


Electronic Tank Monitoring



Electronic Tank Monitoring





SSS Propane.Net (v2.0)
2/20/2023
SQL Indexes Enabled

ETM Options

- Download ETM Readings
- Print/View ETM Records
- Create Gas Orders From ETM Records
- Create ETM Meter Readings

Gas	Dispatch	Billing	Management Rpts	Mapping	Banking & CCards
Daily	Utility	Month End	Delinquency Control	Tank and Meter	Sales & Service

Exit

    Web Services Order Inquiry Customer Inquiry

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As an optional module, Suburban Software Systems (SSS) offers Electronic Tank Monitoring for integration with various Tank Monitor vendors. This enhances the SSS Propane System by adding more tank percentage data points to the forecasting model which can improve forecasting accuracy. In addition, it allows for automatic gas order creation and fully integrates with existing SSS routing and dispatching processes.

How It Works:

A basic illustration of the process involved when integrating the SSS Office and Mobile system with Tank Monitoring from an ETM vendor follows . . .

1. The propane retailer purchases installs tank monitoring devices through one of the SSS approved ETM vendors. A few of the vendors SSS currently interfaces with include Wesroc/Anova, Otodata, Gaslog (Silicon Controls) and more.
2. The ETM vendor creates a web portal/website available for the propane retailer to add, modify, delete, and otherwise manipulate electronic tank monitoring information. On this site, the ETM vendor must provide a set of fields for the user to input the 2 digit branch number and 5 digit account number that is used in the SSS Propane System for each monitor.
3. The ETM vendor polls the tank monitoring devices on an arranged schedule, populates a formatted data file with the monitor data, and makes the data available for the propane retailer to download at will (via SSS). The data includes basic information such as account number, date of reading, tank percent full on that date, the size of the tank, and the monitor number. At minimum, this is normally something the ETM vendor does daily.
4. An SSS user will select the ETM Menu option to **Download ETM Readings** at which time the system will pull the readings from the vendor site, process the data in SSS, and produce an "Exception Report" which will list any readings that could not be used.
5. Optionally, the SSS user may choose to automatically create Gas Orders in the SSS system for any monitor readings that are attached to tanks below a specified percentage.

Setting Up Electronic Tank Monitoring:

The propane retailer that wishes to have the SSS Propane System integrated with an electronic tank monitor system should . . .

1. Contact Suburban Software Systems to get setup and to confirm that the ETM vendor they wish to use is currently supported. Once a vendor has been selected, SSS will need to make contact with the vendor for additional setup information that is required. *Please note that propane retailers can use more than one vendor with SSS so there is no limitation placed on being able to add or change vendors at some future date.*
2. Purchase and install one or more monitoring devices from the chosen vendor so that data will be available when integrated with SSS.
3. Enter the account number and tank size for each monitor on the vendor provided website.

Download ETM Readings:

Download Electronic Tank Monitor Files And Process Electronic Readings

Company Identification Code WEB ▾

Printer Type P1 - Laser Print ▾

Select an Electronic Tank Monitor Vendor

Wesroc / Anova
 Petroviron
 ISA/Telsen
 Tank Utility
 GasLog
 Otodata
 Fuel Web

** Available vendors are restricted by configuration and interface licensing. **

Exit Continue

Downloads the ETM data from the vendor's site, processes the valid readings, and prints a Discrepancy Report listing invalid readings with an exception code.

