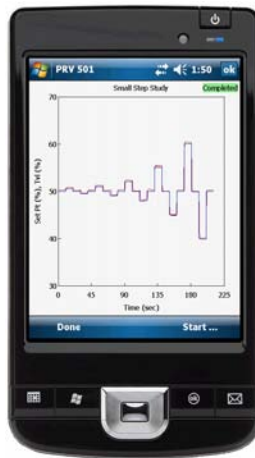ValveLink Mobile Software

ValveLink™ Mobile Software

ValveLink Mobile software provides the capability to set up, calibrate, and troubleshoot HART™ communicating FIELDVUE™ DVC6000 and DVC6200 digital valve controllers using a Field Communicator, PDA, or smartphone. See the table below for hardware requirements. Data files generated using ValveLink Mobile software can be transferred to ValveLink Solo, AMS™ ValveLink SNAP-ON™, or ValveLink PRM PLUG-IN applications to be analyzed and archived.

Hardware Requirements

475 Field Communicator	Easy Upgrade option is required to load ValveLink Mobile software (if not already loaded) or to install updates. Requires a Bluetooth® or an IrDA® interface on the PC to transfer valve data. To transfer files using Bluetooth, the Field Communicator must be ordered with the Bluetooth option.
375 Field Communicator	512 MB (minimum) or 1 GB memory card and Easy Upgrade option are required to load ValveLink Mobile software or to install updates. Requires IrDA interface on the PC to transfer valve data.
PDA or Smartphone	PDA or smartphone with Windows Mobile® 5 or later. Requires a Bluetooth HART modem. Bluetooth interface or USB data cable is required on the PC to transfer valve data.

475 Field Communicator   Smartphone with Bluetooth HART Modem

ValveLink Mobile Software

Installation

Field Communicator

Easy Upgrade is used to install ValveLink Mobile software on Field Communicators. Refer to the table on the front cover for requirements.

PDA or Smartphone

1. Use a USB data cable to connect your PDA or smartphone to your PC.

2. Establish a connection to your mobile device using Microsoft® ActiveSync® 4.5 (Windows® XP) or Windows Mobile Device Center 6.1 (Windows Vista®, Windows 7). These programs can be downloaded from http://www.microsoft.com/windowsmobile.

3. Run VLMobile Setup.exe from your PC to install ValveLink Mobile software on your mobile device.

Pairing a Bluetooth HART Modem to your PDA or Smartphone

1. Turn on the Bluetooth HART modem.

2. Turn on the Bluetooth radio on your PDA or smartphone.

3. From the Wireless manager on your PDA or smartphone, select Bluetooth Setting and add a new device.

4. Select the Bluetooth HART modem from the list and enter the passcode, which can be found in the modem instruction manual. The default passcode for the MACTek Bluetooth modem is *mactek*.

5. Find the COM ports selection. Assign the modem to an **Outgoing** COM port (e.g., COM6).

Once the modem and the device are paired you will not need to perform this procedure again.

Connect to the Instrument Using the Field Communicator

The Field Communicator or Bluetooth HART modem may be connected to the 4–20 mA loop wiring or directly to the digital valve controller. To connect directly to the digital valve controller, attach the clip-on wires to the Loop + and – terminals located in the digital valve controller terminal box.
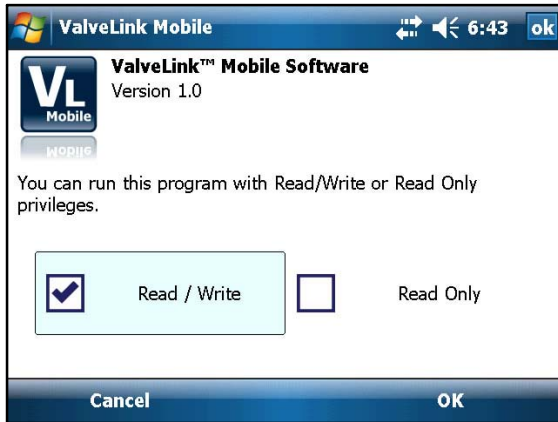
Launching ValveLink Mobile Software

Field Communicator

Select *ValveLink Mobile* from the main menu to access the software.

