



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

<u>Login</u>

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.

😗 Login		
Username: Password:		
	Login	× Cancel

iQPulse Main Screen

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<u>Logout</u>

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

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General Information

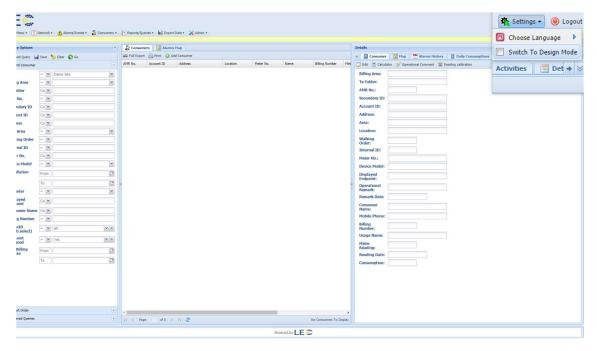
Screen Resolution

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.

<u>Settings</u>

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.

<u>Changing Column Width</u>: 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.

<u>Sorting Displayed Data</u>: 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.

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<u>Select/Deselect Fields to be Displayed</u>: 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.

_E©							Billing Area		User: Demo1 Site: Demo Site Last Login: 01/21/2021 07:21:39
My Menu •	Network • Alarms/Eve	ents 🔹 🍶 Consume	ers 🔹 📃 Report		ocation		Billing Area C	ode	👯 Settings 👻 🥘 Logout
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Display Options	«	Consumers	Alarms				Tx Folder		»
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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.

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illing Area			1042 000003	3	240 Mount Carmel Rd.		3893262	Tx Folder:				
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MR No.	= ¥		104 -000005	5	7 Fourth St		3893262	Secondary ID:				
			10 2-000006	6	25 Craftsman View		3893262					
econdary ID	Coi 👻		10 2-000007	7	112 Leisure Mountain Rd.		3893262	Account ID:	1			
count ID	Сог 💌		1 12-000008	8	20 Tiffany Lane		3893260	Address:	775 Olivette	Rd		
dress	Coi 💌	•	1 42-000009	9	150 Jonestown Rd.		3893260	Area:				
eo, Area		I I	042-000010	10	30 Goodman Rd		3893264	Location:				
			042-000011	11	25 Lees Creek Rd		3889105					
alking Order	= 💌		042-000012	12	359 Barnard Avenue		3889105	Walking Order:	420			
ternal ID	- *		1042-000013	13	459 Creekside Dr		3893263	Internal ID:	0			
eter No.	Coi 🕶		1042-000014	14	50 Chestnut Ridge		3893260					
evice Model		a I	1042-000015	15	40 Wilderness Rd		3893262	Meter No.:	38932614			
			1042-000016	16	147 Parker Cove Rd		3893260	Device Model:	EXTERNAL 1	13		
stallation	From	3	1042-000017	17	79 Naples Road		3893260	Displayed	025.000.000	142		
			1042-000018	18	120 Sunny Ridge Dr		3893261 🗸	Endpoint:	023.000.000	/172		
Sort Order		. <u>+</u>	4				+	Operational	Visited custo	omer.		
Saved Queries		•	NA Page	e 1 of 1	N 2	Consumer	s 1 - 30 of 30	Remark:				

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.

			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
vascript:void(0);	05	15 Devloyeed Avenue		20020044	Matth 10/2	0	576 400	05/40/0000 40.00.00	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".

My Menu •	Network • Alarms/Ev	ents 🔹 🍶 Cons	umers 🕶 📘 Repo	rts/Queries 🔹 😽 Exp	port Data 🗸 🛛 💥 Admin 🗸			Choose	Language
isplay Options		🔓 🎧 Consur	ners 🛛 💹 Alarm	s Map			Details	Switch	To Design Mode
🐟 Load Query 🔓	Save 🏷 Clear 🕥 Go		t 🖨 Print 🔘 A				+ Consume		
Find Consumer	=	AMR No.	Account ID	Address	Location	Meter No.	🔀 Edit 🔳 Calcu	🚦 Daily Consum	ptions 🔸
ite	= 👻 Demo ! 💌 🌰						Billing Area:		•
illing Area	= 🗸 🗸						Tx Folder:		
x Folder	Coi 🛩						AMR No.:		
MR No.	= 💌						Secondary ID:		
econdary ID	Coi 🛩						Account ID:		
ccount ID	Coi 👻						Address:		
ddress	Coi 🕶						Area:		
Geo. Area							Location:		
Walking Order	= 💌						Walking		
nternal ID	- *						Order:		
leter No.	Col 🕶						Internal ID:		
Device Model	= • •						Meter No.:		
nstallation	From						Device Model:		
Date							Displayed Endpoint:		
	То						Operational		
liameter							Remark:		
Sort Order	+	1		_		•	Remark Date:		
Saved Queries	+	id d Pa	ne 0 of 0	Nite	No Cops	umers To Display	Consumer Name:		

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).

	ptions Qu	,								👯 Setti	ngs 🔹 🔘 Logo
C Go	Con	sumptio Changes	- 1-	ore Default	📭 Full Export 🔓	Prir				No Of	
						er No	Account No	Billing No	No. Of Days	Consu Days	Begin Period Reading Date
						32614	1	0	15	0	10/14/2020 1
	M-L TD		1042-00	Larry Fine	2 Fourth St	A _J _J 38932603	2	0	15	0	05/16/2020 0
x Folder	Coi 👻		1042-00	Moe Howard	240 Mount Carmel Rd.	38932628	3	0	15	0	10/14/2020
ater ID	Coi 👻		1042-00	Jason Allen	1 Fourth St	38932629	4	0	15	0	08/09/2020
mr No.			1042-00	Christy Park	7 Fourth St	38932626	5	0	15	0	10/15/2020
onsumer Name	Col 💌		1042-00	Melvin Spark	25 Craftsman View	38932621	6	0	15	0	10/15/2020
			1042-00	Rick Hayworth	112 Leisure Mountain Rd.	38932624	7	0	15	0	10/14/2020
ddress	Coi 💌	0	1042-00	Jessie Minx	20 Tiffany Lane	38932607	8	0	15	0	10/14/2020
eter No	Coi 💌	1	1042-00	Leonard Marx	150 Jonestown Rd.	38932602	9	0	15	0	10/13/2020
ccount No	Coi 🗸	5 1	1042-00	Samual Spade	30 Goodman Rd	38932643	10	0	15	0	01/02/2020
			1042-00	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	15	0	10/11/2020
illing No	= *		1042-00	Stephanie Adams	359 Barnard Avenue	38891051	12	0	15	0	10/15/2020
sage Code nulti select)	= 🗙 All 💌	×	1042-00	Beth Edwards	459 Creekside Dr	38932630	13	0	15	0	10/15/2020
		~	1042-00	Roger Farn	50 Chestnut Ridge	38932606	14	0	15	0	10/15/2020
rea		~	1042-00	Paul Simmons	40 Wilderness Rd	38932627	15	0	15	0	10/14/2020
ub Area			1042-00	Bruce Snyder	147 Parker Cove Rd	38932604	16	0	15	0	10/14/2020
egin Period	From 01/08/202		1042-00	Cindy Wilson	79 Naples Road	38932601	17	0	15	0	10/14/2020
nd Period	To 01/22/202		1042-00	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	15	0	10/15/2020
in Period			1042-00	Gene Criss	98 Beaver Drive	38891052	19	0	15	15	01/08/2021
Sort Order		•	1042.00	Food Charles	11 Wasser David	20022615	20	^	40	40	01/00/2021
Saved Queries		• 14 4	Page 1 of 1	> > a							mption 1 - 30 o

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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.

		 Alarms/Eve Readings Consul 		mers • [📃 F	Reports/Queries • 🛛 📷 E	xport Data 🔹 🔀 Admin 🔹					👫 Settir	ngs • 🔘 Logo
Display Options	acrics r	«	Consump	tion								
Load Query	Save	Sclear 🙆 Go	Full Export									
Find Consumpti		6	ater ID	Amr No.	Consumer Name	Address	Meter No	Account No	Billing No	No. Of Days	No Of Consu	Begin Period Reading Date
Site	= 💌	Demo Site 💌		1042.00	James John	775 Olivette Rd	38932614	1	0	15	Days	10/14/2020
Billin Area	= 💌	~		1042-00	Larry Fine	2 Fourth St	38932603	2	0	15	0	05/16/2020
x Folder	Соі 💌			1042-00	Moe Howard	240 Mount Carmel Rd.	38932628	3	0	15	0	10/14/2020
Vater ID	Coi 🗸			1042-00	Jason Allen	1 Fourth St	38932629	4	0	15	0	08/09/2020
Amr No.	= ¥			1042-00	Christy Park	7 Fourth St	38932626	5	0	15	0	10/15/2020
				1042-00	Melvin Spark	25 Craftsman View	38932621	6	0	15	0	10/15/2020
Consumer Name	Coi 💙			1042-00	Rick Hayworth	112 Leisure Mountain Rd.	38932624	7	0	15	0	10/14/2020
Address	Соі 🗸			1042-00	Jessie Minx	20 Tiffany Lane	38932607	8	0	15	0	10/14/2020
Meter No	Соі 💌		4	1042-00	Leonard Marx	150 Jonestown Rd.	38932602	9	0	15	0	10/13/2020
Account No	Соі 🛩			1042-00	Samual Spade	30 Goodman Rd	38932643	10	0	15	0	01/02/2020
				1042-00	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	15	0	10/11/2020
Billing No	= *			1042-00	Stephanie Adams	359 Barnard Avenue	38891051	12	0	15	0	10/15/2020
Jsage Code multi select)	= 💌	All 🗸 🗙		1042-00	Beth Edwards	459 Creekside Dr	38932630	13	0	15	0	10/15/2020
Area		×		1042-00	Roger Farn	50 Chestnut Ridge	38932606	14	0	15	0	10/15/2020
				1042-00	Paul Simmons	40 Wilderness Rd	38932627	15	0	15	0	10/14/2020
Sub Area	- *			1042-00	Bruce Snyder	147 Parker Cove Rd	38932604	16	0	15	0	10/14/2020
Begin Period	From	01/08/202		1042-00	Cindy Wilson	79 Naples Road	38932601	17	0	15	0	10/14/2020
nd Period	То	01/22/202 🖪		1042-00	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	15	0	10/15/2020
				1042-00	Gene Criss	98 Beaver Drive	38891052	19	0	15	15	01/08/2021
Sort Order		+		1040.00	Fred Charles	11 Wassier David	20022615	20	0	40	46	01/00/2021

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:

🌡 My Menu 🔹 🛐 Network 🔹 🚹 Alarn	ns/Events 🔹 🍶 Consumers 🔹 📘 Reports/Queries	• 🐻 Exp	ort Data 🔹 🔀 Admin 🔹					🎕 Settings -	- 🥘 Logou
lenu : Reports/Queries Readings C	Consumptions Query								
Display Options	Consumption								
😹 Load Query 🔒 Save 🏷 Clear 🕻	Go Full Export								
								No Of	
Find Consumption			Address	Meter No	Account No	Billing No	No. Of Days	Consu	Begin Peric Reading Da
America Mar	<= 🗸 1042000005							Days	
Amr No.	<= 1042000005		775 Olivette Rd	38932614	1	0	15	0	10/14/202
			2 Fourth St	38932603	2	0	15	0	05/16/202
Consumer Name	=		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
Address			25 Craftsman View	38932621	6	0	15	0	10/15/202
	>		112 Leisure Mountain Rd.	38932624	7	0	15	0	10/14/202
Meter No		•	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
Account No	>=		25 Lees Creek Rd	38891053	11	0	15	0	10/11/202
			359 Barnard Avenue	38891051	12	0	15	0	10/15/202
Billing No	!=		459 Creekside Dr	38932630	13	0	15	0	10/15/202
bining No			50 Chestnut Ridge	38932606	14	0	15	0	10/15/202
	Is Empty		40 Wilderness Rd	38932627	15	0	15	0	10/14/202
Usage Code	v x		147 Parker Cove Rd	38932604	16	0	15	0	10/14/202
(multi select)	Not Empty		79 Naples Road	38932601	17	0	15	0	10/14/202
marci Sciece)	Not Empty		120 Sunny Ridge Dr	38932612	18	0	15	0	10/15/202
Aroa			98 Beaver Drive	38891052	19	0	15	15	01/08/202
Sort Order	+ 1040-000000 Feed Cherl		11 Manuar Danid	20022615	20	^			01/00/202
The Saved Queries	+ 4 4 Page 1 of 1 > > 2							Consumpti	ion 1 - 30 of 3

