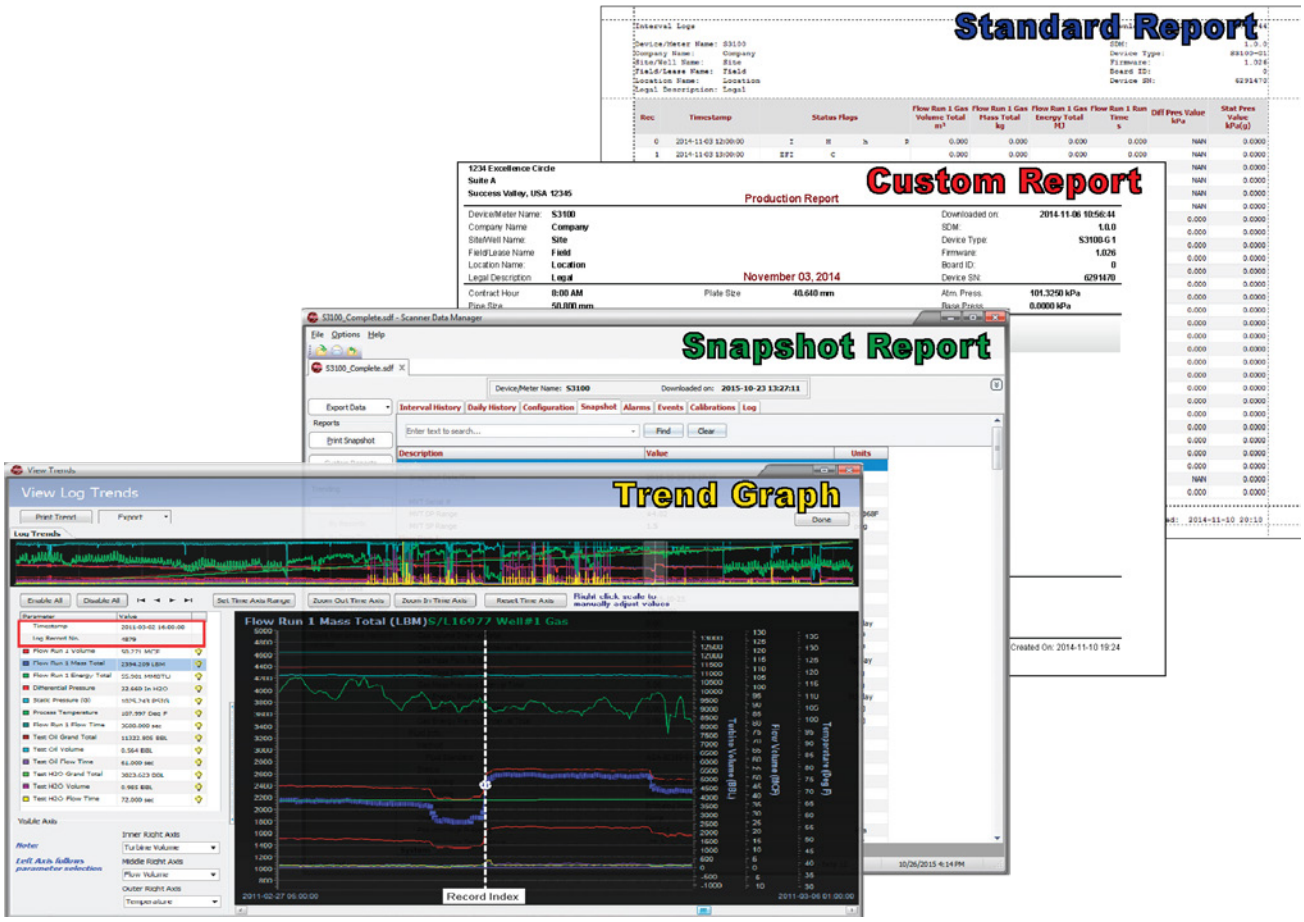
Scanner Data Manager Software User Manual



Manual No. 2350971-01, Rev. 04

Important Information

Terms Used in this Manual

CAUTION	**Indicates actions or procedures which if not performed correctly may lead to incorrect function of the instrument or connected equipment.**

Important	**Indicates actions or procedures which may affect instrument operation or may lead to an instrument response which is not planned.**

Note	Indicates additional information about specific conditions or circumstances.

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*Mark of Schlumberger.

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Section 1—Getting Started

Scanner Data Manager* software allows users to view, print, convert, and export data generated by Cameron's Scanner* flow computers for quick review in the field or in-depth analysis in the office. The software also contains tools for presenting data in a professional customized report. Scanner Data Manager opens the proprietary .SDF and .SCF archive files created by Cameron software products such as ModWorX* Pro and ScanWin*. Scanner Data Manager supports Scanner models 3100, 2200, 2100, 2000, 1141, 1140, and 1131.

Installation

Verify that the computer on which the software is being installed meets the following requirements:

Table 1.1—Installation Requirements

System Parameter	Requirement(s)
Operating System	Windows 7 or later
Computer/Processor	1 GHz or faster 32-bit (x86) or 64-bit (x64) processor
Memory	1 GB RAM (32-bit) or 2 GB RAM (64-bit)
Hard Disk Space	100 MB for program files, adequate space for data files
Display	DirectX 9 graphics device with WDDM 1.0 or later driver

Important **Before attempting to install Scanner Data Manager software, ensure that you have local administrator rights to the computer on which the software is to be installed. If the installation is blocked, contact your Information Technology department for assistance.**

To install the software, perform the following steps:

1. Visit Cameron's Measurement website at http://www.cameron.slb.com/flowcomputers, select **Scanner Model 3100 Flow Computer,** and click on the link for the Scanner Data Manager install. A zip file will be downloaded to your laptop or PC.
2. Unzip the installation folder.
3. Open the unzipped installation folder and click the "setup.exe" file to begin installation.

When the installation is complete, a Scanner Data Manager desktop shortcut will appear on the desktop (Figure 1.1).

Figure 1.1—Scanner Data Manager desktop shortcut

Computer Display Resolution

For best viewing, configure your computer display with a resolution of 1024 × 768 or higher. If a lower resolution is used, portions of the Scanner Data Manager interface may be hidden from view.

Navigating the Software

This section provides an overview of the Scanner Data Manager software tools and screens. For step-by-step instructions, see Section 2—Viewing Data Files, page 11, through Section 5—Converting Data, page 63.

Viewing Tabular Data

A tabular display allows the user to quickly locate and review specific data. Data are grouped logically into measurement data and log types, such as Interval History, Daily History, Triggered History, Snapshot, Alarms, Events, Configuration, Calibrations, User Changes and Log. Within these groupings, log data are displayed chronologically. Log data can be filtered or sorted by time and date ranges and printed. Event, alarm, and user change logs can be filtered by data such as flowrun, type of event or alarm, user change, and user login, as well as by month/day or date range. See Data Filtering by Date, page 13, and Data Filtering of Event, Alarm, and User Change Logs, page 14, for details.

Note The User Changes tab, which shows calibrations and user-initiated changes, only appears when viewing archive files for Scanner 11xx devices and Scanner 3100 devices. User changes appear on the Events tabs for Scanner 2x00 devices.

Note Data types represented by tabs along the top of the screen will vary with the device used to generate the data and the data types included in a download.

The Log tab allows the user to view data parsing details and search for user-specified information.

When a file contains log data for multiple flowruns and/or slave devices†, the data are grouped by flowrun or slave device in tabs at the bottom of the screen, as shown in Figure 1.2.

‡Note Only Scanner 3100 archive files contain slave device data (for up to 20 slave devices) in addition to two integral flowruns.

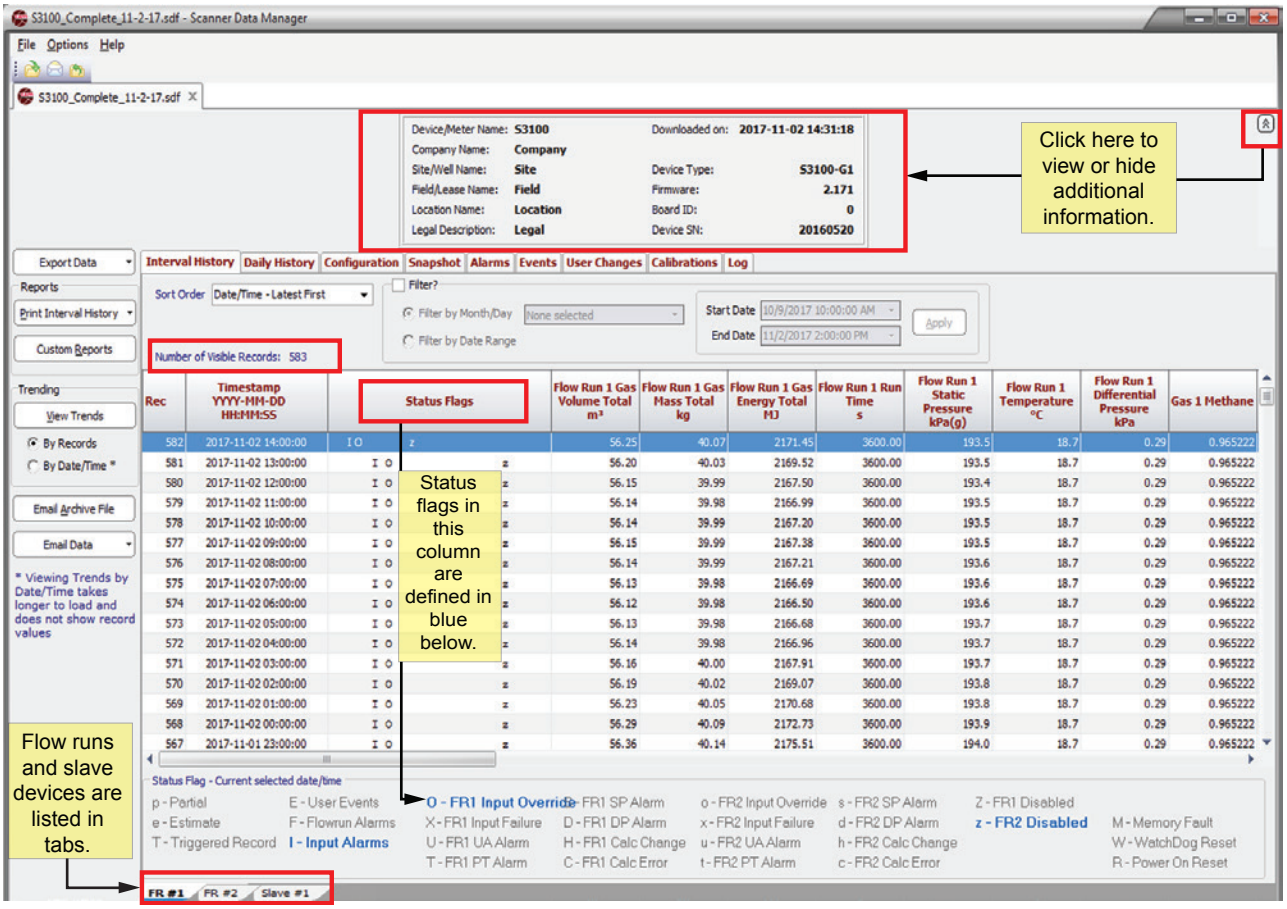

Figure 1.2—Multiple flowrun tabs

Click on the double-chevron icon (identified in Figure 1.2, page 6) on the top far right of the data screen to view device-specific data, such as device name, device location, firmware version, download date and time, etc. Click again to hide the information and display more data.

The number of visible records is displayed for Interval History, Daily History, Alarms, and Events. The display is located under "Sort Order" in the area immediately below the tabs, as shown in Figure 1.2, page 6. Visible records is not an indication of the total records downloaded. The "visible records" count reflects only those records selected for display and is dependent on the filters applied.

Viewing Trend Logs

Users can also view measurement data in a full-color graph or "trend" view. Users can zoom in and out, scroll data, and control the range of the data to be displayed. For further explanation, see Viewing Logs as Trend Graphs, page 16.

Viewing a Snapshot Report

A snapshot report, available on the Snapshot tab, captures flowrun and calculated data for a specified point in time for auditing purposes. Users can view, export, or email a snapshot report to others. See Viewing a Snapshot Report, page 27, for details.

Exporting and Emailing Archive Files

Tabular data can be exported to Excel (XLSX), comma-delimited (CSV), Internet (HTML), portable data file (PDF), and document/rich-text (RTF) formats. Trend data can also be exported as a non-editable image to PDF, .RTF, BMP, JPG, and GIF formats. If the exported tabular data is to be emailed, Scanner Data Manager will automatically attach export files to an email file, ready for addressing to a recipient. See Exporting Tabular Data, page 31, Emailing Tabular Data, page 35, and Exporting Trend Data, page 40, for details.

Printing a Report

Scanner Data Manager reporting capabilities are highly customizable. Users can print any individual log type as a simple spreadsheet or construct a detailed professional report using the embedded customization tools. See Section 4—Generating Reports, page 43, for details.

Converting Data

Scanner Data Manager allows users to convert Scanner archive files into third-party PGAS and Flow-Cal software formats. See Section 5—Converting Data, page 63 for details.

Customizing the Interface

Changing Viewing and Export Settings

The Scanner Data Manager interface can be customized to suit individual preferences and save users time in performing repetitive tasks. For a complete list of configurable viewing options, click **Options>Viewing Options**.

From this dialog, users can perform the following changes to general settings (Figure 1.3, page 8):

- Change the location where archive files are stored.
- Change export options, such as configuring .csv file exports to use quotes as a delimiter and configuring export files to automatically open when they are saved.
- Change Scanner 11xx and Scanner 2x00 default unit type to US Customary Units or SI Units.
- Change the timestamp convention. By default, timestamps mark the end date/time for each record, which is a known value generated by the Scanner. When the history timestamps setting is changed to "Calculated Begin Date/Time," timestamps will mark the beginning date/time for each record, which is calculated in accordance with the previous record or interval period, and the column heading will change from "Timestamp" to "Begin Timestamp."
- Change the number of calibrations/verifications presented in a report and the sort order used to present the data (Only available when viewing Scanner 3x00-created data files.)

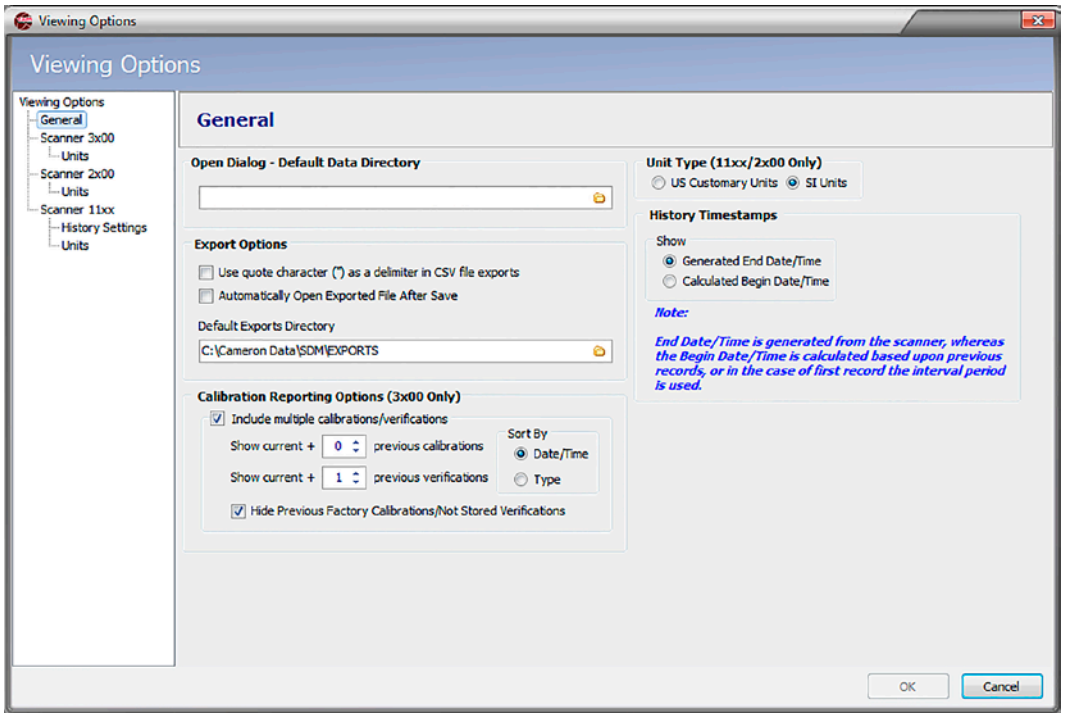

Figure 1.3—Viewing Options screen, General Settings dialog

Changing Measurement Units

To change unit settings or decimal values, click **Options>Viewing Options** and click the Scanner device in use in the menu at the left side of the dialog. Settings vary with Scanner devices. Examples of each set of device settings are provided in Appendix A—Changing Measurement Units, page A-1.

Changing Trend Views

The trend view (Figure 1.4, page 9) shows the file data as a trend graph, rather than a table. This provides you with a powerful presentation tool. The trend log can be used with default settings or customized from the *Trending Options* dialog. For further information, see Customizing the Trend Graph View, page 17.

Figure 1.4—Log Trends View

Changing Logging Level

The logging level is the level of detail reported while the archive file (SDF) is being parsed and applies to data conversion as well as viewing and reporting functions. The default setting "Above+Basic Conversion" includes all errors, warnings, a summary, and basic conversion information, and is recommended for most users.

Note If there are errors, a log file is created and stored at C:\Cameron Data\SDM\Logs.

To change the logging level, choose **Options>Logging Level** (Figure 1.5) and select a logging level.

Important **Increasing the logging level increases the time required to open the archive file. Therefore, the level should be changed only when necessary and should be changed back to the default level (Above+Basic Conversion) before exiting the program. "Above+Detailed Tracking" and "Above+Internal Details" logging levels are for troubleshooting only and should only be used by experienced technicians.**

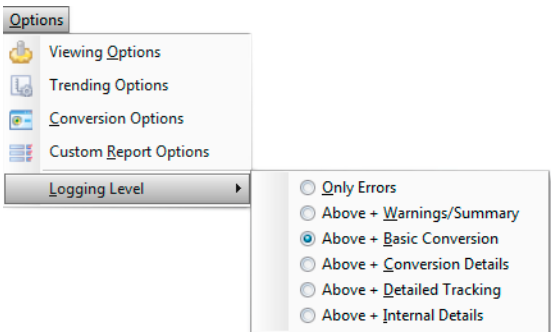

Figure 1.5—Options>Logging Level>logging level selections

"Only Errors" and "Above+Warnings/Summary" are basic logs used to track errors and warnings without logging other archive data from the flow computer data file. "Above+Conversion Details" provides additional information regarding conversion calculations.

Changing Logging Levels On-the-Fly

To shorten data parsing time or to change the level of detail in the parsed log, the logging level can be changed on-the-fly during data parsing using the following steps:

1. Click the **Pause** button (Figure 1.6) on the Log tab to freeze the current parsing log.

Note The **Pause** button only appears during data parsing. Once the parsing log has been paused, the "**Pause**" label changes to "**Continue**."

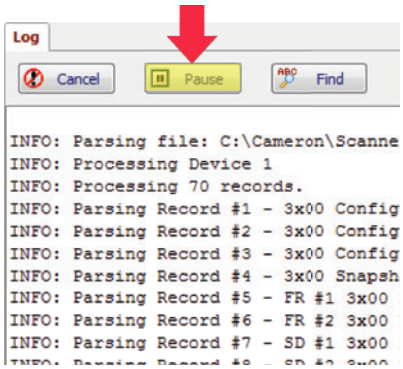

Figure 1.6—Pause button (Log tab)

2. Choose **Options>Logging Level** and select the new logging level from the menu.
3. Click the **Continue** button to resume parsing.

Note Only unparsed data will be parsed using the new logging level. To parse the entire file using the new logging level, you must close and reopen the archive file.

Section 2—Viewing Data Files

Scanner Data Manager can be used to view any SDF or SCM files download from a Scanner flow computer. To open a file, select **File>Open** (Figure 2.1) and navigate to the file's location. The four most-recently accessed files are listed at the bottom of the *File* menu for quick access.

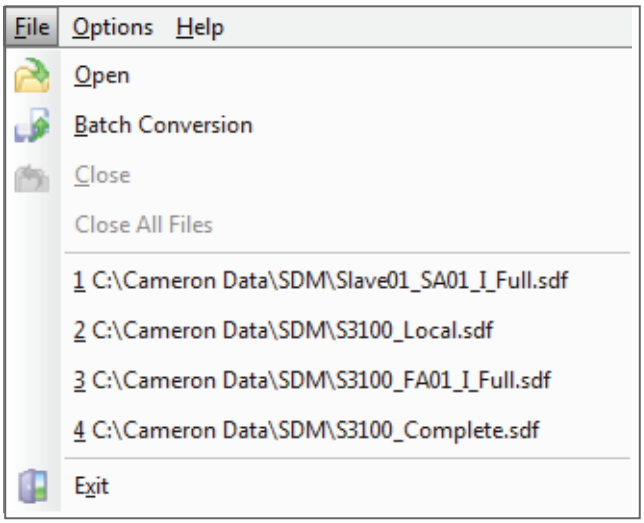

Figure 2.1—File menu

File contents can be previewed by selecting the file name in the *Open Archive* dialog (Figure 2.2).

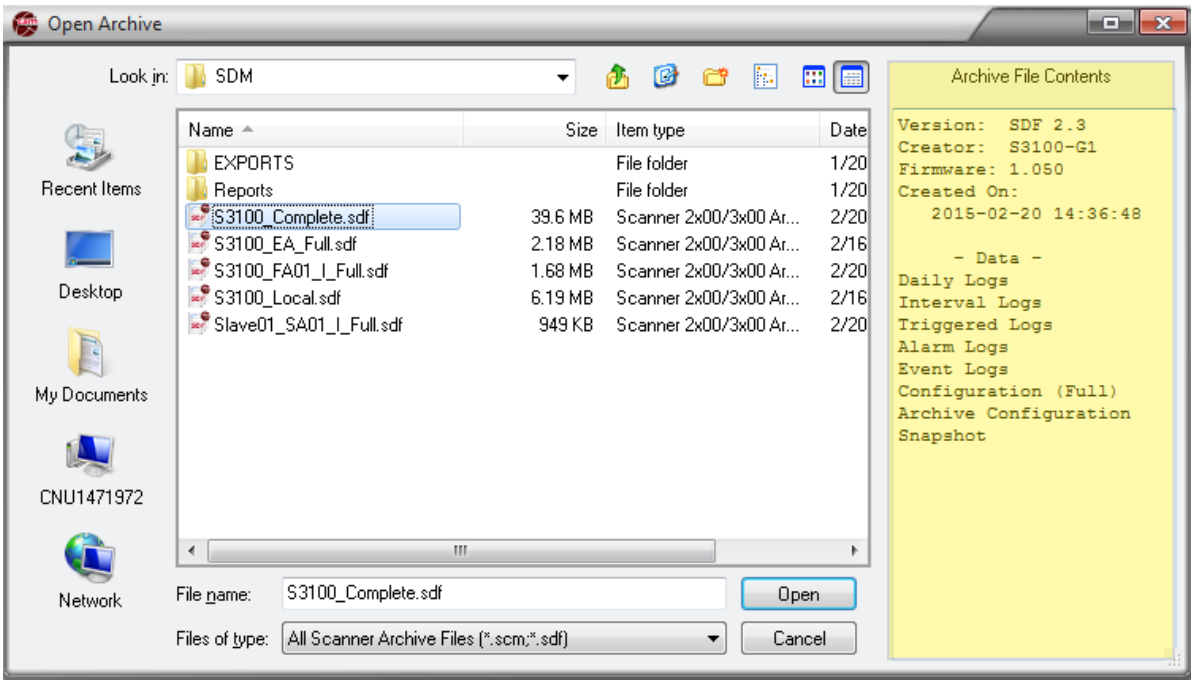

Figure 2.2—Open Archive dialog showing file contents on the right of the screen

The software will parse the data records and display the log in the main screen. The presentation of the archive data will vary, depending on the Scanner flow computer model in use and the type of data downloaded.

Multiple files can be open at a time. Each opened file will appear as a separate tab at the top of the tabular view (Figure 2.3, page 12). To exit data files, choose **Close** to exit a single file or **Close All Files** to close all open files simultaneously (Figure 2.1).

Default Viewing Settings

Upon installation, Scanner Data Manager will function in accordance with the following default settings:

- When the user selects **File>Open** to select an archive file (SDF or SCM), Scanner Data Manager displays the contents of the "C:\Cameron Data" directory.
- The log type included in the data export is based on the tab selected at the time.

Note When exporting data to Flow-Cal or PGAS format, all log types are included in the exported file.

- Tabular data files are exported to the file format selected from the *Export Data* dropdown menu.
- The log trend view displays logs "By Records" by default.
- The interval trend view displays 24 hourly records, and the daily trend view displays 30 records by default.

Viewing Logs as Tabular Data

The poll date, Scanner firmware version, and filepath for the archive file are published at the top of the screen. The various log types (Hourly or Interval History, Daily History, Snapshot, Alarms, Events, etc.) and device settings (Configuration, Calibrations, etc.) are identified in tabs across the top of the screen (Figure 2.3). If a download file contains data for more than one flowrun and/or data for slave devices, data will be grouped by flowrun and displayed in separate tabs at the bottom of the screen.

Note Scanner 3100 archive files may contain up to 20 slave devices in addition to two integral flowruns.

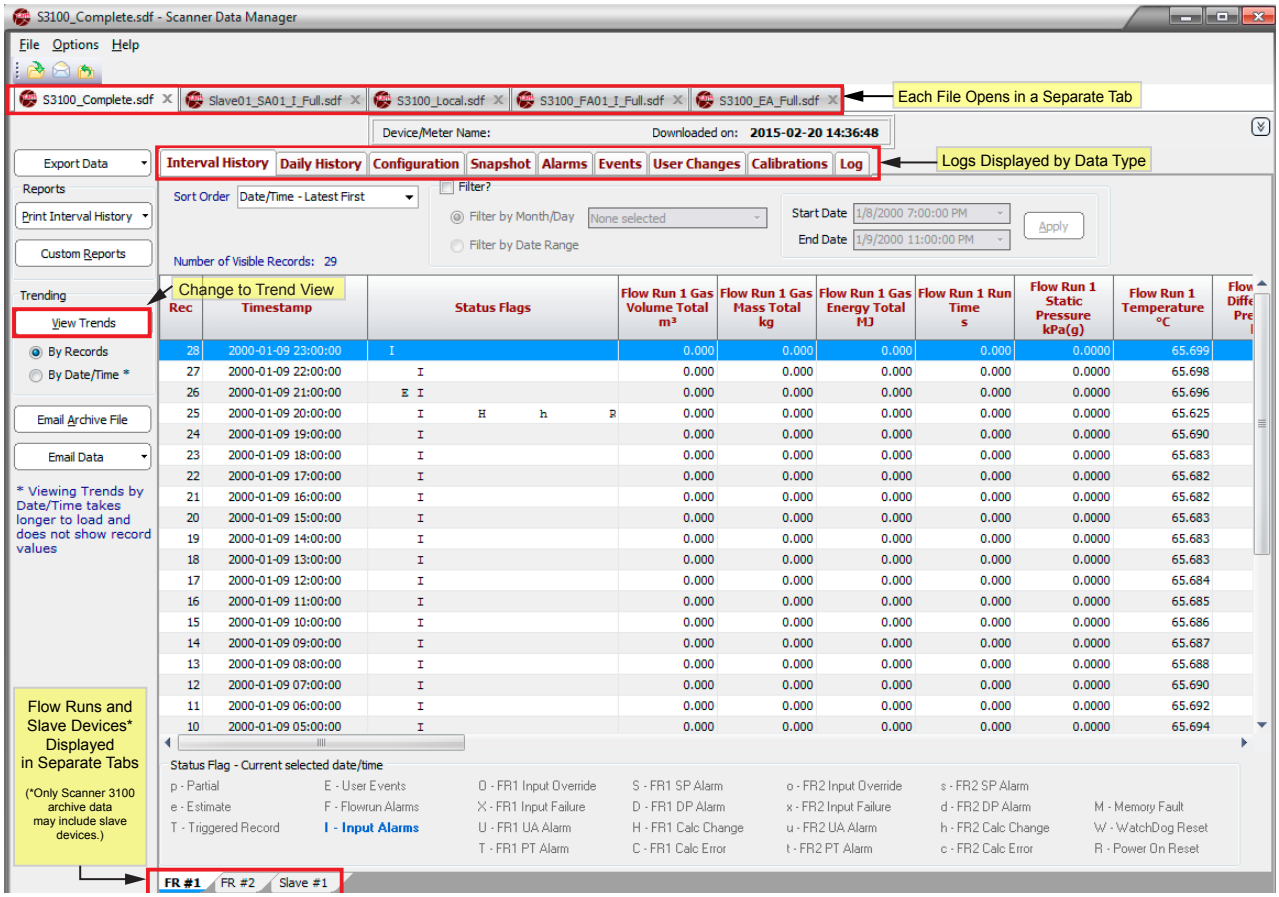

Figure 2.3—Main screen

Sort Order

By default, data logs will appear in the order in which they are downloaded, top to bottom. However, the user can sort data by date/time stamp or record number by changing the selection in the *Sort Order* dropdown menu (Figure 2.4). Each sort order selection is specific to the log type (tab) selected when the sort order is designated.

