



PC-PRO+® Advanced 9.50 Release Notes

New Features

Itron is pleased to announce the highly anticipated release of PC-PRO+ Advanced 9.50. This full release is a new Itron Electricity Metering Software break-through, featuring more powerful reporting capabilities, additional CENTRON® (V&I) meter functionalities, and many customer requested enhanced tools.



Replica files for PC-PRO+ Advanced versions 8.00, 8.10, 9.00, 9.01, 9.02 and 9.03 can be loaded into systems with PC-PRO+ Advanced version 9.50.

Our innovative improvements are helping to provide the electricity metering industry with the Tools for Running Business Better – Every Day!

New Output Board for CENTRON (V&I) meter

Devices affected: CENTRON (V&I) meter

The I/O selection dialog for the CENTRON (V&I) meter has been designed to include the selection of the I/O Solid State Contacts with a maximum of two KYZ outputs and one low current (KY) output. If applicable, the nameplate on the CENTRON (V&I) meter indicates the inputs in the meter. You can configure energy outputs to pulse or toggle; in addition, you can configure event outputs to pulse or for a state change.

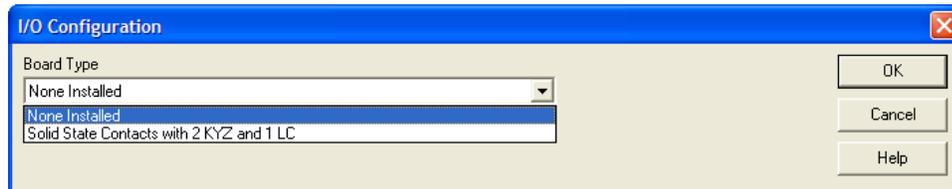


Figure 1: I/O Configuration Dialog



Only meters with this board will have board reference on the nameplate.

Custom Replica Files

Devices affected: All

This new feature is a setting in the System Manager that allows you to individually select which Meter Programs to include in the creation of a Replica File. The programs are selected when the replica file is being created.

This ability will be helpful for utilities that use different sets of program files for different parts of the company.



Figure 2: Select Programs Dialog

Using Meter Image Files

Reverse Engineering of PC-PRO+ Advanced Meter Programs

Devices affected: SENTINEL®, CENTRON (V&I), CENTRON (C12.19), CENTRON, VECTRON®

Reverse engineering of meter programs allows you to easily recreate a lost meter program. A MIF file can be created in PC-PRO+ Advanced, Shop-Pro, Field-Pro and PC-PRO+ Views. A meter program can then be recreated from the provided Meter Image File (MIF).

The **Reverse Engineer Program** link is visible when one and only one MIF file has been selected on the “Meter Image File” tab of the Data Manager.

The new meter program will be located in the **Meter Image File Directory** indicated at the top of the Meter Image Files screen in the Data Manager. Once the new meter program is created, it will automatically be on the list of programs on the **Meter Programs** tab.

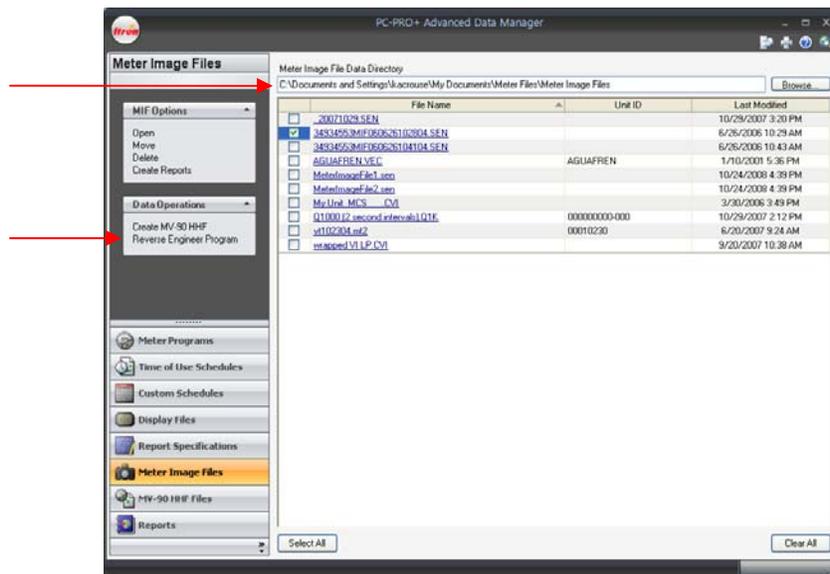


Figure 3: Meter Image File Screen Showing Reverse Engineering Program



Reverse engineering of any user-defined table configuration is not currently supported.

