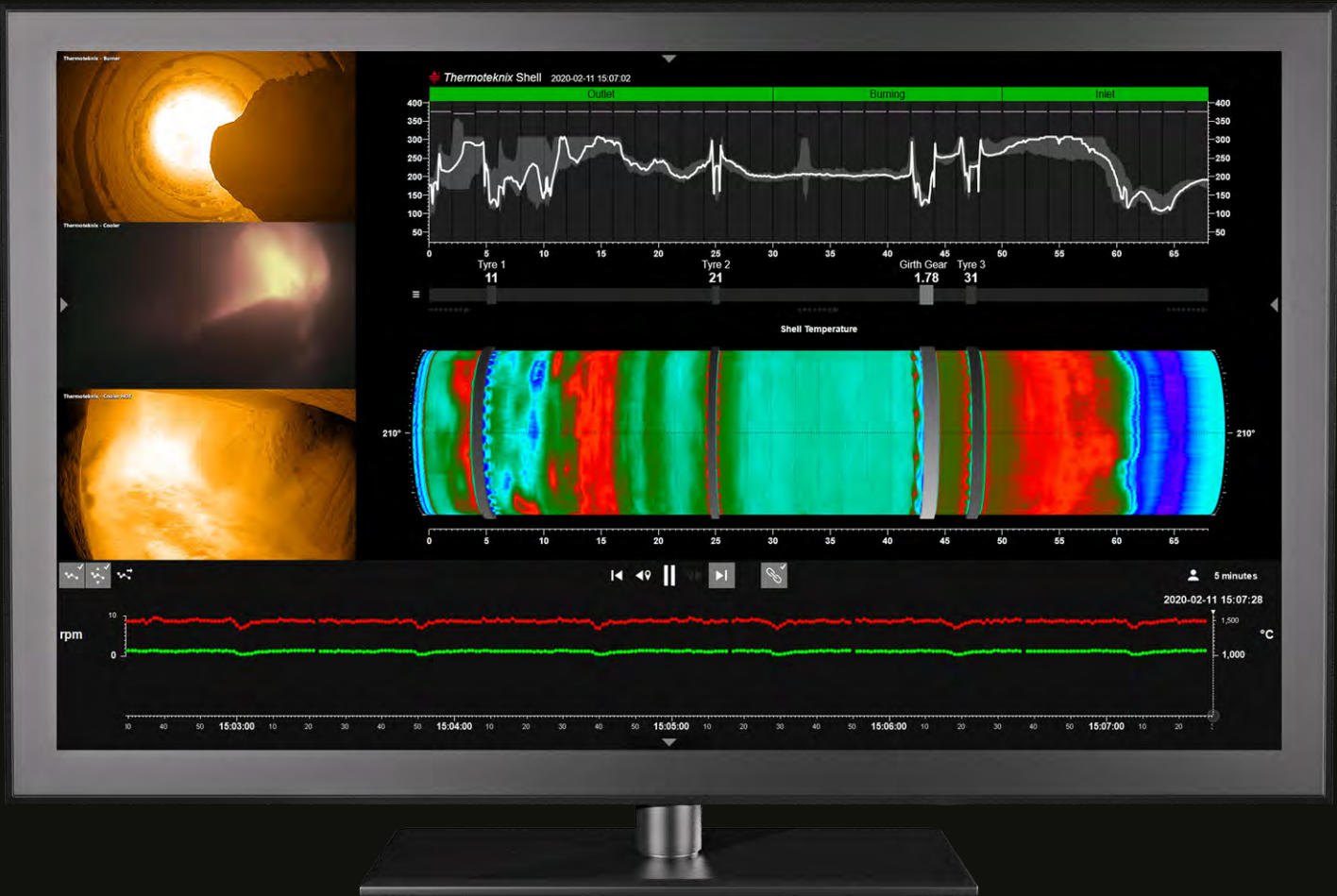


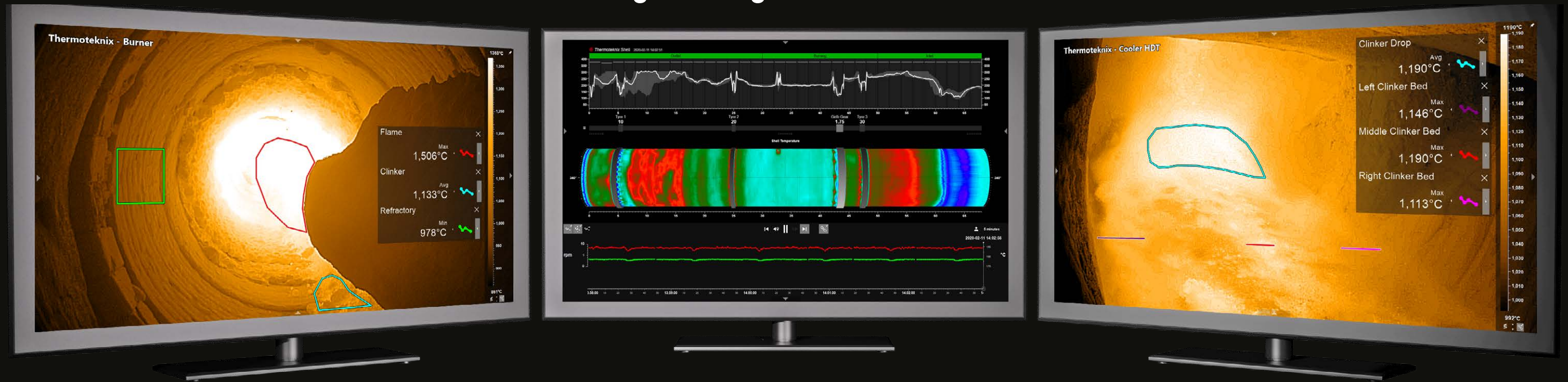
Integrated Pyroprocess Platform**Integrated Kiln Monitoring**

Thermoteknix MultiView Enterprise revolutionises kiln, cooler and pyroprocess monitoring and delivers unique insights into your process to support detailed optimisation programs. MultiView Enterprise is an integrated kiln and cooler multi sensor data platform. A single solution which combines live kiln shell temperature and coating data with live pyroprocess and cooler thermal video to deliver a new generation of real time kiln process visualisation.

Next Generation Technology

Building on Thermoteknix' 35 year worldwide experience designing, manufacturing and supplying the cement industry with leading kiln temperature measurement and monitoring, MultiView Enterprise brings a radical new, state-of-the-art solution to multi-sensor temperature systems. Real time temperature line scan data from the kiln shell is combined with real time video imaging and temperature data from the burner and/or cooler camera(s) into a single integrated solution with one Human Machine Interface (HMI) providing effortless access to live and historical data.

Single Integrated Solution



Flexible Kiln Display

Kiln shell scan data is presented in real time 2D profile with individual ring based alarm thresholds. Live 360° colour map formats with alternative 3D rotation views show temperature, brick or coating. Continuously recorded historical information allows Worst Case History display over selected time periods throughout the life of a kiln campaign, essential for stoppage and reline plans.

High Definition Data

