PM Sync User Manual

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1   Introduction

PM Sync software enables high speed, remote download of logged PowerMonic data. Please note that remote communications are available in the PowerMonic 35 and PowerMonic 45. It has two modes of application:

a) Manual mode for downloading from individual PowerMonic devices.

b) Automatic mode for downloading from multiple PowerMonic devices.

2 Mode Selection

When the PM Sync application is launched, the mode selection window will appear.
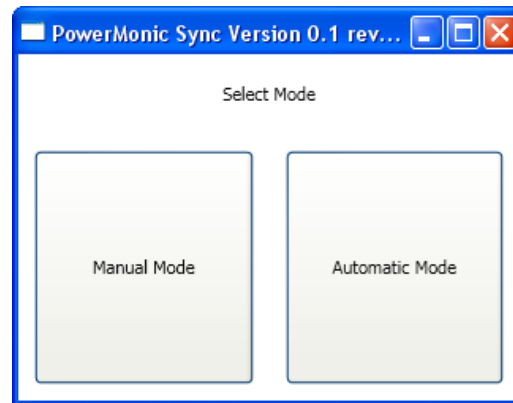
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Figure 1: Mode Selection Window

Click either the Manual or Automatic button to select the desired mode. When launched from PowerView, PM Sync will go into Manual Mode automatically.
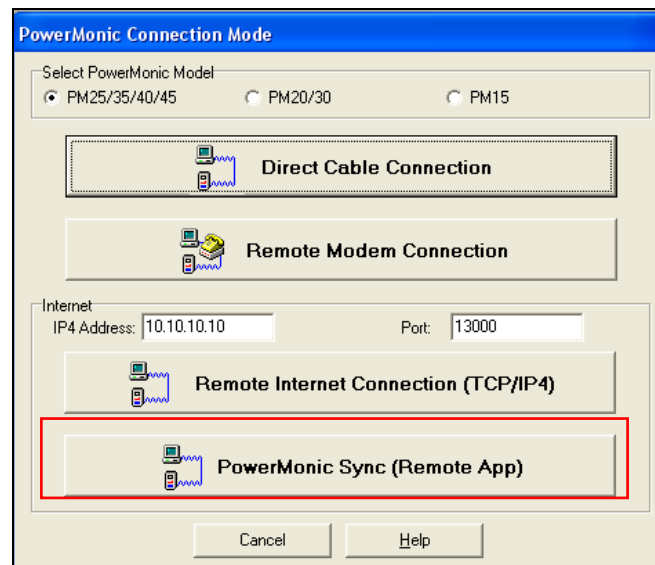

Figure 2: PowerView Sync

3 Manual Mode

3.1 Add, Remove and Edit a PowerMonic Device

Figure 3: Add, remove and edit device in manual mode

To add a device, enter a device name and an IP address to identify the device and click **Add**. The device will appear in the "Saved Devices" as shown in Figure 3.

Figure 4: Adding a device

If the device is configured to use a port other than the default (port 13000), insert ':' followed by the port number to the end of the IP addr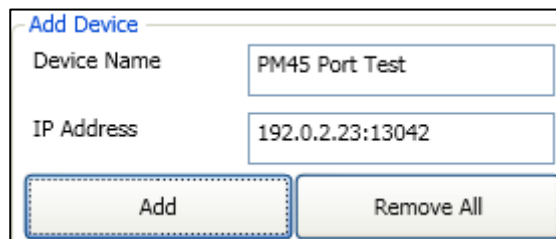ess. For example, a test device is using port 13042 in lieu of default port 13000; enter 192.0.2.7**:13042** in the IP Address box.

Figure 5: Configuring Port Address

To edit a device, double click the field that needs to be changed in the Saved Devices list, and press Enter when it has been modified. Please note that the changeable fields are Device Name and IP Address. Site Description and Serial Number are retrieved from the device.

To delete a device, click on the **Delete** button.

