

Using the Virtual HERMIT® Pump Test Kit

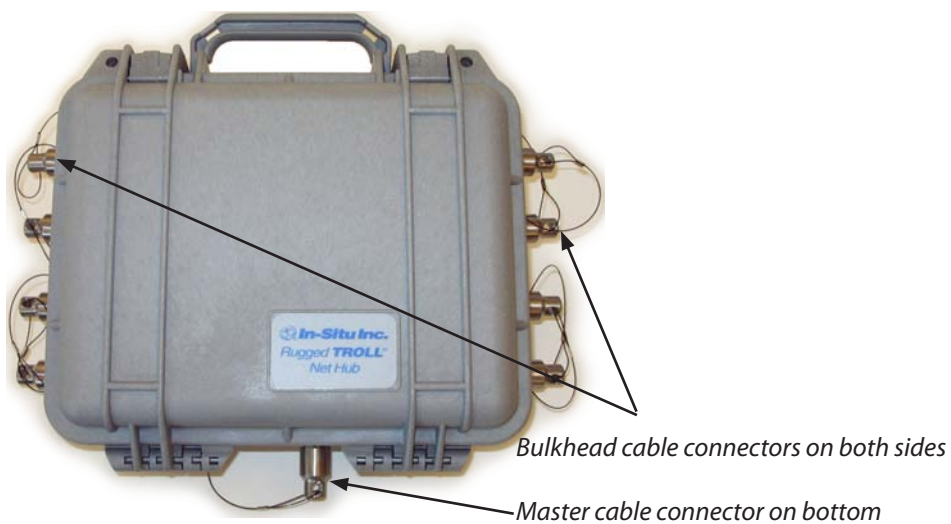
Overview

Virtual HERMIT software is used with Level TROLL® 700 instruments and the TROLL® Net hub to set up instruments and collect data from pump tests. Up to 16 Level TROLL instruments can be connected to each "HERMIT" but there is no limit to the number of HERIMITS each pump test can have. With this software, all instruments can be set up identically and can begin monitoring the pump test simultaneously.

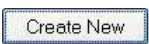
Required Equipment

- Rugged TROLL Net hub
- Level TROLL 700 instruments from In-Situ Rentals
- RuggedCable® system with Twist-Lock connectors (1 for each instrument and 1 for the TROLL Net hub)
- Serial TROLL® Com programming cable for use with the RuggedReader® handheld PC
- USB TROLL® Com programming cable for use with a laptop PC and RuggedCable® system
- Virtual HERMIT software (on enclosed CD)

Cable Connections

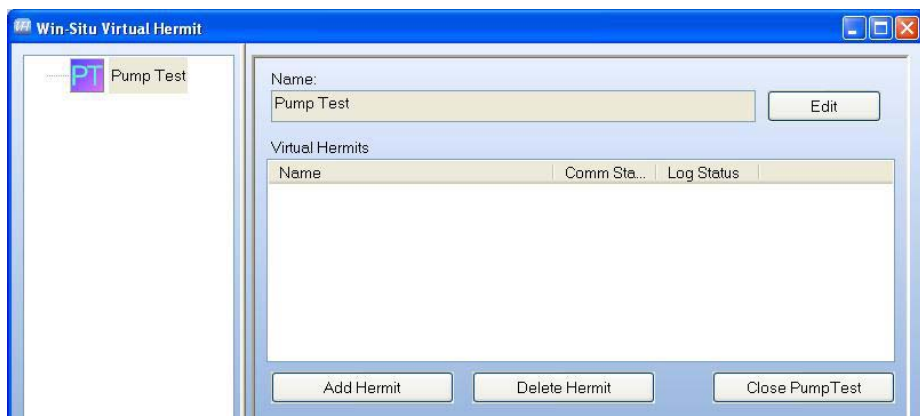


Set Up a Pump Test

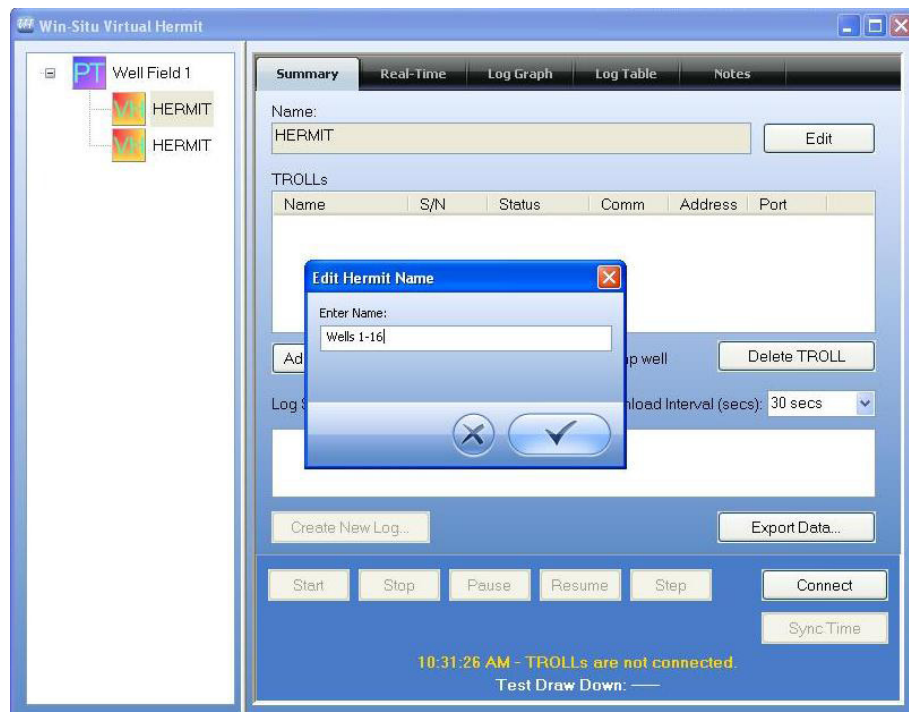
1. Connect all the Level TROLL instruments to the TROLL Net hubs.
2. Install the Virtual HERMIT software from the CD.
3. Open the software.
4. From the Main screen, click the Create New button. 
5. Click Pump Test, in the top left window.