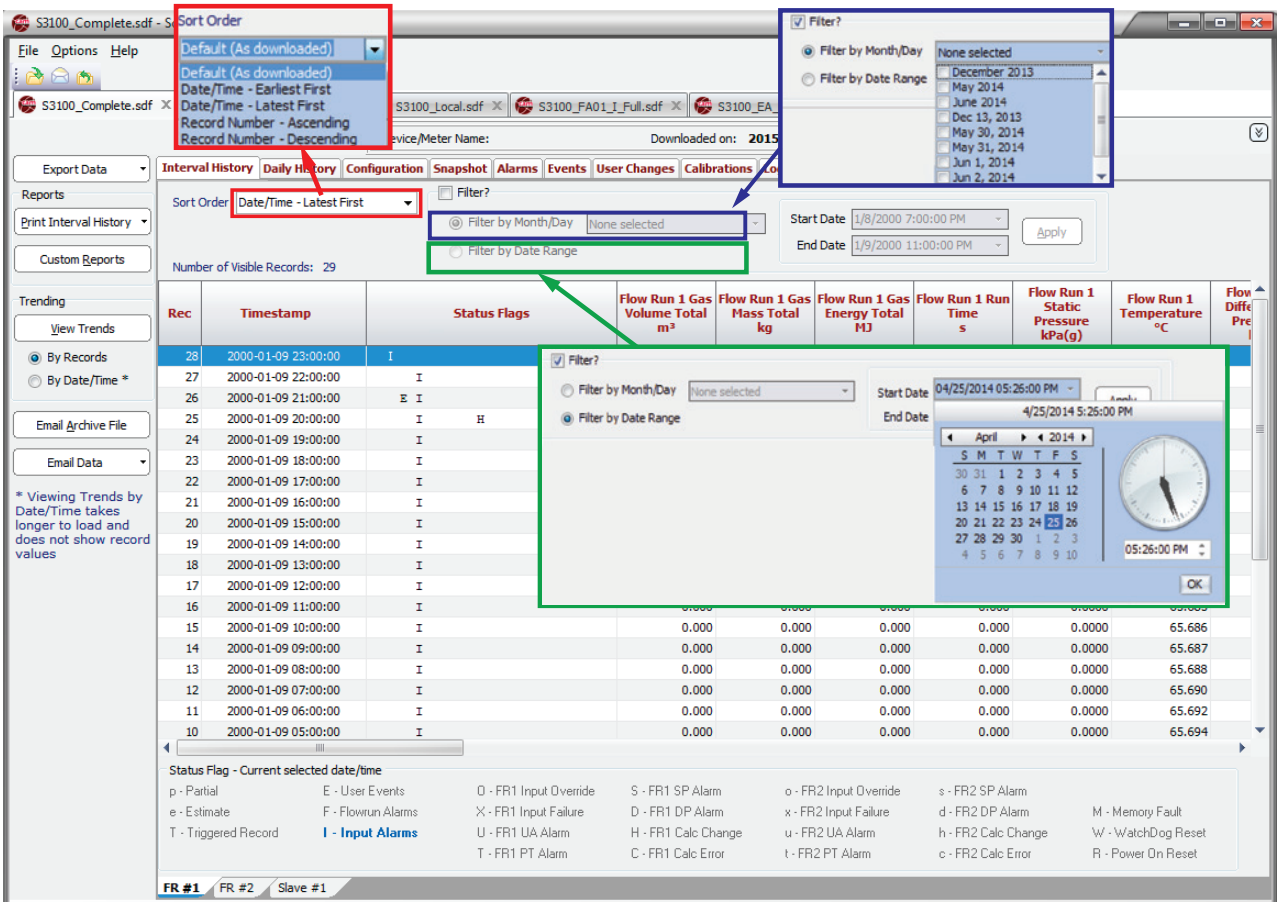

Figure 2.4—Sorting and data filtering functions

Data Filtering by Date

Log data is easily filtered by checking the "Filter" area and selecting one of the following filtering options, as shown in Figure 2.4:

- ***Filter by Month/Day***—A dropdown menu will list all dates (by month and by day) for which data is stored. The user can select multiple dates or months by clicking in the checkbox next to each desired selection.
- ***Filter by Date Range***—To initiate a filter, click the dropdown arrow next to the "Start Date/End Date" field to display a calendar dialog, select the desired start and end date/time, and click **OK**.

Note When timestamps are configured to mark the end date/time (default setting) and data is filtered by month, the first day of the month following the "filter month" is automatically included in the filter range. This is because data stored on the last day of the month is downloaded at the contract hour of the following day. For example, when a user filters data from July, the download from August 1 is included. This download includes data stored during the 24 hours between the July 31 contract hour and the August 1 contract hour.

Data Filtering of Event, Alarm, and User Change Logs

Event, alarm, and user change logs can be filtered by columnar data such as flowrun, type of event, alarm, or user change, and login ID, as well as by the standard month/day or date range filters.

Events can also be filtered by “Group” or “Key.” Group is the type of parameter associated with the event, and Key specifies the exact parameter associated with the event (which is required when the device supports multiple configurations within a function (for example, a Group selection of Digital Output and a Key selection of 2 will cause the spreadsheet to filter data for Digital Output 2).

Note Columns that can be filtered have a gray down arrow to the right of the column heading (Figure 2.5).

To filter by column,

1. Click on the appropriate tab (event, alarm, or user changes).
2. Click on the gray down arrow to the right of the column heading.
3. Select the desired filter type from the dropdown menu, as shown in Figure 2.5. The data will be organized by the filter type selected.

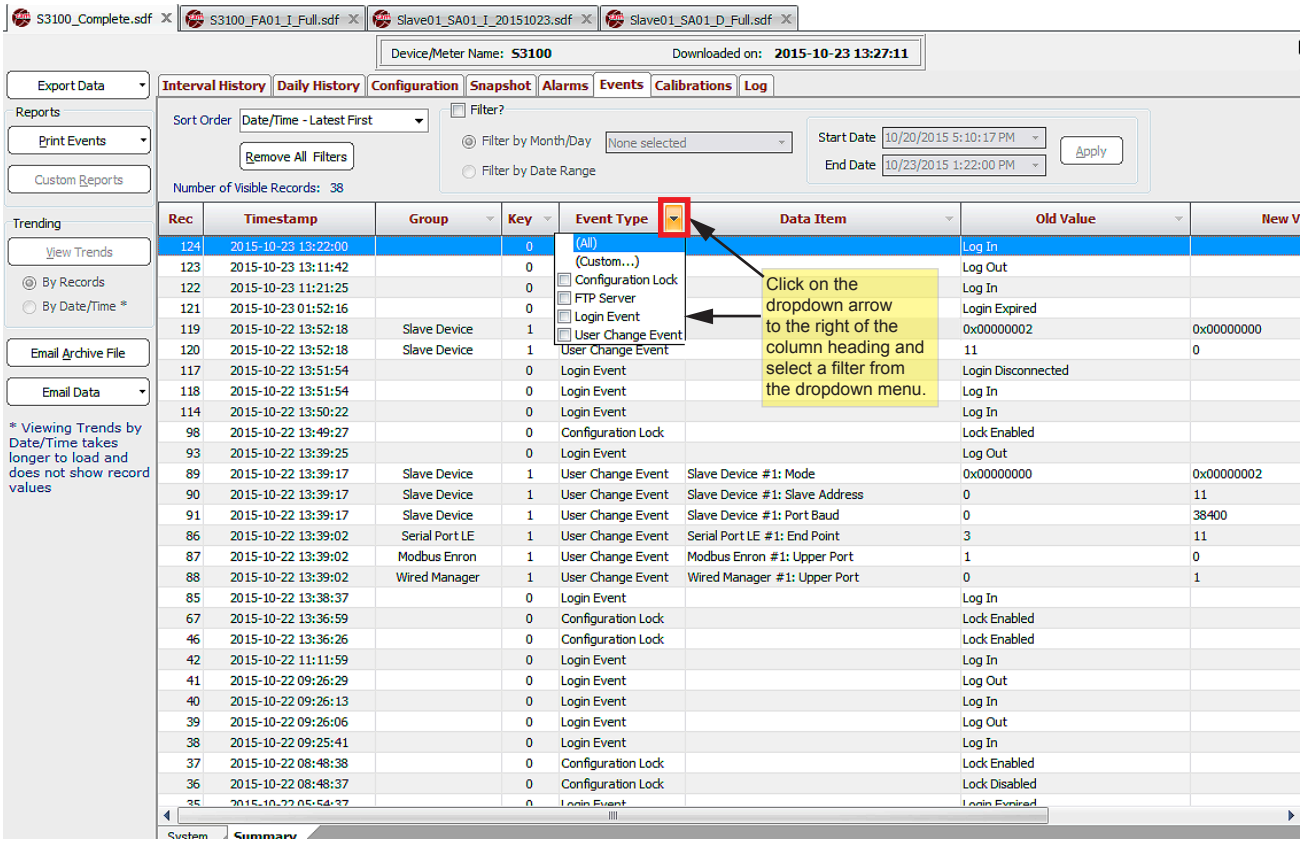

Figure 2.5—Event tab showing dropdown menu

To remove alarm, event, and user change data filters, click the **Remove All Filters** button, which is located near the top of the screen when the Events, Alarms, or User Changes tabs are selected (see Figure 2.6, page 15).

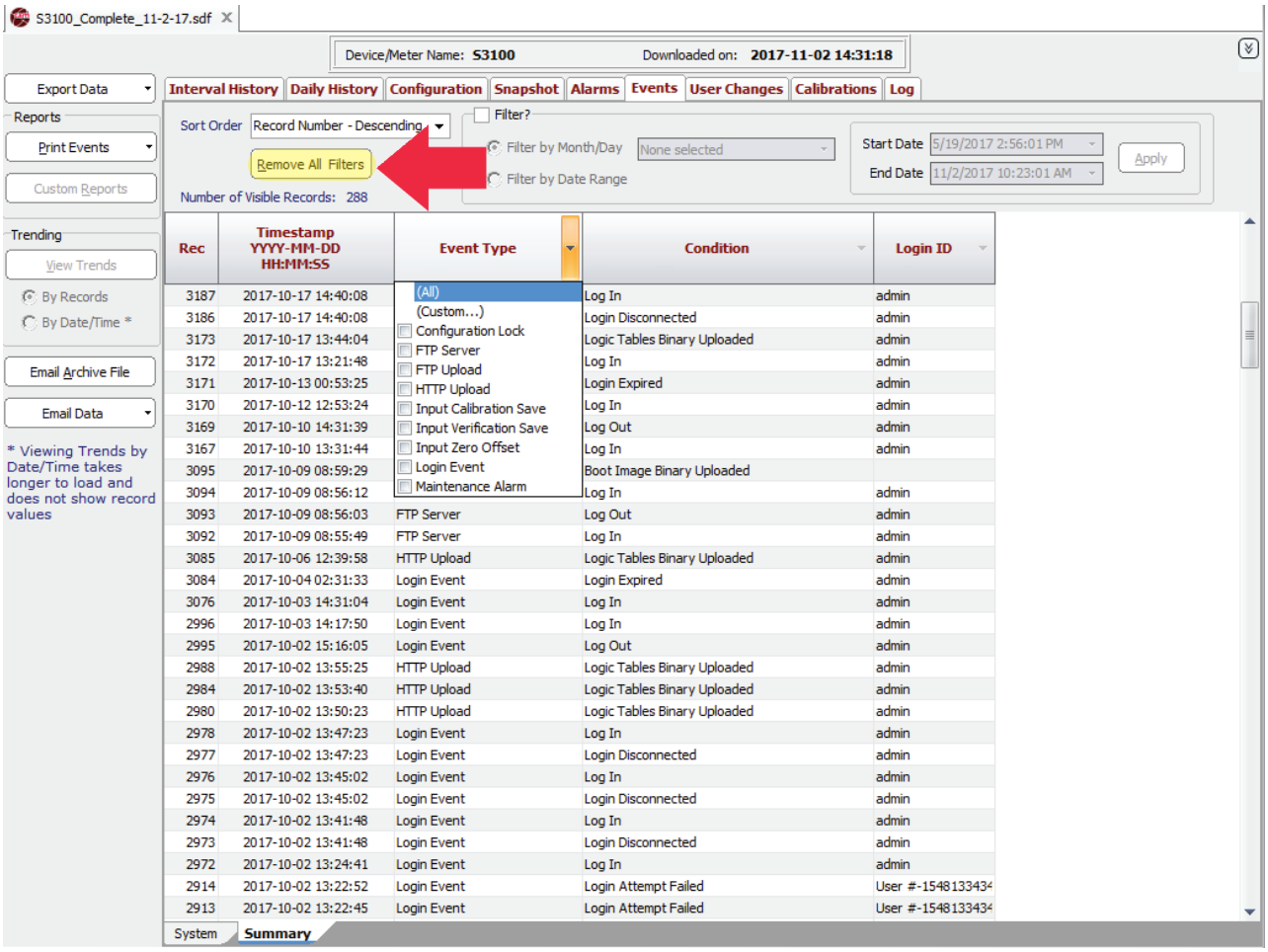

Figure 2.6—Remove All Filters button

Custom Filtering (Advanced Users)

In addition to the columnar filter checkboxes, users can create a Custom filter to filter data based on specific criteria within a cell. To add a custom filter,

1. Click the appropriate tab (event, alarm, or user changes).
2. Click the gray down arrow to the right of the column heading and select **(Custom...)** from the dropdown list. The *Custom Filter* dialog opens (Figure 2.7).

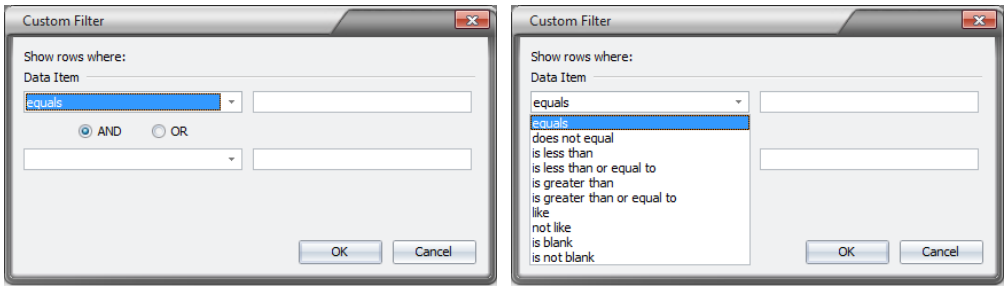

Figure 2.7—Custom Filter dialog

3. In the first selection field, click the dropdown arrow and select your criteria. In Figure 2.7, the criteria for the selection field on the right is "equals." In the selection field to the right, enter a type, a value, or text. Note the special characters listed at the bottom of the dialog that can be used as "wild cards" to represent any characters or numbers.
4. To add a second criterion, click on the **and** or **or** button and enter a new criterion and the associated type, value, or text in the second row of dropdown menus.
5. Click **OK** to apply the filter.
6. To clear the columnar filter without removing a date filter, click the gray down arrow to the right of the column heading and select (All).
7. To remove all filters, date filter included, click the **Remove All Filters** button (see Figure 2.6).

Viewing Logs as Trend Graphs

Measurement data trends can be viewed by record number (recommended for continuous logging) or by date/time (recommended for logs with gaps in data) from the Interval, Daily Logs, Triggered or Data Logger tabs. The trend view presents the downloaded logs in two graphs (Figure 2.8)—a top graph showing the entire contents of the downloaded log and a bottom graph showing a user-selected segment of the log.

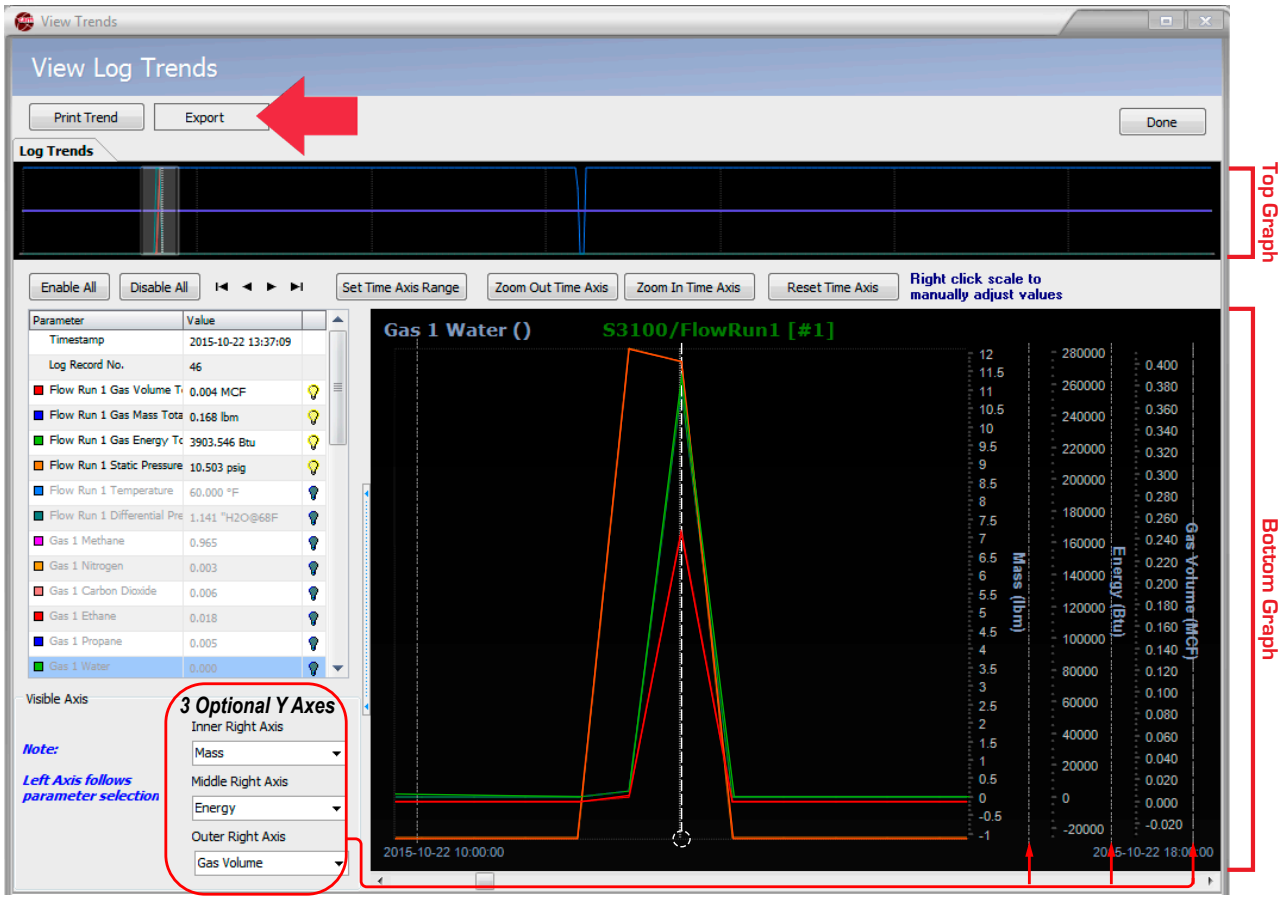

Figure 2.8—Log trend view

Top Graph

The top graph provides a high-level view of all data in a log. Click anywhere in the top graph to select the range of records to be magnified in the large graph display at the bottom of the screen.

Note If the records in a log are too numerous to be displayed in the bottom graph, a gray rectangle will appear on either side of the top graph. Click and drag the gray rectangle to move the graph and bring hidden records into view.

Bottom Graph

The bottom graph allows a user to view records in detail. Screen controls allow a user to view multiple parameters on one graph or isolate selected parameters for viewing. Up to four Y axes can be displayed, maximizing the information available in a single view.

To view a different data range

- Use the scroll bar beneath the graph to shift the graph to the left or right.
- When viewing a trend by record number, advance the graph one record at a time using the right and left arrow buttons on the computer keypad or by clicking on the right or left arrow in the scroll bar beneath the graph.
- Click the **Zoom Out Time Axis** button to view more data or **Zoom In Time Axis** to view data in greater detail.

Customizing the Trend Graph View

To customize the trend graph view, choose **Options>Trending Options**. The *General Trending Options* dialog will appear. From the *Trending Options* interface, you can choose how trend data is displayed. The options are divided into one general category and three Scanner-specific categories, as shown in the left column of Figure 2.9.

General Trending Options

The *General Trending Options* dialog (Figure 2.9) allows users to customize the settings that will serve as a template for all Scanner trend views.

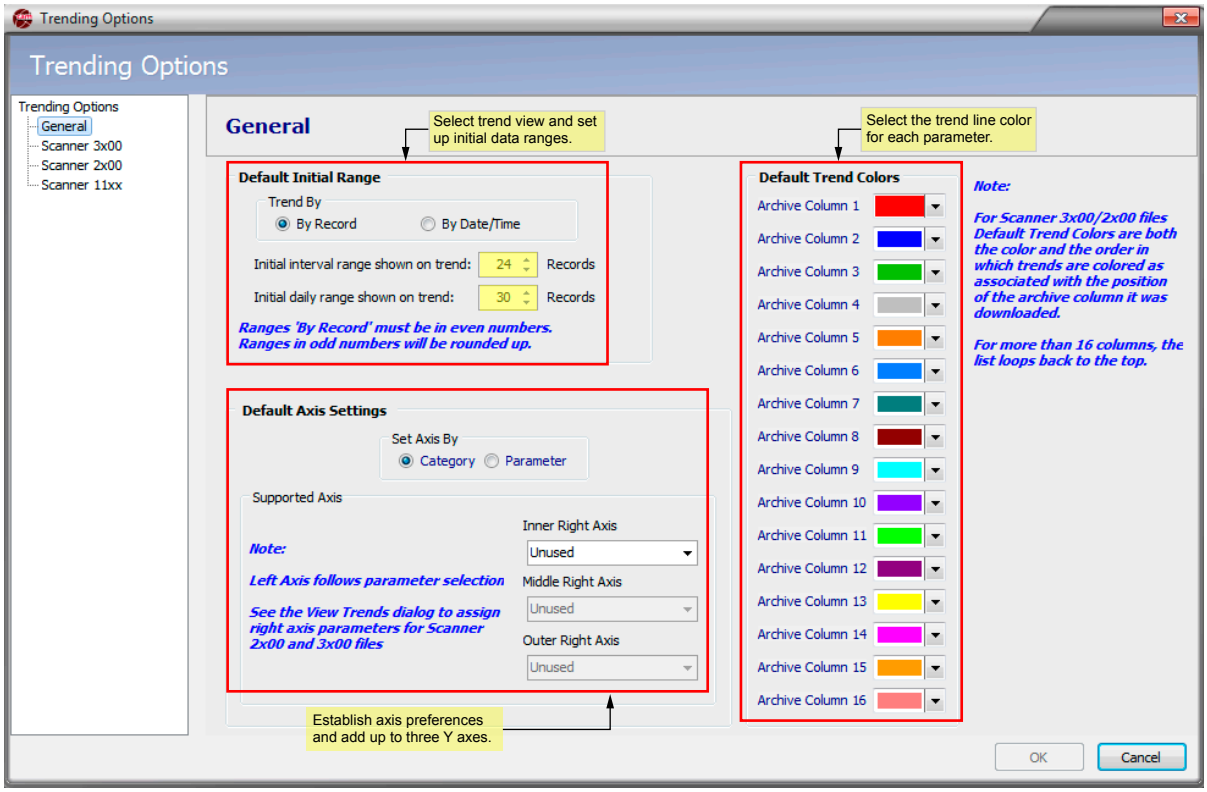

Figure 2.9—General Trending Options dialog

From this dialog, the user can perform the following tasks:

- Select the criteria used to trend data (by record or by date/time, the default).
  - When trending by record, ranges must be even numbers from 2 to 100.
  - When trending by date/time, choose the number of days in the range (0 to 100).

Note Selecting date/time may cause data to load more slowly and the number of record values will not be displayed on date/time trend graphs.

- By default, the left Y axis follows the parameter selection. However, the "Default Axis Settings" allow you to configure the right axes to represent a unit category (volume, mass, temperature) or a parameter. Categories can be selected selected for up to three right axes in the *General Trending Options* dialog.
- Set up to three additional right Y axes, which appear as inner right axis, middle right axis, and outer right axis sequentially. If the inner right axis is changed to "Unused," all three extra axes will be removed.

Note The variable represented by the left Y axis is determined by the active parameter selection, which is highlighted in blue. When selecting other axes to display, verify that the parameter selected appears in the data file and has a value greater than zero.

- Select trend colors, if desired. Trend colors will be applied to parameters in the order they appear, and will be repeated as required, depending on the number of items in the archive file.

Note When selecting trend colors, keep in mind that the screen displays logs on a black background. The printed background will be white. If trends will be printed, select colors that will be visible both on screen and in printed graphs.

Scanner 3x00 and 2x00 Trend Settings

The model-specific Scanner settings in the left-most section of the *Trending Options* screen allow users to make additional choices about how trend data for a specific model is presented. Click the Scanner model in use.

- Select the parameters to appear on the trend graph (Figure 2.10, page 19).
- Set the trend graph default units to SI Units or US Customary.
- Customize the data ranges and/or units associated with select unit categories.
- Customize axis settings (override general axis settings).

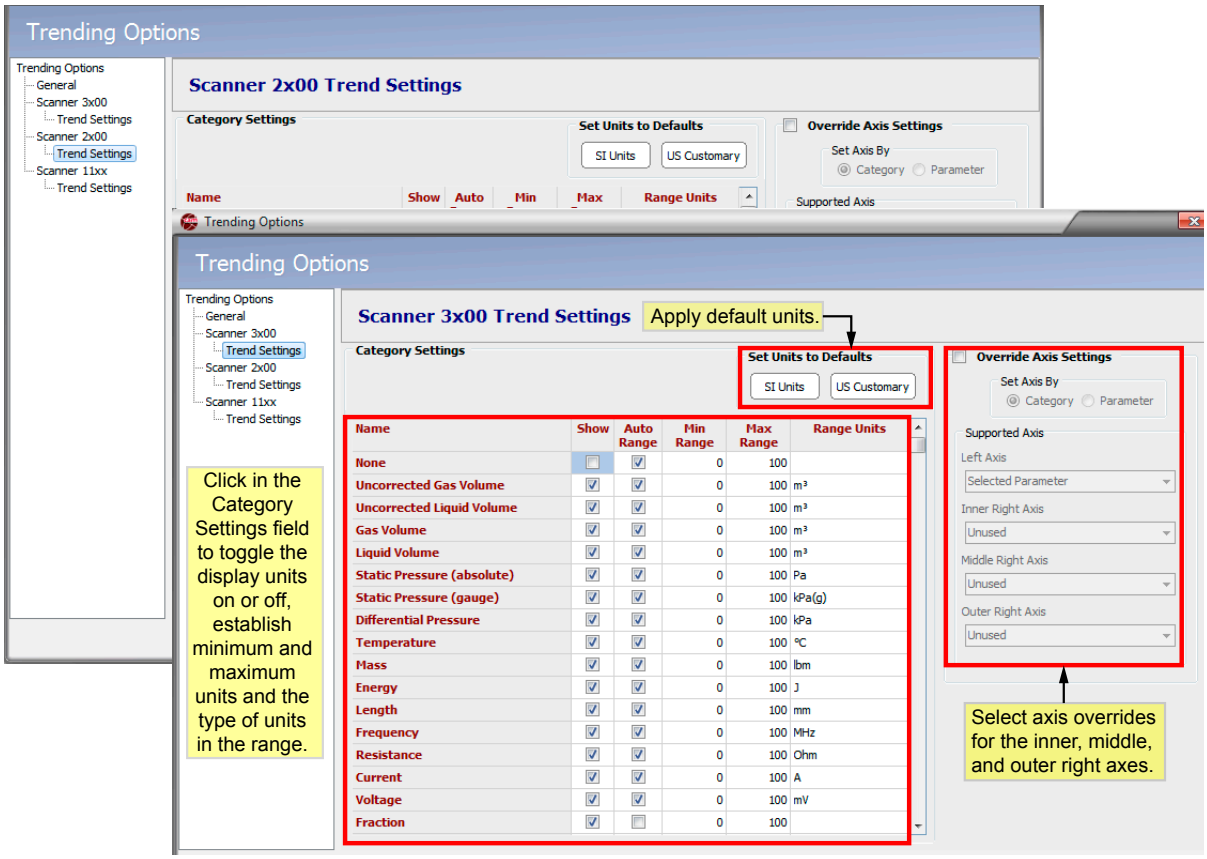

Figure 2.10—Scanner 3x00 and 2x00 Trending Options dialog

Scanner 11xx Trend Settings

Trend customization options vary with Scanner models. From the leftmost section of the *Trending Options* screen, click **Scanner 11xx** to change trend settings, such as

- Select the parameters to appear on the trend graph (Figure 2.11).
- Override trend colors.
- Customize the data ranges and/or units associated with select unit categories.
- Customize axis settings (override general axis settings).