To remove all devices from the saved device list, click the **Remove All** button.
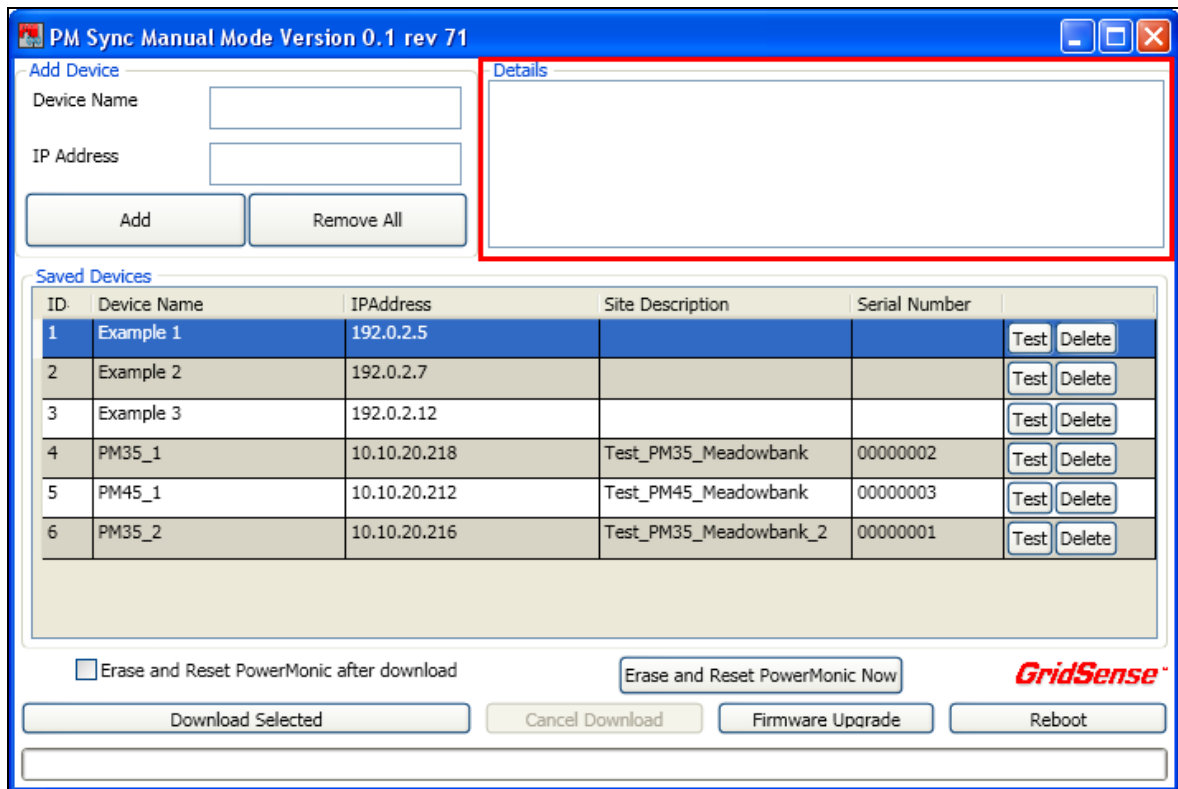
Figure 6: Details list

The Details list will show details during downloading and other operations.

The device list is saved automatically after every addition, every removal, and every time a change is made.

3.2 Test a PowerMonic

To test a device, click the **Test** button as shown in Figure 7. This will retrieve the Site Description and Serial Number of the PowerMonic device. The Details list will display additional information, such as the firmware version of the communication module and the PowerMonic.

