

Using LiveData V2.0

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Change log

0.1	20.02.2013	Initial version
1.0	22.02.2013	Final version
1.1	25.02.2013	Spell checked, using correct links
1.2	15.10.2013	Explaining time intervals, removing unused time parameters from map/list

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1 INTRODUCTION

LiveData is a feature that was released with addVANTAGE Pro 6.1. You can use LiveData to view data in a new graphical user interface (GUI) without logging in to addVANTAGE Pro. All LiveData views are configurable using URLs and parameters explained in this document.

You cannot change any addVANTAGE Pro settings using LiveData.

With LiveData 2, you have more options to show data and all LiveData settings are clickable. You no longer need to enter the URL in web browser.

LiveData consists of three views:

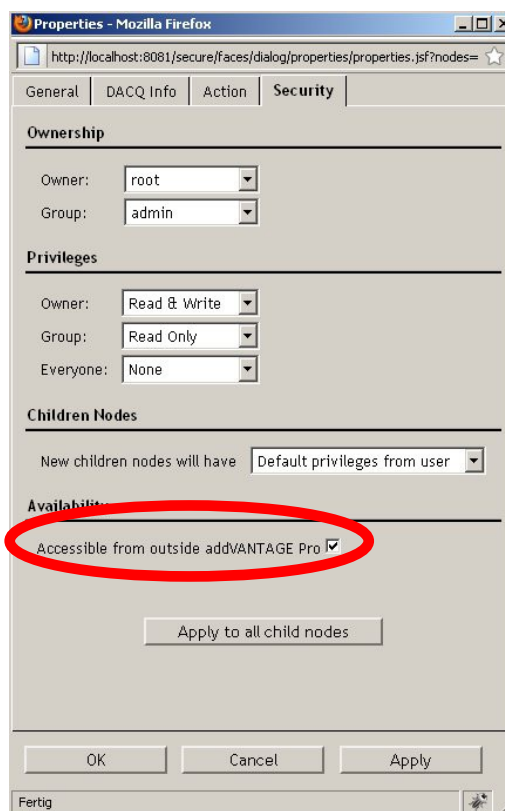
- Map view: Shows all “live” nodes located on a Google map identified by a particular URL, such as <http://demo.adcon.at:8080/livedata/map.jsf>. It’s a good idea to bookmark the map view URL so you can get to LiveData easily.
- List view: Lists all “live” nodes, including a timestamp and each node's values. The list is available at <http://demo.adcon.at:8080/livedata/list.jsf>
- Panel collection view: Shows one RTU’s values in a tabbed view, such as <http://demo.adcon.at:8080/livedata/collection.jsf?node=88>.

All views can be embedded into other websites. Because LiveData uses no popups, you no longer have problems with popup blockers. All views use JavaScript.

2 SECURITY IN LIVE DATA

LiveData allows users to see the measured data without logging in. It is therefore necessary that you give LiveData the information about which nodes are available in LiveData and which are not. You do this within the addVANTAGE Pro software.

You can access the Properties dialog shown to the right by logging in to addVANTAGE Pro and finding the node (RTU, crop, extension) you would like to make publicly available. Then right-click the node and click the Properties menu entry. In the Security tab, enable the **Accessible from outside addVANTAGE Pro** checkbox and click **Apply to all child nodes**. Then click **OK**. From now on, everyone can access this node's data using LiveData without needing to log in.



In addVANTAGE Pro 6.2, Adcon introduced a second way to check the read permission on a node. Users can log in to LiveData using the same login name/password as in addVANTAGE Pro. When users log in to LiveData, they can see the same nodes in LiveData as in addVANTAGE Pro. Please note that if you cannot see a node in LiveData, it may not only be because of missing Read permission, but also because this node is not compliant to the selected template (see Templates and template selection).

Note that areas are always considered to be publicly available, so if you use an area's node ID in the URL, the area is automatically considered to be available. Within that area, LiveData checks the child nodes for availability—any child nodes that are areas are again automatically publicly available.

