



Meter Consumption Management System

User Manual

Version 1.2

Revision History

Revision	Update Date	Changes	Details
1.1	31-Jan-2021	Initial Draft	
1.2	26 -Feb -2021	Final Draft Complete	

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iQPulse Overview

Meter Data Management Software

The iQPulse system accumulates and consolidates information received from remote endpoints including meter status, consumption data, alarms/events, and reconciliation of total area consumption versus total individual consumption.

iQPulse management software facilitates full control of consumption data and provides customer support functionality. The capabilities enabled by the management software are key to transforming simple consumption readings into proper management tools. The key element is iQPulse's open architecture which allows for easy integration and interface with existing billing, support, and management information systems.

- **Consumption Information**—On-line, real-time access to all system and consumption data relating to a customer or group of customers, including a complete history of the customer's consumption.
- **Reporting**—Comprehensive management reports reflecting system-wide consumption with detail to the individual meter level, meter malfunction reports, exception reports, and including extraordinary consumption, unaccounted for consumption, and much more.
- **Data import/export**—Sophisticated data import and export functions—data is easily collected from other MIS systems and captured into the iQPulse database; consumption and billing information can be user-defined specifically for external billing or other existing systems.

Support Contact Information

LEC, Inc.
110 Excell Drive
Pearl, Mississippi 39208

<https://solveit.lecinc.com>

Login/Logout

User Setup/Authorizations

User definitions, including Username, Password, and Authorizations (access and update rights per user), are functions provided by LEC to its utility and system customers.

Please contact LEC Support for assistance. <https://solveit.lecinc.com>

Login

Using the Google Chrome Internet browser (recommended), enter the following in the browser address bar and press Enter:

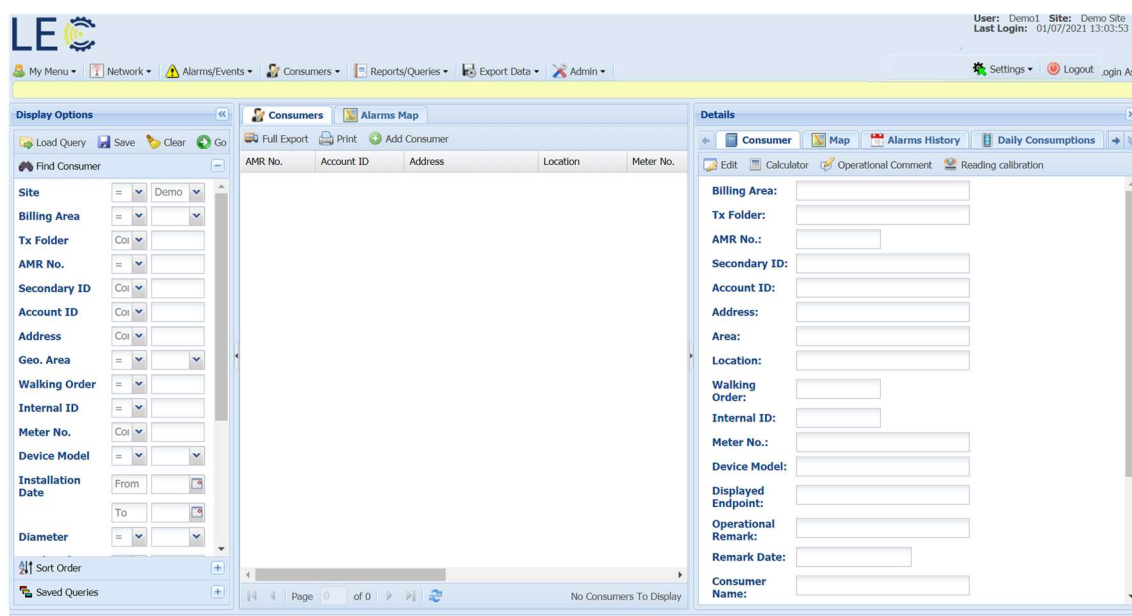
<https://iqpulse.lecinc.com>

The iQPulse Login page will then be displayed. Enter your username and password (note: these fields are case-sensitive) and click “Login” or press Enter. You will be taken to the iQPulse main screen.



The image shows the iQPulse Login page. It has a light blue header with the LEC logo and the word "Login". Below the header, there are two input fields: "Username:" and "Password:". At the bottom, there are two buttons: "Login" (with a green arrow icon) and "Cancel" (with a red X icon).

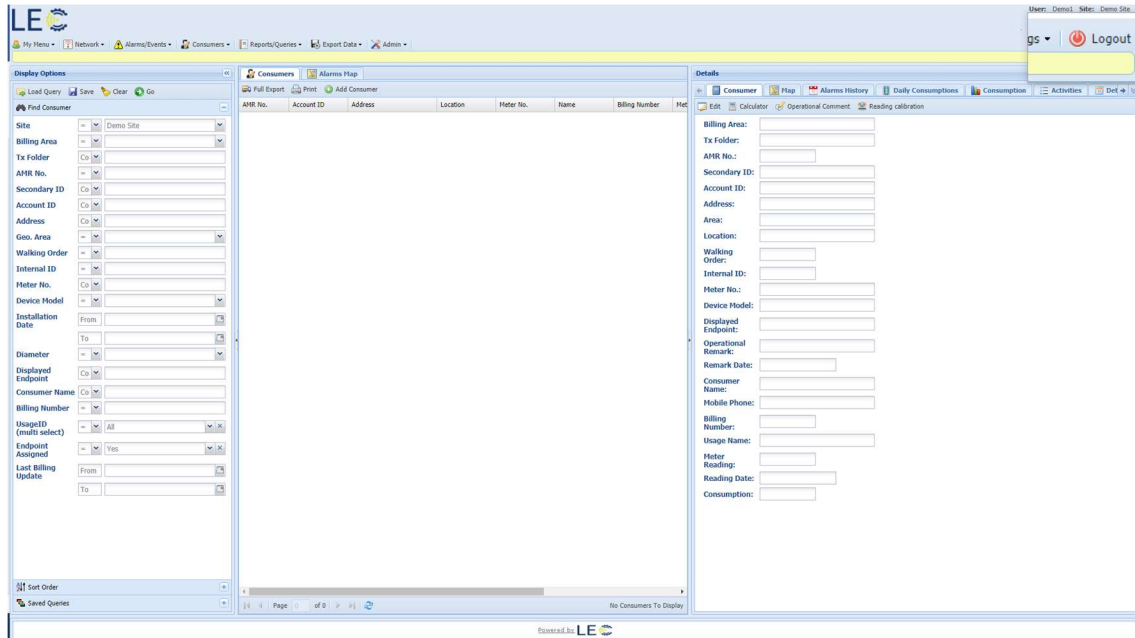
iQPulse Main Screen



The image shows the iQPulse Main Screen. It has a light blue header with the LEC logo and the word "iQPulse". Below the header, there is a navigation bar with tabs: "My Menu", "Network", "Alarms/Events", "Consumers", "Reports/Queries", "Export Data", and "Admin". The "Consumers" tab is selected. The main area is divided into three sections: "Display Options", "Consumers", and "Details". The "Display Options" section on the left contains various filters and search criteria. The "Consumers" section in the center shows a table with columns: "AMR No.", "Account ID", "Address", "Location", and "Meter No.". The "Details" section on the right contains various fields for consumer information, including "Billing Area", "Tx Folder", "AMR No.", "Secondary ID", "Account ID", "Address", "Area", "Location", "Walking Order", "Internal ID", "Meter No.", "Device Model", "Displayed Endpoint", "Operational Remark", "Remark Date", and "Consumer Name".

Logout

To log out of the system, click on Logout at the top right corner of the screen.



General Information

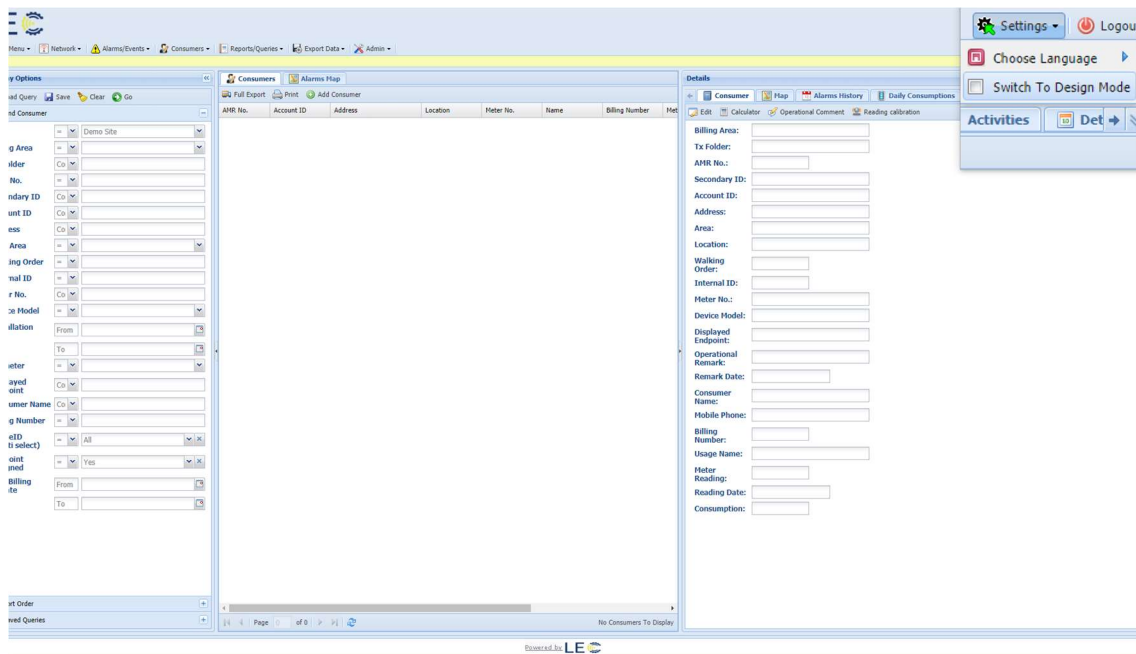
Screen Resolution

The screenshots depicted in this manual may not appear the same as the actual screens on the computer used to operate iQPulse. This may be due to screen size and/or screen resolution. The screen resolution may be adjusted in the settings of the Internet browser in which iQPulse is running.

Furthermore, pressing F11 will cause the browser to enter full screen mode, thereby maximizing the display surface for iQPulse. Pressing F11 again will cause the browser to exit full screen mode.

Settings

Near the far right of the iQPulse menu icons is the Settings icon. Click on Settings to see the various settings options that are available.



Choose Language

Use this option to change the language in which iQPulse operates.

Switch to Design Mode

Select or deselect this option to enter or exit design mode (explained in more detail below – see Data Display Design Mode).

Data Display Window

The content below and subsequent sections pertain to all windows within iQPulse in which columns of data are displayed. This includes the iQPulse main screen with Consumer information display, as well as reports and queries, such as Consumption Query.

In the example shown below, the central window in the iQPulse main screen can be scrolled left and right, and you may display pages of data by clicking on the directional arrows at the bottom of the window (see red arrow below). [Note: the central window is blank until the Consumers tab or the Go icon in the Display Options window is pressed once.]

You may also expand the window display to the left or to the right or in both directions by clicking on the screen expansion arrow on the left or right border of the window (red circles above). Clicking on this arrow will return the window to its prior shape.

You can also manually adjust the size of the window by placing the mouse cursor over the left or right border until you see the mouse cursor become parallel lines. Then, hold down the left mouse button and drag the border to the desired position. Use the same procedure to return the border to its original position.

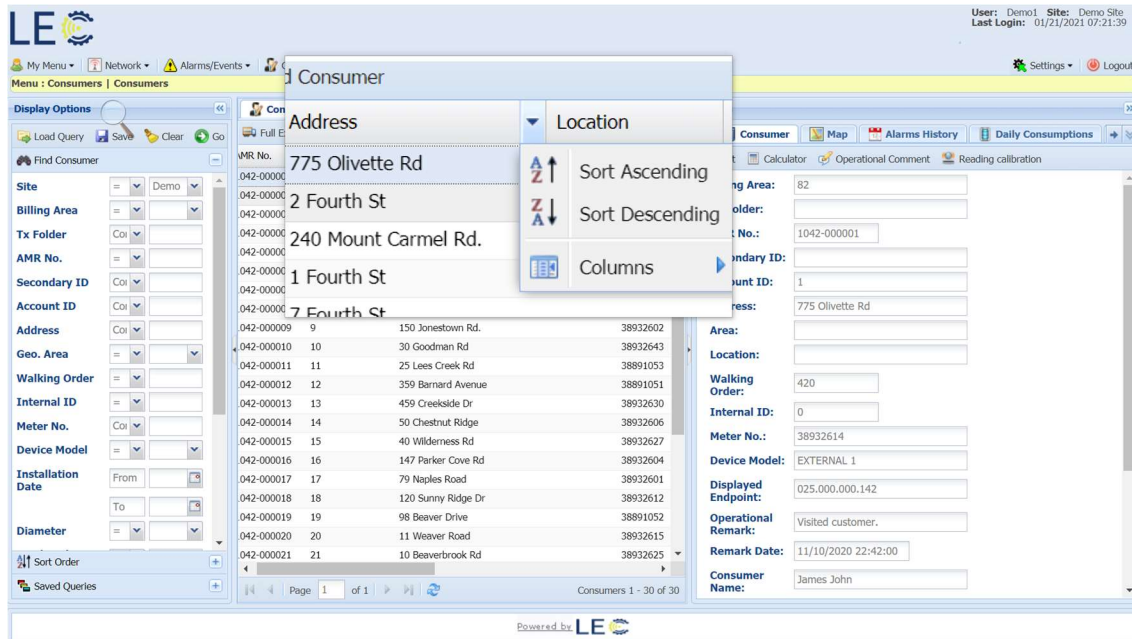
Data Display Changes

The way the data is displayed can be easily changed. The changes as described in this sub-section are temporary changes and are not saved within the system. See below in the sub-section Data Display Design Mode for the procedure to make permanent changes to the way data is displayed.

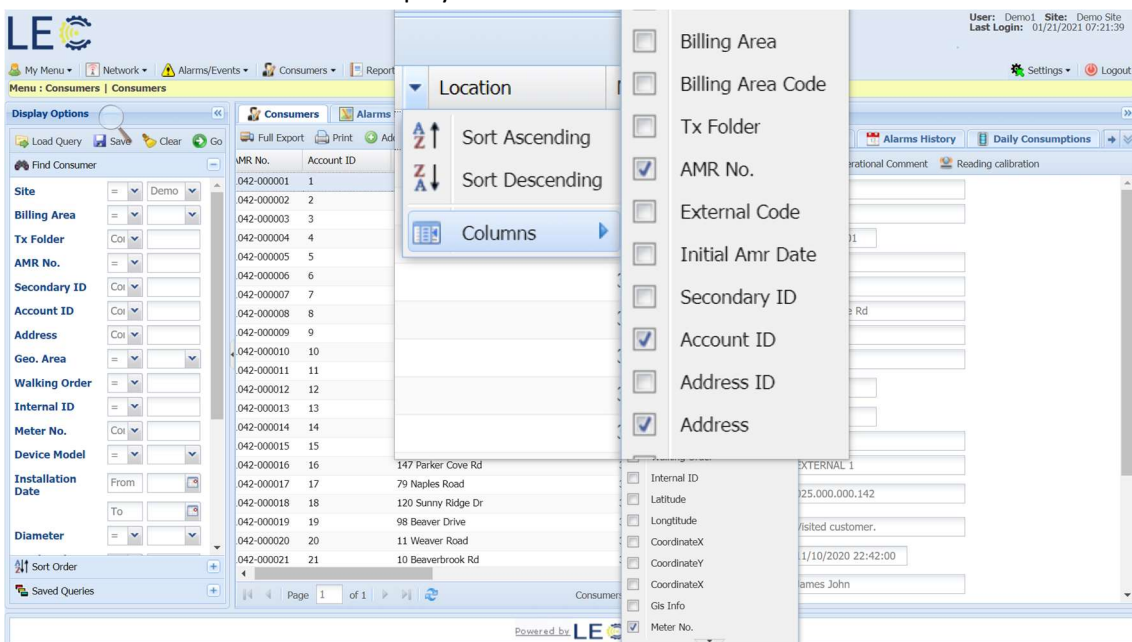
Changing Column Width: To change the column width of any column, move the cursor over the right border of the column title until the cursor becomes parallel lines. Then holding down the left mouse

button, drag the column border to the desired width. The position of a column can be changed by holding down the left mouse button on the column title and dragging the column to its new position.

Sorting Displayed Data: The displayed data can be sorted in ascending or descending order using a single column as the sort criteria. Move the cursor over the right side of the column heading until a drop-down arrow appears. Then click on the drop-down arrow and select Sort Ascending or Sort Descending in order to perform the sort.

