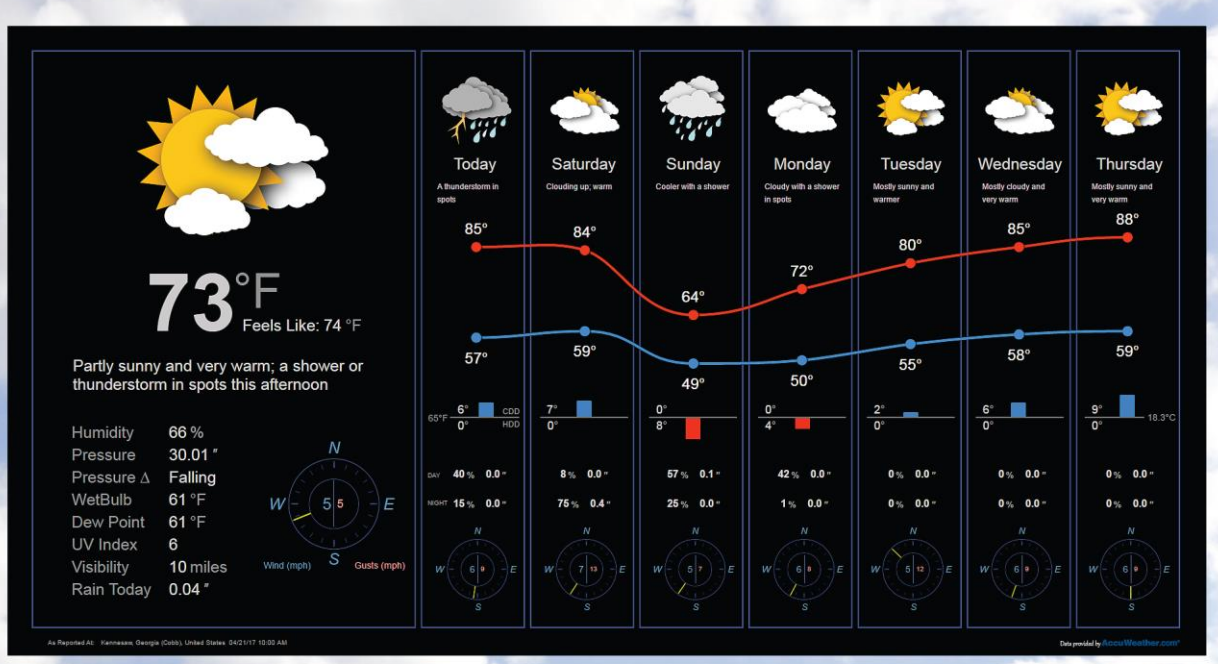
Weather v2.5.3
User Guide



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Verify that you have the most current version of this document from **www.hvacpartners.com** or your local Carrier office.

Important changes are listed in **Document revision history** at the end of this document.

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What is the Weather add-on?

The Weather add-on retrieves current weather conditions and forecasts from a data source, such as AccuWeather Weather Service, the National Weather Service, and Environment Canada Weather Service. This weather information can be displayed on a graphic page as shown below or read from a control program for use in control logic.

Additional feature available:

Hourly data can be retrieved from the AccuWeather service and viewed through this add-on.

TIP To enable the Hourly Data feature, you must purchase and install Weather's Hourly license.

If you have purchased and installed Weather's Hourly license, use the pre-configured graphics and control programs available specifically for hourly weather data found in **weather_2.5.3.zip**.

CAUTION:

If you are upgrading from a previous version of Weather:

To avoid losing any data, you must uninstall the previous version while keeping the data.

See *Installing an Add-on User Guide* for more information.

If your company's Internet access has a proxy set up, you must configure the proxy settings to allow the Weather add-on to access the weather data. You define these settings in the ProxyConfig add-on. If you need it, you must *install and configure the proxyconfig.addon* (page 3) before you configure the weather.addon file.

