Setting up live timing feed on website.

Set up two folders on the website

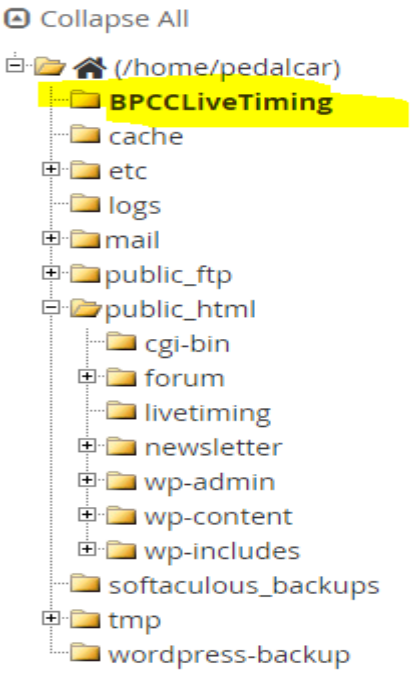
1) Folder for timing data files BPCCLiveTiming

Create a folder in root of file system outside of the public website html folders.

This folder holds the raw timing data files uploaded via FTP

Folder permissions need to be set so that FTP user as read/write access and webserver has read access probably 6-4-4 on unix system

See below for adding the ftp user



2) Folder for website files livetiming

Create a new folder under the website root, in this case under public_html to hold the html/php/css files to display the live timing page

Permissions need standard for webhost usually 6-4-4

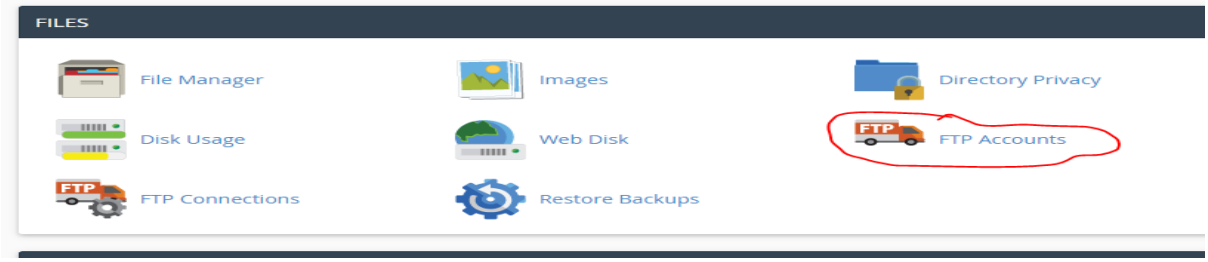


3) Create a FTP user account for livetiming

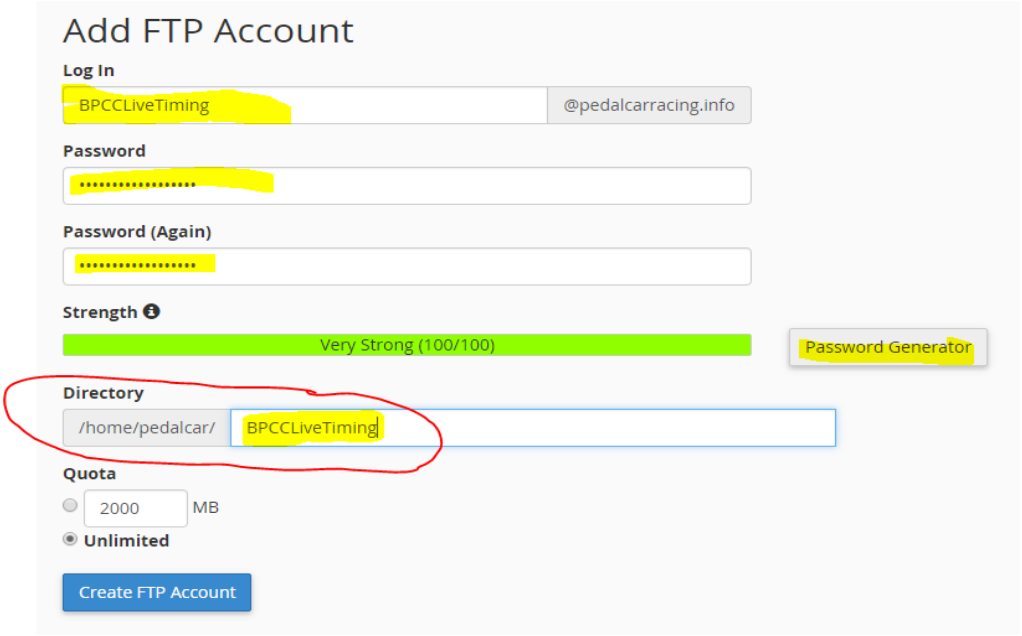
This example is for Cpanel but use the correct method for current webhost
https://documentation.cpanel.net/display/1152Docs/FTP+Accounts