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:

LE©							User: [Last Log	0emo1 Site in: 01/22/2	Demo Site 021 02:00:07
My Menu + 💽 Network + Alarms/Event	Amr No.	Co	ort Data 🔹 💥 Admin 🔹					👯 Settings	 Ogou
Load Query Java Clear C Go	1042-000001	Jai	Address	Meter No	Account No	Billing No	No. Of	No Of Consu	Begin Perio
Site = V Demo Site V	1042-000002	La					Days	Days	Reading Dat
Billin Area = 👻 💌		2.00	775 Olivette Rd	38932614	1	0	15	0	10/14/2020
Tx Folder Col 🗸	1042-000003	Mc	2 Fourth St	38932603	2	0	15	0	05/16/2020
Water ID Col V			240 Mount Carmel Rd. 1 Fourth St	38932628 38932629	3	0	15 15	0	10/14/2020
	1042-000004	Ja:	7 Fourth St	38932629 38932626	5	0	15	0	08/09/2020
Amr No. <= •	1042-000005	Ch							
Address Col ¥ Meter No Col ¥									
Account No Coi V Billing No = V									
Usage Code = V All V X (multi select)									
Area = ¥ ¥									
Sub Area = 👻									
Begin Period From 01/08/202									
End Period To 01/22/202									
Sort Order									
Saved Queries	4 Page 1 of 1 ▶ ▶	æ						Consum	nption 1 - 5 of 5
			Powered by LE 😂						

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).

isplay Options		~	Consump	tion								
	Save 🏷 Clear	💽 Go	Rull Export	Print								
End Consumption Sort Order		+	Water ID	Amr No.	Consumer Name	Address	Meter No	Account No	Billing No	No. Of Days	No Of Consu Days	Begin Pe Reading
				1042-000001	James John	775 Olivette Rd	38932614	1	0	31	14	10/01/2
Avanable Columns	Selected Order			1042-000002	Larry Fine	2 Fourth St	38932603	2	0	31	0	05/16/2
Water ID	Amr No.	21		1042-000003	Moe Howard	240 Mount Carmel Rd.	38932628	3	0	31	14	10/01/2
Consumer Name				1042-000004	Jason Allen	1 Fourth St	38932629	4	0	31	0	08/09/2
Billing No				1042-000005	Christy Park	7 Fourth St	38932626	5	0	31	15	10/01/2
Address				1042-000006	Melvin Spark	25 Craftsman View	38932621	6	0	31	14	10/01/2
Account No				1042-000007	Rick Hayworth	112 Leisure Mountain Rd.	38932624	7	0	31	14	10/01/2
Meter No				1042-000008	Jessie Minx	20 Tiffany Lane	38932607	8	0	31	14	10/01/2
			•	1042-000009	Leonard Marx	150 Jonestown Rd.	38932602	9	0	31	13	10/01/2
				1042-000010	Samual Spade	30 Goodman Rd	38932643	10	0	31	0	01/02/2
				1042-000011	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	31	11	10/01/3
				1042-000012	Stephanie Adams	359 Barnard Avenue	38891051	12	0	31	15	10/01/2
				1042-000013	Beth Edwards	459 Creekside Dr	38932630	13	0	31	15	10/01/2
				1042-000014	Roger Farn	50 Chestnut Ridge	38932606	14	0	31	15	10/01/2
				1042-000015	Paul Simmons	40 Wilderness Rd	38932627	15	0	31	14	10/01/2
				1042-000016	Bruce Snyder	147 Parker Cove Rd	38932604	16	0	31	14	10/01/2
				1042-000017	Cindy Wilson	79 Naples Road	38932601	17	0	31	14	10/01/2
				1042-000018	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	31	15	10/01/2
				1042-000019	Gene Criss	98 Beaver Drive	38891052	19	0	31	31	10/01/2
				1040 000000	Frad Charles	11 Manuar Dand	20022645	20	0	24	+ e	10/01/2

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):

	etwork • 🔥 Alarms/Ev	ents 🔹 🛛 🎜 Consur	ners • 📑 Rep	orts/Queries • 😽 Export I	Data 🔹 💥 Admin 🖌	Meter No		Last Log	jin: 01/22/2	Demo Site 2021 02:00:07 O2:000
	ries Readings Const									
Display Options) «	Consump	tion			38832622				
😹 Load Query 🛛 🔒	Save 🏷 Clear 💽 Go	Rull Export	🖨 Print							
Find Consumption		Vater ID	Amr No.	Consumer Name	Address	38891051	Billing No	No. Of	No Of Consu	Begin Perio
Sort Order	-	VOUEL TO	Partie 140.	Consumer Name	Address	38891052	Dining No	Days	Days	Reading Da
Available Columns	Selected Order	13	1042-000023	Stephen Rodgers	20 Glenview Avenue	50091052	0	31	15	10/01/202
			1042-000012	Stephanie Adams	359 Barnard Avenue	38891053	0	31	15	10/01/202
Water ID	Meter No 21		1042-000019	Gene Criss	98 Beaver Drive	000010000	0	31	31	10/01/202
Consumer Name			1042-000011	Angelo Maggio	25 Lees Creek Rd	38932601	0	31	11	10/01/202
Billing No			1042-000017	Cindy Wilson	79 Naples Road	00002001	0	31	14	10/01/202
Address Account No			1042-000009	Leonard Marx	150 Jonestown Rd.	38932602	0	31	13	10/01/202
Amr No.			1042-000002	Larry Fine	2 Fourth St	00002002	0	31	0	05/16/202
Anii No.		1	1042-000016	Bruce Snyder	147 Parker Cove Rd	38932603	0	31	14	10/01/202
		4	1042-000026	Patrick John Adams	118 Cozy Mountain R	00002000	0	31	14	10/01/202
			1042-000014	Roger Farn	50 Chestnut Ridge	38932604	0	31	15	10/01/202
			1042-000008	Jessie Minx	20 Tiffany Lane	00002001	0	31	14	10/01/202
			1042-000025	Matthew Wayne	15 Parkwood Avenue	38932605	0	31	0	05/19/202
			1042-000018	Peter Panada	120 Sunny Ridge Dr	00002000	0	31	15	10/01/202
			1042-000028	Marcus Coffman	15 Brookdale Avenue	38932606	0	31	15	10/01/202
			1042-000001	James John	775 Olivette Rd	00002000	0	31	14	10/01/202
			1042-000020	Fred Stanley	11 Weaver Road	38932607	0	31	15	10/01/202
			1042-000027	Jeremy Ramsey	478 Weaverville Hwy		0	31	14	10/01/202
			1042-000022	Dean King	365 Elk Mountain Sce	38932611	0	31	3	09/30/202
			1042-000006	Melvin Spark	25 Craftsman View	00002011	0	31	14	10/01/202
		•	1042 000020	Contain Cluster Chielenn	1775 Marriman Aran	38932612	^	21	15	10/01/202
Saved Queries	+	14 4 Page	1 of 1	N 2					Consumpt	tion 1 - 30 of 3

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).

LE©							User: [Last Log	0emo1 Site: jin: 01/22/2	: Demo Site 021 02:00:07
💄 My Menu 🔹 🛐 Network 👻 🛕 Al	larms/Even	nts 🔹 🏼 🏭 Consur	mers 🔹 📘 Rep	iorts/Queries • 🛛 🐻 Export Data • 🛛 💥 Admin •				🙀 Settings	- 🕘 Logout
Menu : Reports/Queries Readings	Consun	nptions Query							
Display Options	~	Consump	tion						
🔯 Load Query 🛛 🔒 Save 🏾 🏷 Clear	G Go	Full Export	Print						
Find Consumption	+			O Create Saved Query			No. Of	No Of	Begin Perio
	+	Vater ID	Amr No.	Query: Consumption	Account No	Billing No	Days	Consu Days	Reading Da
Saved Queries			1042-000001	*Query Name:	1	0	15	0	10/14/2020
Query Name			1042-000002	All Consumers with Amr No. <= 1042000005	2	0	15	0	05/16/2020
court manne			1042-000003	Auto Run on Page Load:	3	0	15	0	10/14/2020
			1042-000004 1042-000005	Search Criteria:	4	0	15 15	0	08/09/2020
		•		Sort Order Amr No Ascending					
				V OK X Cancel					
		4							
		14 4 Page	1 of 1	х н æ				Consum	ption 1 - 5 of
				Powered by F 📖					

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.

LE©										
💁 My Menu 🔹 🛐 Network 👻 🚹 Alarms/Ev		ners 🔹 📃 Re	eports/Queries 🔹 🐻 Expo	nt Data 🔹 🔀 Admin 🔹					👯 Settings	 Understand Understand
Menu : Reports/Queries Readings Consu	Imptions Query									
Display Options 《	Consump	tion								
潯 Load Query 🛛 🚽 Save 🏷 Clear 📀 Go	Full Export	Print								
Find Consumption +	Vater ID	Amr No.	Consumer Name	Address	Meter No	Account No	Billing No	No. Of Days	No Of Consu	Begin Period Reading Dat
Sort Order +								Days	Days	Reading Dat
Saved Queries		1042-000001	James John	775 Olivette Rd	38932614	1	0	15	0	10/14/202
Ouery Name		1042-000002	Larry Fine	2 Fourth St	38932603	2	0	15	0	05/16/202
All Consumers with Amr No. <= 🗔 🥥 💽		1042-000003	Moe Howard	240 Mount Carmel Rd.	38932628	3	0	15	0	10/14/202
Al consumers with Ann No. < 🖓 🥪 💕		1042-000004	Jason Allen	1 Fourth St	38932629	4	0	15	0	08/09/202
		1042-000005	i Christy Park	7 Fourth St	38932626	5	0	15	0	10/15/202
		1042-000006	Melvin Spark	25 Craftsman View	38932621	6	0	15	0	10/15/202
		1042-000007	Rick Hayworth	112 Leisure Mountain Rd.	38932624	7	0	15	0	10/14/202
	12	1042-000008	Jessie Minx	20 Tiffany Lane	38932607	8	0	15	0	10/14/202
	1	1042-000009	Leonard Marx	150 Jonestown Rd.	38932602	9	0	15	0	10/13/202
		1042-000010) Samual Spade	30 Goodman Rd	38932643	10	0	15	0	01/02/202
		1042-000011	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	15	0	10/11/202
		1042-000012	Stephanie Adams	359 Barnard Avenue	38891051	12	0	15	0	10/15/202
		1042-000013	Beth Edwards	459 Creekside Dr	38932630	13	0	15	0	10/15/202
		1042-000014	Roger Farn	50 Chestnut Ridge	38932606	14	0	15	0	10/15/202
		1042-000015	Paul Simmons	40 Wilderness Rd	38932627	15	0	15	0	10/14/202
		1042-000016	Bruce Snyder	147 Parker Cove Rd	38932604	16	0	15	0	10/14/202
		1042-000017	Cindy Wilson	79 Naples Road	38932601	17	0	15	0	10/14/202
		1042-000018	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	15	0	10/15/202
		1042-000019	Gene Criss	98 Beaver Drive	38891052	19	0	15	15	01/08/202
	4	1042 000020	Fred Chevelou	11 Wanser Dand	20022645	20	^	10	15	01/00/202
	N A Page	1 of 1	N N 2						Consumpt	tion 1 - 30 of 3

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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.