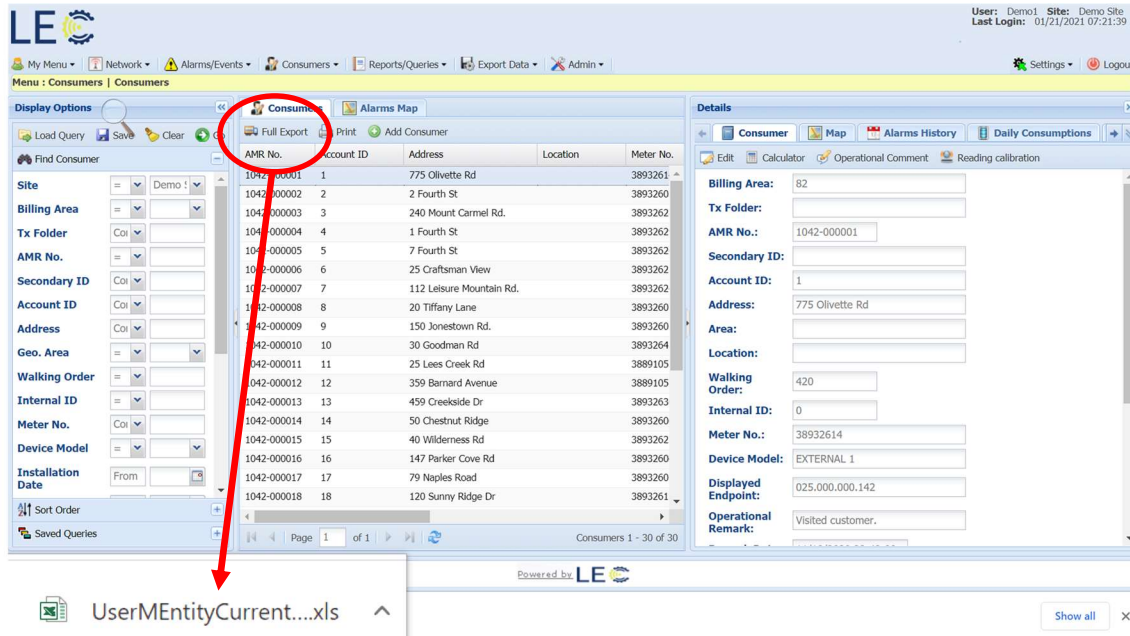


Select/Deselect Fields to be Displayed: In this same drop-down box, click on the Columns line item in order to open a selection/deselection window of all available fields that can be displayed – use navigation arrows at the top and bottom of this selection/deselection window to see additional fields that can be selected or deselected. The selected data will be added to the display, and the deselected data will be removed from the display.



Data Display Export

Data that has been displayed can be exported to an Excel file. At the top left of the data display window, click the “Full Export” icon. At the bottom left of the screen you will see that an Excel file has been created. Click the Excel file name to open the Excel file. In the Excel file, you will find all the data in the data display window. This Excel file can be saved for future analyses, reports, etc.



Data Display Print

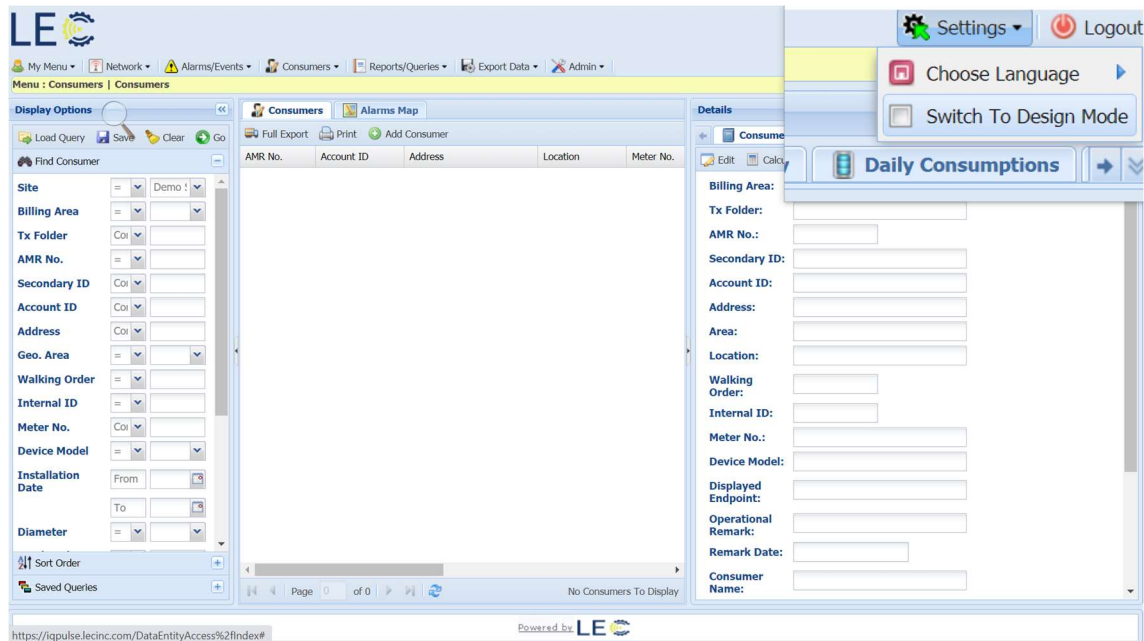
Data that has been displayed in the window (up to 30 lines of data) can be printed to a system printer or even a PDF file. Near the top left of the data display window, click the “Print” icon. A browser tab will be opened that displays the data currently on your screen. Click on Print to send the report to a system printer or to save as a PDF file. Click on Close to close the browser tab.

Print Close

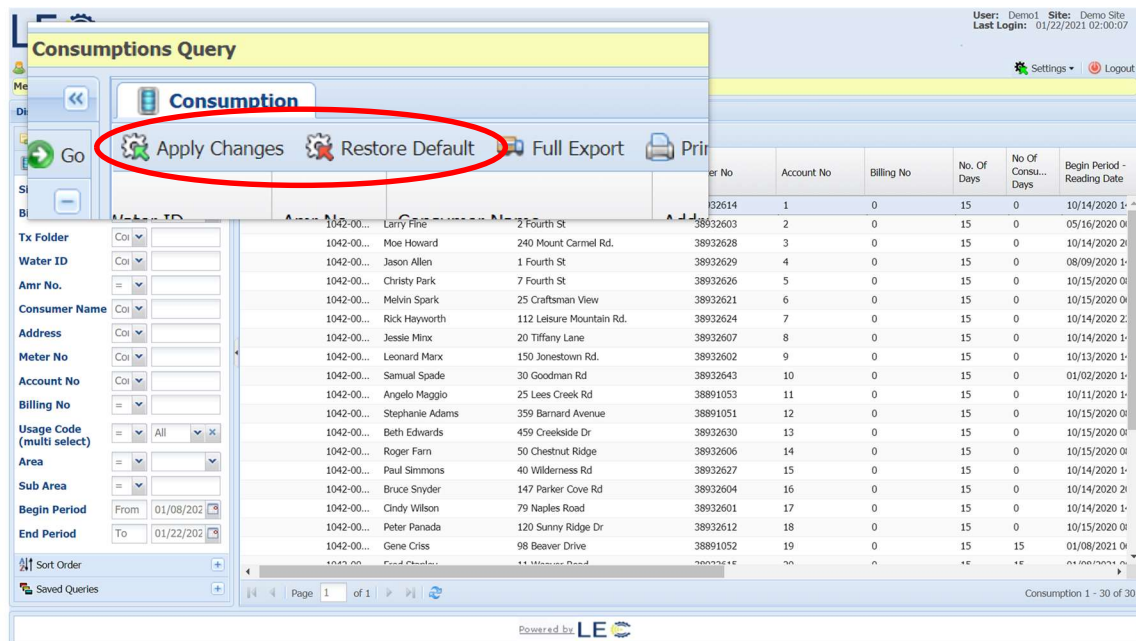
		Location	Meter No.	Name	Billing Number	Meter Reading	Reading Date	Consumption
1042-000001	1	775 Olivette Rd	38932614	James John	0	6.523	10/14/2020 14:00:00	0.006
1042-000002	2	2 Fourth St	38932603	Larry Fine	0	8.360	05/16/2020 00:00:00	0.050
1042-000003	3	240 Mount Carmel Rd.	38932628	Moe Howard	0	32.710	10/14/2020 20:00:00	0.030
1042-000004	4	1 Fourth St	38932629	Jason Allen	0	58.420	08/09/2020 14:00:00	0.340
1042-000005	5	7 Fourth St	38932626	Christy Park	0	55.750	10/15/2020 08:00:00	0.010
1042-000006	6	25 Craftsman View	38932621	Melvin Spark	0	24.010	10/15/2020 06:00:00	0.020
1042-000007	7	112 Leisure Mountain Rd.	38932624	Rick Hayworth	0	52.300	10/14/2020 22:00:00	0.050
1042-000008	8	20 Tiffany Lane	38932607	Jessie Minx	0	12.510	10/14/2020 14:00:00	0.000
1042-000009	9	150 Jonestown Rd.	38932602	Leonard Marx	0	43.140	10/13/2020 14:00:00	0.010
1042-000010	10	30 Goodman Rd	38932643	Samual Spade	0	0.020	01/02/2020 14:00:00	0.000
1042-000011	11	25 Lees Creek Rd	38891053	Angelo Maggio	0	75.420	10/11/2020 14:00:00	0.140
1042-000012	12	359 Barnard Avenue	38891051	Stephanie Adams	0	111.150	10/15/2020 08:00:00	0.020
1042-000013	13	459 Creekside Dr	38932630	Beth Edwards	0	31.540	10/15/2020 08:00:00	0.000
1042-000014	14	50 Chestnut Ridge	38932606	Roger Farn	0	7.826	10/15/2020 08:00:00	0.001
1042-000015	15	40 Wilderness Rd	38932627	Paul Simmons	0	15.310	10/14/2020 14:00:00	0.000
1042-000016	16	147 Parker Cove Rd	38932604	Bruce Snyder	0	49.890	10/14/2020 20:00:00	0.110
1042-000017	17	79 Naples Road	38932601	Cindy Wilson	0	0.020	10/14/2020 14:00:00	0.000
1042-000018	18	120 Sunny Ridge Dr	38932612	Peter Panada	0	27.320	10/15/2020 08:00:00	0.000
1042-000019	19	98 Beaver Drive	38891052	Gene Criss	0	121.420	01/22/2021 02:00:00	0.010
1042-000020	20	11 Weaver Road	38932615	Fred Stanley	0	43.690	01/22/2021 02:00:00	0.050
1042-000021	21	10 Beaverbrook Rd	38932625	Barry Allen	0	24.760	07/21/2020 20:00:00	0.050
1042-000022	22	365 Elk Mountain Scenic Hwy	38932620	Dean King	0	9.730	10/03/2020 20:00:00	0.080
1042-000023	23	20 Glenview Avenue	38832622	Stephen Rodgers	0	62.330	10/15/2020 08:00:00	0.000
1042-000024	24	40 Woodfin Avenue	38932642	Thomas Flair	0	32.510	10/15/2020 08:00:00	0.000
1042-000025	25	45 Redwood Avenue	38932644	Matthew Wynn	0	578.400	05/16/2020 14:00:00	4.400

Data Display Design Mode

If you desire to make permanent changes to the way data is displayed in the display window, click the “Settings” menu icon near the top right of the screen. Click on “Switch to Design Mode”.



There will be new menu icons at the top of the display window. The example shown below is from the Consumptions Query (thus, even for queries, the format of the display – for example, which columns are to be displayed and in which order – can be changed permanently).



Once all desired changes have been made, click on the “Apply Changes” menu icon. Then click on “Yes” in the window requesting confirmation to perform this action.

The next time you enter this display window, you will see that the changes you have made, in the manner of displaying the data, have taken effect.

To restore the data display to its default setting, click on the “Restore Default” menu icon, and click on “Yes” in the window requesting confirmation to perform this action. **You will need to logout and login again to return to the default settings.**

Note: Be certain to switch off the Design Mode in the Settings menu icon when you have completed making your changes.

Data Display Query

The iQPulse data and query displays show multiple line items (e.g. consumer records, meter readings, etc.) in a single screen page. It is not practical looking for specific consumers, for example, by paging through a utility database. For this reason, the iQPulse includes a Data Display Query window to make such searches much more efficient.

On the far left of the iQPulse main screen is the Data Display Query window. You may enter query criteria (one or more parameters) to select which data records are to be displayed in the Data/Query Display window. The example below is the Consumptions Query.

Alongside each field that can be used as a selection parameter, there is a drop-down box that enables you to select an operator on the selection criterion that you have specified. For example, greater than or less than, contains, begins with, etc. Based upon the type of data in the selected field, only those types of operators that apply will be in the drop-down box.

In the example below, all consumer entries with an AMR number equal or less than 1042000005 will be displayed:

Amr No. <= 1042000005

Consumer Name =

Address <

Meter No <=

Account No >=

Billing No !=

Usage Code (multi select) Is Empty Not Empty

Address	Meter No	Account No	Billing No	No. Of Days	No. Of Consu... Days	Begin Period - Reading Date
775 Olivette Rd	38932614	1	0	15	0	10/14/202
2 Fourth St	38932603	2	0	15	0	05/16/202
240 Mount Carmel Rd.	38932628	3	0	15	0	10/14/202
1 Fourth St	38932629	4	0	15	0	08/09/202
7 Fourth St	38932626	5	0	15	0	10/15/202
25 Craftsman View	38932621	6	0	15	0	10/15/202
112 Lelsure Mountain Rd.	38932624	7	0	15	0	10/14/202
20 Tiffany Lane	38932607	8	0	15	0	10/14/202
150 Jonestown Rd.	38932602	9	0	15	0	10/13/202
30 Goodman Rd	38932643	10	0	15	0	01/02/202
25 Lees Creek Rd	38891053	11	0	15	0	10/11/202
359 Barnard Avenue	38891051	12	0	15	0	10/15/202
459 Creekside Dr	38932630	13	0	15	0	10/15/202
50 Chestnut Ridge	38932606	14	0	15	0	10/15/202
40 Wilderness Rd	38932627	15	0	15	0	10/14/202
147 Parker Cove Rd	38932604	16	0	15	0	10/14/202
79 Naples Road	38932601	17	0	15	0	10/14/202
120 Sunny Ridge Dr	38932612	18	0	15	0	10/15/202
98 Beaver Drive	38891052	19	0	15	15	01/08/202

After entering the desired selection criteria, click on the “Go” icon at the top of the Query window. Only that data which meets the selection criteria will be displayed in the Data Display window.

As seen below, after the Data Display Query has been specified and the “Go” icon pressed, only the selected consumers are displayed:

Amr No. <= 1042000005

Consumer Name =

Address <

Meter No <=

Account No >=

Billing No !=

Usage Code (multi select) Is Empty Not Empty

Address	Meter No	Account No	Billing No	No. Of Days	No. Of Consu... Days	Begin Period - Reading Date
775 Olivette Rd	38932614	1	0	15	0	10/14/2020 1
2 Fourth St	38932603	2	0	15	0	05/16/2020 0
240 Mount Carmel Rd.	38932628	3	0	15	0	10/14/2020 2
1 Fourth St	38932629	4	0	15	0	08/09/2020 1
7 Fourth St	38932626	5	0	15	0	10/15/2020 0

In order to clear the specified query, click on the “Clear” icon at the top of the Query window followed by the “Go” icon. All data will be restored to the Data Display window.

To save a Data Display Query for future use, see Data Display Saved Queries below.

Data Display Sort Order

In addition to specifying selection criteria, you can specify a multiple level sort order for the data to be displayed. Near the bottom of the Query window, click on the “Sort Order” icon to open the Sort Order sub-window. Click on the “minus” sign to close this sub-window (or click on any other sub-window to close this sub-window and open the other sub-window).

The screenshot shows the iQPulse interface with the 'Sort Order' sub-window open. The sub-window has two panes: 'Available Columns' on the left and 'Selected Order' on the right. The 'Available Columns' pane lists: Water ID, Consumer Name, Billing No, Address, Account No, and Meter No. The 'Selected Order' pane currently contains 'Amr No.' and 'Meter No.'. The main data table in the background shows consumption data for various consumers, with columns for Water ID, Amr No., Consumer Name, Address, Meter No., Account No., Billing No., No. Of Days, No Of Consu..., and Begin Period Reading Date.

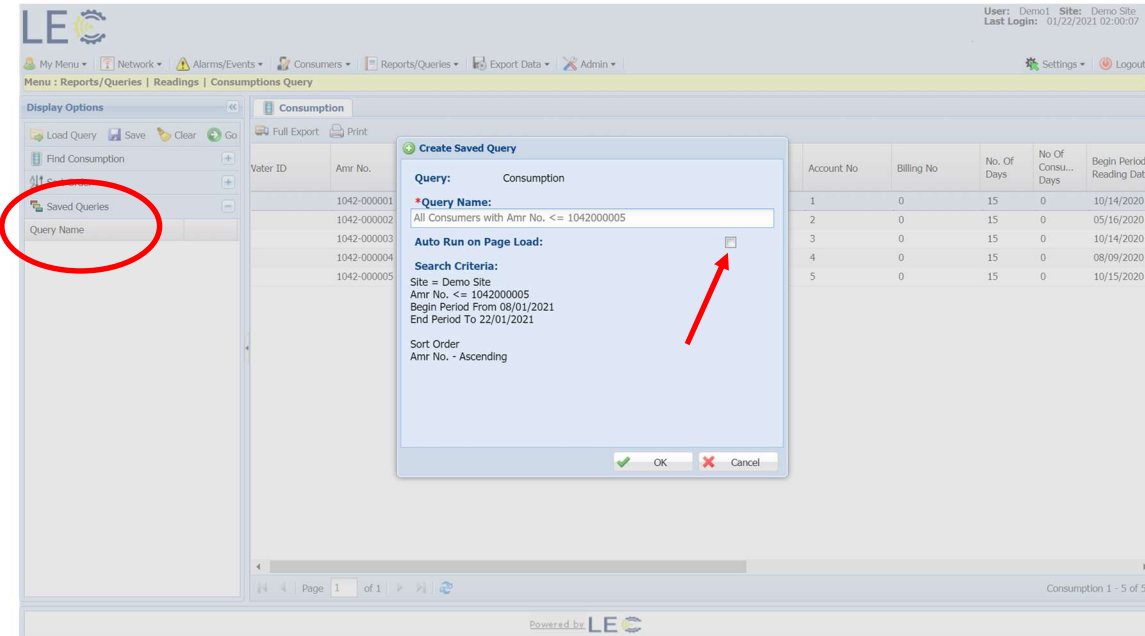
Once you have opened the “Sort Order” sub-window, drag the desired column names for sorting in the order to be sorted from the left side of the sub-window to the right side of the sub-window. To remove a column from the selected order for sorting, simply drag the column name back to the left side of the sub-window. In the example below, Amr No. was dragged back to the left side, and Meter No. was dragged to the right side.