Login to the CPanel account via http://pedalcarracing.info/cpanel or as advised by host

Find FTP Accounts icon and double click

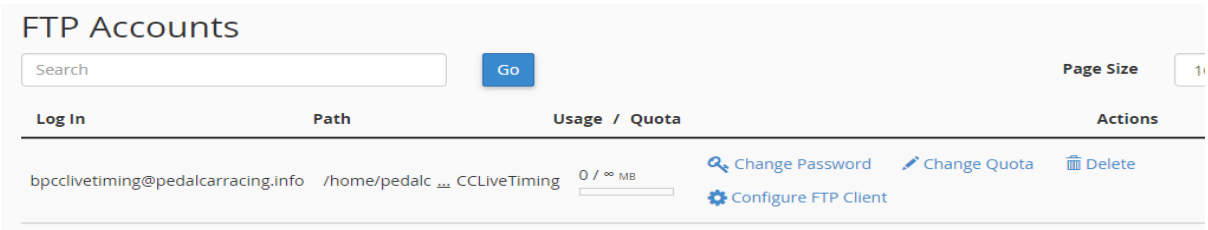


The Add FTP Account dialog opens



Give the account a login name, a strong password (use the password generator), and in the directory field enter the path and directory to use (the BPCCLiveTiming folder you created above)

Press Create FTP Account button to create account, you should see it appear in the list of accounts



Using your favourite FTP program test that the FTP account works and that you can upload files to the ftp folder

The settings you need will be something similar to

FTP Username: **bpcclivetiming@pedalcarracing.info**
FTP server: **ftp.pedalcarracing.info**
FTP & explicit FTPS port: **21**

NB on our host you must use a client that can upload in passive mode since mobile networks tend to block ftp uploads done in active mode. Windows inbuilt ftp client cannot do passive upload so use winscp portable from http://winscp.net/eng/index.php

the script file to run for the transfer is

option batch off
option confirm off
open ftp://bpcclivetiming@pedalcarracing.info:<password>@ftp.pedalcarracing.info -passive=on
rm racedataset.xml
put -transfer=automatic -neweronly C:\lapcount\racedataset.xml racedataset.xml
rm racedatasetcopy.xml
put -transfer=automatic -neweronly C:\lapcount\racedataset.xml racedatasetcopy.xml
close
exit

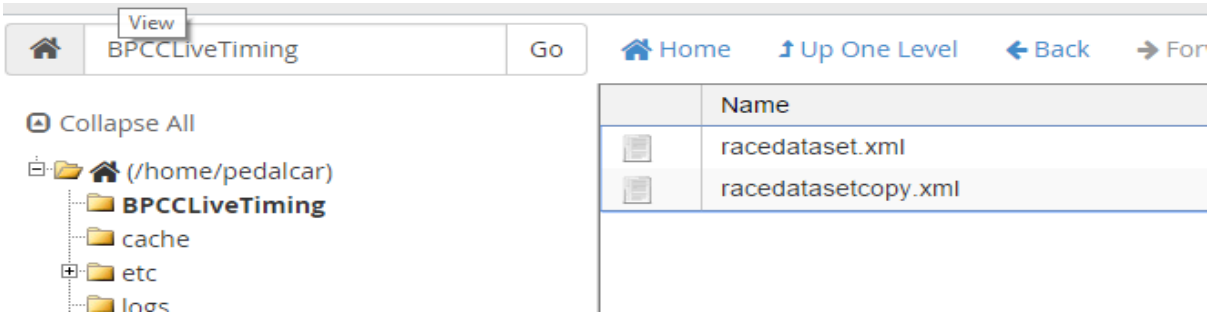
winscp portable v575 is started from command line with

c:\lapcount\winscp575\winscp.com /script=c:\lapcount\winscp.txt

assuming the script is saved as winscp.txt in c:\lapcount and winscp is in c:\lapcount\winscp575

4) Race data files

Every 5 minutes two xml data files are created by the lapcount software and are then uploaded to the ftp folder by the winscp ftp client. Racedataset.xml and racedatasetcopy.xml



Both files are identical, two are used in case either one gets corrupted, or one is in use either by ftp client or webserver at time of upload or displaying of data.

