

# Well Site SCADA<sup>®</sup> Plunger Lift Manager



## Site automation from the Plunger Lift experts.

Combining our proprietary AutoCycle™ technology and proven plunger lift algorithms with unrivaled well site expertise, the PCS Ferguson Plunger Lift Manager (PLM) sets the standard for automation of plunger lift.

As part of our Well Site SCADA® system, the PLM is designed with the entire well site in mind. In addition to automating plunger lift operations, it also provides advanced tank management and other remote measuring and sensing capabilities to help monitor and optimize well surface operations. Much more than a data gatherer, the PLM offers true supervisory control of single wells and multi-well pads.

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### Single-Well Plunger Lift Control

Maintaining efficient cycles for ongoing optimization of a plunger lift well can be a challenge. To reduce the need for intervention, cycles are often set conservatively to keep a plunger running, but this can result in inefficiency and lost production opportunity.

Our Single-Well PLM, featuring proprietary AutoCycle technology, continually assesses and automatically adjusts sales and shut-in cycles based on changing well conditions. Fluctuations in sales line pressure and well decline are monitored, and cycles are automatically corrected to maintain the highest level of efficiency.

### Multi-Well Plunger Lift Control

Our signature Multi-Well PLM includes the functionality of the Single-Well PLM, plus it automates and synchronizes multiple wells producing into multiple separators.

Running our proven, independent control algorithms, grouped or individualized, the PLM polls each well to determine which is ready to produce. By eliminating the need to set open/close times at each well, manpower and windshield time are greatly reduced. Easily integrated with gas measurement, the system is able to accurately allocate produced gas to each asset.



### Custom Programming

Unique operating scenarios often require customization of the well operations. The de facto standard in automation software technology, ISaGRAF® allows you to write custom control programs for operation of virtually any device or facility on your site.

Available as an optional upgrade to the PCS Ferguson 8800™ Site Manager, the ISaGRAF embedded programming suite will facilitate the best solution for your unique requirements – without the time and expense of typical customization.

## SYSTEM FEATURES

- Industry leading plunger lift algorithms
- Integration with leading host providers, including XSPOC by Theta
- Easy integration of plunger lift operations, tank management, and other well site devices
- Accommodates local and long-range communications including Bluetooth®, radio, and cellular modem
- Remote diagnostics and troubleshooting
- Monitor and control the well from the safety of a vehicle using our mobile app



## HOW YOU BENEFIT

- Fully automated and optimized plunger lift operations
- Synchronized production of multiple wells producing into multiple separators, based on each well's readiness to produce
- Flexible architecture allows easy customization to any pad or site layout
- System redundancy reduces the impact of single points of failure, like lightning strikes
- Increased environmental safety with tank level management and emergency shut down
- Safer monitoring and control through local and long-range communication options
- Simplified gathering of production data used in oil and gas commission reports



