Data Export API

With the Data Export API you can develop client applications to retrieve data from the CardioLog reporting engine, and refine the results of the request using query parameters. This allows for even more flexibility and customization than the CardioLog UI, giving you a great deal of freedom over how to design, filter and display your reports. You can also brand your data with your organization's logos and themes to fully own and identify it.

The CardioLog reporting engine generates reports in XML format and as chart images.

Use the Reports API Helper to generate a URL that can be embedded in a client application. When this URL is requested, the report will be generated based on the selected parameters.

1. Browse to: *http://<cardiolog_server>:<port>/CardioLog/CLReport/ReportsAPIHelper.aspx* (Edit the server name and port number to match your server settings)
2. Select a **Report**.
3. Select the report parameters - **Date Range**, **Time Interval**, **Website Item, Users and Groups**
4. Check **Generate Chart Image** to create an image and set its **Width** and **Height** (pixels).
5. Click **Get URL** to generate the report URL
6. Click **Generate Report** to generate the report.
7. Click **Show Advanced Options** and **Get Report Preferences** to modify report preferences.

The CardioLog Report XML Schema

CardioLog report XML files contain both a preferences section (prefs node) and a data section (data node).

Chart

The chart's x-axis values are displayed in the categories node, while y-axis values are displayed in the dataset node. Each chart series is also represented by a dataset node.

```
<xml id="root">
  <report>
    <call controlId="410" action="get" cached="False">
      <controlTitle>Chart</controlTitle>
      <title>Page Views</title>
      <prefs>
        <prefs>
          <enable3D>true</enable3D>
          <perspective>true</perspective>
          <legend>true</legend>
          <l_INSIDECHART>false</l_INSIDECHART>
          <l_STYLE>row</l_STYLE>
          <l_DOCKING>top</l_DOCKING>
          <labels>false</labels>
          <showtitle>false</showtitle>
          <showhelp>false</showhelp>
          <showpreferences>false</showpreferences>
          <timeframe>864000000000</timeframe>
          <timeInterval>864000000000</timeInterval>
          <rules>
            <rule id="2022" status="on" title="Aggregated" type="Column" />
            <rule id="2021" status="on" title="Specific" type="Column" />
            <rule id="2046" status="off" title="Aggregated" type="Column"
             period="1" />
            <rule id="2129" status="off" title="Specific" type="Column" period="1" />
          </rules>
          <ctitle>Page Views</ctitle>
          <type>Column</type>
          <palette>BrightPastel</palette>
          <adgroup>2</adgroup>
          <adgroupname>Domain Users</adgroupname>
          <categories />
          <entityId>0:01264d16-4641-465a-bdfe-459f1cb10d35</entityId>
          <entityName>Collaboration Portal</entityName>
          <entityTree>0</entityTree>
        </prefs>
      </prefs>
      <data>
        <categories>
          <category name="Sun." />
          <category name="Mon." />
```

```
            <category name="Tue." />
            <category name="Wed." />
            <category name="Thu." />
            <category name="Fri." />
            <category name="Sat." />
          </categories>
          <dataset ruleId="2021" seriesname="Specific" type="Column">
            <set value="100" />
            <set value="212" />
            <set value="343" />
            <set value="256" />
            <set value="347" />
            <set value="103" />
            <set value="120" />
          </dataset>
          <dataset ruleId="2022" seriesname="Aggregated" type="Column">
            <set value="1390" />
            <set value="1456" />
            <set value="1437" />
            <set value="1367" />
            <set value="1278" />
            <set value="800" />
            <set value="678" />
          </dataset>
        </data>
      </call>
    </report>
  </xml>
```

Table

The data section for table reports is automatically ready to be implemented in an HTML environment.

```
  <xml id="root">
    <report>
      <call controlId="411" action="get" cached="True">
        <controlTitle>Table</controlTitle>
        <title>Page Views</title>
        <prefs>
          <prefs>
            <showhelp>false</showhelp>
            <showpreferences>false</showpreferences>
            <timeframe>36000000000</timeframe>
            <timeInterval>36000000000</timeInterval>
            <maxrows>10</maxrows>
            <mincount>1</mincount>
            <reporttype>120</reporttype>
            <columns>
              <column id="title" title="Title" width="35%" type="SPPage" />
              <column id="url" title="Url" width="0" type="hidden" />
              <column id="views" title="Views" sorted="true" width="15%" type="number" />
              <column id="users" title="Unique Users" sorted="false" width="20%" type="number" />
              <column id="avgDuration" title="Duration" sorted="false" width="15%" type="string" />
              <column id="exitRate" title="Exit Rate" sorted="false" width="15%" type="number" />
            </columns>
            <ctitle>Page Views</ctitle>
            <chartType>static</chartType>
            <adgroup />
            <adgroupname />
            <categories />
            <entityId>0:b0426e68-8f34-4eb2-8702-012d5de1c143</entityId>
            <entityName>All</entityName>
            <entityTree>0</entityTree>
          </prefs>
        </prefs>

        <data><![CDATA[<table cache='True'>

  <prefs>
```

<showhelp>false</showhelp>

<showpreferences>false</showpreferences>

<timeframe>36000000000</timeframe>

<timeInterval>36000000000</timeInterval>

<maxrows>10</maxrows>

<mincount>1</mincount>

<reporttype>120</reporttype>

<columns>

<column id="title" title="Title" width="35%" type="SPPage" />

<column id="url" title="Url" width="0" type="hidden" />

<column id="views" title="Views" sorted="true" width="15%" type="number" />

<column id="users" title="Unique Users" sorted="false" width="20%" type="number" />