Each xml file has one or more racedatasets containing name/value pairs of data for the cars.
I have commented some of the fields (in red) these comments DO NOT appear in the xml files

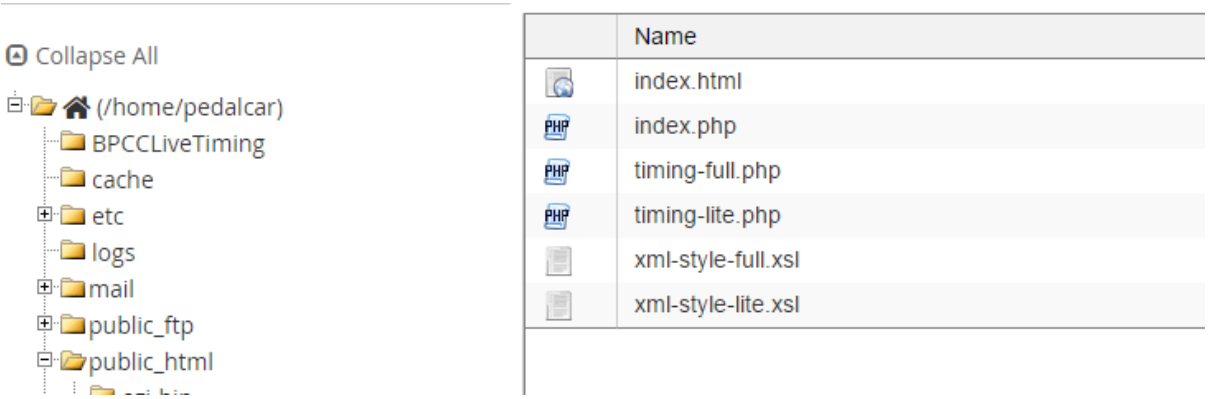
```
<?xml version="1.0" standalone="yes"?>
<NewDataSet>                    ## start of data set for whole race
  <racedataset>                 ## start of data for individual car
    <ClassDescription>PC1</ClassDescription>
    <Car_x0020__x0023_>2</Car_x0020__x0023_>
    <Laps>1174</Laps>           ## number of laps
    <Diff>0</Diff>
    <TeamName>Wing Racers</TeamName>            ## team name
    <Best>63.7</Best>
    <Best_x0020__x0028_mph_x0029_>20.9</Best_x0020__x0028_mph_x0029_>
    <Last>72.7</Last>
    <PenU>75.3</PenU>
    <Last10>7</Last10>
    <Last15>10</Last15>
    <Last20>14</Last20>
    <Last30>22</Last30>
    <Last40>29</Last40>
    <Last45>33</Last45>
    <Last60>45</Last60>
    <Last360>284</Last360>
    <Distance_x0028_mi_x0029_>434.05</Distance_x0028_mi_x0029_>
    <Speed_x0028_mph_x0029_>18.1</Speed_x0028_mph_x0029_>
    <Class>PC1</Class>          ## class
    <Info>112</Info>
    <Adj>5</Adj>
    <TagID>112</TagID>          ## Tag id
    <LastCross>2015-06-28T12:02:03.637+01:00</LastCross>
  </racedataset>                ## end of data for individual car
<racedataset>                   ## start of data for next  car
    <ClassDescription>PC1</ClassDescription>
    <Car_x0020__x0023_>3</Car_x0020__x0023_>.
.
.
.
    <TagID>114</TagID>
    <LastCross>2015-06-28T12:02:03.637+01:00</LastCross>
  </racedataset>                ## end of data for car

</NewDataSet>                   ## end of data set for whole race
```

For two cars you would have two datasets, for three three and so on.

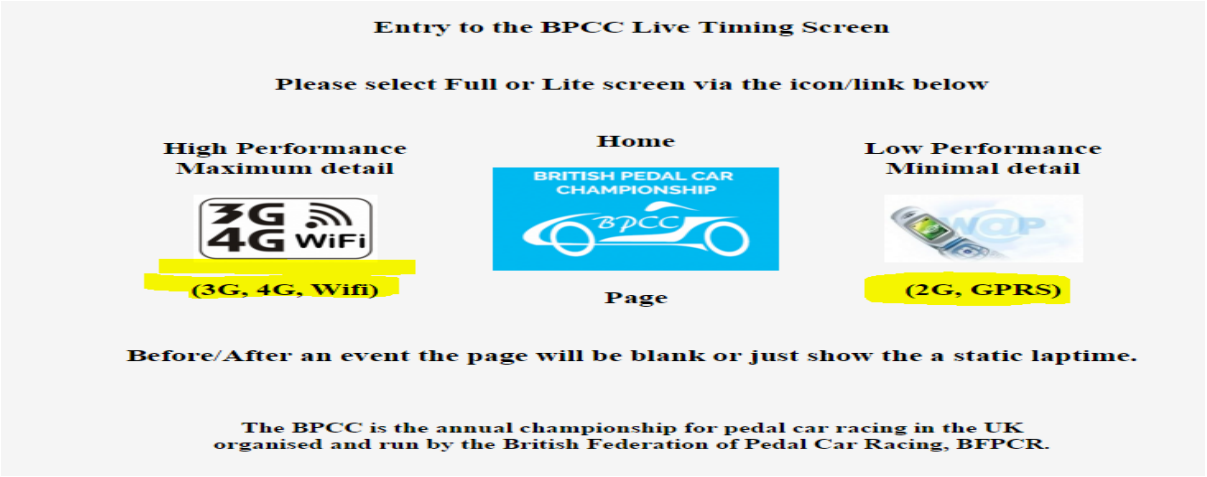
5) Displaying the timing data contained in the xml files