## Manage tank levels, production meters, and more.

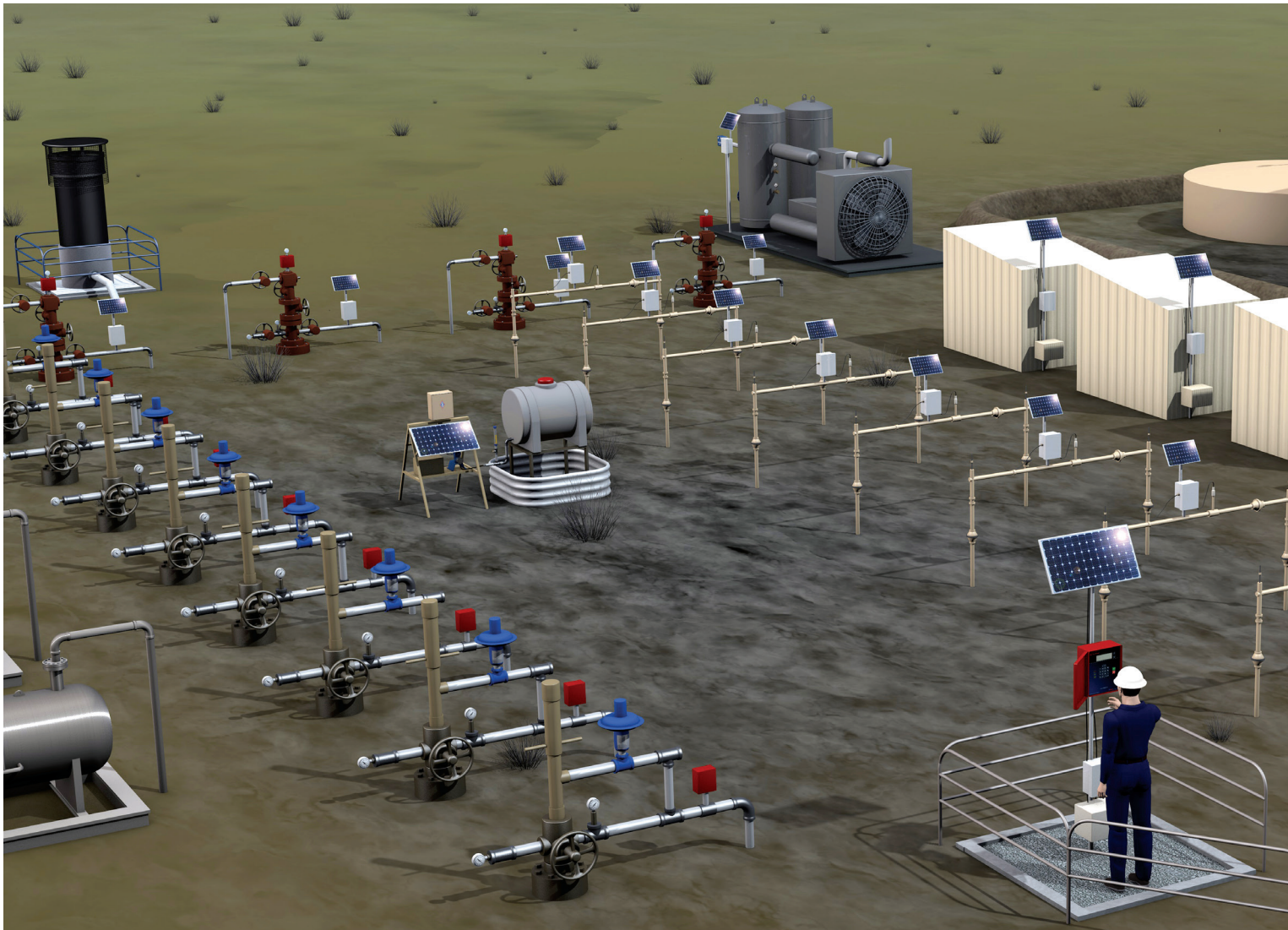
The PCS Ferguson Plunger Lift Manager does more than just manage plunger lift operations. Designed with the entire well site in mind, it also provides advanced tank management and other remote measuring and sensing capabilities to help monitor and optimize well surface operations.

### Tank Management

As a Modbus Master, the PCS Ferguson 8800 Site Manager or the PCS Ferguson 8400™ Foreman can poll measurement devices, store tank level data, and calculate fluid volumes. With configurable alarm, shut-in, and restart rules, you can customize alarms and shut-in criteria base on the specific well design and conditions. Tanks and wells can be managed individually or in groups for maximum flexibility.