6. Click the Edit button to name or rename the pump test. Click the Check Mark button to save the pump test name. Then click the Add HERMIT button to add the needed number of "HERIMITS".

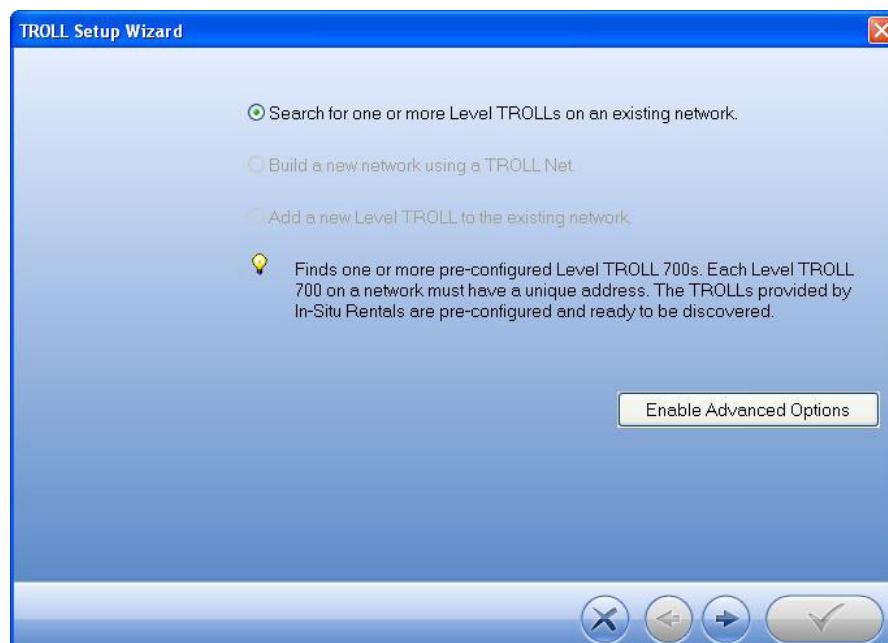


7. Click a HERMIT branch in the navigation tree to edit your settings for that particular HERMIT. The HERMIT Summary tab will appear. Click the Edit button to name the HERMIT. Click the Check Mark button to save the HERMIT name.



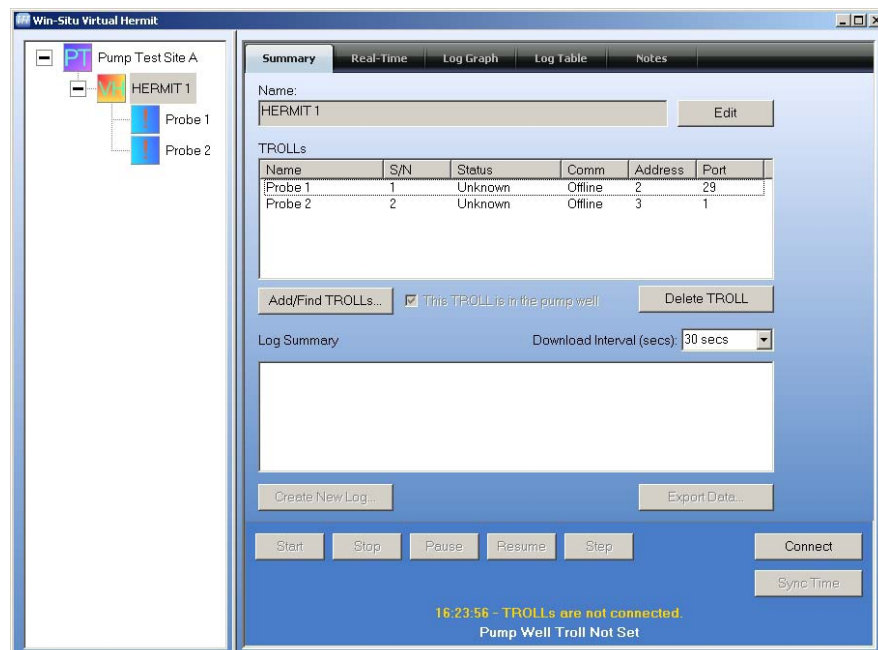
8. Click the Add/Find TROLLs button to configure your Level TROLL using the Probe Setup Wizard. Select Search for one or more Level TROLLs on an existing network.