LE©	User: Demo Site: Demo Site Last Login: 01/22/2021 02:00:07
Stevents - 👔 Network - 🔥 Alarms/Events - 🍃 Consumers -	Data • 🔀 Admin • 🐞 Settings • 🛞 Logout
Consumers	Details 20 + Consumer Map Map Marms History Daily Consumptions + 20
▲ Open Alarms ▲ Consumers ■ My Saved Queries ▲ Clear O Go	Location Get Calculator Operational Comment Reading calibration
Menus Recently Used 2021-01-22 Consumers 2021-01-22 Consumptions Query	Tx Folder: AMR No.:
Site = v 2021-01-22 Consumptions Query Billing Area = v 2021-01-20 Open Alarms	Secondary ID: Account ID:
Tx Folder Col V 2021-01-07 High Consumption 2021-01-07 Contact People 2021-01-07 Contact People	Address:
AMR No. = Y 2020-10-02 Billing Export Data By Date Secondary ID Col Y 2020-10-02 Notification Registration	Valking Order:
Meter No.	Internal ID: Meter No.:
Device Model = V V Installation Date	Device Model: Displayed Endpoint:
الله المعالي ال المعالي المعالي ا	Operational Remark:
	Inters to Usplay Remark Date:

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.

									Consumer	🚺 Map 🛛 💏 Alarr	
Display Options			🔓 Consu	ners 🛛 🔝 Ala	rms Map				oonbunner	The state	
😹 Load Query 🔓	Save 🏷 Clear 🔕 Go		💷 Full Expo	rt 🚔 Print 🔇	Add Consumer		nt	🌏 Edit	Calcula	ator 🛛 🧭 Operational Com	nsumptions 🛛 👔 Consumption 👘 📃 Activitie -
Find Consumer			MR No.	Account ID	Address Location	Meter No.	Nar	2 Lun	in carcuit		a
Site	= 🖌 Demo Site	~	.042-000001	1	775 Olivette Rd	38932614	Jan	D:11:		82	
Billing Area	= *	~	.042-000002	2	2 Fourth St	38932603	Lari	DIIIIIg	Area:	02	
	Col		.042-000003	3	240 Mount Carmel Rd.	38932628	Mor				
Tx Folder	L NUMBER OF CONTRACTOR OF CONT		042-000004	4	1 Fourth St 7 Fourth St	38932629 38932626	Jasi	Tx Fol	der:		
MR No.	= ~		042-000005	6	25 Craftsman View	38932620	Mel				
Secondary ID	Coi 💌		042-000007	7	112 Leisure Mountain Rd.	38932624	Rid	AMR I	10 .	1042-000023	
Account ID	Coi 🛩		042-000008	8	20 Tiffany Lane	38932607	Jes	APIT		1042-000023	
Address	Col		042-000009	9	150 Jonestown Rd.	38932602	Leo				
	Looperation Laboration and Laboratio		042-000010	10	30 Goodman Rd	38932643	Samual Spade	Secon	danv ID.	23	
Seo. Area		~	042-000011	11	25 Lees Creek Rd	38891053	Angelo Maggio	0	Location:		
Walking Order	= *		042-000012	12	359 Barnard Avenue	38891051	Stephanie Adam	ns 0	Walking	20	
internal ID	= 🖌		042-000013	13	459 Creekside Dr	38932630	Beth Edwards	0	Order:		
Meter No.	Cor		.042-000014	14	50 Chestnut Ridge	38932606	Roger Farn	0	Internal ID:	0	
Device Model	= ¥	100	042-000015	15	40 Wilderness Rd	38932627	Paul Simmons	0	Meter No.:	38832622	
	=	*	.042-000016	16	147 Parker Cove Rd	38932604	Bruce Snyder	0	Device Model:	Unkown	
Installation Date	From	3	.042-000017	17	79 Naples Road	38932601	Cindy Wilson	0	Displayed		
Juic	To		.042-000018	18	120 Sunny Ridge Dr	38932612	Peter Panada	0	Endpoint:	025.000.000.107	
			.042-000019	19	98 Beaver Drive	38891052	Gene Criss	0	Operational		
		~	.042-000020	20	11 Weaver Road	38932615	Fred Stanley	0	Remark:		
Displayed Endpoint	Cot 🛩		.042-000021	21	10 Beaverbrook Rd	38932625	Barry Allen	0	Remark Date:		
Consumer Name	Coulor I		.042-000022	22	365 Elk Mountain Scenic H	38932620	Dean King	0	Consumer	Stephen Rodgers	
			.042-000023	23	20 Glenview Avenue	38832622	Stephen Rodger		Name:		
Billing Number			.042-000024	24	40 Woodfin Avenue	38932642	Thomas Flair	0	Mobile Phone:		
UsageID (multi select)	= 🛩 All	* ×	.042-000025	25 26	15 Parkwood Avenue 118 Cozy Mountain Rd	38932611 38932605	Matthew Wayne Patrick John Ad		Billing Number:	0	
Endpoint			.042-000028	20	478 Weaverville Hwy	38932605	Jeremy Ramsey		Usage Name:		
Assigned	= Yes	~ ×	042-000027	28	15 Brookdale Avenue	38932613	Marcus Coffmar				
ast Billing	From	3	042-000029	29	1335 Merrimon Avenue	38932623	Captain Clucks		Meter Reading:	62.33	
Jpdate			042-000030	30	475 Weaverville Rd	38932641	Curt Buckinham		Reading Date:	10/15/2020 08:00:00	
	То										
									Consumption:	0	
Sort Order		(+)									
Saved Queries		+	100 00 100	ge 1 of 1				mers 1 - 30 of 30			

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 \rightarrow or \leftarrow to move right or left through the tabs).

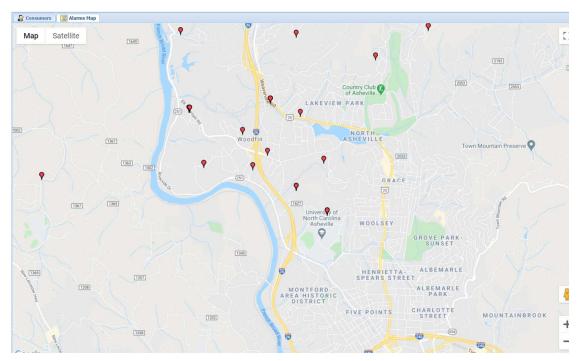
Consumers and Alarm Map

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".

📑 Full Export	: 📄 Print 🕥 Add	Consumer			+ 🗐 Co	nsumer	Map	Halan Alan	ms Histor	ry 📋 Daily C
AMR No.	O Create Consume	er								Reading calibrati
1042-000001	Billing Area:	*	Tx Folder:		*Secondary	ID:				
1042-000002	Account ID:		Address:		ZipCode:				_	
1042-000003										
1042-000004	Geo. Area:	*	Location:		Walking Ord	er:				
1042-000005	Internal ID:		Latitude:		Longtitude:					
1042-000006	*Meter No.:		Device Model:		 Installation 			-		
1042-000007	Meter No.:		Device Model:		Date:					
1042-000008	Diameter:	~	*Resolution: 1	:100	 Meter 	1			_	
1042-000009					Character:					
1042-000010	Meter Replacement:	*	Displayed Endpoint:		Port Numbe	n:	1			
1042-000011	*Consumer									
1042-000012	Name:		Mobile Phone:		Email Addre	ss:			_	
1042-000013	Billing Number:		UsageID:		🗸 Endpoint	Yes			_	
1042-000014					Assigned:					
1042-000015	UFR:								*	
1042-000016	4								•	
1042-000017						1	OK	🗙 Ci	ancel	
1042-000018	10	120 Sunny Nuge Di	30932012	Peter Parlaua U	Endpoir	it:				
1042-000019	19	98 Beaver Drive	38891052	Gene Criss 0	Operati					
1042-000020	20	11 Weaver Road	38932615	Fred Stanley 0	Remark					

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.

No.	Account ID	Address	Location	Meter No.	Name	Billing I	Numt 🛛 🛃 E	Edit 📄 Calculato	or Operational Comment
-000001	1	775 Olivette Rd		38932614	James John	0	_	Hing Area: 8	12
🕝 Upc	date Consume	r							
	ng Area:	82	Y Tx Folder			AMR	No.:	1042000023	^
*Se	condary ID:	23	Account I	D: 23		Add	ess:	20 Glenview A	venue
	Code:		Geo. Area	: 0		Y Loca	tion:		
Wal	king Order:	20	Internal I	D: 0		Latit	ude:	35.629349	
Long	gtitude:	-82.566826	*Meter N	38832622		Devi	ce Model:	0	
Inst Date	tallation e:	08/23/2020	Diameter	Unknown		✓ *Re:	solution:	1:10	
Met Cha	er racter:	0	Meter Replacem	ent: 0			layed point:	025.000.000.1	07
Port	t Number:	1	*Consum Name:	Stephen Ro	dgers	First	Name:		
Last	t Name:		Mobile Ph	one:		Ema	il Address:		
Billi	ng Number:		UsageID:	0		► End Assi	point gned:	Yes	
UFR	t: [
								🖌 ОК	X Cancel

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 if the Calculator window. Click the "Clear" icon to clear the Calculator window data and click on "Close" to leave the Consumption Calculator.

			+ Consumer	🔝 Map 🛛 🛗 Alai
	Consumption Calculator	Filling Num	t 😺 Ed 🔳 Calcul	ator 🕜 Operational Cor
t	>	Clear 🕥 Calculate 🔀 Close	Billing Area:	82
mel Rd.	- Calculation Period		Tx Folder:	
	From 09/01/2020	To 09/30/2020	AMR No.:	1042-000023
Envi	- Consumer Details		Secondary ID:	23
/iew ountain Rd.	Amr No.: 104200002	3	Account ID:	23
e	Name: Stephen Ro	odgers	Address:	20 Glenview Avenue
Rd.	Address: 20 Glenvier	v Avenue	Area:	
.d Rd	- Calculation Results		Location:	
venue	# Of Days:	30	Walking Order:	20
Dr	Consumption Days:	30	Internal ID:	0
dge Rd	Begin Period Reading:	55.82	Meter No.:	38832622
ve Rd	End Period Reading:	60.29	Device Model:	Unkown
ge Dr	Total Consumption:	4.47	Displayed Endpoint:	025.000.000.107
e	High Consumption:	0.24	Operational	
ad k Rd	Low Consumption:	0.1	Remark: Remark Date:	
ain Scenic H	Average Consumption:	0.149	Consumer	Stephen Rodgers
venue enue	Estimate:		Mobile Phone:	

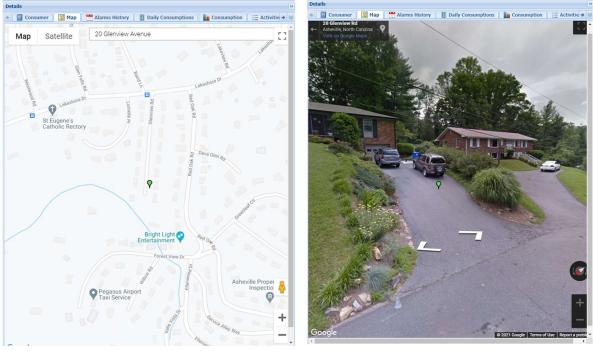
Click the "Operational Comment" icon to open a window in which a comment may be added. Click "OK" to save the comment, click "Cancel" to discard the changes that have been made.

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



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.

lcon	Sex.	Arter No.	Port	Device No.	Start Date	End Date	#Of Days	
1		1042-000029	1	38032623	09/27/2020 14:00:00	09/38/2828 09:00:08	4	
1	•	1042-000029	1	38932623	09/19/2020 12:00:00	09/20/2020 09:00:00	2	
1		1042-000029	1	38932623	09/17/2020 18:00:00	09/18/2020 09:00:00	2	
1	•	1042-000029	1	36932623	09/15/2020 18:00:00	09/16/2020 18:00:00	2	
1	•	1042-000029	1	38932623	08/29/2020 10:00:00	08/28/2020 14:00:00	1	
1	•	1042-000029	1	38932623	08/25/2020 15:00:00	08/26/2020 14:00:00	2	
1	•	1042-000029	1	38932623	08/12/2020 14:00:00	08/12/2020 15:00:00	1	
5		1042-000029	1	38932623	07/28/2020 20:00:00	07/29/2020 08:00:00	2	

Page 1 of 1 🗼 🖂 🤁

Details – Daily Consumption

The iQPulse system records the hourly meter reading for every meter in the system throughout the 24hour 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.