Figure 7: Device under test

3.3 Download Data from PowerMonic

To select a device for download, click the required device in the list and the row of the selected device will be highlighted as shown in Figure 8. Please note that only one device can be selected at a time.
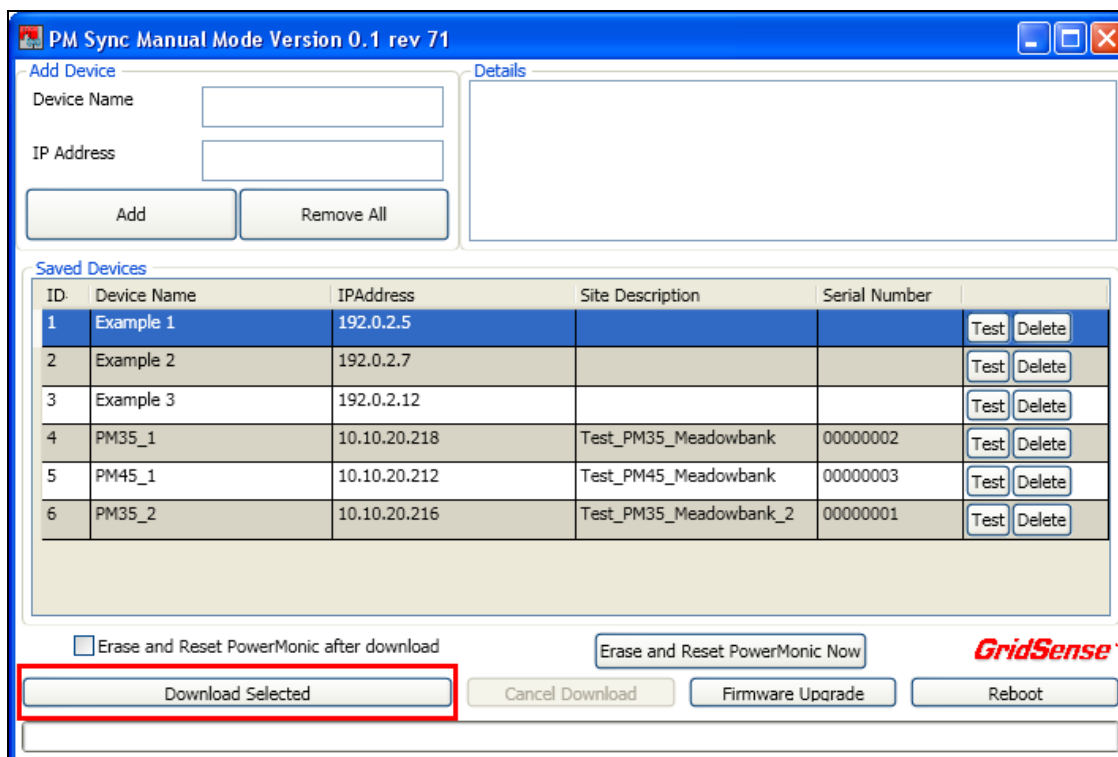
Figure 8: Download selected

To start a download, click the **Download Selected** button. Save the data file (file extension .PM4) to the desired location as prompted by the window. Please note, download speed will depend on the cache settings,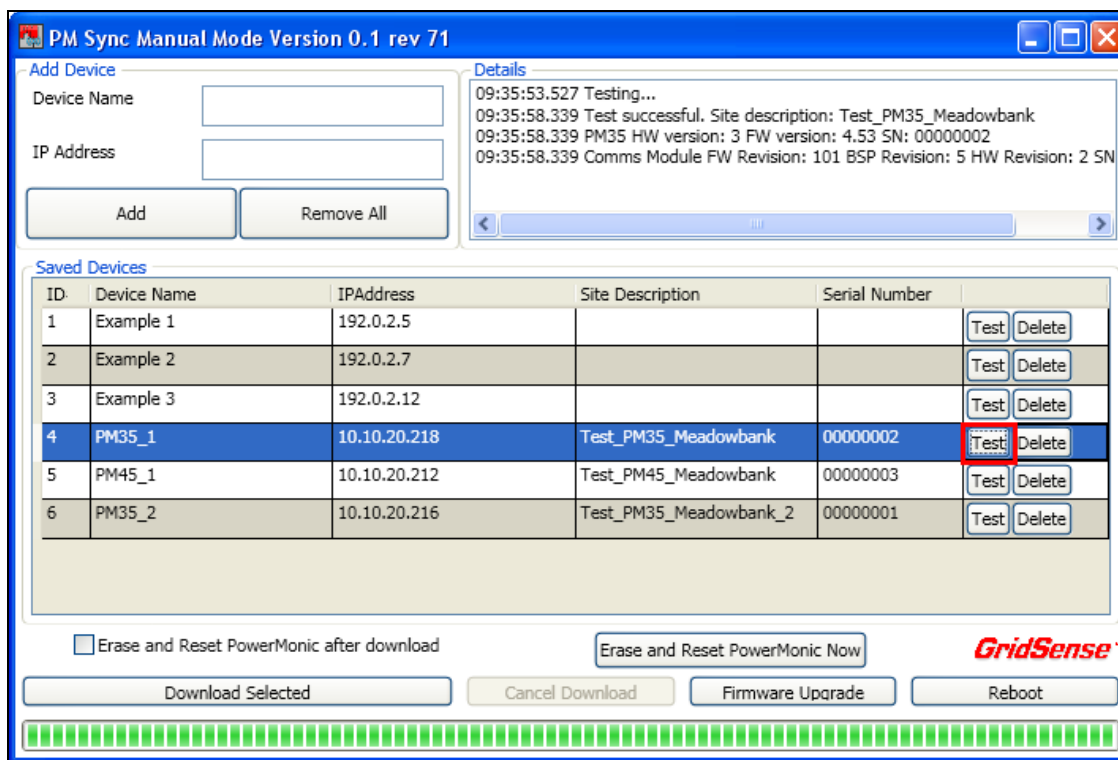 network connection speed, PowerMonic logging task settings, and data file size. Download can take anywhere from one minute to one hour, with a typical time of three to five minutes. The progress bar and details list will indicate the approximate progress of the download.