In the folder livetiming there are 6 files. Since our server runs on apache/php the webfiles are written in html and php. The xsl files are xml stylesheets which control how the xml is displayed and styled (think css but for xml)



Index.html redirects browser to index.php via a meta-refresh

Index.php timing entry page (below) contains three icons to allow selection of either Homepage, full details timing page (for 4G/WiFi) or low details (for 3G/GPRS)



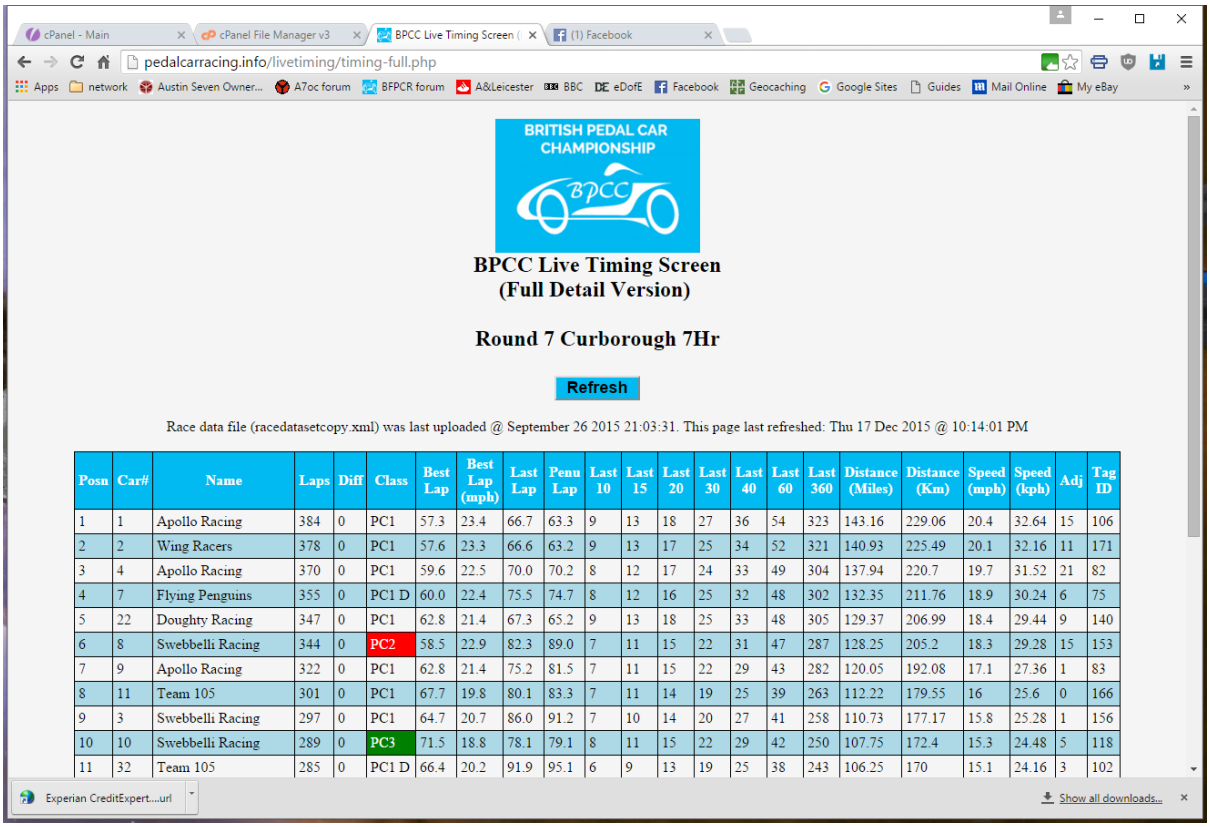
The remaining four files are paired with each php file using the respective full or lite files.