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Prerequisites to use the Weather add-on

You must have the following:

- The i-Vu® Plus or Pro v6.5 or later application with the latest cumulative patch applied
- The **Installer** role
- Weather_2.5.3.zip which includes Weather.addon and the Weather .equipment and .view files for AccuWeather, NWS, and/or Canada weather services
- Weather's Hourly license if you plan to retrieve hourly data from AccuWeather
- ProxyConfig.addon

  NOTE This is only necessary if your company's internet access has a proxy set up.
- Any of the following:
  - AppController
  - MPC Open XP
  - UC Open XP
  - UC Open
  - i-Vu® Open Link
  - i-Vu® Link
  - i-Vu® CCN Router
  - Carrier® ChillerVu™
  - i-Vu® Plus - USB CCN Adapter

    NOTE This embedded router must have driver version 6.02.043 or later

See the *Installing an Add-on User Guide* for the following:

- Installing an add-on
- Applying a license
- Running an add-on
- Upgrading an add-on

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Installing and setting up the ProxyConfig add-on

If your company's Internet access has a proxy set up, you must configure the proxy settings to allow the Weather add-on to access the weather data. You define these settings in the ProxyConfig add-on. If you need it, you must *install and configure the proxyconfig.addon* (page 3) before you configure the weather.addon file.

Installing the ProxyConfig add-on

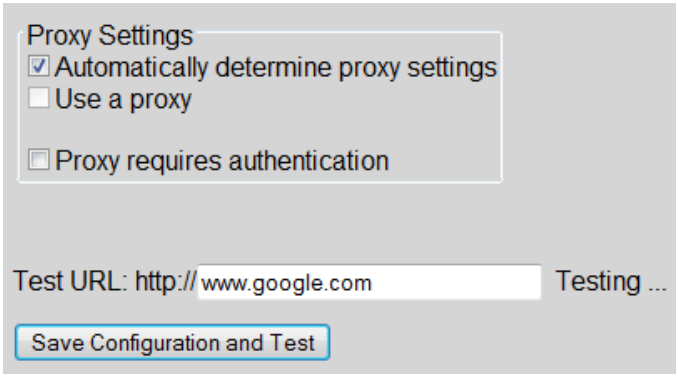
1 Do one of the following:

i-Vu® Plus interface	Go to the **Main Menu** drop-down list, select **System Options** > **Add-ons** tab.
i-Vu® Pro interface	Go to the **Main Menu** drop-down list, select **System Options** > **System Settings** > **Add-ons** tab.

2 In **File to install**, browse to the proxyconfig.addon file on your desktop and click **Open**, then **Install** (or **Install Add-on**). After a few seconds, ProxyConfig add-on will appear in the **Installed** table and will be shown as running.

3 If the ProxyConfig add-on does not display the status **Running**, select the ProxyConfig add-on in the **Installed** table and click **Enable**.

4 In the **Details** section under the **Installed** table, click **Main page** to set up the proxy server information.



5 In the i-Vu® interface, click **Close** in the **Add-ons** dialog.

Using the ProxyConfig add-on

1 If you did not connect to the add-on through the **Main Page** link in the Weather add-on interface on the **Add-on** tab, you can use the following method to access the setup page:

Go to http://<system IP address>/proxyconfig.

NOTE `/proxyconfig` is case sensitive.

2 When you installed ProxyConfig, it automatically tried to determine the proxy settings.

3 If it found the settings, the **Host** and **Port** information is filled in for you. If it could not find the proxy settings or, if you are using the i-Vu® Plus application, you need to enter them as follows:

a) Uncheck **Automatically determine proxy settings**.

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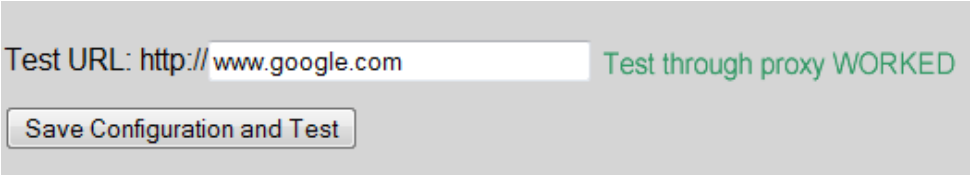
b) Check **Use a proxy**.

c) Enter the **Host** and **Port** information. You can obtain these from your network administrator.

4 Check **Proxy requires authentication** if the proxy requires it, and then enter the **Username** and **Password**. You can obtain these from the network administrator.