High resolution kiln shell temperature measurement from single, or multiple Centurion scanners and fill-in pyrometers provide up to 1cm resolution of the kiln shell for hot spot detection and early warning of coating issues. High definition, high frame rate ThermaScope thermal cameras deliver unmatched imaging inside the burning zone and the cooler with support for forward and reverse facing cooler cameras giving unparalleled and full visualisation of this key part of the manufacturing process.

Interactive Integrated Timeline

MultiView Enterprise is constructed on an innovative single interactive timeline which is common to all the sensors. One timeline across Centurion and ThermaScope sensors gives the Operator seamless access to live data, trends and historical data. For the first time, refractory and coating changes can be tracked and monitored together or separately with events in the kiln and cooler. Whether displaying each sensor on a separate monitor, or combining sensors onto the same monitor, the timeline gives the ability to link sensors for simultaneous pause, rewind and playback.

Full OPC Compliance

MultiView Enterprise provides a single OPC interface for multiple sensors, facilitating third party integration into plant operating and automation protocols. Full OPC functionality common to each sensor, Centurion or ThermaScope, enables alarms, events and data access to be accommodated without the need for custom programming or complex interfacing to host HMI or DCS platforms. OPC protocols within MultiView Enterprise operate continuously in the background and are unaffected by Operator selection of live or recalled data to view.

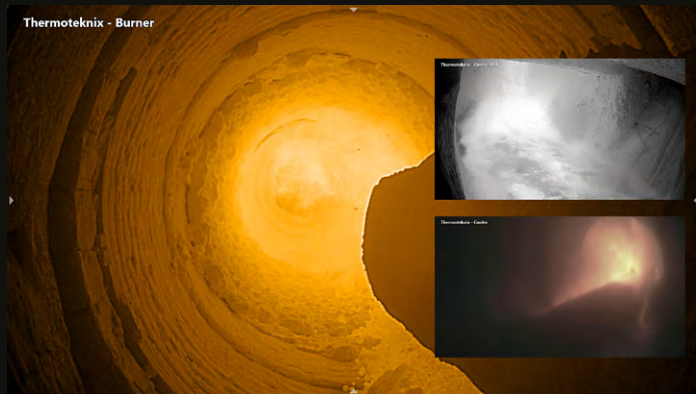
Process Friendly Interface

The Multiview Enterprise interface presents the optimum visual clarity and insight into your kiln. Gain an immediate understanding of the kiln shell, refractory, coating, burner and cooler conditions from a single glance. Multiview Enterprise unique interface is clean and intuitive for ease of Operator use and interpretation.