timing-full.php generates the full version timing screen in conjunction with xml-style-full.xsl

timing-lite.php generates the lite version timing screen in conjunction with xml-style-lite.xsl

The full versions show icons and all the table data, the lite versions have no graphics and only show the essential data columns

Full timing screen –graphics and auto refresh



BRITISH PEDAL CAR CHAMPIONSHIP

BPCC Live Timing Screen
(Full Detail Version)

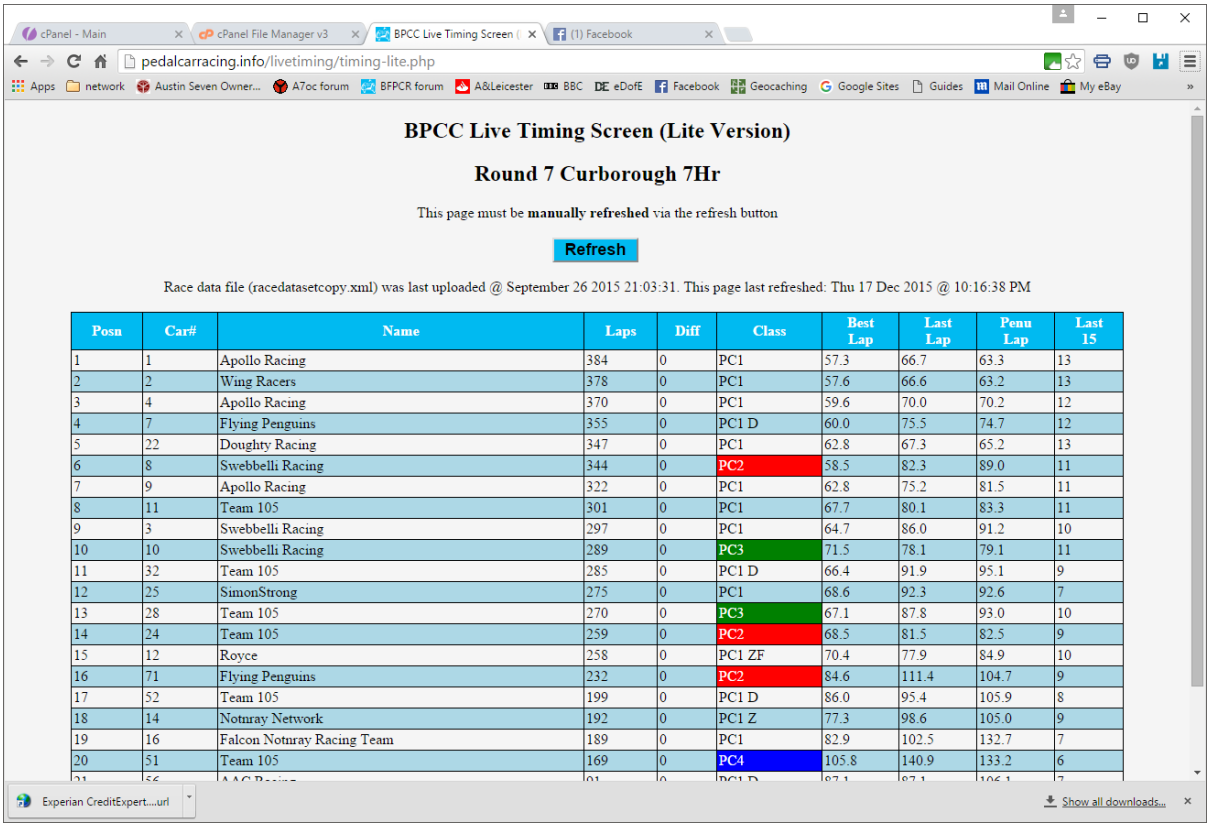
Round 7 Curborough 7Hr

Refresh

Race data file (racedatasetcopy.xml) was last uploaded @ September 26 2015 21:03:31. This page last refreshed: Thu 17 Dec 2015 @ 10:14:01 PM

