VinWizard Modules

1   Temperature Control
This module made VinWizard what it is today and is the backbone of the system. We recommend getting your tanks under control first and the other modules can be added as needed.

2   Events
Trigger a subsequent temperature setpoint change when a time period or temperature milestone has been reached.

3   Increment to setpoint
Increment to setpoint over a time period and let VinWizard set the new setpoint hourly until the target is reached.

4   Charts
Temperature/Analysis charts can be saved as a file and sent to others to view with the portable chart viewer.

5   Load Scheduling
Overchill low priority tanks in off-peak price periods to store energy in the wine and reduce chiller use in peak periods.

6   Cold Stabilization
Schedule cold stabilization for night time and save energy.

7   Pumpover
Control pumpovers and sparging automatically. Create profiles and templates. Schedule temperature changes.

8   Duel or Single Gas Sparging
Gas sparge to a schedule using your choice of gas. Modules currently do duel or single gas.

9   Standalone or Integrated Stirrer Control
Stirrer control can be integrated or run stand alone from a 3D view.

10   Tank Level
Monitor water tank levels, brine tank levels etc and chart the results.

11   Pump Control
Turns circulation pumps on and off depending on what tanks are calling for heating or cooling.

12   Plant Control
Control your chillers and circulation pumps using VinWizard logic control.

13   Smart Load Control
Controls tank cooling and heating based on resources available at any one time.

14   Task Scheduler
Schedule outputs to come on or off on a daily, weekly or weekend basis.

15   Mimic screens
Tailored mimic screen to control and visualize your plant status.

16   Grape Receival
Tailored grape receival to capture weights and produce reports. Integrates into your PLC system.

17   Extended Charts
Chart data is formatted for any charting package of your choice.

18   Totalizer
Captures a variety of data and produces daily, weekly and monthly totals for reporting purposes.

19   Stuck Valve module
Monitors each tank to see if a temperature has gone past the setpoint and operates the valve several times to clear it.

20   3D standalone or integrated.
The 3D is a powerful visualization tool and can be customized to show data of your choice.

21   PLC Integration
Integrate to any PLC to take advantage of VinWizards powerful logic control.Replace your aging SCADA while protecting your original PLC hardware investment.

22   Statistics module.
A reporting module tailored to fit your requirements. Useful for winemakers and engineers to make informed decisions based on real time information.

23   Barrel hall
Temperature control, humidity, CO2.

VinWizard
Wine Technology Solutions

For further information please visit www.vinwizard.com

Power Saving:

In addition to off-peak cooling of tanks and cold stabilization scheduling, VinWizard offers other ways to help reduce power usage without compromising the wine

- **Coolant Levels:** Coolant quantity requirements change according to load and time of day. Less coolant is required as the air cools and demand drops. By controlling the level of coolant in the reservoir the plant has to cool a lesser quantity and therefore cycle less.

- **Coolant Pumps:** VinWizard signals the pumps to run only when required. The pumps can be ramped down to a lower speed when demand eases.

- **Monitoring Minimum Setpoint:** VinWizard knows what the lowest setpoint is in the winery and can use that information to control coolant temperature. This prevents glycol being cooled lower than necessary.

- **Peak Load Management:** By monitoring total or partial load, we can automatically turn tanks off that have a low priority. This drops load to the refrigeration plant without shedding much needed equipment.

- **Heat Recovery:** Heat recovery from refrigeration systems can be an expensive process if not managed within the specs of the refrigeration system. Many wineries try to recover too much heat causing the plant to run at higher than optimum temperatures. This turns your refrigeration system into a very expensive water heater. VinWizard can manage the heat recovery to maintain optimum refrigeration and still provide adequate heating.

- **System Temperature Monitoring** VinWizard monitors hot and cold glycol temperature. If a tank is set to heat and the hot glycol falls close to the temperature of the tank, VinWizard will pause that tank until the heat source rises again. Likewise with the cold glycol. This reduces energy loss from the tank.

- **Monitoring Must Temperature:** Must chillers may not need to run at the extreme low temperatures many are set to. Temperature can be automated in relation to the temperature of the must from the receival bin. If the temperature of the must is below a predefined temperature for certain classes of grape intake, the must chillers may not be required. Instead the temperature can be taken down in the tanks which is a more effective method.

Water Management:

Audits with supporting documentation are gaining in importance. VinWizard can help monitor, report and control water usage, storage and pre-treatment processing.

Water Usage

In order to make informed decisions on how we manage this resource we need information on where and how it is being used.

VinWizard can monitor and breakdown usages such as:

- Landscaping
- Vineyard irrigation
- Cleaning and sanitation
- Process operations
- Potable
- Fire system testing

In addition to knowing where it was used, it is also important to know how it is returned to the environment. VinWizard can track water flows throughout the winery and can graphically display usage information thereby providing a full audit trail of all uses.

Water Storage

VinWizard can monitor the levels of wells and storage tanks and manage pumping stations. Real-time monitoring allows winery staff to make informed water utilization decisions.
In the event of a ruptured line, emergency shut-off procedures can be automatically triggered.

Pre-Treatment Processing

Filtration systems can easily be integrated into the VinWizard system providing process visibility in conjunction with usage and storage information. In addition, the individual processes (UV, RO) can be measured to provide efficiency statistics.
In the event of the failure of a process, management can be immediately notified.

Alerts

VinWizard can dramatically aid in identifying problems or failures throughout the water management system. Alerts can be sent via e-mail and text message in addition to being displayed on VinWizard screens.

Alerts can include:

- Pump failure
- Power failure causing equipment shut-down
- Failure of a pre-treatment process
- Unusually large amount for a specific use over a period of time
- Water usage occurring for a use when it should be shut down (for example, water usage reported in the cellar from 8pm to 6am)
- Low level or high level condition of a well or storage tank
- Fire system usage

For further information please visit www.vinwizard.com or contact Jesus "Chuy" Mendoza

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