

Feb, 2019

Dover FS

ATG Product Presentation

Serial Interface update

Fergus Heading

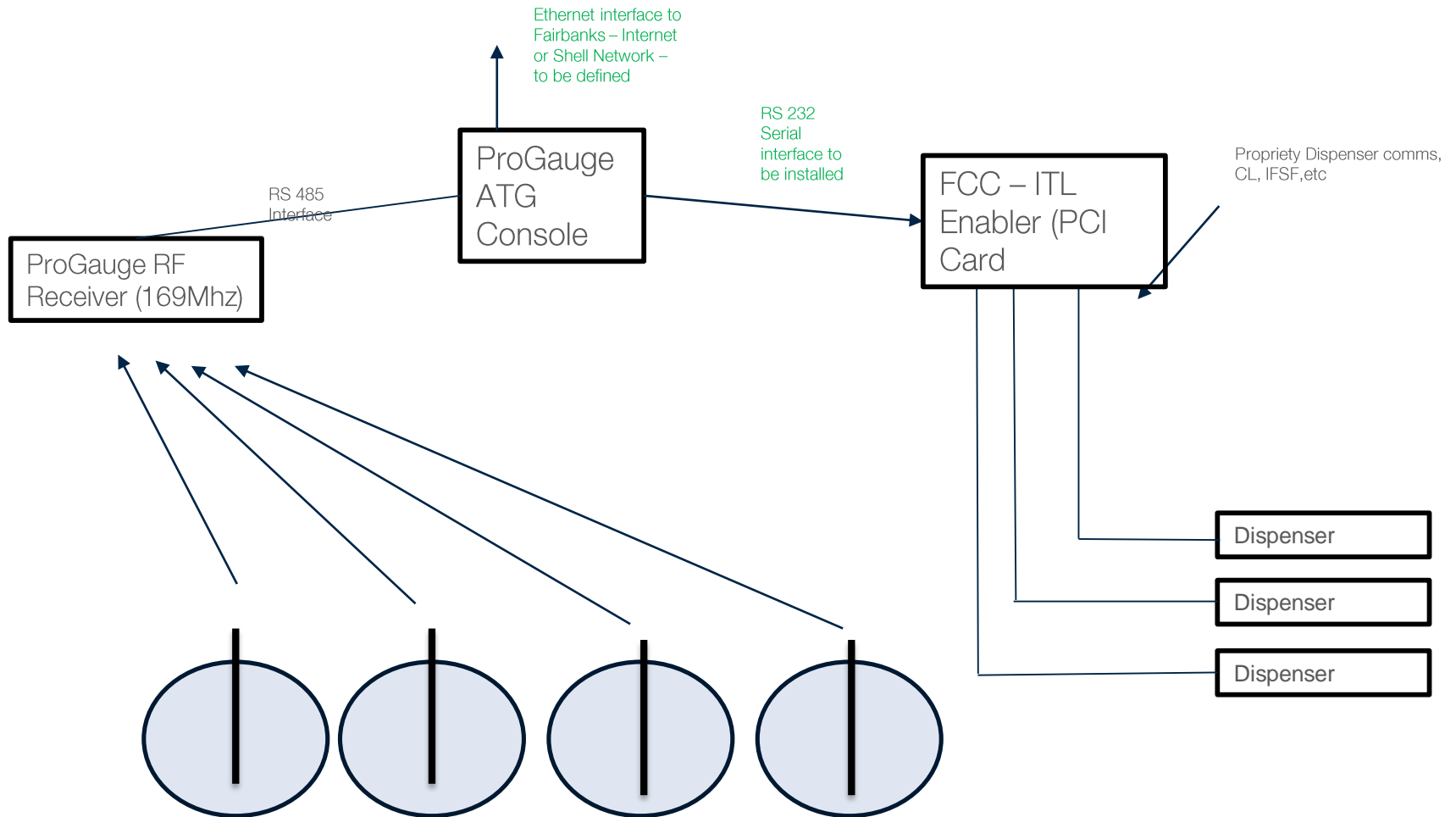


MagLink LX Interface to the ITL Enabler



- Scope:
 - As part of the ATG program Shell Asia are installing the MagLink LX from Dover Fueling solutions
 - As part of the deployment we need to connect the MagLink LX console to the locally supplied and installed ITL Enabler FCC
 - The interface from the ATG Console (MagLink-LX) is via a serial cable
 - This document details the connection and configuration for both devices as tested in the Shell Test environment located in the Philippines
 - Please note the ITL Enabler is part of the Shell POS system, please make sure you have contacted the relevant Shell company before attempting or modifying any connections
- The ITL Enabler is not part of the ATG solution