<column id="avgDuration" title="Duration" sorted="false" width="15%" type="string" />

<column id="exitRate" title="Exit Rate" sorted="false" width="15%" type="number" />

</columns><ctitle>Page
Views</ctitle><chartType>static</chartType><adgroup></adgroup><adgroupname></adgroupname><categories></categories><entity
Id>0:b0426e68-8f34-4eb2-8702-012d5de1c143</entityId><entityName>All</entityName><entityTree>0</entityTree>

</prefs>

<thead>

<td type='SPPage' width='35%' id='title'>Title</td>

<td type='hidden' width='0' id='url'>Url</td>

<td type='number' width='15%' sorted='true' direction='-1' id='views'>Views</td>

<td type='number' width='20%' id='users'>Unique Users</td>

<td type='string' width='15%' id='avgDuration'>Duration</td>

<td type='number' width='15%' id='exitRate'>Exit Rate</td>

</thead>

<tbody from='0' to='10' total='10'>

<tr>

<td>bl_SecondaryNav_Divider.jpg</td>

<td>http://scotland:81/Style Library/Images/bl_SecondaryNav_Divider.jpg</td>

<td>3</td>

<td>3</td>

<td>00:00:04</td>

<td>0%</td>

</tr>

<tr>

<td>Links</td>

<td>http://scotland:81/Lists/Links/AllItems.aspx</td>

<td>3</td>

<td>3</td>

<td>00:00:02</td>

<td>0%</td>

```
</tr>
<tr>
<td>Workflow Tasks</td>
<td>http://scotland:81/News/WorkflowTasks/AllItems.aspx</td>
<td>3</td>
<td>3</td>
<td>00:00:07</td>
<td>0%</td>
</tr>
<tr>
<td>Total Problems</td>
<td>http://scotland:81/Reports/Lists/Sample Dashboard KPI Definitions/DispForm.aspx?ID=1</td>
<td>3</td>
<td>3</td>
<td>00:00:05</td>
<td>0%</td>
</tr>
</tbody>
<startTime>1/1/0001 12:00:00 AM</startTime><endTime>1/1/0001 12:00:00 AM</endTime><rules>1</rules></table>]]>
        </data>
      </call>
   </report>
</xml>
```

Meter

The Meter data is displayed in the value node. Below is an example of a Page Views Meter exported using this API.

```
<xml id="root">
<report>
<call controlId="412" action="get" cached="True">
<controlTitle>Meter</controlTitle><title>Page Views</title>
<prefs>
<prefs><showhelp>false</showhelp><showpreferences>false</showpreferences><timeframe>36000000000</timeframe><timeInterval>36000000000</timeInterval><minvalue>0</minvalue><maxvalue>100</maxvalue><undershoot>0</undershoot><overshoot>100</overshoot><ctitle>Page Views</ctitle><chartType>static</chartType><adgroup></adgroup><adgroupname></adgroupname><categories></categories><entityId>0:b0426e68-8f34-4eb2-8702-012d5de1c143</entityId><entityName>All</entityName><entityTree>0</entityTree></prefs>
</prefs>
falsefalse360000000003600000000101120Page Viewsstatic0:b0426e68-8f34-4eb2-8702-012d5de1c143All0 Title Url Views Unique Users Duration Exit Rate bl_SecondaryNav_Divider.jpg http://scotland:81/Style Library/Images/bl_SecondaryNav_Divider.jpg 3 3 00:00:04 0% Links http://scotland:81/Lists/Links/AllItems.aspx 3 3 00:00:02 0% Workflow Tasks http://scotland:81/News/WorkflowTasks/AllItems.aspx 3 3 00:00:07 0% Total Problems http://scotland:81/Reports/Lists/Sample Dashboard KPI Definitions/DispForm.aspx?ID=1 3 3 00:00:05 0% 1/1/0001 12:00:00 AM1/1/0001 12:00:00 AM1]]>
</data>
```

```
</call>

</report>

</xml>
```

Examples:

How to add values to the chart image:

In order to add values to a chart, click on **Show Advanced Settings** in the Data Export API, and then **Get Report Preferences**. In the preferences XML, edit the <labels>true</labels> key and set the value to true. Values should now appear in the chart.

How to display the page views meter value:

```
<script>
function getPageViews() {
```

1. Call the web service *http://**cardiologservername:port**/CardioLog/clreport/reportsapi.aspx*" with the parameters "*action=xml&controlId=3015&timeframe=77760000000000&urls=&usersAndGroups=&categoryId=* Making sure to use your server name and port number.
2. Create an XML file from the response and find the <*data*> node: *selectSingleNode("//data").text;*
3. Find the <*value*> node value with regex. Example:

```
var re = new RegExp("(^[^$]*<value>)([^<]*)(<\/value>[^$]*$)", "i");
if (response.match(re)) value = response.replace(re, "$2");
document.getElementById("pageviews").innerHTML = "This Year this site was viewed " + value + " times!";

window.onload = function () {
getPageViews();
}

</script>

<body>
<div id ="pageviews" class="sample"> </div>
</body>
</html>
```