VINWIZARD

Winery Value Creation w/o **CAPEX**

11.05.2024

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THE **PROBLEM**

- THE WINE INDUSTRY IS IN **TURMOIL**

- A MYRIAD OF **HEADWINDS** EXIST… ENERGY, WATER, LABOR, & AGING INFRASTRUCTURE

- ECONOMIC MODELS ARE **BREAKING** AS COST PRESSURES INCREASE

- **70%** OF WINERIES DIDN'T TURN A PROFIT IN 2023

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THE **SOLUTION**

- A **GLOBALLY PROVEN** WINEMAKING EFFICIENCY PLATFORM

- **MONITORING** & **CONTROLLING** EVERY ASPECT OF A WINERY

- MINIMIZING **COSTS** WHILE MAXIMIZING OVERAL WINERY **OUTCOMES**.

- **DISRUPTING** A DECADES-OLD INDUSTRIAL AUTOMATION MARKET

AT WHAT **COST?** NO **SET-UP**

- COMPLETELY **CAPEX FREE**

- MONTHLY FEE BASED UPON FUCNTIONALITY ELECTED, ESTIMATE **($30-50/TANK)**

THE **VINWIZARD** **PLATFORM**

- VINWIZARD IS A LEADER IN WINERY EFFICIENCY ENABLEMENT, PROVIDING UNRIVALED INSIGHT & CONTROL OVER THE FERMENTATION PROCESS.

- A GLOBALLY PROVEN TECHNOLOGY CAPABLE OF MONITORING & INTEGRATING WITH EVERY ASPECT OF A WINERY'S OPERATIONS.

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Reduce daily operating costs while improving quality of wine produced

- No compromises on wine quality or major changes to manufacturing processes.
- Improved control over operations with lower labor hours.

Proven energy savings, labor efficiency improvements & extended asset life

- System achieved ±40% energy savings; over $1MM/yr for Australian customer.
- Reduce overtime pay & seasonal labour by automating routine, but critical tasks.

Cost effective insurance against catastrophic product loss

- Automatically act to avert catastrophe and save entire vintages.
- Alarm off-plan events, stopping issues before they become problems.

TYPICAL WINERY
APPLICATIONS

MAXIMIZE **CONTROL** & **RELIABILITY**

ENHANCED TANK TEMPERATURE & FERMENTATION CONTROL

- UTILIZE EXISTING INFRASTRUCTURE FOR IMMEDIATE SAVINGS
- GREATER CONTROL OPTIONS, INCLUDING PULSE COOLING & LOAD SCHEDULING
- MINIMAL IF ANY NEW HARDWARE REQUIRED!

AMBIENT TEMPERATURE CONTROL

- MANAGE & OPTIMIZE AMBIENT CONDITIONS, MINIMIZING EVAPORATIVE LOSS
- HEATING, COOLING, NIGHT-AIR COOLING, HUMIDITY MANAGEMENT