Click on the Go icon at the top of the Query window to sort the data in the Data Display window. Results shown below (all line items now in Meter No. order):

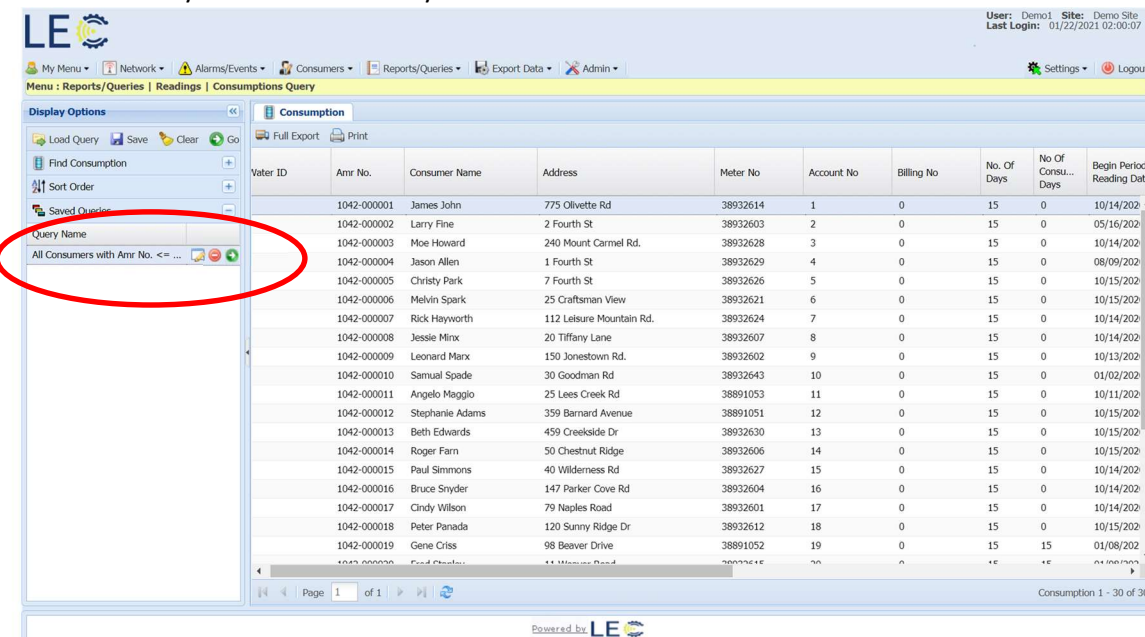
The screenshot shows the iQPulse interface with the 'Sort Order' sub-window open. The sub-window has two panes: 'Available Columns' on the left and 'Selected Order' on the right. The 'Available Columns' pane lists: Water ID, Consumer Name, Billing No, Address, Account No, and Amr No. The 'Selected Order' pane currently contains 'Meter No.'. The main data table in the background shows consumption data for various consumers, with columns for Water ID, Amr No., Consumer Name, Address, Meter No., Account No., Billing No., No. Of Days, No Of Consu..., and Begin Period Reading Date. The data is sorted by Meter No.

Data Display Saved Queries

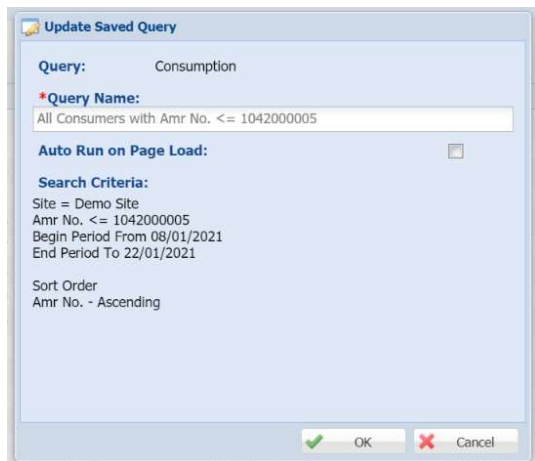
Once you have specified a Query, you may save this Query for future use. To save the Query, click on the “Save” icon at the top of the Query window. You will be asked to enter a name for the Query to be saved. Click the “Auto Run” checkbox to automatically run this Query when this page is loaded (see arrow below).



To use a saved Query, click on the “Load Query” icon at the top of the Query window. The Saved Queries sub-window will then be opened. When moving the cursor over the three icons on the Saved Query’s line, you will see that you have three options: (1) Update the Saved Query (i.e. change its name), (2) Delete the Saved Query, or (3) Go (i.e. execute) the Saved Query. When clicking on the “Update” icon, you will be asked to change the name of the Saved Query – make the change and click on “OK”. When clicking on the “Delete” icon, you will be asked to confirm deletion. When clicking on the “Go” icon, the selection Query will be immediately executed.



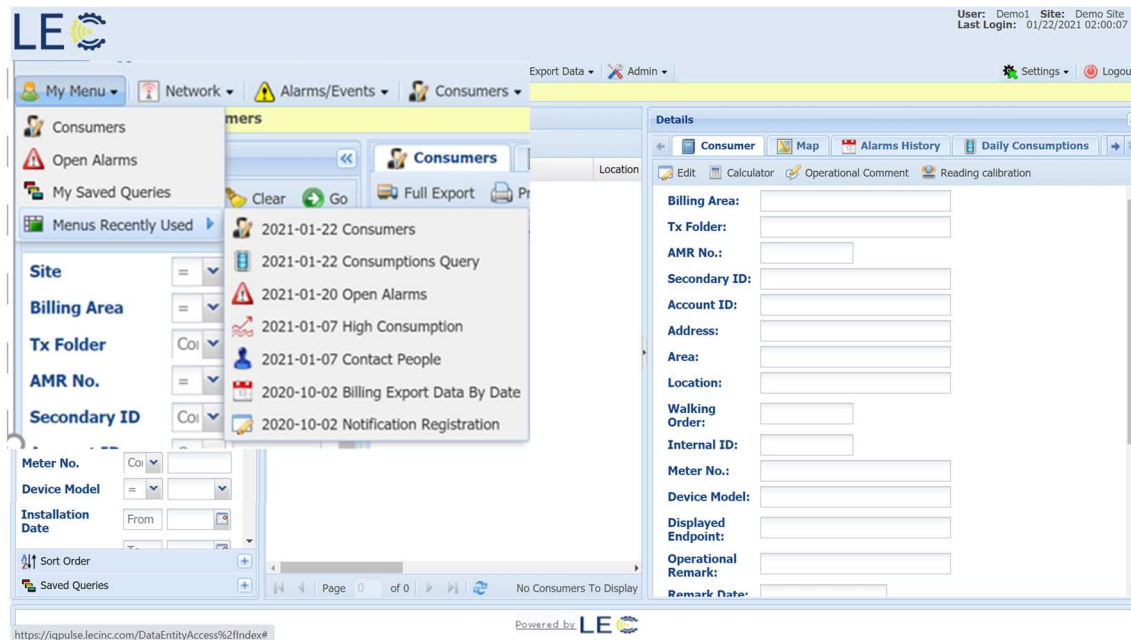
Below are the Save (change Query Name) and Delete dialogs:



My Menu

Overview

My Menu is an iQPulse menu item that enables the user to gain quick access to the user's most frequently used system screens, saved queries, and recently accessed menus. All entries in the My Menu drop-down menus are updated automatically by the system. Click on "My Menu" and then the desired location to access.



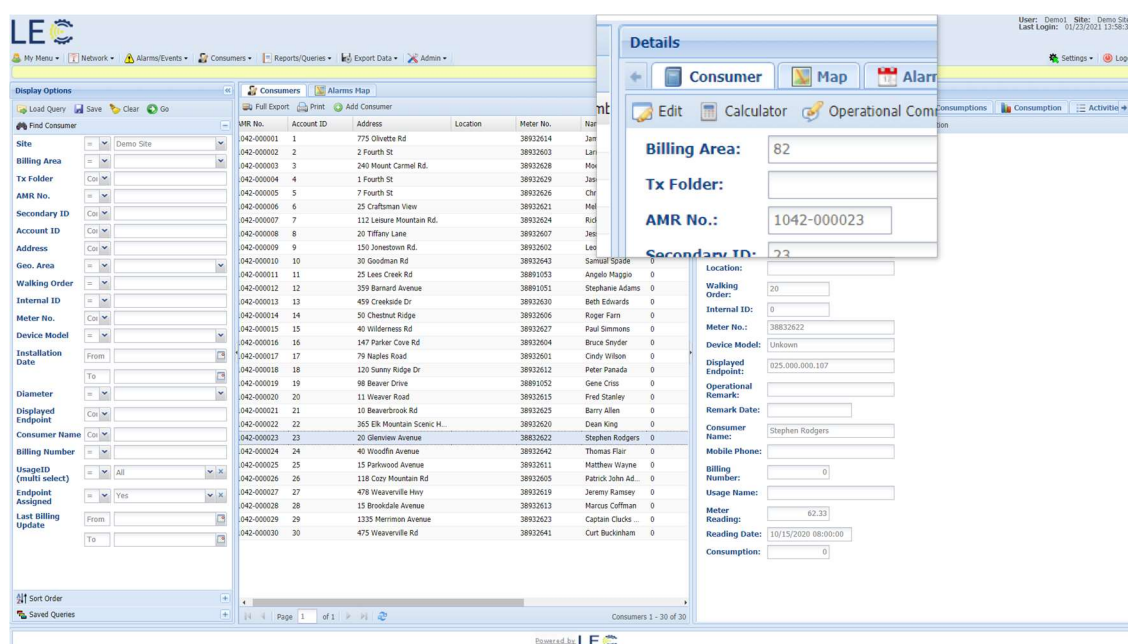
Consumers

Overview

Starting from the iQPulse main screen, enter Display Options criteria (or load a saved query) and press the “Go” icon, or click on the “Consumers” tab to display the selected consumers.

A listing of all selected consumers appears in the central window. The display of data, arrangement of columns, etc. is explained in the General Information section of this manual. The window to the left of the screen is the Display Options or Query window. This is also explained in the General Information section and is utilized to specify and sort the consumer records to be displayed.

The Details window to the right is a multi-tab window providing detailed views of all data associated with a specific consumer.



Each of these Details tabs is explained below. If you click on the drop-down arrow at the far right of the Details tabs, a drop-down menu of all of the tabs will appear – simply click on the desired tab entry to go to that Details tab (click on ➡ or ⬅ to move right or left through the tabs).

Consumers and Alarm Map

The list of consumers can be exported or printed to a report (see General Information section), and a new consumer can be added. To add a new consumer, click on “Add Consumer”.

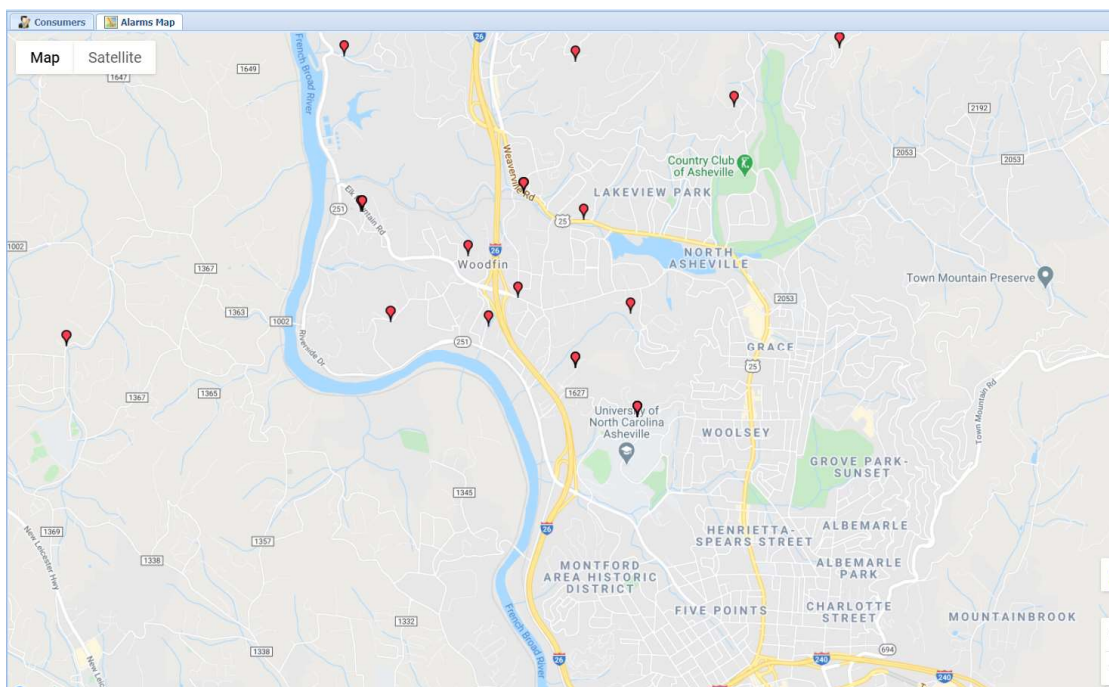
The screenshot shows the 'Create Consumer' dialog box with the following fields:

- Billing Area: [Dropdown]
- Account ID: [Text]
- Geo. Area: [Dropdown]
- Internal ID: [Text]
- *Meter No.: [Text]
- Diameter: [Dropdown]
- Meter Replacement: [Dropdown]
- *Consumer Name: [Text]
- Billing Number: [Text]
- UFR: [Text]
- Tx Folder: [Text]
- Address: [Text]
- Location: [Text]
- Latitude: [Text]
- Device Model: [Text]
- *Resolution: 1:100 [Dropdown]
- Displayed Endpoint: [Text]
- Mobile Phone: [Text]
- UsageID: [Text]
- *Secondary ID: [Text]
- ZipCode: [Text]
- Walking Order: [Text]
- Longitude: [Text]
- Installation Date: [Text]
- Meter Character: [Text]
- Port Number: 1 [Text]
- Email Address: [Text]
- Endpoint Assigned: Yes [Text]

Buttons: OK, Cancel

Enter the new consumer information and click “OK” to save.

By clicking on the “Alarms Map” tab, a map is displayed showing the location of all currently active alarms. Move the cursor over the alarm balloon in order to see the type of alarm, then click on the alarm balloon to open a pop-up window listing consumer information.



Details - Consumer

All consumer information appears in the Details-Consumer window. Click on the “Edit” icon to open a window in which information can be changed. Click on “OK” to save the changes that have been made or click on “Cancel” to discard the changes that have been made.

The screenshot shows the 'Update Consumer' dialog box with the following fields and values:

Field	Value
Billing Area	82
Tx Folder	
AMR No.	1042000023
Secondary ID	23
Account ID	23
Address	20 Glenview Avenue
Zip Code	
Geo. Area	0
Location	
Walking Order	20
Internal ID	0
Latitude	35.629349
Longitude	-82.566826
Meter No.	38832622
Device Model	0
Installation Date	08/23/2020
Diameter	Unknown
Resolution	1:10
Meter Character	0
Meter Replacement	0
Displayed Endpoint	025.000.000.107
Port Number	1
Consumer Name	Stephen Rodgers
First Name	
Last Name	
Mobile Phone	
Email Address	
Billing Number	
Usage ID	0
Endpoint Assigned	Yes
UFR	<input type="checkbox"/>

Click on the “Calculator” icon to open the Consumption Calculator tool. This tool enables you to calculate consumption between any two dates. Once the dates have been entered, click “Calculate” to generate the calculation results which are displayed in the lower part of the Calculator window. Click the “Clear” icon to clear the Calculator window data and click on “Close” to leave the Consumption Calculator.

The screenshot shows the 'Consumption Calculator' dialog box with the following fields and values:

Field	Value
Calculation Period	
From	09/01/2020
To	09/30/2020
Consumer Details	
Amr No.	1042000023
Name	Stephen Rodgers
Address	20 Glenview Avenue
Calculation Results	
# Of Days	30
Consumption Days	30
Begin Period Reading	55.82
End Period Reading	60.29
Total Consumption	4.47
High Consumption	0.24
Low Consumption	0.1
Average Consumption	0.149
Estimate	<input type="checkbox"/>

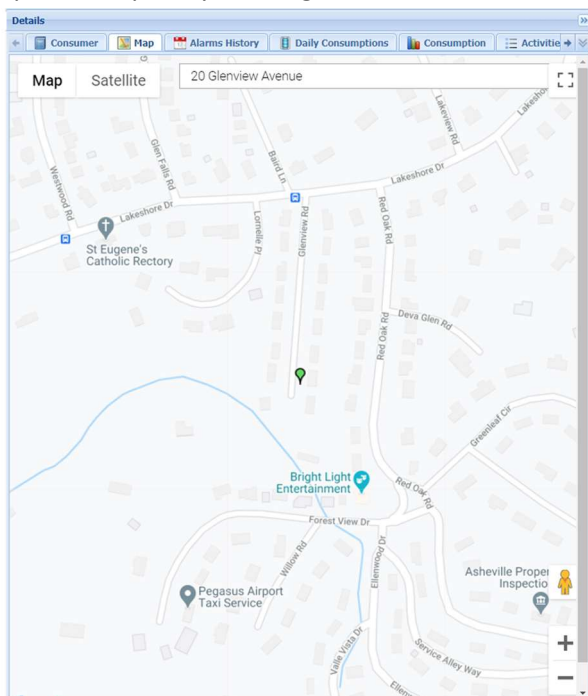
Click the “Operational Comment” icon to open a window in which a comment may be added. Click “OK” to save the comment, click “Cancel” to discard the changes that have been made.

The “Reading Calibration” icon should be accessed only under the direction of LEC. www.solveit@lecinc.com

Details – Map

Click the Details “Map” tab to see the location of the meter on Google maps. The green balloon signifies the approximate location of the water meter based upon its GIS coordinates.

On the map, click “Satellite” for a satellite view of the area. For those locations that have the StreetView option, drop the yellow figure near the location of the meter for a street view of the area.



Map View



Street View

Details – Alarms History

Click the Details “Alarms History” tab to display an historical listing of all alarms for the consumer. The type of alarm is displayed along with the Start Date, End Date, and number of days the alarm was open. Details about the alarm can also be viewed.

