IRmadillo™ with IRis™

DOC1211

Introducing the IRis™ Bioethanol Fermentation Dashboard



React to every change in your batch fermentation in real time!

IRis gives plant operators and laboratory staff a real-time view of their fermentation, helping them catch problems and identify optimization opportunities before it is too late.

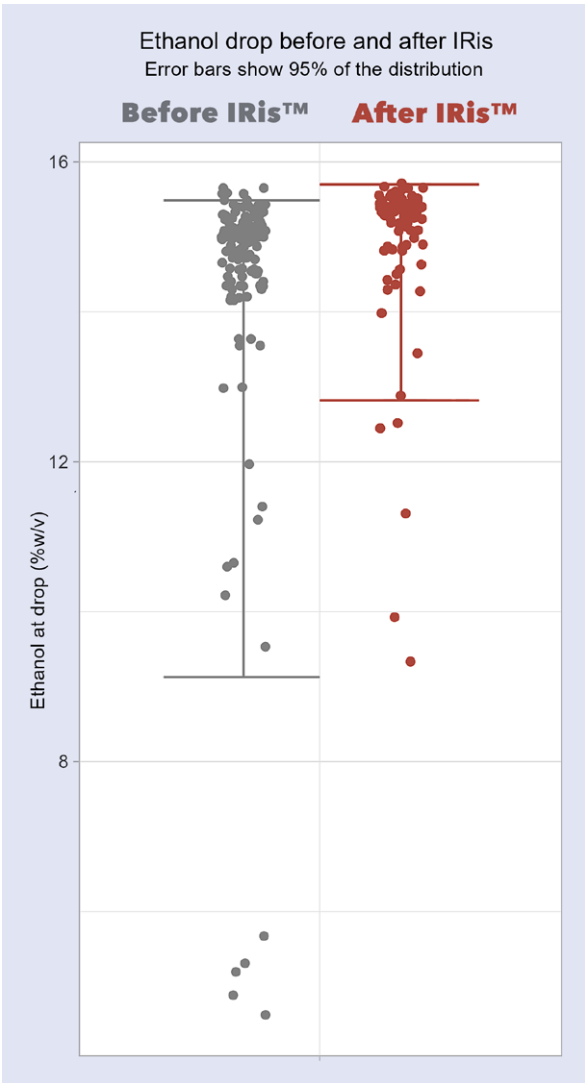
Developed by producers for producers, **IRis** pulls continuous data – including **IRmadillo** data – from your plant historian, and displays live trends for critical fermentation measurements. Customizable alerts and recommended actions tell control-room operators what to do as soon as a batch starts to deviate.

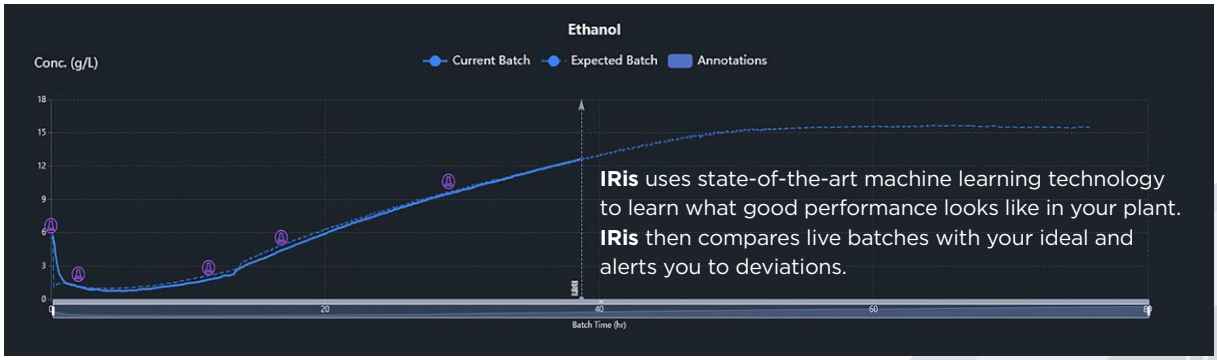
What KAAPA Ethanol achieved using IRis

KAAPA Ethanol installed **IRmadillos** on all seven fermenters at its Ravenna, Nebraska site. Using IRis data, operators could quickly bring non-conforming fermenters back into line, helping reduce variation in ethanol drop and improve batch consistency. Figure 1 shows the difference in Ravenna's ethanol drop before and after IRis.