ELECTRONIC TANK MONITORING SYSTEM DISCREPANCIES: 2/21/23						
BR-ACCT	MONITOR NAME	SERIAL	ETM READING	LAST DELIVERY		
D 1-03670	Joshua Austin	24079651	02/21/23 76% OT	1/19/23 40%		ETM Percent Higher Than Previous Percent.
D 1-03760	Kevin & Monica Badge	24144192	02/21/23 77% OT	1/13/23 65%		ETM Percent Higher Than Previous Percent.
1-05460	WENDY BECKMAN	24163389	08/08/22 50% OT	12/29/22 88%		Last Delivery More Current than ETM Poll Date.
1-05838	CHRIS BENDER	24163428	07/03/22 78% OT	12/ 5/22 85%		Last Delivery More Current than ETM Poll Date.
1-09276	Tim & Cheryl Brown	24077106	07/10/22 80% OT	12/19/22 88%		Last Delivery More Current than ETM Poll Date.
1-09854	MATT BRYSON	24148123	10/30/22 29% OT	12/22/22 85%		Last Delivery More Current than ETM Poll Date.
D 1-11279	BRUCE BUSBY	24444161	02/20/23 84% OT	1/31/23 24%		ETM Percent Higher Than Previous Percent.
D 1-12493	GENE CARMAN III	24164163	02/21/23 72% OT	12/15/22 44%		ETM Percent Higher Than Previous Percent.
D 1-13474	BOB CANTHON (SHOP)	24321331	02/21/23 77% OT	3/ 8/22 68%		ETM Percent Higher Than Previous Percent.
D 1-15467	STEWART INVESTMENTS	24576418	02/21/23 59% OT	0/ 0/ 0 0%		ETM Percent Higher Than Previous Percent.

The discrepancy report can help reveal monitor or data problems and any monitors listed on the discrepancy report will not be processed in the system. A few exceptions that may appear on the report include . . .

1. Monitor percentage is higher than the previous percentage the tank was filled to.
2. The last delivery date is more current than the monitor's reported date.
3. Deleted delivery record.
4. Monitor is inactive on vendor's site.

After readings have been downloaded, valid readings will be shown in customer inquiry and the new readings will be used as the most current data point when forecasting.

Print / View ETM Records

Create Gas Orders From ETM Records:

Electronic Tank Monitor Orders

Company Identification Code WEB ▾

Enter Maximum ETM Percentage to be Processed 20

Include / Exclude "Delivery Codes" Exclude ▾ (Optional) W ▾ ▾ ▾ ▾ ▾

Include / Exclude "Credit Codes" Exclude ▾ (Optional) R ▾ 9 ▾ ▾ ▾ ▾

Include / Exclude Past Due Balances Exclude ▾ With Dollars Amounts in Excess of ▾ (6.0)

Include / Exclude Heat Only Customers Exclude ▾

Form Name 0001 ▾

Printer Type VW - View ▾

Press CONTINUE to display the list for review before printing or creating orders.
When the list is displayed, double click any row to DELETE it from the list.
Any rows marked with status "D" will be omitted from the Report and/or Automatic Gas Order creation.

Exception Code Definitions . . .

- B = Inactive Branch
- I = Inactive Account
- T = No Tank
- O = Open Order Exists
- # = Serial Number Mismatch
- D = User Deselected
- S = Tank Size Mismatch

Exit Continue

These two menu items may be used to either (1) Print an Electronic Tank Monitor Report without creating gas orders or (2) Print a report and automatically create gas orders from monitor readings. The options presented in screen one (above) and screen 2 (below) are identical between the two menu items.

In screen one, the user may select from a variety of options and, when they press Continue, another screen (screen 2 below) will be displayed which shows the list of customers that qualified for the report and/or qualified for a gas order. Screen two allows the SSS user to individually delete customers from the report and exclude them from gas order creation.