Export, Print, and Find (for filtering the data in this tab) functions (as explained in the General Information section) are available.

Icon	Seq	Alarm No.	Part	Device No.	Start Date	End Date	# of Days	
🚨	1	1040-000029	1	3852623	06/27/2020 14:00:00	06/29/2020 09:00:00	4	
🚨	2	1040-000029	1	3852623	06/19/2020 12:00:00	06/20/2020 09:00:00	2	
🚨	3	1040-000029	1	3852623	06/17/2020 08:00:00	06/18/2020 09:00:00	2	
🚨	4	1040-000029	1	3852623	06/15/2020 08:00:00	06/16/2020 09:00:00	2	
🚨	5	1040-000029	1	3852623	06/29/2020 10:00:00	06/29/2020 14:00:00	1	
🚨	6	1040-000029	1	3852623	06/25/2020 15:00:00	06/26/2020 14:00:00	2	
🚨	7	1040-000029	1	3852623	06/12/2020 14:00:00	06/12/2020 15:00:00	1	
🚨	8	1040-000029	1	3852623	07/28/2020 20:00:00	07/29/2020 09:00:00	2	

Details – Daily Consumption

The iQPulse system records the hourly meter reading for every meter in the system throughout the 24-hour period and posts readings at exactly 24:00 (midnight) each day (actually shown as 23:59:59) for the Daily Consumption calculation. This accurate recording for all meters in the system at the same time facilitates the daily water balancing function, whereby accurate figures for non-revenue water can be determined. By clicking the “Daily Consumption” tab, a display is created showing each of these daily meter readings and the exact consumption over the 24-hour period between these daily readings.

The screenshot shows the iQPulse software interface with the 'Daily Consumption' tab selected. The interface includes a left sidebar with various menu options like 'Full Export', 'Print', 'Find', 'Calculator', and 'Notifications'. The main area displays a table of consumption data for various consumers, including meter readings, consumption values, and last transaction dates.

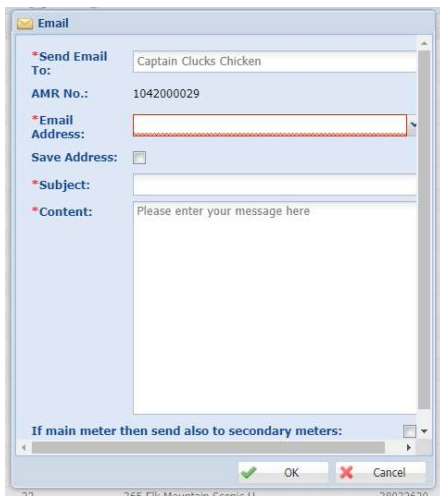
Layer Date	Meter Reading	Consumption	Last Tx Date	Le...	Alarm
09/29/2020 ...	14.820	0.050	09/30/2020 23:59:59		
09/28/2020 ...	14.770	0.020	09/29/2020 23:59:59		
09/27/2020 ...	14.750	0.060	09/28/2020 23:59:59		
09/26/2020 ...	14.690	0.060	09/27/2020 23:59:59		
09/25/2020 ...	14.630	0.030	09/26/2020 23:59:59		
09/24/2020 ...	14.600	0.040	09/25/2020 23:59:59		
09/23/2020 ...	14.560	0.030	09/24/2020 23:59:59		
09/22/2020 ...	14.530	0.030	09/23/2020 23:59:59		
09/21/2020 ...	14.500	0.030	09/22/2020 23:59:59		
09/20/2020 ...	14.470	0.030	09/21/2020 23:59:59		
09/19/2020 ...	14.440	0.030	09/20/2020 23:59:59		

Daily consumption details can be displayed, along with any open alarms each day. Export, Print, and Find (for filtering the data in this tab) functions (as explained in the General Information section) are available.

A consumption Calculator tool can be accessed by clicking on the “Calculator” icon at the top of the Daily Consumption window. The From and To dates for the consumption calculation can be specified, and the total consumption during this period calculated.

Click the “Notifications” icon at the top of the Daily Consumption window to select the type of notification to be sent to the consumer.

For email notification, enter the name and email address. The message to be sent may be entered into the text box. Click on OK to send the email.



Email

*Send Email To: Captain Clucks Chicken

AMR No.: 1042000029

*Email Address:

Save Address: ☐

*Subject:

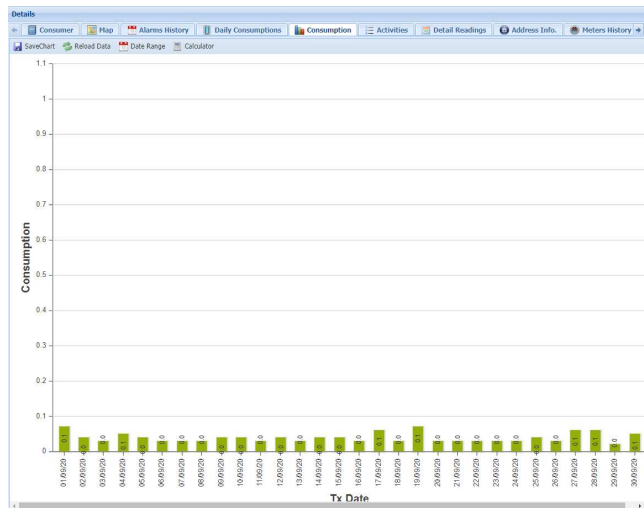
*Content: Please enter your message here

If main meter then send also to secondary meters: ☐

OK Cancel

Details – Consumption Chart

Click the “Consumption Chart” tab to graphically display the consumer’s daily consumption over the prior three-month period. The displayed chart can be saved, and the data can be reloaded. The range of dates over which the data is displayed can be changed, with a new chart displayed following entry of the new date range. To reset the chart to the default, select the “Date Range” icon at the top of the Consumption Chart and click the “Clear” icon. Click the “Calculator” icon to open the Consumption Calculator (described in the Details – Daily Consumption section).



Details - Activities

Click the “Activities” tab to open a display of recorded activities/communications regarding the consumer. Export and Print functions are available here. Click the “Add Summary” icon at the top of the Activities window to open a window via which the summary of a new activity can be added.

Various options exist for describing the type of activity, and text specific to the activity can be added and saved to the consumer’s record.

Details – Detail Readings

As explained above, the iQPulse system receives a daily transmission with 24 hourly meter readings. The system records a daily reading for daily consumption calculations at exactly 24:00 (recorded as 23:59:59). In addition, the system records each of the 24-hourly readings, as well as any special transmissions due to an event (such as a fast leak notification). Each of these detailed (hourly and special) readings are saved in the iQPulse data base and can be viewed as a part of the consumer's record.

Click the “Detail Readings” tab to display a listing of all the consumer's detailed readings, including a date and time stamp. Export, Print, Find, and Calculator functions are also available here.

Date	Reading Time	Meter Reading	Fwd Count	BckCount	Endpoint
10/14/2020	10/15/2020 04:00:00	7.826	7826	0	025.000.000
10/13/2020	10/14/2020 23:59:59	7.825	7825	0	025.000.000
10/13/2020	10/14/2020 23:00:00	7.824	7824	0	025.000.000
10/13/2020	10/14/2020 22:00:00	7.822	7822	0	025.000.000
10/13/2020	10/14/2020 21:00:00	7.820	7820	0	025.000.000
10/13/2020	10/14/2020 20:00:00	7.818	7818	0	025.000.000
10/13/2020	10/14/2020 19:00:00	7.816	7816	0	025.000.000
10/13/2020	10/14/2020 18:00:00	7.814	7814	0	025.000.000
10/13/2020	10/14/2020 17:00:00	7.813	7813	0	025.000.000
10/13/2020	10/14/2020 16:00:00	7.810	7810	0	025.000.000
10/13/2020	10/14/2020 15:00:00	7.808	7808	0	025.000.000

Details – Address Info

Click the “Address Info” tab to display the consumer's address information. Click the “Edit” icon at the top of the Entity Address window to edit the Entity Address information.

Details

Amr No.: 1042-000029

Country: UNITED STATES

Region/State: Eastern

City:

Address: 1335 Merrimon Avenue

ZipCode:

Location:

Latitude: 35.63711

Longitude: -82.57172

Coordinate X:

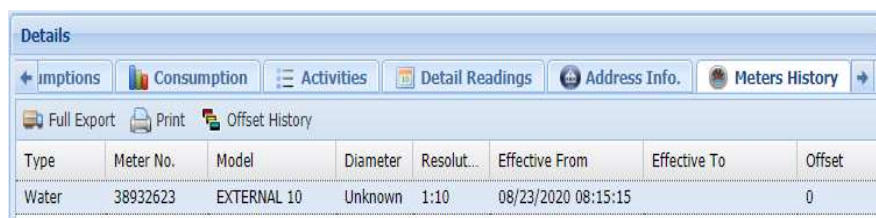
Coordinate Y:

Coordinate Z:

Details – Meters History

Whenever a consumer's meter is changed, this information can be recorded within the iQPulse database. Click the "Meters History" tab to display a listing of the history of meters that have been installed for the consumer. Export and Print functions are available here.

For existing meters to which an iQPulse external endpoint is added, an offset is entered into the iQPulse database to reflect the starting point at which the iQPulse endpoint begins to record consumption information. Click the "Offset History" icon at the top of the Meters History window in order to display a listing of offsets that have been entered for the consumer's meter.

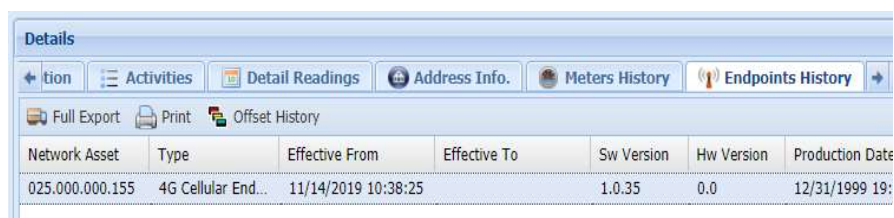


Type	Meter No.	Model	Diameter	Resolut...	Effective From	Effective To	Offset
Water	38932623	EXTERNAL 10	Unknown	1:10	08/23/2020 08:15:15		0

Details – Endpoints History

Whenever a consumer's communications endpoint is changed, this information is recorded within the iQPulse database. Click the "Endpoints History" tab to display a listing of the history of endpoints that have been installed for the consumer. Export and Print functions are available here.

For existing meters to which an iQPulse external endpoint is newly added, an offset is entered into the iQPulse database to reflect the starting point at which the iQPulse endpoint begins to record consumption information. Click the "Offset History" icon at the top of the Endpoints History window to display a listing of offsets that have been entered for the consumer's endpoint.

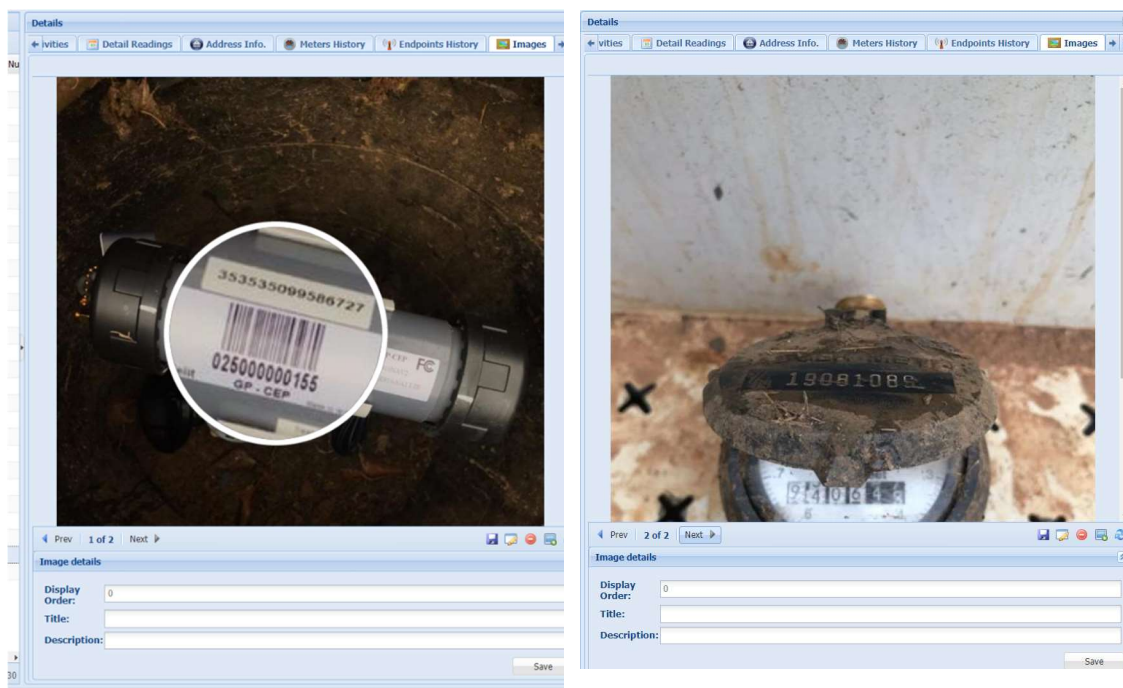


Network Asset	Type	Effective From	Effective To	Sw Version	Hw Version	Production Date
025.000.000.155	4G Cellular End...	11/14/2019 10:38:25		1.0.35	0.0	12/31/1999 19:

Details - Images

Whenever technicians visit a consumer meter installation (during initial installation or for later service calls), the technician can record images of the consumer's meter for upload into the iQPulse database. Click the "Images" tab to view all images that have been saved to the database for the consumer. Scroll through the saved images by clicking the "Next" and "Prev" arrows at the bottom left of the image. At the lower right of the image are icons to Save the image, Edit the image details, Delete the image, Upload a new image, or Refresh the current image. The scroll bar to the right of the image can be used to scroll up and down through an image. Move the cursor over the image to view the image with a

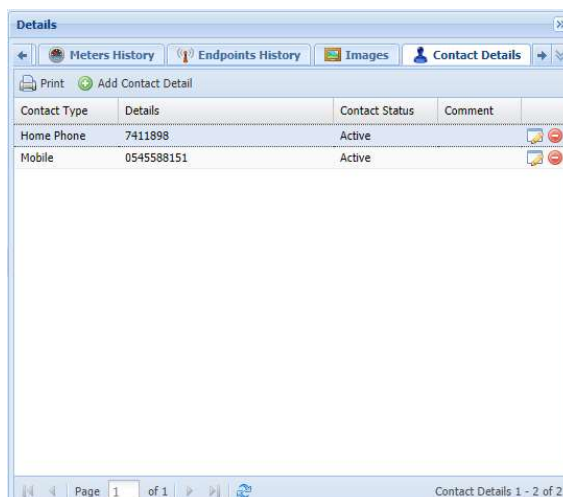
magnification window (use the mouse wheel to enlarge or reduce the size of the magnification window).



Details – Contact Details

Contact information for the consumer can be saved in the iQPulse database. This contact information is utilized for notifications and communications with the consumer. Multiple types of contact information can be entered for a consumer, including telephone number, mobile telephone number, email, etc.

Click the “Contact Details” icon to view a listing of current consumer contact information. Click the “Print” icon at the top of the Contact Details window to print a listing of the contact information, click the “Add Contact Detail” icon to add new contact information. Existing contact information can be edited or deleted by clicking on the corresponding icon at the right of the contact information line.



Details - Notifications

Every notification generated by iQPulse is recorded historically in the database. Click the “Notification” tab to display a listing of all notifications relating to the consumer. Export and Print functions are available here. Click the “View Notification” icon at the far right of a notification line item to display the details of the notification and the way the notification was distributed.

Alarm Description	Open Date	Creation Date Time	Distribution Method Desc	Communication Details
No Reception	10/18/2020 08:...	10/18/2020 08:...	Email	mcrites@lecinc...
High Consumpti...	10/07/2020 14:...	10/07/2020 14:...	Email	mcrites@lecinc...

Details – Excluded Alarms

For a specific consumer, it is possible to instruct iQPulse to exclude one or more alarms from events identified by the system. Click the “Excluded Alarms” tab to display a list of check boxes and system alarms. Click on an empty check box to signify its exclusion or click on a checked check box to re-include the alarm.

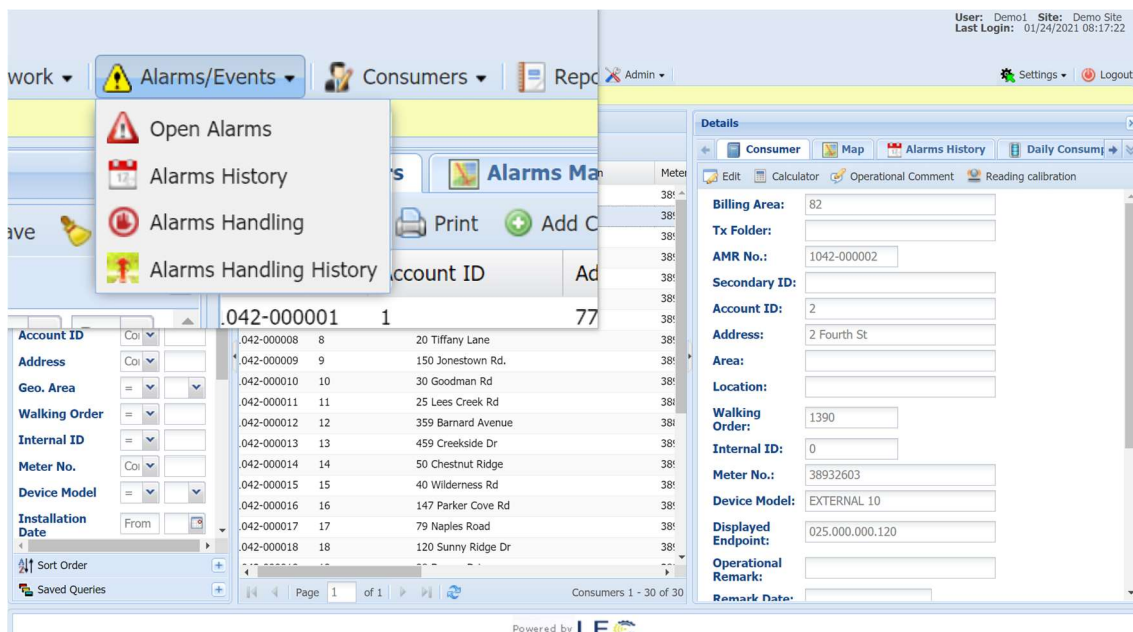
Alarm Type Name	Exclu...
Fast Leakage	<input type="checkbox"/>
Light Detection	<input type="checkbox"/>
Low Battery	<input type="checkbox"/>
Magnetic Tamper	<input type="checkbox"/>
Meter Cable Out	<input type="checkbox"/>
Meter Comm Error	<input type="checkbox"/>
No Reception (Sabotage)	<input type="checkbox"/>
Power Outage	<input type="checkbox"/>
Reverse Flow	<input type="checkbox"/>
Sabotage	<input type="checkbox"/>
Slow Leakage	<input type="checkbox"/>
Tilt	<input type="checkbox"/>
Valid Communication	<input type="checkbox"/>

Alarms & Events

Overview

Alarms and events are recorded in the iQPulse database for each endpoint as they occur or are identified. Alarms and events can be detected either by the iQPulse endpoint or through daily analysis of the data by the iQPulse software. The various types of alarms and events can be listed from the Display Options window for Alarms (see below).