5 Click **Save Configuration and Test**.

NOTE The **Test URL:http://** field has an external website address. If the proxy settings are correct, you will see the green text shown below.



6 Close the **Setup** page.

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Setting up the Weather add-on

We recommend that you configure this on a laptop or desktop computer using a modern browser.

1 If you did not connect to the add-on through the **Main Page** link in the i-Vu® interface on the **Add-on** tab, you can use the following method to access the setup page:

In a web browser, type the address of your i-Vu® system followed by `/weather`.

NOTE `/weather` is case sensitive.

2 In the **Weather Service** field, select which service you want to get data from.

TIP If you plan to retrieve hourly data, you **must**:

- have the Hourly license installed
- and select **AccuWeather**.

3 Under **Refresh Rates**, enter how frequently you need updated information. Minimum rate is 5 minutes for all data.

4 Under **Service Options**, select an available option, depending on which service you selected:

- **AccuWeather Service** — whether you want data in US Customary units or Metric units
- **National Weather Service** — whether you want data in US Customary units or Metric units
- **Environment Canada** — whether you want results in English or French

5 Click **Apply**.

6 To add a weather station, click **Add New Location**.

7 In the **Database Path** field, enter the path to the equipment where the weather data will be used in a graphic or control program.

NOTES

- The **Database Path** can be a global reference name. For example, #outside_air_forecast.
- To get the path, right-click on the equipment in the i-Vu® **Installer** navigation tree, then select **Copy Path**. Paste that path into the **Database Path** field.

8 Type in the **Zip Code**. For Environment Canada service, enter the **City**.

9 Click **Find Station**. For Environment Canada service, click **Find City**.

10 When the list populates, select a station to retrieve data from.

NOTE This could take a couple minutes.

11 Click **OK**.

12 To verify that data can be retrieved from the weather station, click **Show Data**. (See *To verify retrieved data* (page 6) for more information.)

13 Repeat steps 7 – 11 for every other equipment on the i-Vu® navigation tree where weather data will be used.

14 Close the **Setup** page.

TIP Click the **Diagnostic Logs** tab for errors.

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To verify retrieved data

All locations that you defined when setting up the add-on are listed at the bottom of the Weather **Setup** page.

On the **Setup** page, click **Show Data**.

Data for custom graphics or control programs

If you are *making a custom graphic or control program* (page 7), you will need the results from the **Show Data** button. If you are using the preconfigured graphic and control program (which we recommend), you are now finished.

Hourly Data retrieved

If retrieving hourly data, the following sections appear:

- Hourly Forecast For Next 24 Hours
- Hourly Forecast By Day (for the next 120 hours, broken up into 5 days).

NOTES

- The first and last day may have incomplete data based on when the data was retrieved.
- Data for hours in the past is not available.
- Data beyond the 120 hour period is not available.
- If hourly data is available for a weather station, the ws_hourlyData flag will be be **True**. To view this flag, click **Show Data** for a weather station.

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Getting a graphic or control program

To download a preconfigured graphic and control program

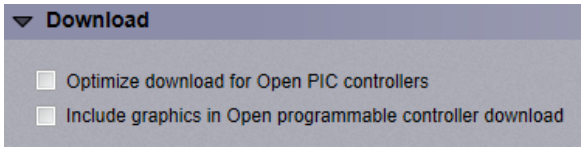
1 Go to the *Carrier Control Systems Support Site* (*http://www.hvacpartners.com*).

2 Do one of the following:

If your data source is...	download the Control Program and Graphic for use with...
AccuWeather Service	AccuWeather
AccuWeather Service	AccuWeather Hourly*
National Weather Service	NWS
Environment Canada	Environment Canada

*To retrieve data hourly, you must use these files after purchasing and installing Weather's Hourly license.

CAUTION Due to the large size of the preconfigured graphics, we do **not** recommend that you store them in the controller. Go to **System Options** (or **System Settings**) > **General** tab > **Download** section and verify that **Include graphics in Open programmable controller download** is unchecked.