Electronic Tank Monitor Report

D	Br-Acct#	Customer	Cr Cd	Current Balance	Past Due	Div	Use	Tank#	Trans#	Read Date	Read Time	% Full	Gal	Tank Size
#	01-05778	DUCKTHRU5405778	3	0.00	0.00	K	3		9920105	02/19/2023	15:46	73	730	1,000
#	01-05895	DUCKTHRU3505895	3	0.00	0.00	K	5		9920104	02/19/2023	15:36	71	340	480
#	01-05913	DUCKTHRU5605913	3	0.00	0.00	K	3		9920104	02/19/2023	15:09	68	680	1,000
#	01-06021	TARHEELBARBECUE06...	3	741.38	0.00	T	5		9900007	02/17/2023	15:54	77	770	1,000
#	01-06367	NEWSOMEFARMS-EVA...	3	0.00	0.00	S	3		9900007	02/17/2023	15:26	69	220	320
#	01-06436	DUCKTHRU4106436	3	0.00	0.00	K	5	M1029602	9920105	02/19/2023	15:27	73	175	240
D	01-06576	LASSITERFARMS-MARK...	3	0.00	0.00	W	1		9920122	02/19/2023	15:49	43	215	500
#	01-06631	DUCKTHRU5706631	3	0.00	0.00	T	3		9920105	02/19/2023	15:40	75	750	1,000
D	01-06688	DUCKTHRU406688	3	0.00	0.00	K	1	002774	9920105	02/19/2023	15:47	65	156	240
D	01-06730	HAROLDPEGGYPAVEY0...	3	199.09	0.00	P	1	GA11407	9920104	02/19/2023	15:23	40	48	120
#	01-06858	WASHHOUSEWINDSOR...	3	1,615.62	0.00	K	5		9900004	02/17/2023	15:48	76	760	1,000
#	01-06859	WASHHOUSESCOTLAN...	3	0.00	0.00	K	5	5F00767	9900004	02/17/2023	15:58	68	680	1,000
D	01-06892	CHOWANUNIVERSITY-J...	3	0.00	0.00	T	1	1130019	9900004	02/17/2023	15:48	62	310	500
#	01-06894	CHOWANUNIVERSITY-...	3	0.00	0.00	T	5	1129998	9900004	02/17/2023	15:41	73	365	500
D	01-06997	NEWSOMEFARMS-SWE...	3	0.00	0.00	W	1		9900007	02/19/2023	07:58	40	128	320
#	01-07065	WASHHOUSEMANTEO-...	3	874.49	0.00	K	5		9900007	02/17/2023	15:43	69	690	1,000
#	01-07242		3	0.00	0.00	R	3	299499A	580276	02/19/2023	15:06	42	105	250
#	01-07323		3	0.00	0.00	K	5	197624B	370636	02/15/2023	15:38	85	102	120
#	01-07324		3	0.00	0.00	K	2	192661A	370976	02/19/2023	15:39	77	92	120
#	01-07325		3	0.00	0.00	K	5	194884A	371498	02/19/2023	15:05	56	67	120
S	01-07345		3	0.00	0.00	K	3	192173A	372558	02/19/2023	15:41	52	62	120
#	01-07395		3	0.00	0.00	K	3	197624A	388110	02/19/2023	15:31	51	127	250
#	01-07398		3	0.00	0.00	K	5	203120B	373375	02/19/2023	15:55	74	236	320
D	01-07401		3	0.00	0.00	K	1	203149A	374313	02/19/2023	15:19	63	75	120

Double Click a customer's row to "D"eselect them.

Cancel	Inactive Account Open Order Exists	No Tank Size Mismatch	SN Mismatch Deselected	"Deleted" Ticket	Continue
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When the user presses Continue, the monitor report will be printed and, if the Gas Order option was selected from the menu, a Gas Order will also be created for each of the customers on the report.

The report will show the customers that qualified based on the criteria specified in screen one and any customers that were deselected in screen two will be omitted from the report. Exception codes are listed in the first column and further described in the last column titled "Exceptions".

Note: The exceptions are simply alerts to discrepancies found between customer/tank information and monitor data. If not "deselected" an order will still be created for customers that have Exception Codes on the report.

Account	Name	C D U	Tank Serial	Reader	Time	Pct	Inventory	Size	Exceptions
# 1-04972	#2025	4 A 1	20366224		02/08/2023 20:36	09	81	908	<-Serial Mismatch. 900
T 1-33883	#2495	4 Z 3	24534903	66076	02/09/2023 09:35	09	81	908	<-No Tank
O 1-30413	#2834	3 W 3	F00336658	0083929	10/13/2022 03:27	04	75	1890	<-Open Order Exist
# 1-92086	TOWN	3 A 1	20167583	0-12746	02/08/2023 22:53	20	757	3785	<-Serial Mismatch. 3780
# 1-11008	SAVAG	3 A 1	20366201	0-13801	02/09/2023 05:15	09	81	908	<-Serial Mismatch. 900
# 1-06887	#1737	3 A 2	20499537	3333	02/08/2023 21:45	14	127	908	<-Serial Mismatch.