				10 1000				Full Export	PI	rint 🎮	Find	Calculate	or 🙀 No	tifications 🕶		
Display Options		(41)		Print Q				aver Date	Maker	Reading		Consumption	Last	Tx Date	Le.	Alarn
	Save 🏷 Clear 🜍 Go					Location		ayer Date	meter	Reading		Lonsumption	Last	TX Date	Le	Alarii
Rind Consumer			AMR No. 1042-000001	Account ID	Address 775 Olivette Rd	Location	0	9/29/2020	14.820	n	(0.050	00/3	0/2020 23:59:59		
Site	= 🔛 Demo Site	*	1042-000002	2	2 Fourth St			5/25/2020	11.02				03/5	72020 25.55.55		
Billing Area	- *	~	1042-000003	3	240 Mount Carmel Rd.		0	9/28/2020	14.770	0	(0.020	09/2	9/2020 23:59:59	1	
Tx Folder	Coi 🛩		1042-000004	4	1 Fourth St											
AMR No.	- *		1042-000005	5	7 Fourth St		0	9/27/2020	14.750	0		0.060	09/21	8/2020 23:59:59	1	
Secondary ID			1042-000006	6	25 Craftsman View											
	Cos 🛩		1042-000007	7	112 Leisure Mountain Rd.		0	19/26/2020	14.690	0	(0.060	09/2	7/2020 23:59:59	С	
Account ID	Coi 💌		1042-000008	8	20 Tiffany Lane								0.0.10			
Address	Coi 🛩		1042-000009	9	150 Jonestown Rd.		0	9/25/2020	14.630	0	0	0.030	09/20	6/2020 23:59:59		
Geo. Area		¥	1042-000010	10	30 Goodman Rd			0 10 4 10 000				0.40	00/00	-		
Walking Order	- *		1042-000011	11	25 Lees Creek Rd			9/24/2020	14.600)		0.040	09/2	5/2020 23:59:59		
and the second			1042-000012	12	359 Barnard Avenue			9/23/2020	14.560	h	1	0.030	00/2	4/2020 23:59:59		
	- *		1042-000013 1042-000014	13	459 Creekside Dr 50 Chestrut Ridge			19/23/2020	14.500	5		3.030	09/2	1/2020 25.59.59		
Meter No.	Cor 🖌		1042-000014	15	40 Wilderness Rd		0	9/22/2020	14.530	n		0.030	09/2	3/2020 23:59:59		
Device Model	- *	~	1042-000016	16	147 Parker Cove Rd			J/22/2020	11.000		1		00/2	12020 20.00.00		
Installation	From	в	1042-000017	17	79 Naples Road		0	9/21/2020	14.500	0	(0.030	09/2	2/2020 23:59:59	1	
Date			1042-000018	18	120 Sunny Ridge Dr			-,,		•				.,		
	To	3	1042-000019	19	98 Beaver Drive		0	9/20/2020	14.470	0	(0.030	09/2	1/2020 23:59:59	1	
Diameter	- *	~	1042-000020	20	11 Weaver Road											
Displayed	Col		1042-000021	21	10 Beaverbrook Rd		0	9/19/2020	14.440	0	(0.030	09/2	0/2020 23:59:59	1	
			1042-000022	22	365 Elk Mountain Scenic H				_			***				
Consumer Name	Coi 🞽		1042-000023	23	20 Glenview Avenue		388326	22 Stephen Rodgers	0	09/08/2020	14.000	0.040	09/09/2020 23:59:			
Billing Number			1042-000024	24	40 Woodfin Avenue		389326		0	09/07/2020	13.960	0.030	09/08/2020 23:59:			
UsageID	= M Al	¥ X	1042-000025	25	15 Parkwood Avenue		389326		0	09/06/2020	13.930	0.030	09/07/2020 23:59:	59		
(multi select)	- 100 Mai	16050	1042-000026	26	118 Cozy Mountain Rd		389326		0	09/05/2020	13.900	0.030	09/06/2020 23:59:	59		
Endpoint Assigned	= 💌 Yes	¥ ×	1042-000027	27	478 Weaverville Hwy		389326		0	09/04/2020	13.870	0.040	09/05/2020 23:59:	:59 📖		
			1042-000028	28	15 Brookdale Avenue		389326		0	09/03/2020	13.830	0.050	09/04/2020 23:59:			
Update	From	B	1042-000029	29 30	1335 Merrimon Averse		389326		0	09/02/2020	13.780	0.030	09/03/2020 23:59:			
	To	B	1042-000030	30	475 Weaverville Rd		389325	41 Ourt Buckinham	0	09/01/2020	13.750	0.040	09/02/2020 23:59:			
										08/31/2020	13.710	0.070	09/01/2020 23:59:	59		
1 Sort Order		(+)					_									
Saved Queries			In all the second	1 of 1				6	1 - 30 of 30	IN A Par	1 0	f1 2 2			Consumptions	s 1 - 30 of 30

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.

Page 20

*Send Email					
To:	Captain Clucks	Chicken			_
AMR No.:	1042000029				
*Email Address:		******			
Save Address:					
*Subject:					
*Content:	Please enter ye	our message	here		
					- 1
If main meter	then send also t	o seconda	ry mete	C 1	

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).

etail	s																													
		isumei		Map							Cons	umpti	ons		Consu	mptio	n	E Acti	ivities		Detai	Readin	gs (🗃 Ado	lress I	nfo.		4eters	Histor	y ə
Sa		rt 🤧	Reloa	d Data		Date R	ange	1 Ca	sículato	¢.																				
	1.1																													-
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	0.9 -																													
	0.8 -																													
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	0.7 -																													
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	0.0																													
Consumption	0.5 -																													
ŝ																														
	0.4 -																													
	0.3 -																													
	0.2 -																													
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		-	-	0			0	0	0	-	-	0	-	0		-	0	-	0	-	0	0 0	0	0	-	0	-	-	0	
	0 -		-	-	-	-			-	9			9	-	-	-		-	-	-	-		-	-	-	-	-	-	2	-
		01/09/20 -	02/60/20	03/60/20	04/09/20	02/80/50	02/80/90	07/09/20	02/80/90	02/80/00	10/08/20 +	11/09/20 -	12/08/20 +	13/09/20 -	14,09/20 +	15/09/20 4	16/09/20 -	17.09/20 -	18/09/20 -	19/08/20 -	- 02/50/02	21.09/20	23/08/20 -	24/09/20	25.09/20	26/08/20	27.09/20	- 02/50/92	29.09/20	30.09/20
		6	20	8	3	8	8	00	8	8	5	1	14	12			≌ Date		22	50 00	S	12 6	23	24	23	8	23	8	12	8
																	Unite	-												×

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.

enu : Consumers	Network • Alarms/Events • 3	U.	and a country of	No and a second se	,	Full Export	Pri Pri	nt 🦓 A	ind 🔳	Calculator			
Display Options		< 🔐 Const	imers 🛛 🔝 Ala	irms Map						Meter			
😽 Load Query 🛛 🔒	Save 🏷 Clear 🔇 Go	🔛 Full Exp	ort 🚔 Print 🤅	Add Consumer		Date	Readi	ng Time		Reading	Fwd Count	BckCount	Endpoint
Find Consumer		MR No.	Account ID		Location					Reading			
Site	= 💌 Demo Site	· .042-000001	1	775 Olivette Rd		10/14/2020	10/15	5/2020.01		7.826	7826	0	025.000.000
illing Area	- *	· 042-000002		2 Fourth St 240 Mount Carmel Rd.									
	Cor 💌	.042-000004		1 Fourth St		10/13/2020	10/14	1/2 20 23	:59:59	7 825	7825	0	025.000.000
		.042-000005		7 Fourth St		10/12/2020	10/1	12020		7.024	7824		025.000.000
econdary ID	Cor 💌	.042-000006	6	25 Craftsman View		10/13/2020	10/14	/2020 zs		7.824	/824	0	025.000.000
	Col 💌	.042-000007	7	112 Leisure Mountain Rd.		10/13/2020	10/14	/2020 22	00:00	7.822	7822	0	025.000.000
	Long Barrier Long Barrier Barr	.042-000008	8	20 Tiffany Lane 150 Jonestown Rd.		10/10/2020	10/1	., 2020 22		//022			
	Cot ¥	.042-000009	10	30 Goodman Rd		10/13/2020	10/14	/2020 21	:00:00	7.820	7820	0	025.000.000
Seo. Area	= ¥	042-000011		25 Lees Creek Rd								-	
Valking Order	= Y	.042-000012	12	359 Barnard Avenue		10/13/2020	10/14	1/2020 20	00:00:00	7.818	7818	0	025.000.000
internal ID	= 💌	.042-000013	13	459 Creekside Dr		10/13/2020	10/1/	/2020 19		7.816	7816	0	025.000.000
deter No.	Cot 💌	.042-000014	14	50 Chestnut Ridge		10/13/2020	10/1-	1/2020 19	.00.00	7.010	/610	0	025.000.000
Device Model	= 💌	.042-000015		40 Wilderness Rd		10/13/2020	10/14	/2020 18	00:00	7.814	7814	0	025.000.000
	From	.042-000016	16	147 Parker Cove Rd 79 Naples Road		10,10,2020	10/1	., 2020 20		,	,		
Date		042 000018		120 Sunny Ridge Dr		10/13/2020	10/14	/2020 17	2:00:00	7.813	7813	0	025.000.000
	То	042-000019		98 Beaver Drive						-	1000		
liameter		.042-000020	20	11 Weaver Road		10/13/2020	10/14	/2020 16	00:00	7.810	7810	0	025.000.000
Displayed	Col 🕶	.042-000021	21	10 Beaverbrook Rd		10/13/2020	10/1/	/2020 15	00.00	7.808	7808	0	025.000.000
ndpoint onsumer Name		.042-000022		365 Elk Mountain Scenic H		10/13/2020	10/1-	1/2020 13	.00.00	7.000	/606	0	025.000.000
		.042-000023		20 Glenview Avenue	01		1 1						
	= ¥	.042-000024	24	40 Woodfin Avenue 15 Parkwood Avenue		932642 Thomas Flair 932611 Matthew Wayne	0	10/13/2020 10/13/2020	10/14/2020 04: 10/14/2020 03:			5.000.000.018	
sageID multi select)	= 🖌 All	× × .042-000025		15 Pankwood Avenue 118 Cozy Mountain Rd		932611 Matthew Wayne 932605 Patrick John Ad	0	10/13/2020	10/14/2020 03:			5.000.000.018	
ndpoint	= 🗸 Yes		27	478 Weaverville Hwy			0	10/12/2020	10/13/2020 13:			5.000.000.018	
Assigned	103	 × × .042-000027 .042-000028 		15 Brookdale Avenue		932613 Marcus Coffman	0	10/12/2020	10/13/2020 12:	00:00 7.764 7	764 0 0;	5.000.000.018	
Last Billing Update	From	.042-000029	29	1335 Merrimon Avenue	38	932623 Captain Clucks	0	10/12/2020	10/13/2020 11:	00:00 7.762 7	762 0 03	5.000.000.018	

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.

Daily Cor	nsumptions 📗 📗	Consumption	∃∃ Activities	😇 Detail Readings	🕒 Address Info.	e +
🛃 Edit						
Amr No.:	1042-000029					
Country:	UNITED STATES					
Region/State:	Eastern					
City:						
Address:	1335 Merrimon /	Avenue				
ZipCode:						
Location:						
Latitude:		35.6371	1			
Longtitude:		-82.5717	72			
Coordinate X:						
Coordinate Y:						
Coordinate Z:	1					

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.

