

# Technical Reference

## Capstone Remote Monitoring System (User Edition)

This document presents the control and monitoring features for the User Edition Capstone Remote Monitoring System (CRMS) software.

### Chapter 5: CRMS Setup Windows

This chapter presents the CRMS setup windows information.

#### MicroTurbine Display Windows

The CRMS program defaults to the MicroTurbine Display Window when started. To select the MicroTurbine Display from the Menu Bar, select **[Window][MicroTurbine Display]** from the Windows Menu Bar. See Figure 5-1.

From the MicroTurbine Display Window you can initiate communication, and you can monitor and control up to 100 MicroTurbines (depending on your CRMS license, and your system configuration setup). Different control panels can be selected/displayed from the MicroTurbine Display Window.

If two (or more) open panels overlap, CRMS will display the latest selected panel.

Notice that you can display all of the open panels by simply (left mouse) clicking on any empty (that is, not occupied) MicroTurbine Display Window space.

Each displayed panel can be dragged, scaled, and/or resized to fit your desktop.

**Note 1:** Each different CRMS version has different available control panels.

**Note 2:** The MicroTurbine Display Window should be used for connection only to single (not MultiPac) MicroTurbines. Connection to a MultiPac system should be initiated from the MultiPac Display Window.

**Note 3:** CRMS supports simultaneous communication with up to 100 single MicroTurbines, OR up to 100 MicroTurbines in a MultiPac system.

**Note 4:** CRMS does not support simultaneous communication with more than one MultiPac system at the same time.

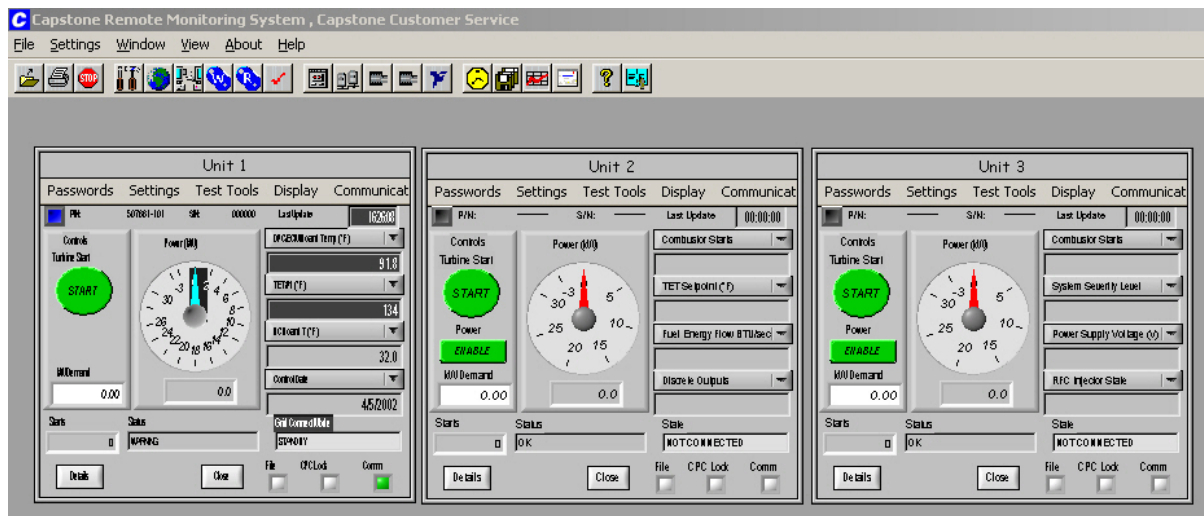


Figure 5-1. MicroTurbine Display Window

## Site Configuration

To add, delete, or modify the site name and number of displayed MicroTurbine panels, select **[Settings][Site Configuration]** from the Window Menu Bar. See Figure 5-2.

Up to 100 MicroTurbines may be setup and identified via the Site Configuration panel. CRMS detects and displays MultiPac or single MicroTurbine configurations, upon established communications.

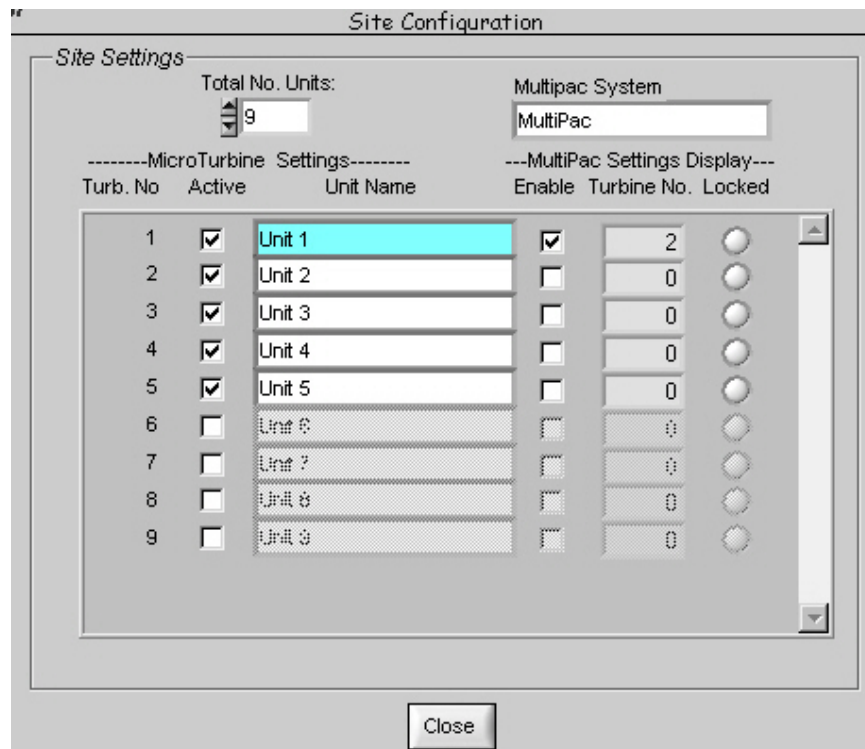
The following settings are available from the Site Configuration panel:

- **Total No. Units**

Specify the total number of available MicroTurbines.

For MultiPac, the total number of units should be equal to the maximum turbine number assigned to any MicroTurbine unit.

Adjusting the total number of units also resets the number of MicroTurbines on the Site Configuration Panel.



**Figure 5-2. Site Configuration**

For MultiPac connection, CRMS will detect and display the MicroTurbine numbers, the locked MicroTurbines, and the MultiPac-Enabled MicroTurbines.

For MultiPac configurations, the MultiPac System will be displayed in a green background color.

For single unit configurations, the Unit Name field for an active MicroTurbine will be displayed in a blue background color.

- **Active**

Activates a site and associated displays, as well as data collection.

- **Unit Name**

Specifies the site or unit name, which is used to designate the MicroTurbine Display Window title and the data collection folder names.

- **MultiPac System**

Specify the MultiPac name.

## Enter Site Information

To configure the Site Configuration, set the following control parameters (Figure 5-2):

### □ MicroTurbine Display Settings

1. Select and enter the total number of units in the **Total No. Units** box. Use the up/down arrows, or enter the quantity.
2. Select the **Active** checkbox to activate the control and display panels. Click to enter or remove a checkmark.
3. Enter the **Unit Name**.

### □ MultiPac Settings

1. Select and enter the total number of units in the **Total No. Units** box. Use the up/down arrows, or enter the quantity.
2. Select the **Active** checkbox to activate the control and display panels. Click to enter or remove a checkmark.
3. Enter the name of the unit in the **Unit Name** box.
4. Enter the name of the MultiPac System in the **MultiPac System** box.

The following parameters are displayed on the Site Configuration panel specifically for MultiPac settings:

- **Turbine No.**

Indicates the unit number assigned to a particular MicroTurbine. The MultiPac turbine number should be unique for each MicroTurbine.

- **Locked**

Indicates (via an LED), that the unit is communicating with the Master MicroTurbine, or with the CPS Controller. If the Locked LED turns dark, it indicates that the unit is locked.

- **Enable**

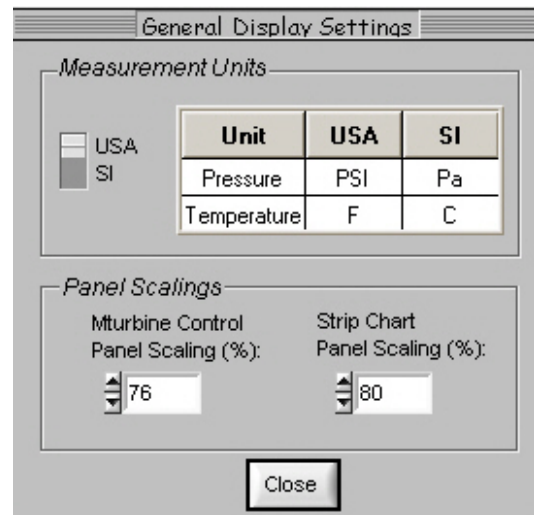
Indicates if the unit is set as MultiPac enable, or MultiPac disable. If the checkmark is shown inside the control box, it indicates that the unit is MultiPac Enable. An operator can Enable or Disable the MicroTurbine by clicking on the corresponding checkbox.

**Note 1:** The maximum **Total No.** available for Site Configuration units depends on CRMS license. In the case of a Single License User, contact Capstone Technical Support if you wish to communicate with more than one MicroTurbine.

**Note 2:** The settings for both **MultiPac Enable/Disable** and **Turbine No.** can be adjusted from the MultiPac Settings Panel.

## General Display Settings

To change the measurement units or to scale the MicroTurbine Control or Strip Charts panels, select **[Settings][General Display]** from the Window Menu Bar. See Figure 5-3.



**Figure 5-3. General Display Settings Panel**

The following parameters can be controlled from the General Display Settings panel:

### □ Measurement Units

- **Units**

This function displays the units in Standard International (SI) format, or in the USA measurement system format.

### □ Panel Scalings

- **Mturbine Control Panel Scaling**

This function scales all of the activated MicroTurbine control panels according to set control value (%).

- **Strip Chart Panel Scaling**

This function scales all activated Strip Chart panels according to set control value (%).

## Notes and Related Information