Create MV-90 HHF file from Existing Meter Image File (MIF)

Devices affected: SENTINEL®, CENTRON (V&I), CENTRON (C12.19), CENTRON, VECTRON®

This function allows you to create an MV-90 HHF file from an existing Meter Image File (MIF). The MIF dialog in Data Manager shows a listing of the MIF files that have been selected from the Meter Image File tab of the Data Manager. The information includes the Source File name, the Unit ID (if applicable), the profile start and end time, and information about the Destination File. MV-90 HHF files will only be created from MIF files that contain load profile data. The newly created HHF file also can be used by MV-90 software.

The new meter program will be located in the **Meter Image File Directory** indicated at the top of the Meter Image Files screen in the Data Manager.

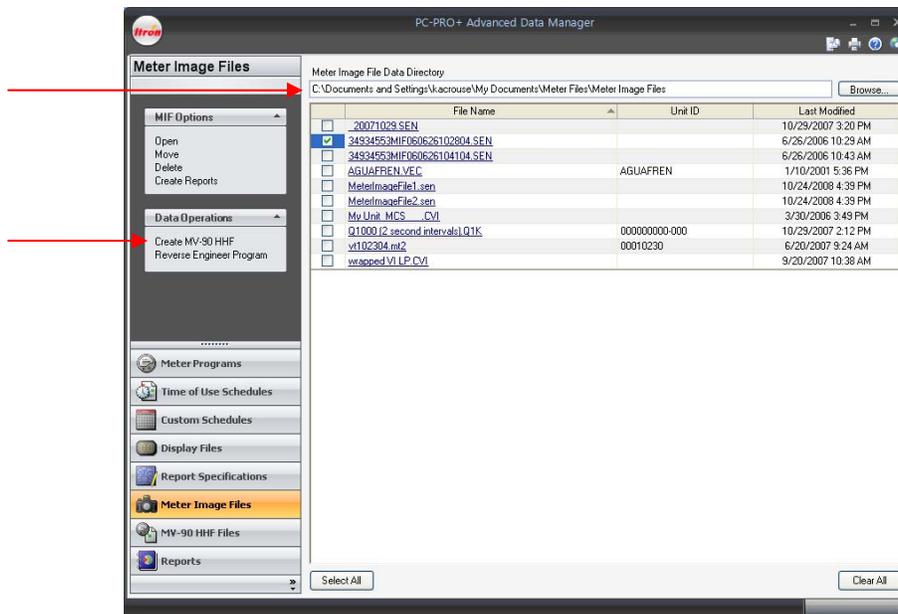


Figure 4: Meter Image File Screen Showing Create MV-90 HHF

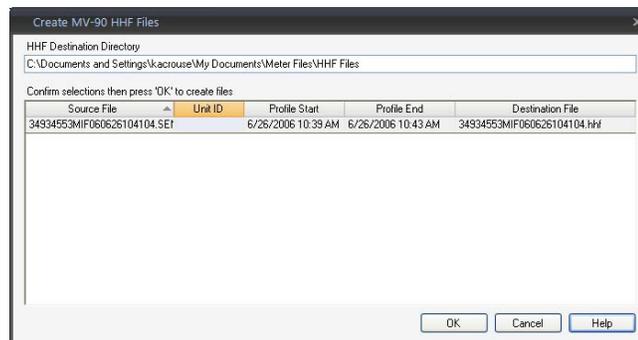


Figure 5: Create MV-90 HHF Files Dialog



MV-90 HHF files *should* not be created for one minute load profile data. This includes joining, totalization, MIF to MV-90 conversion, and direct communications.