ETM Readings Within The System:

The Electronic Tank Monitor (ETM) reading shows the percent on the Customer's Main Inquiry Screen with the Downloaded Date

ADVANCED PROPANE INC		As of: 05/31/2022 3553/2022	
Customer Info		Codes	
Account	01-01440 Type	Credit	1 - Good credit
Status	A Rented Asset	Delivery	A - Automatic
Name	ADAMS+, MIKE	Tax	02 - TN, WILSON,
Address	3229 SHELLMANS DR	Use	3 - Heat and daily
City, State	MURFREESBORO TN 37129-1926	Finance Chgs	Y - Compute
Phone	(615) 500-2877	Statement	I - Statement &
		Balance	
		Current	0.00
		Over 30	0.00
		Over 60	0.00
		Over 90	0.00
		Over 120	0.00
		Total	\$0.00
Driver/Route/Sequence		EmailAddress	
1 23 9711		mike@adamsallstars.com	
Last Delivery Date		Billing Cycle	
01/18/2022		1 JFMAMJJASOND	
Forecast 20% Delivery Percent		Monthly Credit Record	
08/22/2022		0000*0000000	
Forecast Runout Delivery		Delinquent Letter Number	
10/29/2022			
Percent Tank Filled to		Customer Since	
90%		11/2021	
Current Inventory Percent		Gas Check Date	
35%		11/2021	
Current Inventory Gallons		Last Payment Date	
175		05/01/2022	
Tank Water Capacity		Last Payment Amount	
500		-152.55	
Year-to-Date Deliveries		Refundable Deposit	
1		0.00	
Year-to-Date Gallons		Budget Rate	
275.5		0.00	
Last Year's Gallons		Budget Balance	
0.0		0.00	
ETM Percent		Credit Limit	
35%		0	
Date		Product: 30 - Residential Propane Price: 2.9990 GL	
05/31/2022		Open Item or Balance Forward	
		Balance Forward	
Main Memos Ledger Tank Info Budget Contracts Delivery Info Delivery Hist Timed Deliveries Orders Open Item OI Hist Meter View Docs			
Counter Sale Gas Order Service Order Payment Update Gas Check Write Ledger Label View Map DocStore			
Exit Previous Account New Search Next Account Forward			

*Note - The forecasting continues to forecast in the system even when downloading ETM readings

The Electronic Tank Monitor (ETM) Number can be added to the Customer's Master file under the "F5-Miscellaneous Info tab for reporting purposes.

ADVANCED PROPANE INC

Customer Information				Balance	
Account	01 01440	Account Started	11 2021	Current	0.00
Account Status	A - Active			Over 30 days	0.00
Name (Last, First)	ADAMS+, MIKE			Over 60 days	0.00
Street Address	3229 SHELLMANS DR			Over 90 days	0.00
City	MURFREESBORO			Over 120 days	0.00
State, Zip	TN - Tennessee	37129	Zip Ext 1926	Total	0.00
Area / Phone	615 500-2877	Type		Deposit	0.00

Latitude & Longitude


Degree Decimal

Latitude [] . []

Longitude [] . []

Account Standing Change

	Month	Year	Reason
Gain Account (Date)	11	2021	T - Change of Occupant
Lost Account (Date)			

Electronic Tank Monitor Number [] 

Grower Account Number []

Grower Farm Type []

F1 - General Info F2 - Directions F3 - Forecasting Info F4 - Contact Info **F5 - Miscellaneous Info** F6 - Timed Deliveries

Exit Save

The ETM readings display on the dispatch screen with a yellow “E” in the Ticket Out column. The dispatching system uses the ETM reading when building routes for the delivery drivers.

