold; }
.contact a { font: 12px Arial, Helvetica, san-sarif; color: blue; }

.footer { font: 12px Arial, Helvetica, san-sarif; color: blue; }

.footer { font: 10px Arial, Helvetica, san-sarif; color: #336699; }
.footer a { font: 10px Arial, Helvetica, san-sarif; color: blue; }

.quote { font: 16px Arial, Helvetica, san-sarif; color: #FFFFFF; font-weight: bold }
.quote a { font: 16px Arial, Helvetica, san-sarif; color: #FFFF33; text-decoration: none; font-weight: bold }

A:link { color: blue }
```

```
</style>
<meta http-equiv="refresh" content="30"/>

</head>

<body bgcolor="#FFFFFF" onLoad="">

<table width="730" border="0" cellspacing="0" cellpadding="0" height="75" class="head">
  <tr>
    <td width="18"></td>
  </tr>
</table>

<table width="730" border="0" cellspacing="0" cellpadding="0" align="left" class="parameter">
  <tr>
    <td colspan="2">
      <table width="450" border="0" cellspacing="0" cellpadding="0" align="center">
        <tr>
          <td class="location" width="225">Hillsboro, Oregon</td>
          <td class="location" width="225">Time Stamp:<?php echo $orionData['mtSampTime'];?></td>
        </tr>
      </table>
      <br></br>
      <table width="450" border="1" cellspacing="0" cellpadding="5" align="center">
        <tr>
          <td class="parameter" width="225">Wind Speed<br/>
            <div class="value"><?php echo $orionData['mtWindSpeed'];?> MPH</div></td>
          <td class="parameter" width="225">Wind Direction<br/>
            <div class="value"><?php echo $orionData['mtAdjWindDir'];?>&#x00b0;</div></td>
        </tr>
        <tr>
          <td class="parameter" width="225">3-Sec Avg.<br/>
            <div class="value"><?php echo $orionData['mt3SecRollAvgWindSpeed'];?> MPH</div></td>
          <td class="parameter" width="225">3-Sec Avg.<br/>
            <div class="value"><?php echo $orionData['mt3SecRollAvgWindDir'];?>&#x00b0;</div></td>
        </tr>
        <tr>
          <td class="parameter" width="225">2-Min Avg.<br/>
            <div class="value"><?php echo $orionData['mt2MinRollAvgWindSpeed'];?> MPH</div></td>
          <td class="parameter" width="225">2-Min Avg.<br/>
            <div class="value"><?php echo $orionData['mt2MinRollAvgWindDir'];?>&#x00b0;</div></td>
        </tr>
        <tr>
          <td class="parameter" width="225">10-Min Avg.<br/>
            <div class="value"><?php echo $orionData['mt10MinRollAvgWindSpeed'];?> MPH</div></td>
          <td class="parameter" width="225">10-Min Avg.<br/>
            <div class="value"><?php echo $orionData['mt10MinRollAvgWindDir'];?>&#x00b0;</div></td>
        </tr>
      </table>
      <br></br>
      <table width="450" border="1" cellspacing="0" cellpadding="5" align="center">
```

```

<tr>
  <td class="parameter" width="225">Air Temperature<br/>
    <div class="value"><?php echo $orionData['mtTemp1'];?>&#x00b0; F</div></td>
  <td class="parameter" width="225">Avg Temperature Today<br/>
    <div class="value"><?php echo $orionData['mtAvgTempToday'];?>&#x00b0; F</div></td>
</tr>
<tr>
  <td class="parameter" width="225">Heat Index<br/>
    <div class="value"><?php echo $orionData['mtHeatIndex'];?>&#x00b0; F</div></td>
  <td class="parameter" width="225">Dew Point<br/>
    <div class="value"><?php echo $orionData['mtDewPoint'];?>&#x00b0; F</div></td>
</tr>
<tr>
  <td class="parameter" width="225">Wind Chill<br/>
    <div class="value"><?php echo $orionData['mtWindChill'];?>&#x00b0; F</div></td>
  <td class="parameter" width="225">Relative Humidity<br/>
    <div class="value"><?php echo $orionData['mtRelHumidity'];?>%</div></td>
</tr>
<tr>
  <td class="parameter" width="225">Barometric Pressure<br/>
    <div class="value"><?php echo $orionData['mtAdjBaromPress'];?> In. Hg.</div></td>
  <td class="parameter" width="225">Density Altitude<br/>
    <div class="value"><?php echo $orionData['mtDensityAltitude'];?> Feet</div></td>
</tr>
</table>
<br><br>
<table width="450" border="1" cellspacing="0" cellpadding="5" align="center">
<tr>
  <td class="parameter" width="225">Rain for the Day<br/>
    <div class="value"><?php echo $orionData['mtRainToday'];?> Inches</div></td>
  <td class="parameter" width="225">Rain for the Week<br/>
    <div class="value"><?php echo $orionData['mtRainThisWeek'];?> Inches</div></td>
</tr>
<tr>
  <td class="parameter" width="225">Rain for the Month<br/>
    <div class="value"><?php echo $orionData['mtRainThisMonth'];?> Inches</div></td>
  <td class="parameter" width="225">Rain for the Year<br/>
    <div class="value"><?php echo $orionData['mtRainThisYear'];?> Inches</div></td>
</tr>
<tr>
  <td class="parameter" width="225">Rain Intensity<br/>
    <div class="value"><?php echo $orionData['mtRainIntensity'];?> Inches</div></td>
  <td class="parameter" width="225">Rain Duration<br/>
    <div class="value"><?php echo $orionData['mtRainDuration'];?> Seconds</div></td>
</tr>
</table> </td>
</tr>
<tr>
  <td colspan="2"><hr width="700" color="#336699"/></td>
</tr>
</table>

</body>
</html>

```