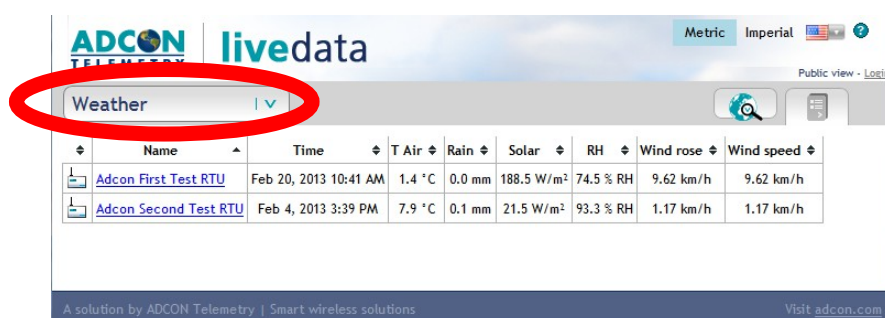
3 TEMPLATES AND TEMPLATE SELECTION

In LiveData, not all of the tags associated with a node are shown. Instead, the tags are filtered by templates.

A template identifies:

- The node shown in the current view (e.g. is it a weather station or an apple?)
- The types of sensors that should be shown

By default, when you open a list or a map view, the Weather template is selected.



	Name	Time	T Air	Rain	Solar	RH	Wind rose	Wind speed
	Adcon First Test RTU	Feb 20, 2013 10:41 AM	1.4 °C	0.0 mm	188.5 W/m ²	74.5 % RH	9.62 km/h	9.62 km/h
	Adcon Second Test RTU	Feb 4, 2013 3:39 PM	7.9 °C	0.1 mm	21.5 W/m ²	93.3 % RH	1.17 km/h	1.17 km/h

If you would like to add or remove a template, you can add or remove the corresponding .xml file in the <advantage-pro>\webapps\ROOT\WEB-INF\livedata\ directory.

4 LANGUAGE / UNIT SYSTEM

In LiveData, you can show the data in different languages and in the metric or imperial measuring unit system.

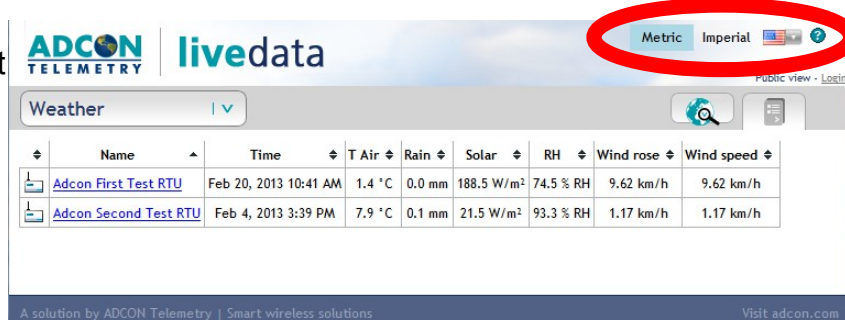
By default, the browser's language is selected. If you log in to LiveData (see Security in

LiveDataSecurity in LiveData), the user's language is being used – this means the language used in addVANTAGE Pro and in LiveData are the same. Finally, if you select a language from the language selector dropdown, this language is used, regardless of whether you are logged in or not.

The Metric/Imperial selector works similarly. If your browser is set to English/US, the imperial system is used; otherwise, the metric system is used. When you log in to addVANTAGE Pro, you'll note that the same unit system you selected for LiveData is used in addVANTAGE Pro.

Note: The Custom setting in addVANTAGE Pro is interpreted as **Metric**.

You can always manually select the unit system you want to use from the top of the page.



	Name	Time	T Air	Rain	Solar	RH	Wind rose	Wind speed
	Adcon First Test RTU	Feb 20, 2013 10:41 AM	1.4 °C	0.0 mm	188.5 W/m ²	74.5 % RH	9.62 km/h	9.62 km/h
	Adcon Second Test RTU	Feb 4, 2013 3:39 PM	7.9 °C	0.1 mm	21.5 W/m ²	93.3 % RH	1.17 km/h	1.17 km/h

5 MAP VIEW

In the map view, you can see the nodes that apply to the selected template. The following rules apply to the nodes you see in map view:

- The node is set as publicly available.
- Areas are automatically considered to be publicly available.
- If you're logged in to LiveData, you can see the same nodes as you can see when logging in to addVANTAGE Pro.



If you use an area's node ID as a URL parameter, LiveData recursively searches in the subnodes for nodes that apply to the template. If a node is visible as outlined above, the node is displayed on the map.