Posn	Car#	Name	Laps	Diff	Class	Best Lap	Best Lap (mph)	Last Lap	Penu Lap	Last 10	Last 15	Last 20	Last 30	Last 40	Last 60	Last 360	Distance (Miles)	Distance (Km)	Speed (mph)	Speed (kph)	Adj	Tag ID
1	1	Apollo Racing	384	0	PC1	57.3	23.4	66.7	63.3	9	13	18	27	36	54	323	143.16	229.06	20.4	32.64	15	106
2	2	Wing Racers	378	0	PC1	57.6	23.3	66.6	63.2	9	13	17	25	34	52	321	140.93	225.49	20.1	32.16	11	171
3	4	Apollo Racing	370	0	PC1	59.6	22.5	70.0	70.2	8	12	17	24	33	49	304	137.94	220.7	19.7	31.52	21	82
4	7	Flying Penguins	355	0	PC1 D	60.0	22.4	75.5	74.7	8	12	16	25	32	48	302	132.35	211.76	18.9	30.24	6	75
5	22	Doughty Racing	347	0	PC1	62.8	21.4	67.3	65.2	9	13	18	25	33	48	305	129.37	206.99	18.4	29.44	9	140
6	8	Swebbelli Racing	344	0	PC2	58.5	22.9	82.3	89.0	7	11	15	22	31	47	287	128.25	205.2	18.3	29.28	15	153
7	9	Apollo Racing	322	0	PC1	62.8	21.4	75.2	81.5	7	11	15	22	29	43	282	120.05	192.08	17.1	27.36	1	83
8	11	Team 105	301	0	PC1	67.7	19.8	80.1	83.3	7	11	14	19	25	39	263	112.22	179.55	16	25.6	0	166
9	3	Swebbelli Racing	297	0	PC1	64.7	20.7	86.0	91.2	7	10	14	20	27	41	258	110.73	177.17	15.8	25.28	1	156
10	10	Swebbelli Racing	289	0	PC3	71.5	18.8	78.1	79.1	8	11	15	22	29	42	250	107.75	172.4	15.3	24.48	5	118
11	32	Team 105	285	0	PC1 D	66.4	20.2	91.9	95.1	6	9	13	19	25	38	243	106.25	170	15.1	24.16	3	102

Lite timing screen – no graphics and manual refresh



BPCC Live Timing Screen (Lite Version)

Round 7 Curborough 7Hr

This page must be **manually refreshed** via the refresh button

Refresh

Race data file (racedatasetcopy.xml) was last uploaded @ September 26 2015 21:03:31. This page last refreshed: Thu 17 Dec 2015 @ 10:16:38 PM

Posn	Car#	Name	Laps	Diff	Class	Best Lap	Last Lap	Penu Lap	Last 15
1	1	Apollo Racing	384	0	PC1	57.3	66.7	63.3	13
2	2	Wing Racers	378	0	PC1	57.6	66.6	63.2	13
3	4	Apollo Racing	370	0	PC1	59.6	70.0	70.2	12
4	7	Flying Penguins	355	0	PC1 D	60.0	75.5	74.7	12
5	22	Doughty Racing	347	0	PC1	62.8	67.3	65.2	13
6	8	Swebbelli Racing	344	0	PC2	58.5	82.3	89.0	11
7	9	Apollo Racing	322	0	PC1	62.8	75.2	81.5	11
8	11	Team 105	301	0	PC1	67.7	80.1	83.3	11
9	3	Swebbelli Racing	297	0	PC1	64.7	86.0	91.2	10
10	10	Swebbelli Racing	289	0	PC3	71.5	78.1	79.1	11
11	32	Team 105	285	0	PC1 D	66.4	91.9	95.1	9
12	25	SimonStrong	275	0	PC1	68.6	92.3	92.6	7
13	28	Team 105	270	0	PC3	67.1	87.8	93.0	10
14	24	Team 105	259	0	PC2	68.5	81.5	82.5	9
15	12	Royce	258	0	PC1 ZF	70.4	77.9	84.9	10
16	71	Flying Penguins	232	0	PC2	84.6	111.4	104.7	9
17	52	Team 105	199	0	PC1 D	86.0	95.4	105.9	8
18	14	Notnray Network	192	0	PC1 Z	77.3	98.6	105.0	9
19	16	Falcon Notnray Racing Team	189	0	PC1	82.9	102.5	132.7	7
20	51	Team 105	169	0	PC4	105.8	140.9	133.2	6

timing-full.php (timing-lite.php is similar but uses less columns)

This php file reads the xml and xsl files and also generates the html for the webpage.