### Remote Measurement & Sensing

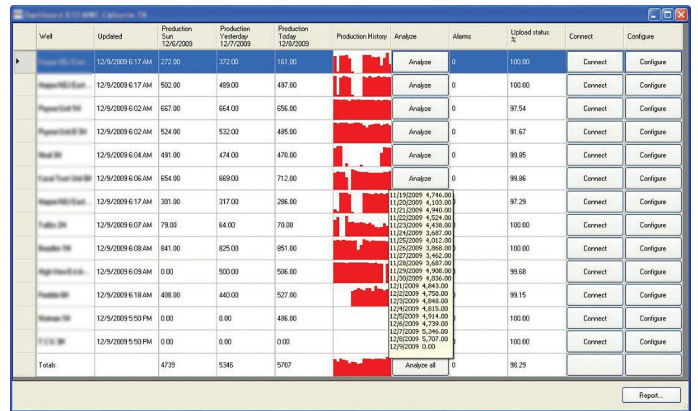
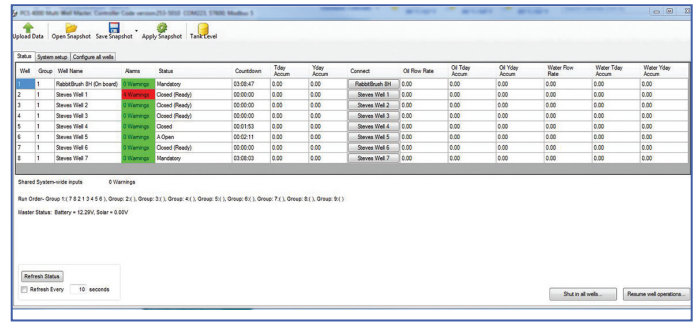
The PLM can interface with a variety of remote measuring devices. In addition to the local I/O on the controllers, the system can collect data from other production meters on the well site or pad. You can configure alarms and shut-in criteria based on this data and transmit alarms to the host system, keypad display, the safety shut-in, or any combination designed to fit your needs.



# User-Friendly Interface

Plunger Lift Manager is easy to use and configure using our WellVision® interface. WellVision helps you set-up and configure your site, fine-tune optimization and production, and troubleshoot and correct problems faster and more efficiently while in the home office or at the well site.

Delivering real-time and historical data, you can quickly and efficiently recognize trends or troubleshoot production issues. Also suitable as a host system for smaller operations, WellVision offers a user-friendly interface to perform real-time remote well diagnostics, automated data downloads, graphical analysis of well performance, reporting, and remote connectivity options.



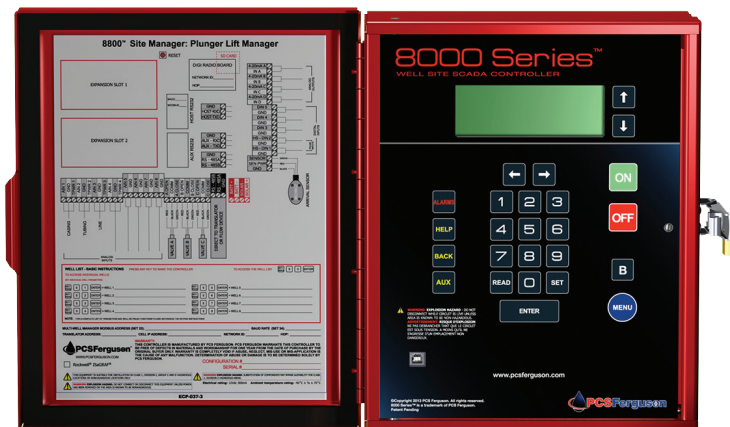
**ENHANCE SAFETY WITH WELLTREKKER®**

Our WellTrekker® mobile app provides the convenience of WellVision's configuration and reporting tools in an easy-to-use app designed for tablets and mobile devices. Using Bluetooth connectivity, WellTrekker allows you to easily manage your well pad without ever having to leave your truck. This increases manpower efficiency and means greater safety for your people.

## Flexible and Robust Controllers

The PCS Ferguson 8000 Series™ is our next-generation RTU controller family and the backbone of the Well Site SCADA system. Combining the best functions from PCS' and Ferguson Beauregard's legacy controls, our new suite of RTUs is more powerful and flexible than ever before.

The PCS Ferguson 8400 Controller is a robust hardware solution for single-well and multi-well applications. Even more scalable and customizable, the PCS Ferguson 8800 Site Manager allows you to add the capabilities of a Rockwell™ programmable logic controller (PLC) to accommodate your unique and changing requirements.