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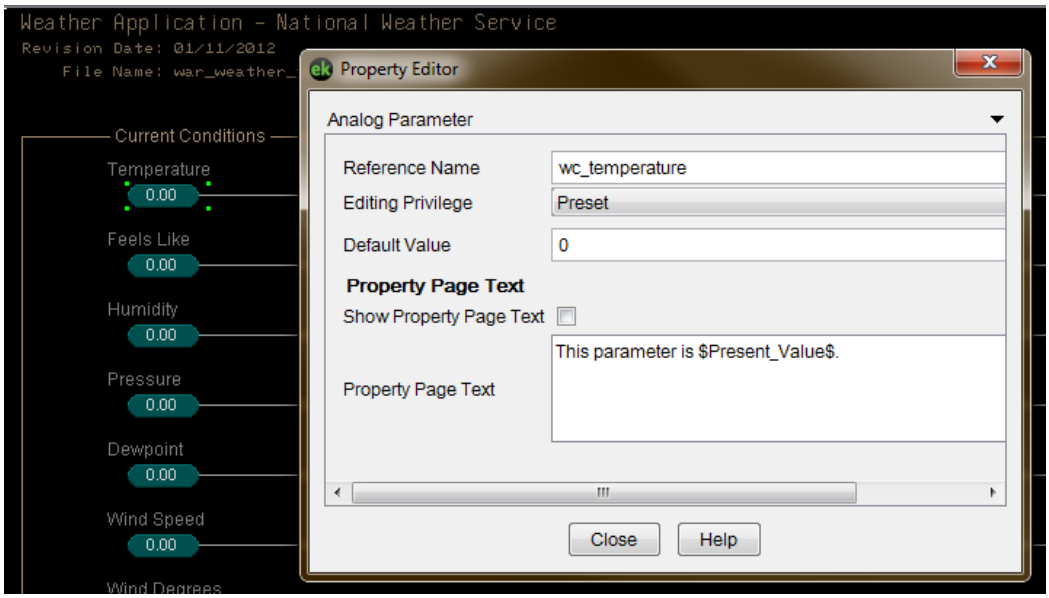
To make a custom graphic or control program

To use weather data in a custom graphic or control program, you need the name of each data field from your data source. To get field names, go to the Weather **Setup** page, and click the **Show Data** button beside the appropriate graphic or control program location.

To make a custom control program

To use weather data in a control program, add an Analog Parameter or BACnet Analog Value Parameter microblock and enter the weather data field name as the **Reference Name**. Only weather data fields with numeric values (not text) can be used in a control program.



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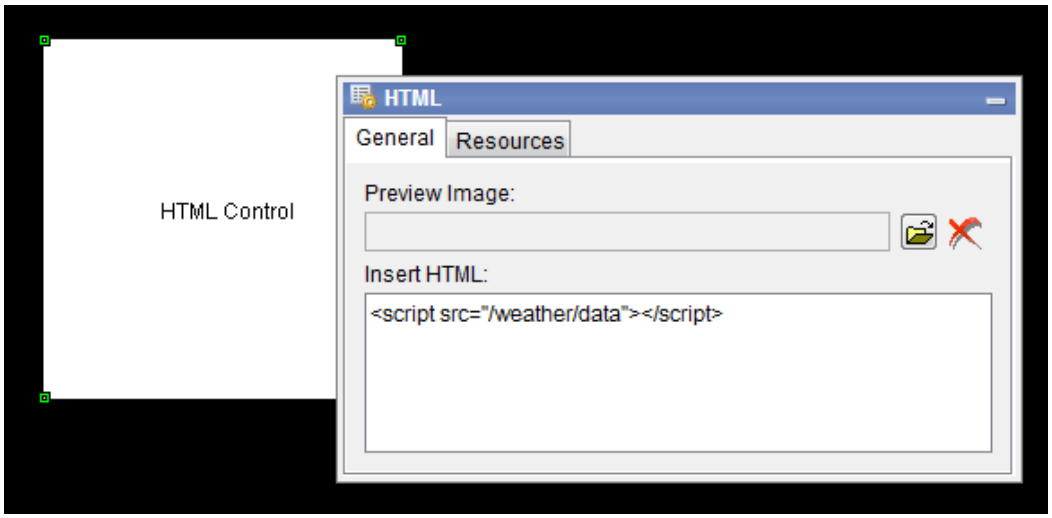
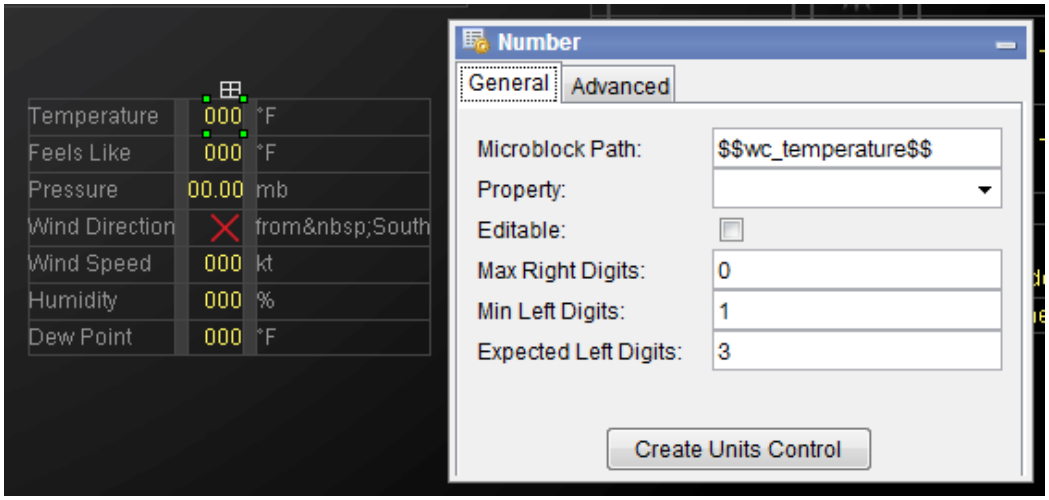
To make a custom graphic