MECHANICAL ASSET MONITORING – REFRIGERATION, BOILER, & COMPRESSOR

- RECEIVE ALERTS TO ANY OFF-PLAN PERFORMANCE OR ASSETS GOING OFF-LINE

PROCESS OPTIMIZATION & STATUS ALERTS

- REDUCE ENERGY COSTS W/ PULSE COOLING & LOAD SCHEDULING
- CREATE & ASSIGN TEMPERATURE MANAGEMENT PROTOCOLS
- UNLIMITED TEXT & EMAIL ALERTS
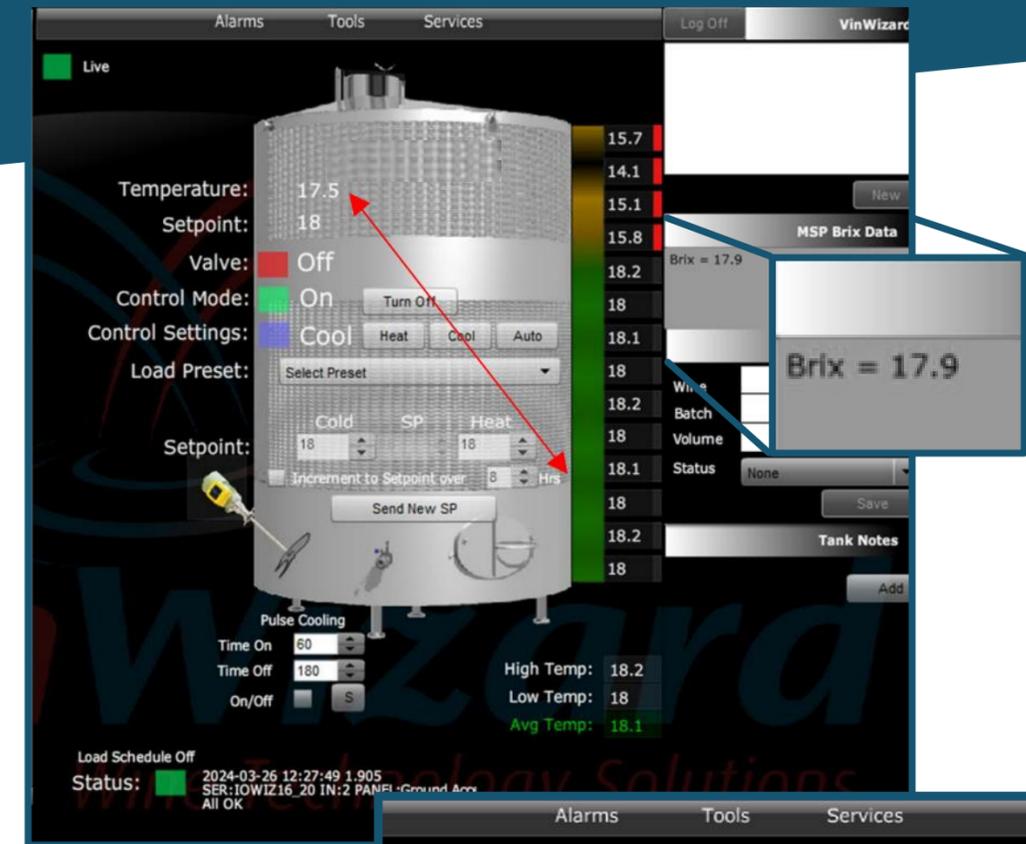
DATA MANAGEMENT & **INTEGRATION**

DATA INTEGRATION WITH EXCEL, INNOVINT, OR VINTRACE

- REDUCE DATA DOUBLE ENTRY; ENABLE CROSS-TALK BETWEEN PLATFORMS
- IMPROVE INFORMATION FLOW FROM WINERY TO SYSTEM OF RECORD (BRIX INPUT)
- ALL PARAMETER CHANGES & SYSTEM ACTIONS RECORDED WITH DATA CHARTING

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VINWIZARD'S MULTI-SENSOR PROBE (MSP)
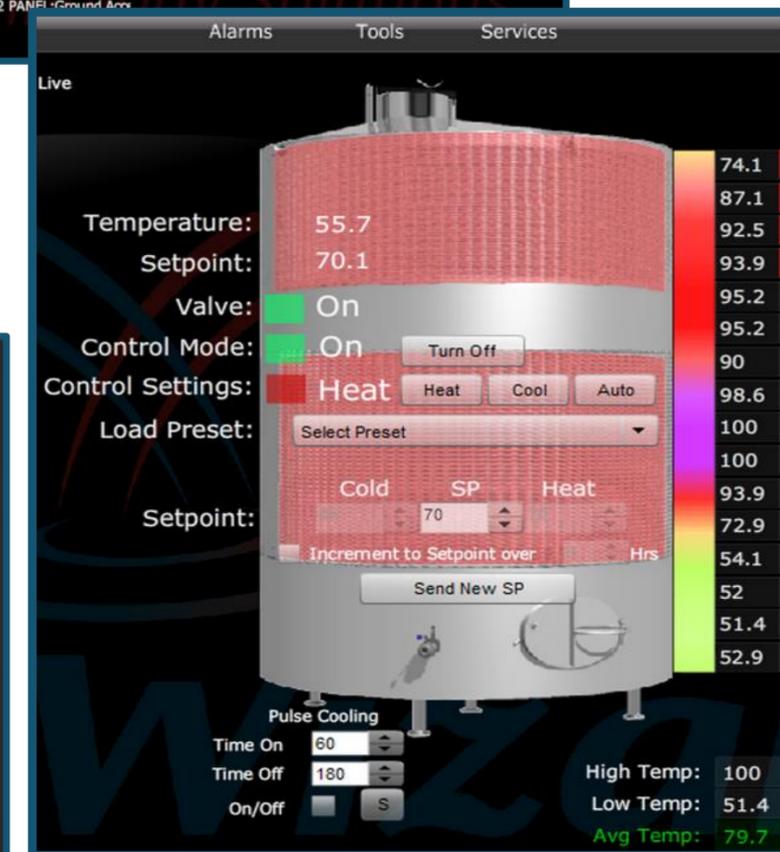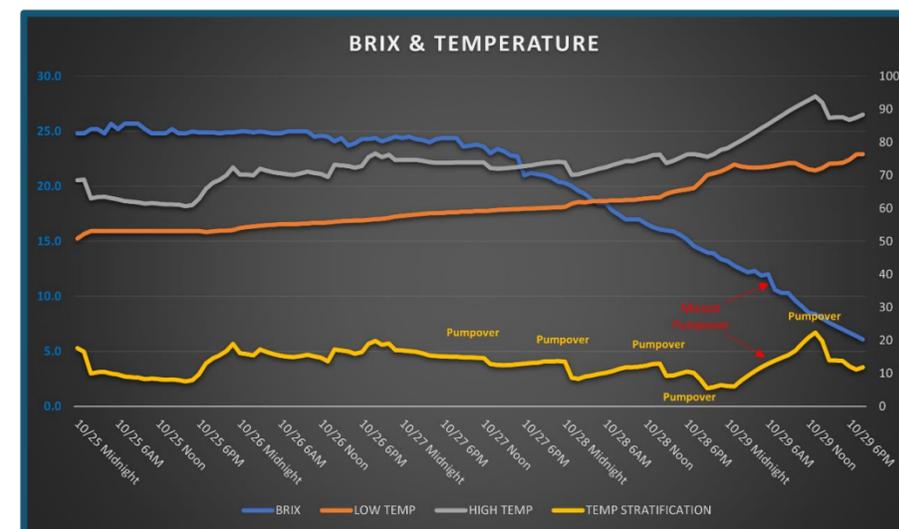
MULTI-SENSOR PROBE
MSP