Click the Forward arrow.



9. Select "Search for TROLLs". The software will configure the sensors. It doesn't matter which TROLL goes to which port.

10. When all the Level TROLL instruments have been configured, you will return to the main screen. Click the Connect button.



- Click the Create New Log button. The Log Setup Wizard will appear. Enter the data as prompted by the Wizard. Note that you can use the same site name and log name for all the Level TROLL devices.

Log Setup

Troll: 1 Serial Number: 1

Site Name
Site 01

Copy this site forward for the next TROLL(s).

Log Name
Default Log

Copy this log name forward for the next TROLL(s).

Device Name
Probe 1

Copy this device name forward for the next TROLL(s).

Options

- Click the forward arrow and proceed through the screens. When you are done, the Summary screen will appear. Click the Check Mark button to write the log to each Level TROLL device.

- Click the Start button to begin the log (if you selected the Manual Start option) or wait for your log to begin.

Win-Situ Virtual Hermit

Summary

Name: HERMIT 1

Name	S/N	Status	Comm	Address	Port
Probe 1	1	Running	Online	2	29
Probe 2	2	Running	Online	3	1

Log Summary

Download Interval (secs): 30 secs

Device: Probe 1 Serial Number: 1
Site Name: Site 01
Log Name: Log 01

Device: Probe 2 Serial Number: 2
Site Name: Site 02
Log Name: Log 02

Manual Start
Scheduled Stop Time: None

Log Type: Linear

08:20:59 - Starting download for TROLL: Probe 1
Test Draw Down: —

- The remaining buttons have the following functions:

- Stop**—Stops the log
- Pause**—Temporarily pauses logging
- Resume**—Begins logging after a pause
- Step**—The software gives you the option to subdivide a test into steps. This feature is useful when running constant-rate and stepped-rate pump tests, with or without a recovery phase or anytime you want to restart fast sampling in a log cycle. When you step a test, the software will record the start date and time of the step and restart its programmed sampling schedule.

Download and View Data

- The Download Interval pull-down menu allows you to define how frequently the data are downloaded from any connected Level TROLLs.
 - When using the RuggedReader and Win-Situ Mobile to collect data from disconnected Level TROLL devices, the data logs are “sync’ed” back at the laptop using Win-Situ Sync. Virtual HERMIT software automatically imports the data.
- You can view data for the “HERMIT” or each Level TROLL in three ways:
 - Summary tab**—View a summary of the running log
 - Log Table tab**—View the data in a columnar format
 - Log Graph tab**—View each parameter graphically
- Click the Export Data button to export the data from your Level TROLL instruments to a *.csv or *.txt file.
- When you are finished, click the Disconnect button.

Note: If you plan to calculate Barometric Efficiency, run a BaroTROLL[®] concurrently with the Virtual HERMIT test and post-correct the data with BaroMerge[®] software.

Setting Up Multiple HERMITs to Run Concurrently

- Set up each HERMIT separately. The Level TROLL devices within each HERMIT can be set to have the same Site Name and Log Name.
- After each HERMIT is properly configured, you will need to start each HERMIT separately, if you chose a Manual Start.

Win-Situ Virtual Hermit

Summary

Name: HERMIT 2

Name	S/N	Status	Comm	Address	Port
Probe 2	2	Running	Online	3	1

Log Summary

Download Interval (secs): 30 secs

Device: Probe 2 Serial Number: 2
Site Name: Site 02
Log Name: Log HERMIT 2

Manual Start
Scheduled Stop Time: None

Log Type: Linear
Log Interval: 15 Minutes

08:29:58 - TROLL logs are Running
Test Draw Down: —

Note Regarding Battery Life

The TROLL Net Hub is powered by an internal 9 V battery. This battery will provide 72 hours of usage under “continuous on” circumstances. In certain scenarios that demand longer continuous usage, the battery will require replacement during the test. This will not affect data collection because the data and data logs are stored in the individual Level TROLL instruments. Follow these steps to replace the battery:

- Open the gray Pelican[®] case. Use a screwdriver to remove the 4 screws from the internal box and remove the cover.
- Replace the existing 9 V battery with a new battery.
- Replace the lid, the screws, and tightly close the gray case.
- Proceed with your application

Note Regarding Level TROLL Care

You may disconnect the Level TROLL cables from the Rugged TROLL Net Hub during the test. If you do this, you must:

- Cover the Rugged TROLL Net Hub bulkheads with the red dust caps.
 - Place a desiccant cap on the end of each cable to prevent moisture or water from entering the cable.
- Failure to properly care for the equipment will result in additional charges for replacement and/or repair of damaged equipment.



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