PDA or Smartphone

On a Windows Mobile Device, select *Start > Programs* to access ValveLink Mobile software. For smartphones without touch screens, select *Start > Programs > All Programs* to access ValveLink Mobile software.

Starting ValveLink Mobile Software

Startup Screen

ValveLink Mobile software can be run with Read/Write or Read Only privileges. Read/Write gives you access to all functionality in ValveLink Mobile software.

Select Read Only to monitor device parameters using Status or download the current instrument configuration using Save Detailed Setup. You cannot change the instrument mode, run calibration or Setup Wizard when Read Only has been selected.

Establishing a Connection

Home Screen

Field Communicator

Select **Connect** from the home screen.

PDA or Smartphone

1. Turn on the modem and the Bluetooth radio on your mobile device.

2. Select Connect > Change > Bluetooth COM Port. Set the COM port as defined above, e.g., COM6

3. Select **Connect**.

ValveLink Mobile software will remember the last successful connection and you will not have to change this again.

ValveLink Mobile Software

Navigation Tips

List controls are scrolled with grab-and-drag input from the stylus as shown in the screen shot below.
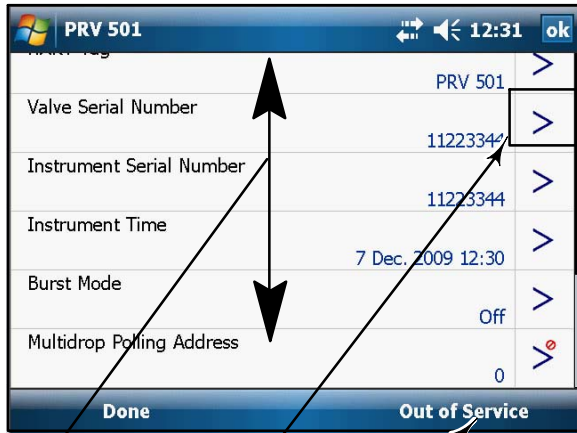
Grab and Drag Scrolling   **Selection Button**   **Command Bar**

Once you find a row you want to change, you can hit the selection button, however, the selection button (>) will not be visible if you are not connected to a device. Parameters that cannot be be changed will have a ⊘ next to the selection button.

The **Command Bar** located at the bottom of the screen has two soft keys. The left *Done* soft key is used to go back one screen or cancel an operation. The right soft key displays instrument mode (In Service, Out of Service, or Not Connected). Select this soft key to change instrument mode. Some tasks, such as Setup Wizard and Diagnostics, require that the instrument be Out of Service before they can be completed.

Green Highlight
HART Tag
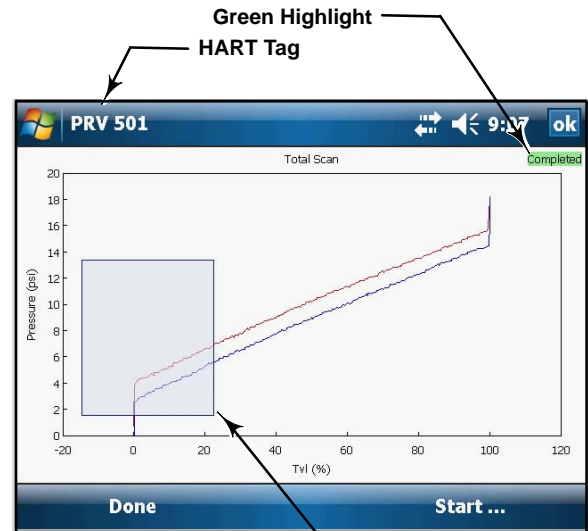
Use the stylus to rubber band an area of the graph to zoom in on

Most tasks will display a green highlighted bar to indicate that the task has completed successfully. For diagnostic tests, wait for the green Completed highlight to appear on the graph before moving on to the next task.