Single Point IP (Ethernet) Logon to Multi-drop RS-232 or RS-485 Installations via Ethernet

Devices affected: SENTINEL

PC-PRO+ Advanced now supports multi-drop via one Ethernet connection. Previously, Ethernet logon was supported only to a single meter.

As shown in the diagram below, now several RS-232 (or RS-485) meters can be logged onto via a single Ethernet connection. When you logon with Communication Manager, the Ethernet network type provides an option for a network address (RS-232 or RS-485 board address) in addition to the IP address. Here you can specify the address of the meter you want to connect to via the Ethernet connection.

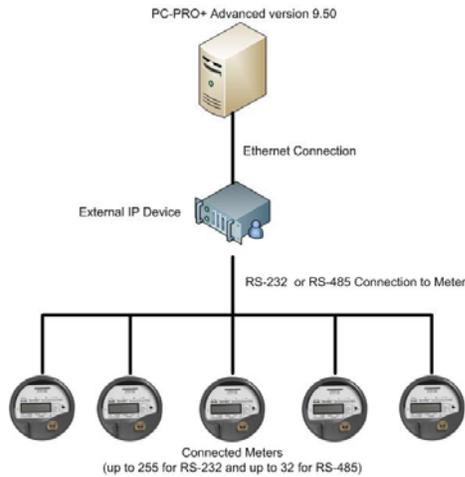


Figure 6: Sample Ethernet Connection Diagram

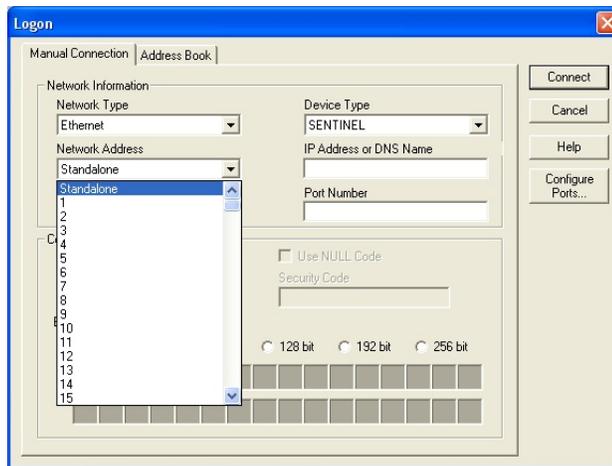


Figure 7: Updated Logon Dialog

Join Files

Devices affected: All

Multiple Meter Image Files or MV-90 HHF files from the same device can be combined into one file using the **Join Data Files** feature. This function will create a single, extended MV-90 HHF file. Join Data Files allows you to create reports over long time spans or to create a single report from two or more intermediate reads (for example, using meter change-outs).

The joining process can only be used on different files from the same source. The joining process validates the device ID of each file. In addition, it will verify that the meter's configuration has not changed between meter reads. This is to insure the integrity of the resulting data.

Using Join Data Files is also useful in creating and managing totalized data. Joining files allows you to create a longer date range between contributing files.

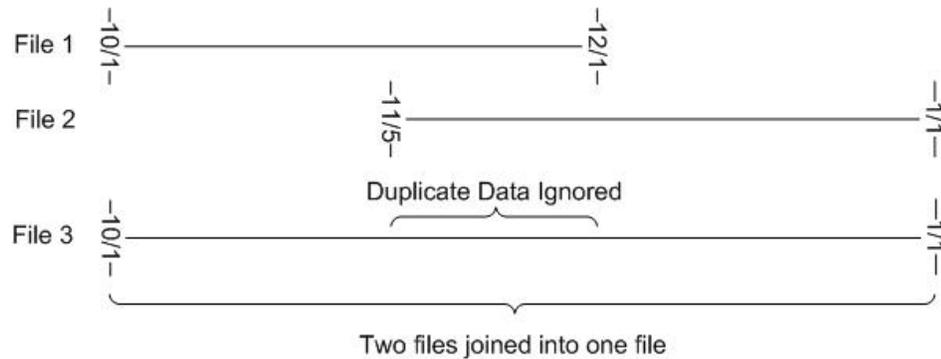


Figure 9: Joining Files with Overlapping Data

The load profile data does not have to be contiguous. If there are gaps between any of the contributing files, the missing intervals will have a status of 'K' to indicate that they have been skipped and will have a value of 0.

