clarity for packaging operations

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lineview.com

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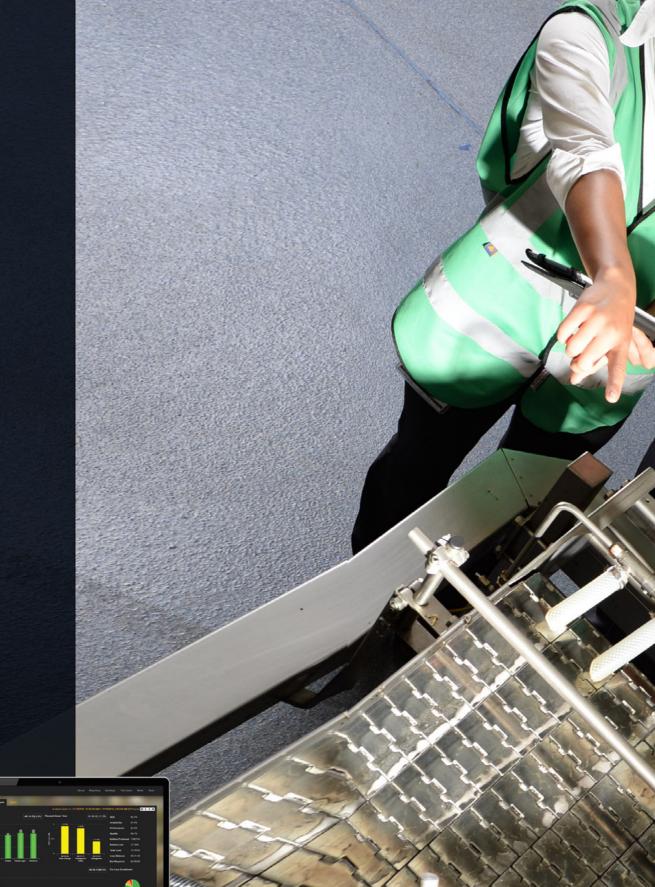


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Do you need clarity to deliver sustainable operational improvement?

HOW IT STARTED

From a lack of data on the line to an intelligent line information system -LineView Software grew in conjunction with Coca-Cola Enterprises.

LineView Solutions Managing Director and co-founder Ian Rowledge started his journey as a production manager at Coca-Cola Enterprises.

At the time, he was grappling with how difficult it was to identify key issues with no real data: that it was impossible to know the true causal losses in a system without great data. After putting in long hours one weekend in an attempt to find true causal loss and finding that they were back to square one on Monday, Ian decided that enough was enough.

Ian worked in tandem with John Dunlop, Technical Director of Bytronic, then technical service provider to Coca-Cola Enterprises, to develop a software solution that became much more than a line monitoring tool: LineView line information system was born.

Coca-Cola Enterprises, like many manufacturing businesses, needed something that would allow them to see the bigger picture and identify real loss on the whole line, not just downtime on individual machines. LineView's advanced logic provided an automatic, real-time data gathering tool that accurately categorised data and presented it in exactly the way operators and managers needed it. Coca-Cola Enterprises sites saw remarkable improved performance post the installation of LineView and ensured that LineView is now installed in all Coca-Cola Enterprises bottling facilities throughout Europe. Ian's hands-on operational experience meant that he was able to help site teams deliver significant improvement through proper application of this new high-quality information.

In 2000, OptimumFX Consulting was developed to help manufacturers to implement the effective routines and improvement activity to deliver massive improvement in manufacturing efficiency and productivity. In 2009 LineView Solutions was launched as a dedicated software house. Our team of software engineers keeps our range of software solutions at the forefront of manufacturing performance management systems. Bytronic's engineers continue to provide expert advice and problem-solving to a broad base of manufacturers in order to tackle everyday manufacturing problems – including implementing machine vision systems for character verification at speeds exceeding 1,250 units/minute.

