



**BETA RAVEN**

*Your Automation Partner*

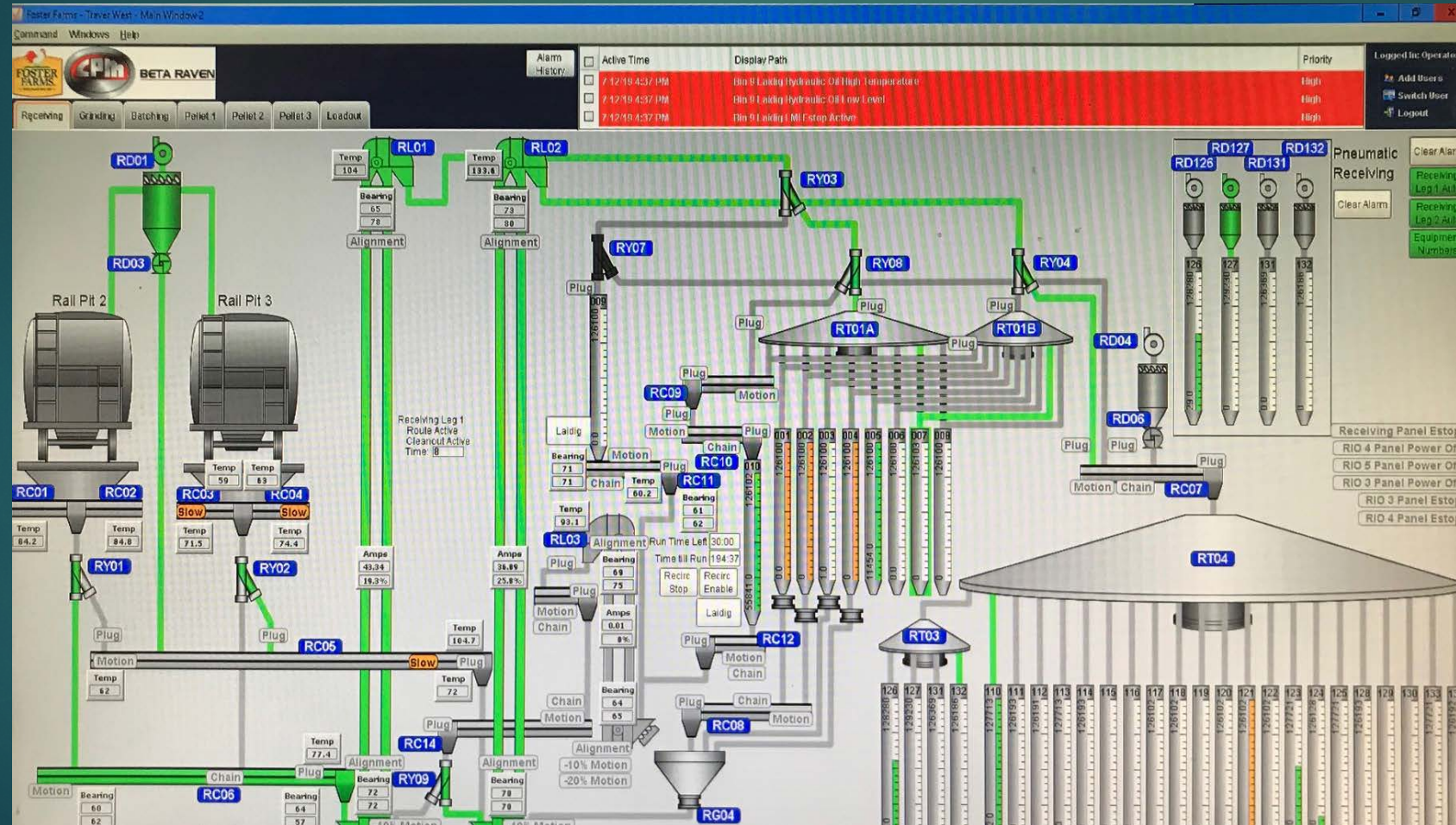
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# Process-Specific Tabs

- ▶ Allow operators to view the entire process, from receiving, to grinding and mixing, to batching, to pelleting, and finally to load out.
- ▶ The interface is designed in a user-friendly layout where each tab is associated with one step of the process.
- ▶ Each screen shows detailed diagrams of the production systems.



