

# GRFICS ICS Simulator

## 1 Overview

This lab is the virtual industrial control system (ICS) described at: <https://github.com/djformby/GRFICS>. The three VMs described at that site have been reimplemented as Labtainers.

Please refer to the above link for information about the lab, and the GRFICS Usenix paper for information about the simulation.

To start the simulation:

- In one of the tabs in the grfics virtual terminal:

```
cd HMI_SIMULATION_Ubuntu1604_15_x86_64
sudo ./HMI_Simulation_Ubuntu1604_15_x86_64.x86_64
```

And then enter “/home/user/simulation/simulation” for the path to the simulation code and click “Run Server” and the “Start”.

- In the other tab in the grfics virtual terminal:

```
cd simulation/remote_io
sudo bash run_all.sh
```

- In the plc terminal:

```
cd OpenPLC_v2
sudo nodejs server.js
```

- In the plc terminal:

```
wine HMI/AdvancedHMI.exe
```