Click the “Alarms & Events” menu item to display the drop-down menu of Alarms & Events functions.



After selecting a drop-down menu item, the Display Options window can be used to limit the number of alarm or event items displayed to focus on a period of time, for example, or perhaps a certain type of alarm or event.

The Display Options window has all the features defined above in the General Information section. In addition, the Alarm Types Legend can be displayed. For each alarm type, the information icon at the far right of the alarm type line can be clicked to see the alarm type description and its level of severity. In addition, the conditions that must exist to set the alarm and the conditions that must exist to clear the alarm are displayed.

To focus on one type of alarm, click the drop-down list of “Alarm Codes” in the Display Options window, and select the desired alarm code (and click on the “Go” icon). Only those consumers with the selected alarm will be included in the main display window. For Open Alarms, for example, all consumers with an open alarm of the type selected will be listed. Clicking on the Map tab will display the locations of each such open alarm on a map.

The Alarms & Events drop-down menu offers the following:

- Open Alarms – listing and distribution chart of currently open alarms
- Alarms History – listing and distribution chart of all historical alarms

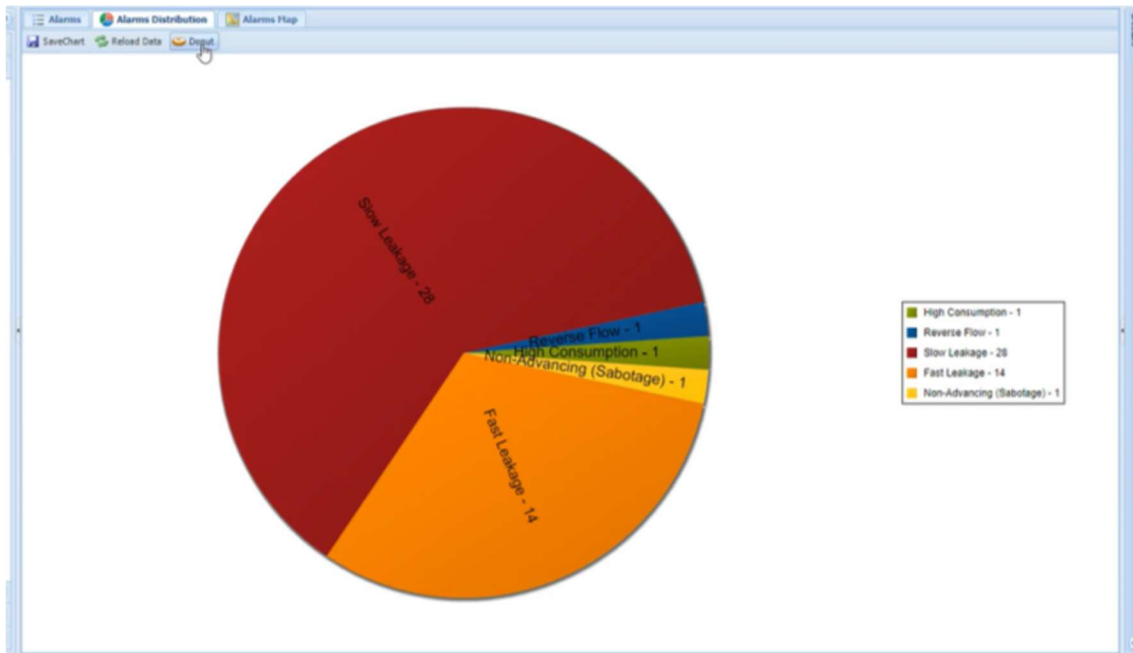
Open Alarms

Open Alarms is a function used for follow-up of current open alarms. Click the “Open Alarms” menu item in the Alarms & Events drop-down menu to view all open alarms. After clicking on “Open Alarms”, iQPulse will display a distribution pie chart of all open alarms. Each segment of the pie chart lists the total number of endpoints for each type of alarm. At the top of the alarm distribution chart are icons to Save the Chart, Reload the Data, and to display the chart as a Donut Chart (click again on this latter icon to return to a pie chart display).

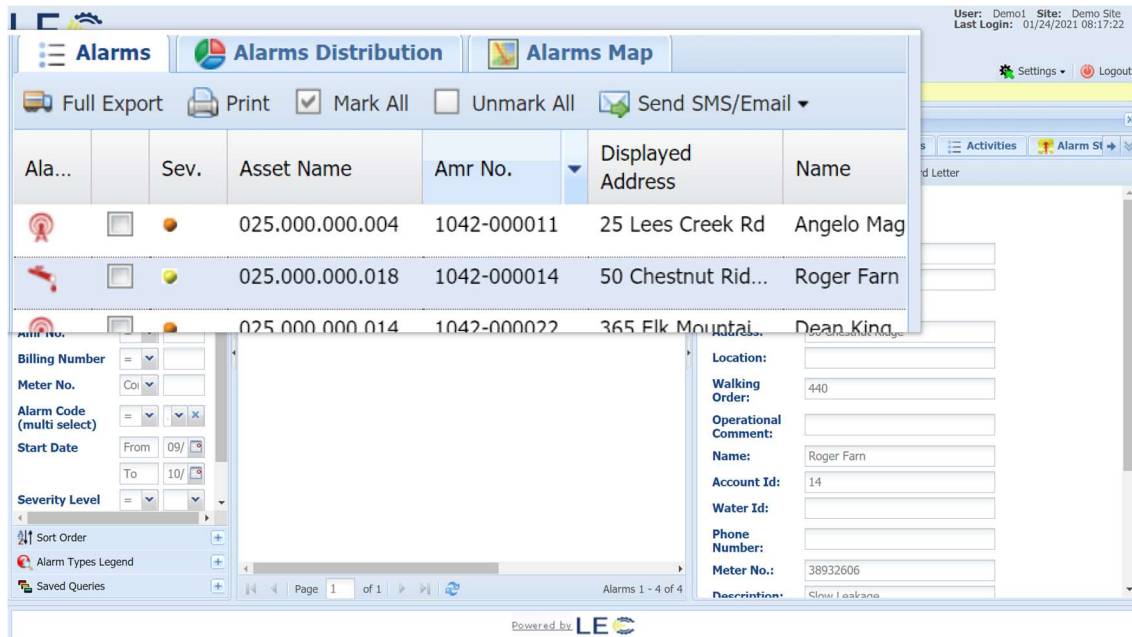
Move the cursor over each pie or donut chart segment and the segment will move away from the center of the chart. This same effect will occur when moving the cursor over the chart legend entry for a segment of the pie or donut chart.

To display specific alarm types in the Alarms tab, click on the chart segment and it will be automatically entered into the Alarm Code (Alarm Type) filter field in the Display Options

Click on chart segment in the legend entry to exclude it from the chart or to include in the chart.



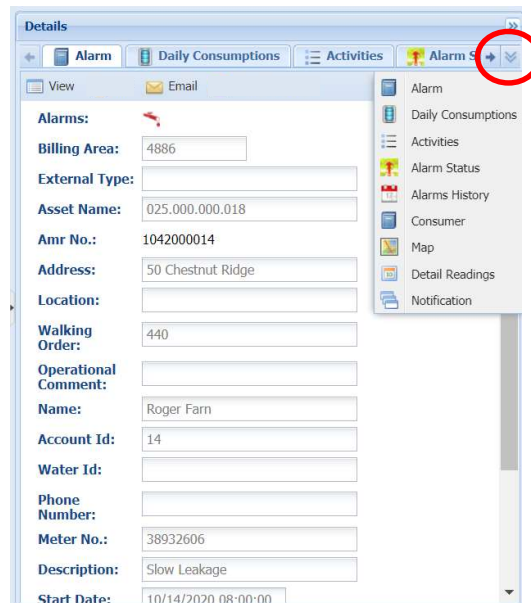
Click the “Alarms” tab to view a listing of all open alarms. Click the “Map” tab to display a map showing all open alarms. Move the cursor over an alarm balloon to see a display of the type of alarm at that location. All other map functions (Satellite and StreetView) are available.



Open Alarms – Details

After displaying the open alarms, details for an open alarm can be accessed via the Details tabs in the Details window. The View and Email functions (see below) can be accessed by clicking the corresponding icon at the right of an open alarm line in the Open Alarms window.

All tabs can be viewed by clicking on the double arrows at the far right of the Details window (click on → or ← to move right or left through the tabs):



Details – Alarm

Click the “Alarm” tab to view all information regarding the alarm. Click the “View” icon to open the View Alarm window where all alarm information is displayed. Click the “Email” icon to send an email to the customer regarding this alarm.

NOTE: Customer email must be known and entered into the iQ Pulse system prior to sending g any emails.

The 'Details' window shows the 'Alarm' tab with the following fields:

- Alarms: (icon)
- Billing Area: 4886
- External Type: (empty)
- Asset Name: 025.000.000.018
- Amr No.: 1042000014
- Address: 50 Chestnut Ridge
- Location: (empty)
- Walking Order: 440
- Operational Comment: (empty)
- Name: Roger Farn
- Account Id: 14
- Water Id: (empty)
- Phone Number: (empty)
- Meter No.: 38932606
- Description: Slow Leakage
- Start Date: 10/14/2020 08:00:00

Details – Daily Consumption

Click the “Daily Consumption” tab to display all daily consumption transmissions received from the alarm location (i.e. from the cellular endpoint). The Export, Print, Find, and Calculator functions are available.

Details – Activities

Click the “Activities” tab to display all activities relating to this alarm. Activities may include customer visit or correspondence with customers. The Export and Print functions are available. Click the “Add Summary” icon to add summary information for a selected activity.

Details – Alarm Status

Click the “Alarm Status” tab to display a listing of alarm statuses. The Export and Print functions are available here as well. At the far right of an alarm status line, click the ‘Update Alarm Status’ icon to open the Update Alarm Status window to make changes and add content to the alarm status details. Click the “Add Alarm Status” to add a new alarm status record.

The 'Update Alarm Status' dialog box is open, showing the following information:

- Alarm Name: Slow Leakage
- Alarms: (icon)
- Severity: Low
- *Alarm Status: Open
- Details: (empty text area)

The 'Details' window shows the 'Alarm Status' tab with a table of alarm statuses. A red circle highlights the 'Update Alarm Status' icon (a small document with a pencil) at the end of the first row, which is linked to the 'Update Alarm Status' dialog box.

Status Date	Alarm Status	Details	
10/14/2020 08:...	Open		(Update Alarm Status icon)

Details – Alarms History

Click the “Alarms History” tab to display all related history pertaining to this alarm. The Export and Print functions are available.

Icon	Sev.	Amr No.	Address	Name	Port	Meter
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385
[Icon]	[Sev.]	1042-000014	50 Chestnut Rid...	Roger Farn	1	385

Details – Consumer

Click the “Consumer” tab to display consumer information relating to this alarm. The Edit function is available to update or make status change

Details – Map

Click the “Map” tab to display the map location of the alarm. All map functions (Satellite and StreetView) are available from here

Details – Detail Readings

Click the “Detail Readings” tab to display all transmitted readings received from the alarm location (i.e. from the endpoint). The Export, Print, Find (for filtering the data in this tab), and Calculator functions are also available.

Details – Notifications

Click the “Notifications” tab to display all notifications relating to this alarm. The Export and Print functions are available.

Alarms History

Click the “Alarms History” menu item in the Alarms & Events drop-down menu to view the alarms history. Enter any Display Options parameters from the left panel to search and view specific alarms and click on the “Go” icon or click the Alarms History tab in the middle panel to view the all alarms history.

The screenshot displays the iQPulse Alarms History interface. The top navigation bar includes links for My Menu, Network, Alarms/Events, Consumers, Reports/Queries, Export Data, and Admin. The main content area is divided into three panels:

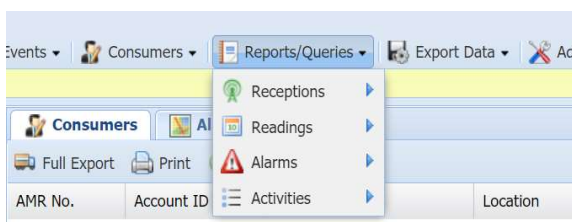
- Display Options (Left Panel):** Contains search and filter criteria for alarms, including Site Id, Billing Area, External Type, Amr No., Address, Name, Billing Number, Usage ID, Meter No., Model Id, Alarm Code, Start Date, End Date, and Is Associated To Amr.
- Alarms Distribution (Middle Panel):** A table listing alarms with columns: Icon, Sev., Amr No., Address, Name, Port, Meter No., Model, and Start Date. The table shows multiple entries for different sites and meters.
- Details (Right Panel):** A form for viewing specific alarm details, including fields for Alarm, External Type, Amr No., Address, Location, Name, Account ID, Water ID, Phone Number, Comment, Port, Meter No., Model, Start Date, and End Date.

Additional information regarding each line item in the Alarms History can be viewed in the Details Display window.

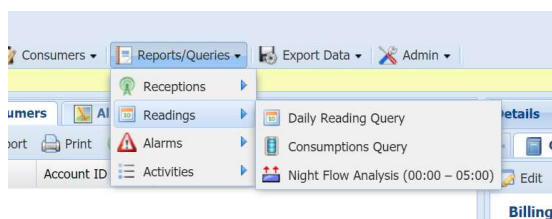
Reports and Queries

Overview

There are several standard reports and queries that have been included in iQPulse. Similar reports, and variations thereof, can also be created in other parts of the system using saved queries. It is also possible to create a report or an Excel file from virtually any data window in the system. As explained above, report formats can be changed while in Display Design Mode. The standard reports that are available are as follows:



A report showing network Reception Levels

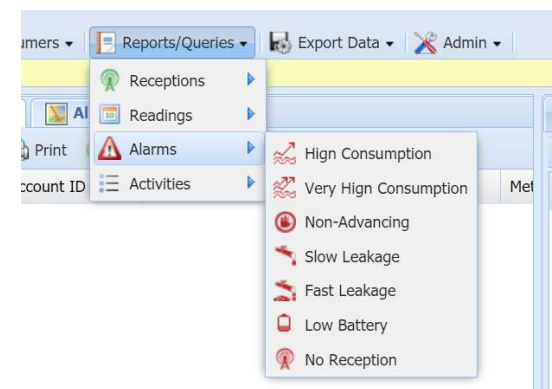


Various readings reports:

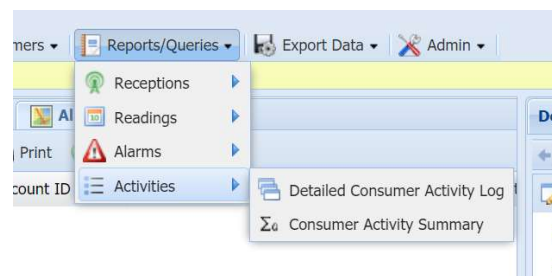
Daily Readings

Consumption (Over a Period)

Night Flow Analysis



Alarm report for a selected type of alarm



Activities Reports: Detailed and Summary

Receptions Query

Click the menu item “Reports & Queries”, and from the drop-down menu, select Receptions – Receptions Query.

In the Display Options window, specify the transmission (Tx) period (From/To) and any other filter parameters. When clicking on the “Go” icon, a sub-menu will be displayed:

Click on “Data Preparation” to create the reception data of the query.

Click on “Show Data” to display the Receptions data that have been prepared for the selected transmission period.

For sites with 10,000 or more endpoints, first click on “Data Preparation” and then either “Show Data” or “Background Report” (this is necessary as iQPulse is a web-based application, and the processing of large amounts of data could lead to a timeout on your Internet connection).

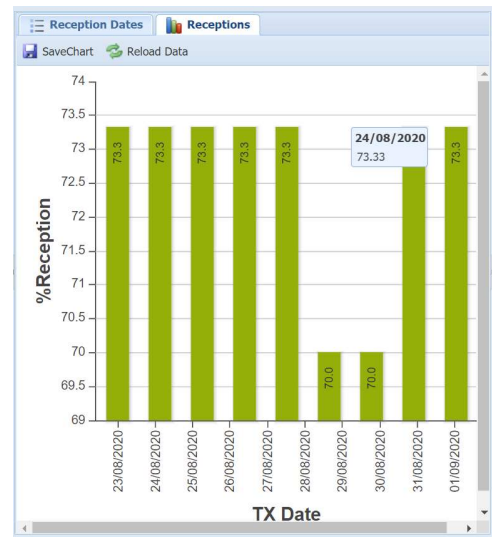
Click on “Background Report” to create a report in the background (i.e. while you perform other functions within the system). The Background Report will be sent to the email address you have specified.