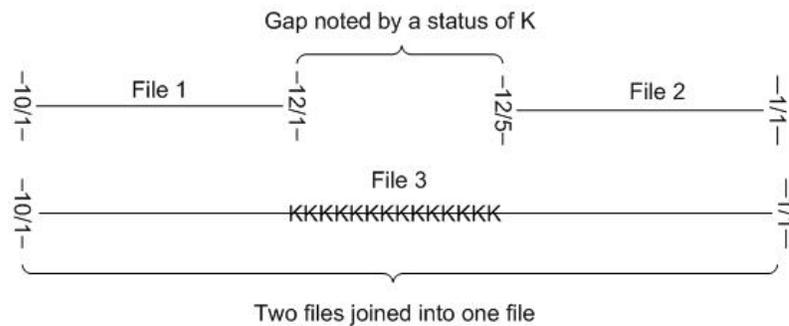


Figure 10: Joining Files with a Gap in the Data

To join the files, go to the **Meter Image Files** tab in Data Manager. Selected files will have to contain load profile data or an error will occur.

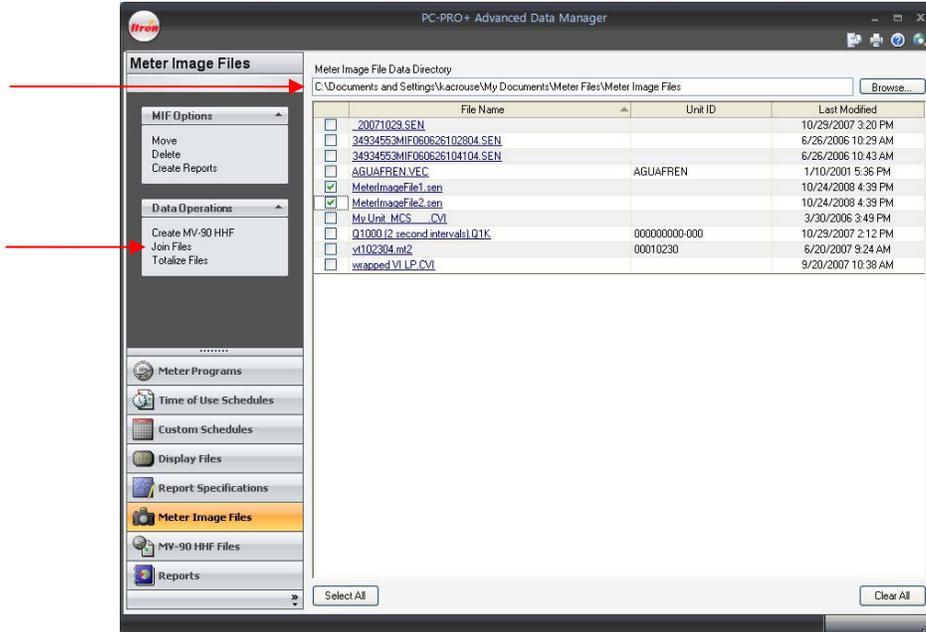


Figure 11: Meter Image File screen showing Join Files

If desired, users will be able to narrow the date range down to correspond to any given billing period during the reporting process.