File is commented but have added a few extra in red and highlighted specific sections
If both xml files are present the largest file size is used. If they are identical (which they should be) a random number is used to select which file to use. This is to help randomise the usage should several users load the page at the same time and prevent the file being locked.
The server path to the racedata files must be specified in these files as
/home/pedalcar/BPCCLiveTiming/racedataset.xml or
/home/pedalcar/BPCCLiveTiming/racedatasetcopy.xml

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<META HTTP-EQUIV="REFRESH" CONTENT="60"> // refreshes every 60 secs
<title>BPCC Live Timing Screen (Full Version)</title>
<script type="text/javascript">
</script>
<style type="text/css"> // sets styles via css for page

/* Set default style for table */

table {

   border: 1px solid black;

   padding: 3px;

   width: 90%;

}

th {

   border: 1px solid black;

   padding: 4px;

   background-color: #00BAF1;

   color: White;

}

td {
```

```
   border: 1px solid black;

   padding: 4px;

   width: auto;

}

body {

    background-color: #F5F5F5;

}

</style>
</head>
<body>

<h2 class="header2" style="text-align: center;"><img style="vertical-align:
middle;" src="http://pedalcarracing.info/wp-
content/uploads/2014/04/BPCC_Logo2-300x196.png" alt="" width="225"
height="147" /><br />BPCC Live Timing Screen<br />(Full Detail Version)

<br/><br/>Round 7 Curborough 7Hr<br/> // manually entered race/round info

<br/><input onclick="window.location.reload(true)" type="button"
value=" Refresh " style="font-weight: bold;font-size: large;
background-color:#00BAF1;"/></h2>

<?php // the guts of file that reads the xml

//Read and parse the xml file
//generate a random number between 1 and 999

$number = rand(1, 999);

//get filesize of xml files

$racedatsetsize = filesize( '/home/pedalcar/BPCCLiveTiming/racedataset.xml'
) ;

$racedatasetcopysize = filesize(
'/home/pedalcar/BPCCLiveTiming/racedatasetcopy.xml' ) ;

// specify url of xml file
//set default url

$xmlfile = "/home/pedalcar/BPCCLiveTiming/racedataset.xml";

//if racedataset.xml size < 200 use racedatasetcopy.xml else
//if racedatasetcopy.xml size < 200 use racedataset.xml else
```

```
//if racedataset.xml and  racedatasetcopy egual size select depending on
number if number is even use racedataset.xml else use racedatasetcopy.xml



if ($racedatasetcopysize < 200 && $racedatsetsize > 200) {

    $xmlfile = "/home/pedalcar/BPCCLiveTiming/racedataset.xml";

} elseif ($racedatsetsize < 200 && $racedatasetcopysize > 200) {

    $xmlfile = "/home/pedalcar/BPCCLiveTiming/racedatasetcopy.xml";

} elseif ($racedatasetcopysize > 200 && $racedatsetsize > 200 && $number %
2 == 0) {

    $xmlfile = "/home/pedalcar/BPCCLiveTiming/racedatasetcopy.xml";

} elseif ($racedatasetcopysize > 200 && $racedatsetsize > 200 && $number %
2 == 1) {

    $xmlfile = "/home/pedalcar/BPCCLiveTiming/racedataset.xml";

} else {

    $xmlfile = "/home/pedalcar/BPCCLiveTiming/racedataset.xml";

}

//echo "file selected = " . $xmlfile. "<br />";
// outputs date page last refreshed and date the data file was last
uploaded

$search = '/home/pedalcar/BPCCLiveTiming/';

$trimmedxmlfile = str_replace($search, '', $xmlfile);

//e.g. 'Race data file was last uploaded @ April 13 2015 23:08:58. | Page
Last Refreshed: Thu 16 Apr 2015 @ 10:44:02 AM'

echo "<div style=\"text-align: center;\">";

if (file_exists($xmlfile)) {

    echo "Race data file ($trimmedxmlfile) was last uploaded @ " . date ("F
d Y H:i:s.", filemtime($xmlfile));

}

echo " This page last refreshed: " . date('D d M Y \@ h:i:s A');
echo "</div><br/>";
```

```
// Load the XML source
$xml = new DOMDocument;



if (@$xml->load($xmlfile) === false) {

    // ...handle it send error message if no data or corrupt file

echo "<div style='text-align: center;'><strong>Sorry no race data to
display, please come back later</strong></div>";

exit;

}

$xml->load($xmlfile); // load the xml file
$xsl = new DOMDocument;
$xsl->load('xml-style-full.xsl'); // load the xsl stylesheet file
$proc = new XsltProcessor;
$proc->importStyleSheet($xsl);  // process xml file via xsl style sheet
echo $proc->transformToXML($xml); // output the processed data

?>

<br/>

<div style="text-align: center;">

This page will refresh every minute or press the refresh button to refresh
now

<br/>

<br/>

<input onclick="window.location.reload(true)" type="button"
value=" Refresh " style="font-weight: bold;font-size: large;
background-color:#00BAF1;"/>