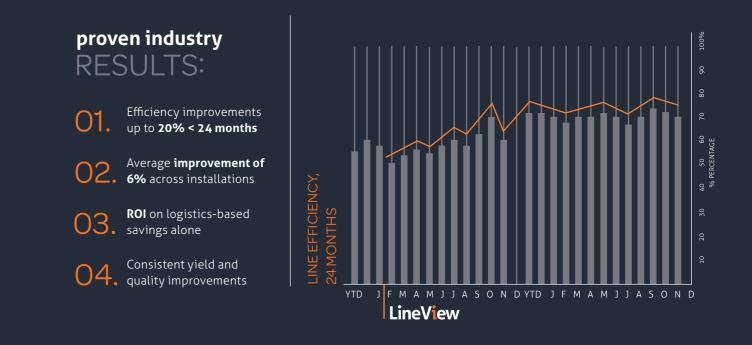
LineView Solutions' line monitoring software, OptimumFX – operational excellence practitioners, and Bytronic Automation – a leading manufacturing systems development and integration specialist offer a unique service proposition known as the i3 Group.

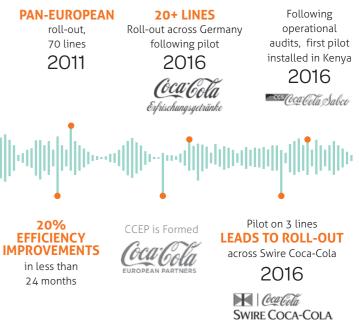
The combined service offering of the i3 Group delivers complete manufacturing improvement.





12-month benchmarking THE 'COKE WAY' FIRST LINEVIEW process, Coca-Cola is developed in INSTALLATION Enterprises chooses LineView partnership with our as a system of choice: operational experts 2001 'enabling teams to take 2009 effective action to improve Coca:Cola Enterprises productivity' LineView is the first North London The only preferred fully-automated line becomes CCE's operational monitoring system consultancy **BEST PERFORMING** with intelligent **SITE** in the UK provider to analysis Coca-Cola Enterprises 2002







RapidView

••

Rapid manufacturing intelligence delivered in rugged, IP rated hardware.

OUR SOLUTIONS

BEST FOR: Instant data gathering & visualisation

Troubleshooting

CI initiatives

Line commissioning

LineView

Fully integrated line information system, instantly identifying the highest impact opportunities for targeted productivity gains.

BEST FOR:

Manufacturing intelligence on lines with interdependent machines

Automated True Causal Loss

Targeted, actionable OEE insight

Our solutions create efficiencies, build capacity and lower cost per unit with rich features developed specifically for high-speed lines.

RanidView LineView

Feature comparison:	RapidView	Lineview	
DATA CA	For added functionality across your operation.		
Automated Data Capture	PORTABLE WIRELESS	\checkmark	
Supplementary Operator Input	~	\checkmark	ADD-ON MODULES:
Browser-Based Interface	\checkmark	\checkmark	EnterpriseView
SAP / 3Rd Party ERP Integration		\checkmark	
MONITORING, ANALY	FactoryView		
Real-Time Feedback	\checkmark	\checkmark	QualityView
Configurable KPI (OEE, Efficiency, Etc.)	\checkmark	\checkmark	
6-Loss Analysis	✓	√	EnergyView
True Causal Loss	\checkmark	√	CamView
Configurable Maintenance KPI (MTBF, ETC.)	\checkmark	\checkmark	Built-in
Reject Monitoring	\checkmark	\checkmark	Management Routines
Cycle Time/Speed	\checkmark	\checkmark	
Drilldown Capability	\checkmark	\checkmark	
Configurable Reporting	\checkmark	\checkmark	In-house
SOLUTION C	operational experts		
Scalable		√	transform technology and data into
Automatic Notifications		COMING SOON	sustained operational
Modular Structure		√	improvement.
Language Support	✓	\checkmark	
User Licences	UNLIMITED	UNLIMITED	AVAILABLE SERVICES: Maintenance & Support
Machines Monitored	UP TO 8	UNLIMITED	Training Implementation
Self-Configuration	PRE-CONFIGURED	✓	Operational Support Systematic Updates
			Systematic Updates