# Receiving

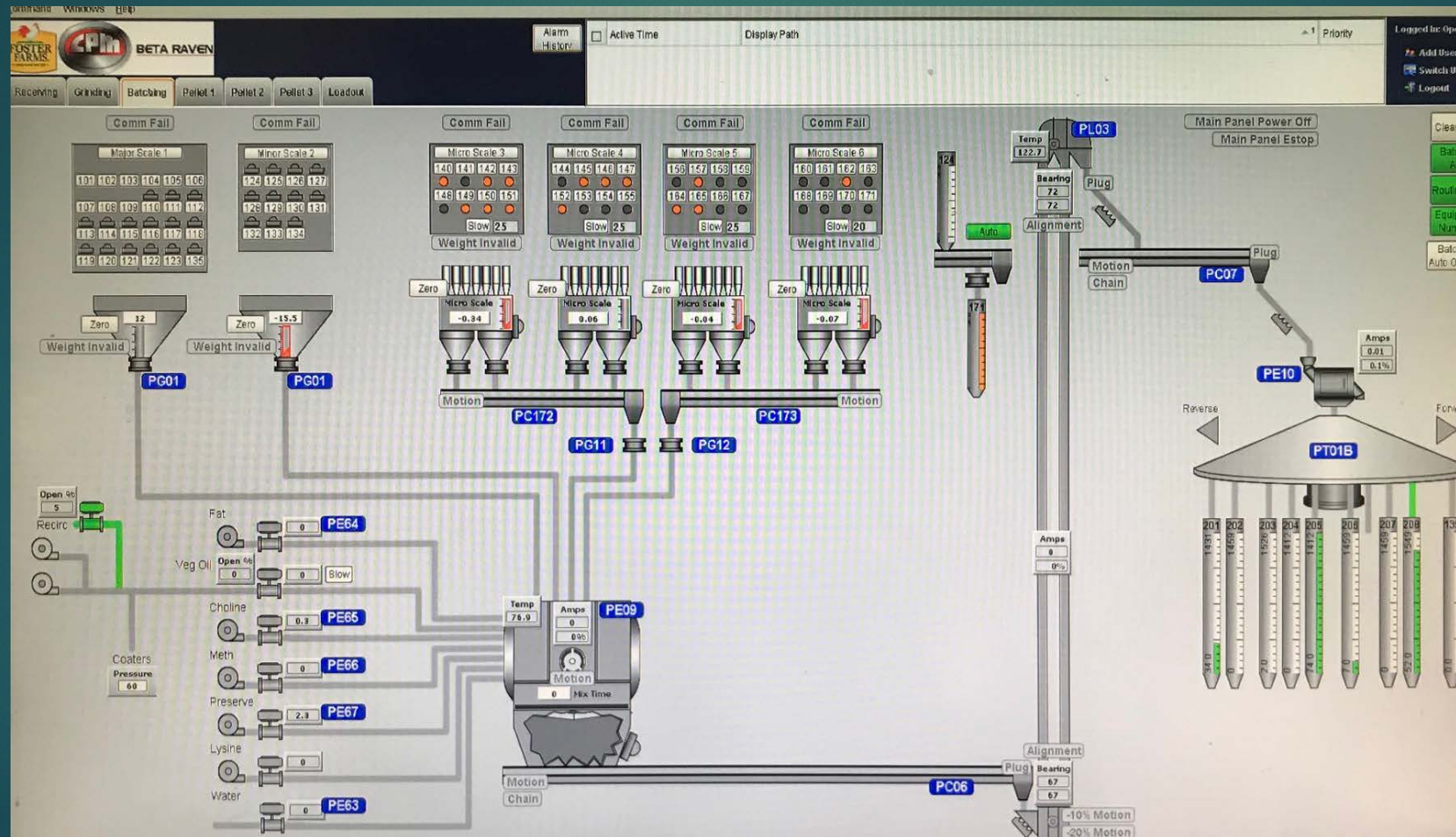






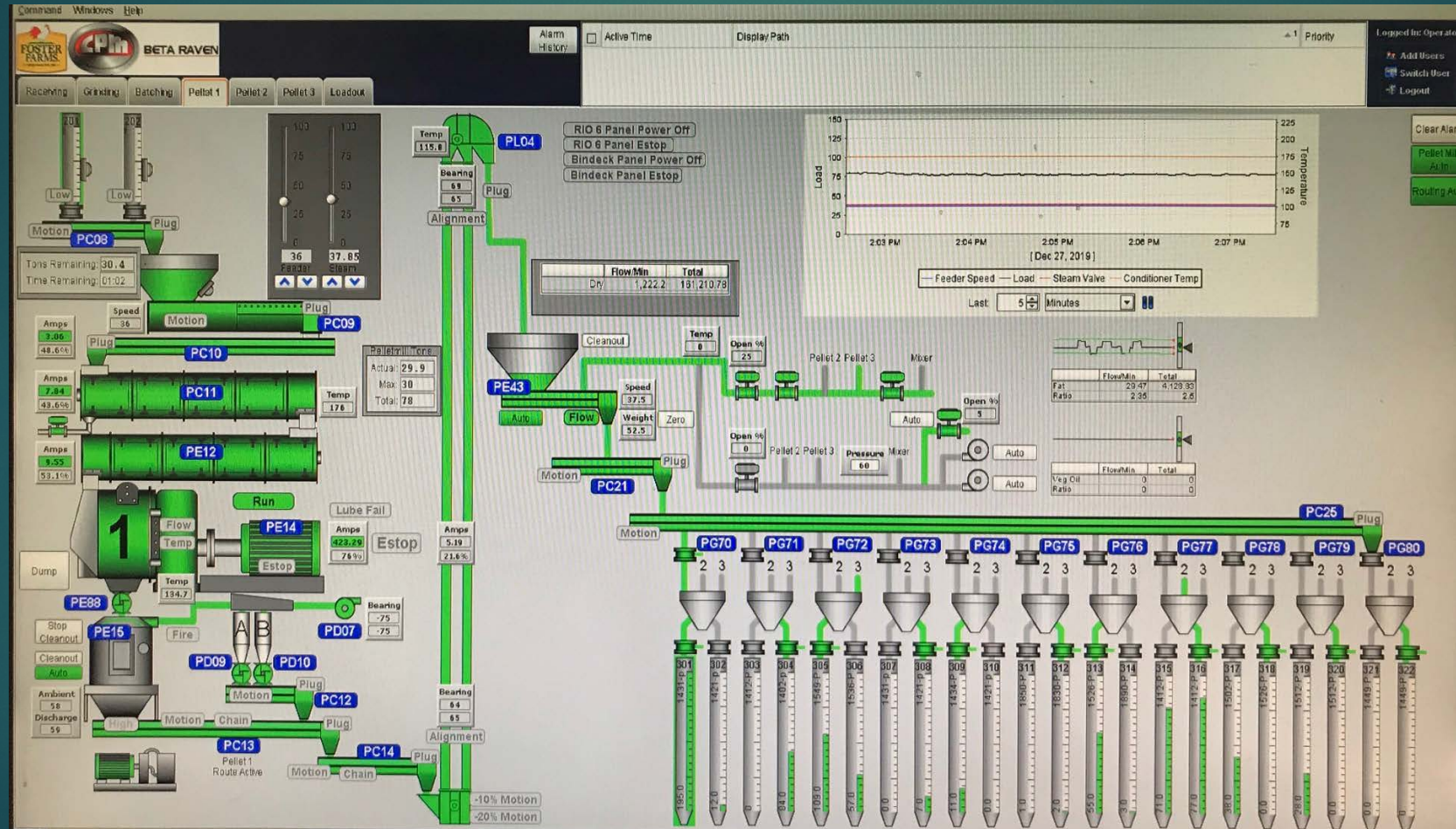


# Batching



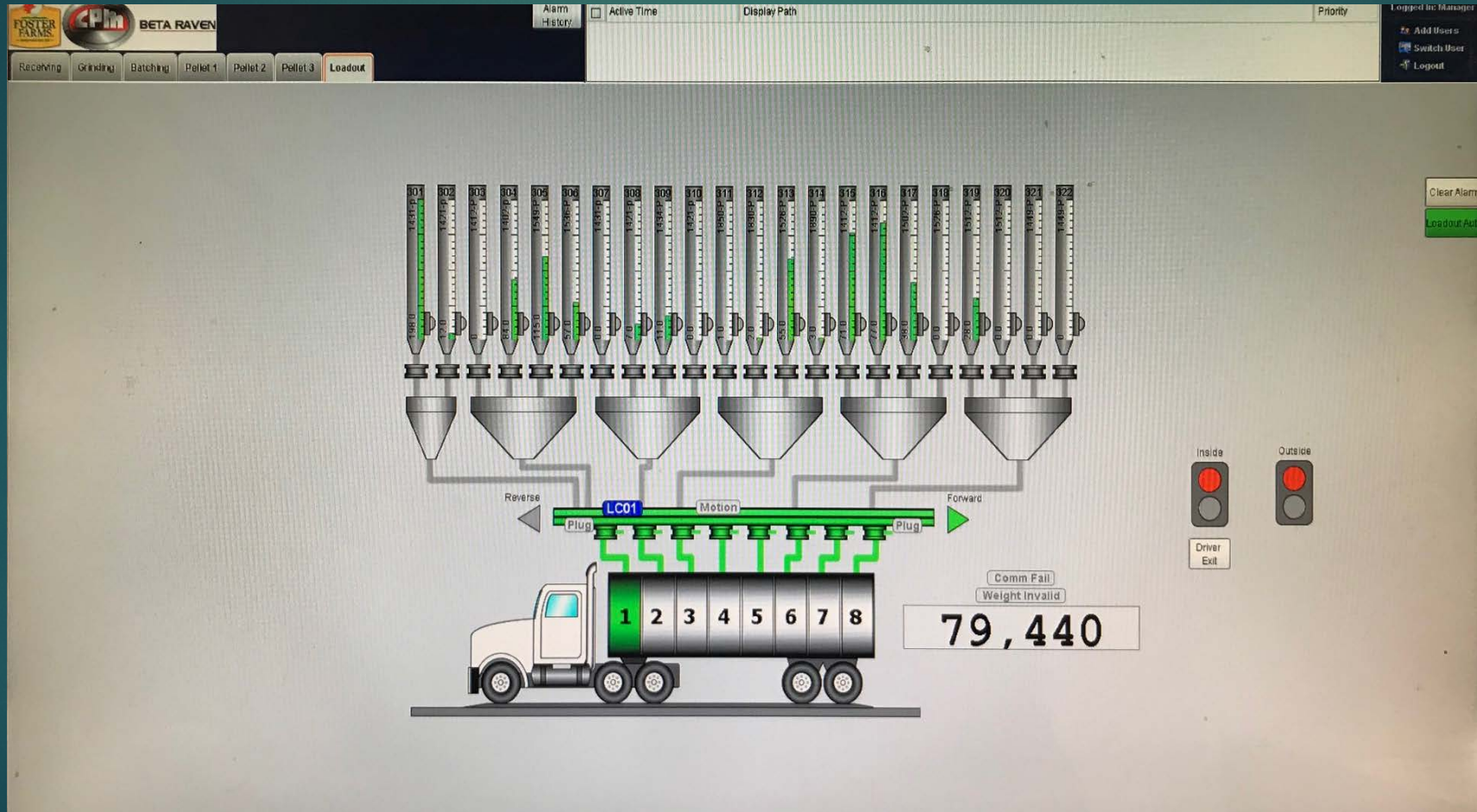


# Pelleting





# Loadout





# Alarm Logs

- ▶ Allow management to prioritize alarms and generate reports that show alarms in order chronologically or by their level of importance (priority).
- ▶ Alarm logs can be printed and reviewed by management to ensure the maintenance team has attended to machinery needing inspection/maintenance.



# Alarm Logs

Event Time	Display Path	Event State	Priority