Site Overview



Wireless probes communicate to the RF receiver using 169 Mhz – the probe broadcasts, the Receiver is in listening mode

Configuring the MagLink LX ATG Console

- Select the Gilbarco interface as per the example below
- Serial interface should be configured for Com 1
- Baud rate :9600
- Parity: None
- Data Bits :8
- Stop Bit : 1

System - (Admin user) [19/11/2018 15.23.37] v.2.11.14.8.5 (sn.123456)

Total tanks: 01 - Tank 1 V-Power 97
Total dispensers: 4
Station name: LX ITL Enabler Test

Probe resolution: 0.5 mm
Language: English
Measurement unit: mm / liters
Data bit: 8
Stop bit: 1
Date format: dd-MM-yyyy

Protocol type: GILBARCO (9600,0,7,1)
Baud rate: 9600
Parity: None
TCP port: 8000
Gilbarco protocol over TCP
Volume comp. temperature: 15 °C
Auto print: ☒ Shift report ☒ Alarms ☒ Delivery ☒ Leakage ☒ Daily Reconciliation 15.00 Time

fairbanks ID: 1234 Interval: 5 min Transfer mode: ☒ Passive ☐ Active
Server: ftp.wetstock.co Folder: c:\ Port: 21
User: Shell_MY_LX Password: *****

Manuals: ☒ User ☒ Installation ☒ Configuration

Optional card: ☒ None ☐ Modem to send SMS ☐ IFSF Module

Dipswitch settings							
Dipswitch1: ON OFF: Single Gilbarco ON: Double Gilbarco (2400,0,7,1)	Dipswitch2: OFF OFF: Internal inputs NOT available ON: Internal inputs available	Dipswitch3: OFF OFF: No action ON: Input 2 for antihief (Dipswitch2 must be OFF)	Dipswitch4: OFF OFF: Normal relay ON: Inverted relay	Dipswitch5: OFF NOT USED	Dipswitch6: OFF OFF: No action ON: Password reset (Restore factory settings)	Dipswitch7: ON OFF: No Daily Reconciliation ON: Daily Reconciliation	Dipswitch8: OFF NOT USED

Apply configuration

- Note – when using the ITL Enabler Com 2 can be used for the local serial printer

MagLink LX - Dispenser/ Forecourt mapping

- As per the example below ,Tatsuno dispenser numbers and indexes start at 1 (Red Circle)
- Configure the forecourt ,mapping to match the physical Dispenser/Nozzle Tank mapping

System Tank Strapping table Relay Sensors History Alarms Delivery/Leakage Auto calibration Daily Reconciliation Monthly Reconciliation Shift report Print stock IFSF Fuel config TCP/IP Email config SMS config

Current status Sensor status Utility Login Logout ProGauge

Fuel config - (Admin user) [19/11/2018 17.45.43] v.2.11.14.8.5 (sn.123456)

☐ Dispenser index starting from 0 ☒ Dispenser index starting from 1

☐ Nozzle index starting from 0 ☒ Nozzle index starting from 1

Dispenser: 1 Nozzles: 1

Nozzle 1: 01 - Tank 1 V-Power 97

Nozzle 2 --- Nozzle 3 --- Nozzle 4 --- Nozzle 5 --- Nozzle 6 ---

Apply configuration

- This forecourt information can be extracted from the site survey

Pump Configuration Please ensure that you assign the correct nozzle information to the correct pump number

Pump	Noz 1	Noz 2	Noz 3	Noz 4	Noz 5
Pump 1					
Grade					
Tank					
Pump 2					
Grade					
Tank					
Pump 3					
Grade					
Tank					
Pump 4					
Grade					
Tank					
Pump 5					
Grade					
Tank					
Pump 6					
Grade					
Tank					
Pump 7					
Grade					
Tank					
Pump 8					
Grade					
Tank					
Pump 9					
Grade					
Tank					
Pump 10					
Grade					
Tank					
Pump 11					
Grade					
Tank					
Pump 12					
Grade					
Tank					
Pump 13					
Grade					
Tank					
Pump 14					
Grade					
Tank					

ITL Enabler PCI Interface - FCC

- The ITL Enabler card is installed inside the POS or a PC on site
- The ITL Enabler is the FCC (Forecourt Controller) supporting the dispenser interface and the POS
- The ITL Enabler supports a serial connection to the ATG console