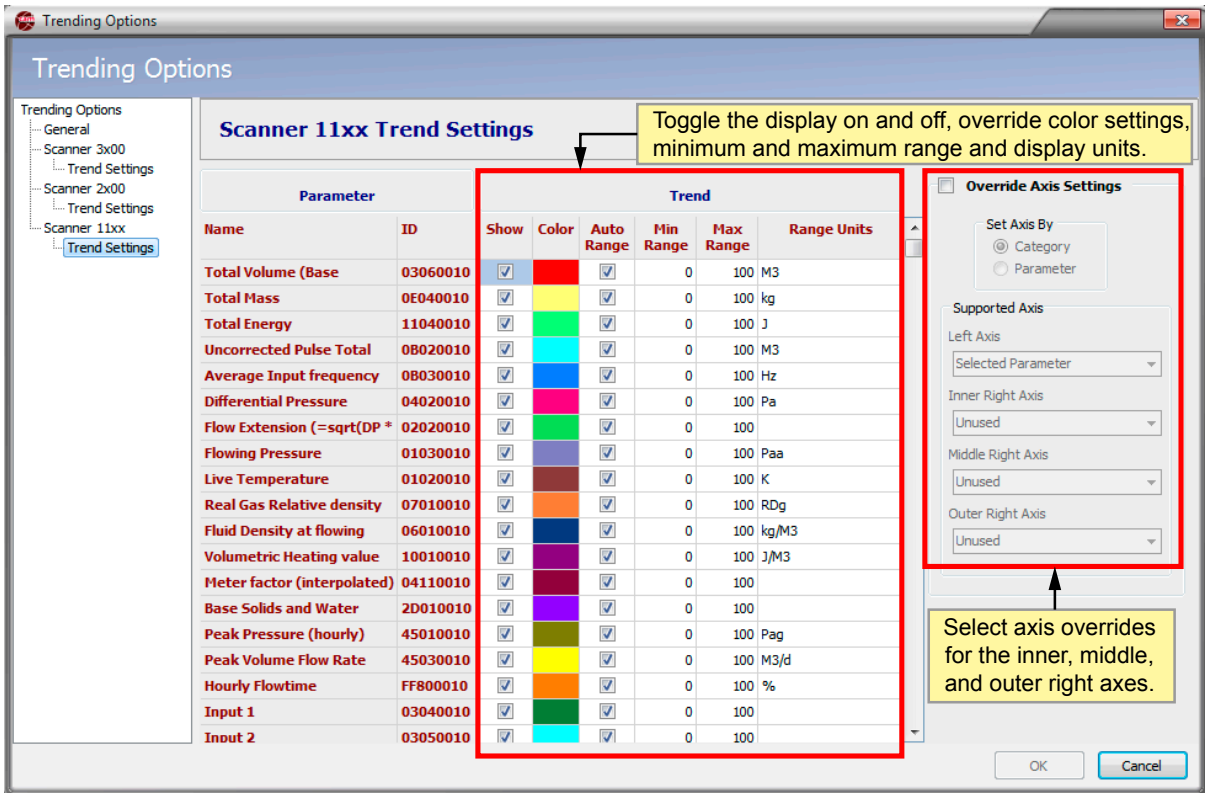

Figure 2.11—Scanner 11xx Trending Options dialog

Viewing Trends by Record

By default, trends are displayed by record number, which is ideal for continuous logging. To view log trends by record, click the **By Records** option in the "Trending" section on the left of the main screen (Figure 2.12), then click the **View Trends** button.

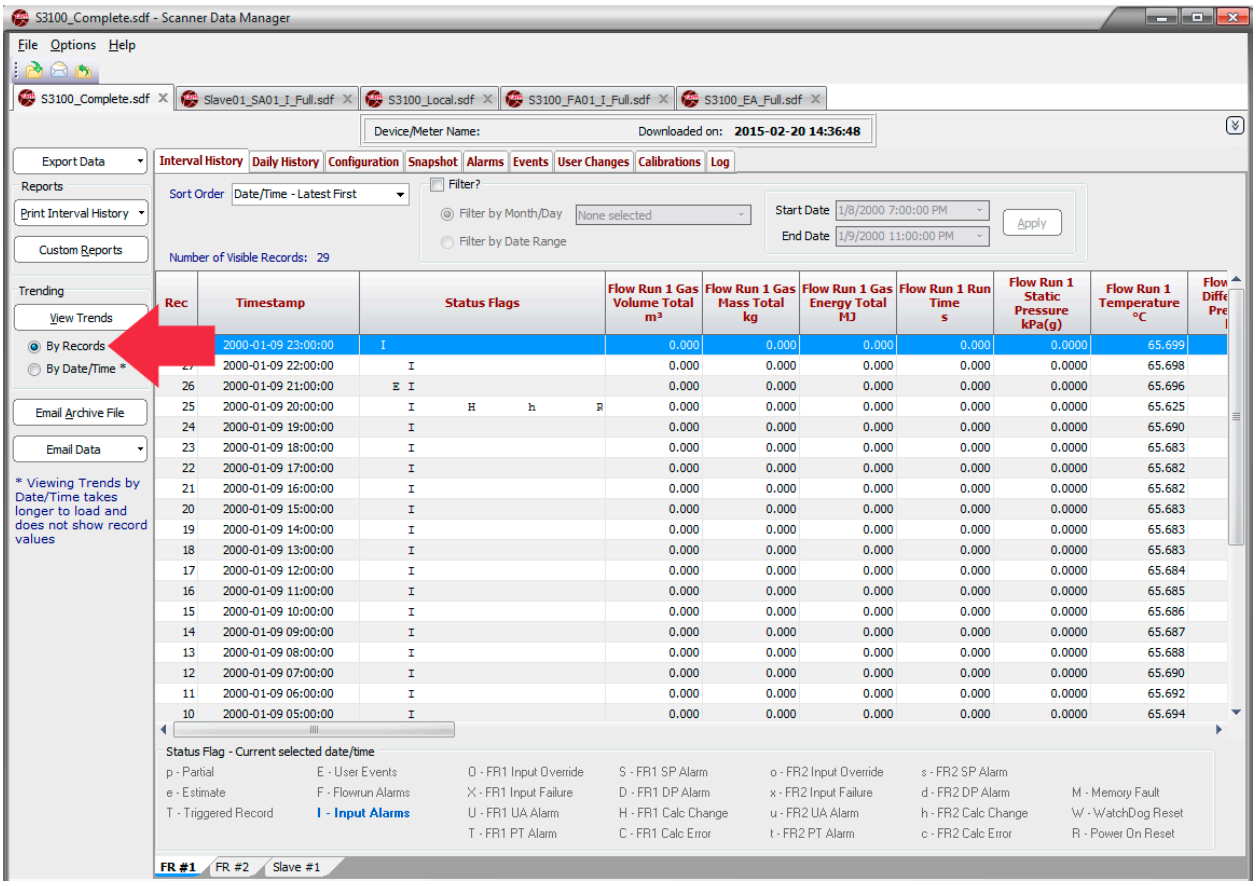

Figure 2.12—View Trends "By Records" option

The record values will be plotted in trend lines, as shown in Figure 2.13, page 22.

Note the dotted vertical white line in the bottom graph. This Record Index line remains in a fixed location, and marks the record highlighted at left. The value range for the highlighted parameter is displayed on the left axis.

In Figure 2.13, page 22, the Record Index line intersects the trend graph at Log Record Number 4879. The log number, timestamp, and individual parameter values in that log are displayed in the table at the left of the screen. These numbers and values are automatically updated when the data is scrolled using the scrollbar at the bottom of the screen.

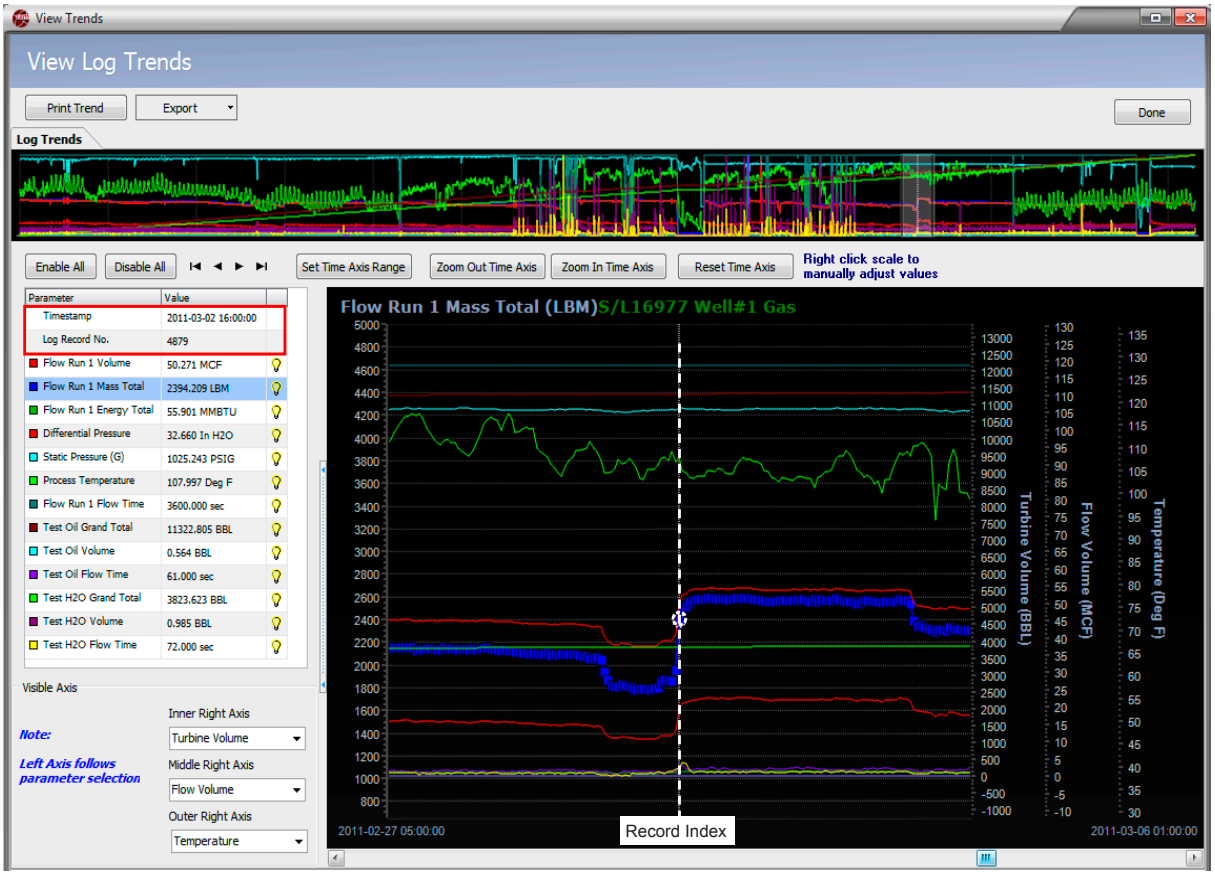

Figure 2.13—Record Index marker for viewing trends by record

For information on viewing data values for a specific parameter, see Analyzing a Single Trend Line, page 26.

Viewing Trends by Date/Time

For logs that include gaps in flow, users may prefer to view trends by date/time by blocks of time rather than by record numbers, since gaps may be difficult to identify when viewing by records.

Note Viewing by date/time may result in longer load times for displaying the graph and is only recommended for viewing triggered logs or other logs in which a time gap in logging is expected.

To view log trends by date/time, click the **By Date/Time** option in the "Trending" section on the left of the screen (Figure 2.14, page 23), then click the **View Trends** button.

The date/time values will be plotted in trend lines as shown in Figure 2.15, page 23.

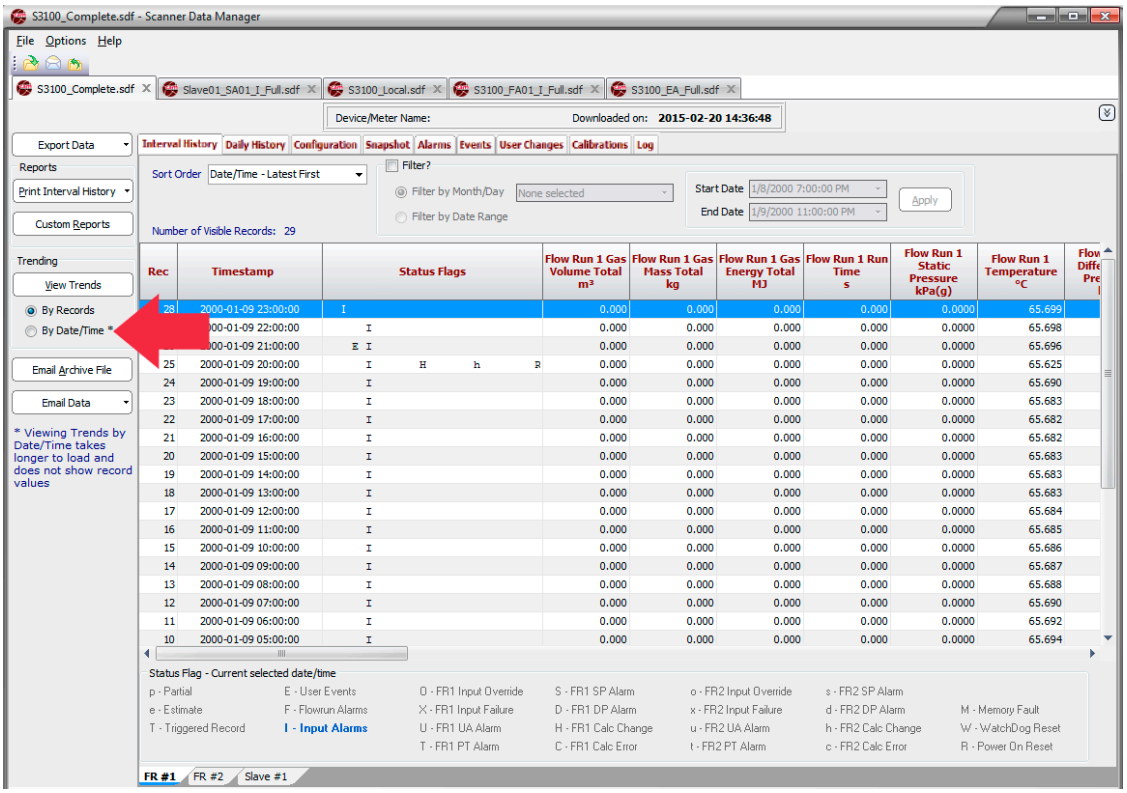

Figure 2.14—Log trends select "by Date/Time"

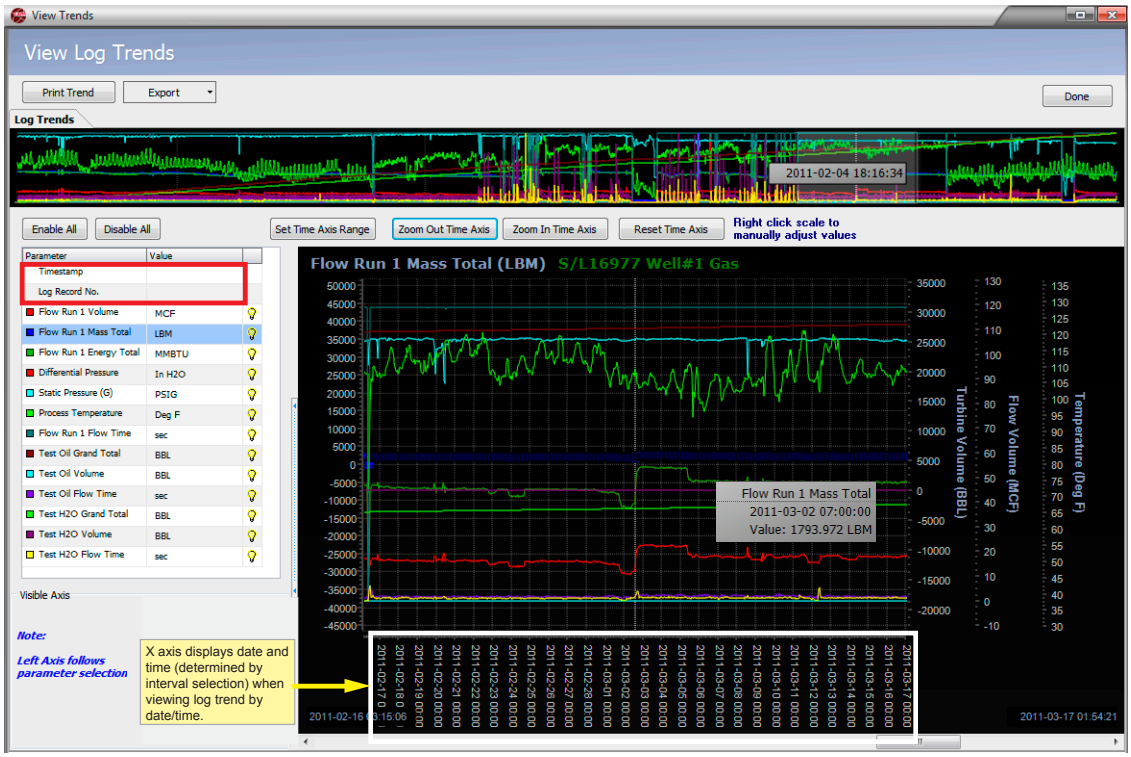

Figure 2.15—Log trends displayed by date/time

Note When viewing trends by date/time, the timestamp and log record number fields are not populated in the parameters table and the record values do not appear during scrolling. Instead, date and time intervals appear along the X axis near the bottom of the screen.

To view data values, select a parameter in the table and click anywhere in the trend graph. A white dotted circle will appear on the selected trend line and a text box attached to the cursor will display the data value and record date/time for the selected data point. Move the cursor over the trend graph to see the values change as the cursor locks on to various data points.

For more information on viewing data values for a specific parameter, see Analyzing a Single Trend Line, page 26.

Choosing Axes

Up to four axes may be used to track data values for parameters or categories. See Viewing Logs as Trend Graphs, page 16 for more information. The left axis is fixed and reflects the active selected parameter. Up to three axes for tracking other parameters or unit categories are optionally available on the right side of the trend view.

To add right axes, click the "Inner Right Axis," "Middle Right Axis" and "Outer Right Axis" dropdown menus, respectively, and select the parameter or category to be assigned to each. If you select a parameter/category that is unavailable, the following message will appear:

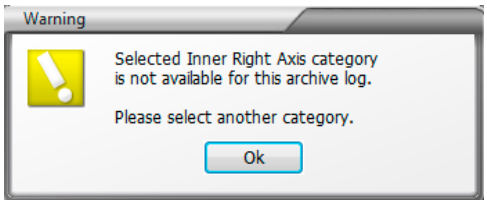

Figure 2.16—Y axis warning

Adjusting the Data Range

The trend view display contains a number of controls for customizing the display. Adjust the range of data in view using one of the following methods.

Dates and Times

Click on **Set Time Axis Range** and enter a Range Start date and time and a Range End date and time using the calendars provided (see Figure 2.17). For daily logs, enter start and end dates only (no times).

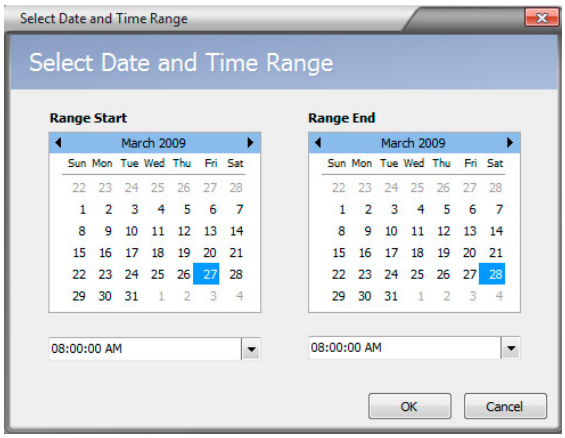

Figure 2.17—Select Date and Time Range dialog

Enlarge or narrow the time axis by clicking **Zoom Out Time Axis** or **Zoom In Time Axis** (Figure 2.15, page 23).

Data Values

The range of values shown on a Y axis is determined by the data values in the archive file. By default, the Y-axis scale is set to show all data values, from lowest to highest value in the record. If the archive file contains irregular data that results in an abnormal range scale, adjust the Y axis scale using the following steps:

1. Right-click on the tick marks to the right of the Y axis scale values. The *Axis Settings* dialog will appear (Figure 2.18).
2. Enter the desired maximum and minimum values in the fields provided.
3. If desired, change the major increments displayed along the Y axis. This value should be less than the difference between the maximum and minimum values established in Step 2. Otherwise, the major increments and axis hash marks will no longer be visible on the screen.
4. Click **OK** to apply the settings to the trend view.

To restore the scale to the actual maximum and minimum values in the archive file, click the **Auto Calculate** checkbox(es) and click **OK**.

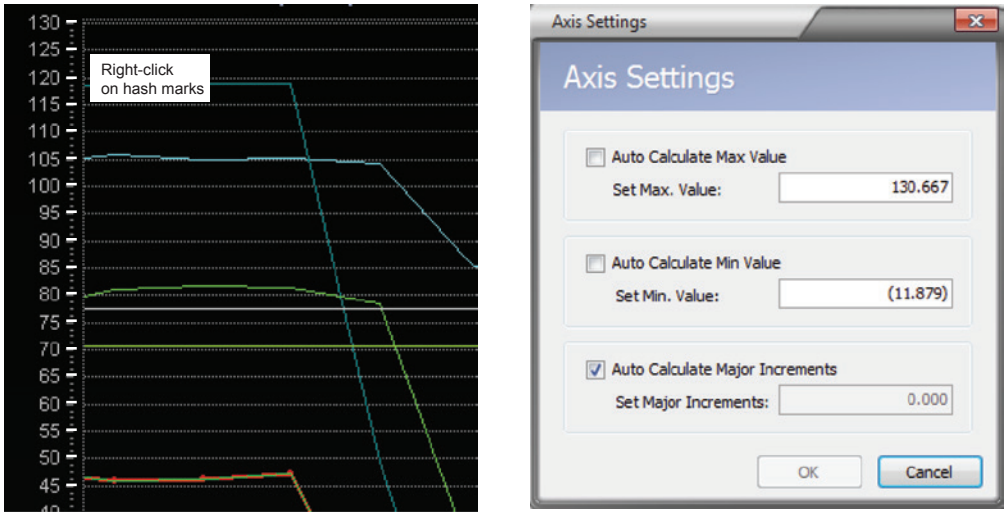

Figure 2.18—Accessing the Axis Settings dialog

Enabling/Disabling Parameter Trend Lines

By default, all archive parameters are displayed in the parameter table and in the trend log. Values are displayed only for the parameter selected at any given time. To change the parameters displayed in the trend log, select a different parameter trend line or enables/disables parameter trend lines following the instructions below:

Click the parameter to be viewed in the graph (Figure 2.19, page 26). The parameter is highlighted in blue, its corresponding trend line is bolded within the graph and markers indicating record locations within the trend line appear. The yellow light bulb icon indicates that the parameter trend line is enabled for display.

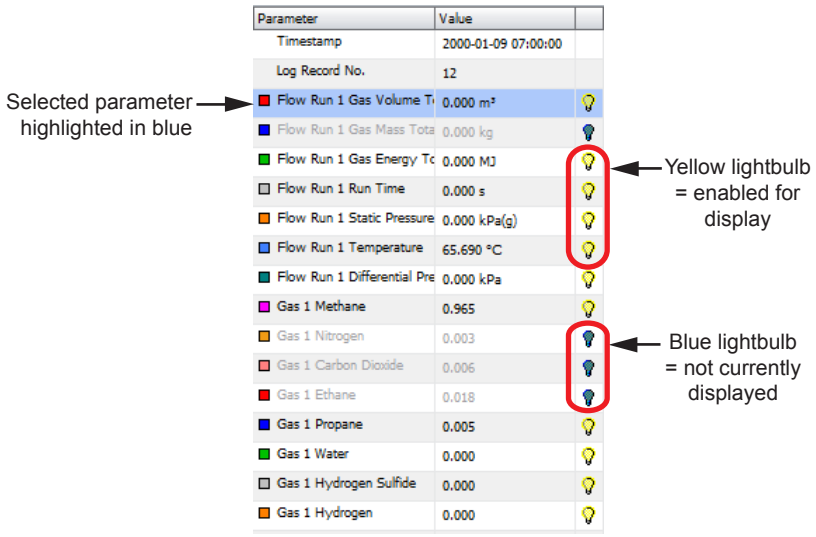

Figure 2.19—Parameter (by record) table

Note Turning off the light bulb of a parameter that is highlighted in the table will cause the trend line and the Y axis to disappear, but the parameter name remains on screen in grayed text. Click the grayed out parameter to restore the trend view and the Y axis.

- To view individual data point values, click the bolded line and move the cursor over the data points. The selected parameter name and configured unit are displayed at the top of the graph, and the graph scale adjusts to frame the values of the selected parameter.
- To disable all parameter trend lines except the one that is selected (highlighted), click the **Disable All** button.
- To enable all parameter trend lines, click the **Enable All** button.
- To hide a parameter trend line, click on the yellow light bulb icon next to the parameter to be hidden. The light bulb icon will change from yellow to blue, and the trend line will disappear from the graph. The parameter name will remain at the top of the graph until another parameter is selected for display.
- To display a hidden parameter trend line, click on the blue (disabled) light bulb icon. The icon will change to yellow, and the trend line will appear in the graph.

Analyzing a Single Trend Line

A user can examine records along a single trend line by clicking on a parameter in the left table. The parameter selection will appear highlighted in the table, and the name of the parameter will appear in the corner of the graph (Figure 2.20, page 27).

1. Click on the trend line in the *Trend* window and observe the dotted white cursor on the trend line. Move the cursor along the parameter trend line and observe the changing values in the box linked to the cursor. The cursor latches onto each data point (record) it encounters, and the associated date and time stamp and recorded value are automatically displayed. This feature assists the user in determining the values for a single trend within the range without scrolling.
2. When viewing by record, use the scroll bar below the bottom graph to move the graph across the vertical Record Index line. The values of each data point that intersects the Record Index line will appear in the table to the left of the trend log.

Note When viewing trends by date/time, the timestamp and log record number do not appear in the parameters table and the record values do not appear during scrolling. However, clicking on the trend line and moving the cursor over the data points (records) will display the date, time and value of when the record was archived.

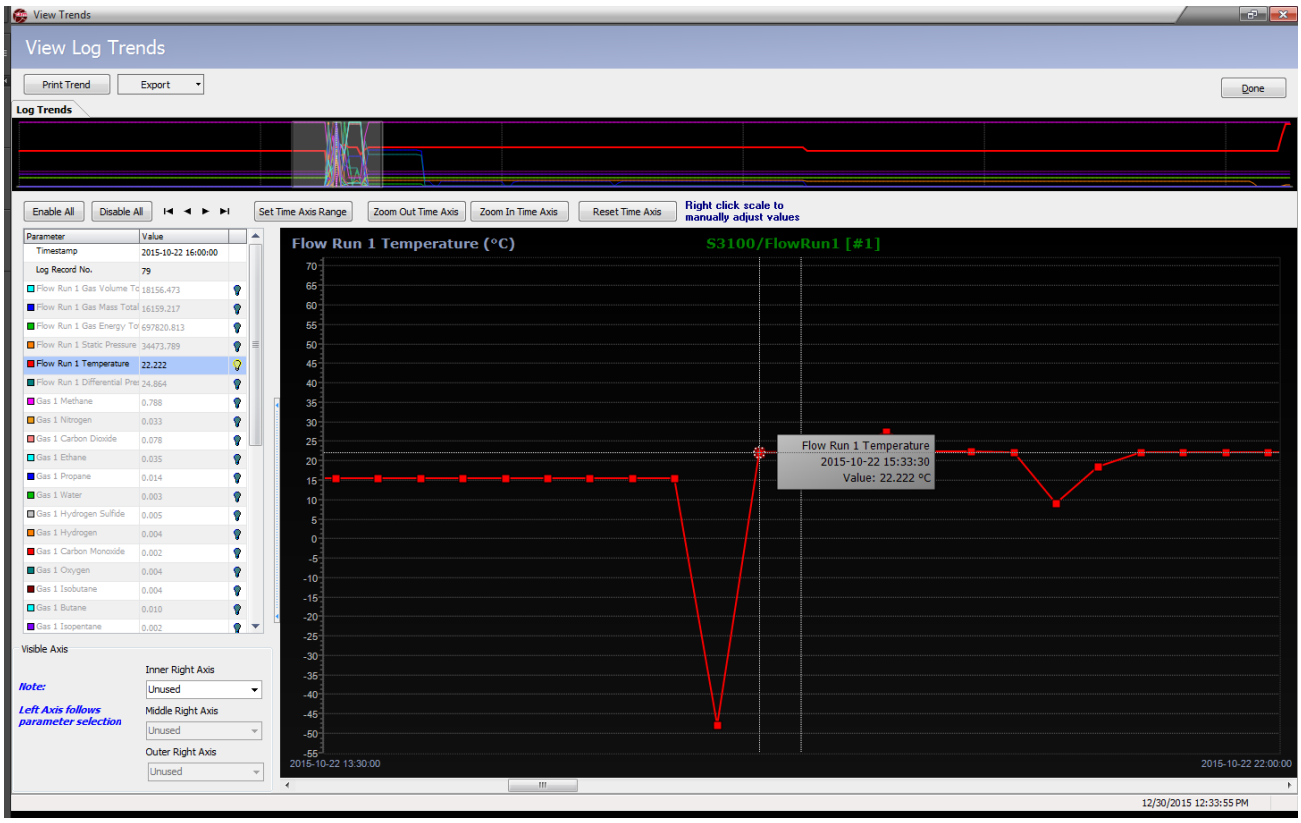

Figure 2.20—Log Trends view, single parameter shown

Only the trend line for the parameter that is highlighted in the table can be examined in this way. The cursor will not latch onto data points along any other trend line. To view the values associated with a different parameter, select the desired parameter in the table or click on a different trend line.

Viewing a Snapshot Report

The Snapshot report (Figure 2.21, page 28), like the Configuration report, allows a user to view and search flowrun and turbine input data, configuration values, sensor input readings and system data for a specific point in time. The report can be exported and e-mailed to a technician for diagnostic help or to another user for data validation.

Snapshot reports are automatically generated and included in downloads from the Scanner 3100 flow computer. Snapshot reports are optionally available for download in Scanner 2x00 models. If a snapshot report is not included in a download, the Snapshot tab will not appear in the Scanner Data Manager interface.

To view a snapshot report, simply click the **Snapshot** tab. Use the scrollbar along the right edge of the screen to navigate up and down in the report.