12/23/19 11:29 AM	Pelletmill 2 PE24 Door	Active	High
12/23/19 11:25 AM	Elevator PL01 Head Bearing 2 Hot	Clear	Low
12/23/19 11:25 AM	Elevator PL01 Head Bearing 2 Shutdown	Clear	High
12/23/19 11:24 AM	Elevator PL01 Head Bearing 2 Shutdown	Active	High
12/23/19 11:24 AM	Elevator PL01 Head Bearing 2 Hot	Active	Low
12/23/19 11:22 AM	Elevator PL01 Head Alignment 1 Shutdown	Clear	High
12/23/19 11:22 AM	Elevator PL01 Head Alignment 1 Shutdown	Active	High
12/23/19 11:22 AM	Ground Corn Elevator PL02 Discharge Plug	Clear	High
12/23/19 11:21 AM	Ground Corn Elevator PL02 Discharge Plug	Active	High
12/23/19 11:21 AM	Elevator PL01 Discharge Plug	Clear	High
12/23/19 11:21 AM	Elevator PL01 Discharge Plug	Active	High
12/23/19 11:21 AM	Elevator PL01 Discharge Plug	Clear	High
12/23/19 11:16 AM	Elevator PL01 Discharge Plug	Active	High
12/23/19 11:11 AM	Elevator PL01 Boot Bearing 2 Hot	Clear	Low
12/23/19 11:10 AM	Elevator PL01 Boot Bearing 2 Shutdown	Clear	High
12/23/19 11:10 AM	Elevator PL01 Boot Bearing 2 Shutdown	Active	High
12/23/19 11:09 AM	Elevator PL01 Boot Bearing 2 Hot	Active	Low