When you move your mouse pointer over the node, you will notice that the hand pointer turns into a pointing finger. Click the mouse to show a "quick info" popup, that is, the last available data for this node. The tags you see are filtered by the selected template. In the popup, you can click a link shown as *more...* to display the panel collection view for this node, using the same template used in the map view.

Note that when you're not logged in, the node's position is slightly randomized to keep the node's actual position hidden. This feature protects your company's data by not revealing the true location of your RTUs.

URL schema: *addVANTAGE url//livedata/map.jsf?node=node_ID*

Optional parameters:

&template=*template-name*

This parameter identifies the template that is used for the quick info popup and for the *more...* link. Because the list of existing templates is constantly growing, Adcon cannot provide it here. Adcon recommends that you select the preferred template from the template selector and use this template name for your own setup.

&locale=de | el | en | es | fr | it | pt | sv | tr | ru

If you provide this URL parameter, it overrides the default settings previously described.

&units=metric | imperial

This parameter indicates whether to show units in metric or imperial.

If you provide this URL parameter, it overrides the default settings previously described.

6 LIST VIEW

An alternative to using the map view is using a list, which is available at <http://demo.adcon.at:8080/livedata/list.jsf>. If you're using a mobile device or have a slow Internet connection, you will appreciate the list view, as it shows less traffic than the map view.

The URL parameters are the same as in the map view (see Map's URL schema).

The screenshot shows the ADCON Telemetry 'livedata' interface. At the top, there are navigation options for 'Metric' (Imperial) and 'Public view - Login'. Below this is a 'Weather' dropdown menu. The main content is a table with columns for Name, Time, T Air, Rain, Solar, RH, Wind rose, and Wind speed. Two rows of data are visible, each with a link to the RTU's detail page.

Name	Time	T Air	Rain	Solar	RH	Wind rose	Wind speed
Adcon First Test RTU	Feb 20, 2013 10:41 AM	1.4 °C	0.0 mm	188.5 W/m ²	74.5 % RH	9.62 km/h	9.62 km/h
Adcon Second Test RTU	Feb 4, 2013 3:39 PM	7.9 °C	0.1 mm	21.5 W/m ²	93.3 % RH	1.17 km/h	1.17 km/h

Select any RTU to display the panel collection view. The view is discussed in Panel collection view.

The screenshot shows the detailed panel view for 'Adcon First Test RTU'. It includes a weather icon, a table of statistics, and a multi-axis time-series graph. The statistics table compares 'latest' data with 'Today', '7 days', 'Month', and 'Year' averages for various metrics.

	latest	Today	7 days	Month	Year
AVG (°C)	1.4	0.6	0.8	1.3	0.8
SUM (mm)	0.0	0.0	8.2	17.7	93.6
MAX (W/m)	188.5	188.5	585.1	585.1	585.1
AVG (% RH)	74.5	78.4	89.9	86.2	89.2
AVG (km/h)	9.62	7.62	5.35	6.85	6.55
AVG (°)	244.7	288.6	267.9	261.5	244.7
AVG (km/h)	15.24	14.18	9.57	12.35	11.89

The graph below the table displays multiple data series over time (4:00 AM to 8:00 PM). The legend includes: my Precipitation 0.1mm IOC Imbit, Pyranometer CM3, Relative Humidity, Temperature, Wind Direction, Wind Speed, and Wind Speed Max Slot IOB.

URL schema: *addVANTAGE url//livedata/list.jsf?node=node_ID*

Optional parameters:

&template=*template-name*

This parameter identifies the template that is used for the quick info popup and for the *more...* link. Because the list of existing templates is constantly growing, Adcon cannot provide it here. Adcon recommends that you select the preferred template from the template selector and use this template name for your own setup.

&locale=de | el | en | es | fr | it | pt | sv | tr | ru

If you provide this URL parameter, it overrules the default settings previously described.

&units=metric | imperial

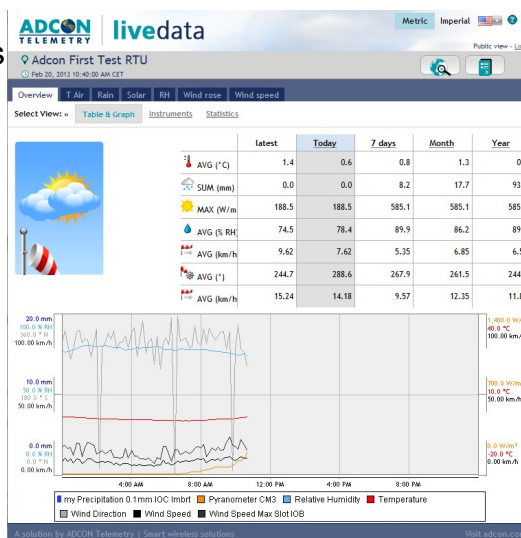
This parameter indicates whether to show units in metric or imperial.