Features	PCS Ferguson 8800	PCS Ferguson 8400
Manages and synchronizes up to 8 plunger lift wells	✓	✓
Manages up to 24 production fluid tanks	✓	✓
Modbus data collection from many measurement meters such as buy back, injection, test, and/or production measurement	✓	✓
Custom programming using Rockwell ISaGRAF	Optional	N/A
Dynamic data logging	✓	✓
Local keypad and display	✓	✓
Bluetooth capability for convenience and safety	✓	✓
Analog inputs	8	4
Digital inputs/outputs	8/6	4/6
Communication Ports	PCS Ferguson 8800	PCS Ferguson 8400
LOI	USB	USB
Host Port	RS-232, TTL	RS-232, TTL
Local Devices	RS-485, Bluetooth	RS-485, Bluetooth
Auxiliary	RS-232, RS-485, TTL	RS-232, RS-485, TTL
Expansion Ports	(2) RS-232, RS-485 ports	N/A

## Partner with the best team in the business.

When you choose Plunger Lift Manager as part of your Well Site SCADA solution, you'll not only benefit from reliable, accurate well site information, but you can feel confident knowing your system is designed and supported by actual well head experts.

Investing in well site automation is a big decision and requires the support of a trusted partner. With decades of well site expertise, PCS Ferguson has the experience and know-how to ensure you gain the most from your well site automation system.

- Decades of experience recommending and servicing lift systems to accommodate changing well conditions
- Unrivalled expertise in plunger lift, gas lift, well control, and well unloading
- The best performing, highest quality, and safest products designed, engineered, and manufactured in-house at our Colorado and Texas facilities
- Experienced and responsive field support staff with extensive local knowledge
- The highest commitment to the protection and safety of our employees, our customers, and the environment
- Comprehensive customer training and product support

### PCS Ferguson products and services are available in the following North American locations:

#### Administrative & Manufacturing

Frederick, CO . . . . . 720.407.3550

#### Canada

Calgary, AB . . . . . 403.266.6139  
 Edson, AB . . . . . 780.723.2759  
 Grand Prairie, AB. . . . . 780.532.0804  
 Red Deer, AB. . . . . 403.340.3605

#### Arkansas

Conway . . . . . 501.932.0449

#### Colorado

Evans . . . . . 970.539.9003  
 Fort Lupton . . . . . 303.857.1522  
 Grand Junction. . . . . 970.241.7177  
 Parachute . . . . . 970.285.9652

#### Louisiana

Shreveport. . . . . 318.221.5934  
 Haynesville . . . . . 318.221.5934  
 Lafayette . . . . . 337.886.0009

#### New Mexico

Farmington . . . . . 505.326.4239

#### Oklahoma

Oklahoma City. . . . . 405.440.1015  
 Stigler . . . . . 918.967.3236  
 Woodward. . . . . 580.256.1317

#### Pennsylvania

Coraopolis. . . . . 412.264.6000  
 Montoursville . . . . . 570.327.1750

#### Texas

Amarillo . . . . . 903.520.9612  
 Bridgeport. . . . . 940.683.3898  
 Buffalo. . . . . 903.322.9300  
 Cleburne . . . . . 817.641.9900  
 Fort Stockton . . . . . 432.336.6622  
 Fort Worth . . . . . 817.244.0238  
 Freer. . . . . 361.394.5880  
 Houston . . . . . 281.350.2084  
 Kenedy/Karnes City . . . . . 830.583.9900  
 Midland-Odessa. . . . . 432.563.1012  
 Perryton . . . . . 405.213.8114  
 San Angelo. . . . . 325.699.4758  
 Sonora . . . . . 325.387.6260  
 Tyler . . . . . 903.561.4851  
 Weatherford . . . . . 817.599.6570

#### Utah

Vernal . . . . . 435.789.2031

#### Wyoming

Gillette. . . . . 307.686.9594  
 Rock Springs. . . . . 307.362.6010



At PCS Ferguson, our mission is simple: to provide superior products and unrivalled service that optimize your production and quickly impact your bottom line.



[doverals.com/pcsferguson](http://doverals.com/pcsferguson)