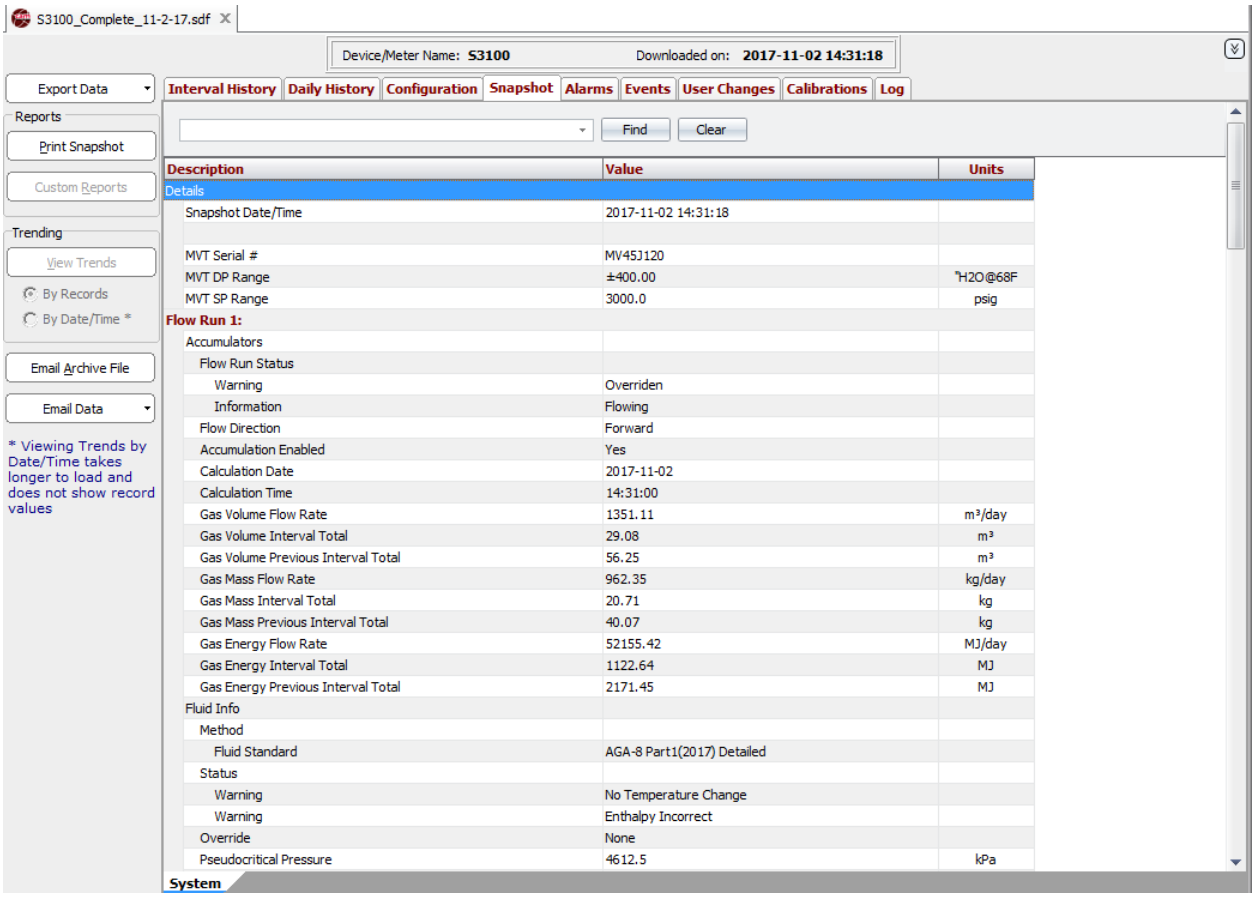

Figure 2.21—Snapshot report

Searching the Snapshot Report

To search within a Snapshot report,

1. Click in the search field (Figure 2.22, page 29) and enter the search word or phrase.
2. Click **Find**. The search will identify where the search word or phrase appears.
3. Repeat Steps 1 and 2 to search for another word or phrase.

Note The search field will retain your searches until you close the Snapshot report. To repeat a search, click on the down arrow at the far right of the search field and select the term from the dropdown list.

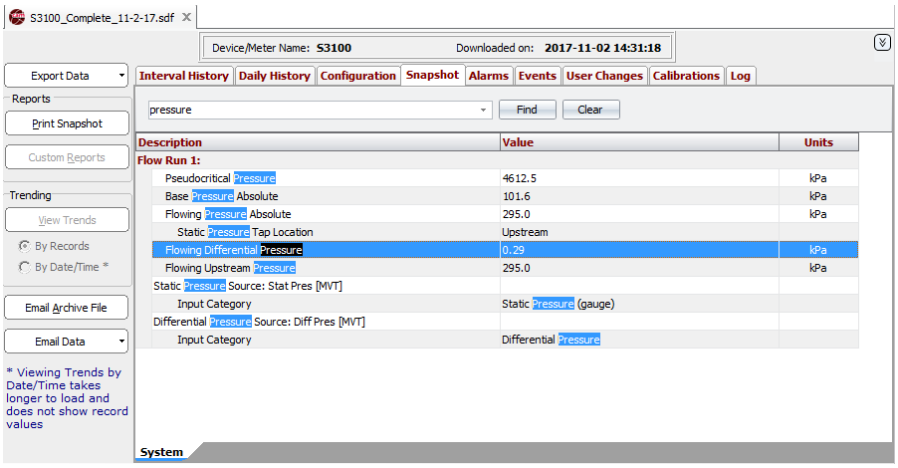

Figure 2.22—Snapshot report after search

4. Click **Clear** to return to the full Snapshot report.

Note The **Clear** button displays the full Snapshot report without deleting search parameters from the dropdown field.

5. Exit the Snapshot report to clear the search parameters list.

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Section 3—Exporting and Emailing Archive Data

Scanner Data Manager users can export tabular (spreadsheet) data, a snapshot or configuration report, or trend (graph) data in common text or image formats for sharing with others (see Exporting Tabular Data, page 31 or Exporting Trend Data, page 40). Users who wish to email tabular data or snapshot exports can process the export and the email in one step (see Emailing Tabular Data, page 35). All exported data appears exactly as it does onscreen. For example, if the user changes the order in which columns appear onscreen, this change will also be applied to the exported archive file(s).

The type of data stored in an export file is identifiable by the letters at the end of the filename (unless the user overwrites the filename), as shown in .

Table 3.1—Log Type Indicators in Filenames

Log Type	Log Type Indicator
Daily History‡	_D
Hourly (Interval) History‡	_H
Calibration Report	_L
Configuration Report	_C
Flowrun Configuration†	_F
Slave Configuration (3100 only)	_F
Event Logs	_E
Alarm Logs	_A
User Change Logs	_U
Triggered History‡ (3100 only)	_T
Data Logger History†	_T
Data Logger Configuration†	_G
ScanPLC Logs†	_P
Exceptions Report†	_X
Snapshot Report	_S

† Created only by Scanner 11xx flow computers.
‡ Trend view export filenames contain a two-character suffix consisting of “T” and the log type indicator Example: _TH (hourly trend).

Exporting Tabular Data

Tabular data can be exported in three formats

- Single log type (Exporting Data for a Single Log Type, page 32)
- Multiple log type (Exporting Data for Multiple Log Types, page 33)
- File format conversion (all log types included) (Section 5—Converting Data, page 63)

The **Export Data** button and dropdown menu (Figure 3.1, page 32) act as the gateway for all exporting functions.

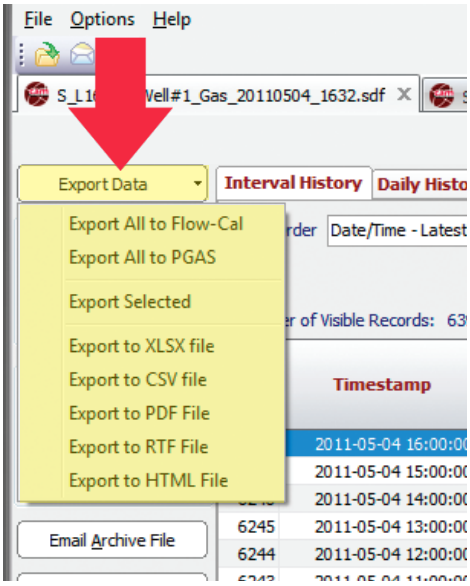

Figure 3.1—Export Data button and dropdown menu

Exporting Data for a Single Log Type

To export data for a single log type or report type

1. Select the tab for the log type/report type to be exported.
2. If exporting daily or interval history, note the tab(s) at the bottom of the screen. Archive files created by a Scanner 3100 may contain multiple flowrun/slave device tabs, and archive files created by Scanner 1x00 devices may contain multiple flowrun tabs. Select the flowrun for which you want to export data. Each export of measurement data will contain only data for the flowrun tab selected at the time of export.
3. Click on the **Export Data** button in the left column of the screen and choose **Export Selected** from the dropdown menu (Figure 3.1).
4. Note the filepath (Figure 3.2, page 33) and change if necessary. By default, export files are saved to the "C:\Cameron Data\SDM\Exports" directory on the user's hard drive.

Note Saving files to a directory other than the default will make the new directory the default.

5. Rename the file, if desired. By default, the filename includes the flow computer model, the type of download, the flowrun number, and a log type indicator (for example, S3100_Local_1_H.xlsx).

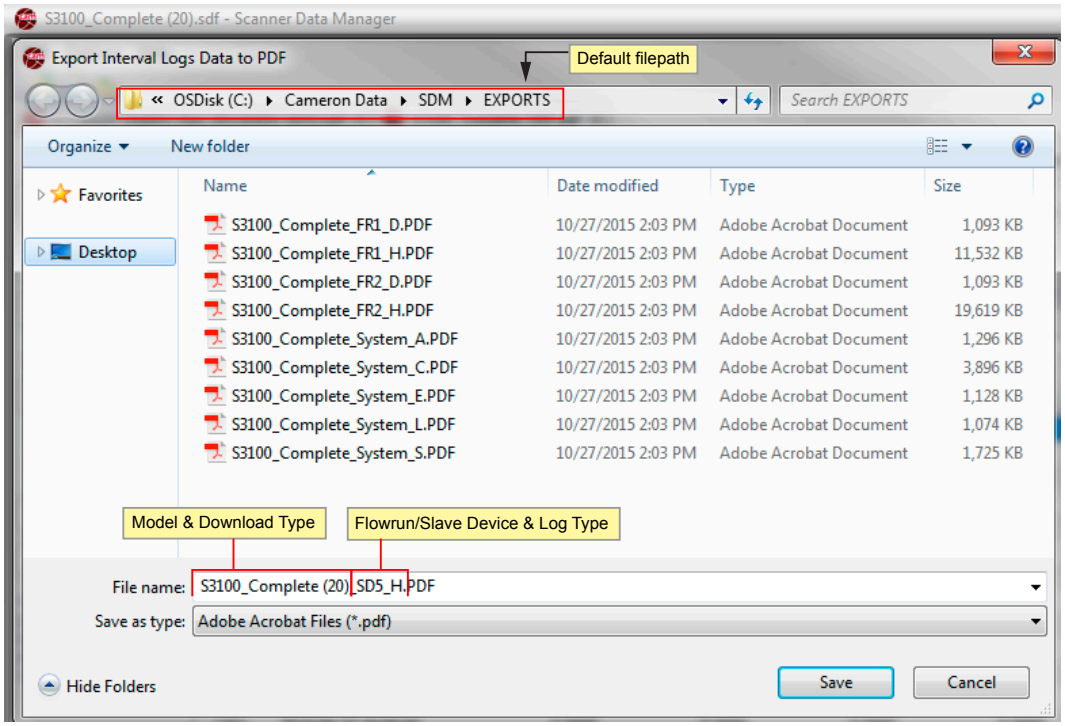

Figure 3.2—Export [Log Type} Data screen

6. Click **SAVE** to export the data.

Exporting Data for Multiple Log Types

To export multiple log and report types simultaneously

1. Click on the **Export Data** button in the left column of the screen and select **Export to...** from the dropdown menu (Figure 3.1, page 32).

2. Select the desired file format, log types and reports from the options (Figure 3.3, page 34).

Note The Export Files dialog contains selection boxes for only those log types and report types contained in the archive file. For example, if no daily log data was downloaded to the archive file, “Daily History (_D)” will not appear.

3. Note the “File Save Directory” location and change if desired. By default, export files are saved to the “C:\Cameron Data\SDM\Exports” directory on the user’s hard drive.

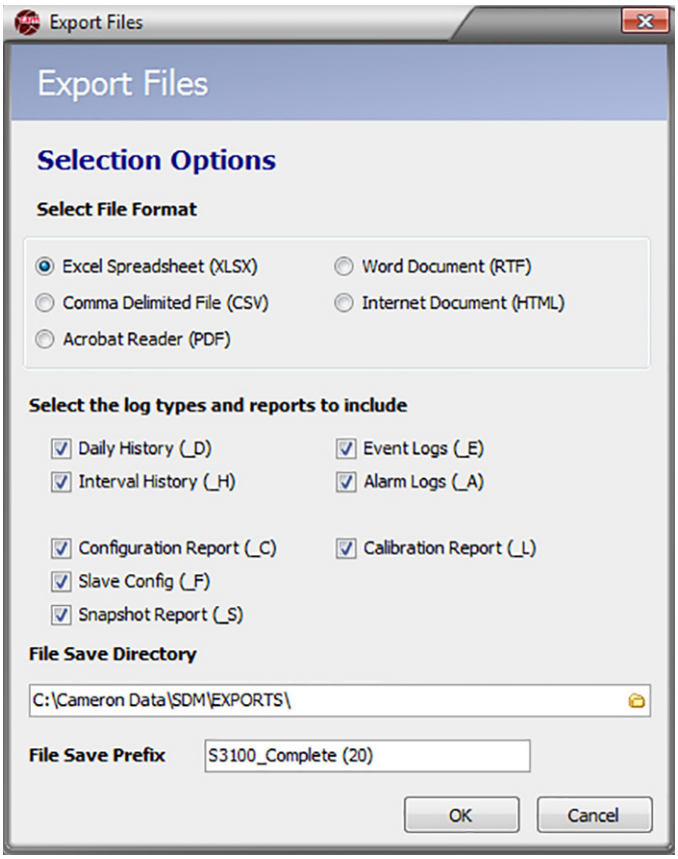

Figure 3.3—Export Files dialog

4. Note the entry in the "File Save Prefix" field and change if desired. The prefix will become the first part of the export file name. By default, this prefix includes Scanner model and download type.
5. Click **OK** to export the data.

Each log type or report will be saved as a separate file. The export filename will include the File Save Prefix (if present), the flowrun number, and the log type indicator, which is based on the user's selection(s) in the *Export Files* dialog. Example: S3100_Local_1_H_xlsx.

Exporting Data Converted to Flow-Cal or PGAS Formats

To export the contents of the archive file to a third-party Flow-Cal (.cfx) or PGAS (.ana/.evt/.vol) format:

1. See Section 5—Converting Data, page 63, for information on changing conversion settings. This may be especially useful if gaps in the data are expected.
2. Click on the **Export Data** button in the left column of the screen and click the desired **Export All as...** selection from the dropdown menu (Figure 3.1, page 32).
3. Note the filepath (Figure 3.3) and change if necessary. By default, export files are saved to the "C:\Cameron Data\SDM\Exports" directory on the user's hard drive.
4. Rename the file, if desired. By default, the filename includes the flow computer model and the download type (for example, S3100_Local.ana).

Emailing Tabular Data

Scanner Data Manager makes sharing data easy by allowing users to export and email data in a single step. To email tabular data:

5. Click on the **Email Data** button in the left column of the screen to view export format selections.

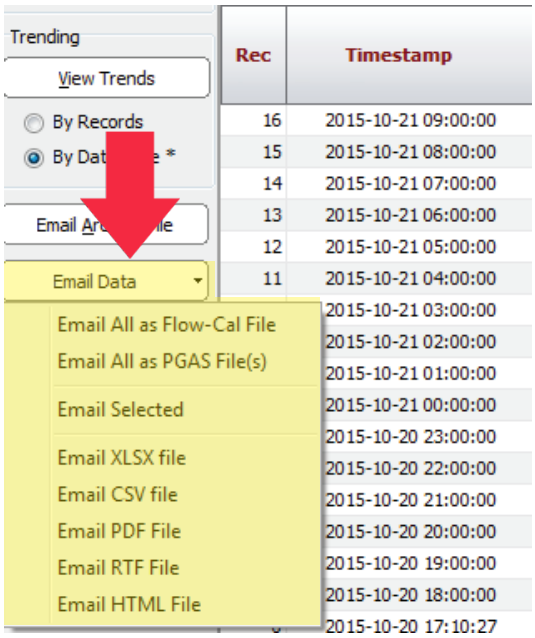

Figure 3.4—Email Data button and dropdown menu

6. From the dropdown selections, you can email three different types of exported tabular data:
   - Single log type (Emailing Tabular Data for a Single Log Type)
   - Multiple log type (Emailing Tabular Data for Multiple Log Types, page 36)
   - File format conversion (all log types) (Section 5—Converting Data, page 63)

Emailing Tabular Data for a Single Log Type

To export and email tabular data for a single log type or report,

1. Select the tab (Figure 2.3, page 12) for the log type to be exported and emailed.

Note The tab(s) at the bottom of the screen are archive files created by a Scanner 3x00 or 11xx Series computer and may contain multiple flowrun tabs. Only Scanner 3x00 archive datafiles may contain data for up to 20 slave devices. Select the flowrun (or slave device) for which you want to export data. Each export of measurement data will contain only data for the flowrun (or slave device) tab selected at the time of export.

2. Click on the **Email Data** button in the left column of the screen (Figure 3.4) and click the desired **Email [log type] file** selection from the dropdown list. The *Export [Log Type] Data to...* dialog (Figure 3.2, page 33) will appear.
3. Note the filepath and change if desired. By default, export files are saved to the "C:\Cameron Data\SDM\Exports" directory on the user's hard drive.
4. Note the filename and change if desired. By default, the filename includes the flow computer model, the type of download, the flowrun number, and a log type indicator (for example, S3100_Local_1_H.xlsx).
5. Click **Save** to export the data. Scanner Data Manager will automatically open an email window on your computer, attach the export file, and embed a brief description of the file in the body of the email (Figure 3.5, page 36).

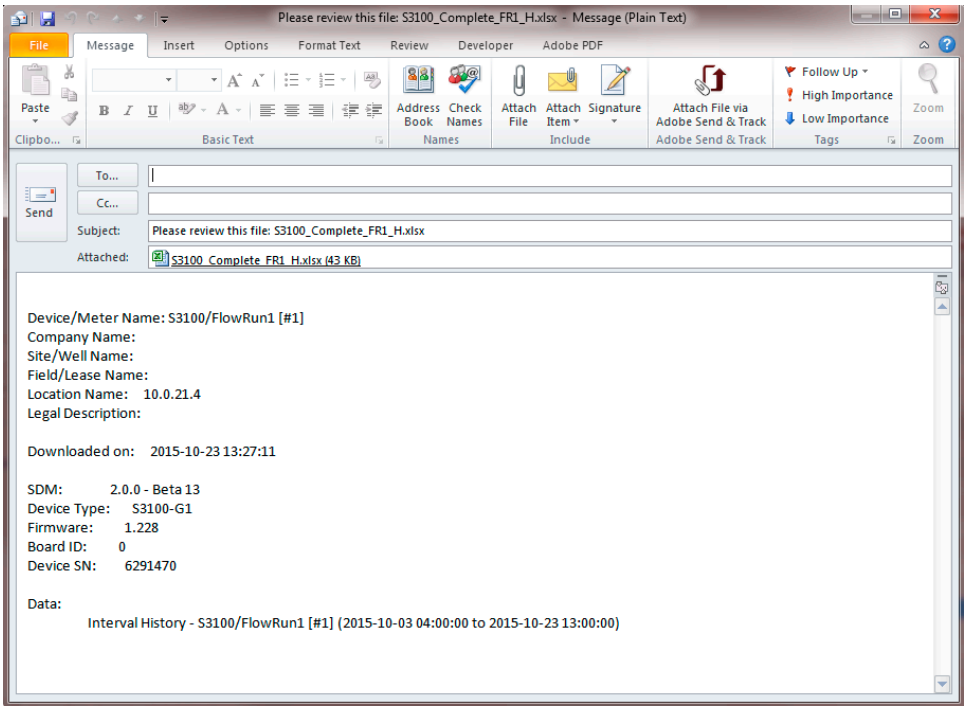

Figure 3.5—Automated email for single log file

Emailing Tabular Data for Multiple Log Types

To export and email multiple log types and reports simultaneously

1. Select **Email Selected** from the *Email Data* dropdown menu and select the desired file format and all desired logs/reports from the options provided (Figure 3.6, page 37).

Note The Email Files dialog contains selection boxes for only those log types and report types contained in the archive file. For example, if no daily log data was downloaded to the archive file, “Daily History (_D) will not appear.

2. Note the “File Save Directory” location and change if desired. By default, files are saved to the “C:\Cameron Data\SDM\Exports” directory on the user’s hard drive.
3. Note the File Save Prefix and change if desired. The prefix will become the first part of the file name. By default, this prefix identifies the file by Scanner model and download type.
4. Click **OK** to export.
5. Wait momentarily while Scanner Data Manager opens an email window on your computer, attaches the export file(s), and embeds a brief description of the file(s) in the body of the email (Figure 3.7, page 37).

Note Check the size of the export file. It may be necessary to compress (.zip) large files before emailing them.

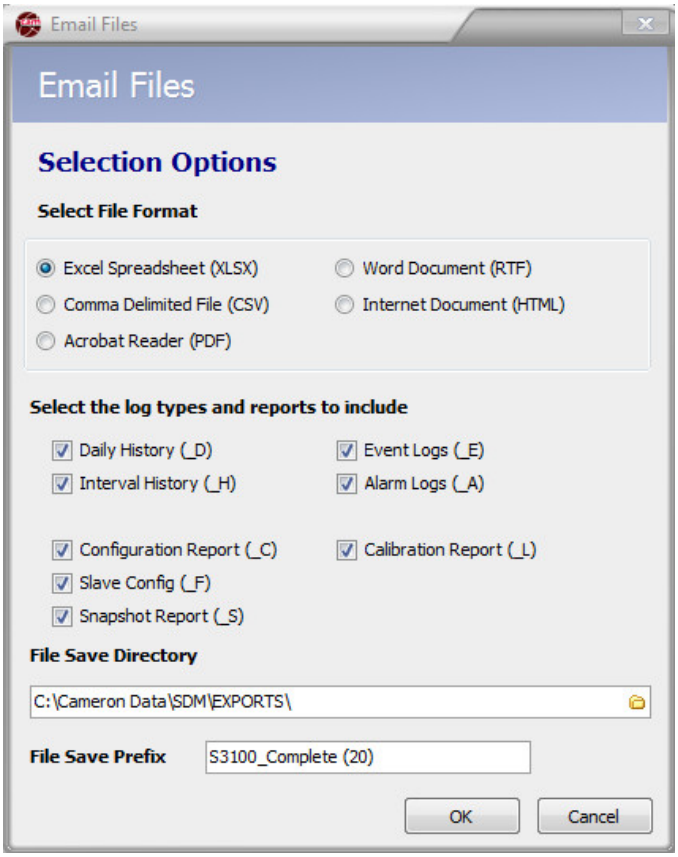

Figure 3.6—Email Files dialog

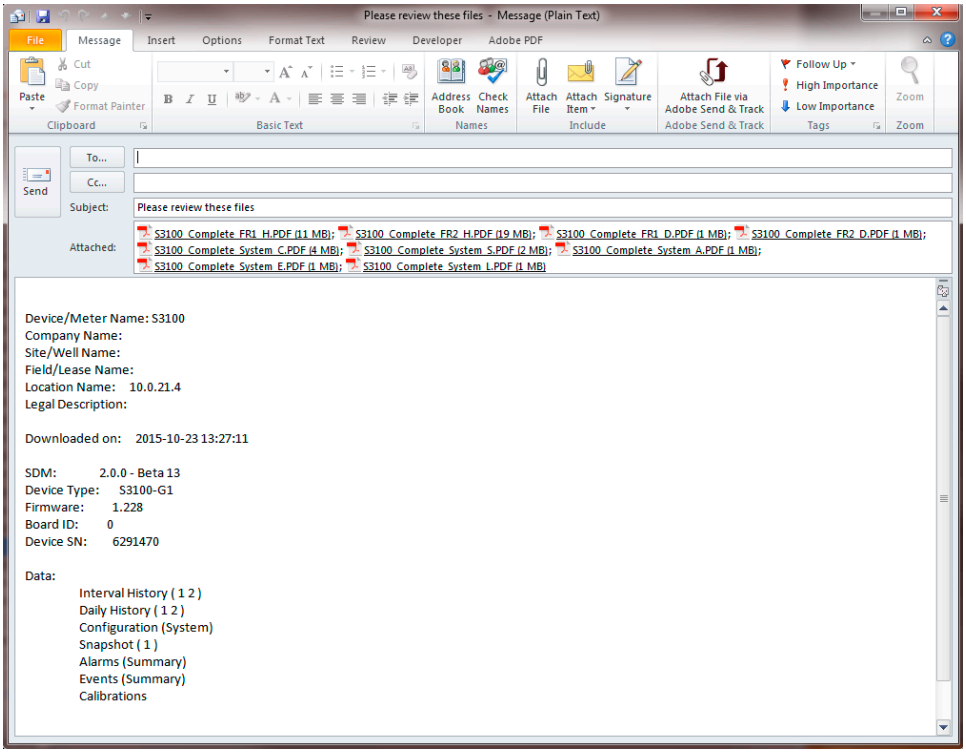

Figure 3.7—Automated email for multiple files

Emailing Data Converted to Flow-Cal or PGAS Formats

To email the contents of the archive file in a third-party Flow-Cal (.cfx) or PGAS (.ana/.evt/.vol) format

1. See Section 5—Converting Data, page 63, for information on changing conversion settings. This may be especially useful if gaps in the data are expected.
2. Click on the **Email Data** button in the left column of the screen and click the appropriate **Email All as...** selection from the dropdown menu (Figure 3.3, page 34).
3. Note the "File Save Directory" location and change if desired. By default, files are saved to the "C:\Cameron Data\SDM\Exports" directory on the user's hard drive.
4. Note the File Save Prefix and change if desired. The prefix will become the first part of the file name. By default, this prefix identifies the file by Scanner model and download type.
5. Click **Save** to export.
6. Wait momentarily while Scanner Data Manager opens an email window on your computer, attaches the conversion file(s), and embeds a brief description of the file(s) in the body of the email (Figure 3.8).

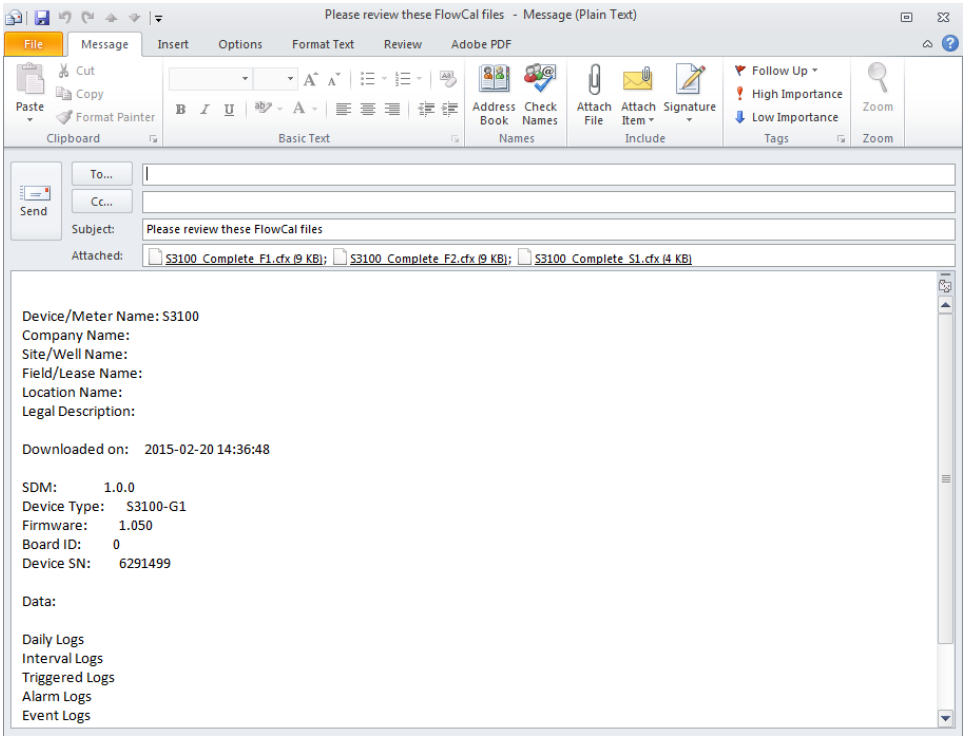

Figure 3.8—Automated email generated for converted files

Emailing an Archive (SDF or SCM) File

To email an archive file (SDF/SCM) to a technician or another Scanner Data Manager user, click the **Email Archive File** button on the left side of the main screen (Figure 3.9, page 39).

Scanner Data Manager will automatically open an email window on the user's computer, attach the archive file, and embed a brief description of the file in the body of the email (Figure 3.10, page 39).

Note The SDF/SCM file formats are proprietary and can be viewed only with Cameron software products designed for this purpose. To share the contents of the archive file in a common format that can be opened outside of Scanner Data Manager, see Exporting Tabular Data, page 31, Emailing Tabular Data, page 35, and Exporting Trend Data, page 40.

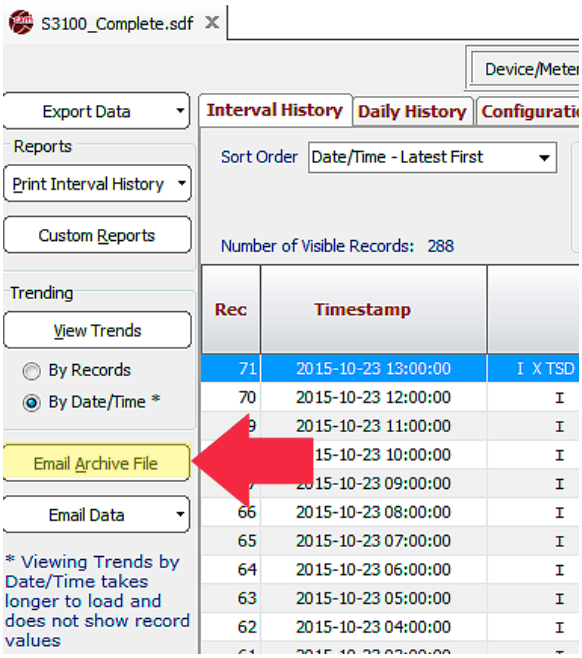

Figure 3.9—Location of Email Archive File button

Note Check the size of the export file. It may be necessary to compress (.zip) large files before emailing them.

