

# 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 3: Software Installation

This chapter describes the steps required via CRMS to install, setup, and remotely start your MicroTurbine.

#### Checklist

The following checklist  must be completed prior to operating your MicroTurbine:

- Connect Computer to MicroTurbine
- Install CRMS Software
- Run CRMS Software
- Enter Registration Data
- Enter Site Data
- Setup Communications

#### Step 1: Connect Computer

Modem, Ethernet (Remote), or Serial (Local) connections can be used for communication with the MicroTurbine.

For local connection, a null modem cable is required for computer connection to the user or maintenance ports.

For remote connection, a modem or the Capstone Protocol Converter (CPC) is required for connection to the MicroTurbine user or maintenance ports.

#### Step 2: Install CRMS

To install CRMS, run **Setup.exe** from your CRMS CD.

During installation, setup will check for an existing CRMS application. If an existing CRMS application is detected, then setup will **uninstall** the existing CRMS application, and a second run of the setup program will be required to install the new CRMS.

CRMS software normally resides in the **c:\capstone** directory (unless you specified a different directory during install). If a different (or custom) directory is specified, **DO NOT** use any special characters (blanks or dots) within the directory path name.

The installation wizard will guide you through the installation process.

#### Step 3: Run CRMS

To prevent conflicts with any previous running CRMS programs, it is recommended that all original CRMS setup files be deleted. The setup files reside in the **\setup** directory in the previously installed CRMS program.

If a different directory (other than default) is specified, **DO NOT** use any special characters (blanks or dots) within the custom directory path name.

To begin execution, run **capstone.exe**.

#### Step 4: Enter Registration Data

Enter registration information in Table 3-1 into the boxes shown in Figure 3-1.

Table 3-1. Registration Data

Item	Information
Registered User	Your User Name
Company	Your Company Name
Serial Number	Located inside CD cover



The Registration dialog box contains the following fields and controls:

- Registered User: Peter Smith
- Company: PowerDelphia
- Serial Number: Your Serial Number Entered Here
- Buttons: Enter, Close

Figure 3-1. Registration Information

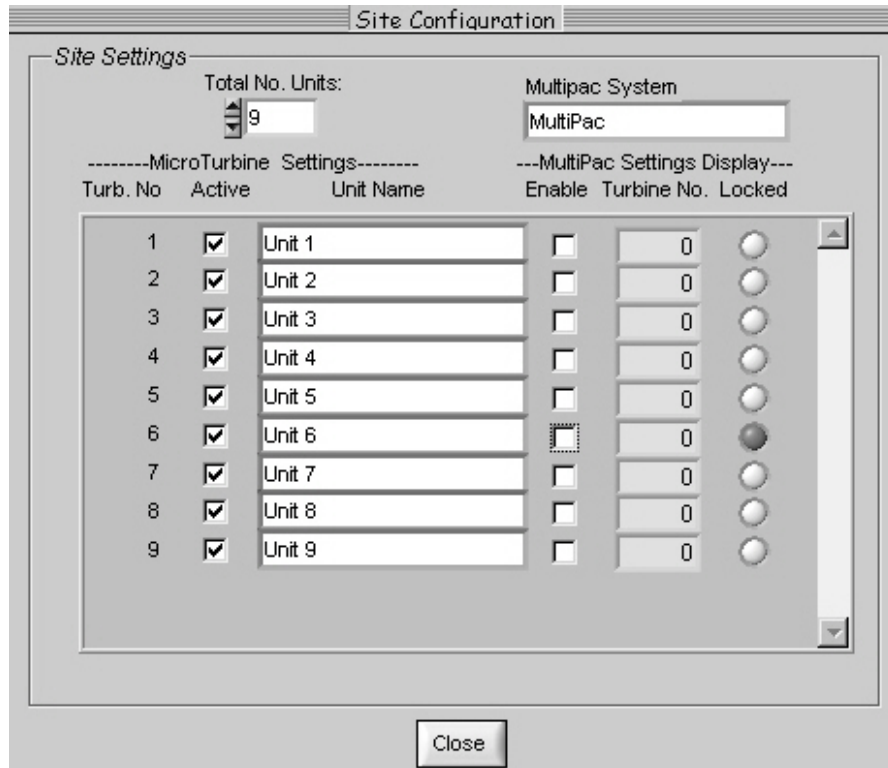
There are two different types of licenses available for CRMS: **Single** or **Multiple** connections. A **Single** license is allowed to make connection to only one MicroTurbine. A **Multiple** license is allowed to make connection to multiple MicroTurbines, or to a MultiPac system.

If you are a **Single** License User, contact Capstone Technical Support if you wish to communicate with more than one MicroTurbine.

**Step 5: Enter Site Data**

For more information on the **Site Configuration** panel, refer to Site Configuration Settings in Chapter 9.

The Site Configuration panel is presented in Figure 3-2.



The Site Configuration panel includes the following settings:

- Total No. Units: 9
- Multipac System: MultiPac
- MicroTurbine Settings table:

Turb. No	Active	Unit Name	Enable	Turbine No.	Locked
1	<input checked="" type="checkbox"/>	Unit 1	<input type="checkbox"/>	0	<input type="radio"/>
2	<input checked="" type="checkbox"/>	Unit 2	<input type="checkbox"/>	0	<input type="radio"/>
3	<input checked="" type="checkbox"/>	Unit 3	<input type="checkbox"/>	0	<input type="radio"/>
4	<input checked="" type="checkbox"/>	Unit 4	<input type="checkbox"/>	0	<input type="radio"/>
5	<input checked="" type="checkbox"/>	Unit 5	<input type="checkbox"/>	0	<input type="radio"/>
6	<input checked="" type="checkbox"/>	Unit 6	<input type="checkbox"/>	0	<input checked="" type="radio"/>
7	<input checked="" type="checkbox"/>	Unit 7	<input type="checkbox"/>	0	<input type="radio"/>
8	<input checked="" type="checkbox"/>	Unit 8	<input type="checkbox"/>	0	<input type="radio"/>
9	<input checked="" type="checkbox"/>	Unit 9	<input type="checkbox"/>	0	<input type="radio"/>

Buttons: Close

Figure 3-2. Site Configuration Display

## Step 6: Setup Communications

Initiate connection as follows:

1. Open the Communication panel by selecting [Communication][Settings] from the MicroTurbine Display Menu Bar. From the Communication Setting pull-down menu button, select type of communications used to connect to the MicroTurbine: Serial, Modem, or TCP/IP connection.
2. Upon selection, the corresponding communications panel will be displayed.
3. Enter the comport number for modem or serial connections to the MicroTurbine.
4. Enter a phone number for Modem connection, or enter the IP address for an Ethernet connection.
5. Select an auto connect method.
6. Click on Communication (**Comm**) **ON/OFF** button to begin communicating.

For Serial or Ethernet communications, a link with the MicroTurbine will be established almost immediately.

If modem-type communication is selected, CRMS will dial the phone number and begin communications after the connection is established.

## Notes and Related Information