To use the weather data in a graphic, you must place an HTML control in the graphic (.view) file before you add any other controls. In the **Insert HTML** field, type `<script src="/weather/data"></script>` as shown below.



To display a field in a graphic, use a Number or Single-line Text control. In the **Microblock Path** field, enter the weather data field name (found using the **Show Data** button) surrounded by "$$" as shown below. Delete anything in the **Property** field. See examples below.

Use Number Controls to display numeric data.



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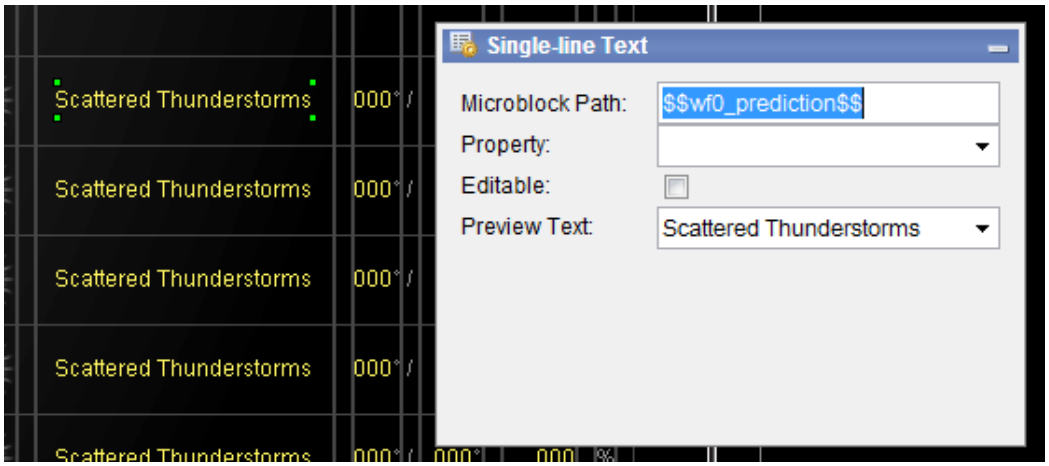
Use Single-line Text Controls to display string data.



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Hourly Data Application Notes

Due to the large quantity of microblocks contained within each control program, the following provisions have been made to the provided control programs:

- The Network Visible property has been disabled for all BACnet Analog Value Status microblocks in order to maximize the control program execution rate.
- The Enable Trend Log property has been disabled for all Analog Trend microblocks in order to minimize control module memory allocations.

Multiple control programs may be combined to create a single control program, but be aware that the Suppress Logic Page property of the control program may require enabling in order to Save the control program file in Snap. Likewise, data points that are not being used may be deleted from the control program.

