



## LabVIEW Virtual Instrument for Watlow EZ-ZONE® Controllers

September 27, 2010

### Minimum Requirements

LabVIEW version 8.6 or later

### What the Virtual Instruments Do

The virtual instruments (VIs) provide communications between Watlow EZ-ZONE products connected to a computer's serial port and applications developed in LabVIEW. The serial port must be adapted to 485 communications and the EZ-ZONE products must be configured for the Watlow Standard Bus communications protocol.

### What is Included

The driver folder includes sub-folders entitled *Examples* and *Public* and the end user license agreement.

The Public folder contains the virtual instruments that you will use to allow your LabVIEW application to communicate with Watlow EZ-ZONE products: Initialize.vi, Read.vi, Write.vi and Close.vi. The Public folder also includes the EZZONEDriver.dll file that is used by these VIs when communicating and the VI Tree.vi which illustrates how the other four communications VIs work together.

The Examples folder contains the files needed to use the sample VI provided by Watlow. The use of this sample is described below.

### Installing and Running the Example VI

To use the Watlow supplied LabVIEW driver with Standard Bus, follow the steps below:

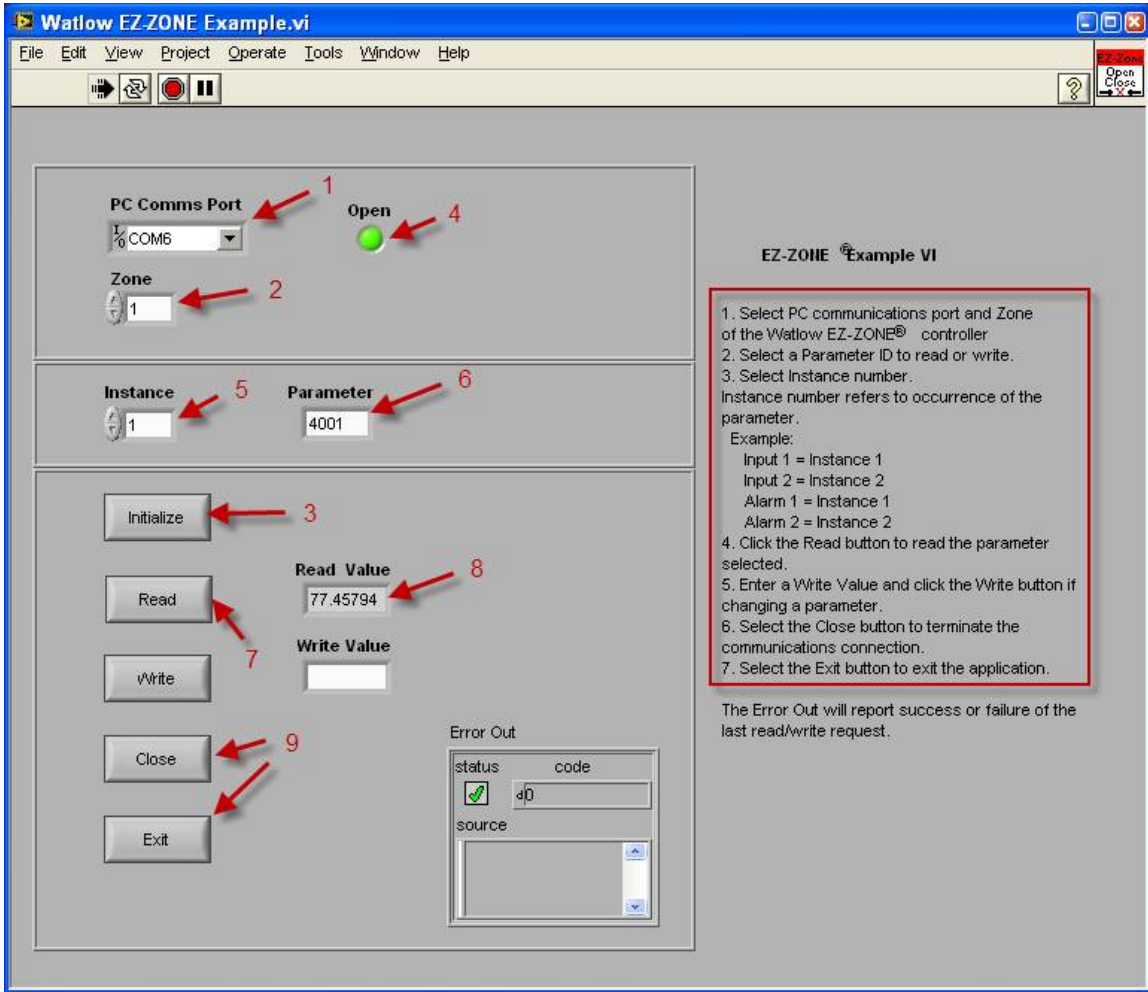
1. Place LabVIEW supplied files in to directory C:\Program Files\National Instruments\LabVIEW 2009\instr.lib.
2. Locate file Watlow EZ-ZONE Example VI in directory C:\Program Files\National Instruments\LabVIEW 2009\instr.lib\Watlow EZ-ZONE(R) LabView Driver\Examples.
3. Open the file *Watlow EZ-ZONE Example.vi* using LabVIEW.

### Using the Example VI

To use the Example VI to read a parameter value from an EZ-ZONE product:

1. Select comm port of PC connected to controller.
2. Enter the **Zone** (Standard Bus address of the EZ-ZONE product) exactly as indicated on the controller.
3. Click **Initialize**. (The **Open** indicator turns green when port is opened successfully.)
4. Enter the parameter **Instance**. (See description below.)

5. Enter the **Parameter ID**. (See description below.)
6. Click **Read** to request the VI to update the indicated value displayed in the **Read Value** field.
7. When done, click **Close** to close the comm port and click **Exit** to exit application.



## Parameter IDs

Settings and data in EZ-ZONE products may be read and written using the Read and Write VIs. When doing so, you must specify the Parameter ID of the value you want to read or write. For most EZ-ZONE products the Parameter ID for each parameter is listed in the User's Guide. For example, in the illustration below the Parameter ID for analog input is 4001.

☐ R.  
☐ P.E.C.

## Analog Input Menu

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