Show Data

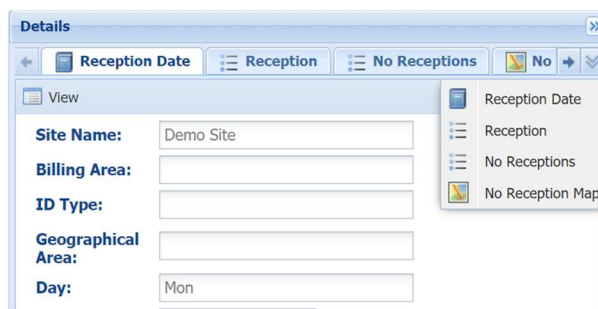
This display will show a summary of endpoint receptions for the period specified in the Display Options window. For each day (line item) in the display, the total number of endpoints (associated with consumers) will be shown, along with the total number of these endpoints that were successfully received. The percentage reception is calculated and presented. The Print function is available.

Day	Date	Total Associated Endpoints	Total Active Endpoints	%Reception
Mon	08/31/2020	30	22	73.33
Sun	08/30/2020	30	22	73.33
Sat	08/29/2020	30	22	73.33
Fri	08/28/2020	30	22	73.33
Thu	08/27/2020	30	22	73.33
Wed	08/26/2020	30	21	70
Tue	08/25/2020	30	21	70
Mon	08/24/2020	30	22	73.33
Sun	08/23/2020	30	22	73.33

This same information can be shown in the form of a graph by clicking the “Receptions” tab. Move the cursor over a bar in the graph to display the date and percentage reception. The SaveChart and Reload Data functions are available.



Detail information for each line item can be seen in the Details window. Click on the drop-down arrow on the far right to display a drop-down menu of all tabs (click on → or ← to move right or left through the tabs):



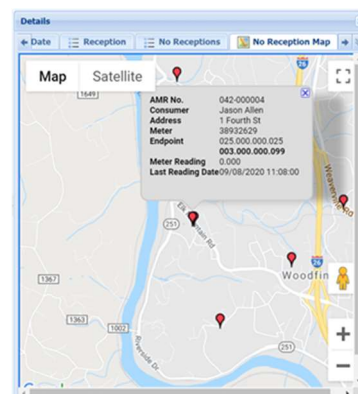
Click here to open
drop-down menu of
Details tabs

In the “Reception Date” tab, click the “View” icon to view the reception date details.

Click on the “Reception” tab to display a listing of all endpoints received on that date (click on the View Consumer icon at the far right of the endpoint line to view consumer details). The Export and Print functions are available.

Click the “No Receptions” tab to display a listing of all endpoints that were not received on that date (click on the View Consumer icon at the far right of the endpoint line to view consumer details). The Export and Print functions are available.

Click the “No Receptions Map” tab to display a map showing all endpoints that were not received on that date. Click on an endpoint balloon to display consumer information for the non-received endpoint.



Daily Reading

Click on the menu item “Reports & Queries”, and from the drop-down menu, select Readings – Daily Reading Query.

A current meter reading for every endpoint will be displayed, along with a date and time stamp of the last reading. Click the “View Daily” Reading icon at the far right of the daily meter reading line to view the details of the daily meter reading. The Export and Print functions are available.

Mtr No.	Name	Address	Account Secondary Id	Billing Number	Meter No.	Diameter Name	Last Reading	Reading Date Time
042000023	Stephen Rodgers	20 Glenview Av...	23	0	38932622	Unknown	62.33	10/15/2020 08:00:00
042000024	Thomas Flair	40 Woodfin Ave...		0	38932642	Unknown	32.51	10/15/2020 08:00:00
042000028	Marcus Coffman	15 Brookdale Av...		0	38932613	Unknown	56.71	10/15/2020 08:00:00
042000029	Captain Clucks ...	1335 Merrimon ...		0	38932623	Unknown	232.08	10/15/2020 08:00:00
042000005	Christy Park	7 Fourth St		0	38932626	Unknown	55.75	10/15/2020 08:00:00
042000012	Stephanie Adams	359 Barnard Av...		0	38891051	Unknown	111.15	10/15/2020 08:00:00
042000013	Beth Edwards	459 Creekside Dr		0	38932630	Unknown	31.54	10/15/2020 08:00:00
042000014	Roger Farn	50 Chestnut Rid...		0	38932606	Unknown	7.826	10/15/2020 08:00:00
042000018	Peter Panada	120 Sunny Ridg...		0	38932612	Unknown	27.32	10/15/2020 08:00:00
042000006	Melvin Spark	25 Craftsman Vi...		0	38932621	Unknown	24.01	10/15/2020 06:00:00
042000007	Rick Hayworth	112 Leisure Mo...		0	38932624	Unknown	52.3	10/14/2020 22:00:00
042000003	Moe Howard	240 Mount Car...		0	38932628	Unknown	32.71	10/14/2020 20:00:00
042000016	Bruce Snyder	147 Parker Cov...		0	38932604	Unknown	49.89	10/14/2020 20:00:00
042000017	Cindy Wilson	79 Naples Road		0	38932601	Unknown	0.02	10/14/2020 14:00:00
042000015	Paul Simmons	40 Wilderness Rd		0	38932627	Unknown	15.31	10/14/2020 14:00:00
042000001	James John	775 Olivette Rd		0	38932614	Unknown	6.523	10/14/2020 14:00:00
042000008	Jessie Minx	20 Tiffany Lane		0	38932607	Unknown	12.51	10/14/2020 14:00:00
042000006	Patrick John Art	118 Crow Mount		0	38932605	Unknown	28.06	10/14/2020 14:00:00

Consumption

Click the menu item “Reports & Queries”, and from the drop-down menu, select Readings – Consumption Query.

The default display will show consumption totals per consumer for the previous 15 days (this period can be adjusted in the Display Options window). For each consumer (line item) in the display, numerous data elements are displayed along with the total consumption for the period as well as the last daily consumption figure. Click the “View Consumption” icon at the far right of the consumption line to open the View Consumption window. The Export and Print functions are available.

As with all display data windows and query results in iQPulse, the format of the query results (e.g. column order, columns to be included or excluded, and sort order) can be defined for the current session or permanently (via Display Design Mode).

User: Demo1 Site: Demo Site Last Login: 01/25/2023 11:43:44

My Menu Network Alarms/Events Consumers Reports/Queries Export Admin

Menu : Reports/Queries | Readings | Consumption Query Settings Logout

Consumption Query

Display Options
 Load Query Save Clear
 Find Consumption
 Tx Folder
 Water ID
 Amr No.
 Consumer Name
 Address
 Meter No
 Account No
 Billing No
 Usage Code (multi select)
 Area
 Sub Area
 Begin Period
 End Period
 Sort Order
 Saved Queries

Consumption
 Full Export Print

Water ID	Amr No.	Consumer Name	Address	Meter No	Account No	Billing No	No. Of Days	No Of Consumed Days
	1042-000011	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	30	30
	1042-000012	Stephanie Adams	359 Barnard Avenue	38891051	12	0	30	30
	1042-000013	Beth Edwards	459 Creekside Dr	38932630	13	0	30	30
	1042-000014	Roger Farn	50 Chestnut Ridge	38932606	14	0	30	28
	1042-000015	Paul Simmons	40 Wilderness Rd	38932627	15	0	30	30
	1042-000016	Bruce Snyder	147 Parker Cove Rd	38932604	16	0	30	30
	1042-000017	Cindy Wilson	79 Naples Road	38932601	17	0	30	30
	1042-000018	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	30	30
	1042-000019	Gene Criss	98 Beaver Drive	38891052	19	0	30	30
	1042-000020	Fred Stanley	11 Weaver Road	38932615	20	0	30	30
	1042-000021	Barry Allen	10 Beaverbrook Rd	38932625	21	0	30	0
	1042-000022	Dean King	365 Elk Mountain Scenic Hwy	38932620	22	0	30	30
23	1042-000023	Stephen Rodgers	20 Glenview Avenue	38832622	23	0	30	30
	1042-000024	Thomas Flair	40 Woodfin Avenue	38932642	24	0	30	30
	1042-000025	Matthew Wayne	15 Parkwood Avenue	38932611	25	0	30	0
	1042-000026	Patrick John Adams	118 Cozy Mountain Rd	38932605	26	0	30	30
	1042-000027	Jeremy Ramsey	478 Weaverville Hwy	38932619	27	0	30	30

Page 1 of 1

Powered by LE

A helpful tool in managing and viewing consumption information is to sort the query results by Total Consumption (in descending order), showing the highest consumers during the specified period being listed first.

LE

User: Demo Site Demo Site
Last Login: 01/25/2021 11:43:44

My Menu Network Alarms/Events Consumers Reports/Queries Export Data Admin

Menu: Reports/Queries | Readings | Consumption Query

Display Options

Load Query Save Clear

Find Consumption

Full Export Print

No. Of Days	No Of Consu... Days	Begin Period - Reading Date	End Period - Reading Date	Esti...	Ave con	Total Consumption...	Reading At End Calc Period	Last Reading Date	Last Read
30	30	09/01/2020 02:00:00	10/01/2020 06:59:59	Yes	0.5	17.260	202.240	10/15/2020 08:00:00	232
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.3	0.3	11.540	104.770	10/15/2020 08:00:00	111
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.2	0.2	8.150	70.450	10/11/2020 14:00:00	75
30	30	09/01/2020 06:59:59	10/01/2020 02:00:00	Yes	0.2	8.030	112.630	01/26/2021 02:00:00	121
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.2	0.2	6.070	54.410	10/15/2020 08:00:00	56
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.1	0.1	5.390	47.480	10/14/2020 20:00:00	49
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.1	0.1	5.150	53.440	10/15/2020 08:00:00	55
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.1	0.1	4.700	60.290	10/15/2020 08:00:00	62
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.1	0.1	4.700	22.520	10/15/2020 06:00:00	24
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.1	0.1	4.700	50.690	10/14/2020 22:00:00	52
30	30	08/26/2020 14:00:00	10/01/2020 06:59:59	Yes	0.1	5.150	41.917	10/13/2020 14:00:00	43
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.0	0.0	4.700	28.470	01/26/2021 02:00:00	44
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.0	0.0	4.700	30.420	10/15/2020 08:00:00	31
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.062	0.062	2.740	31.720	10/14/2020 20:00:00	32
30	28	08/23/2020 02:00:00	10/01/2020 06:59:59	Yes	0.075	2.247	64.517	10/15/2020 08:00:00	7.8
30	30	09/01/2020 02:00:00	10/01/2020 02:00:00	Yes	0.068	2.050	24.370	10/15/2020 08:00:00	27
30	30	09/01/2020 06:59:59	10/01/2020 06:59:59	0.068	0.068	2.050	31.350	10/15/2020 08:00:00	32

Sort Order

With this information, the consumption patterns of the highest consumers can be first analyzed in order to determine if any issues exist with these consumers (e.g. Night Flow Analysis to determine consumer-side leakage after the water meter).

Right-click menu is available on each consumer line to allow further investigation of its status.

Night Flow Analysis

The Night Flow Analysis is based upon meter readings taken for every meter at exactly midnight (00:00 or 24:00) and at 05:00. The consumption between these two points in time is the night flow. The analysis of night flow is an important tool in determining if there is suspected leakage at the consumer's site. With the exception of selected commercial and industrial consumers, there should be little if any consumption during the hours of twelve midnight until 5:00 AM. If there is significant consumption during these hours – especially on a continuing basis – this may be an indication of a consumer-side leak.

Click the menu item “Reports & Queries”, and from the drop-down menu, select Readings – Night Flow Analysis. Click the “Go” icon in the Display Options window or click the “Night Flow Analysis” tab to display the query results.

The default display will show the night flow analysis per consumer for the previous eight nights (this period can be adjusted in the Display Options window). For each consumer (line item) in the display, numerous data elements are displayed along with the total night flow consumption for the period as well as the average night flow consumption figure. Click the “View Night Flow Analysis” icon at the far right of the consumer line to open the View Night Flow Analysis window. The Export and Print functions are available.

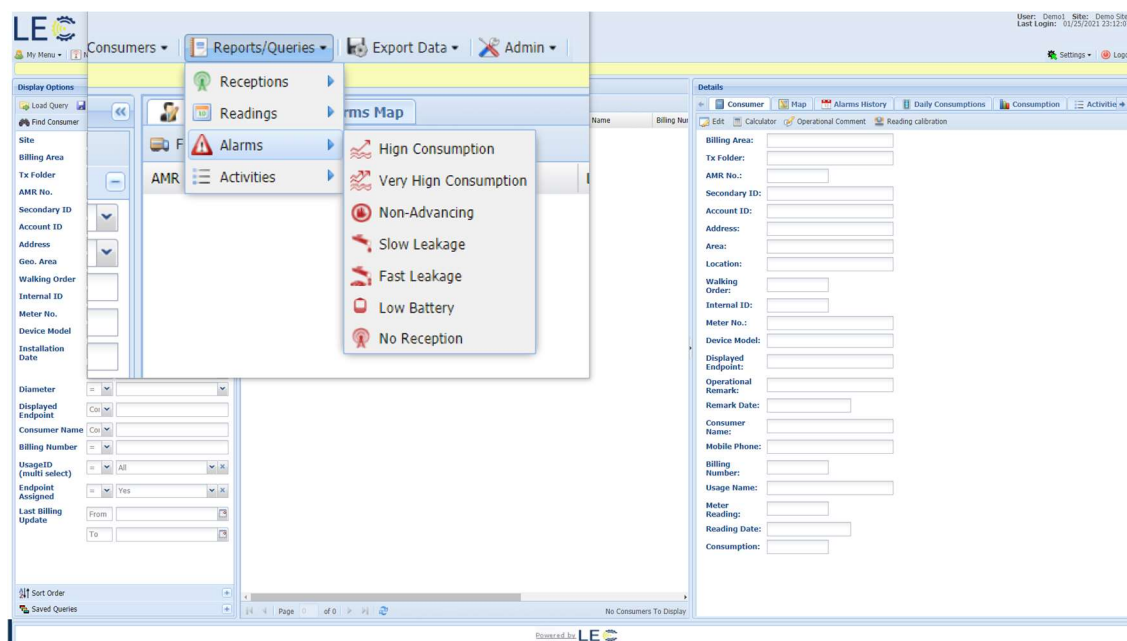
The screenshot displays the 'Night Flow Analysis' window in the iQPulse application. The interface includes a top navigation bar with 'Reports/Queries' and 'Night Flow Analysis (00:00 - 05:00)'. A left sidebar contains various filters such as 'Tx Folder', 'Water ID', 'Amr No.', 'Consumer Name', 'Address', 'Meter No', 'Account No', 'Billing No', 'Usage Code', 'Area', 'Sub Area', 'Begin Period', and 'End Period'. The main area shows a table of consumer data with columns: Meter No, Account No, Billing No, No. Of Nights, No Of nights for calculat..., No Of nights with consum..., Estim..., Avg. Night Flow, and Total Night Flow. The table lists various consumers with their respective meter and account numbers. The bottom of the window shows 'Page 1 of 1' and 'Night Flow Analysis 1 - 30 of 30'.

Should needed data is missing to calculate the night flow, an estimation is automatically calculated. Consumers with estimation calculation will be marked in the Estimated field.

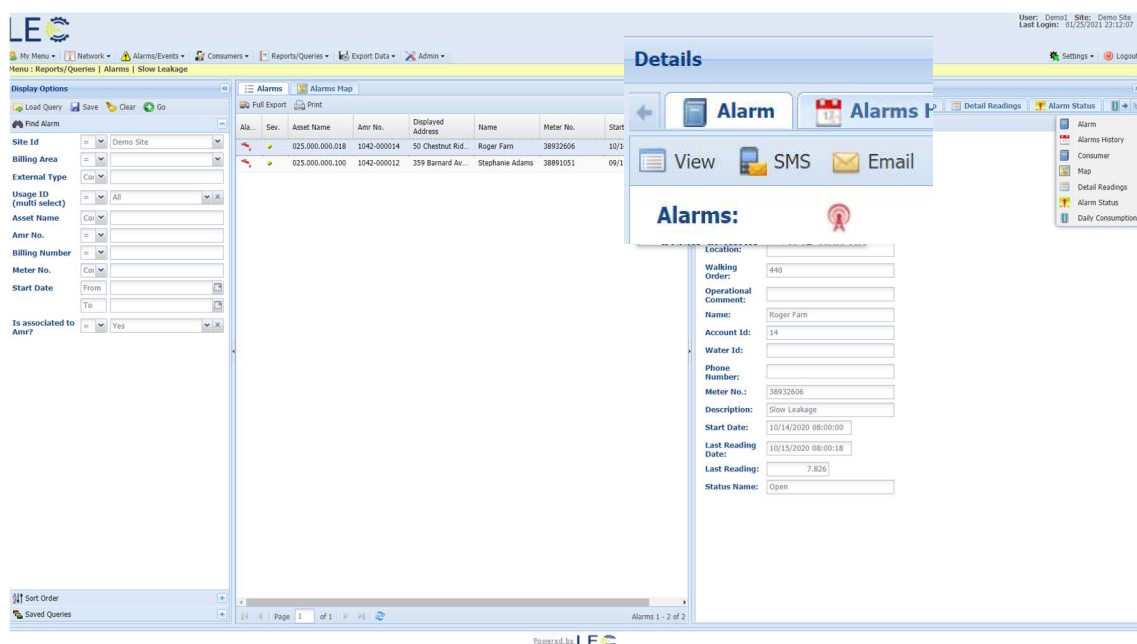
Right-click menu is available on each consumer line to allow further investigation of its status.