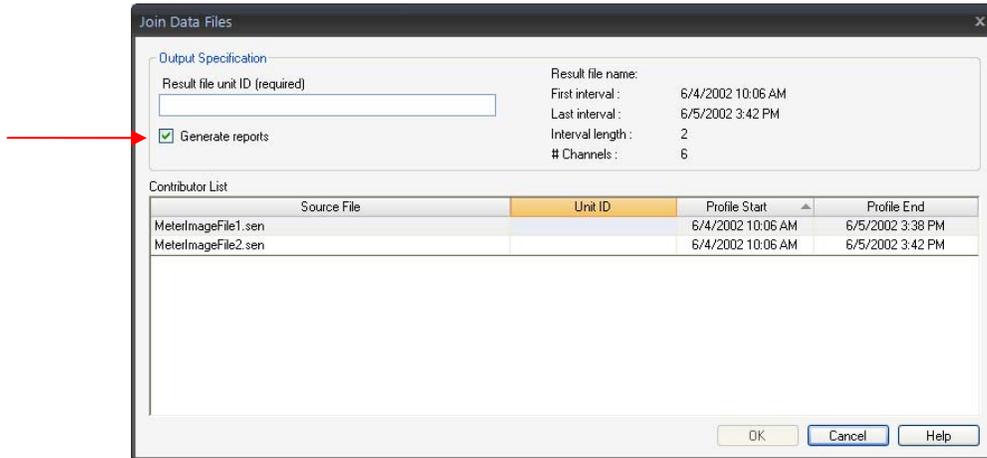


Figure 12: Join Data Files Dialog

Totalization Reporting

Devices affected: All

Billing data can be collected from load profile meters in the form of data files (MIFs). Billing determinants can be generated directly from these files using reports within PC-PRO+ Advanced Data Manager. Using the new totalization feature in PC-PRO+ Advanced 9.50, you will be able to take this process one step further by combining data from several data files to generate reports on this new data set.

Totalization is the aggregation of two or more load profile channels. All channels that are contributor channels (channels included for totalization) must have the same interval length. All interval data will be converted to primary values before they are totalized.

Totalization within the software is different than with totalization within the meter. SENTINEL meters with firmware version 3.210 and higher do have an optional Totalization feature that allows totalization of KY inputs. This utility requires additional meter hardware and can only be done when meters are close geographically.

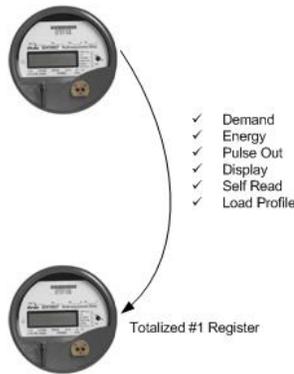


Figure 13: Totalization within a meter's hardware

Totalization within PC-PRO+ Advanced allows you to combine channel information for many different meter types for up to 75 total meters. It requires no extra hardware or any meter upgrades. Totalization can be performed immediately after data has been acquired or during the process of generating utility reports.

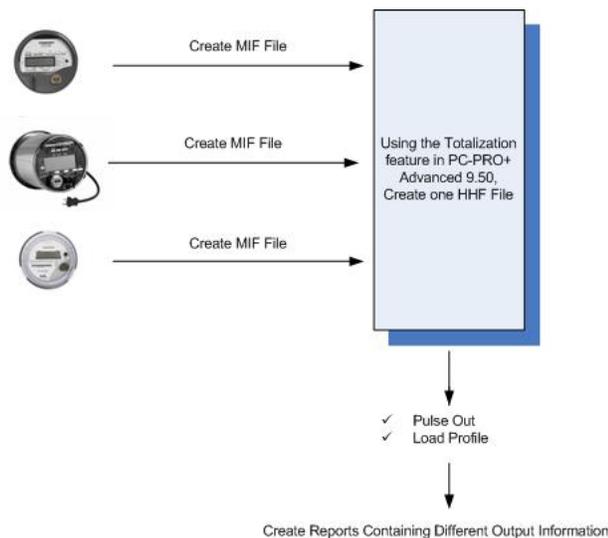


Figure 14: Totalization within PC-PRO+ Advanced 9.50

Data Used for Totalization

If the data stored for the contributing channels in a totaled channel does not have the same time spans, the totalization component selects the common time span for totalization. In the following diagram all three contributing channels have data for 3/14 through 5/28. All intervals within time span 3/14 through 5/28 are used for the totalization.