Full Export Print To Offset History Type Meter No. Model Diameter Resolut. Effective From Effective To	
Tuno Matat Na Madel Dismater Desplit Effective From Effective Te	
Type Meter No. Model Diameter Resolut Effective From Effective To	Offset

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.

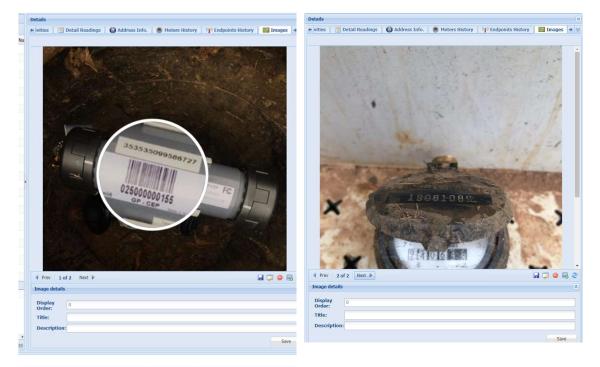
For existing meters to which an iQPulse external endpoint is newly added, an offset is entered into the iQPulse database to reflect the starting point at which the iQPulse endpoint begins to record consumption information. Click the "Offset History" icon at the top of the Endpoints History window to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

tion 📃 🗄 Ac	tivities 🛛 📃	Detail Readings	🙆 Address Info.	Meters History	(1) Endpoir	nts History
🛋 Full Export 💧	🔒 Print 🛛 🐴 🕻	Offset History				
and the second	Tuno	Effective From	Effective To	Sw Version	Hw Version	Production [
Network Asset	Туре	Litecuve rion	Litective to	DW VEIDIUI	TIM VEIDIOII	Froduction

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

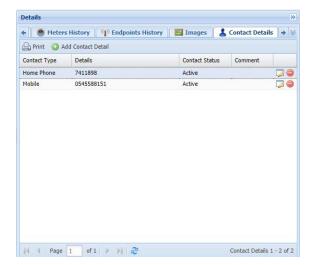
magnification window (use the mouse wheel to enlarge or reduce the size of the magnification window).



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.

* (m) -	a da a la ta 11 ata az	Terrane I	L Contact Details	(D) million Co	Date	Notification	+
- ISCOTY	nupoints history	images	Contact Details	U Bling Sy	s. Data	Nouncation	-
💭 Full Export 🛛 🔓	Print						
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 if 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.

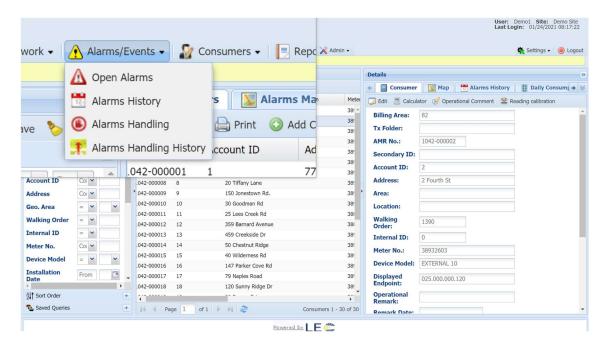
🗧 😹 Contact Details	(i) Billing Sys. Data	A Notification	RW Groups	🛛 😰 Excluded Alarms	+ 3
Alarm Type Name	Exclu				
Fast Leakage					
Light Detection					
Low Battery					
Magnetic Tamper					
Meter Cable Cut					
Meter Comm Error					
No Reception (Sabotage)					
Power Outage					
Reverse Flow					
Sabotage					
Slow Leakage					
Tilt					
Valid Communication	(FT)				

0.1.1

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:

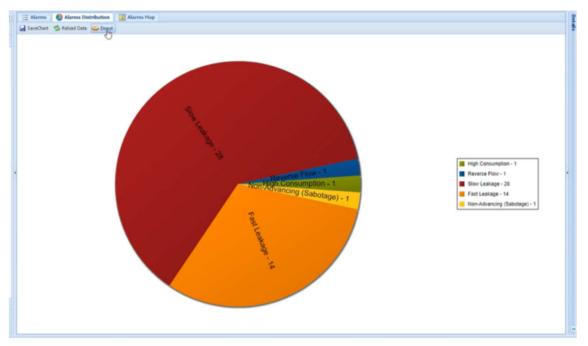
- Open Alarms listing and distribution chart of currently open alarms
- Alarms History listing and distribution chart of all historical alarms

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.

					User: Demo1 Site: Demo Site Last Login: 01/24/2021 08:17:22
📃 Alarms 🛛 🤌	Alarms Distributio	on 🛛 🔛 Alarm	s Map		🌣 Settings 🗸 🍈 Logout
💭 Full Export 🛛 🗎	Print 🗹 Mark All	Unmark All	Send SMS/Ema	il 🕶	
Ala Sev.	Asset Name	Amr No.	Displayed Address	Name	s 📃 Activities 😭 Alarm S(+ 🗞 d Letter
🙊 🗉 🔸	025.000.000.004	1042-000011	25 Lees Creek Rd	Angelo Mag	
🐂 🔲 🔹	025.000.000.018	1042-000014	50 Chestnut Rid	Roger Farn	
	025 000 000 014	1042-000022	365 Elk Mou <u>mtai.</u>	Dean King	
Billing Number = v Meter No. Coiv Alarm Code (multi select)			 Location: Walking Order: Operational Comment: 	440	
Start Date From 09/ Image: Control of the start			Name: Account Id:	Roger Farn 14	
Severity Level = V V			Water Id: Phone Number:		
🛃 Alarm Types Legend 🔹 💿	I Page 1 of 1 ▶ 1	N 1 20	Alarms 1 - 4 of 4 Description	38932606	

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 \rightarrow or \leftarrow to move right or left through the tabs):

Details			2
Alarm	Daily Consumptions	∃∃ Activities	👥 Alarm S 🔺 📎
View	🔛 Email		Alarm
Alarms:	*		Daily Consumptions
Billing Area:	4886	IE	Activities
External Type:			Alarm Status
Asset Name:	025.000.000.018		
Amr No.:	1042000014		Consumer Map
Address:	50 Chestnut Ridge		Detail Readings
Location:		8	Notification
Walking Order:	440		
Operational Comment:			
Name:	Roger Farn		
Account Id:	14		
Water Id:			
Phone Number:			
Meter No.:	38932606		
Description:	Slow Leakage		
Start Date:	10/14/2020 08:00:00		-

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.

Details	3
🔶 📄 Alarm	📋 Daily Consumptions 🛛 🚊 Activities 🕺 🏋 Alarm St 🔶 👳
View	🔛 Email
Alarms:	*
Billing Area:	4886
External Type:	
Asset Name:	025.000.000.018
Amr No.:	1042000014
Address:	50 Chestnut Ridge
Location:	
Walking Order:	440
Operational Comment:	
Name:	Roger Farn
Account Id:	14
Water Id:	
Phone Number:	
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.

Лар	Details			
🖟 Send SMS/Email 👻	← Marm 📗 Daily Consumptions 🛛 🚊 Activities 🛛 🙀 Alarm Status 🔶 👳			
sp 😡 Update Alarm Status	🖨 Full Export 🔚 Print 🕜 Add Alarm Status			
5 Le Alarm Name: Slow Leakage	Status Date Alarm Status Details			
	10/14/2020 08: Open			
59 *Alarm Status: Open				
For Details:				
V OK X Cancel				

Details – Alarms History

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

+ mp	tions	∃ Activities	Alarm Status	🗧 🛗 Alarm	s History	+ >
💷 Fu	III Expor	rt 🔒 Print				
Icon	Sev.	Amr No.	Address	Name	Port	Meter
R		1042-000014	50 Chestnut Rid	Roger Farn	1	389 -
1		1042-000014	50 Chestnut Rid	Roger Farn	1	389
1		1042-000014	50 Chestnut Rid	Roger Farn	1	389
1		1042-000014	50 Chestnut Rid	Roger Farn	1	389
2	•	1042-000014	50 Chestnut Rid	Roger Farn	1	389
2	٠	1042-000014	50 Chestnut Rid	Roger Farn	1	389
R	•	1042-000014	50 Chestnut Rid	Roger Farn	1	389
2	•	1042-000014	50 Chestnut Rid	Roger Farn	1	389
R		1042-000014	50 Chestnut Rid	Roger Farn	1	389
		1042-000014	50 Chestnut Rid	Roger Farn	1	389
R	•	1042-000014	50 Chestnut Rid	Roger Farn	1	389
1	•	1042-000014	50 Chestnut Rid	Roger Farn	1	389
R		1042-000014	50 Chestnut Rid	Roger Farn	1	389
R		1042-000014	50 Chestnut Rid	Roger Farn	1	389
2	٠	1042-000014	50 Chestnut Rid	Roger Farn	1	389 -
4						•

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.

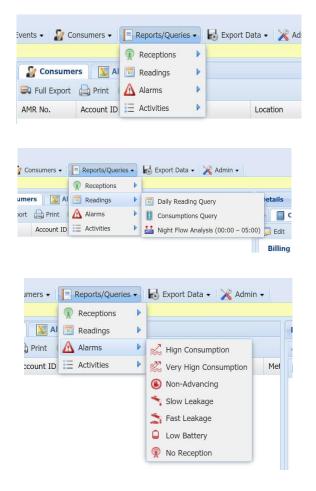
Display Options			Alarm	s 🛛 🤗 Alarms	Distribution						Details	
	🚽 Save 🏷 Clear 🚯 Go		Full Exp	ort 🚔 Print							Alarm 🔲	Consumer 📃 Activities 🏋 Alarm Status
A Find Alarm			Icon Sev.	Amr No.	Address	Name	Port	Meter No.	Model	Start Date	View	
Site Id	= Demo Site	~	* *	1042-000019	98 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	11/14/2020 ; *	Alarm:	s
Billing Area	= 💌	~	÷ •	1042-000014	50 Chestnut Rid	Roger Farn	1	38932606	EXTERNAL 1	10/14/2020 (External Type:	
External Type	Cot 💌	100	4 .	1042-000014	50 Chestnut Rid	Roger Farn	1	38932606	EXTERNAL 1	10/10/2020 (1042-000019
Amr No.			20	1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	10/05/2020 :		
	= •		5 .	1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	09/27/2020 :		98 Beaver Drive
Address	Cot		÷ •	1042-000019	98 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	09/26/2020 :	Location:	
Name	Coi 💌			1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	09/19/2020 :	Name:	Gene Criss
Billing Number	=		5.0	1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	09/17/2020 :	Accoynt ID:	19
Usage ID (multi select)	= 🖌 All	* ×	4 .	1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	09/15/2020 :	Water Id:	
Meter No.	Coi 💌		50	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	09/11/2020 (Phone	
Model Id		~	5.0	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	09/09/2020 :	Number: Comment:	
Alarm Code	= 💌 Slow Leakage	~	50	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	09/07/2020 ;		
Start Date	From		5.0	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	09/04/2020:	Port:	1
our odte	To			1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	08/29/2020 :		38891052
		3	4.0	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	08/28/2020;	Model:	EXTERNAL 10
End Date	From		4.0	1042-000012	359 Barnard Av	Stephanie Adams	1	38891051	EXTERNAL 10	08/25/2020 :	Start Date:	11/14/2020 21:00:00
	То		÷ •	1042-000029	1335 Merrimon	Captain Clucks	1	38932623	EXTERNAL 10	08/25/2020 :	End Date:	11/16/2020 21:00:00
Is Associated To Amr	• = Yes	~ ×		1042-000012	359 Barnard Av	Stephanie Adams		38891051	EXTERNAL 10	08/19/2020;		
			* *	1042-000012	359 Barnard Av			38891051	EXTERNAL 10	08/17/2020 (
			4	1042-000012	359 Barnard Av	Stephanie Adams		38891051	EXTERNAL 10	08/12/2020 :		
				1042-000029	1335 Merrimon	Captain Clucks		38932623	EXTERNAL 10	08/12/2020 :		
				1042-000012	359 Barnard Av.	Stephanie Adams		38891051	EXTERNAL 10	08/08/2020 :		
				1042-000012	359 Barnard Av	Stephanie Adams		38891051	EXTERNAL 10	08/03/2020 :		
				1042-000012	359 Barnard Av	Stephanie Adams		38891051	EXTERNAL 10	08/01/2020 :		
			4	1042-000029	1335 Merrimon	Captain Clucks		38932623	EXTERNAL 10	07/28/2020 :		
				1042-000029	25 Lees Creek Rd		1	38891053	EXTERNAL 10	06/14/2020 ;		
				1042-000011	25 Lees Creek Rd 25 Lees Creek Rd		1	38891053	EXTERNAL 10	06/07/2020 :		
1 Sort Order		+		1042-000011	1335 Merrimon			38932623	EXTERNAL 10 EXTERNAL 10	05/12/2020 (
Alarm Types Le	soend		2.4	1042-000029	1932 Pretraining	captain club/s		20332052	EATERMAL 10			
Saved Queries		+	•	age 1 of 2						Varms 1 - 30 of 38		