ADVANCED PROPANE INC Deliverable Gallons: 18031 Total Customers: 102

Edit	D	Customer Name	CR	DLV	USE	Area Code	Phone Number	Forecast	Scheduled Date	TkSize	Curr %	Tic Out	LYear Gas	Balance	Pa
Edit		JOHNSON, RICHARD	1	A	3	615	417-6228	07/06/2022		250	29	N	421.3		
Edit		ETHRIDGE, JEREMY	1	A	5	615	218-1482	05/31/2022		320	20	N	199.2	-7.00	
Edit		SUTTON, BEN & NICHOLE	1	O	1	931	409-7023	06/30/2023		120	57	N			
Edit		HAVERMANN+, JIM & PAM	1	A	3	731	697-0124	09/22/2022		500	36	E	449.8		
Edit		BLACKWELL, RALPH	1	A	1	615	556-7569	02/15/2022		250	0	N			
Edit		JACKSON+, DUANE & ANITA	1	A	1	615	217-4241	11/08/2022		500	27	E	652.0	-94.06	
Edit		KENT, JAMES & CARI	1	O	1	615	497-7346	12/09/2021		120	0	N			
Edit		FINLEY, RICHARD	1	A	3	615	714-6298	07/08/2022		250	31	N	350.3		
Edit		HANES+, LARRY	1	A	1	615	512-3055	11/22/2022		500	34	E	574.1		
Edit		ARMSTRONG, SCOTT	1	A	3	615	542-5032	08/25/2022		330	28	N	449.7		
Edit		SIMMONS, JONATHAN	1	A	1	931	993-7041	10/30/2022		120	34	N			
Edit		NICHOLSON+, MELANIE	1	A	1	615	691-2797	11/15/2022		500	32	E	361.2	-923.16	
Edit		GUTHRIE^, BRYAN	1	A	1	615	335-3832	11/01/2022		500	25	N	599.6		
Edit		MCKENNA, JULIA	1	O	2	615	753-6298	02/12/2022		120	1	N		109.75	
Edit		PARSONS, TONY	1	A	1	731	217-6959	12/01/2022		250	30	N	147.7		
Edit		OGLESBY, LARRY	1	A	2	615	809-4832	09/18/2022		500	31	N	263.6		
Edit		ROBERTS, TIM	1	A	1	270	922-8056	01/24/2022		325	0	N			
Edit		FARMER, ANNA CLAIRE	1	A	3	615	962-3422	03/23/2022		250	0	N	70.3		
Edit		HILL, RICHARD	1	A	2	615	429-0586	11/02/2022		500	31	N	494.7		
Edit		RICHARDSON+, KATHLEEN	1	A	1	615	890-2203	11/09/2022		500	26	E	453.3	-100.00	
Edit		NEELY, SANDRA	1	A	3	615	663-4941	08/03/2022		1000	29	N	446.8	-195.41	
Edit		SWINDOLL, HOLLY	1	A	5	662	812-9685	07/14/2022		250	35	N	126.6		
Edit		DEBBERS PROPERTIES LLC	1	A	2	615	594-9992	11/11/2022		250	40	N			

Cancel Double Click row to "D"eselect. Orders 6 days out are deselected automatically. Continue

ORDERS WILL & WE CALL TIMED ETM TICKET OUT Suspended Orders Delivered

The ETM readings are transferred to the PPS Truck System and located on the customer's main inquiry screen with the last reading date, gallons in the tank and the percentage in the tank.

05	69014	As of	04/04/2018	Credit	3	Current Bal	-148.82
SCOTT,				Delivery	K	Over 30	0.00
DELIVERY: 23901 PACIFIC HEIGHTS DR.				Tax	ME	Over 60	0.00
WESTPORT				F11 Directions		Over 90	0.00
						Past Due	
						Total Bal	-148.82
						Price	\$1.8300
Driver Route Sequence	7:01:			Product	17	UI	GL
Current Percent	55%						
Last ETM Reading >	04/03/18 0279 GL 55%						
Tank Water Capacity	499 GL						
Tank Serial Number	M1352958						
Year-to-Date Deliveries	6						
Year-To-Date Gallons	1317						
Last Year Gallons	0						
F3 Cancel Inquiry		F5 Show Memos		F10 Gas Order		F6 Enter Payment	
F8 Begin Delivery							