Once the download is completed, a prompt window will ask if the data is to be viewed in PowerView. Click on **Yes** to verify data validity.

To cancel a download in progress, click **Cancel Download.** This action will not erase previous logged data and the Communications Module will resume retrieving data to be stored in its cache.

3.4   Erase Logged Data

Check the **Erase and Reset PowerMonic after Download** option prior to download in order to automatically erase logged data and restart logging after a download. To manually erase the logged data, click on **Erase and Reset PowerMonic Now.** See Figure 9 below.
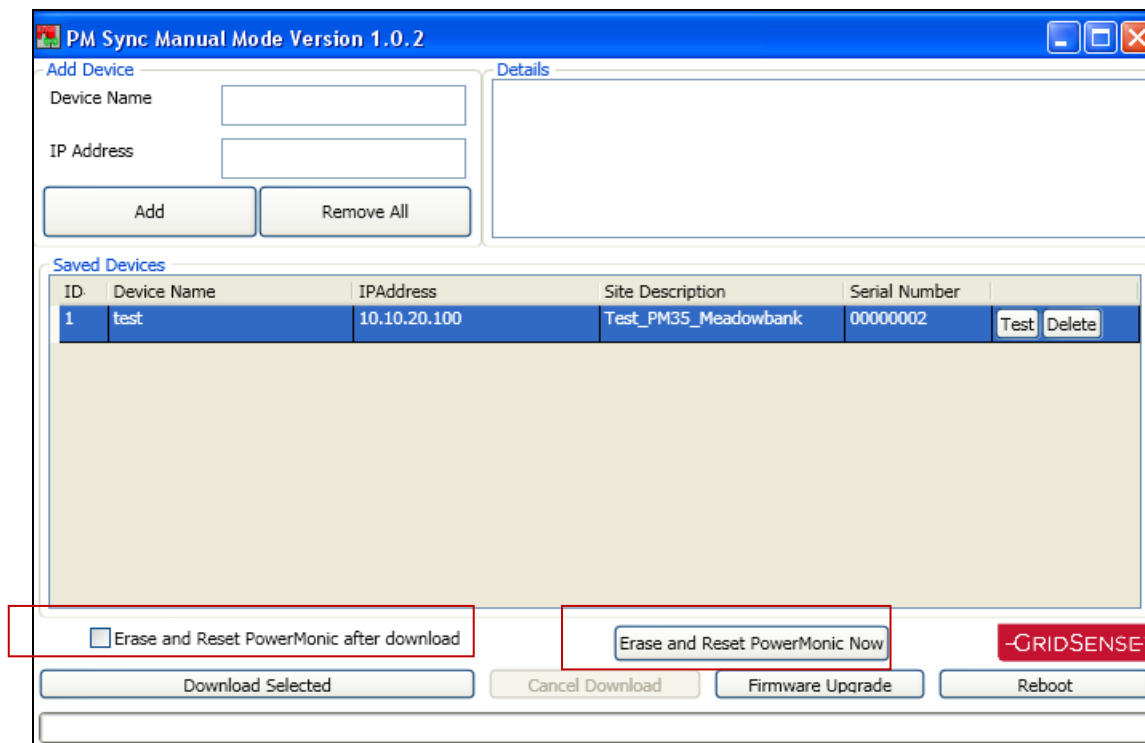

Figure 9: Erase logged data

3.5　　Firmware Upgrade

Click on the **Firmware Upgrade** button to update the Communications Module firmware. Select the new *GsnCommsTask* file from the designated PC or network location as prompted by the pop–up window. Please ensure that network connection is present when performing the firmware upgrade.