ITL SHELL TEST UNIT-SIP
System Status

Configuration Operation Fuel Reconciliation Support Reports

System information

System Uptime: 0 Day, 21 Hour, 50 Minute
Pump Server Uptime: 0 Day, 0 Hour, 9 Minute
Enabler Release: 4.3.3.2335
Forecourt Interface: 2015-11-10
API version: 1
Pump Server version: 4.0.96.2
Enabler Web Page version: 1.2.24.0
System Version: Windows 7 x64 SP1
Enabler Card Firmware: Enabler version vEP4.35
build 01 12/03/2013
[FFFFF]

Overall status

All OK: ✓

Forecourt controller status

Pump Server: ✓
PCI card: ✓
Interface Card 1: Not configured

Pumps status

Pumps OK: [4 of 4]: ✓

Tanks status

Tanks Online: [4 of 4]: ✓

Interface information

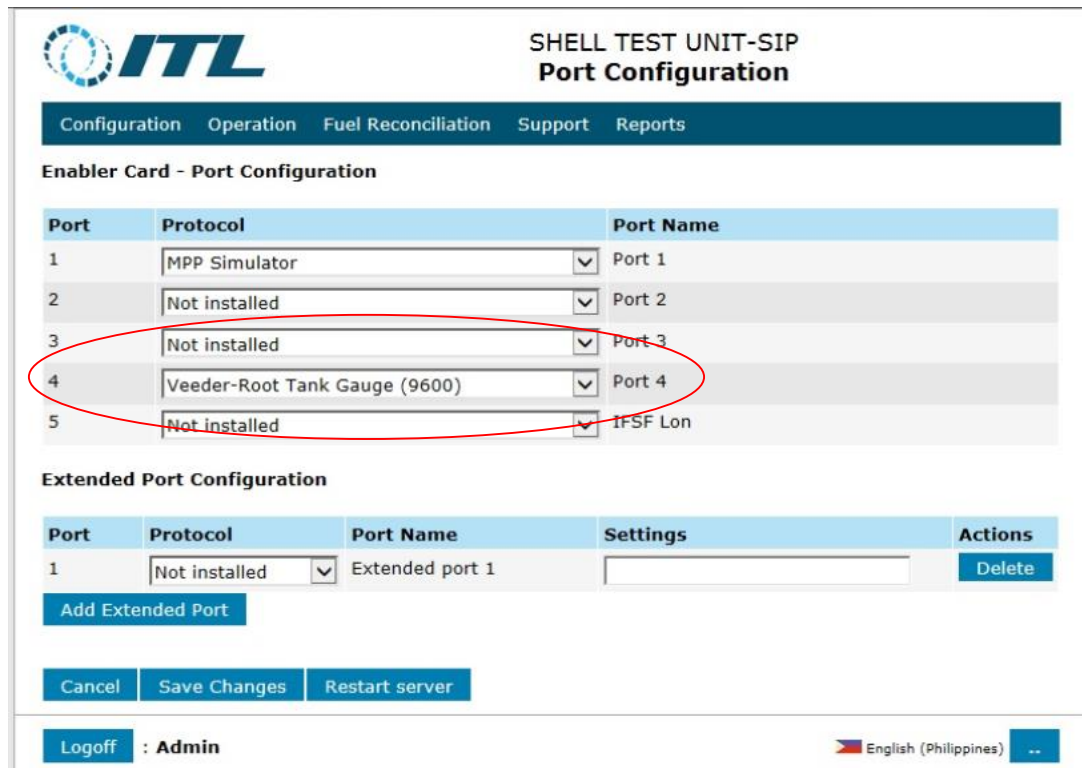
Port 1 : 2.0.7.0 [ITLMPPSim.dll]
Extended port 1 : 2.2.7.0 [veederroot.dll]

Logoff : Admin English (Philippines)



ITL Enabler Configuration

- Follow the steps below to configure the ITL Enabler card, confirm user names and passwords with the local IT contractor
- Locate the Web application to start the Enabler program
- The first step is to configure the ATG Port, the Veeder Root serial interface should be selected
- Note , you need to restart the server once the gauge has been selected



ITL SHELL TEST UNIT-SIP
Port Configuration

Configuration Operation Fuel Reconciliation Support Reports

Enabler Card - Port Configuration

Port	Protocol	Port Name
1	MPP Simulator	Port 1
2	Not installed	Port 2
3	Not installed	Port 3
4	Veeder-Root Tank Gauge (9600)	Port 4
5	Not installed	IFSF Lon