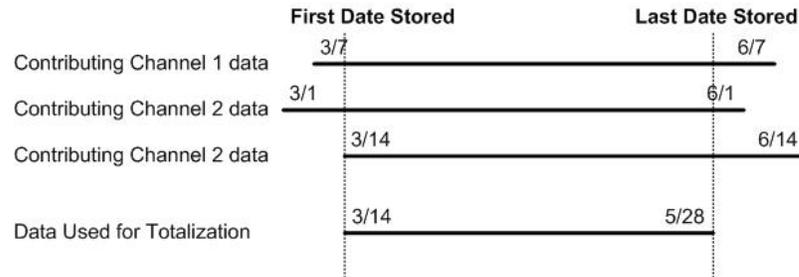


Figure 15: Totalization Example

In this example, the resulting MV-90 HHF file will contain the data for the time span of 3/14 through 5/28.

Totalization Formula

After data is read from the source files, and after the user clicks the **OK** button on the Totalization dialog, the following formula is used to calculate the totalization:

$$T[i] = (C1[i] * F1 * PW1 + C2[i] * F2 * PW2 + C3[i] * F3 * PW3)$$

Where:

T is the totalized value for each interval

i is the interval

Cn is the contributing channel in pulses

Fn is the transformer ratio used to convert the energy value to primary units

PW is the channel pulse weight used to convert the pulse values to secondary energy values



The totalization process is independent of meter type. You can combine data from all meter types supported by PC-PRO+ Advanced including the CENTRON meter, CENTRON (C12.19) meter, CENTRON (V&I) meter, SENTINEL meter, VECTRON meter, and the QUANTUM® Q1000® meter.

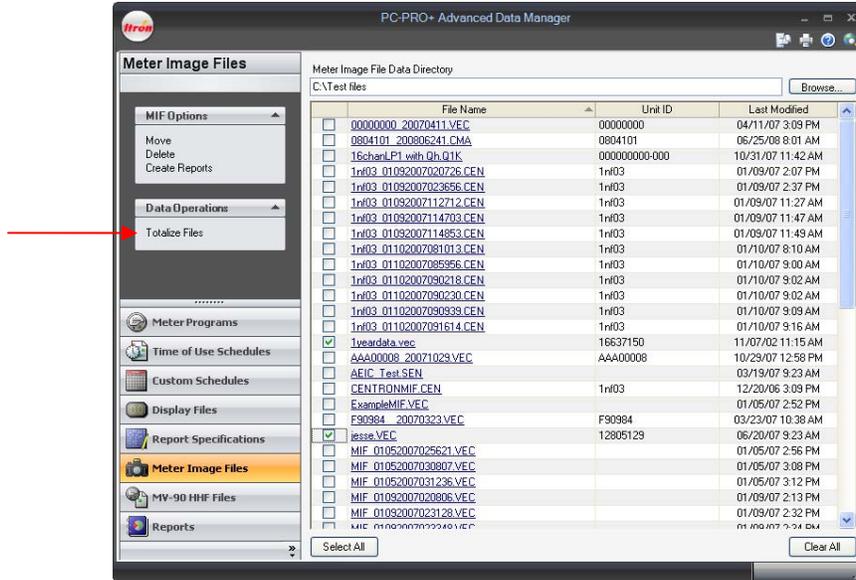


Figure 16: Meter Image File screen showing Totalize Files



The Totalization Reporting feature will require a separate license. There is a 120 day trial period where users can “Play before they Pay” to see if they would find the feature useful. The trial period begins once the Totalization feature has been used and is done on a per-computer basis. Contact your Itron Sales Representative for more information.

Improvements in PC-PRO+ Advanced 9.50

Start Interval Times in HHF files

Devices affected: All

Previously, when MV-90 HHF files were created through the Communication Manager, the load profile interval start time was aligned to the interval boundary. For example, for 15 minute intervals this would be 12:00, 12:15, and 12:30. However, this was inconsistent with MV-90 HHF files created with other Itron software products. Other products set the interval start times to be 1 minute past the interval boundary. Using our previous example, the interval start times would now be 12:01, 12:16, and 12:31. MV-90 HHF files created by Communication Manager were modified to use this format and be consistent with MV-90 HHF files created by other Itron software products.



This fix only includes files that are created after PC-PRO+ Advanced 9.50 has been installed. It will not correct files that were created prior to the installation of PC-PRO+ Advanced 9.50.