Once the upgrade is completed, the Communications Module should resume operations within a minute. Click on **Test** to verify that the correct version has been loaded; firmware revision will be displayed in the **Details** list. Please be sure to upload a valid firmware file, as the device may fail to establish a remote connection if rebooted with invalid firmware. If the user does upload invalid firmware, it will need to be corrected with a manual upgrade process via local network. See Figure 10 below.
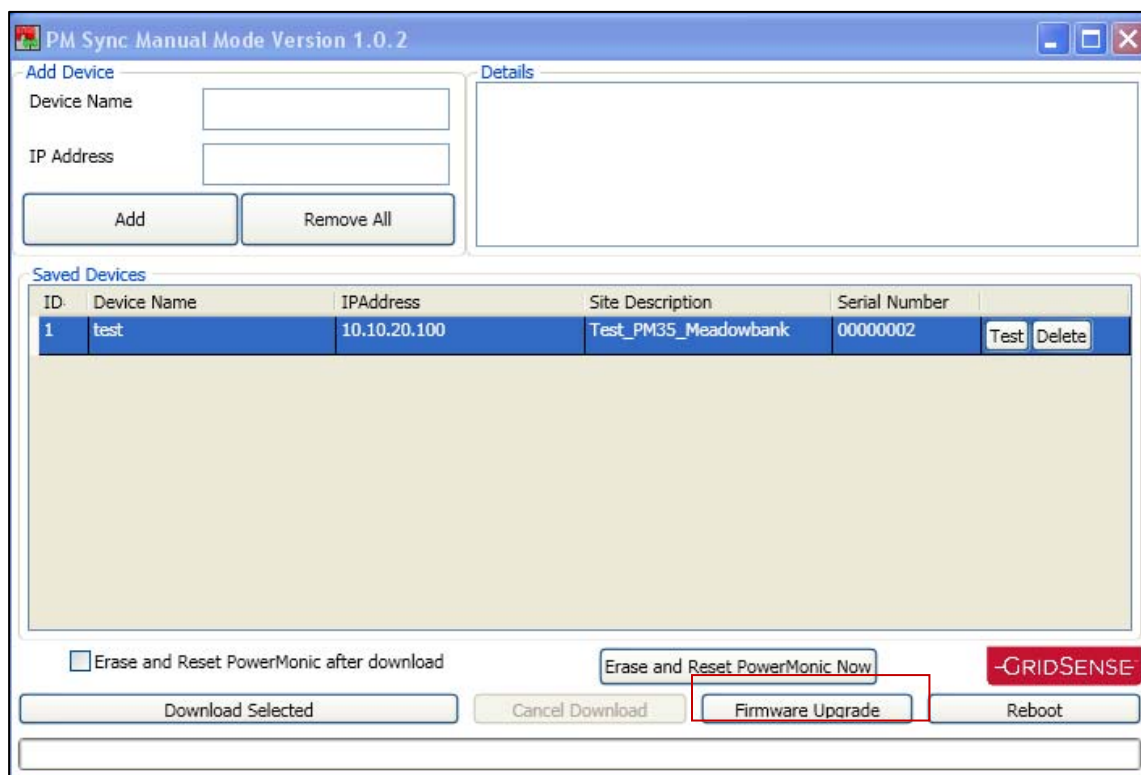

Figure 10: Firmware upgrade

3.6　　Reboot

If the Communications Module ceases to respond during normal operation, click the **Reboot** button to reboot the Communications Module. Please do not click **Reboot** after a failed firmware upgrade. However, the user can do so after a successful firmware upgrade.