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

Reports and Queries

Overview

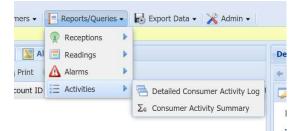
There are several standard reports and queries that have been included in iQPulse. Similar reports, and variations thereof, can also be created in other parts of the system using saved queries. t is also possible to create a report or an Excel file from virtually any data window in the system. As explained 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:

Menu : Reports/Que	eries R	leceptions	Receptions Query
Display Options		<	Reception Da
	🏷 Clei	ar 🖸 Go 🕶	📮 Full Export
M Find Reception D	ate	Sho	w Data ate
*Site ID	- •	D 😹 Data	a Preparation
Billing Area ID	- 🗸	Bac	kground Report
ID Type	Соі 💌		
Geographichal Area ID	= 💌	~	
Tx Date	From	08/01, 💽	
	То	08/31, 🖪	1
EP Population	- 🗸	Coi 🕶 🗙	0
Network Type	- 🗸	~	
Last Billing Date	From	•	
	То		
Non-active Consecutive Days	=	3	

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 of amounts of data could lead to a timeout on your Internet connection).

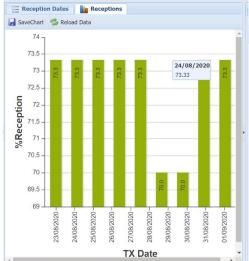
Click on "Background Report" to create a report in the background (i.e. while you perform other functions within the system). The Background Report will be sent to the email address you have specified.

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.

isplay Options	<	< 📃 R	eception Dates	Receptions	5		Details	
	🏷 Clear 📘 Go 🕶	🔜 Ful	Export	nt			+ Reception	Date 📃 Reception 📃 No Receptions 💹
Find Reception [Date	Day	Date	Total Associated Endpoints	Total Active Endpoints	%Reception	View	
Site ID	= 💌 Demo 💙	Mon	08/31/2020	30	22	73.33	Site Name:	Demo Site
lling Area ID	= 🗸 🗸	Sun	08/30/2020	30	22	73.33	Billing Area:	
О Туре	Coi 🕶	Sat	08/29/2020	30	22	73.33	ID Type:	
		Fri	08/28/2020	30	22	73.33		
eographichal rea ID	- * *	Thu	08/27/2020	30	22	73.33	Geographical Area:	
Date	From 08/01, 🖪	Wed	08/26/2020	30	21	70		Mon
k Date		Tue	08/25/2020	30	21	70		
	To 08/31, 🎦	Mon	08/24/2020	30	22	73.33	Date:	08/31/2020
P Population	= 🕶 Coi 🕶 🗙	Sun	08/23/2020	30	22	73.33	Network Type:	0
etwork Type							Total	
								30
ast Billing Date							Endpoints:	
	То						Total Active Endpoints:	22
on-active	= 3 🗘						Percent	73.33
Consecutive Days	- 5 -						Active:	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 \rightarrow or \leftarrow to move right or left through the tabs):

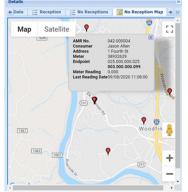
Details			»	
+ Reception	Date 🚊 Reception 🚊 No Rece	otions	5 🚺 No 🔶 😒	~
View			Reception Date	
Site Name:	Demo Site	Ξ	Reception	Click here to open
Billing Area:		==	No Receptions No Reception Map	drop-down menu of
ID Type:				Details tabs
Geographical Area:				
Day:	Mon			

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 t were data was not received on that date. Click on an endpoint balloon to display consumer information for the non-received endpoint.



Page 33

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.

1enu : Reports/Qu					nsumers 👻 📘 Rep Y	ore) queres ·	y Export Data -					🍇 Settings 🗸 🍈 Logo
Display Options			«	E Daily Rea	dings							
🛃 Load Query 🛛 🔓	Save	🏷 Clear	O	💭 Full Export	Print Print							
Find Daily Reading	ng		Ξ	umr No.	Name	Address	Account Secondary Id	Billing Number	Meter No.	Diameter Name	Last Reading	Reading Date Time 🔻
Site Id	- *	Der 💌	Ê	.042000023	Stephen Rodgers	20 Glenview Av	23	0	38832622	Unknown	62.33	10/15/2020 08:00:00
Billing Area	- *	~		.042000024	Thomas Flair	40 Woodfin Ave		0	38932642	Unknown	32.51	10/15/2020 08:00:00
Tx Folder	Сог 🗸			.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
mr No.	- *			.042000005	Christy Park	7 Fourth St		0	38932626	Unknown	55.75	10/15/2020 08:00:00
lame	Соі 🗸			.042000012	Stephanie Adams	359 Barnard Av		0	38891051	Unknown	111.15	10/15/2020 08:00:00
Address	Соі 🕶			.042000013	Beth Edwards	459 Creekside Dr		0	38932630	Unknown	31.54	10/15/2020 08:00:00
Account	0			.042000014	Roger Farn	50 Chestnut Rid		0	38932606	Unknown	7.826	10/15/2020 08:00:00
Secondary Id	Соі 💙			.042000018	Peter Panada	120 Sunny Ridg		0	38932612	Unknown	27.32	10/15/2020 08:00:00
Area	- *	~		.042000006	Melvin Spark	25 Craftsman Vi		0	38932621	Unknown	24.01	10/15/2020 06:00:00
Sub Area Name				.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
Billing Number	- *			.042000016	Bruce Snyder	147 Parker Cov		0	38932604	Unknown	49.89	10/14/2020 20:00:00
Meter No.	Соі 🗸			.042000017	Cindy Wilson	79 Naples Road		0	38932601	Unknown	0.02	10/14/2020 14:00:00
Diameter Name	Соі 🗸			.042000015	Paul Simmons	40 Wilderness Rd		0	38932627	Unknown	15.31	10/14/2020 14:00:00
Last Reading		_	-	.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
Sort Order			+	142000026	Patrick John 4d	118 Cozy 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).

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Find Consumption		Ξ	Water ID	Amr No.	Consumer Name	Address	Meter No	Account No	Billing No	No. Of Days	No Of Consu. Days
Tx Folder	Coi 🕶			1042-000011	Angelo Maggio	25 Lees Creek Rd	38891053	11	0	30	30
Vater ID	Соі 💙			1042-000012	Stephanie Adams	359 Barnard Avenue	38891051	12	0	30	30
mr No.	- *			1042-000013	Beth Edwards	459 Creekside Dr	38932630	13	0	30	30
onsumer Name	Coi 💌			1042-000014	Roger Farn	50 Chestnut Ridge	38932606	14	0	30	28
ddress	Coi 🕶			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
leter No	Coi 💙		1	1042-000017	Cindy Wilson	79 Naples Road	38932601	17	0	30	30
ccount No	Coi 🕶			1042-000018	Peter Panada	120 Sunny Ridge Dr	38932612	18	0	30	30
Silling No				1042-000019	Gene Criss	98 Beaver Drive	38891052	19	0	30	30
Isage Code				1042-000020	Fred Stanley	11 Weaver Road	38932615	20	0	30	30
multi select)	= • . • >	•		1042-000021	Barry Allen	10 Beaverbrook Rd	38932625	21	0	30	0
rea				1042-000022	Dean King	365 Elk Mountain Scenic Hwy	38932620	22	0	30	30
ub Area			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
egin Period	From 09/			1042-000025	Matthew Wayne	15 Parkwood Avenue	38932611	25	0	30	0
nd Period	To 09/	•		1042-000026	Patrick John Adams	118 Cozy Mountain Rd	38932605	26	0	30	30
Sort Order		+		1042-000027	Jeremy Ramsey	478 Weaverville Hwy	38932619	27	0	30	30
Saved Queries		+	14 4 1	Page 1 of 1	N R					Consumption	

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.

enu : Reports/Que		Consu	mptions Que	ry	Reports/Queries •	By Export Data •	Aumin		Total		E		🎘 Settings 🛛 🍈 I	Logout
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'x Folder	Coi 🕶		30	30	09/01/2020 02:00:00	10/01/2020 06:59:59	Yes	0.5	11.540		4	202.240	10/15/2020 08:00:00	232
Vater ID	Coi 💙	-	30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.3				104.770	10/15/2020 08:00:00	111
mr No.	= 💌		30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.2	8.150		6	70.450	10/11/2020 14:00:00	75.
onsumer Name	Coi 💌		30	30	09/01/2020 06:59:59	10/01/2020 02:00:00	Yes	0.2			-	112.630	01/26/2021 02:00:00	121
ddress	Col 🕶		30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.2	8.030		1	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				47.480	10/14/2020 20:00:00	49.
leter No	Coi 💙		30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.1	6.070		4	53.440	10/15/2020 08:00:00	55.
Account No	Coi 💌		30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.1				60.290	10/15/2020 08:00:00	62.
Silling No			30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.1	5.390		4	22.520	10/15/2020 06:00:00	24.
Isage Code			30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.1				50.690	10/14/2020 22:00:00	52.
multi select)	= 💌 . 💌 🗙		30	30	08/26/2020 14:00:00	10/01/2020 06:59:59	Yes	0.1	5.150		4	41.917	10/13/2020 14:00:00	43.
rea			30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.0				28.470	01/26/2021 02:00:00	44.
ub Area			30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.0	4.470		1	30.420	10/15/2020 08:00:00	31.
			30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.082	2.400	29.200	_	31.720	10/14/2020 20:00:00	32
egin Period	From 09/		30	28	08/23/2020 02:00:00	10/01/2020 06:59:59	Yes	0.075	2.247	62.270		64.517	10/15/2020 08:00:00	7.8
nd Period	To 09/ 💽		30	30	09/01/2020 02:00:00	10/01/2020 02:00:00	Yes	0.068	2.050	24.370		26.420	10/15/2020 08:00:00	27
		+	30	30	09/01/2020 06:59:59	10/01/2020 06:59:59		0.068	2.050	29.300		31.350	10/15/2020 08:00:00	32.

