

# DPAS

## “PM\_Sim”

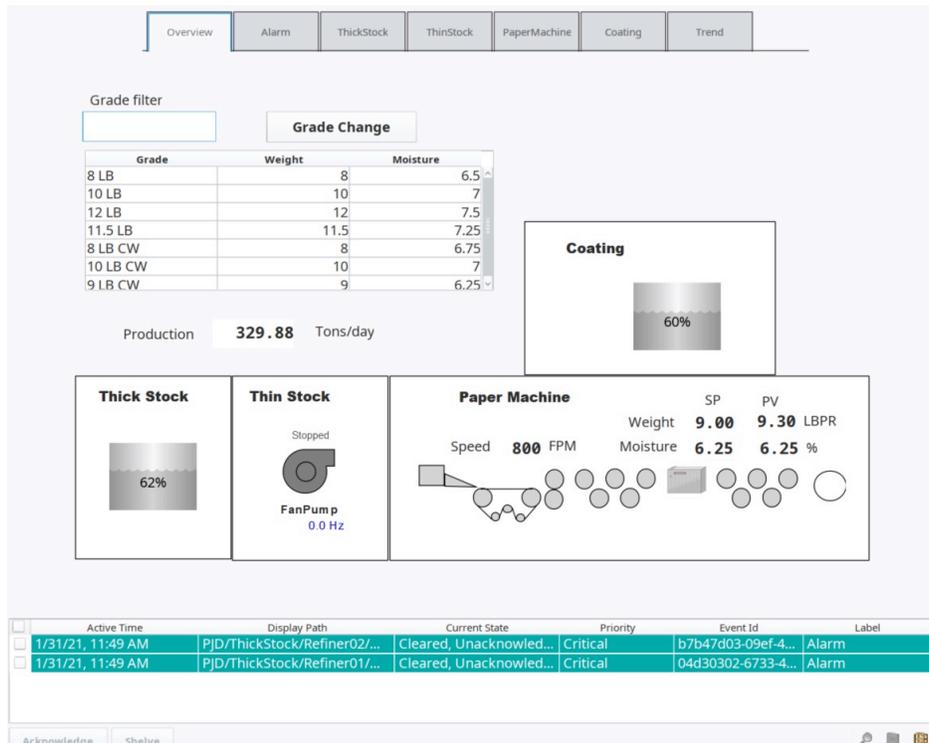
A simple simulation of a paper machine

The logic and HMI were developed for demonstrating concepts of PLC and HMI development to college students. It consists of Rockwell Logix v32 code which can be downloaded to an Emulate processor, along with an Inductive Automation Ignition HMI using Flintium PlantPAX objects.

The DPAS\_pm\_sim.ACD code is v32 Logix. The MainProgram contains:

- MainRoutine: Ladder that calls the PM\_Sim routine as well as a demonstration in ladder of a P\_PIDE object
- Ladder: An example to students of what happens when code is not written to be easily maintained
- PM\_Sim: Routine containing sheets for simple simulation of Thick Stock, Thin Stock, Paper Machine, and Coating

The DPAS\_PMSim\_Flintium-Gateway\_Ignition-backup-20210131-1103.gwbk file is the Ignition backup. It contains Vision windows that use the Flintium PlantPAX objects (<https://github.com/jlbcontrols/Flintium/wiki>). The windows under Flintium are the components included in the Flintium library. DPAS has added some objects to this library. The Miami U windows were developed to demonstrate HMI programming concepts to college students at Miami University. The Overview page provides a simple demonstration of filtering a table with a MySQL database source. Also, a simple grade change function is implemented through a Grade Change button which includes a Python script. The development credentials are admin/password. The user credentials are defaultAdmin/password.





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