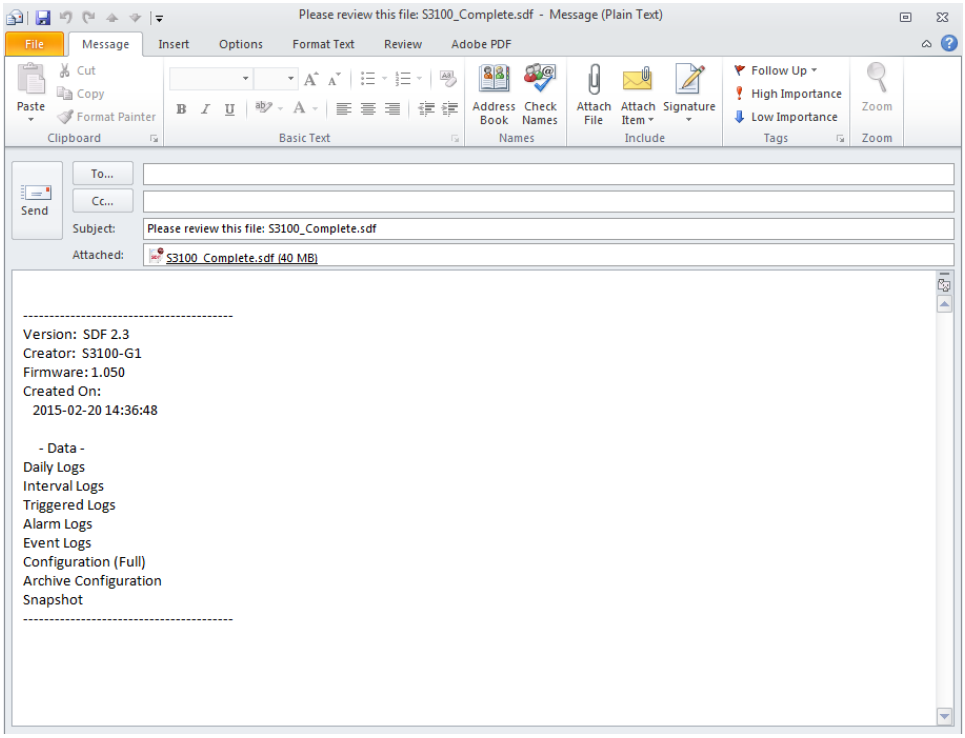

Figure 3.10—Automated email generated for archive file

Exporting Trend Data

Trend data may be viewed by record or by date/time, and exported to PDF, RTF, BMP, JPG, and GIF image formats. See Customizing the Trend Graph View, page 17 and Viewing Trends by Date/Time, page 22 for details about viewing options.

To export trend data, follow the procedure below:

1. Click the tab for the log type desired and apply any filters or sort order selections desired.
2. Select the desired viewing option (by record or by date/time), and click the **View Trends** button on the left side of the main screen.
3. Configure the trend view that you want to export using the zoom and parameter display tools on the *View Log Trends* screen.
4. When the trend image is exactly as you want the export file to appear, click on the **Export** button at the top left of the *View Log Trends* dialog (Figure 3.11).
5. Select the export file type from the dropdown list.

Note Exported files will appear exactly as they do on screen with the following exceptions. Trend View PDF files will have a white background when viewed electronically or printed. All exported trend files will contain a header, footer, and a legend detailing the trend lines.

6. Change the filepath if desired. By default, export files are saved in the "C:\Cameron Data\SDM\Exports" directory on the user's hard drive.

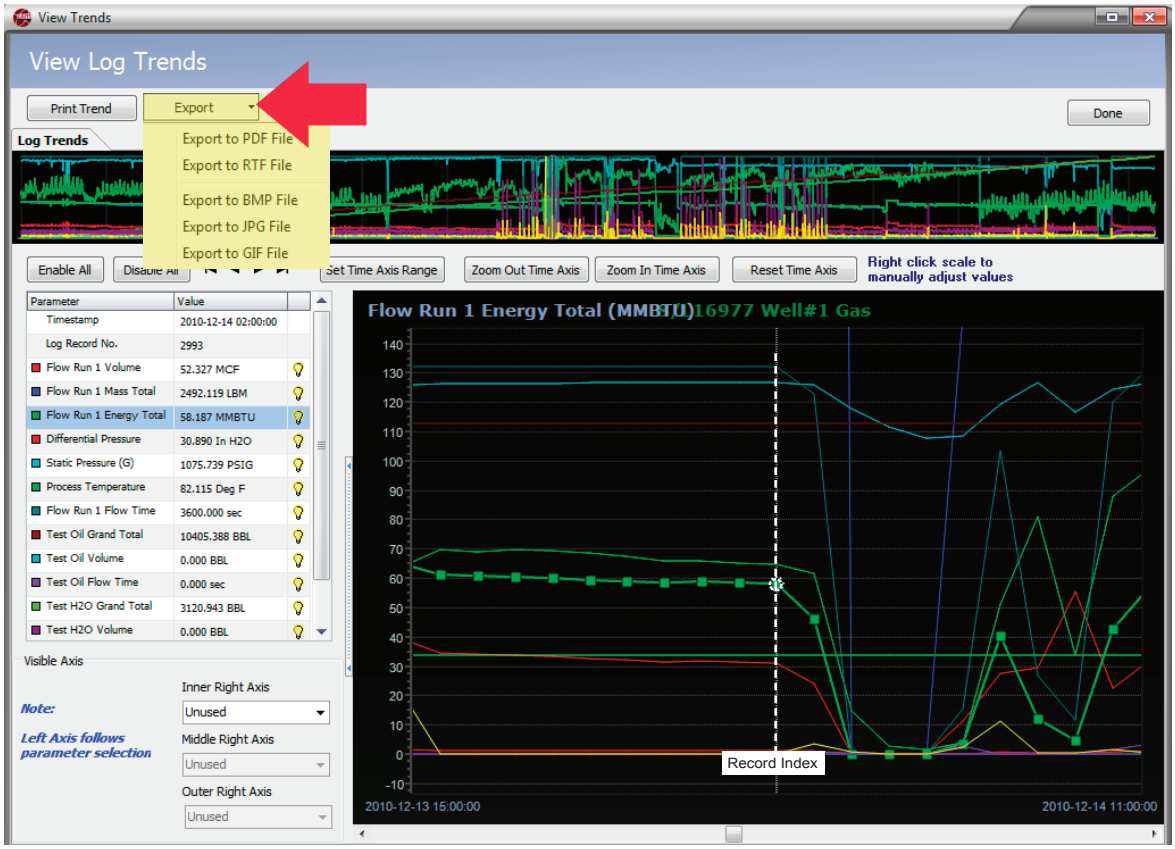

Figure 3.11—Log Trend view showing Export button and dropdown menu

7. Change the filename if desired. By default, the filename includes the flow computer model, the type of download, the flowrun number, and a log type indicator (for example, S3100_Local_1_TH.xlsx).
8. Click **Save** to export the trend image.
9. Repeat Steps 3 through 8, as desired, to capture more sections of the trend log.
10. Click the **Done** button in the upper right corner of the *View Log Trends* dialog to exit the trend view.

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Section 4—Generating Reports

Flow data, device configuration and calibration data, events, and alarms can be captured in a report that can be printed as a hard copy or exported to PDF format for distributing electronically. Scanner Data Manager supports two types of reports:

- A standard report with a pre-defined layout that matches the main screen layout (see Standard Reports, page 44 and Figure 4.1)
- A custom report that allows the user to specify content and personalize the presentation with a company name, logo, and contact information (see Custom Reports, page 49 and Figure 4.1).

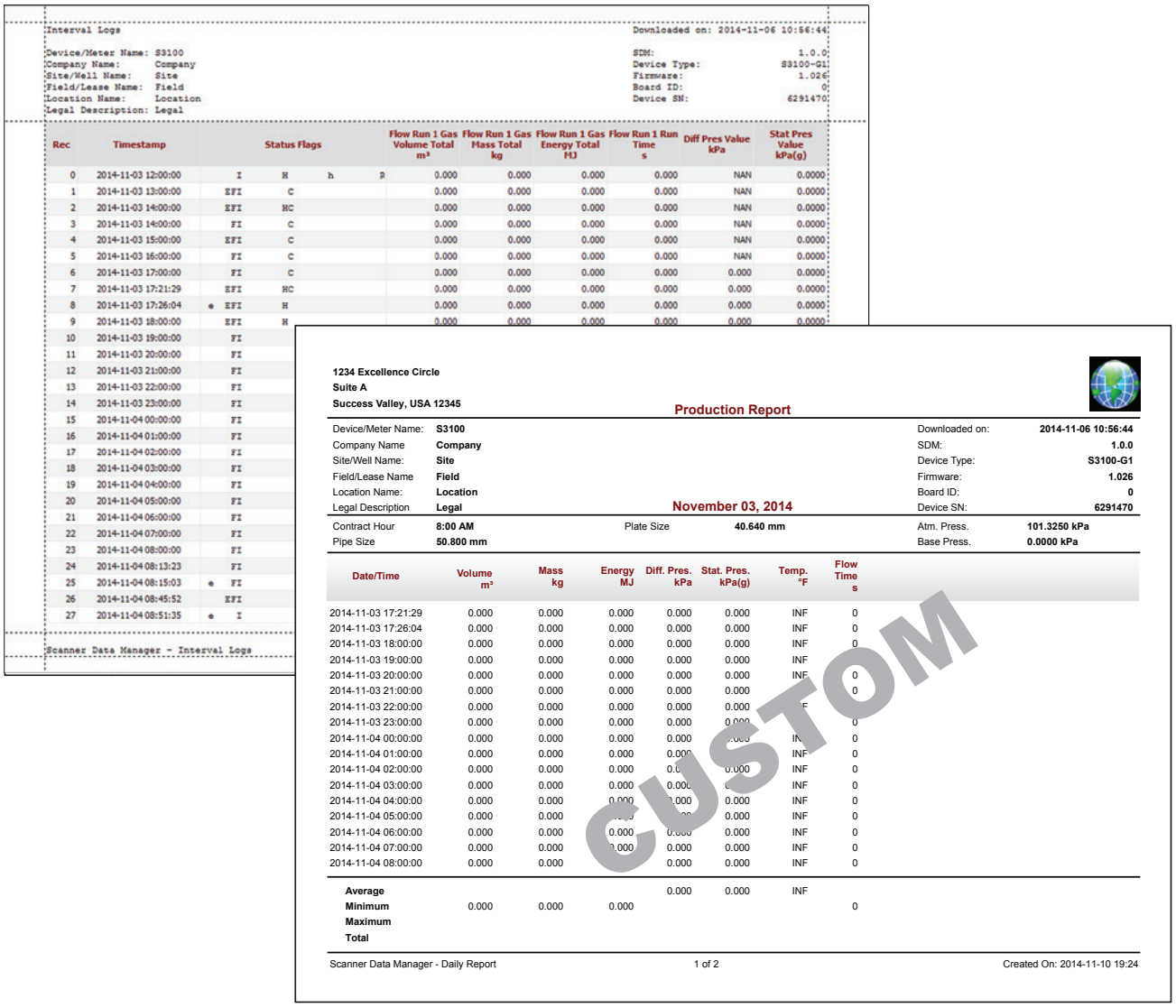


Figure 4.1—Comparison of standard report vs. custom report

Standard Reports

A standard Scanner Data Manager report can be generated for any data type. Data types vary depending on the Scanner device used to generate the data. Table 4.1 provides a brief overview of typical report types and their contents.

Table 4.1—Standard Reports

Report	Description
Interval/Hourly History	Displays data generated for pre-defined intervals and parameters, including Flow Run Volume, Flow Run Mass, Flow Run Energy, Differential Pressure, etc. Each record includes the Record Number and Timestamp.
Daily History	Displays data generated for a 24-hour period, including Flow Run Volume, Flow Run Mass, Flow Run Energy, Differential Pressure, etc. Each record includes the Record Number and Timestamp.
Configuration (System and Flow Run)	Displays the system and flowrun configuration settings in one or two tabs, depending on the Scanner device in use. Scanner 3100 slave data are stored in separate tabs.
Snapshot	Displays live and calculated parameters for a user-specified point in time.
Alarms	Displays alarm activity for the Scanner. An alarm log is generated each time a selected parameter deviates from its user-selected set point(s). Alarms are logged by date and time. Each record includes the Modbus register name, status or type of alarm activated, and the associated value and unit, where applicable.
Events	Displays user changes, such as K-Factor, orifice meter factor, cone meter factor, plate and cone size, gas composition, input settings and resets. Events are logged by date and time. Each record includes the Modbus register name, as well as the old and new values of the parameter. For the Scanner 2x00 series, the events and user changes reports are one report, whereas the Scanner 11xx and Scanner 3100 have separate reports for events and user changes.
User Changes	Displays user changes, such as K-Factor, orifice meter factor, cone meter factor, plate and cone size, gas composition, input settings and resets. Events are logged by date and time. Each record includes the Modbus register name, as well as the old and new values of the parameter. This report appears as a separate report for the Scanner 11xx Series and the Scanner 3100.
Calibrations†	Displays the instrument's input calibration settings for quick reference.

†Calibrations and user-initiated changes for Scanner 11xx devices are stored under a User Changes tab. To generate a Scanner 11xx Calibrations report, the user must connect to the Scanner 11xx device through ScanWin, the proprietary software interface for Scanner 11xx devices.

For some log types and reports, archive data is divided into multiple tabs at the bottom of the screen (Figure 4.2, page 45). For example, interval and daily history data are divided by flowruns. Similar divisions exist for alarms, events, and slave device configuration data.

Where a log type or report includes multiple tabs, the user has the option of creating a report for a single "current" tab or for "all" tabs. Log types and report types containing these options are identified by the dropdown arrow on the **Print [Data Type]** button at the left of the screen (Figure 4.2, page 45).

Creating a Standard Report for "Current" Tab

To create a standard report for the "current" selected tab (for example, Flow Run 1 of a multi-flowrun log)

1. On the main screen, click on the data type (tab) for which you want to create a report (Interval History, Daily History, Configuration, etc.). Note that the **Print** button under the "Reports" section on the left side of the screen changes to reflect the data type (tab) selected.
2. If the archive file contains multiple flowruns or otherwise divides log data between multiple tabs, click the desired tab at the bottom of the screen.

Note For information on creating a standard report for data collected from multiple flowruns, see Creating a Standard Report for "All" Tabs, page 48.

3. Click the **Print [Data Type]** button and select "Current [Data Type]" from the dropdown menu (Figure 4.2, page 45). A preview of the report will appear (see Figure 4.3, page 46).
4. Check the formatting of the preview. If desired, change the page format settings using the *Page Setup* dialog (Figure 4.4, page 46) on the *Preview* screen. From this dialog, changes can be made to page orientation, margin size, header and footer size and content, and scaling of the data grid.

Note Changes made to the *Page Setup* dialog apply only to the current report(s) being created and are not saved when closing Scanner Data Manager.

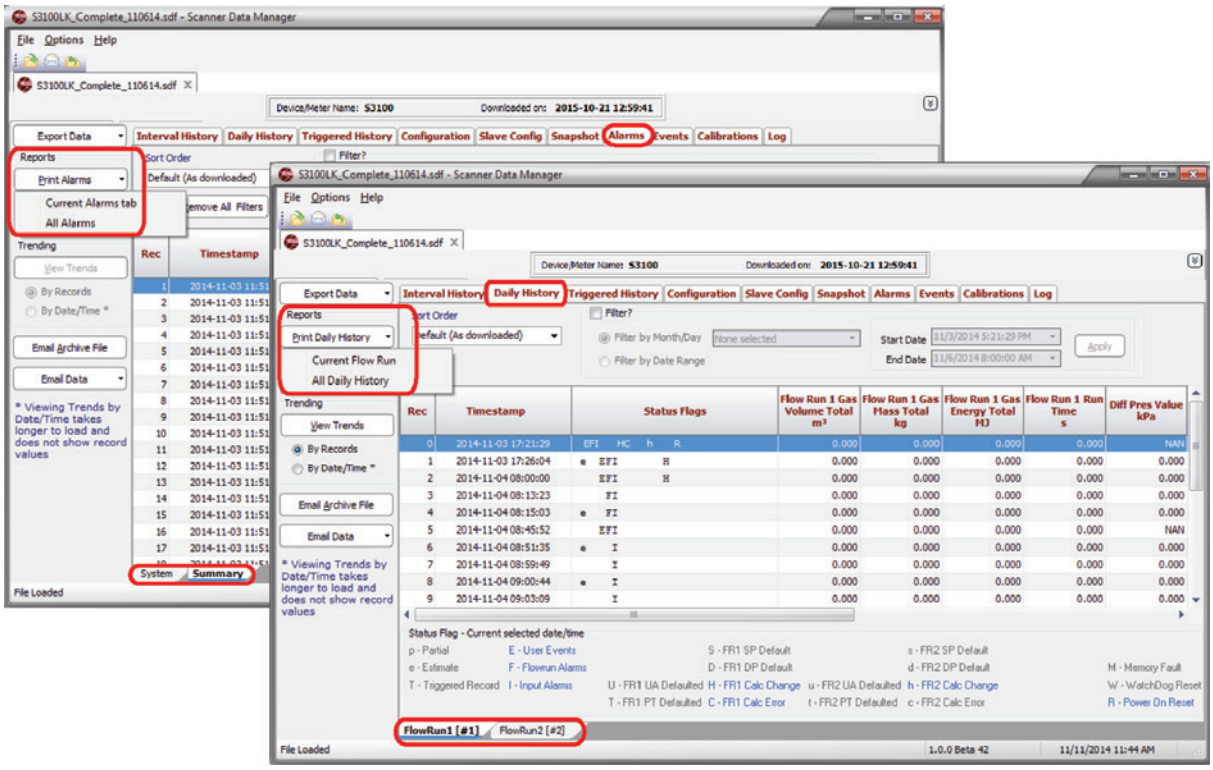
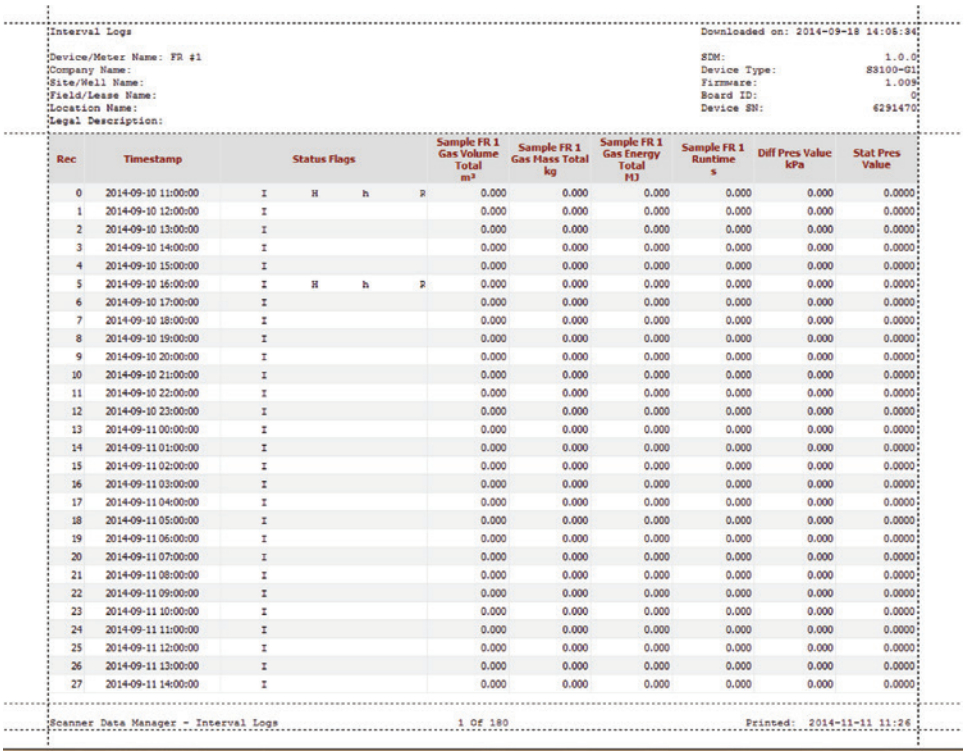


Figure 4.2—Daily History and Alarm tabs showing data divided into multiple tabs



Interval Logs

Downloaded on: 2014-09-18 14:06:34

Device/Meter Name: FR #1
Company Name:
Site/Well Name:
Field/Lease Name:
Location Name:
Legal Description:

SDM: 1.0.0
Device Type: S3100-G1
Firmware: 1.009
Board ID: 0
Device SN: 6291470

Rec	Timestamp	Status Flags	Sample FR 1 Gas Volume Total m³	Sample FR 1 Gas Mass Total kg	Sample FR 1 Gas Energy Total MJ	Sample FR 1 Runtime s	Diff Pres Value kPa	Stat Pres Value
0	2014-09-10 11:00:00	I H h R	0.000	0.000	0.000	0.000	0.000	0.0000
1	2014-09-10 12:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
2	2014-09-10 13:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
3	2014-09-10 14:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
4	2014-09-10 15:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
5	2014-09-10 16:00:00	I H h R	0.000	0.000	0.000	0.000	0.000	0.0000
6	2014-09-10 17:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
7	2014-09-10 18:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
8	2014-09-10 19:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
9	2014-09-10 20:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
10	2014-09-10 21:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
11	2014-09-10 22:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
12	2014-09-10 23:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
13	2014-09-11 00:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
14	2014-09-11 01:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
15	2014-09-11 02:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
16	2014-09-11 03:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
17	2014-09-11 04:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
18	2014-09-11 05:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
19	2014-09-11 06:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
20	2014-09-11 07:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
21	2014-09-11 08:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
22	2014-09-11 09:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
23	2014-09-11 10:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
24	2014-09-11 11:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
25	2014-09-11 12:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
26	2014-09-11 13:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000
27	2014-09-11 14:00:00	I	0.000	0.000	0.000	0.000	0.000	0.0000

Scanner Data Manager - Interval Logs 1 Of 180 Printed: 2014-11-11 11:26

Figure 4.3—Print preview screen in landscape orientation (default)

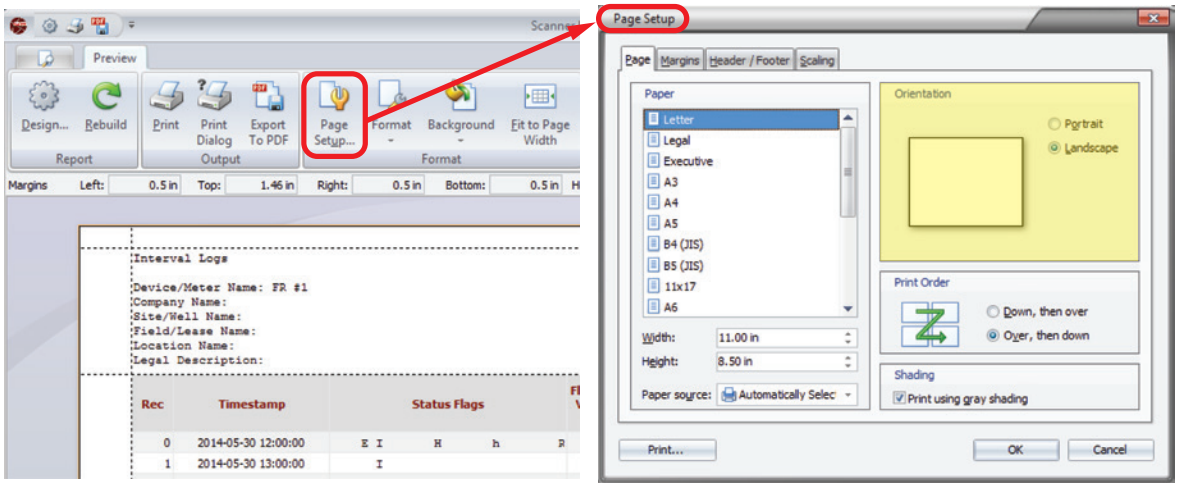


Figure 4.4—Page Setup window, orientation setting

Printing a Standard Report

To print a standard report

1. Click the **Print Dialog** button in the top left corner of the *Print Preview* screen (Figure 4.5).
2. Verify that the printer selected is appropriate for your computer. Change the printer selection if desired.
3. Note the page range listed in the lower left corner of the Print dialog. Change the range if desired.
4. Click **Print**.

CAUTION **Large files can result in reports that are several hundred pages in length. Note the page count in the footer of the *Print Preview* screen before printing and adjust the page range if desired.**

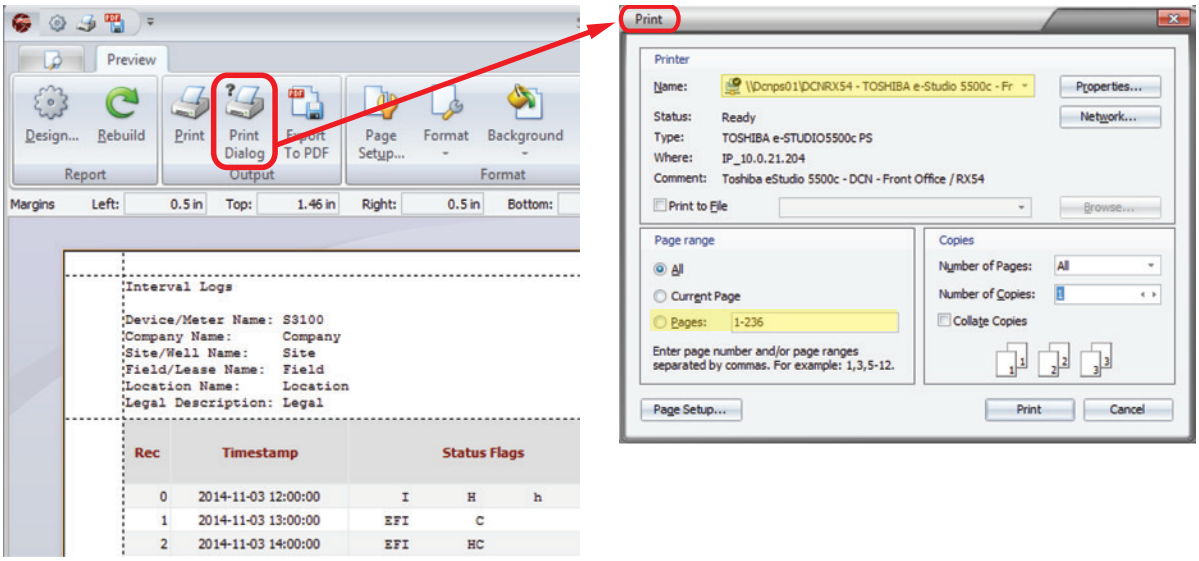


Figure 4.5—Print Dialog window

Note If multiple reports are to be printed and the same settings will be used for all, you can bypass Step 1 above after you verify the settings for the first printing, and click the **Print** icon at the top of the *Print Preview* screen to print subsequent reports without a preview.

Exporting a Standard Report to PDF

The following procedure is recommended for generating a PDF when changes to the presentation (such as page size, margins, orientation, etc.) are desired. If no formatting changes are desired, the export features described in Exporting Tabular Data, page 31 and Exporting Trend Data, page 40 can be used to generate a PDF report.

1. Click the **Export to PDF** button in the top left corner of the *Print Preview* screen. A *PDF Export Options* dialog will appear, as shown in Figure 4.6.
2. Adjust the pages to be exported if desired on the Pages tab.
3. Click **OK** to exit the *PDF Export Options* dialog. A *Save As* dialog will open.
4. In the *Save As* dialog, verify or change the filepath and enter a unique filename for the PDF. The default filepath is "C:\Cameron Data\SDM\Exports".
5. Click **Save** to create the PDF.

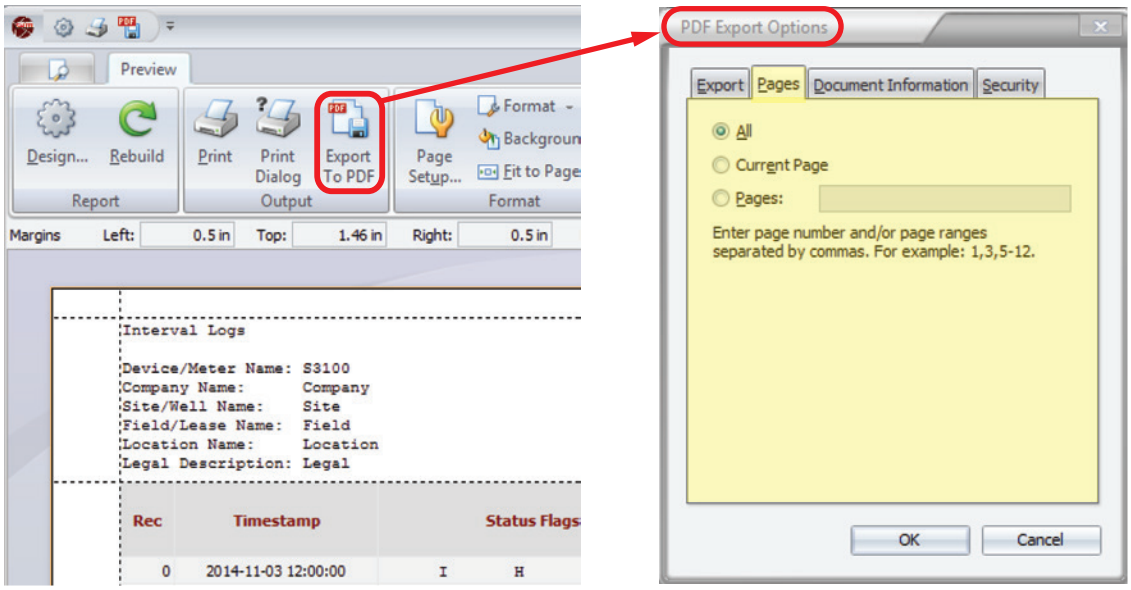


Figure 4.6—Export to PDF menu

Creating a Standard Report for "All" Tabs

If a download file includes more than one flowrun and all flowrun data for a selected log type or report are to be included in a report, use the following procedure to create the report.