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.

		larms/Events • 🎲 Consumers • Night Flow Analysis (00:00 –	and the second s	S CAPOIL DU	u · 💦 Autiliti ·					~	Settings - 🧕	Logo
Display Options		📧 🔛 Night Flow Analysis	s									
😝 Load Query 🛛 🛃	Save 🏷 Clear	💿 🔍 Full Export 🚔 Print										
Find Night Flow A	Col 🕶	- • s	Meter No	Account No	Billing No	No. Of Nights	No Of nights for calculat	No Of nights with consum	Estimat	Avg. Night Flow	Total Night Flow	
Water ID	Coi 💙	ivette Rd	38932614	1	0	31	11	8	Yes	0.007	0.225	
Amr No.	- *	th St	38932603	2	0	31	0	0	Yes	0.000	0.000	
Consumer Name	Coi 💌	ount Carmel Rd.	38932628	3	0	31	28	12	Yes	0.008	0.244	
ddress	Coi 🗸	th St	38932629	4	0	31	2	1	Yes	0.005	0.155	
		th St	38932626	5	0	31	29	29	Yes	0.024	0.738	
Meter No	Coi 💙	ftsman View	38932621	6	0	31	31	15		0.014	0.420	
Account No	Coi 🕶	fisure Mountain Rd.	38932624	7	0	31	31	2		0.001	0.020	
Billing No		any Lane	38932607	8	0	31	30	2	Yes	0.001	0.041	
Jsage Code		nestown Rd.	38932602	9	0	31	16	5	Yes	0.003	0.097	
multi select)	= 🕶 . 🕶 🗙	odman Rd	38932643	10	0	31	0	0	Yes	0.000	0.000	
Area		s Creek Rd	38891053	11	0	31	31	27		0.027	0.850	
Sub Area	= •	Irnard Avenue	38891051	12	0	31	30	30	Yes	0.046	1.426	
		eekside Dr	38932630	13	0	31	31	2		0.001	0.020	
Begin Period	From 08/ 🖪	stnut Ridge	38932606	14	0	31	22	16	Yes	0.047	1.451	
ind Period	To 08/ 🖻	🚽 derness Rd	38932627	15	0	31	30	1	Yes	0.000	0.010	
	l.	Irker Cove Rd	38932604	16	0	31	2	1	Yes	0.005	0.155	
Sort Order		· · ·										-

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.

<u>Alarms</u>

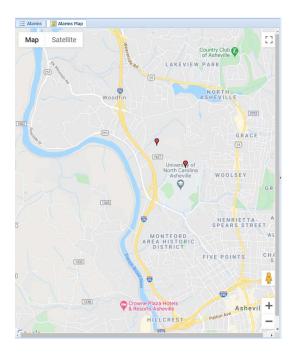
Click the menu item "Reports & Queries", and from the drop-down menu, select "Alarms" – then the specific alarm to be reported (e.g. Fast Leakage).

LE 😳	orts/Queries • 🛛 😽 Export Data • 🛛 🔏 Admin • 🗍	User: Domoi Ster Denoi Ste Last Legen: 01/25/2012/23/23/27 🌺 Settings - 🥘 Legent
	ms vities Very Hign Consumption Non-Advancing Slow Leakage Fast Leakage Low Battery No Reception	Details Image: Consumer image: The image: Consumption image: C
	Powered by	

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.

, My Menu • TNetwork • 🔥 Alarms/Events • 🍃 enu : Reports/Queries Alarms Slow Leakage	Companies - [] Ke	por of Queries •	Export Data -	N Manual -			3	Detail	S		🙀 Settings 🔹 🍥 Logo
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Site Id = 😁 Demo Site	× • •	025.000.000.018	1042-000014	50 Chestnut Rid.	Roger Farn	38932606	10/1-		-		Alarms History
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xternal Type Cor 🕶									A A A A A A A A A A A A A A A A A A A		Map Detail Readings
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s associated to = Yes	~ ×								Name:	Roger Farn	
4mr? 103									Account Id:	14	
	1							1	Water Id:		
									Phone Number:		
									Meter No.:	38932606	
									Description:	Slow Leakage	
									Start Date:	10/14/2020 08:00:00	
									Last Reading Date:	10/15/2020 08:00:18	
									Last Reading:	7.826	
									Status Name:	Open	
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Saved Queries		age 1 of 1 🕨						arms 1 - 2 of 2			

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 \rightarrow or \leftarrow to move right or left through the tabs).

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ite Id	= 💙 Demo Site	~	*	•	025.000.000.018	1042-000014	50 Chestnut Rid	Roger Farn	38932606	10/14/2020 08:00:00	Alarms:	*		Consumer
lling Area	= 💌	~	*		025.000.000.100	1042-000012	359 Barnard Av	Stephanie Adams	38891051	09/11/2020 06:00:00	Billing Area:	4886		
ternal Type	Col 👻										External Type		X	Мар
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mr No.	= 💌										Address:	50 Chestnut Ridge	1.00	Alarm Status
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art Date	From	3									Operational Comment:			
	To	3									Name:	Roger Farn		
associated to mr?	= Yes	* ×									Account Id:	14		
											Water Id:			
											Phone			
											Number: Meter No.:	38932606		
											Description:	Slow Leakage		
											Start Date:	10/14/2020 08:00:00		
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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

iQPulse User Manual

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 & Querie", 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.

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end mm mm <t< th=""><th>Find Activity</th><th></th><th></th><th>Amr No.</th><th>Consumer Name</th><th>Activity Date</th><th>Activity Name</th><th>Alarm Name</th><th>Alarm Start Date</th><th>Alarm End Date</th><th></th><th>ContactInfo</th><th>Subject</th><th>Updated by User</th><th></th><th></th></t<>	Find Activity			Amr No.	Consumer Name	Activity Date	Activity Name	Alarm Name	Alarm Start Date	Alarm End Date		ContactInfo	Subject	Updated by User		
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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.

isplay Options				E Summa	ry by activi	ties Σ_0	Summary	by alarms							Details
		City	ir 🔘 Go	E Full Expor											Summary by activity Σ ₆ Summary by alarm Activities
Find Summary	by activity		-					SMS	SMS	SMS Sent		-			Activity Date: 01/24/2021
site		Demo Site	~	Activity Date	Sending Letter	Sending Email	Sending SMS	Received	Failed	in ext. system	To Fieldtech	From Fieldtech	C11500	C11500	Sending 5
tivity Date	From		B	01/24/2021	5										Letter:
	То		3												Sending Email: 0
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															C1150014: 0
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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

<u>Overview</u>

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.

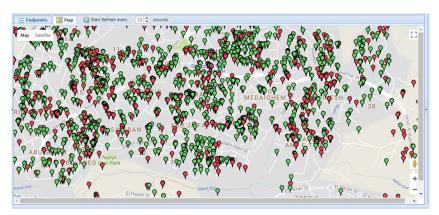
This section addresses those aspects of monitoring the status of Endpoints and the reception of data from the Endpoints. These are tools for monitoring the "health" of the wireless connection.

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.

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isplay Options	Save 🏷 Clear 🚯 Go	Full Export		Neiresi every	* seconds				+ Endpoint	🞇 Map 🗮 Alarms 🕘 Meters History 💠 Events 📑 Detailed Readings 🔗 Re 🗕
Find Endpoint	Dave 🖉 Clear 🔊 00	Alarm	Consumer Name	Description	Endpoint IP	AMR No.	Last Event	Software	Edit	The second secon
	= 💌 Demo Customer		Angelo Maggio		025.000.000.004	10420000	10/12/2020 00:00:00		Alarm:	Ŷ
	Demo Castomer Demo Site	0.0	Beth Edwards		025.000.000.005	10420000	10/15/2020 08:00:17	1.0.46	Site Name:	Perno Site
			Fred Stanley		025.000.000.007	10420000	01/27/2021 02:01:21	1.0.46		Demo Site
onsumer Name	Long L	0.0	Curt Buckinham		025.000.000.008	10420000	08/01/2020 04:01:00	1.0.46	Consumer Name:	Angelo Maggio
	= iqPulseMiniMNSCellularIOT		Dean King		025.000.000.014	10420000	10/03/2020 20:11:07	1.0.35	Connected to Amr on date:	08/23/2020 15:15:14
	Cor 💌		Jessie Minx		025.000.000.016	10420000	10/14/2020 14:00:19	1.0.35	Description:	
	= *	· ·	Roger Farn		025.000.000.018	10420000	10/15/2020 08:00:18	1.0.35	bescription	
	Cot ¥		Leonard Marx		025.000.000.023	10420000	10/13/2020 14:00:20	1.0.35		
	Col		Jason Allen		025.000.000.025	10420000	01/01/2000 02:00:30	1.0.46	Network Name:	iqPulseMiniMNSCellularIOT-DemoNi
	= ¥	× 🙊	Samual Spade		025.000.000.028	10420000	01/02/2020 14:00:14	1.0.35	Endpoint:	419430404
tatus	- *	×	Melvin Spark		025.000.000.032	10420000	10/15/2020 06:10:13	1.0.35	Endpoint IP:	025.000.000.004
ctive	= 🖌 Active	× 🙊	Matthew Wayne		025.000.000.037	10420000	01/01/2000 06:01:51	1.0.51	#Of Ports:	1
ast Reading		÷ 👷	Paul Simmons		025.000.000.039	10420000	10/14/2020 14:00:16	1.0.35	AMR No.:	1042000011
ndpoint	= 💙 Yes	• × • 🙊	Rick Hayworth		025.000.000.041	10420000	10/14/2020 22:00:18	1.0.35	Last Event:	10/12/2020 00:00:00
-	Cot	2	Bruce Snyder		025.000.000.044	10420000	10/14/2020 20:20:14	1.0.35	Latitude:	35.6401
larms Exist?	= 🗙 All	× 0 .	Stephanie Adams		025.000.000.100	10420000	10/15/2020 08:00:17	1.0.46	Longtitude:	-82.57344
		R	Barry Allen		025.000.000.105	10420000	07/21/2020 20:00:13	1.0.46	Software Ver.:	
		R	Stephen Rodgers		025.000.000.107	10420000	10/15/2020 08:00:20	1.0.46	Comment:	1.0.35
		R	Larry Fine		025.000.000.120	10420000	05/18/2020 00:01:55	1.0.48	Comment:	
			Thomas Flair		025.000.000.136	10420000	10/15/2020 08:01:14	1.0.35		
		R O	Cindy Wilson		025.000.000.138	10420000	10/14/2020 14:00:15	1.0.35	BTS IP:	003.000.000.099
		R	Patrick John Adams		025.000.000.140	10420000	10/14/2020 14:00:16	1.0.35	Prod. Date:	01/01/2000 02:00:00
		R	James John		025.000.000.142	10420000	10/14/2020 14:00:20	1.0.35	Status Date:	12/10/2019 21:01:32
		R	Jeremy Ramsey		025.000.000.145	10420000	10/14/2020 14:00:17	1.0.35	Active Name:	Active
			Peter Panada		025.000.000.146	10420000	10/15/2020 08:00:17	1.0.35	Last Reading:	75.42

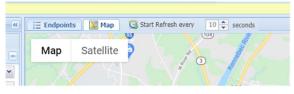
<u>Map</u>

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.

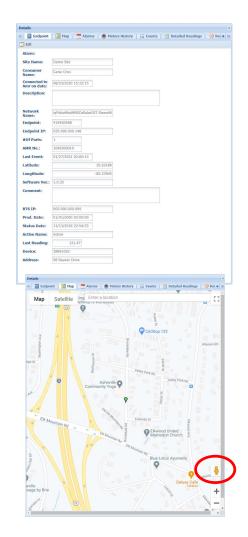
Details – Endpoints

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 option, 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.

Det		sdpoint 💟	Hap Marme	Meters	Understand	Events	Detailed Readings	Rei 🔶 😒
	-	port - Print	etap 🔄 🔤 Aterme	e recers	HISTORY	:= EVENS []	Uetailed Readings	1 KG 4 3
con	Sev.	Amr No.	Address	Name	Part	Meter No.	Model	Start Date
5	•	1042-000019	96 Beaver Drive	Gene Criss	1	36891052	EXTERNAL 10	11/14/2020 21
P	•	1042-000019	96 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	10/18/2020 08
5	•	1042-000019	98 Beaver Drive	Gane Criss	1	38891052	EXTERNAL 10	09/26/2020 17
2	•	1042-000019	98 Beaver Drive	Gane Criss	1	38891052	EXTERNAL 10	09/26/2020 14
5	•	1042-000019	98 Beaver Drive	Gane Criss	1	38891052	EXTERNAL 10	04/17/2020 14
5	•	1042-000019	98 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	02/21/2020 13
1	•	1042-000019	98 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	02/08/2020 14
5	•	1042-000019	96 Beaver Drive	Gene Criss	1	38891052	EXTERNAL 10	12/13/2019 12:

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.