If you provide this URL parameter, it overrules the default settings previously described.

7 PANEL COLLECTION VIEW

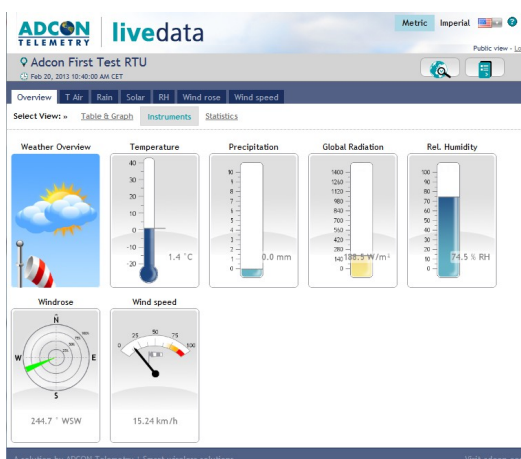
The panel collection view shows a single node's tags. The tags are filtered by the selected template.

The panel collection view shows an Overview tab and one tab for each tag associated with the node. The Overview tab provides an overview about various interesting tag values, and shows a trend curve. You can click the column headings in the table to select different time spans for the trend. For example, if you click the Month header, the trend is reloaded, showing the current month.



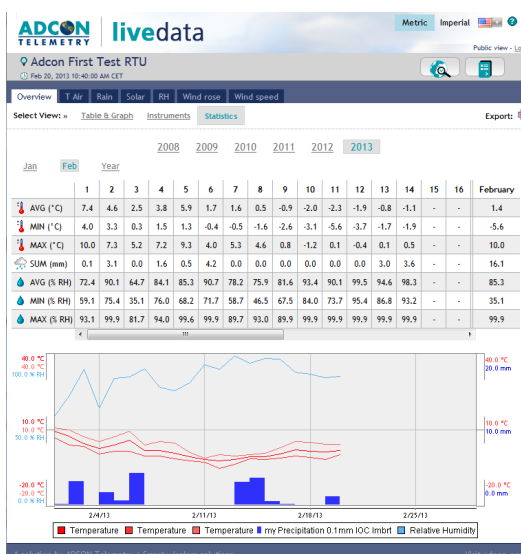
You can switch between the Table & Graph view, the Instrument view, and the Statistics view.

Click the Instruments link to see the tag's values as instruments, as shown in the figure to the right.



Select the Statistics view (currently available only in the Weather template), to get Statistical information about the Temperature, Relative Humidity, and Precipitation.

Select the Year or Month to change the time span that is used in the table and the graph view.



URL schema: *addVANTAGE url//livedata/collection.jsf?node=node_ID*

Optional parameters:

&endDate= *YYYYMMDDThh:mm:ss*

This case-specific parameter indicates the end of the time period you want to see. If you use a duration (for example, Current week), the duration's end date is always the endDate that is passed. For example if you enter an end date that is a Thursday, the values from Monday to Wednesday are shown in the Current week section.

The default is the date of the request.

The date has to be in the ISO 8601 format shown above, for example:

endDate=20101014T00:00:00

&template=*template-name*

This parameter identifies the template that is used for the quick info popup and for the *more...* link. Because the list of existing templates is constantly growing, Adcon cannot provide it here. Adcon recommends that you select the preferred template from the template selector and use this template name for your own setup.

&locale=*de | el | en | es | fr | it | pt | sv | tr | ru*

If you provide this URL parameter, it overrules the default settings previously described.

&units=*metric | imperial*

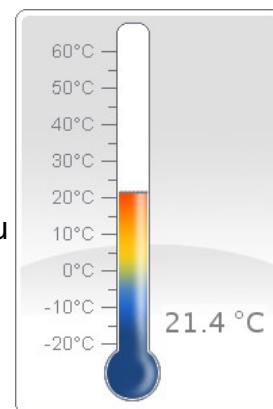
This parameter indicates whether to show units in metric or imperial.