4   Automatic Mode

4.1   Add, Remove and Edit a PowerMonic Device

The process of Adding, Editing, Deleting and Testing devices in automatic mode is the same as in Manual Mode. The automatic mode has an additional Download checkbox (see Figure 11 below), which is used to select devices to be included in the scheduled automatic download. The device selection will be saved when the scheduler is started. The column on far right will indicate the progress bar.
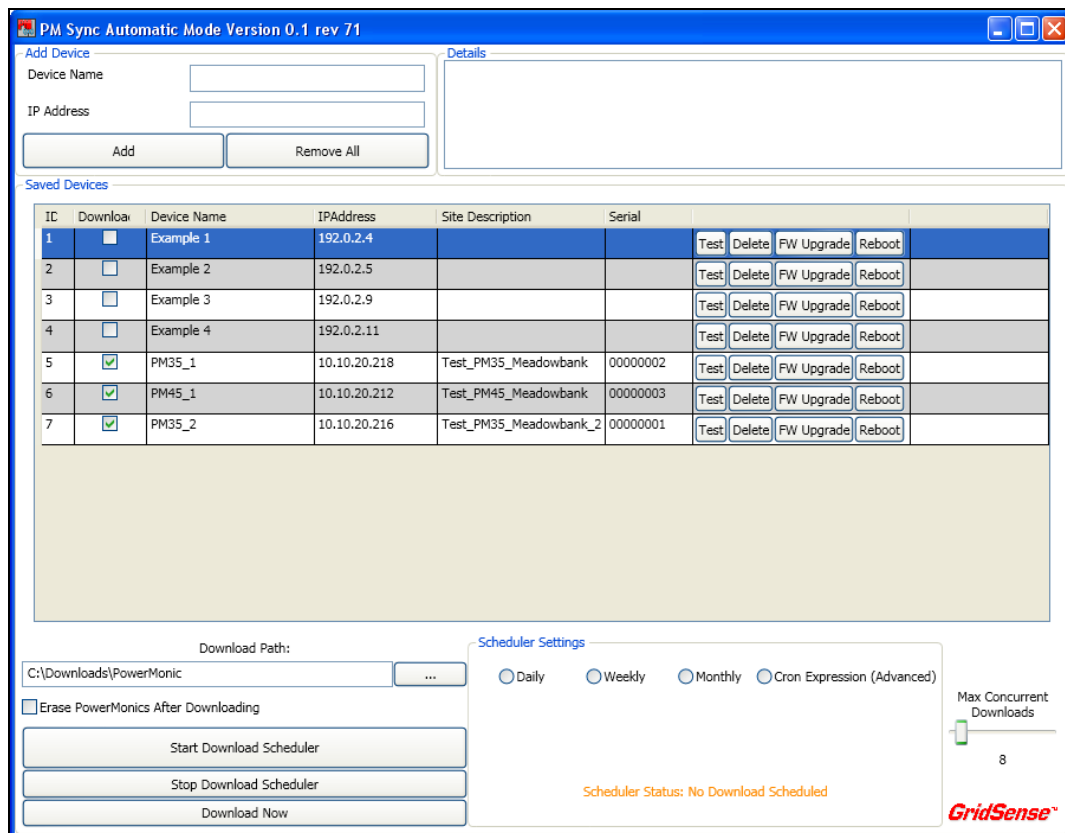

Figure 11: Automatic mode selection

4.2   Details List

This is similar to the manual mode. It will display download details, firmware and software revision (when Test is clicked) and other revisions. Any change to the list is saved automatically.