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.

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.

Details					0
+ 📔 Endp	oint 🛛 🔯 Map	Alarms History	🙆 Meters History	∃≣ Events	+
Print					
Device	Port	Effective From	Effective To	Meter Replace	
100000034	1	04/06/2013 10:38:2	17	No	

Rull Export	Print 🚜 Find	G Start Refres	h every 10 🗘		
Event Date Time	Event 1d	Event Type Description	Displayed Network Tarpet Object 3d	External Event Id	
01/27/2021 02:	3293685	Consumption	025.000.000.148	129696	
01/26/2021 14:	3293578	Consumption	025.000.000.148	129467	
01/26/2021 02:	3293520	Consumption	025.000.000.148	129294	
01/25/2021 14:	3293425	Consumption	025.000.000.148	129066	
01/25/2021 02:	3293380	Consumption	025.000.000.148	128918	
01/24/2021 14:	3293221	Consumption	025.000.000.148	128603	
01/24/2021 02:	3293177	Consumption	025.000.000.148	128445	
01/23/2021 14:	3293078	Consumption	025.000.000.148	128204	
01/23/2021 02:	3293020	Consumption	025.000.000.148	128056	
01/22/2021 14:	3292937	Consumption	025.000.000.148	127836	
01/22/2021 02:	3292895	Consumption	025.000.000.148	127713	
01/21/2021 14:	3292829	Consumption	025.000.000.148	127492	
01/21/2021 02:	3292770	Consumption	025.000.000.148	127338	
01/20/2021 14:	3292693	Consumption	025.000.000.148	127115	
01/20/2021 02:	3292619	Consumption	025.000.000.148	126948	
01/19/2021 14:	3292523	Consumption	025.000.000.148	126711	
01/19/2021 02:	3292473	Consumption	025.000.000.148	126554	
01/18/2021 14:	3292376	Consumption	025.000.000.148	126309	
01/18/2021 02:	3292328	Consumption	025.000.000.148	126161	
01/17/2021 14:	3292242	Consumption	025.000.000.148	125896	
01/17/2021 02:	3292183	Consumption	025.000.000.148	125735	
		C		man	100

U HUI Export	A Print M Find						
Date	Reading Time	Heter Reading	Pwd Count	Bok Count	Endpoint		
01/24/2021	01/27/2021 02:00:00	121.470	12147	0	025.000.000.148		
01/26/2021	01/27/2021 01:00:00	121.470	12147	0	025.000.000.148		
01/26/2021	01/27/2021 00:00:00	121.460	12146	0	025.000.000.148		
01/26/2021	01/26/2021 23:00:00	121.450	12146	0	025.000.000.148		
01/26/2021	01/26/2021 22:00:00	121.450	12146	0	025.000.000.148		
01/25/2021	01/26/2021 21:00:00	121.450	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	025.010.000.148		
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		
1202/25/10	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		
01/25/2021	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		
1202/2021	01/26/2021 06:59:59	121.450	12145	0	025.000.000.148		
01/25/2021	01/26/2021 06:00:00	121.450	12145	0	025.000.000.148		
01/25/2021	01/26/2021 05:00:00	121.450	12145	0	025.000.003.148		
01/25/2021	01/26/2021 04:00:00	121.450	12145	0	025.000.000.148		
01/25/2021	01/26/2021 03:00:00	121.450	12145	0	025.000.000.148		
1202/25/2021	01/26/2021 02:00:00	121.450	12145	0	025.000.000.148		
01/25/2021	01/26/2021 01:00:00	121.450	12145	0	025.000.000.148		
01/25/2021	01/26/2021 00:00:00	121.440	12144	0	025.000.000.148		
01/25/2021	01/25/2021 23:00:00	121.440	12144	0	025.000.000.148		
01/25/2021	01/25/2021 22:00:00	121.440	12144	0	025.000.000.148		
01/25/2021	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 if 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.

	∃ Events	Detailed Readings	Receptions	S Excluded Alarms	+
Alarm Type Name	Exclu				
Fast Leakage					
Upht Detection					
Low Battery	1				
Magnetic Tamper	10				
Meter Cable Cut	12				
Meter Comm Error	-				
No Reception (Sabotage)	10				
Power Outage					
Reverse Flow					
Sabotage					
Slow Leakage					
Titt	<u>[11</u>				
Valid Communication	173				

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.

*Customer:	Demo Custor	ner			Y	1
*Site:	Demo Site				~	
*Template:	General Expo	ort File -	- CSV		*	
*Effective Date:	General Expo	ort File -	- CSV			
4					•	

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.

Billing Area (multi select) = Amr No. = Account Secondary ID Col Account ID Col Meter No. Col	Effective Tx Date	=	~	01/26/2021	1
Account Secondary ID Account ID		=	*		
Secondary ID Col V Account ID Col V	Amr No.	=	*		
		Cor	*		
Meter No. Col 👻	Account ID	Coi	*		
	Meter No.	Coi	~		
Is Assoicated To = V Yes V		-	*	Yes	*

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.

_E 🔅					User: Demol Site: Demo Ste Last Login: 01/27/2021 04:09:08
My Menu 🔹 🕎 I	Network • 🔥 Alarms/Events • 🔓	🔹 🛛 🔣 Export Data 🔹	🔀 Admin 👻		🍇 Settings - 🛛 💩 Logo
Display Options			👃 Contact People		Details
😹 Load Query 🛃	Save 🏷 Clear 🜍 Go	Alarms Map		ing Nu	← ← Consumer Consumption Cons Consumption Consumption Consumption Cons
	= V Demo Site	Add Consumer	🔆 Logical Tests 🕨		Billing Area:
x Folder	Cor	ID Address	Auxiliary Tables	Meter N	AMR No.:
	Col V				Secondary ID: Account ID:
count ID	Cor 💌				Address:
	Coi 👻	v			Area: Location:
	= *				Walking Order:
eter No.	Сог				Internal ID: Meter No.:
stallation	From	× .			Device Model:
ate	То	3			Displayed Endpoint: Operational
	= ¥	¥			Remark: Remark Date:
idpoint onsumer Name					Consumer Name:
	= v				Mobile Phone: Billing
und sereccy		v x v x			Number: Usage Name:
	From	3			Meter Reading:
	То	3			Reading Date: Consumption:

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.

Contact Have Addression Addression Addression Contact Have Contact Have <th>Options («</th> <th>👗 Contact P</th> <th>eople</th> <th></th> <th></th> <th></th> <th></th> <th>Details</th> <th></th> <th></th> <th></th>	Options («	👗 Contact P	eople					Details			
Address Color <	🏷 Clear 🕥 Go	💭 Full Export	Add 🖓 Print 🕐 Add	Contact Person				Contact Perso	n 😑 Sites	Email Notification	
cdr Kane (a) Contact Kane (b) Contact Kane (c) Contact Kane <	Contact Person	Contact Name	Contact Person	Email Address	Mobile Number	is All Sites	Active	🧔 Edit			
e Number Co V Person Type Freidacch Name: the v Active	Name Col 🖌	Gil Carrent		giam" - ma			Active	Contact Name:	Matt Crites		
Number Cold Nume: w w Active Email Active w Active Email Active W Active Email		Matt crises	1480002	mcn	n 3142580387	Yes	Active	Contact	Fieldtech		
Mobile 2142580387	Number Col 🖌										
Number:	ve = 🛩 Active 🛩							Email Address:	mcrites@lecinc.com		
								Mobile	3142580387		
									Active	_	
		•						•			

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.

*Contact Name:	Matt Crites	_
Contact Person Type:	Fieldtech	~
Email Address:	mcrites@lecinc.com	
Mobile Number:	3142580387	
is All Sites:		
*Is Active:	Active	~
		-

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.

				ta 🗸	×	Admin -		mo Site 14:24:03
🚨 My Menu 🔹 🛐	Network 🗸 🔒 🛕	Alarms	Events 🔹 🏼 🎥 Consumers 🔹	E	1	Contact	People	Logout
Display Options	2	«	🔓 Consumers 🛛 📓 A	arm	0			»
🕞 Load Query 🔓	Save 🏷 Cle	ar 📀	💭 Full Export 🗎 Print	01				vmt + ≪
ind Consumer		Ξ	AMR No. Account IE		*	Logical 1	Tests	High Consumption
Site Billing Area	= 👻 Der	•		Locat		Auxiliary	Tables	Very High Consumption rational C
Tx Folder	Coi 🕶							
AMR No.	- *							Bi 🙊 No Reception
Secondary ID	Coi 🕶							
Account ID	Coi 🕶							Non-Advancing
Address	Coi 💌		•					
Geo. Area	= 💌	~						Location:
Walking Order	= 💌							Walking Order:
Internal ID	= 💌							Internal ID:
Meter No.	Coi 🕶							Meter No.:
Device Model	= 👻	~						Device Model:
Installation Date	From	•						Displayed Endpoint:
∢ ≬l¶ Sort Order		+						Operational
Saved Queries		Đ	A Page 0 of		þ	No Cor	isumers To Displa	Remark: Remark Date:
						Powered by	F©	

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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).

ay Options	≪ i≣ Scenari	0						Details			
🏷 Clear 🌘	Go 💭 Full Export	t 🚔 Print 🗿 Add	Scenario					Scenario	∃ Usage Codes	i≣ Diameters	E Meter Mode
id Scenario	E	Site Name	Scenario	Usage Criteria	Diameter	Diameter Criteria		😡 Edit			
i = 👻 Dem	✓ Active	Site Name	Scenario	Exists?	Exists?	Exists?		Active:	7		
io Co 🕶	Yes	Demo Site	Opening high consumption alert	No	No	No		Site Name:	Demo Site	8	
								Alarm Name:	High Consumption	n	
								Scenario:	Opening high con	sumption alert	
								Days Before C	urrent Layer:		1
								Example: If th	e Current Layer D	ate is:	01/28/2021
								Then Layer Da	ite to be checked i	in this case is:	01/27/2021
								Calculation	Average		
	1						1	Method:			
									eters for calculatio		
	•							List of parame Compariso	n Period (Days):		30
	•						}	List of parame Compariso Percentage	n Period (Days): e greater than:		
	•						}	List of parame Compariso Percentage	n Period (Days):		30
	•							List of parame Compariso Percentage Daily Cons	n Period (Days): e greater than:	han:	30 200 1
	•							List of parame Compariso Percentage Daily Cons	n Period (Days): e greater than: umption greater tl eters for calculatio	han: on type: ISR Reg	30 200 1
	•						8	List of parame Compariso Percentage Daily Cons List of parame Billing Typ	n Period (Days): e greater than: umption greater tl eters for calculatio	han: on type: ISR Reg	30 200 1 gulation
	•						8	List of parame Compariso Percentage Daily Cons ² List of parame Billing Typ Max Gap in	n Period (Days): e greater than: umption greater tl eters for calculatio e:	han: on type: ISR Reg	30 200 1 gulation Unknown

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.

Active:						
Site Id:	Demo Site		~			
*Scenario:	Opening high consumption alert					
*Days Before Current Layer: 1						
Calculation Type:	Average		~			
*Comparison Period (Days):	30					
*Percentage greater than:	200					
Daily Consumpti greater than:	on		1 🗸			
4						

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.

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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.

0				User: Demo1 Site: Demo Site Last Login: 01/28/2021 04:24:03
	irms/Events • 🏼 🏭 Consumers	• 📄 Reports/Queries • 😽 Export Data • 🎽	🐇 Admin 🕶	🎇 Settings = 🛛 🕘 Logout
Menu : Admin Auxiliary Tables				
Display Options	≪ i≣ Items			
∃ Table Names	💼 🗐 Full Export	Add Item		
Description	Item Code	Description Short Description		
Billing Area	82	82		
	85	85		
	93	93		
	1			
			Powered by LE 😂	

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.

Item Code:	82	1
*Description:	82	
Short Description:	Billing Group 82	
Display Order:	0	
4	•	