To create a standard report for all tabs (for example, Flow Runs 1 and 2 of a two-flowrun log)

1. On the main screen, click on the data type (tab) for which you want to print a report (Interval History or Daily History). Note that the **Print** button under the "Reports" section on the left side of the screen changes to reflect the data type (tab) selected.
2. Click the **Print [Data Type]** button and select "All [Data Type]" from the dropdown menu (Figure 4.7, page 48). The *Print* dialog will appear (Figure 4.8, page 49).

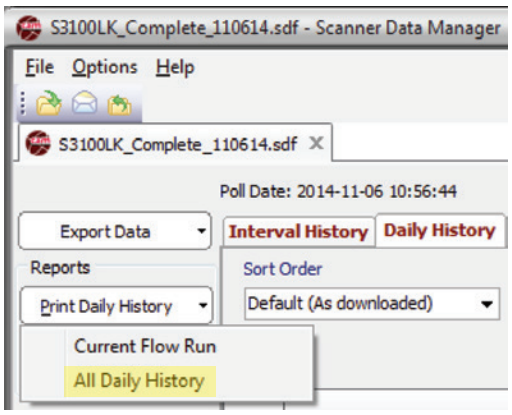


Figure 4.7—Reports>Print dropdown menu with "All [Data Type] History" selected

3. Select **Preview** in the bottom left corner of the *Print* dialog.

Note If multiple flowruns are included in the report, preview screens will display flowruns one at a time. For example, if a report contains Flow Run 1 and Flow Run 2, Flow Run 1 will be displayed in the first preview dialog. The user must close the preview screen for Flow Run 1 before the preview for Flow Run 2 will appear.

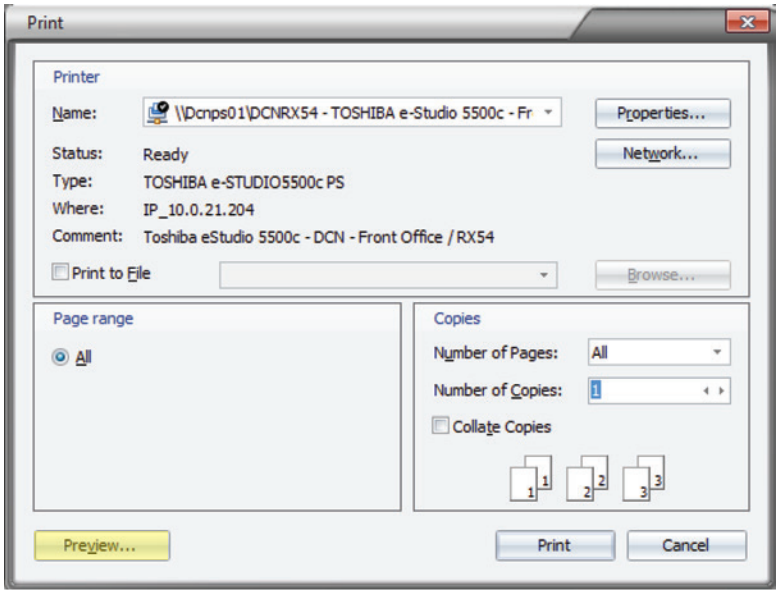


Figure 4.8—Print dialog showing Preview button

4. Follow the instructions for Printing a Standard Report, page 46 and Exporting a Standard Report to PDF, page 47.
5. If a report for another data type is desired, click the tab for that data type and repeat the steps above.

CAUTION **Large files can result in reports that are several hundred pages in length. Note the page count in the footer of the *Print Preview* screen before printing and adjust if required.**

Custom Reports

Scanner Data Manager provides some simple tools for creating custom, personalized reports on demand, complete with a company name, logo, and contact information. See Figure 4.9 for a sample custom report.

Two template types are included in the program:

- Generic Template—includes parameters that are common to all Scanner devices (recommended for users who want to create a series of reports that contain the same information in the same order)
- Production Report Template (Scanner-specific)—reflects the available inputs and outputs of the device in addition to the basic parameters in the generic template

The template files are easily modified to meet a user's needs. A user can add or delete parameters (columns), rename parameters, change the order in which parameters appear, and save changes as a new template for future use. It is recommended that users follow three simple steps to create a custom report:

1. Define common default settings, which will be available for use in all report templates. See Setting Common Defaults, page 50 for more details.
2. Modify a model-specific Production Report template and save as a new template. See Configuring Columns, page 53 and Changing Extra Headers and Summary Items, page 55 for more details.

CAUTION **Modifying a Scanner-specific Production Report will overwrite the existing template. See Adding and Deleting Templates, page 52 to learn how to create a new template without overwriting the existing template.**

3. Generate a custom report using the *Custom Report Options* dropdown menu accessed from the main screen. See Figure 4.10, page 50 and Viewing and Printing a Custom Report, page 57.

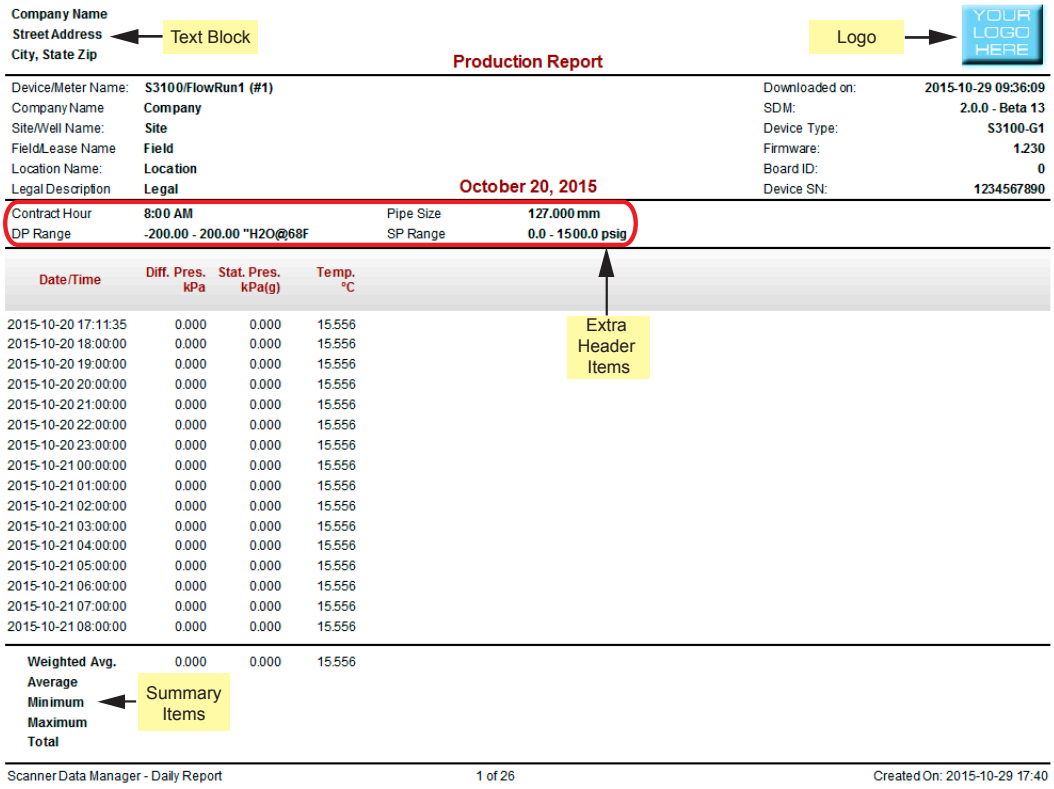


Figure 4.9—Sample custom report showing customizable elements

Setting Common Defaults

Common defaults are options that apply to every report template regardless of the data source or Scanner device.

To establish these defaults, choose **Options>Custom Report Options** (Figure 4.10). The dialog will automatically open to the *Common Defaults* screen (Figure 4.11).

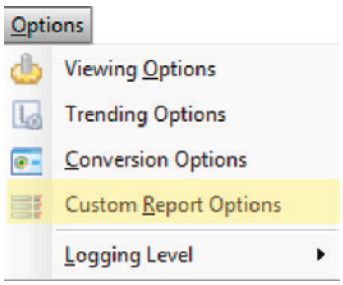


Figure 4.10—Options>Custom Report Options

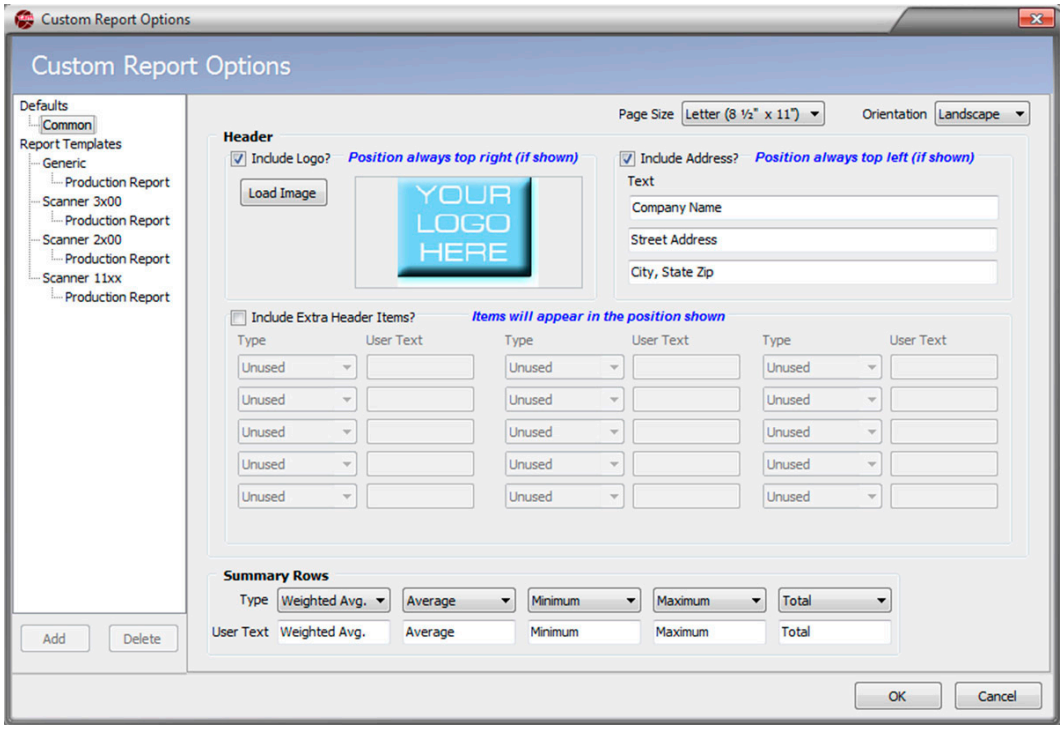


Figure 4.11—Custom Report Options screen showing Common Defaults dialog

From this dialog, the user can change the following settings to meet specific needs:

Note Changes made to the Common Defaults report will apply to all templates unless changed.

Page Size

By default, reports are configured to be letter size. Use this option to change the page size.

Orientation

Users can print or export reports in Landscape (wide) or Portrait (long) orientation. Landscape orientation is recommended for reports containing a large number of columns or extra headers because it allows more columns to appear on a single page.

Logo

This option allows the user to include a company logo within the header. The logo will appear in the upper right corner of the report. File formats BMP, JPG, JPG, PNG, EFM, and WMF are supported.

Address/User-Specified Text

Three lines of user-specified text can be used for a company/customer address or other text the user may wish to add to the report header. Text will appear in the order it is entered by the user and will be displayed in the upper left corner of the page.

Extra Header Items

A basic set of parameters, such as device/meter name, company name, site/well name, firmware version, and device serial number, is included in the standard header of all reports. However, custom reports allow the user to include other configuration items in a second header (Figure 4.11, page 51). The user can select which parameters to include and change the text description used to identify a parameter by entering text in the “User Text” field. Extra header selections available will vary, depending on the device used to generate the archive file.

Note The “User Text” field will accept up to 15 characters.

Summary Rows

Summary rows enable the user to include in the report a value such as a total or average that is calculated over a logging period. The logging period could be a month for daily logs or a day for interval logs. These rows are presented in the order shown on the screen. Up to five summary rows are supported: Average, Flow Time Weighted Average (the average of values accumulated when measurable flow exists), Minimum Value, Maximum Value, and Total. As a default, the selected Type name will be used to define summary items in the report, but the user can override this text by editing the text in the "User Text" field. Each type can be used; however, types cannot be repeated within a report.

Production Report Templates

Report templates are individual templates from which a user can create custom report templates. By default, there are standard production report templates for each Scanner device, as well as a Generic template that contains parameters common to all Scanner devices (Figure 4.12).

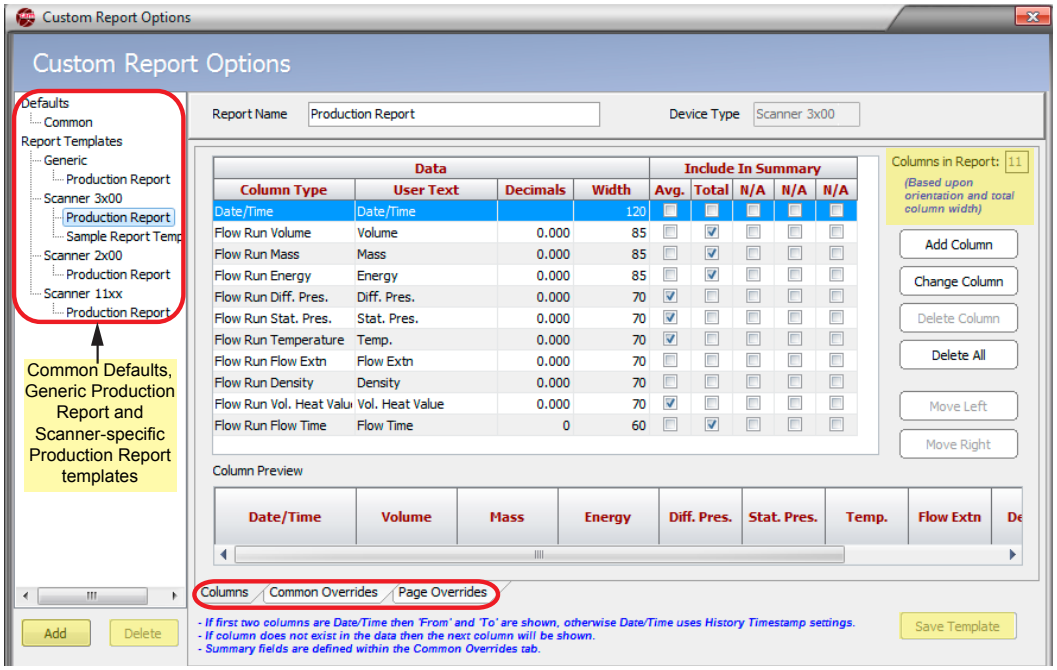


Figure 4.12—Production Report template customization options

Adding and Deleting Templates

To add a template, select the device category (Generic, Scanner 11xx Series, Scanner 2x00 Series, or Scanner 3x00) and click the **Add** button on the bottom left of the *Custom Report Options* dialog (Figure 4.12, page 52). A blank template based on the device category selected will appear. The user can customize the template, rename it, and save it as a new template by clicking the **Save Template** button on the bottom right of the screen.

To delete a user-created template, select the template and click the **Delete** button on the bottom left of the screen (Figure 4.12, page 52). Default templates for each device type can be modified. However, users should proceed with caution. Changes to default templates are permanent and the original templates can only be restored by reinstalling the Scanner Data Manager software.

Note Modifying a model-specific Production Report template without adding a new template will overwrite the default Production Report template.

Creating a New Report Template

Each Production Report template contains three views (Columns, Common Overrides, and Page Overrides) accessed by

three tabs at the bottom of the screen (Figure 4.12, page 52).

- The Columns tab allows the user to select the parameters (columns) to include in the report and to change the order in which the data appears.
- The Common Overrides tab allows the user to add extra header and/or summary items.
- The Page Overrides tab allows the user to change the page layout, logo, and address. From the Columns tab, the user can name a report template, select the parameters (columns) that will appear within the report, and change the order in which they appear.

CAUTION **If you do not save the template before exiting or before switching to another template, all changes will be lost. It is recommended that the customized template be given a unique name, rather than overwriting the standard template. If the default Production Report template is overwritten, the user must unzip the backup files to restore the templates.**

Configuring Columns

To establish the Columns tab settings for a new template

1. Click on the device type for which you want to create a new template, then click the **Add** button that appears on the bottom left of the *Custom Report Options* dialog to create a blank template. By default, it will appear on the *Custom Report Options* dialog as "Report."
2. Replace the text in the "Report Name" field at the top of the screen to assign a name that uniquely identifies it.

Note The "Device Type" field is read-only and is self-populated to reflect the template selected. This field is informational only.

3. Verify that the Columns tab at the bottom of the screen is selected.

   By default, the first column is Date/Time (same as shown in the log grids), and represents the end of the interval/day. If the History timestamp is changed to mark the beginning of the record, the Date/Time entries will represent the beginning of the interval/day.

Note If a beginning date and time is desired as well as an end date and time, add a new column for Date/Time as described below and move it to the Column 2 position in the grid. Column 1 will display the "from" date and time, and Column 2 will display the "to" date and time for the range. To move a column to a new position, see Changing Parameters (Columns), page 54.

4. Add parameters to the data grid in the center of the screen as follows.
   a. Click the **Add Column** button at the right of the data grid. The *Add Column* dialog (Figure 4.13, page 54) will appear.
   b. Select the parameter desired.
   c. If the parameter being added is associated with a flowrun or gas stream, the *Add Column* dialog will include a user entry field for "FR or GS Index." In typical use cases, where archive 1 is configured with flowrun 1 parameters and archive 2 is configured with flowrun 2 parameters, use the default value of 0. In the event flowrun 1 and flowrun 2 parameters are combined in a single archive, the index value allows the user to specify which flowrun value is to be included in the report. For example, to add a column for Flow Run 1 Volume, select Flow Run Volume as the data type and enter an index value of 1.

      In the case of gas streams, the user identifies the type of gas in the data type field, and enters an index value to designate the flow stream desired. For example, to include data from Gas Stream 5, enter an index value of 5.

Note The "FR or GS Index" field will only appear for Scanner 3x00 parameters that are related to a flowrun or gas stream.

d. Enter a new parameter text description in the "User Text" field if desired.

e. Change the decimal places, if applicable. Up to seven decimals can be configured.

f. Change the column width, if desired. If you select a width that is too small, the data in the column may overlap the previous column. Column width may be selected in unitless increments of five. Typically, column width is changed only after all parameters are entered and the user can determine if width adjustments are required to present the data properly.

g. To add the parameter to the bottom of the report in a summary row, select the checkbox(es) under "Include in Summaries" to indicate the type of summary calculation required (average, weighted average, minimum value, maximum value, or total). The selections available depend on the data type and whether summary calculations are supported by the Scanner device used to generate the data.

   By default, the summary rows enabled as Common Defaults will automatically apply to all existing templates unless they are overridden from the *Common Overrides* screen. See Summary Rows, page 52 and Changing Extra Headers and Summary Items, page 55 for details.

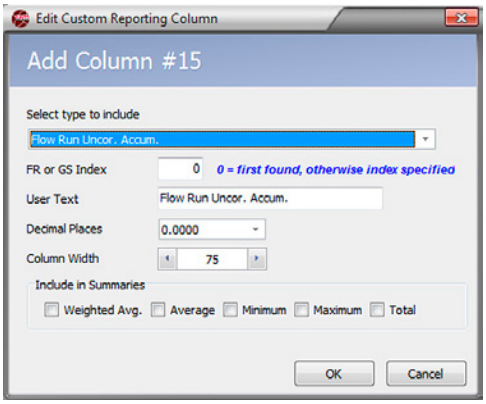


Figure 4.13—Add Column dialog

h. Click **OK** to save changes, close the *Add Column* dialog, and add the column to the report.

5. Click **Save Template** in the bottom right corner of the *Custom Report Options* dialog above "OK" and "Cancel" to save your progress.

All new columns will be added to the bottom of the grid on the *Custom Report Options* dialog, and to the far right of the *Column Preview* bar. To move a column to a new position, see Changing Parameters (Columns), page 54.

The number of columns included in a generated report will vary depending upon page orientation and total column width. The "Columns in Report" section of the *Custom Report Options* screen (Figure 4.12, page 52) indicates the total estimated number of columns to be included. If additional parameters are required, simply create another customized report. If a parameter is not available within an archive file, it will be skipped and the next available parameter for which data exists will be listed.

Changing Parameters (Columns)

Parameters (columns) can be added or deleted, and moved left or right on the report (up or down on the grid) using the appropriate buttons.

Note To move a parameter (column) left or right, click a parameter to highlight it in the grid, and click the **Move Left** or **Move Right** button. The selected data row will move up or down within the grid, but in effect, the column containing the grid data is moving to the left or right, as shown in the "Column Preview" grid near the bottom of the screen.

To make changes to an existing column (to include data type, data type description, decimal format, column width, or summary item selections)

1. Click the **Change Column** button on the *Custom Report Options* screen.
2. Make desired changes on the *Change Column* dialog (Figure 4.14).
3. Click **OK**.

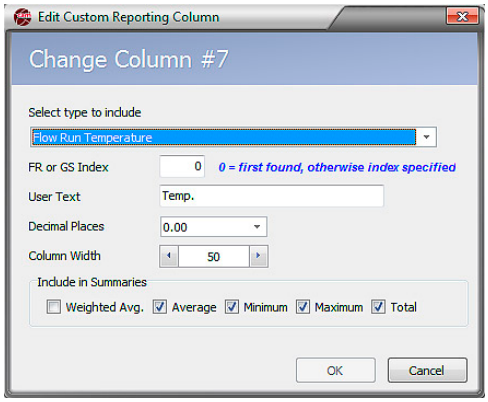


Figure 4.14—Change Column dialog

Changing Extra Headers and Summary Items

From the Common Overrides tab (Figure 4.15, page 56), the user can override extra header items and/or summary items. Overriding these settings may affect how the columns appear and which summary items appear on the generated report.

To establish the Common Overrides tab settings for a new report

1. From the *Custom Report Options* dialog, select the template being created.
2. Click on the **Common Overrides** tab at the bottom left of the screen.
3. To change or add extra header items, click the **Override Extra Header Items** checkbox.
4. Select the data type from the dropdown menu to add it to the header. The data types in the dropdown menu vary depending on the type of data obtained from the Scanner device. To change the display text, enter the desired name for the type in the "User Text" field.

Note By default, extra headers that are enabled as Common Defaults will automatically apply to all existing templates unless they are overridden on the *Common Overrides* screen. To disable these items from a Scanner-specific template, navigate to the Common Overrides tab and check the **Override Extra Header Items** checkbox, leaving all the header items labeled "unused."

5. To add or change the summary items for a selected data type, click the **Override Summary Items** checkbox.
6. Select the desired summary type from the dropdown menu. The summary types available will depend on the data type selected. By default, the summary type description will be displayed in the report. To change the display text, enter the desired name for the summary item in the "User Text" field.

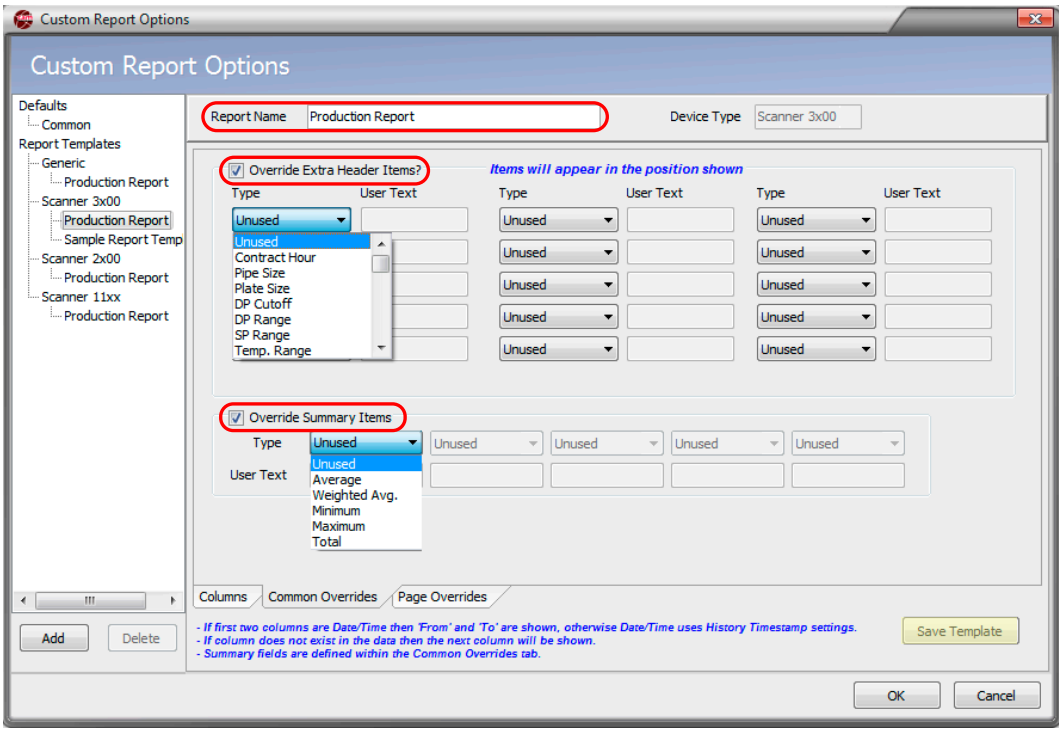


Figure 4.15—Common Overrides tab

7. Click **Save Template** to save your changes.

Customizing the Page Layout

From the Page Overrides tab (Figure 4.16, page 57), the user can change the pages size and/or orientation, add or change a logo, and add or change an address or text block to the report template.

This feature is especially helpful for users who want to generate a custom report with customer-specific information and graphics for each of their customers.

To establish the Page Overrides settings for a new report

1. From the *Custom Report Options* dialog, click on the **Page Overrides** tab.

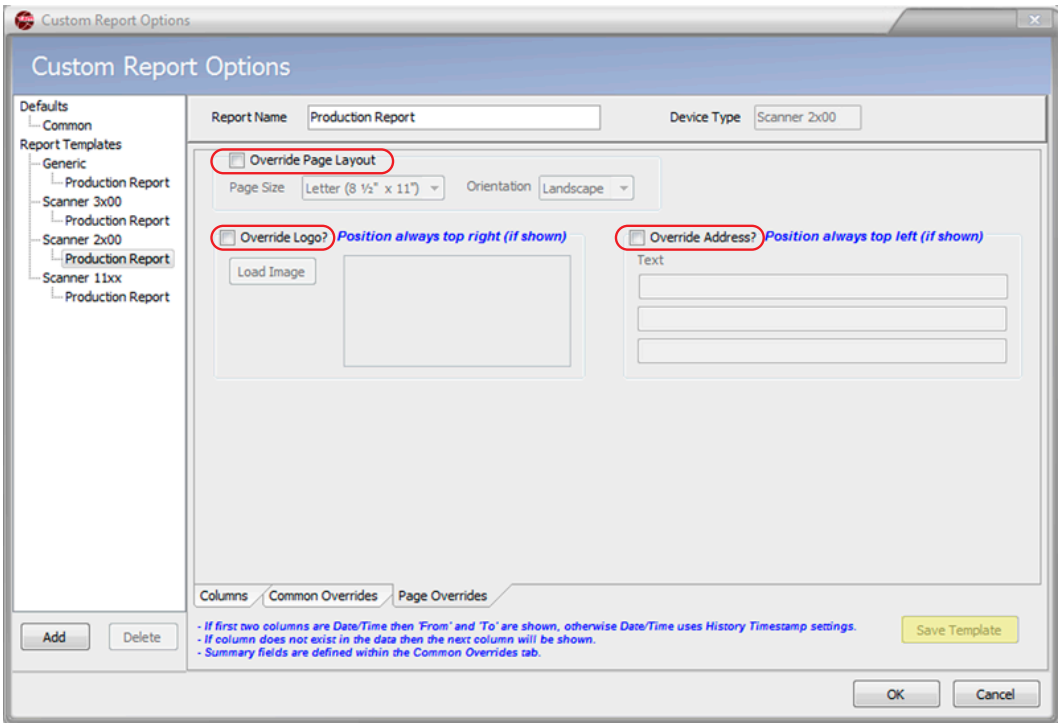


Figure 4.16—Page Overrides tab

2. To change the page size and orientation, check the **Override Page Layout** box.
3. To add or change a logo, click the **Override Logo** box, then click **Load Image**, browse to the logo's location, and click on the file.
4. To add or change an address, click the **Override Address** box and enter text in the three fields below. The information will appear on the report in the order in which it is entered.

Note It is not necessary to enter information in every field; however, if more than one field is used, enter the information from the top down and do not leave the first row blank.

5. Click **OK** to save changes and return to the *Tabular View* dialog.
6. Click **Save Template** to save the new template.

Viewing and Printing a Custom Report

To view and print a customized report,

1. Click on the **Custom Reports** button on the left side of the main screen (Figure 4.17, page 58). The *Custom Reports* dialog (Figure 4.18, page 58) will appear, from which the final look of the report can be defined.

Note The **Custom Reports** button is only enabled for the Interval and Daily Log tabs. Other tabs do not support this feature.