Alarms

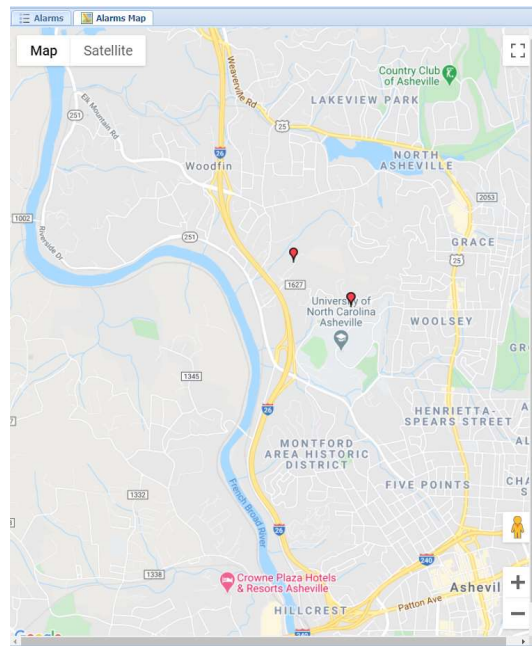
Click the menu item “Reports & Queries”, and from the drop-down menu, select “Alarms” – then the specific alarm to be reported (e.g. Fast Leakage).



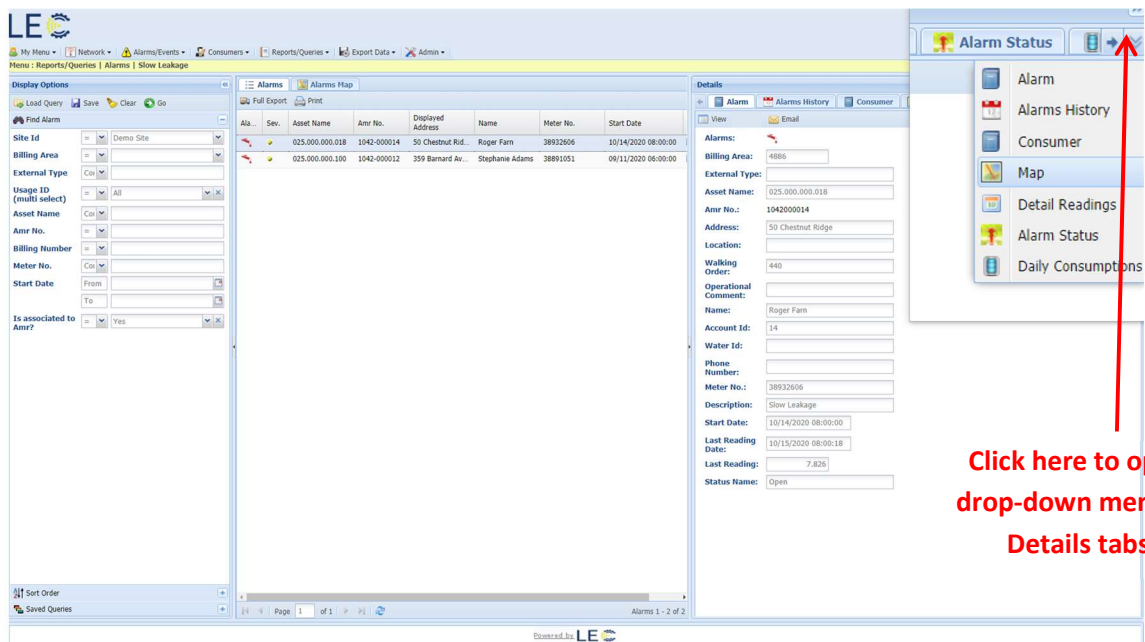
A list of all consumers, with the selected Alarm, whose status is currently “Open” will be displayed. At the far right of the consumer line are three icons that can be selected or at the top of the Alarm Details window to the right: (1) View Alarm – to open the View Alarm window, (2) Send an SMS to Consumer – to send an alarm message to the consumer via text message, and (3) Send an Email to Consumer – to send an alarm message to the consumer via email. The Export and Print functions are available.



Click the “Alarms Map” tab to display the selected open alarms on a map. Click on an alarm balloon to view a summary of the consumer details. Click the “View Consumer Details” link in this window to display all consumer information.



If you click on the drop-down arrow at the far right of the Details tabs, a drop-down menu of all of the tabs will appear – simply click on the desired tab entry to go to that Details tab (click on → or ← to move right or left through the tabs).



For a selected consumer alarm, view the Alarm details in the Details window (Alarm tab). At the top of the Details – Alarm window are three icons that can be selected: : (1) View Alarm – to open the View

Alarm window, (2) Send an SMS to Consumer – to send an alarm message to the consumer via text message, and (3) Send an Email to Consumer – to send an alarm message to the consumer via email.

Click the “Alarms History” tab to display a history of alarms for the consumer. Export and Print functions are available.

Click the “Consumer” tab to view consumer information. Click the “Edit” icon to open the Update Consumer window.

Click the “Map” tab to display the alarm location on a map. All map functions are available (Satellite, StreetView, etc.).

Click the “Detail Readings” tab to display a listing of the consumer’s detail readings. The Export, Print, Find, and Calculator functions are available.

Click the “Alarm Status” tab to display the status of each alarm for the consumer. Click the “Update Alarm Status” icon at the far right of the line to open the Update Alarm Status window. Export and Print functions are available.

Click the “Daily Consumption” tab to display a listing of the consumer’s detail readings. Export, Print, Find, and Calculator functions are available.

Activities

All system activities involving the consumer are recorded within the system. These activities might include email message, tech field service notes, etc.

Click the menu item “Reports & Query”, and from the drop-down menu, select Activities – Detailed Consumer Activity Log. Enter any Display Options parameters and click on the Go icon or the Activities tab.

An Activities window will be displayed listing all activities. Click the “View Activity” icon at the far right of each line to open the View Activity window. Export and Print functions are available.

Amr No.	Consumer Name	Activity Date	Activity Name	Alarm Name	Alarm Start Date	Alarm End Date	Distribution Method	ContactInfo	Subject	Updated by User
1042-000029	Captain Clucks	01/24/2021 13:53:49	Correspondence...				Pre-defined Letter	7777777777	דיוור	Demo1
1042-000029	Captain Clucks	01/24/2021 13:53:46	Correspondence...				Pre-defined Letter	7777777777	דיוור	Demo1
1042-000029	Captain Clucks	01/24/2021 13:53:43	Correspondence...				Pre-defined Letter	7777777777	דיוור	Demo1
1042-000029	Captain Clucks	01/24/2021 13:53:41	Correspondence...				Pre-defined Letter	7777777777	דיוור	Demo1
1042-000029	Captain Clucks	01/24/2021 13:53:22	Correspondence...				Pre-defined Letter	7777777777	דיוור	Demo1

Click the menu item “Reports & Queries”, and from the drop-down menu select Activities – Consumer Activity Summary. Enter any Display Options parameters and click the “Go” icon or the “Activities” tab.

A window will be displayed that presents a daily summary of activities by type over the previous month. The range of dates to be used for this summary can be changed in the Display Options window. Export and Print functions are available.

Click the “Summary by Alarms” tab to display a daily summary of activities by type of alarm. Export and Print functions are available.

Whether viewing a daily summary line summarized by activities or summarized by alarm, the details for the daily summary can be viewed in the Details window. Click the “Summary by Activity” tab to view the number of activities by type of activity. Click the “Summary by Alarm” tab to view the number of activities by type of alarm. Click the “Activities” tab to display a list of activities for the day selected. Click the “View Activity” icon at the far right of the activity line to open the View Activity window. Export, Print, and Find functions are available.

Network – Endpoints

Overview

The iQPulse network consists of Cellular Endpoints that collect and transmit data. The Endpoints attempt to communicate across the cellular network at least once per day. During these daily communications sessions, the real-time clock in each Endpoint is synchronized, daily information is collected (e.g. 24 individual hourly meter readings), and parameters are updated in the Endpoint based upon instructions received from the iQPulse system.

Endpoints can be registered onto the iQPulse system by a field technician or the utility office, or they can automatically register following the first transmission from the Endpoint. Thus, even before the Endpoint (and the meter to which it is connected) has been assigned to a consumer, the iQPulse system “sees” or “onboards” the Endpoint.

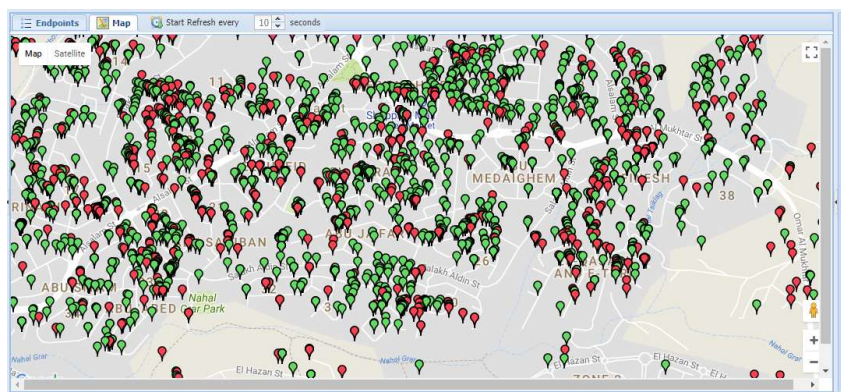
This section addresses those aspects of monitoring the status of Endpoints and the reception of data from the Endpoints. These are tools for monitoring the “health” of the wireless connection.

Click the “Menu Item Network” icon and select Endpoint. Enter any Display Options parameters and click the “Go” icon or the Endpoints tab. The system will display all active and inactive endpoints at the site. Export and Print functions are available.

The screenshot shows the iQPulse software interface. The main window displays a table of endpoints with columns: Consumer Name, Description, Endpoint IP, AMR No., Last Event, and Software. The table lists various consumers such as Angelo Maggio, Beth Edwards, Fred Stanley, Curt Buckenham, Dean King, Jesse Hinx, Roger Farn, Leonard Marx, Jason Allen, Samuel Spode, Melvin Spark, Matthew Wayne, Paul Simmons, Rick Hayworth, Bruce Sordier, Stephanie Adams, Barry Allen, Stephen Rodgers, Larry Fite, Thomas Flor, Candy Wilcox, Patrick John Adams, James John, Jeremy Ramsey, Peter Panada, and Gene Criss. The right sidebar shows details for the selected endpoint, including Site Name, Consumer Name, Connected to, AMR on Date, Description, Network Name, Endpoint, Endpoint IP, #Of Ports, AMR No., Last Event, Latitude, Longitude, Software Ver., Comment, BTS IP, Prod. Date, Status Date, Active Name, and Last Reading.

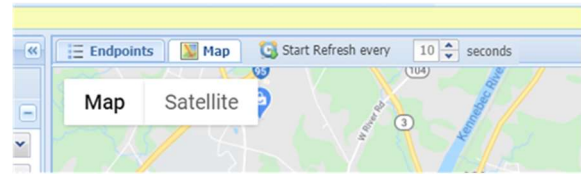
Map

In the Endpoints display window, click the “Map” tab to display a map showing all endpoints deployed at the site.



Start/Stop/Refresh

Often times it may be necessary to monitor endpoints communications into the iQ Pulse portal for example during installation (i.e. updated with the latest endpoint transmission information). The network information in the Endpoints window can be refreshed every few seconds up to 1 minute. By default, the setting is set to not update. To refresh the window periodically, specify the number of seconds for refresh (default is 10 seconds) and click on the Start Refresh icon at the top of the Endpoints window. To stop the refreshing of the window, click on the Stop Refresh icon at the top of the Endpoints window.



Details

Detail information for each Endpoint alarm line item can be found in the Details window.

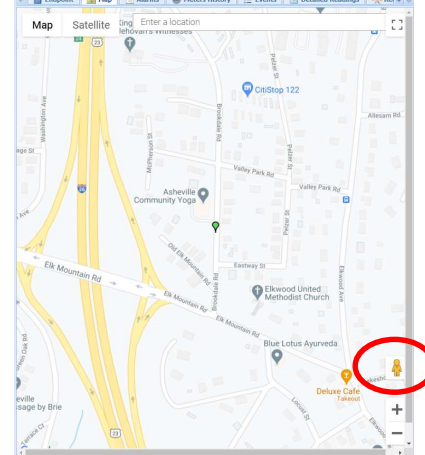
Details – Endpoints

All endpoint information appears in the Details-Endpoint window. Click the “Edit” icon to open a window in which information can be changed. Click “OK” to save the changes that have been made or click “Cancel” to discard the changes that have been made.

Details – Map

Click the “Details Map” tab to see the location of the endpoint on Google maps. The green (No Alarm) or red (Existing Alarm) balloon signifies the location of the endpoint based upon its GIS coordinates.

On the map, click “Satellite” for a satellite view. For those locations that have the StreetView icon near the location of the endpoint, drop the yellow StreetView icon near the location of the endpoint for a street view of the area. A balloon will signify the approximate location of the endpoint.



Details – Alarms

Click the “Details Alarms” tab to display a historical listing of all alarms for the endpoint. The type of alarm and its severity is displayed along with the Start Date and End Date. Details about the alarm can also be viewed.

Export and Print functions are available.

con	sev	Alarm No.	Address	Name	Port	Meter No.	Model	Start Date
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	11/14/2020 231
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	00/26/2020 171
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	06/26/2020 146
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	04/17/2020 146
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	02/21/2020 131
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	02/08/2020 146
1	1	1042-00019	98 Beaver Drive	Gene Crisis	1	38891032	EXTERNAL 10	12/13/2019 121

Details – Meters History

Click the “Meters History” tab to display a historical listing of all meters connected to the endpoint. The Effective “From Date” and the Effective “Through Date” are displayed. Details about the meter can also be viewed.

The Print function is available.

Device	Port	Effective From	Effective To	Meter Replace.
1800000034	1	04/06/2013 10:38:27		No

Details – Events

Click the “Events” tab to open a display of recorded events regarding the endpoint. The Export, Print, Find, and Start/Stop Refresh functions are available. Details about the event can also be viewed.

Event Date Time	Event Id	Event Type	Description	Deployed Network Target Object Id	External Event Id
01/27/2021 02:00:00	3201480	Consumption	Consumption	025.000.000.148	120606
01/26/2021 14:00:00	3201578	Consumption	Consumption	025.000.000.148	120467
01/24/2021 02:00:00	3201520	Consumption	Consumption	025.000.000.148	120294
01/23/2021 02:00:00	3201380	Consumption	Consumption	025.000.000.148	120118
01/24/2021 14:00:00	3201221	Consumption	Consumption	025.000.000.148	120603
01/24/2021 02:00:00	3201177	Consumption	Consumption	025.000.000.148	120440
01/23/2021 14:00:00	3201078	Consumption	Consumption	025.000.000.148	120204
01/23/2021 02:00:00	3201000	Consumption	Consumption	025.000.000.148	120095
01/22/2021 14:00:00	3200937	Consumption	Consumption	025.000.000.148	120736
01/22/2021 02:00:00	3200889	Consumption	Consumption	025.000.000.148	120713
01/21/2021 14:00:00	3200829	Consumption	Consumption	025.000.000.148	120702
01/21/2021 02:00:00	3200770	Consumption	Consumption	025.000.000.148	120738
01/20/2021 14:00:00	3200669	Consumption	Consumption	025.000.000.148	120715
01/20/2021 02:00:00	3200619	Consumption	Consumption	025.000.000.148	120548
01/19/2021 14:00:00	3200523	Consumption	Consumption	025.000.000.148	120711
01/19/2021 02:00:00	3200473	Consumption	Consumption	025.000.000.148	120554
01/18/2021 14:00:00	3200378	Consumption	Consumption	025.000.000.148	120309
01/18/2021 02:00:00	3200328	Consumption	Consumption	025.000.000.148	120161
01/17/2021 14:00:00	3200242	Consumption	Consumption	025.000.000.148	120886
01/17/2021 02:00:00	3200183	Consumption	Consumption	025.000.000.148	120735

Details – Detailed Readings

All endpoint communications are received by the system throughout a 24-hour period. These communications may be scheduled readings or special transmissions because of alerts or events. Each of these detailed readings is saved in the iQPulse data base and can be viewed as a part of the endpoint’s record.

Click the “Detail Readings” tab to display a listing of all of the endpoint’s detailed readings, including a date and time stamp. Export, Print, and Find functions are available.

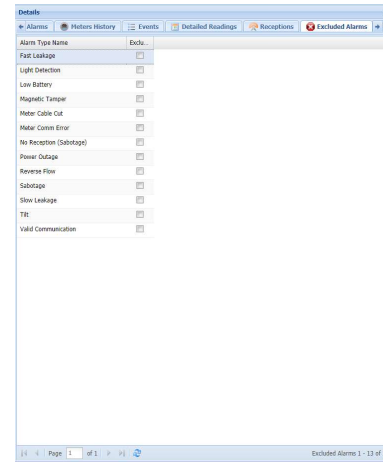
Date	Reading Time	Meter Reading	Fuel Count	Box Count	Endpoint
01/26/2021	01/27/2021 02:00:00	121.470	12147	0	025.000.000.148
01/26/2021	01/27/2021 01:00:00	121.471	12147	0	025.000.000.148
01/26/2021	01/27/2021 00:00:00	121.469	12146	0	025.000.000.148
01/26/2021	01/26/2021 23:00:00	121.460	12146	0	025.000.000.148
01/26/2021	01/26/2021 22:00:00	121.460	12146	0	025.000.000.148
01/26/2021	01/26/2021 21:00:00	121.460	12146	0	025.000.000.148
01/26/2021	01/26/2021 20:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 19:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 18:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 17:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 16:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 15:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 14:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 13:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 12:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 11:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 10:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 09:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 08:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 07:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 06:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 05:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 04:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 03:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 02:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 01:00:00	121.450	12145	0	025.000.000.148
01/26/2021	01/26/2021 00:00:00	121.440	12144	0	025.000.000.148
01/26/2021	01/25/2021 23:00:00	121.440	12144	0	025.000.000.148
01/26/2021	01/25/2021 22:00:00	121.440	12144	0	025.000.000.148
01/26/2021	01/25/2021 21:00:00	121.440	12144	0	025.000.000.148

Details – Receptions

Click the “Receptions” tab to display a listing of all receptions for the endpoint. The details of each reception can be viewed, and the attributes can be displayed. Export and Print functions are available.