Better Process Control

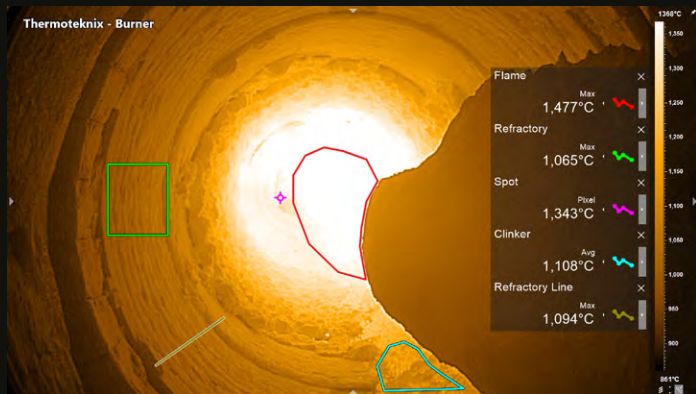
MultiView Enterprise is an integral monitoring and visualisation platform, better enabling process specialists to optimise kiln performance, efficiency and safety in line with environmental requirements. Unique data overlay and monitoring of the kiln and cooler line enables plants to better optimise and cope with increasing demands for emissions control and kiln production while maintaining optimum product quality and maximising the use of challenging alternative fuel streams.





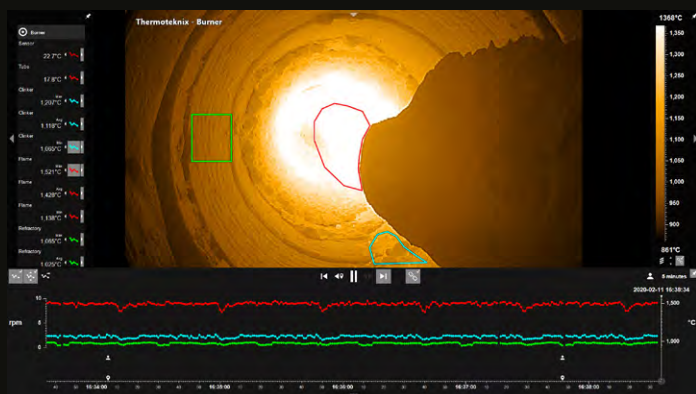
Unique Display Options

MultiView Enterprise supports multiple viewing layouts to accommodate all control room and operator preferences, including; Picture-in-Picture, Side-by-Side and Multi-Window allowing up to four sensors to be displayed on a single monitor or across multiple displays. This flexibility enables Operators to create unique viewing setups for their individual control room preference. The system also provides the ability for networked display onto remote PCs for live and historical data viewing. In each case the User Interface remains the same, ensuring a low training burden and immediate familiarity between operators.



Unlimited Measurement Tools

Monitor and trend real time temperatures continuously with an unlimited number of measurement tools including spots, lines, polygon and elliptical areas of interest. Tools can be placed on previously recorded data to provide up to the minute analysis of historical events and trends compared in real time with live data. Historical data can be easily exported for daily reporting, detailed analysis or process modelling. Advanced alarm profiles enable the full kiln shell and burning zone to be monitored with ease and accuracy, ensuring the highest level of alerts and protection from coating loss or build-up.



Multiple Event Logging

All alarms are logged automatically on the timeline and require Operator acknowledgement of the event. User events, such as kiln stops, process or fuel changes, fan controls, or electrical outages can be logged on the timeline together with Operator on-screen notes for permanent reference. Operator identified events automatically retain full resolution temperature and image data before and after the event for subsequent analysis. This gives invaluable process related information to be relayed between Operators with fast navigation from one event to the next.

MultiView Enterprise can be supplied for new installations and upgrades of current WinCem Graphic and MultiView ThermoScope sites.

All trademarks acknowledged. Centurion, WinCem, ThermoScope are registered trademarks of Thermoteknix Systems Ltd. Thermoteknix Systems Ltd pursues a policy of ongoing product development and specifications are subject to change.

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