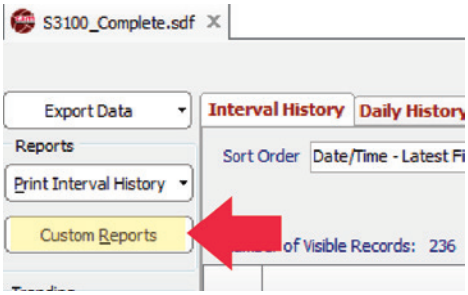


Figure 4.17—Custom Reports button on main screen

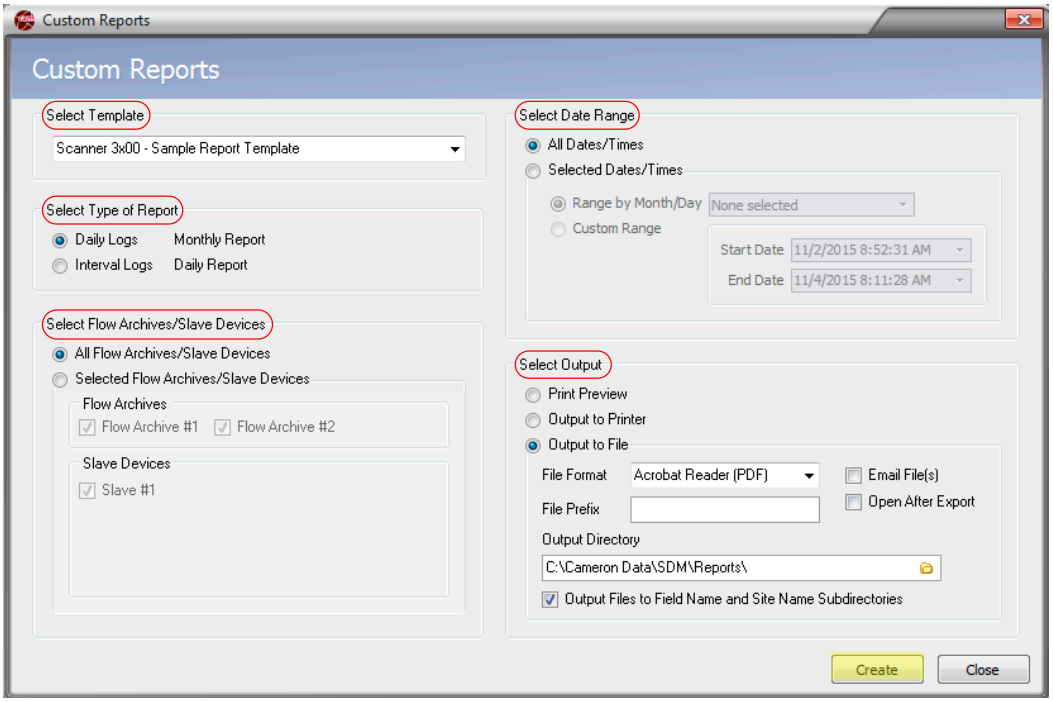


Figure 4.18—Custom Reports dialog

2. From the *Select Template* dropdown menu, select the desired template for use in generating the report. At a minimum, available templates will include a generic template and a Scanner-specific template. To add custom templates to this list, see Creating a New Report Template, page 52.
3. Select from the available report types:
   - Monthly Report containing data from Daily Logs
   - Daily Report containing data from Interval Logs

   If a log type (daily or interval) is not available in the archive file, the option for that report type will be unavailable and the selection will default to the available option.
4. In the “Select Flow Runs” field, select the flowruns/archives for which reports are generated. Available selections vary depending on the device type used to produce the archive file.
5. Specify the dates and times to be included in the report from the “Select Date Range” field:
   - All Dates/Times containing all date and time ranges within the archive file
   - Selected Dates/Times containing
     - A range by month and day
     - A user-defined range, including start date and end date

Note The ranges available are limited to the dates and times included in the available data.

Note If the logs contain data of differing ranges, some reports may not include all the data or may fail to generate. For example, if you choose to print all flowrun/slave device reports for February and Slave Device 6 was not added until March, there will be no data for Slave Device 6 and no report will be generated for that device.

6. From the "Select Output" field, choose one of the following output options:
   - Print Preview—Displays a preview of each flowrun report before printing
   - Output to Printer—Sends the report file directly to the default printer
   - Output to File—Saves the report file in the user-specified format to the user-specified directory

   When "Output to File" is selected, the user can define the output with several additional optional settings:

   - Check **Email File(s)** if the output file to automatically attach the output file to an email window.
   - Check **Open After Export** to automatically open the report on the computer screen.
   - Click the *File Format* dropdown menu and select the file type. Options are PDF, RTF, .html, .xls, or .txt format.
   - Enter a file prefix, if desired, for ease in categorizing reports for quick identification.
   - Modify the "Output Directory" filepath, if desired. The default directory is "C:\Cameron Data\SDM\Reports".
   - Check **Output Files to Field Name and Site Name Subdirectories** to create Field Name and Site Name sub-folders on your hard drive for storing the reports ("C:\Cameron Data\SDM\Reports\<Field_Name>\<Site_Name>").
7. Click the **Create** button to generate a report template. The settings used to generate the report will be saved as a starting point for creating additional reports.
8. Click the **Close** button to exit the *Custom Reports* dialog.

Important **If you click the Close button and close the *Custom Reports* dialog without clicking the Create button and generating a report, the selected settings will not be saved for future use.**

Printing a Legally-Relevant Log

To meet Measurement Canada requirements, Scanner Data Manager enables you to print a log of legally-relevant user changes. Depending on user activity, the log may contain configuration and/or calibration data.

Important **To use this function, Configuration Lock mode must be enabled in the Scanner 3100 web interface. See the Scanner 3100 Web Interface manual for further information about enabling Configuration Lock mode.**

Legally-relevant user changes are configured in the web interface. For more information, refer to the Scanner 3100 Web Interface User Manual.

To print a legally-relevant log,

1. Open the desired SDF file by browsing to the file and double-clicking or by opening Scanner Data Manager and choosing **File>Open**.
2. Once the file is loaded, click on the User Changes tab. To view the legally-relevant items, scroll to the last column on the right. All items with checkmarks will appear in the legally-relevant log report.

Important **The User Changes report shows both legally-relevant and non-legally relevant user changes. You must select the legally-relevant items to isolate them in the report. See step 3 below for more information.**

Note Items marked as legally-relevant are read-only and cannot be deselected by unchecking the box.

3. To sort the legally-relevant information, click the dropdown arrow in the Legally-Relevant column and select **True**. This will isolate the legally-relevant changes and allow you to print a report showing only those changes.
4. To print the current log, click **Print User Changes>Current User Changes tab** (Figure 4.19 1, page 60). A print preview will appear (Figure 4.20 1, page 61).

Note To fit all columns to the page, click **Close Print Preview** to return to the log, and then click and drag the vertical column bar to resize them.

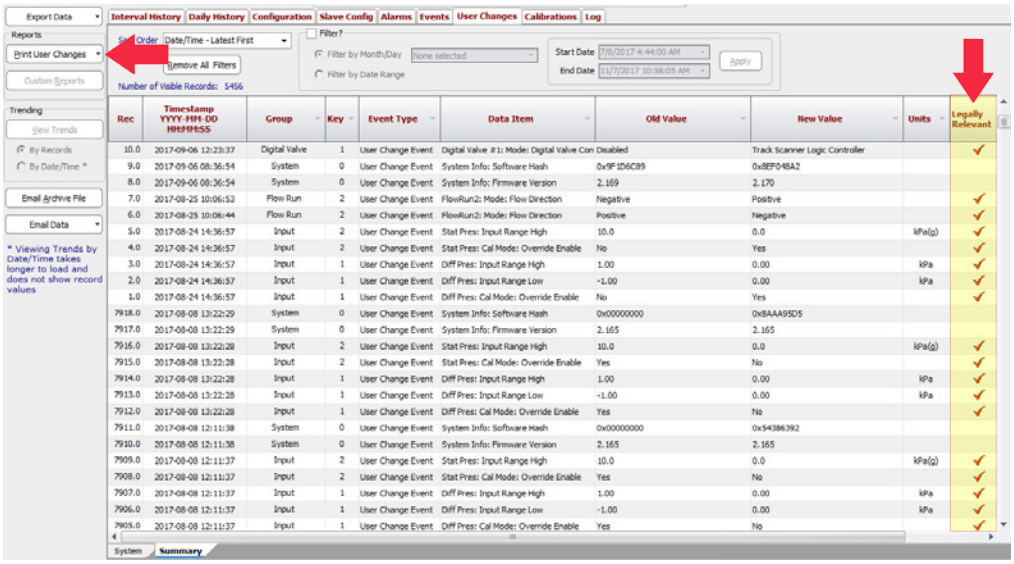


Figure 4.19—User Changes tab

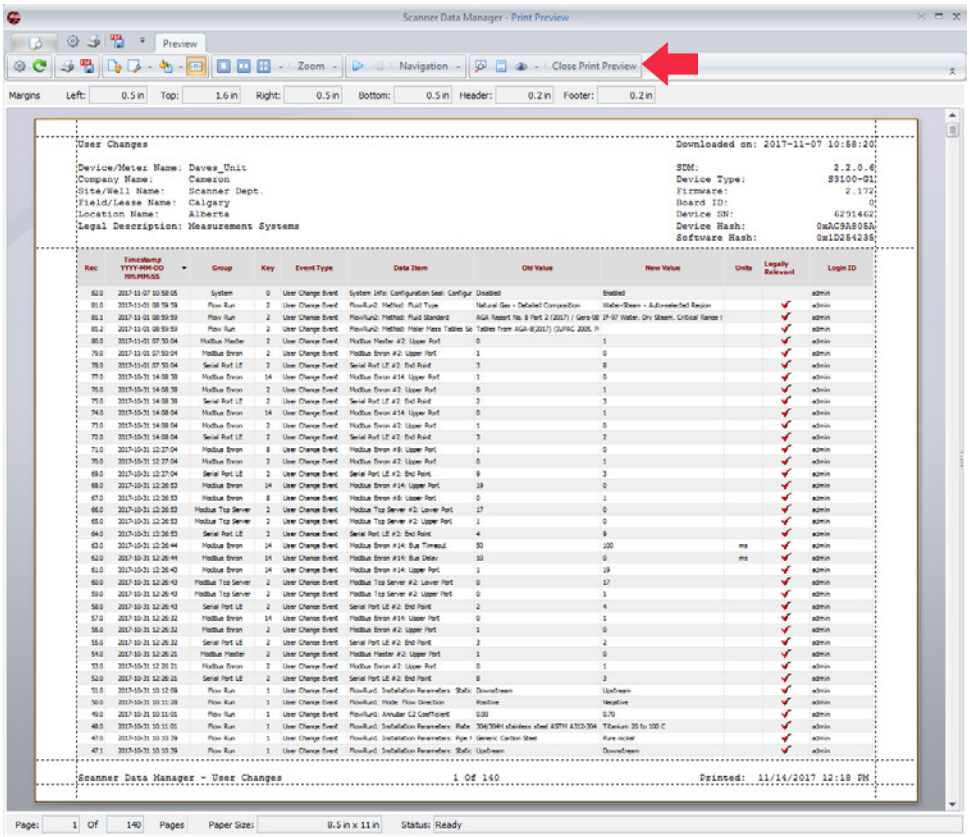


Figure 4.20—Print preview of a Legally-relevant User Change log

5. From the *Print Preview* screen, click the **Print** button to print the report (Figure 4.21 1, page 62).

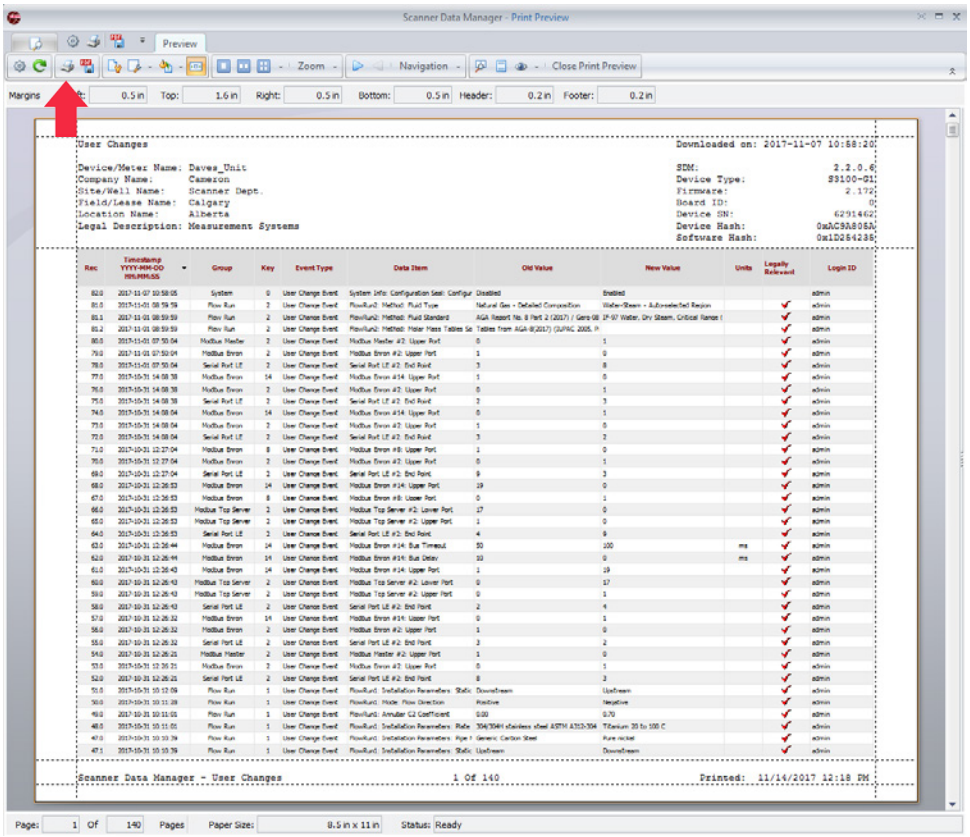


Figure 4.21—Print button location

Section 5—Converting Data

Scanner Data Manager offers both individual file conversion and batch conversion. Data can be converted and saved in third-party Flow-Cal and PGAS formats, as well as in formats that are specific to Scanner 11xx devices.

Batch Conversion

Batch Conversion allows the user to convert multiple files to a different file format at the same time. Archive data can be batch converted to FlowCal, PGAS, BDMS Generic (11xx only), and GDS (11xx only) formats.

Note For a complete understanding of filepath locations, default settings, and file naming options, review the *Conversion Options* dialog described below before attempting a batch conversion.

Conversion Options

Archive data (SDF/SCM) files are automatically archived upon conversion, ensuring a complete measurement audit trail.

File Locations

Figure 5.1 shows the default filepaths provided for storing input data files and converted files. To assist with troubleshooting, input data files for successful conversions are stored separately from input data files for failed conversions. Likewise, output files for successful conversions are stored separately from output files for failed conversions.

By default,

- Archive files that are successfully converted are stored in "C:\Cameron Data\SDM\Convert\Archived."
- Archive files associated with failed conversions are stored in "C:\Cameron Data\SDM\Convert\Failed."
- Output files that are successfully converted are stored in the user-defined directory that is entered on the *Batch Conversion* screen (see Figure 5.8, page 67).
- Output files associated with failed conversions are stored in "C:\Cameron Data\SDM\Convert\Output."

Users may edit these filepaths if desired.

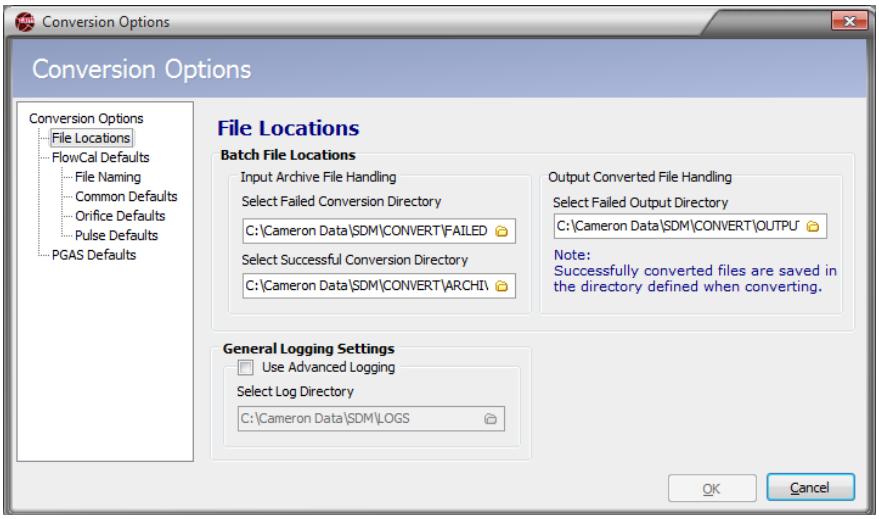


Figure 5.1—Conversion Options dialog

Status Log

Following conversion, a status log providing conversion details is automatically displayed on screen and stored in the log directory specified in the "General Logging Settings" section of the *Conversion Options* screen (Figure 5.1, page 63).

The level of detail is determined by the logging level selected from **Options>Logging Level**. If a detailed status log is desired, check the **Use Advanced Logging** checkbox, and note the filepath for this log. If errors occur, the log can help indicate the source of the problem.

If the user chooses a conversion type that is not supported by the archive file, the file will not be converted and it will be moved to the "Failed" directory as defined on the *Conversion Options>File Locations* screen.

Flow-Cal Conversion Options

To access conversion options for Flow-Cal, select **Options>Conversion Options** from the main screen (Figure 5.1, page 63).

When the *Conversion Options* dialog appears, choose **FlowCal Defaults** and specify the following options:

- File Format [Scanner 2x00/3x00 only] (Figure 5.2)—Select **Flow-Cal Version** appropriate for the flowrun. If the flowrun is a liquid run, enter the Flow-Cal product code in the "Liquid Product Code" field. If no product code is entered, the code will default to "MYGRADE."

Note: Flow-Cal Version 8.x supports the following calculation methods: AGA-3 (2013), AGA-3 (1992), AGA-7, ISO 5167, API 14.3.3 (Inferred Volume), and API 12.2 (Liqud Volumetric). In addition, Version 8.x supports cone, turbine, and other meters; Monel, Monel 400, 304 Stainless Steel, and 316 Stainless Steel pipe and plate materials (plus those covered by all previous versions); and gas composition reporting (history archive) [Scanner 3x00 only].

- File Naming [Scanner 11xx only] (Figure 5.2)—Select **Node Name + Flowrun Number** or **Flowrun Name** in the "File Name" field and/or the "Station Number" field
- Common Defaults (Figure 5.3, page 65)
- Orifice Defaults (Figure 5.4, page 65)
- Pulse Defaults (Figure 5.5, page 65)

Note Common defaults, orifice defaults and pulse defaults are defined by Flow-Cal. Refer to the Flow-Cal documentation for information about what values should be entered.

To specify these options, click on the option to be changed and enter the parameter(s).

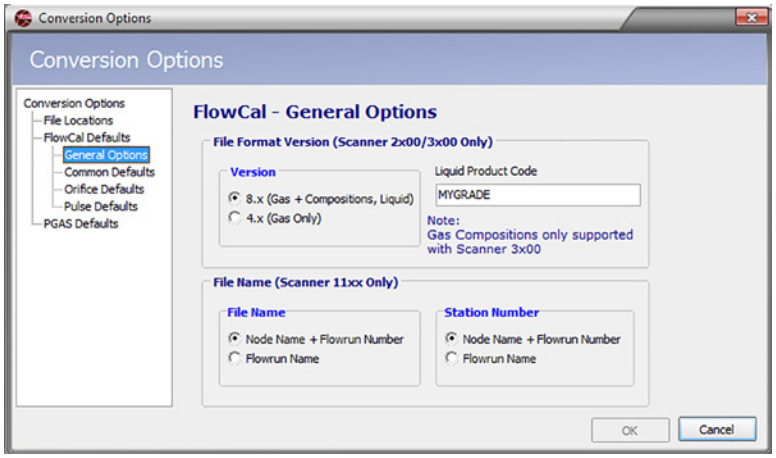


Figure 5.2—Flow-Cal General Options dialog

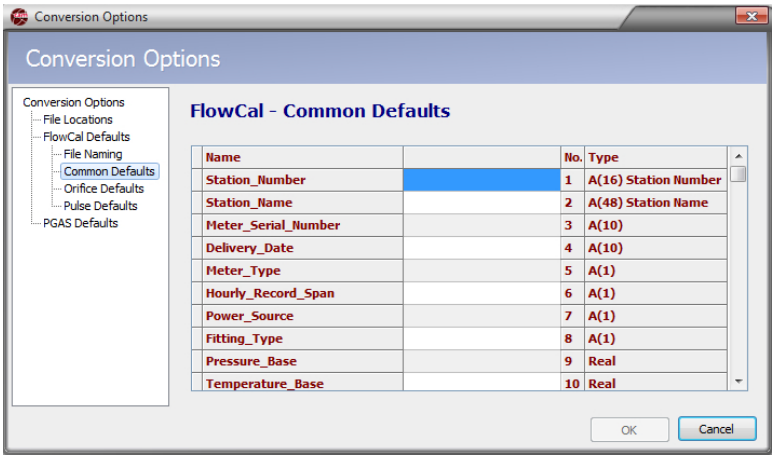


Figure 5.3—Flow-Cal Common Defaults dialog

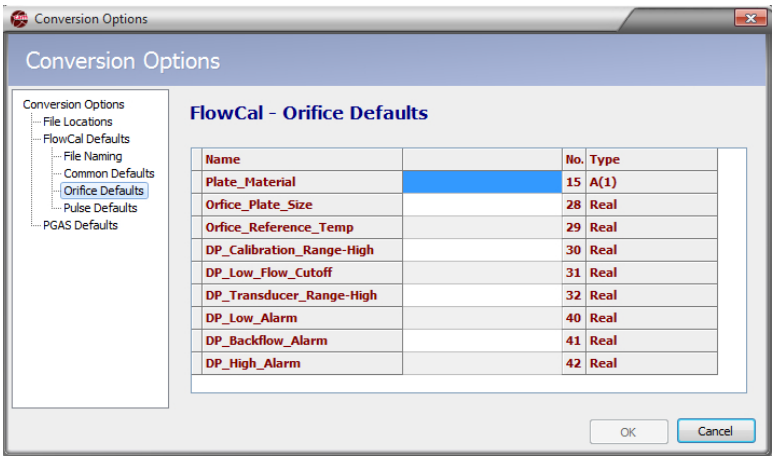


Figure 5.4—Flow-Cal Orifice Defaults dialog

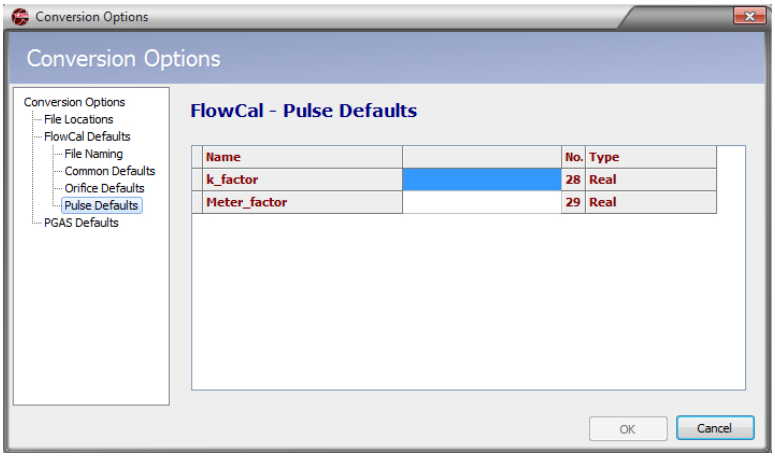


Figure 5.5—Flow-Cal Pulse Defaults dialog

PGAS Conversion Options

To access conversion options for PGAS, select **Options>Conversion Options** from the main screen.

When the *Conversion Options* dialog appears, choose **PGAS Defaults**. Conversion to PGAS format allows the user to specify Meter_ID Settings, Flowrun Support, Missing First Record Data/Time Settings, and Default Logging Interval by selecting the desired option(s) from the dialog (Figure 5.6).

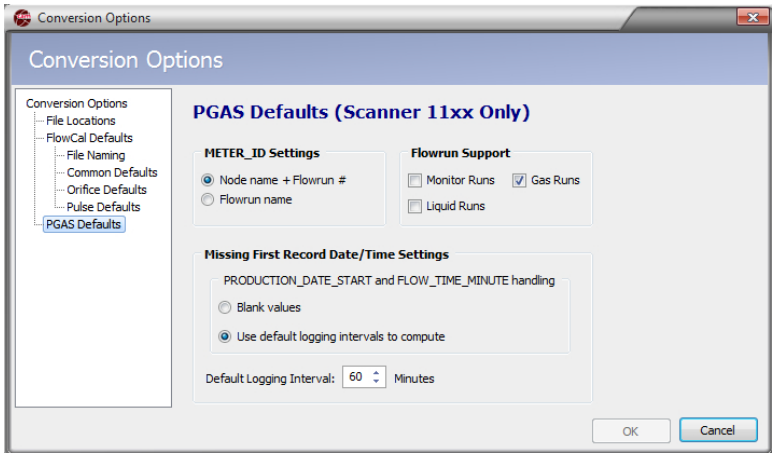


Figure 5.6—PGAS Defaults dialog

Cameron archives only provide an ending timestamp and PGAS requires a starting time for the first record and an ending timestamp. To establish a starting time for the first record, select **Blank Values**, which leaves the timestamp blank, or **Use Default Logging Intervals to Compute**, which calculates a starting timestamp based on the default logging interval.

Performing a Batch Conversion

To perform a batch conversion of files to a third-party software format,

1. Place the files to be converted in a dedicated directory.
2. Choose **File>Batch Conversion** from the main screen (Figure 5.7). The *Batch Conversion* dialog will appear (Figure 5.8, page 67).

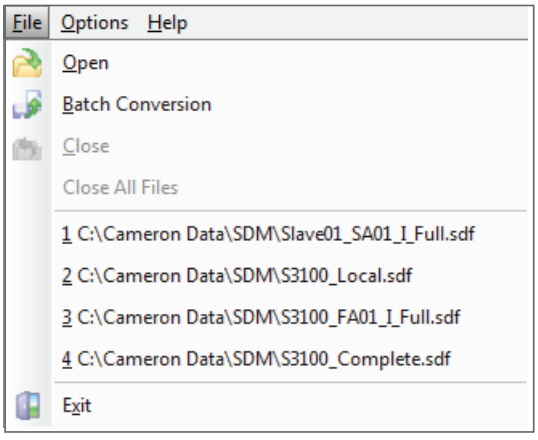


Figure 5.7—File>Batch Conversion

3. From the *Batch Conversion* dialog
   a. Select the “Input” directory (the dedicated directory established in Step 1)

b. Select the files to be converted (the default setting is “All Files”). If selecting individual files for conversion, choose **Selected Files**, press and hold the **<Ctrl>** key and select each desired file from the list displayed.

c. Select the type of conversion desired. If the conversion format selected is not supported by the file data, the file will not be converted and it will be moved into the “C:\Cameron Data\SDM\CONVERT\FAILED” directory.

d. Select the output directory where converted files will be stored.

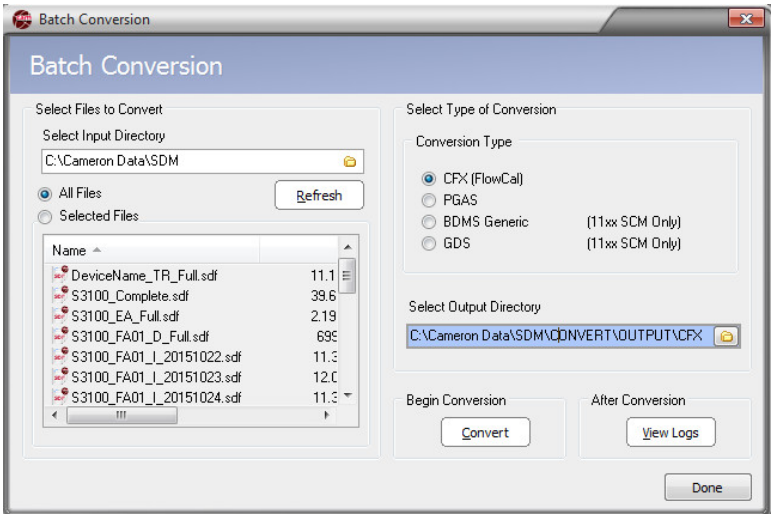


Figure 5.8—Batch Conversion dialog

4. Click the **Convert** button to begin the conversion.
5. When the conversion is complete, the *View Logs* screen will automatically open to provide status information. If the **Use Advanced Logging** option on the *Conversion Options* dialog is enabled, advanced logs tab shows additional details about the conversion.
6. To exit the Batch Conversion mode, click **Done**.

Converting a Single File to Flow-Cal or PGAS Format

To export the contents of an archive file to Flow-Cal (.cfx) or PGAS (.ana/.evt/.vol) format

1. See Conversion Options, page 63 for information on changing conversion settings. This may be especially useful if gaps in the data are expected.
2. Click on the **Export Data** button in the left column of the main screen and choose the desired **Export All to...** selection from the dropdown menu (Figure 5.9, page 68).
3. Click **Save** to export the data.

Emailing Converted Flow-Cal or PGAS Files

To convert and email the contents of an archive file in Flow-Cal (.cfx) or PGAS (.ana./.evt/.vol) format

1. See Conversion Options, page 63 for information on changing conversion settings. This may be especially useful if gaps in the data are expected.
2. Click on the **Email Data** button in the left column of the screen and choose the appropriate “Email All as...” selection from the dropdown menu (Figure 5.10, page 68).
3. Click **Save** to save the file.
4. Wait momentarily while Scanner Data Manager opens an email window on your computer, attaches the conversion file(s), and embeds a brief description of the file(s) in the body of the email (Figure 5.11, page 69).