Details – Excluded Alarms

For a specific endpoint, it is possible to instruct iQPulse to exclude one or more alarms from events identified by the system. Click the “Excluded Alarms” tab to display a list of checkboxes and system alarms. Click on an empty checkbox to signify its exclusion or click on a checked checkbox to re-include the alarm.



Export Data

Export Billing Data

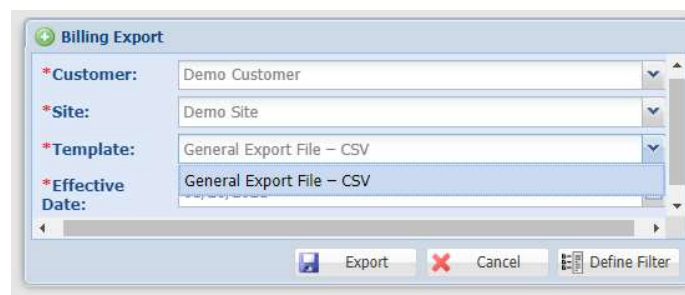
iQPulse provides the customer the ability to export billing data in a pre-defined format to an ASCII file for transfer and updating in an external billing system. If billing information is transferred from iQPulse to your company’s billing system via APIs, then this section is not relevant.

Data is exported by date. In addition, filters (to specify which data will be exported) as well as the sort order of the exported file can be defined.

Billing Export Data by Date

Click the menu item “Export Data”, and from the drop-down menu, select Billing Export Data by Date.

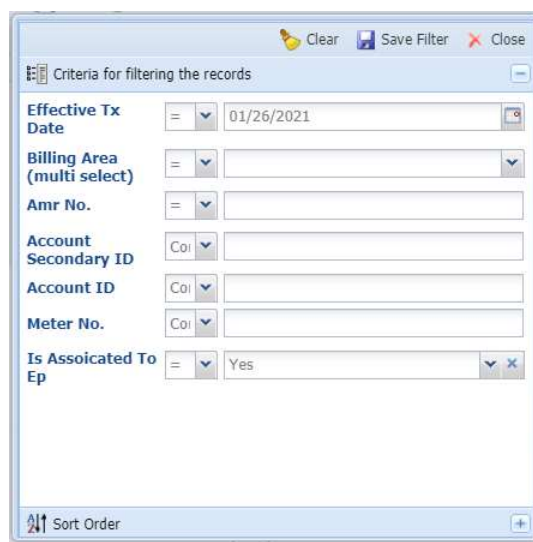
A Billing Export window will open in which you should specify which export template will be used (select from the available list by clicking on the drop-down arrow). The billing export templates can be built by LEC as well as your company’s IT department. For assistance or changes regarding templates, contact the appropriate party.



Specify the effective date of the billing export.

You may define a filter by clicking the “Define Filter” icon. The Criteria for Filtering the Records window will open. Enter the filter parameters. If desired, the sort order can also be specified. Click the “Clear” icon to clear all data from the window. Click the “Save Filter” icon to save the filter. Click the “Close” icon to return to the Billing Export window.

Click “Export” to create the billing export file. In the lower left corner of the screen, a message will appear indicating that the export process is underway and then a file name for the billing export file. Click on the file name to open the billing export file in Windows Notepad. This file can be saved and then sent to the billing system for processing.



The image shows a software window titled "Criteria for filtering the records". At the top right are three buttons: "Clear" (with a yellow eraser icon), "Save Filter" (with a floppy disk icon), and "Close" (with a red X icon). The window contains several filter criteria, each with a comparison operator dropdown (currently set to "=") and a value input field:

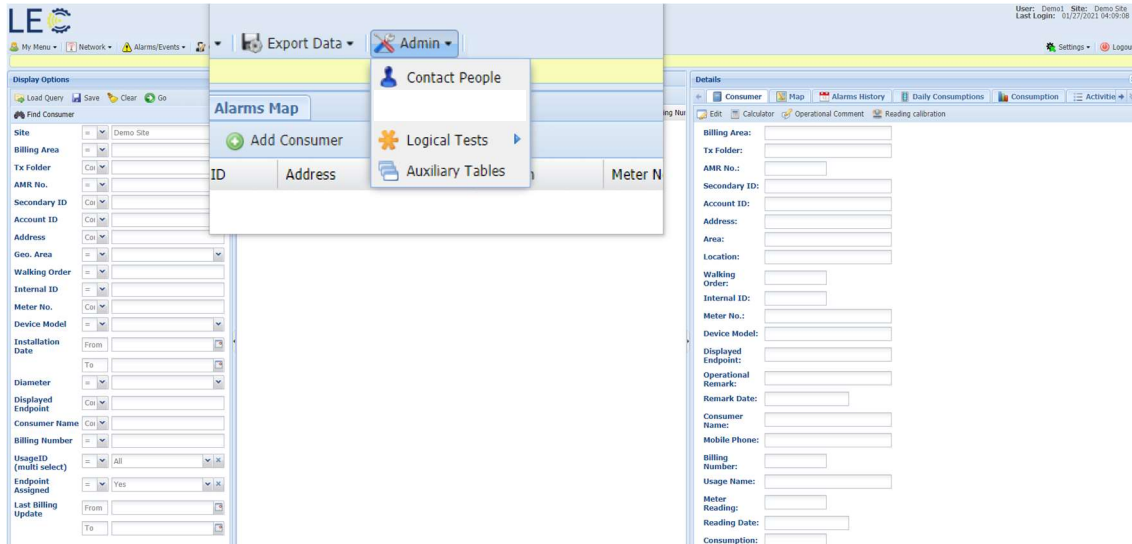
- Effective Tx Date:** The value field contains "01/26/2021".
- Billing Area (multi select):** The value field is empty.
- Amr No.:** The value field is empty.
- Account Secondary ID:** The value field is empty.
- Account ID:** The value field is empty.
- Meter No.:** The value field is empty.
- Is Associated To Ep:** The value field contains "Yes".

At the bottom left of the window is a "Sort Order" section with a small icon and a dropdown arrow. At the bottom right is a "+" button.

Administrative Functions

Overview

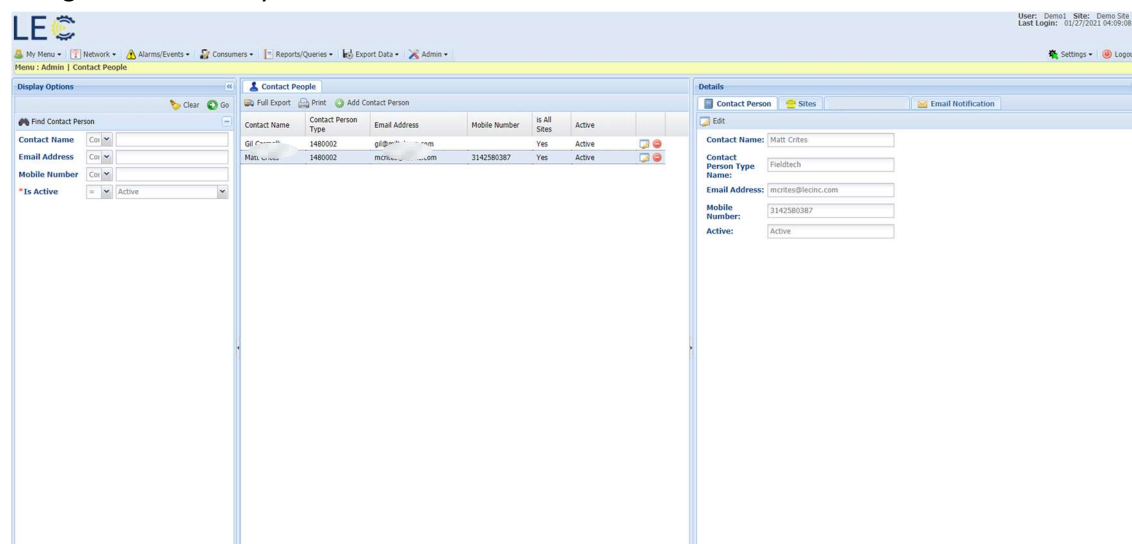
Click on the “Admin” menu item to display all of the administrative functions available. Selected administrative functions may not appear on your drop-down menu based upon defined user authorizations.



Contact People

Click” Admin”, and from the drop-down menu, select Contact People. The Contact People functions allow multiple ways to communicate through the system with relevant staff whether field technicians or desktop users, etc.

A Contact People window will open providing contact information for all staff able to be contacted through the iQPulse system.



Click the “Update Contact Person” icon at the far right of the user line to open the Update Contact Person window. Click the “Delete Contact Person” icon at the far right of the user line to delete the contact. Export and Print functions are available. Click the “Add Contact Person” icon at the top of the window to add a new contact.

After selecting a contact person line, the contact person details can be viewed in the Details window. Click on the Edit icon to open the Update Contact Person window.

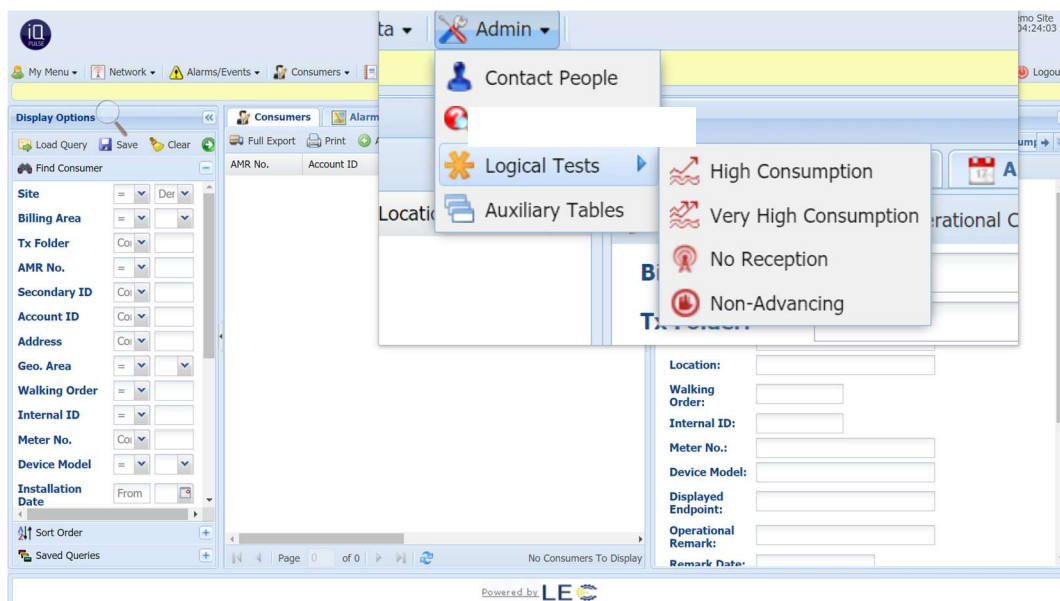
Click the “Sites” tab to display a listing of sites for which the contact person can receive notifications. Click the “Assoc. check box of a site to associate the contact person for notifications, click again to remove the contact person from receiving notifications.

Click the “Email Notification” tab to display all of the alarms and events that trigger Email notifications – select or deselect a check box by each alarm or event to signify if the contact person should or should not receive an Email notification should the alarm or event occur.

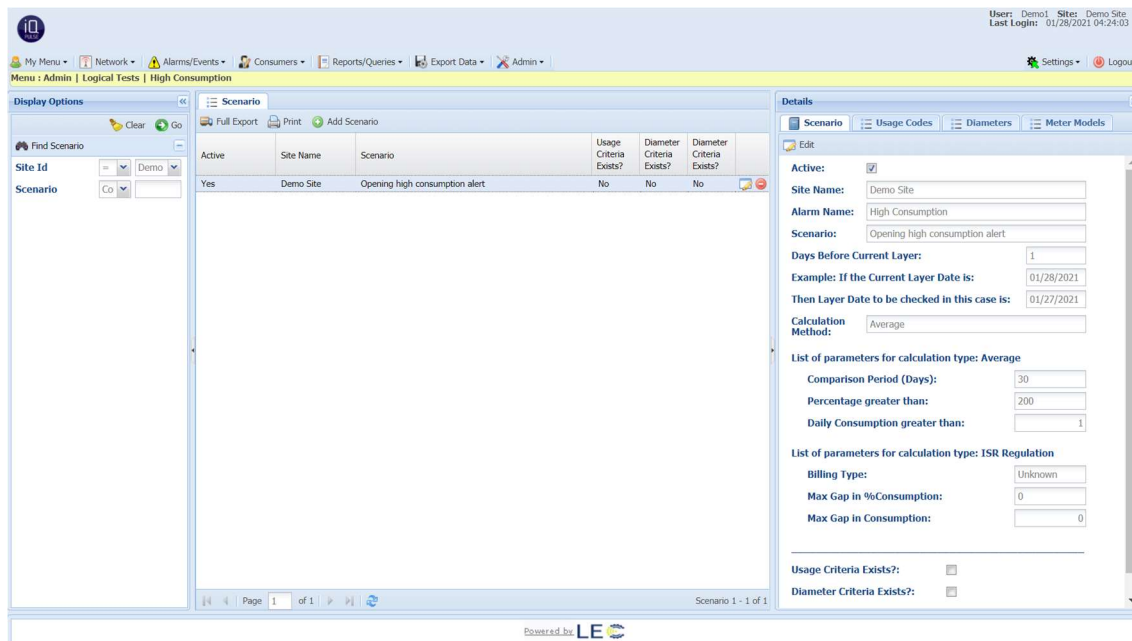
Logical Tests

Logical tests are data analyses performed by iQPulse on a daily basis. Data received during the previous 24 hours along with data already stored in the iQPulse data base are analyzed for the existence of alarms or events that can be identified and for which notifications should be sent. The logical tests that are performed can be defined for all consumers, groups of consumers, or even a single consumer. In addition, logical tests can be defined based upon meter diameter or even meter model.

Click the menu item “Admin”, and from the drop-down menu, select “Logical Tests” and then the alarm or event from the list of alarms and events displayed in the drop-down menu.



Once you have selected an alarm or event for which logical tests are to be defined, a Scenario window will display all of the defined scenarios (situations) for which a logical test for the alarm/event selected is to be performed. For example, which scenarios are to be analyzed for High Consumption (i.e. what will trigger an alarm for High Consumption).



Click the “Update Scenario” icon at the far right of the scenario line to open the Update Scenario window, where parameters for the logical test can be modified. Click the “Delete Scenario” icon to delete the scenario. Export and Print functions are available. Click the “Add Scenario” icon to create a new scenario for the alarm/event selected.



In the Details window, the scenario information is displayed. Click the “Edit” icon to open the Update Scenario window.

Click the “Usage Code” tab to view usage codes (e.g. types or classifications of consumers) that should be tested according to the defined scenario. Export and Print functions are available. Click on the “Add Usage Code” icon to add a new usage code to be tested.

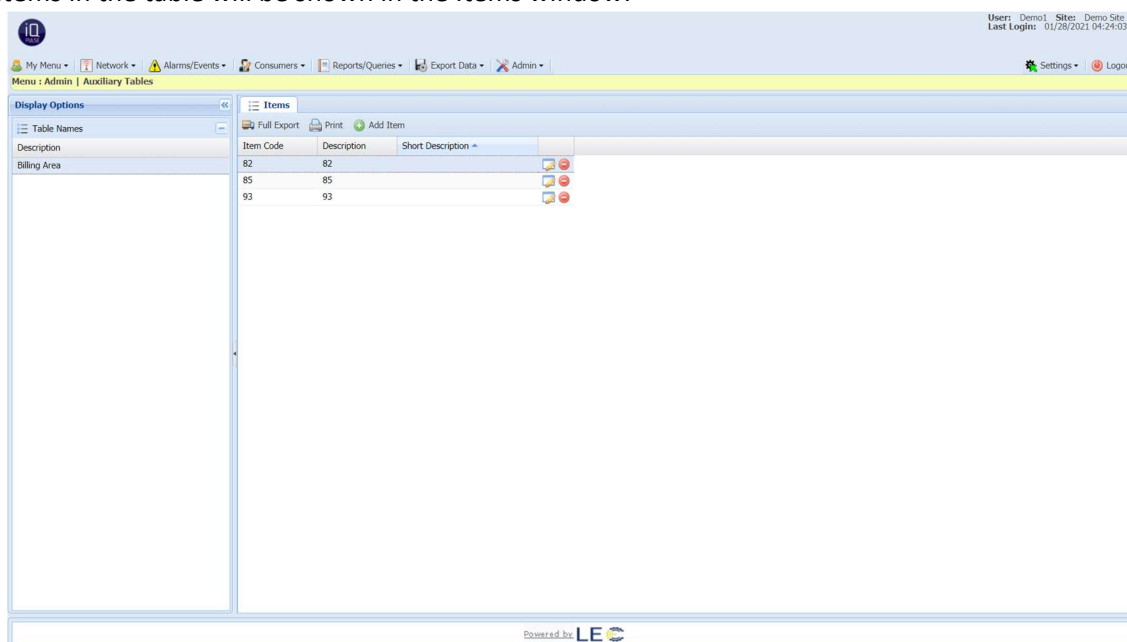
Click the “Diameters” tab to view meter diameters (e.g. ½”, ¾”, 1”, etc.) that should be tested according to the defined scenario. Export and Print functions are available. Click the “Add Diameter” icon to add a new diameter to be tested.

Click the “Meter Model” tab to view meter models that should be tested according to the defined scenario. Export and Print functions are available. Click the “Add Meter Model” icon to add a new meter model to be tested.

Auxiliary Tables

There are user-definable tables and codes that can be used within iQPulse. These are referred to as Auxiliary Files, and the user can specify values for file entries. Click on “Auxiliary Files” in the Admin drop-down menu.

A window will open that displays a list of tables used in the system. Click on a table name and a list of items in the table will be shown in the Items window.



At the far right of each line item displayed, click the “Update Item” icon to open the Update Item window. Click the “Delete” icon to delete the item from the table. Export and Print functions are available. Click on “Add Item” to add a new item to the table.

Update Item

Item Code: 82

*Description: 82

Short Description: Billing Group 82

Display Order: 0

OK Cancel