Filter

1:09 AM

Search

Priority

Low

to

Critical

System Events

☒ true

Active Events

☒ true

Cleared Events

☒ true

Acked Events

☒ true

11,448 events

11/27/19 - 12/27/19

Nov 27Dec 2Dec 7Dec 12Dec 17Dec 22Dec 27

Print

Spreadsh

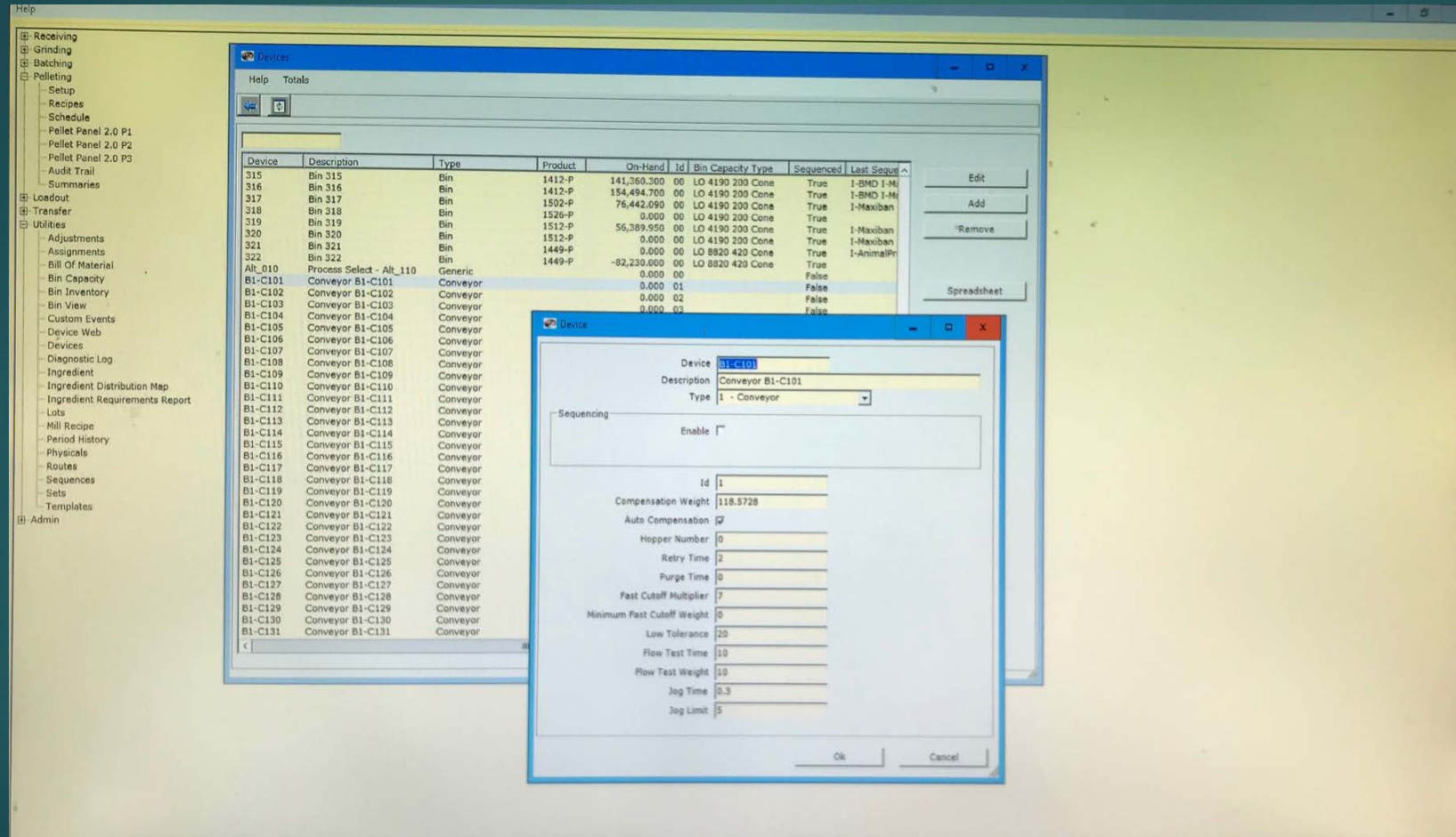


# Alarm Logs

- ▶ Each piece of machinery in the system is linked to its own alarm which notifies the operator of any plugs, gates failing to open/close, motor overloads, belt alignment/motion, etc.
- ▶ Prior to Beta Raven, operators were not given specific alarms. Instead, they were given a general alarm for the production step and then went out and physically inspected the pieces of equipment until the issue was located.



# Millmaster Software



Beta Raven's Millmaster Software makes it easy to upload formulas, adjust mix times and other "rules" (i.e. flushing and sequencing), and generate reports (i.e. ingredient usage, batch summaries, etc.)