If you provide this URL parameter, it overrules the default settings previously described.

8 INSTRUMENT

The instrument is a simple image (.png) file showing the data of the sensor that you selected in the URL parameters.

As the setup of the URL is quite time-consuming, it is highly recommended that you navigate in LiveData to the instrument you would like to show (e.g. temperature), right-click the image, and select **Show image in a new tab**. Then you have this image's URL in the address bar and you easily can update the parameters.



URL schema: *addVANTAGE url/instruments?node=node_ID*

Optional parameters:

&template=*template-name*

This parameter identifies the template that is used for the instrument renderer. Because the list of existing templates is constantly growing, Adcon cannot provide it here. You can right-click an existing instrument to find out its template name.

&duration=*duration*

This parameter provides the duration that is used to calculate the average/sum of the values displayed in the instrument. The duration can be shown as the number and the time unit. Use any of the following values for the time unit:

h	the last 1 hour	H	the current hour
d	the last 24 hours	D	the current day
w	the last 7 days	W	the current week
m	the last month	M	the current month
y	the last 365 days	Y	the current year

Examples of a duration are D, H, 12h, 3d, or 5w.

&locale=de | el | en | es | fr | it | pt | sv | tr | ru

If you provide this URL parameter, it overrules the default settings previously described.

&units=metric | imperial

This parameter indicates whether to show units in metric or imperial.

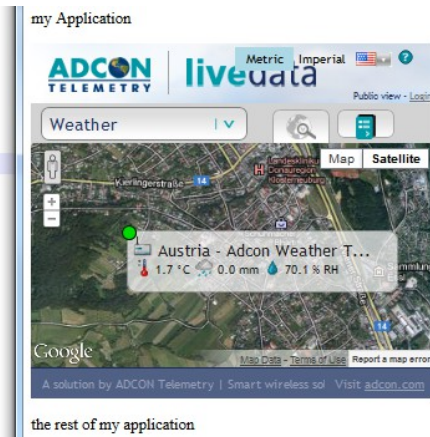
If you provide this URL parameter, it overrules the default settings previously described.

9 EMBEDDING LIVE DATA INTO YOUR OWN WEBSITE

LiveData was designed so you could embed parts of it into your own website. The previous pages describe how to set up various parameters using the URL. Below are descriptions of how you can embed different LiveData views into your own website.

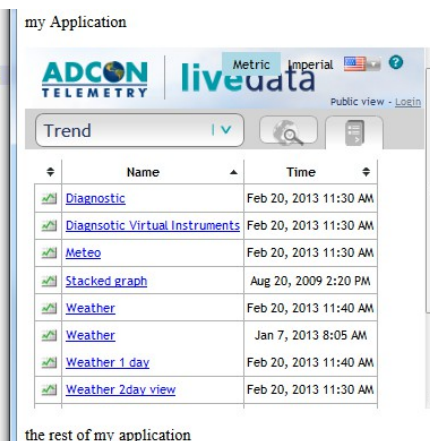
Map

```
<html>
<body>
<p>my Application</p>
<iframe src="http://demo.adcon.at:8080/livedata/map.jsf?node=88&locale=en"
style="border:none; width:405px; height:356px"></iframe>
<p>the rest of my application</p>
</body>
</html>
```



List

```
<html>
<body>
<p>my Application</p>
<iframe src="http://demo.adcon.at:8080/livedata/list.jsf?locale=en&template=trend"
style="border:none; width:413px; height:356px"></iframe>
<p>the rest of my application</p>
</body>
</html>
```



Panel collection

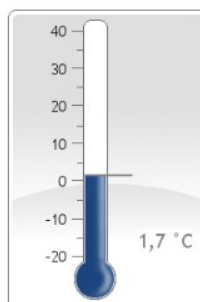
```
<html>
<body>
<p>my Application</p>
<iframe src="http://demo.adcon.at:8080/livedata/collection.jsf?template=weather&node=88&locale=en"
style="border:none; width:488px; height:356px"></iframe>
<p>the rest of my application</p>
</body>
</html>
```



Instrument

```
<html>
  <body>
    <p>my Application</p>
    <iframe src="http://demo.adcon.at:8080/instruments?node=107"
      style="border:none; width:216px; height:316px"></iframe>
    <p>the rest of my application</p>
  </body>
</html>
```

my Application



the rest of my application