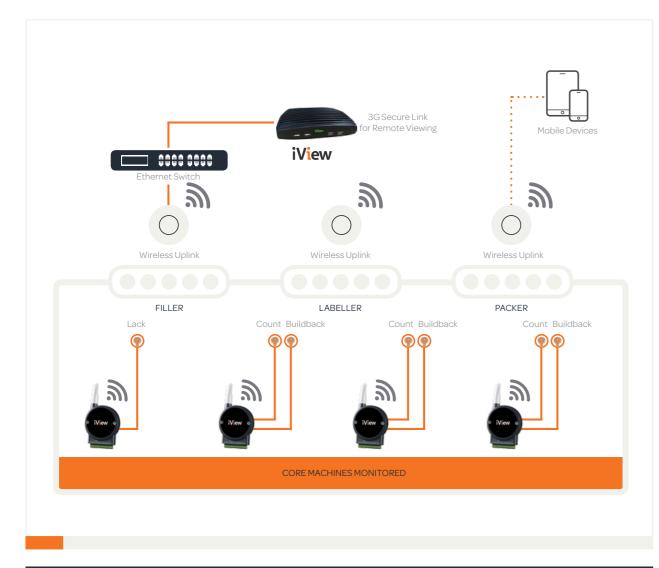
*Features and availability are subject to change. Add-on modules subject to product compatibility and development schedule

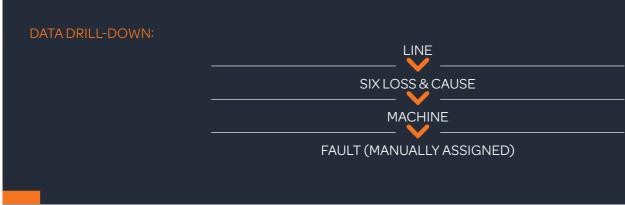
RapidView

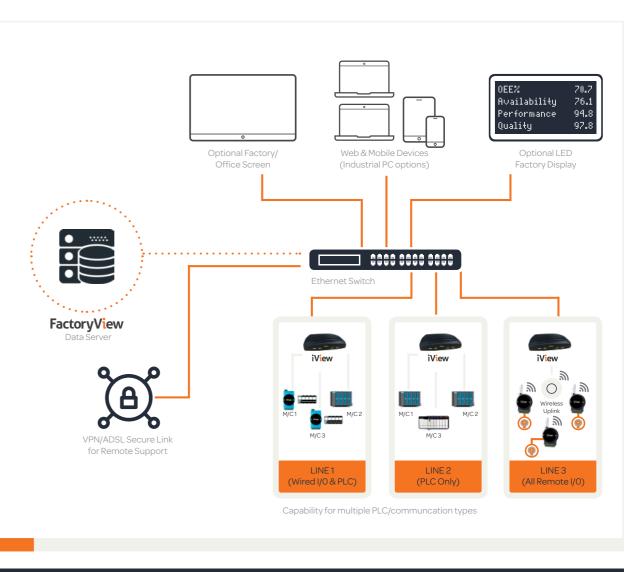
SOLUTION INFRASTRUCTURE RapidView[™] collects data instantly using wireless sensing stations. A rugged portable solution, setup takes less than two hours with visualisation tools that are ideal for equipment audits and CI Initiatives to resolve problem areas rapidly and justify CapEx.

LineView

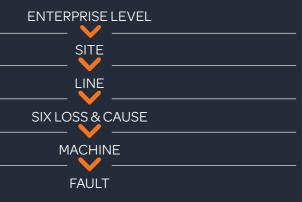
SOLUTION INFRASTRUCTURE LineView[™] performs True Causal Loss and OEE analysis on each of your lines, constantly identifying the real opportunities for improvement. A comprehensive solution that enables packaging operations to maximize throughput and achieve World Class OEE.







DATA DRILL-DOWN:	



OUR APPROACH

We add value and clarity for high-speed line operations and the people who run them, because we know the challenges first-hand.



Higher Operational Capacity

Senior Management Up-skilling

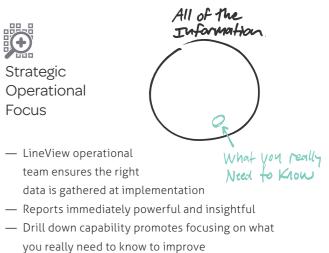




TECHNOLOGY Engineers

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OPERATIONAL SUPPORT

Reliable production data and an understanding of losses is a great place to start; however, proven routines maximise results and ROI.

project

GOVERNANCE TOOL

— When you engage LineView's Operational Support team, our project Governance Tool ensures core competencies are measured and improvement towards excellence is tracked across all success factors.

the methodology of IFA

- IFA is our core manufacturing improvement methodology. It's so simple to use it can be applied to any situation. It's a methodology that is proven to work and has helped numerous clients achieve world class OEE.



INFORMATION

Accurate Consistent Visual

Do we have the



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Management routines Leadership buy-in Effective decision-making

best way possible?