REAL-TIME **BRIX & TEMP**

Avoid out-of-control or stuck ferments by knowing what's actually happening inside the tank. Most thermwells are not ideally placed to inform winemakers of actual temperatures where it is most important.

50°F stratifications are real (far right graphic). VinWizard saved this fermentation by alerting winemakers to a 100°F reading 24" above the thermwell.

Winemakers can now manage pumpover schedules according to real-time information, optimizing nutrient additions and avoiding tough conversations with Custom Crush clients.
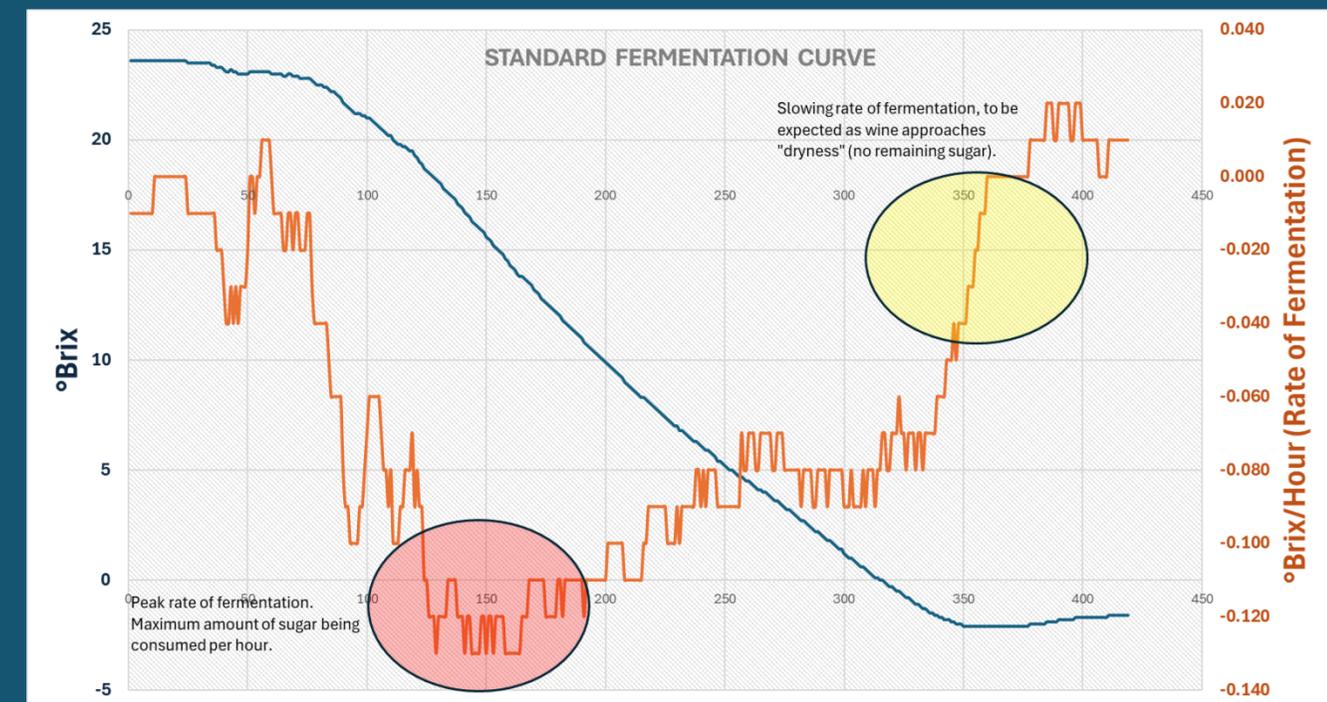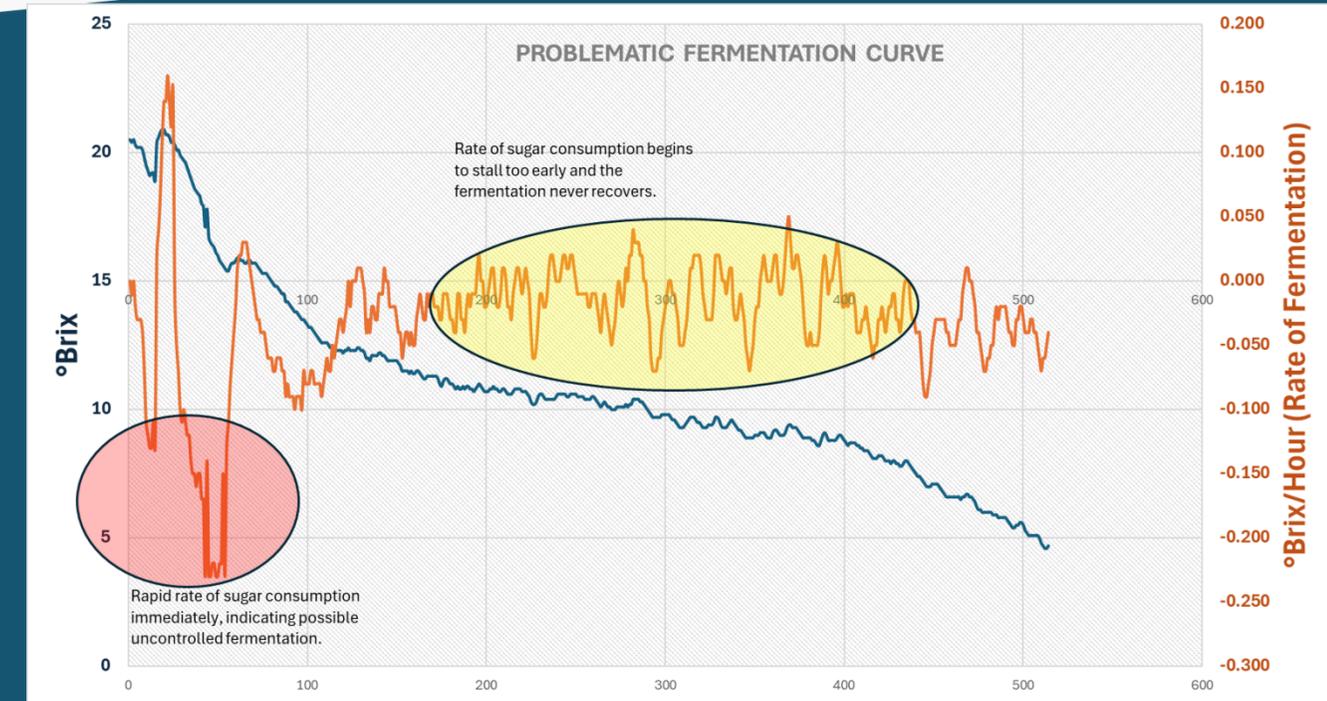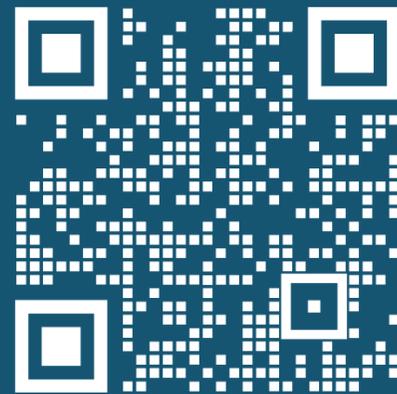
REAL-WORLD **IMPACTS**

FERMENTATION TRENDING

Knowing Brix at any point is powerful, though trending the Brix information over time to generate a fermentation curve creates greater value.

Computation of Brix consumption (rate of fermentation) provides helpful insight for nutrient additions & labor planning.

AVOID GETTING STUCK

The upper chart show two instances of fresh juice additions to the original batch, possibly impacting overall health.

Leveling of Brix readings along with chopping nature signals non-ideal fermentation characteristics.

Triggering system alarms with unplanned rate of fermentation decreases or automatically increasing temperature may have avoided the sluggish ferm.

PROBLEMATIC FERMENTATION CURVE

Rate of sugar consumption begins to stall too early and the fermentation never recovers.

Rapid rate of sugar consumption immediately, indicating possible uncontrolled fermentation.

STANDARD FERMENTATION CURVE

Slowing rate of fermentation, to be expected as wine approaches "dryness" (no remaining sugar).

Peak rate of fermentation. Maximum amount of sugar being consumed per hour.

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Wine Technology Solutions