The results

- A much tighter range of concentrations at the top end
- All ethanol drops below 9% were eliminated





IRis uses state-of-the-art machine learning technology to learn what good performance looks like in your plant. **IRis** then compares live batches with your ideal and alerts you to deviations.

Continuous data also reveals opportunities for improvements – things that samples can miss.

Examples include:

- Glucose concentration creeping up, putting stress on your yeast
- Over-dosing of expensive enzymes
- Batches finishing earlier than expected, wasting hours of fermentation time

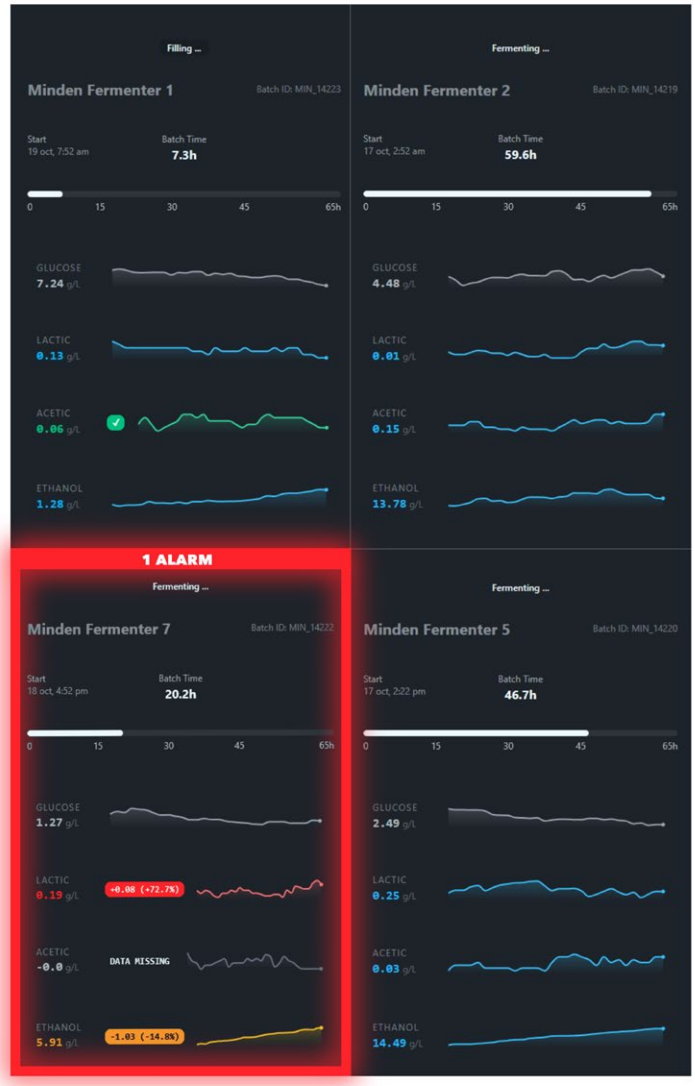
IRis lets you improve consistency, yield and cost efficiency

For your operators:

- View every fermenter on one screen
- Assess fermentation health at a glance
- Resolve problems as soon as they appear
- Follow on-screen actions without waiting for a manager

For your lab team:

- Track each batch over time
- Spot events that samples may miss
- Compare live and historical batches to find differences



AN OPERATOR'S VIEW:

"A lifesaver... Where's this been for the last 14 years?"

Contact **Keit** to find out how **IRis**™ could improve ***your*** fermentations



Real-time analysis for total process control

IRmadillo™ with IRis™

info@IRmadillo.com
IRmadillo.com
+44 (0)1235 431260
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4 Zephyr Building, Eighth Street, Harwell Campus,
Didcot, Oxfordshire, OX11 0RL, United Kingdom