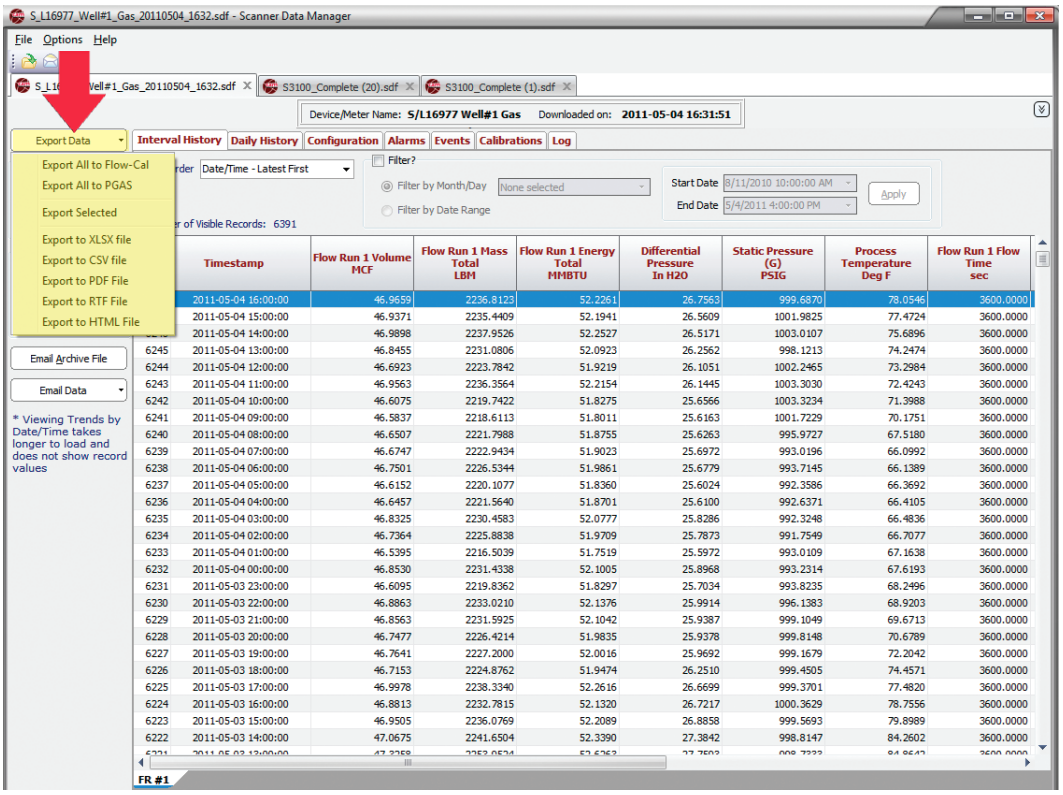


Figure 5.9—Export Data button and dropdown menu

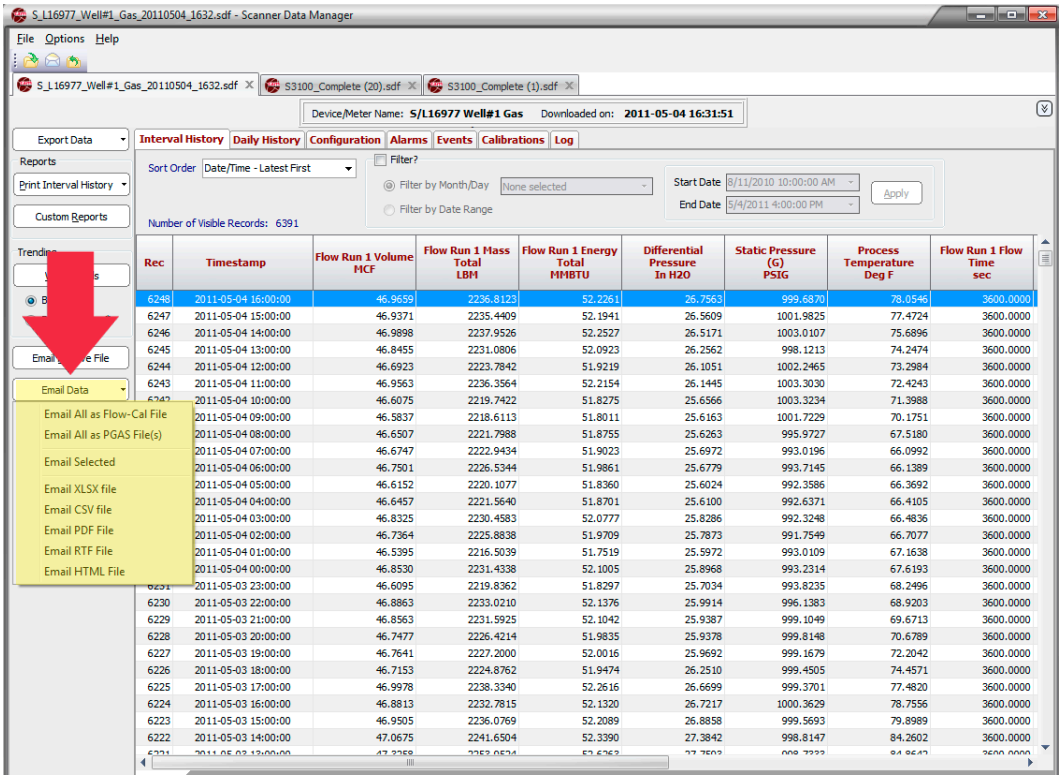


Figure 5.10—Email Data button and dropdown menu

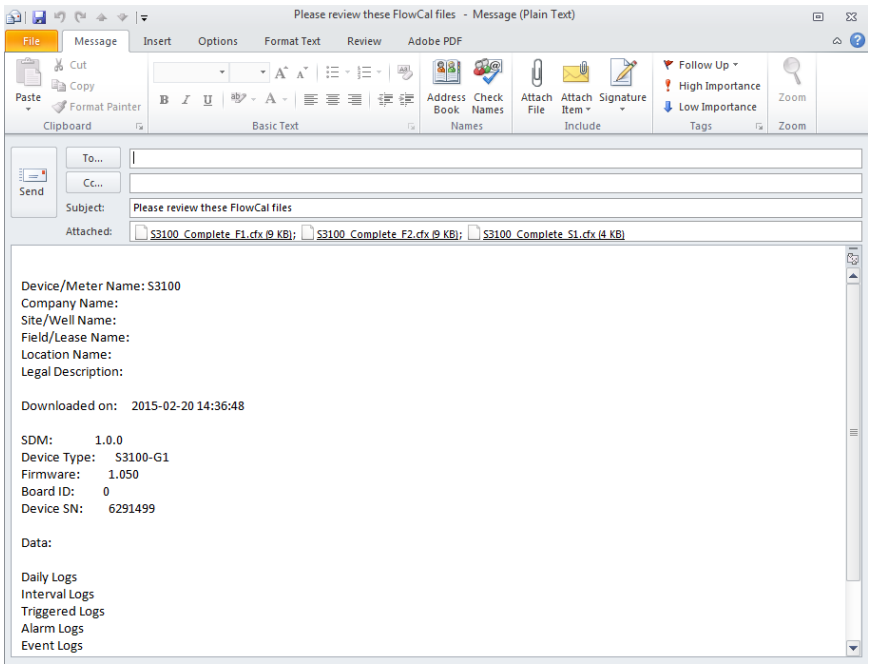


Figure 5.11—Automated email generated for converted files

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Appendix A—Changing Measurement Units

The data format and units of measurement displayed when a download file is opened in Scanner Data Manager are based on the configuration of the Scanner flow computer that generated the download file. This appendix describes how to override the default settings in the download file. To change unit settings or decimal values, click **Options>Viewing Options** and click the Scanner device in use in the menu at the left side of the dialog. Settings vary with Scanner models. Examples of each set of device settings are provided below.

Scanner 3100 Units

From the Scanner 3x00 *Viewing Options* dialog (Figure A.1), the user can change the unit, rate, decimal position, or format of a parameter and override the unit in the SDF file. If a Scanner 3100 archive file contains slave device data, override selections will apply to the slave device data too.

To change the way a parameter is displayed,

1. Check the **Override Units** checkbox near the top of the screen to make the unit selections editable.
2. Both US Customary and SI units are provided in the dropdown menu for parameters. However, for added convenience, a user can change the default units, rates, decimals and formats for all parameters to SI or US Customary by clicking the **SI Units** or **US Customary** button near the top of the screen.
3. Click the cell containing the selection to be changed to open a dropdown menu and make the desired selection.
   - Rate selections include per second, per minute, per hour, and per day.
   - Up to seven decimal places are available for any unit.
   - Parameters can be displayed in fixed point or scientific notation.
4. Click **OK**. All changes to units will be saved, even if the **Override Units** checkbox is left unchecked. This allows the user to switch between units defined in the archive file and the units specified in Scanner Data Manager.

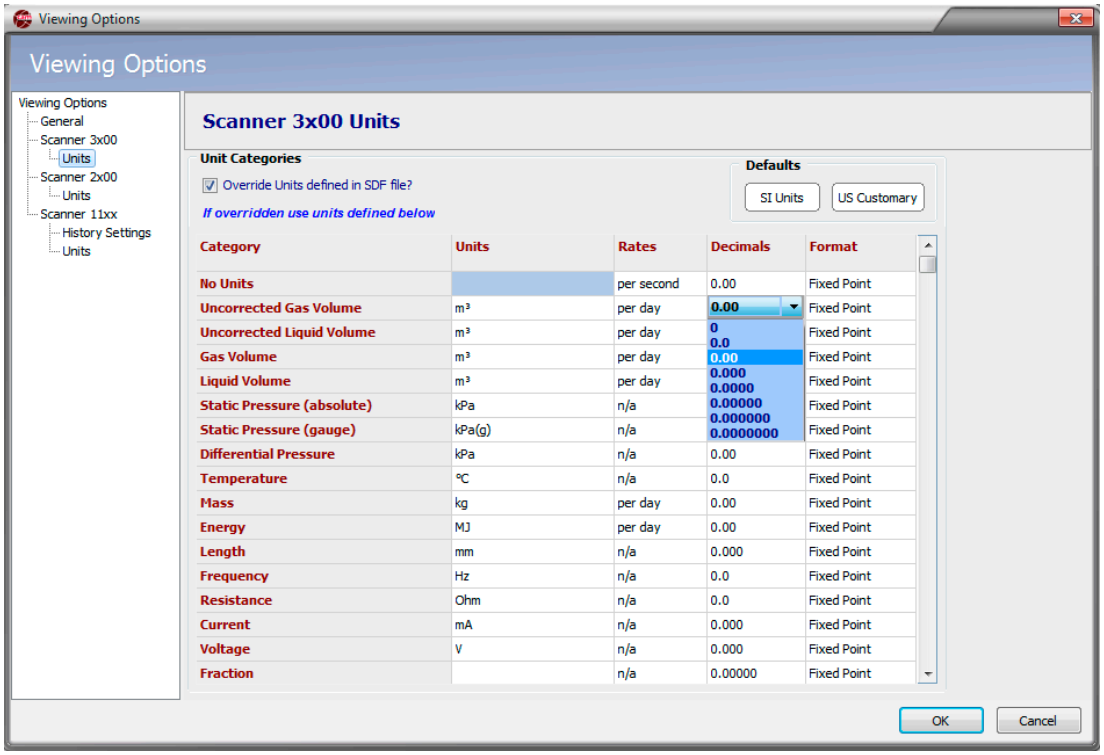

Figure A.1—Scanner 3x00 unit override screen

Scanner 2x00 Units

Note This dialog pertains to SDF files downloaded using ModWorX Pro software and to Scanner 2x00 devices installed as Scanner 3100 slave devices.

From the Scanner 2x00 *Viewing Options* dialog (Figure A.2), the user can change the unit, rate, decimal position, or category of a parameter and override the unit in the SDF file.

Changing Parameter Displays

To change the way a parameter is displayed,

1. Check the **Override Units** checkbox near the top of the screen to make the unit selections editable (Figure A.2).
2. To change the category for Analog Input 1 or Analog Input 2, click in the "Category" field and selecting the desired category (Differential Pressure, Static Pressure, Temperature, etc.) from the dropdown list.
3. To change individual units, click the cell containing the selection to be changed to open a dropdown menu and make the desired selection.

   - Units of measure include SI and US Customary selections.
   - For the Scanner 2x00, units default to US Customary units.
   - Rate selections include per second, per minute, per hour, per day, per week, per month, and per year.

   To revert back to the factory default units after entering one or more unit changes, the user can restore the default units for all parameters without leaving the screen. Simply click the **Defaults** button near the top of the screen to restore factory default units.

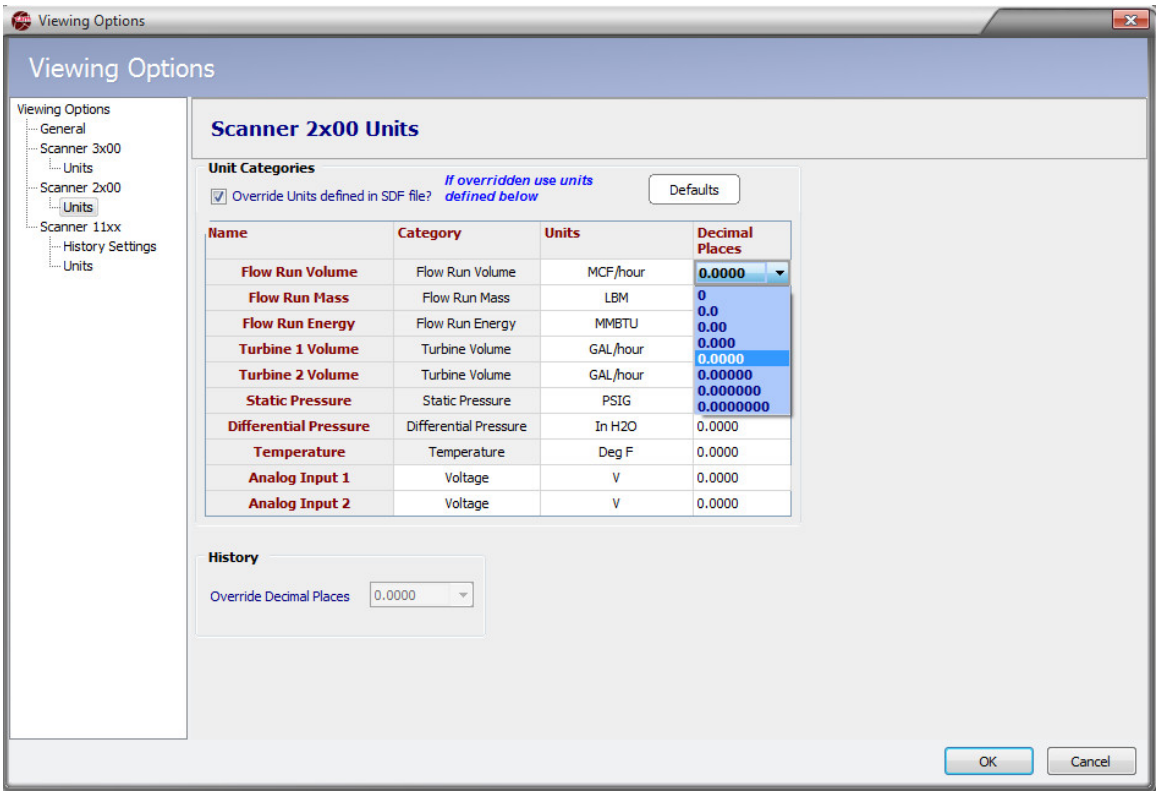

Figure A.2—Scanner 2x00 unit override screen

4. Click in the “Decimal Places” field to change the number of decimals displayed for an individual input-related unit in the Interval or Daily Logs. Up to seven decimal places are available.
5. Click **OK**.

Changing Default Decimal Display

To change all decimal places for every Interval and Daily archive file parameter without changing any other parameters,

1. Uncheck the **Override Units** checkbox near the top of the screen to disable unit selection editing.
2. Click in the *Override Decimal Places* dropdown menu (Figure A.3) and select the number of decimal places to display. Up to seven decimal places are available.
3. Click **OK**.

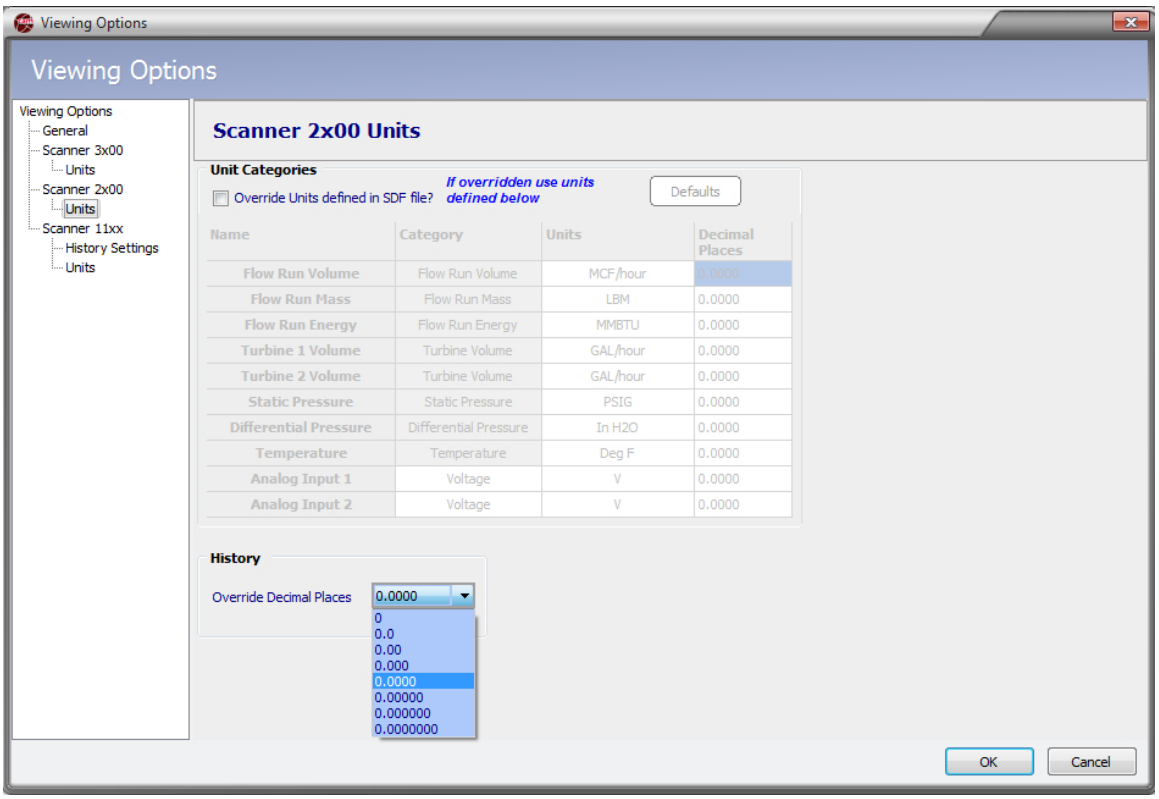

Figure A.3—Scanner 2x00 decimal override selection

Scanner 11xx Units

From the Scanner 11xx *Viewing Options* dialog, the user can change history settings, such as parameter names, decimal places, and column width, as well as unit settings, including unit categories, unit, and flowrun type settings to customize the presentation of data in the archive file.

Changing History Settings

To change the way a parameter is displayed in spreadsheets,

1. Select **Scanner 11xx>History Settings** (Figure A.4, page A-4).
2. Click in the “User Text” field for the desired category and type the name to be displayed. If no user text is entered, the default category name will appear.
3. Click in the “Decimal Places” field for the desired category and enter the number of decimal places to be displayed. The default setting is 3.

4. Column width is defaulted to display on spreadsheets. To disable the columnar display for 11xx archive files, uncheck the **Show** checkbox to the left of "Column Width."
5. To change the column width, click in the "Column Width" field and enter the desired width. The higher the number, the wider the column will be.
6. By default, all parameters are enabled to show. To remove a parameter, uncheck the **Show** checkbox.
7. Click **OK**.

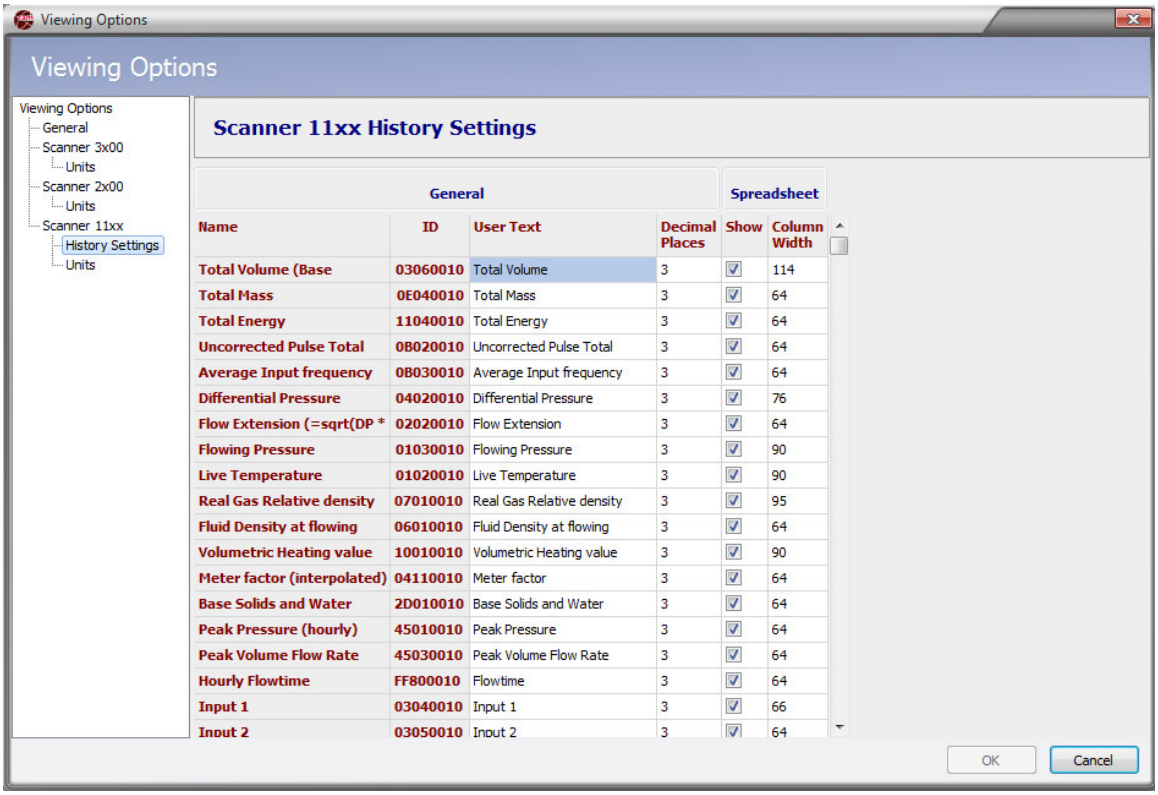

Figure A.4—Scanner 11xx history settings

Changing Units Settings

To change the way units are displayed

1. Select **Scanner 11xx>Units**.
2. Click in the appropriate field in the "History" area or the "Configuration" area (Figure A.5, page A-5) and select the unit in which the archive file data will be viewed from the dropdown list.

Note The Gas, Liquid, and Monitor columns refer to the flowrun type defined in the archive file.

3. The "Default Units" area of the screen should be used when the flowrun type is not stored in the archive file. To change the default units, click the dropdown area next to a flowrun and select gas, monitor, or liquid for that flowrun.
4. Click **OK**.

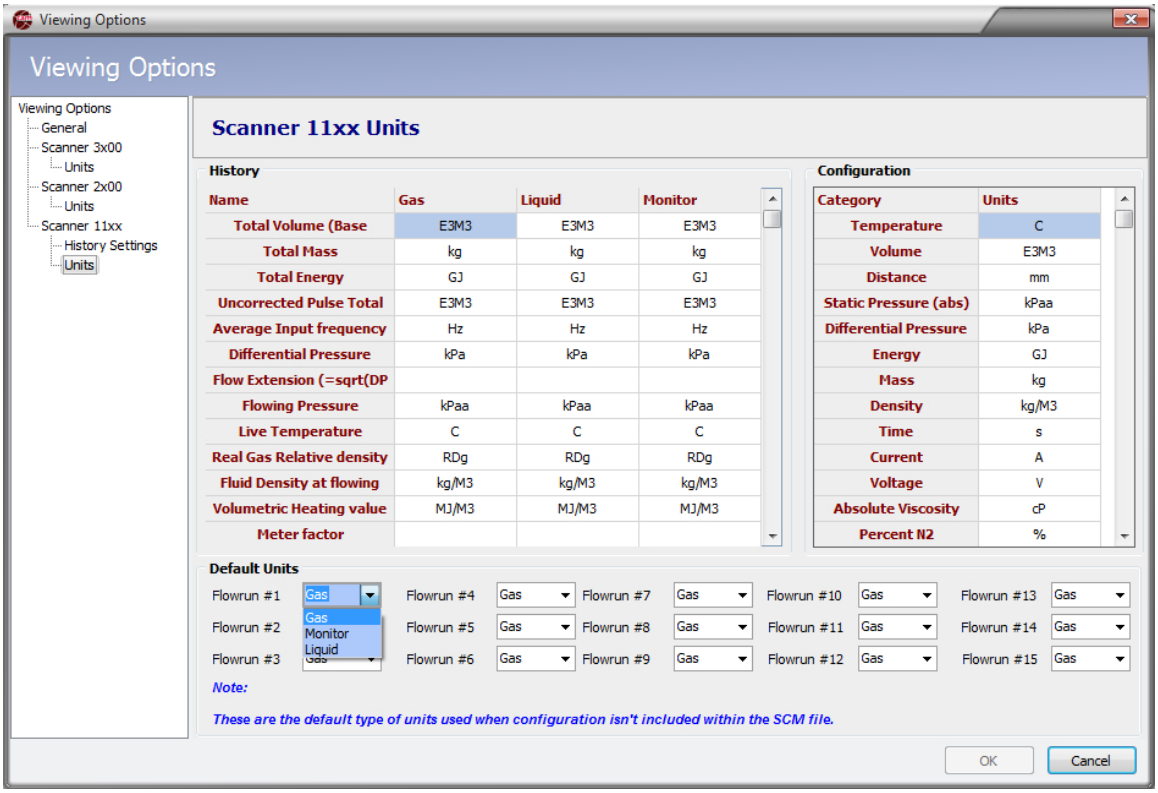

Figure A.5—Scanner 11xx unit selections

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Appendix B—Technical Support

Help Menu

The **Help>About** menu provides access to the Scanner Data Manager User Manual, phone and email contact information for regional Cameron offices, and a link for sending files to the nearest regional office.

Send File to Cameron

In the event that you need the help of a technician, Cameron provides a built-in email tool to help expedite the trouble-shooting process.

1. Select **Help>Send File to Cameron Office** (Figure B.1) and select the regional office nearest you from the drop-down list provided. A new email window will open with the data file and the associated log file attached and the email address of the selected office pre-entered. If you know the email address of your primary Cameron contact, click on "Custom - Enter Contact" in the dropdown menu and enter the email address in the email window.
2. Enter additional notes in the body of the email if desired and click **Send**.

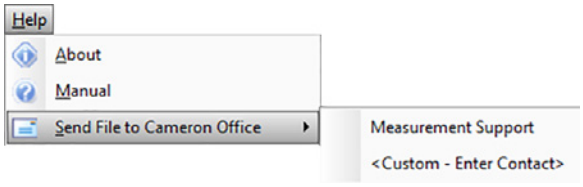

Figure B.1—Help menu

CAUTION **Scanner 3100 archive file (SDF) sizes may exceed 30 MB. If your email host restricts the size of attachments, compress (zip) the archive file and reattach to the email before sending or contact Cameron for assistance. Scanner 2x00 and 11xx typically do not exceed 1.5 MB and many are smaller than 500 KB.**

Technical Contacts

For phone numbers and email addresses for regional Cameron offices, select **Help>About** and click **Technical Support**.

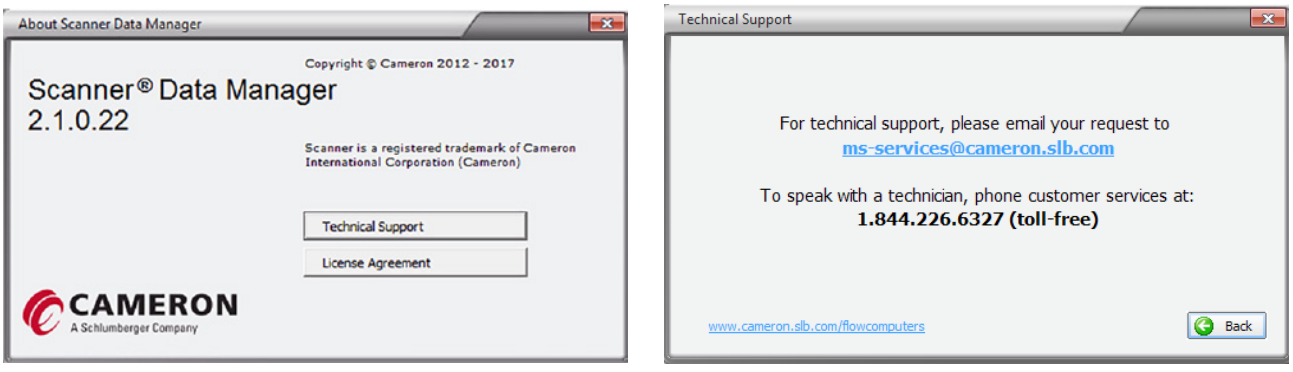

Figure B.2—About Scanner Data Manager and Technical Support screens

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