ACTION

Targeted activity Pro-active improvement Forward-focused

> Are the actions we are taking effective?

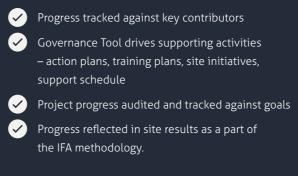


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Step change Continuous improvement Sustainable benefits

The LineView[™] Governance Tool provides a comprehensive visualisation of progression towards agreed goals based on best practice. Agreed in advance, the Governance Tool forms a live project tracking device for continuous assessment of progress throughout the LineView[™] implementation and tracks progress against core elements contributing to results as a part of the IFA methodology.

Governance Tool output examples:



We use the Governance Score and recommendations

the advantage of TRUE CAUSAL LOSS

- LineView's intelligent True Casual Loss algorithm automatically correlates a machine-level fault to its impact on that machine and ultimately, its effect on the line's Overall Equipment Effectiveness (OEE).

EFFECTIVE PRODUCTION MEETINGS

- Short Interval Control (SIC)/tactical management: immediate analysis of real-time data to make effective tactical decisions Daily tactical reviews: focus on your current biggest issues without wasting resources elsewhere
 - Weekly or bi-weekly strategic reviews: identify trends and patterns, and root causes, for long-term strategic goals and planning



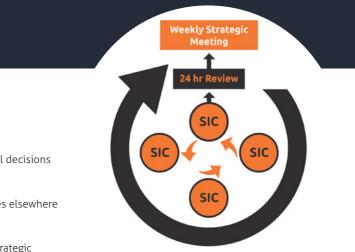
Typical Governance session content includes:

- System Accuracy and Use Assessment
- ✓ Management Review Assessment
- ✓ LVS Management Audit
- Culture and Alignment Audit
- Skills and Knowledge Assessment
- Sustainability and Internal Audit

We will coach the site team in understanding of LineView analysis to improve line performance:



- ✓ Data Drill down and analysis training ✓ In-depth LineView[™] analysis training Meeting routines training including Terms of
- ✓ Implementation of Short Interval Control (SIC)



OUR RESULTS

WHAT OUR CLIENTS SAY:

Digitization of data enables us to be aware of the line performance anywhere, anytime. This is

LineView[™] helps the user to focus on the real

losses of the production line without any great

expenditure of time or effort.

awesome for group management.

LineView is the single most powerful manufacturing tool I've seen during my 15 years in operations management.

Richard Davies Vice-President Operations, Coca-Cola Enterprises Ltd

Tao Zhuang,

AB InBev

ZBS Packaging Director

Theresa Hübner Production Expert, Coca-Cola European Partners

South American Installations:

1. AB InBev

2. PepsiCo 3. Grupo Modelo

4. Compania Cervecera Ascuncion S.A

Asian, Asian Pacific & Australasian Installations:

1. AB InBev

2. Danone 3. Olympic Brewery

5. Thai Asia Pacific Brewery TAPB

6. Carlsberg

4. DB Breweries

7. Swire Coca-Cola

8. Delegat Wines

European, Middle-Eastern, & African Installations:

1. Coca-Cola European Partners 2. Coca-Cola Sabco

3. AB InBev 4. PepsiCo

5. Accolade Wines

- 6. Carlsberg
- 7. G&J Greenalls
- 8. Diageo

9. Greene King

10. Interbrand



global

CLIENTS

— From multi-national





ABInBev



Inter

HEINEKEN















SWIRE





DIAGEO

Clients' top 5 likes:

01. SINGLE SOURCE OF TRUTH/DATA

Many of our clients eliminate other systems.

02LOW MAINTENANCE

Our clients appreciate unlimited user seats, with no data tags and low annual fees.

03. FLEXIBILITY

Our modular systems range from turnkey to assisted solutions - only buy what you need.

04 minimal interuption

Where possible – our clients use their existing KPI terminology and hardware.

VALUABLE DATA

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Our clients comment that we 'deliver a working system that serves the most valuable data.'

LineView Solutions' industry leading LineView line monitoring software system was jointly developed with OptimumFX, operational excellence practitioners, and Bytronic Automation – a leading manufacturing systems development and integration specialist. Together we offer a unique service proposition known as the i3 Group.

The combined service offering of the i3 Group delivers complete manufacturing improvement.



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