4.3 Downloading Data

Downloading in automatic mode can be performed either by clicking the **Download Now** button or by utilizing the **Start Download Scheduler** button. When a download starts, the progress bars will display the progress of the download for each PowerMonic. PM Sync will automatically re-try on failure. If a download fails repeatedly, then the text "Failed" will be displayed in red on top of the progress bar.
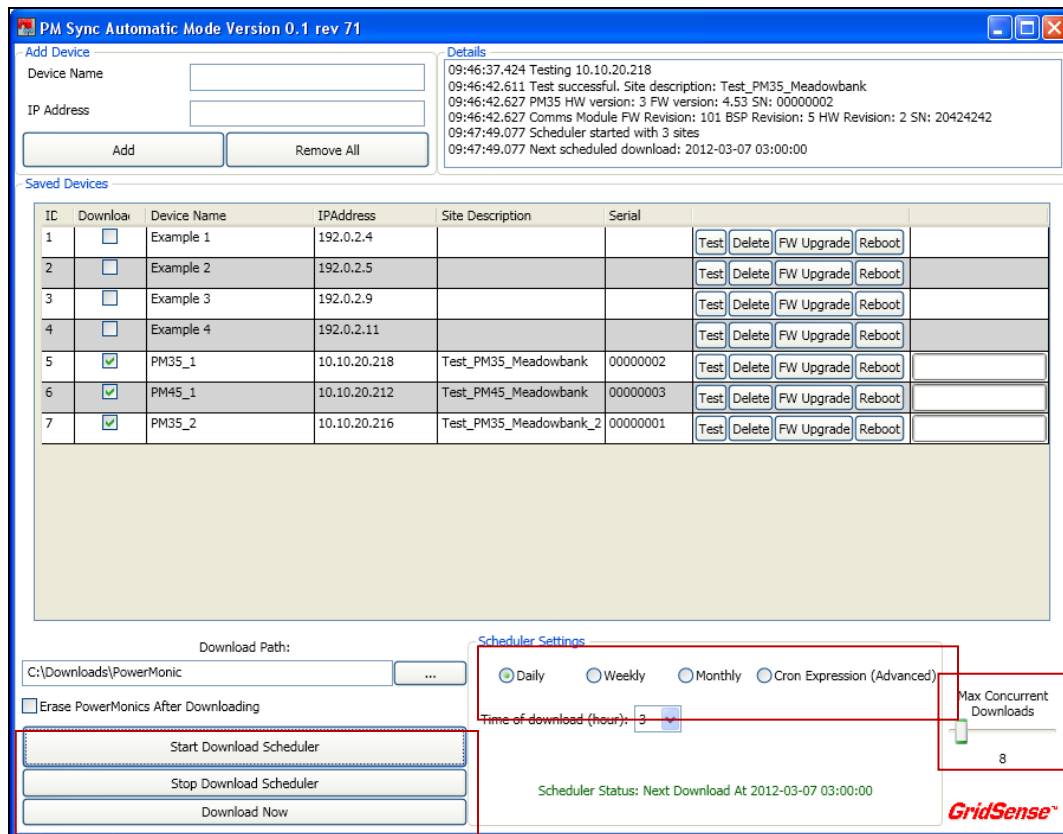

Figure 12: Download settings

4.4 Download Now and Download Path

Check the PowerMonic device or devices for the required data download. Click on "…" to select the download location to save the PowerMonic (file extension .PM4) data file.

4.5　　Scheduler Settings

The Scheduler Settings are used for setting up a regular download activation time. The scheduler supports four modes:

    a) Daily download at a particular hour

    b) Weekly download at a particular hour on a particular weekday

    c) Monthly download at a particular hour on a particular day

    d) Cron Expression for advanced, flexible scheduling. Please see 4.3.3

Once the desired scheduler setting is selected, additional settings, such as time of download and day, will become available to the user. Select the scheduler timeframe as desired.

Click the **Start Download Scheduler** button to start the scheduler. This will validate and save all relevant settings. The next download time will appear in the details list.

Click the Stop Download Scheduler button to stop the scheduler.

4.6　　Cron Expression

A cron expression consists of seven fields separated by spaces:

Seconds-Minutes-Hours-DayOfMonth-Month-DayOfWeek-Year

    a) Only one DayOfMonth and DayOfWeek should be specified – the next field must be a '**?**'.

    b) The DayOfWeek and Month fields should be specified as the first three letters of the day or month in capital letter.

    c) The Year field is optional.

    d) Time interval is specified with a '**/**'. For example, 0/6 in the Hours field would represent every 6 hours from (and including) midnight (0, 6, 12, 18).

    e) A range can be specified with a '**-**'.

    f) Multiple values can be specified with a '**,**'. For example, 0 15/30 18-23 ? APR MON, WED, FRI - would match 15 and 45 minutes past the hours 18 to 23 on every Monday, Wednesday and Friday in April.

    g) The '*****' symbol represents a wildcard, which will match any value. For example: 0 0 3 * * ?, would match 03:00:00 on every day of the month of every month.

4.7 Concurrent Download

PM Sync Automatic Mode supports up to 64 concurrent downloads. Number of downloads is set using the slider to the right of Scheduler Settings. The default selection of 8 is recommended.

4.8 Erase Logged Data

To automatically erase and restart each PowerMonic device after downloading, check the **Erase PowerMonics after Downloading** checkbox.

5   Sales and Support

For sales, technical support or any other inquiries, please contact the appropriate office below:

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