</div>
</body>
</html>
```

Xml-style-full.xsl (xml-style-lite.xsl is similar but uses less columns)

This xsl stylesheet contains instructions on how to handle the xml file, how to display it and how to style it. It is called by the corresponding php file.

It uses a html table to display the data looking up the name part of the name/value pair to match the data and create a new column. A test on whether the row is odd or even is made (via `when test='position() mod 2 = 0' )` **and used to alternately syle the row background.**

```
?xml version="1.0" encoding="ISO-8859-1"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:decimal-format name="BPCCformat" NaN=" - " zero-digit="0"/>
<!-- table template -->
<xsl:template match="NewDataSet">
    <table align="center" style="margin: auto; border:solid #000000
1px;border-spacing: 0;border-collapse: collapse;">
        <tbody>
            <tr>
            <th>
            Posn
            </th>
            <th>
            Car#
            </th>
            <th>
            Name
            </th>
            <th>
            Laps
            </th>
            <th>
            Diff
            </th>
            <th>
            Class
            </th>
            <th>
            Best<br/>Lap
            </th>
            <th>
            Best<br/>Lap<br/>(mph)
            </th>
            <th>
            Last<br/>Lap
            </th>
            <th>
            Penu<br/>Lap
            </th>
            <th>
            Last<br/>10
            </th>
            <th>
            Last<br/>15
            </th>
            <th>
            Last<br/>20
```

```
                </th>
                <th>
                Last<br/>30
                </th>
                <th>
                Last<br/>40
                </th>
                <th>
                Last<br/>60
                </th>
                <th>
                Last<br/>360
                </th>
                <th>
                Distance<br/>(Miles)
                </th>
                <th>
                Distance<br/>(Km)
                </th>
                <th>
                Speed<br/>(mph)
                </th>
                <th>
                Speed<br/>(kph)
                </th>
                <th>
                Adj
                </th>
                <th>
                Tag<br />ID
                </th>
                </tr>
                    <xsl:for-each select="racedataset">
                        <tr>
                          <xsl:choose>
                          <xsl:when test='position() mod 2 = 0'>
                          <xsl:attribute
name='BGCOLOR'>LightBlue</xsl:attribute>
                          </xsl:when>
                          </xsl:choose>
                                <td>
                                    <xsl:value-of select = "position()" />
                                </td>
                                <td>
                                    <xsl:value-of select="Car_x0020__x0023_"/>
                                </td>
                                <td>
                                    <xsl:value-of select="TeamName"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Laps"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Diff"/>
                                </td>
                                <td>
                                    <xsl:attribute name="style">
                                    <xsl:choose>
                                    <xsl:when test="contains
(ClassDescription,'PC2')">
```

```
                                    <xsl:text>background: red; color:
white;</xsl:text>
                                    </xsl:when>
                                    <xsl:when test="contains
(ClassDescription,'PC3')">
                                    <xsl:text>background: green; color:
white;</xsl:text>
                                    </xsl:when>
                                    <xsl:when test="contains
(ClassDescription,'PC4')">
                                    <xsl:text>background: blue; color:
white;</xsl:text>
                                    </xsl:when>
                                    <xsl:otherwise>
                                    <xsl:text>background:
{$BGCOLOR};</xsl:text>
                                    </xsl:otherwise>
                                    </xsl:choose>
                                    </xsl:attribute>
                                    <xsl:value-of select="ClassDescription"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Best"/>
                                </td>
                                <td>
                                    <xsl:value-of
select="Best_x0020__x0028_mph_x0029_"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last"/>
                                </td>
                                <td>
                                    <xsl:value-of select="PenU"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last10"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last15"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last20"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last30"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last40"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last60"/>
                                </td>
                                <td>
                                    <xsl:value-of select="Last360"/>
                                </td>
                                 <td>
                                    <xsl:value-of
select="Distance_x0028_mi_x0029_"/>
                                </td>
                                <td>
```

```
                                <xsl:value-of select="format-number(
(Distance_x0028_mi_x0029_ * 1.6), '##.##')"/>
                            </td>
                            <td>
                                <xsl:value-of select="format-
number(Speed_x0028_mph_x0029_, '##.##', 'BPCCformat' )"/>
                            </td>
                            <td>
<xsl:value-of select="format-number( (Speed_x0028_mph_x0029_ * 1.6),
'##.##', 'BPCCformat' )"/>
                            </td>
                            <td>
                                <xsl:value-of select="Adj"/>
                            </td>
                            <td>
                                <xsl:value-of select="TagID"/>
                            </td>
                        </tr>
                </xsl:for-each>
            </tbody>
        </table>
</xsl:template>
</xsl:stylesheet>
```