Extended Port Configuration

Port	Protocol	Port Name	Settings	Actions
1	Not installed	Extended port 1		Delete

Add Extended Port

Cancel Save Changes Restart server

Logoff : Admin English (Philippines)

ITL Enabler Configuration

ITL SHELL TEST UNIT-SIP
Tank Gauge Configuration

Configuration Operation Fuel Reconciliation Support Reports

Tank Gauge Details

Name: Maglink LX
Number: 1
Description:
Type: VR TLS-350R
Port: Port 4, Veeder-Root Tai

Tank Gauge Type Features

Gauge Volume ✓
Gauge TC Volume ✓
Water Volume ✓
Temperature ✓
Density

Cancel Save Changes

Logoff : Admin English (Philippines)

- Add the ATG model and port number

ITL SHELL TEST UNIT-SIP
Tank Configuration

Configuration Operation Fuel Reconciliation Support Reports

Tank Information

Tank Name: FSGasoline Tank
Grade: FSGasoline
Number: 1
Description: FSGasoline Tank
Physical Label: FSGasoline Tank
Capacity: 50,000
Diameter: 2.70
Tank type: Gauged

Tank Gauge

Gauge: Maglink LX
Tank gauge probe number: 1

Alarms

High volume alarm: 19,500
High volume warning: 19,000
Low volume warning: 1,000
Low volume alarm: 500
High water alarm: 0

Temperature

Upper halo: 0.0
Lower halo: 0.0

Tolerance

Gain: 0.00
Loss: 0.00

Cancel Save

- Configure the tanks making sure to enable the tank gauge option and tank probe number (this should be the same as the tank number)

ITL Enabler Configuration

- In the features and options page make sure the options marked with the red circle have been selected.

ITL SHELL TEST UNIT-SIP
Features & Options

Configuration Operation Fuel Reconciliation Support Reports

General

Auto site mode activation ☐

Min Etotal difference

Hose Turnover Support ☒

Blocking

Can Disable hose during delivery ☐

Disable Tank On Low Level Alarm ☐

Disable Tank On Tanker Delivery ☐

Fuel Reconciliation

Tank Dips ☒

Tank Movements ☒

Pump Meters ☒

Approval Required ☒

Map test delivery to tank transfer ☒

Prices

Profile Based Price Levels ☐

Auto postmix grade prices ☐

Attendant

Supports attendants ☐

Clear deliveries ☐

Tagging Support ☐

Legacy options

Prepay refund calculation type

Cancel Save

Logoff : Admin English (Philippines)

ITL Enabler Configuration

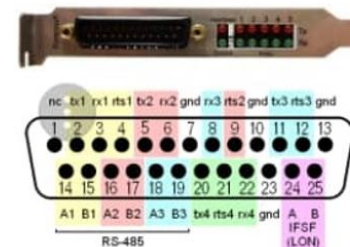
- Cable configuration , the ITL Enabler cards uses a 25 pin connector to interface to the forecourt device's , port 4 (RS232 only) should be used for the ATG

Maglink LX		ITL Enabler	
DB 9		DB 25	
RX	Pin 2	TX	20
TX	Pin 3	RX	22
Gnd	Pin 5	Gnd	7



ENABLER CARD DB25 PINOUTS

The following diagram shows the connections on the Enabler Card DB25 connector. See also: [Enabler LEDs](#)



Abbreviations used

GND	Ground
TX	RS-232 Transmit
RX	RS-232 Receive
RTS	Request to Send
nc	No Connection

For one port, you can only use **either** RS-485 **or** RS-232 connection, not both.

This diagram is looking at the Enabler card socket, or at the back of a DB25 plug. Colour coding for the physical ports:

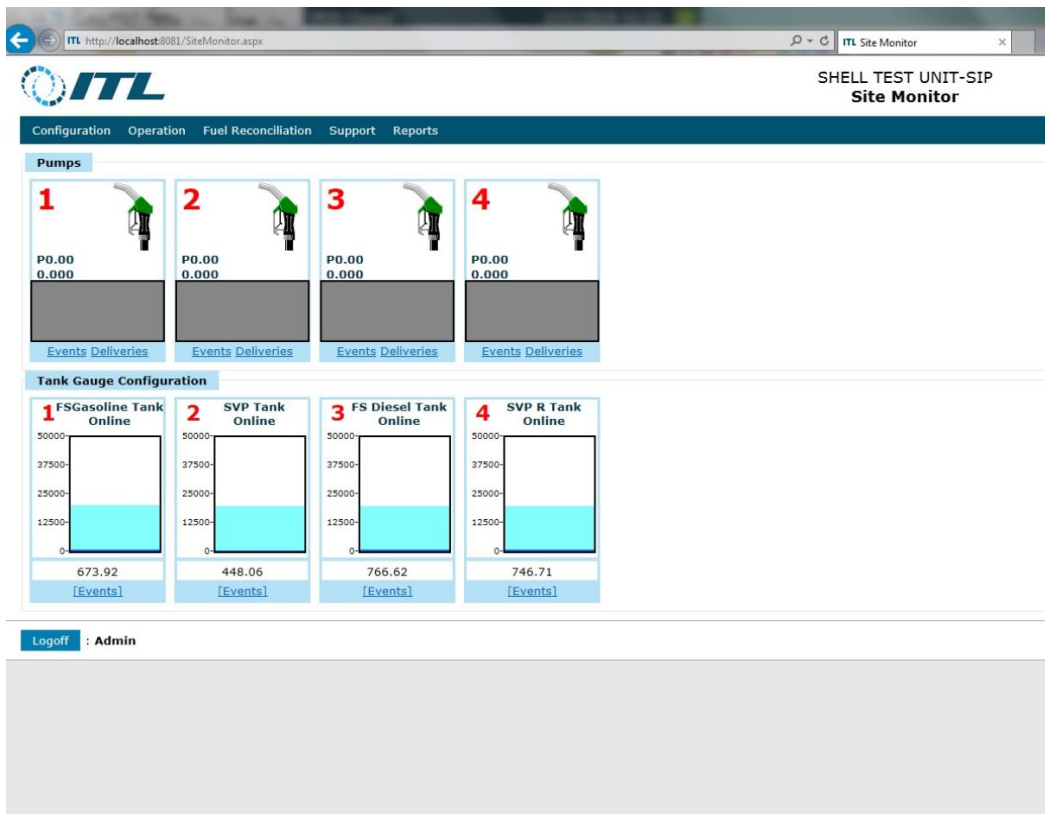
Color	Port	Description
Yellow	Port 1	RS-232 or RS-485
Red	Port 2	RS-232 or RS-485
Cyan	Port 3	RS-232 or RS-485
Green	Port 4	RS-232 only
Pink	Port 5	LON for IFSP

Except for the passive (RS-485/IFSP), FDMs are always connected to the RS-232 ports. Most do not use the RTS signal.

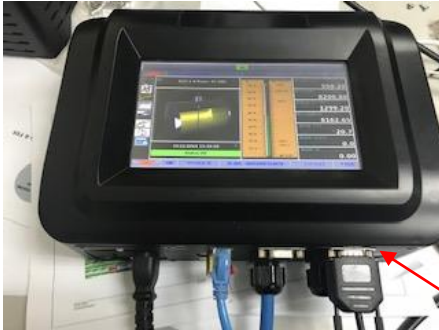
Note that there are only 3 RS-485 ports. Port 4 can only be used for RS-232.

ITL Enabler Configuration

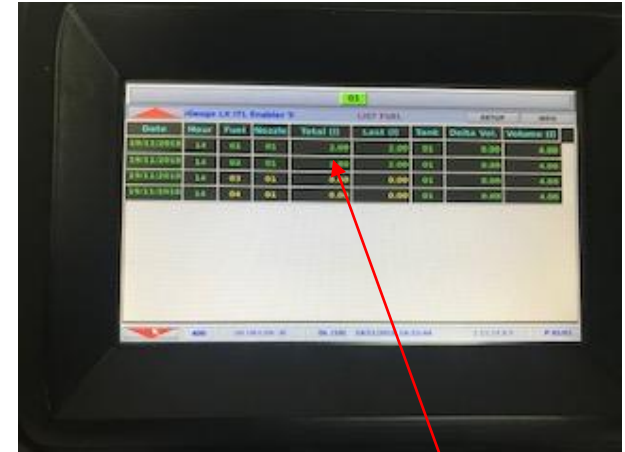
- To check the readings for the ATG on the ITL Enabler use the Site Monitor option



Reference images from the Shell test Centre in The Philippines



ATG Serial Cable connection – in this example we have used Com 2 on the ATG



Checking the transactions from the dispensers via the ATG console – Make sure reconciliation is enabled on the LX (Dip Switch 7 on)