

Pump Simulator

User Guide

Revision Date: March 2026



Table of Contents

[Description](#)

[Setup](#)

[Usage](#)

[Notes](#)

Description

Pump Simulator is a program developed by PIE to simulate up to 16 dispensers, eliminating the need for any physical hardware during the development process of integrating to our controllers.

Setup

1. The PIE controller must be set to use Generic protocol to use this simulator.
2. Run PumpSimulator.exe and select OK to use the default settings.

Communication Settings

Communication Port
Ethernet

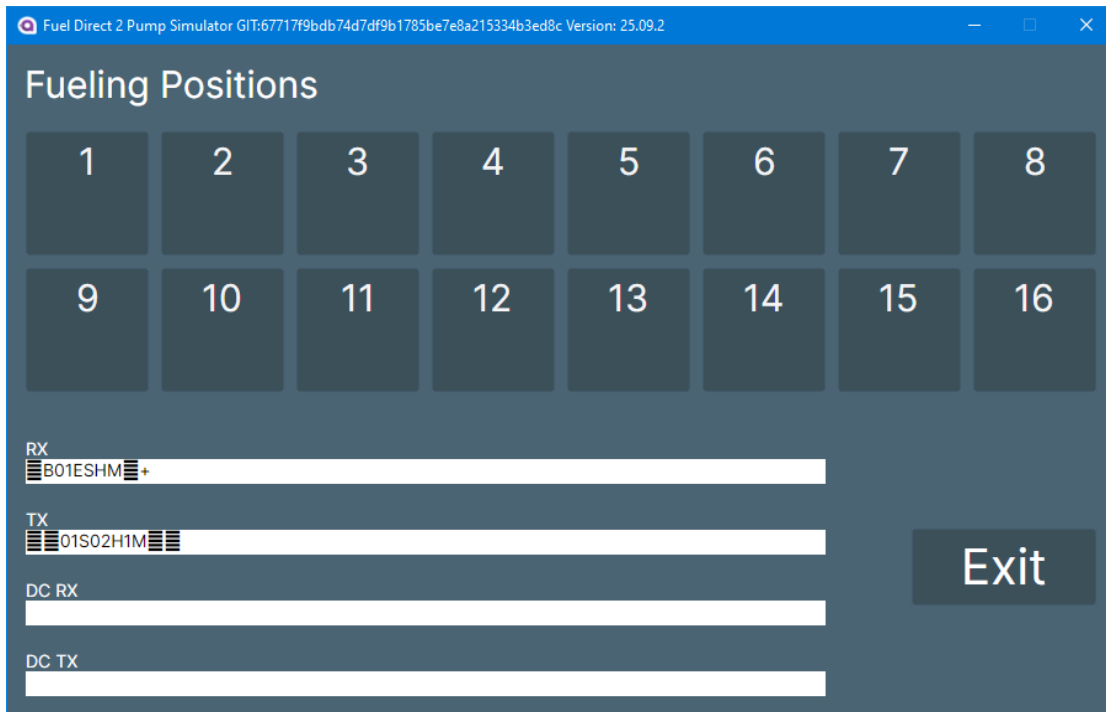
Amount Decimals: 2 Volume Decimals: 3 Price Decimals: 3

Handle Down Auth Mode (FD2)

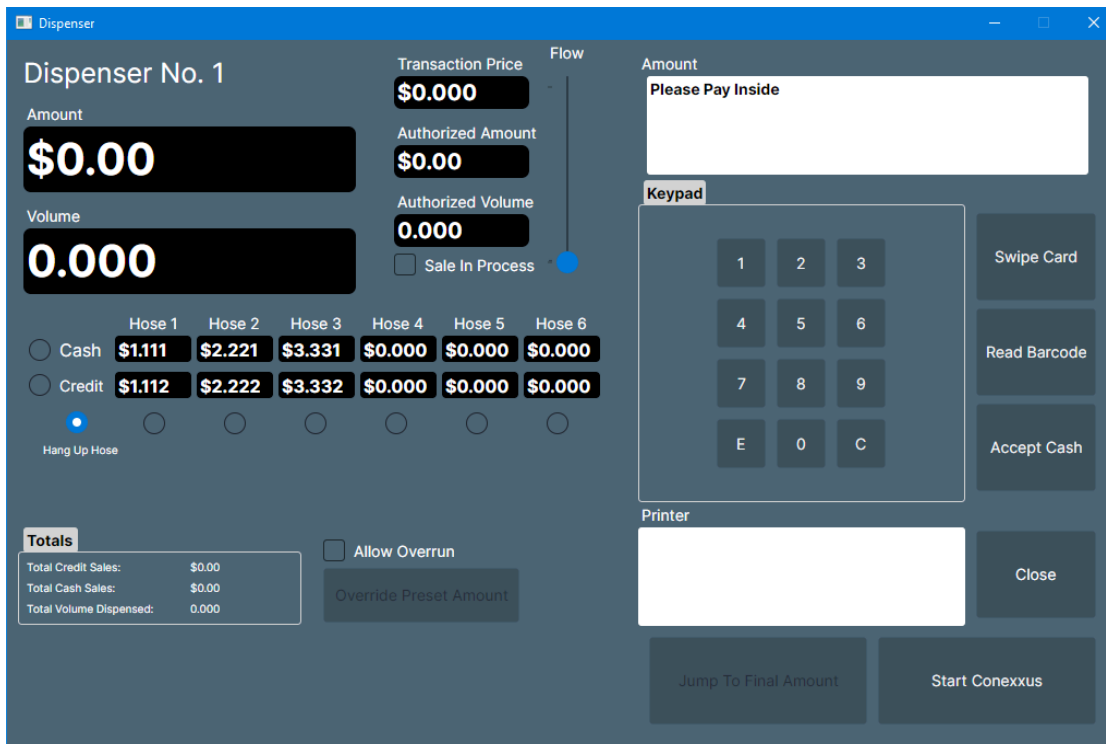
Cancel OK

Usage

1. Select the Pump number to open the pump face for the Pump ID to be used.



2. This is the dispenser face for Pump ID 1. It is possible to have multiple dispensers open at the same time to simulate a large site.



3. Steps to complete a transaction:
 - a. Select the radio button below the Hose number that you want to use to simulate removing the pump handle and selecting a grade
 - b. Select Cash or Credit
 - c. Authorize the pump from the controller
 - i. The Sale in Process checkbox will be checked when the pump is Armed
 - d. Move the slider for the Flow to begin fuel flow
 - e. When the sale is complete, move the Flow slider back to the bottom to end flow, then select the Hang Up Hose radio button
 - f. The PIE controller should have the Sale Ready bit set. Clear the sale using the controller

Notes

1. **Totals:** The Totals section will always be zero when the program first begins. New transactions will be added to the Totals during the same runtime of the program, and zeroed out when the program closes.
2. **Allow Overrun:** During a sale that has been sent a preset limit, the Allow Overrun checkbox can be checked to allow the simulator to run beyond that limit. This is helpful to test for abnormal behaviors of real dispensers.
3. **Jump to Final Amount:** During a sale that has been sent a preset limit, the Jump to Final Amount button can be pressed to immediately move the sale to the preset limit. This can speed up testing of large preset sales