DST Dates

Devices affected: All

In some cases when reading an MV-90 HHF file, the DST dates used to display load profile data were incorrect. For example, an MV-90 HHF that covered data from October 2007 to April 2008 was given the DST dates for 2008. This means that the 2007 fall from DST change will not be recognized. The file should have contained the fall from DST date of 2007. MV-90 HHF files created by Communication Manager were modified to correct this behavior.



This fix only includes files that are created after PC-PRO+ Advanced 9.50 has been installed. It will not correct files that were created prior to the installation of PC-PRO+ Advanced 9.50.

Data Upload in Field-Pro

Devices affected: All

Previously when uploading data files from Field-Pro to the Master Station, the first attempt would always fail and the second attempt would succeed. This was due to two files that were copied along with the log that were read-only. The first attempt would upload the log and then fail when it tried to overwrite these two other files at the Master Station. The next time there was no log file to upload, it was successfully uploaded during the first attempt, so the upload of the data files would succeed. This issue has been corrected.

Product Versions in Export Files in PC-PRO+ Advanced

Devices affected: All

Currently the software version number that is downloaded to each meter when programmed is retrieved by each device driver from a device specific location. This was done so that each driver could be updated independently. Per customer request, the device servers will now get the version number from a single location that will be updated with each software release (full releases as well as patch releases). The software has been corrected so that all meters programmed will display the software version of the most recently installed patch or release. This same logic will also be applied to program export files.

Invalid service type can be programmed for the 12S and 45S meters

Devices affected: CENTRON (C12.19) and CENTRON (V&I)

The 3-Phase 4 Wire Wye (6/46) service type was removed for all CENTRON (V&I) meters. In prior releases, it was listed as an option in PC-PRO+ Advanced. This has been corrected.

Known Issues in PC-PRO+ Advanced 9.50

Load Profile peak occurrence only showed first peak

Devices affected: All

When viewing Load Profile data, the peak occurrence on a channel can be reported; however, if there happens to be two or more peaks at the same exact value, the system only shows the first occurrence of that peak.

The peaks are shown in the Load Profile Peak Report in Communication Manager. In addition, the peaks will be shown moving forward in time based on the selection given on the **Report Contents** tab of the Report Designer.

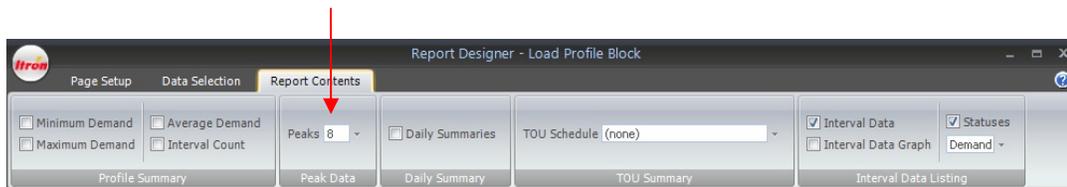


Figure 17: Peak Selection in Report Contents

Validation Notice Error Possible when Creating File to Generate Totalization License

The following error will occur upon the second time you attempt to copy the machine information to an email and then send the email. The customer should only generate ONE email in order to prevent this error.

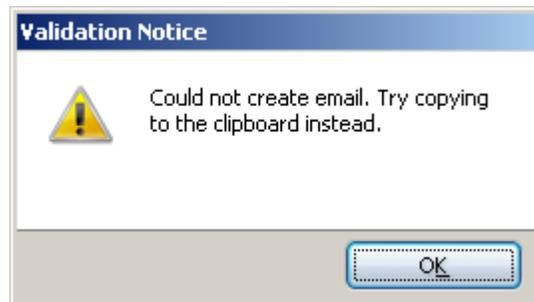


Figure 18: Validation Notice Error Message

Email error when generating Totalization License

An error will occur if you try to copy the Serial Number and Machine Code to an email and does not have email program set up on the machine in question. To prevent this from happening, ensure that you have an email program properly set up on the computer in question prior to coping the Serial Number and Machine Code information to an email.

Printer warning when starting Report Designer

The following message may appear when launching the Report Designer if a default printer is not configured on the PC. Click **OK** to ignore this message. You can check “Don’t show this message again” to avoid seeing this message in the future.