NOTE Special consideration is needed to handle daylight savings transitions. See Hourly Weather and Daylight Saving Time in the *Troubleshooting* (page 12) section for details.

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Troubleshooting the Weather add-on

Hourly Weather and Daylight Saving Time

AccuWeather reports their times in GMT. The Weather add-on converts the reported times to i-Vu® local time, but doesn't account for Daylight Saving Time changes. When the clocks are set ahead in the spring, data for the 2am hour will be missing on the day of the time change. When the clocks are set back in the fall, the original 2am hour's data will be overwritten by the next 2am hour's data. Special consideration should be taken in your application to account for this.

To determine if the Weather add-on is working correctly

- **Verify the graphic has values**
  Navigate to the location of your weather graphic and see if it has values (not just a ?). Note that it is normal for the forecast value for the 7th day to sometimes have a ?. The weather services we use do not always have 7 full days of forecast data.

- **Verify the add-on can retrieve new weather data now**
  Navigate to the Weather setup page (<system>/weather) and click the **Show Data** button for a location. This should display a list of retrieved values on the bottom of the page.

- **Verify it has been retrieving data regularly**
  Navigate to the location of your weather control program and look at the "Update" trend. This trend records a transition each time the data is updated from the weather station. This historical record can show you intermittent communications problems between the i-Vu® application and the weather service you are using.

If the Weather add-on is not working

- **If the Hourly Weather data is not working**
  - Install a valid license for the weather add-on, one that enables the hourly weather feature.
  - Make sure that AccuWeather is the selected weather service. Only the AccuWeather service provides hourly weather data.

- **The weather service is down**
  Sometimes, the weather services go down temporarily. They are usually back up within a few hours. To determine if the problem is the weather service and not your network, open a web browser on a different network such as on a mobile device, then try loading the appropriate weather service below. If you cannot load it, the service is down.

  If you are using National Weather Service, try loading:
  http://w1.weather.gov/xml/current_obs/

  1. Select the **State** and click **Find**.
  2. From the **Observation Location** list, find the weather station and click **XML**.

  If you are using Environment Canada, try loading:
  http://dd.weatheroffice.ec.gc.ca/citypage_weather/xml/BC/s0000775_e.xml

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- **Retrieve a list of errors**

i-Vu® Plus interface	You can find the Weather error log (addon-weather.txt) as part of the i-Vu Plus application logfiles. **1** Go to **System Options** > **General** tab. **2** In the **Logs** section, select a dated logfile and click **Download**. **3** Check this file if you are having errors. Include any error in a request for support.
i-Vu® Pro interface	The Weather add-on logs errors to logs/<week>/addon-weather.txt log file. Check this file if you are having errors. Include any error in a request for support.

- **If the add-on can retrieve new weather data, but the graphic does not work:**

  1. Verify that the Location Path specified on the Weather setup page matches the path to your graphic.

     NOTE If the path is wrong, errors in the log file will contain this error message: **Invalid GQL location:**

  2. If the error message appears, clear your browser's cache.

- **If the add-on cannot retrieve new weather data**
  Check the log file. An error like the following indicates a problem with the connection between the i-Vu® server and the weather service:
  Error retrieving http://w1.weather.gov/xml/current_obs/KRYY.xml

  Try using Remote Desktop to log in to the server that is running the i-Vu® Pro application. Try using a web browser to manually get weather data from the server.

  If you are using National Weather Service, try loading:
  http://w1.weather.gov/xml/current_obs/KRYY.xml

  If you are using Environment Canada, try loading:
  http://dd.weatheroffice.ec.gc.ca/citypage_weather/xml/BC/s0000775_e.xml

  If you cannot load this data in a web browser, the add-on will not be able to load it. A firewall may be preventing the server from initiating connections to the internet. Check with your network administrator to see if they are intentionally blocking internet access. If so, see if they will allow access through a proxy that is configured to allow only the weather.gov and dd.weatheroffice.ec.gc.ca sites.

  If you can get data from the browser, but cannot get it from the add-on, see if the browser is configured to use a proxy. If so, you need to install and configure the *ProxyConfig add-on* (page 3).

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Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
		No changes yet	

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