Other Information

Bluetooth

Bluetooth is generally robust, but the radio signal can be absorbed by water.

The most likely sources of water are your hand and people that might be between the modem and the smartphone. Some smartphones have the Bluetooth radio antenna where you put your hand, which can interfere with the signal.

ValveLink Mobile Software

ValveLink Mobile Software Menu Structure

CONNECT

Connect is the starting place for establishing communications with a FIELDVUE instrument. Select connect to access the HART tag, last calibration date,and other relevant connection information.

SETUP

Setup Wizard

The Setup Wizard guides you through initial instrument setup and calibration. All fields must be filled in before you can *Write All* to the instrument.

Detailed Setup

Detailed Setup is used to to manually set instrument parameters.

Initial Setup

Tuning

Response

Travel / Pressure Control

Alerts

Engr. Units

Use Engineering Units to set instrument units. The display of operational parameters in ValveLink Mobile software will be consistent with units configured in the instrument.

Write Protect
When enabled, Write Protect prevents configuration and calibration changes in the instrument.

Save Detailed Setup
Save Detailed Setup is used to save a record of all device parameters, including specification sheet information. The saved data set can be deleted using Data Set Explorer or transferred to the a desktop using Wireless File Transfer.

CALIBRATION

Auto Travel
Auto Travel provides guided calibration procedures for travel and pressure control.

Manual Travel
Manual Travel provides manual calibration of the travel feedback of the instrument.

STATUS
Select Status to access

Monitor: displays operating parameters such as input current, travel, and supply pressure.

Alerts: summarizes instrument alert states

◆ Alert ON

◇ Alert OFF

◈ Alert not enabled (alert state is unknown)

◆ Alert not read (alert state is unknown)

Device Info: shows HART tag, firmware revision, etc.

ValveLink Mobile Software

 DIAGNOSTICS

 Total Scan

Pressure versus travel, travel versus time, and pressure versus time graphs are available using Total Scan. Drive signal and dynamic error band data is collected and can be viewed using Wireless File Transfer to import the data into ValveLink Solo, SNAP-ON, or PLUG-IN to be analyzed or archived.

 Step Response

Step Response is divided into four separate tests:

 Stroking Time—Stroking Time shows the time to move the valve

 25% Step Study—25% Step Study steps are 0%, 25%, ..., 100%, 75%, ..., 0%

 Large Step Study—Large Step Study starts at 10% and moves up and down with 10% increase in step for every following step

 Small Step Study—Small Step Study begins with very small steps up and down, always waiting at zero on the way past.

Graphs are displayed in real time and can be zoomed in by using a stylus to draw a rubber band around the desired area. Tap on the screen to reset.

Cross hairs can be displayed by selecting the directional pad (up, down, left, right) *Enter* key until the coordinates appear.

Datasets are automatically saved after each test. Use Wireless File Transfer to transfer files to a PC to be imported into ValveLink Solo, SNAP-ON, or PLUG-IN to be analyzed or archived.

 UTILITIES

 Date Set Explorer

Select Data Set Explorer to view all diagnostic data by tag. Navigating to the data will allow it to be viewed or deleted.

Wireless File Transfer

Wireless File Transfer allows you to transfer data sets or communication logs to a desktop computer using IrDA or Bluetooth.

Wireless File Transfer combines selected tag data into one **VLMobile.exp** file that can be imported into ValveLink. Most Bluetooth software will guide you through the file transfer process, however, if you have Microsoft Bluetooth software on your desktop, you will need to enable file transfer services before you can send a file. Right mouse click on the Bluetooth logo in your icon tray and select *Receive a File*.

Toggle Burst Mode

Select Toggle Burst Mode to temporarily disable burst communications to improve speed and reduce communication errors. Toggle Burst Mode will not change the values being transmitted when burst communications are re-enabled.

About

About includes standard software identification information.

STROKE VALVE

Stroke Valve is a loop check routine for moving a valve to 0%, 25%, 50%, 75%, and 100% travels. Stroke Valve also allows you to assess small movements by jogging the valve up or down in 2% increments from any starting point.

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