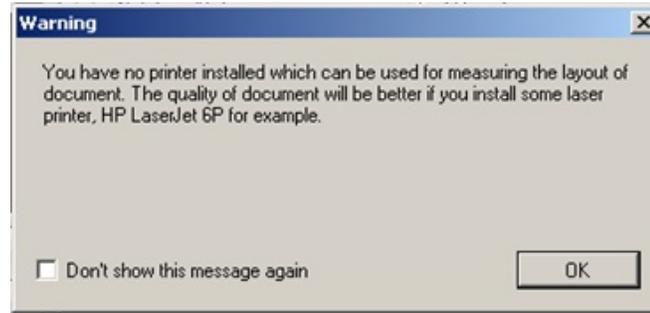


Figure 19: Printer Warning Message

Graphic may not display properly when producing an HTML report in the Mozilla® Firefox® web browser

The title image graphic may not display properly in the Mozilla Firefox web browser when producing an HTML report. As a work around, resize the title image in order for it to be displayed properly.

Columns Rendering in Microsoft Excel®

Some reports that are output to Microsoft Excel may not correctly create the columns. For example, the report columns may overlap each other within the same Microsoft Excel column. This issue is dependent upon the number of columns in the report and the amount of information needed to fit on one page. If you experience this problem then try adjusting the number of channels and the number of tables in the report.

Potential Failure on First Attempt to Configure Meters with a New Program

If you create a new program and then immediately logon and initialize a meter, a message may appear stating the configuration failed and to logoff and then log back on to try again. This message will continue until you logoff the meter. Once you logoff and logon to the meter, the configuration will be successful. As a work around, you may need to wait a few seconds before logging on and initializing a meter with a newly created program.

Text report files with page numbers will always add “Page 1 of 1” to the end of the document

If you create a report file in .txt format with a Report Specification that contains footer information, the footer information will only be added to the end of the file. Therefore, the number of pages on the report will always say Page 1 of 1 on the last page.

E-mailed HTML Reports do not include the Load Profile Graph

The load profile graph is not included when e-mailing an HTML report.

Phone Numbers are lost when upgrading from 6.10 to 9.50

If you are upgrading from PC-PRO+ Advanced version 6.10 to version 9.50, phone numbers will be lost. This was a problem in the 6.10 release only. You will need to re-enter the phone numbers after upgrading to version 9.00. This problem does not occur if you are upgrading from PC-PRO+ Advanced version 7.00, 7.10, 7.11, 7.20, 7.30, 7.31, 7.36, 8.00, or 9.00 to the 9.50 version.

Upgrading Client Systems

When upgrading PC-PRO+ Advanced on a master station to a newer version, the client systems such as Field-Pro, Shop-Pro, or HH-Pro must also be upgraded to the same version to avoid problems with data settings. For example, when upgrading PC-PRO+ Advanced to version 9.50, you must also upgrade Field-Pro to version 9.50.

Invalid TOU Schedule Names cause initialization error

If the TOU schedule name associated with a program file uses unsupported characters, a Database Access Error will occur when you attempt to initialize a meter. This problem can occur if you have imported program files from a PC-PRO+ 16-bit system and the associated 16-bit TOU schedule name uses unsupported characters. The following characters are not supported in PC-PRO+ Advanced for TOU schedule names:

/ : \ * ? " < >

To avoid this problem, rename the TOU schedules to use supported characters.

Adjusting system time while software is running can cause problems

If you change your PC's system time (**Control Panel | Date and Time**) while PC-PRO+ Advanced or other Itron metering software is running, problems may occur. To avoid problems, close PC-PRO+ Advanced and other Itron metering applications before you adjust the computer's system time.

QUANTUM Q1000 Display Registers

Devices affected: QUANTUM Q1000

An issue was discovered where Totalized demand registers in the Q1000 always show up as Totalized #1 when viewing the Display Registers through PC-PRO+ Advanced, Shop-Pro or Views. The error is only in the description shown on the Display Registers summary and does not affect the way the meter is programmed, the value returned in the Display Register summary or the value appearing on the display.