**ProducTVity Station**

Real-time performance monitoring for the factory floor. And beyond.

- Transforms standard consumer TVs into versatile, real-time KPI production scoreboard and Andon systems, in minutes
- Sends real-time displays or text alerts to mobile devices
Continuous improvement driven by real-time information.

The principles of Lean manufacturing are now widely acknowledged as the most effective method for continuous improvement of factory productivity, flow, quality, uptime and waste reduction. Whether Kaizen, Six Sigma, Total Quality Management or another initiative, these operational excellence programs rely heavily on the measurement and display of Key Performance Indicators (KPIs).

KPIs are top level metrics that illustrate the utilization of facilities, time, material and personnel for manufacturing and process operations. Linked to target values that indicate gaps between actual and ideal performance, KPIs communicate success or failure of processes or operations, as well as measure the positive or negative effect of changes.

To make this data actionable, KPIs are communicated in an understandable and meaningful way to those responsible for it – production floor personnel and their supervisors. In the past, this was done with a chalkboard. Today, large electronic scoreboards can automate communication to the entire plant floor in real time. Studies have shown how measuring and displaying KPI produce immediate gains in operator performance, if for no other reasons than monitoring awareness, pride or employee competitiveness.

The KPIs most important to a specific company will vary among potentially hundreds of values. Examples of commonly used KPIs in manufacturing are:

- **Count**: Total product, good/bad/reject ratio, waste
- **Rate**: Count per minute/hour, per cell/line/shift
- **Target**: Goals displayed against actual time to goal
- **Takt Time**: Time per cycle/task

Beyond individual KPIs are composite metrics that express more complex calculations of overall performance into a simplified metric, such as:

- **OEE**: (Overall Equipment Effectiveness) performance and quality relative to designed capacity during scheduled operational hours
- **TEEP**: (Total Effective Equipment Performance) measures OEE against calendar hours, i.e., 24/7/365

In the most efficient manufacturing or process environment, every operator on the plant floor has visual acuity to current production rates and targets in real time. In many cases, a single percent improvement in productivity can cost justify a production scoreboard in a single day.

Collect and display KPIs on any TV.

In just minutes!

Red Lion’s ProducTVity Station lets you create your own sophisticated production scoreboard using standard, consumer-grade LCD, LED or plasma TVs.

- Built-in communications drivers and protocol conversion let you interface to most PLCs, drives, motion controllers and other automation equipment
- Requires no dedicated PCs, SCADA or OPC server
- Automatically page between multiple screens of KPI, trends, Andon, messaging and more
- Powerful programming capabilities with included Crimson software lets you customize solutions to your exact requirements or as needs change
- Works with any brand or size of modern TV, monitor or projector

- Easily duplicate information on multiple TVs with common signal splitters
- Complete Internet-ready with built-in Web and FTP servers for remote access and control
- Create the versatile system you want at a fraction of the cost of inflexible industrial scoreboard solutions
Warn of line down conditions immediately, to reduce overall downtime.

Inform personnel of the problem, as well as whose attention is required, to minimize disruptions to production.

Inform operators of current run and upcoming requirements to reduce changeover time.

Create screens that provide KPI and Andon information at a glance.

Compare each shift’s production against the others to spot potential issues, and to drive a competitive spirit.

Calculate advanced KPIs such as OEE to drive continuous improvement initiatives.

Built-in symbol library allows you to depict any process.

Turn your TV into a sophisticated production scoreboard.

Virtually unlimited capabilities.
Display a host of production metrics, trends, alerts, messages, scheduling, guidance and more.
Create your own full-featured, real-time productivity scoreboards.

Red Lion ProducTVity Station

- PLC
- Sensor
- Drive
- Barcode Reader
- 300+ DRIVERS
- DVI OUTPUT
- SIGNAL SPLITTER
- DVI TV/Display
- HMI
- FTP or SQL Server
- Local PC
- LAN
- Internet
- Portable Remote Access
- MOBILE ALERTS
- SMS Text
- Email
The ready-to-deploy scoreboard solution that links performance to any TV.

ProducTVity Station lets you create your own interactive, real-time productivity scoreboard in minutes, using any consumer model LED/LCD or plasma TV. Save thousands over packaged industrial displays and get unprecedented capabilities, fast and easy connectivity to your machines with unlimited possibilities including:

- **Complete performance metrics**: KPIs, Takt, OEE/TEEP
- **Flow monitoring**: line status, calls, maintenance
- **Andon**: events, alerts, downtime timers
- **Production smoothing**: Heijunka, Kanban

> **Safety**: scorecards, messaging, reminders
> **Communications & Web**: messaging, news, break timers
> **Operator guidance**: picking, assembly
> And more

Learn more at www.redlion.net/PTV
Call +1 (717) 767-6511 to speak to a representative.
Red Lion Crimson software lets you connect, collect, convert and control with simplicity and power.

Productivity Station is driven by Red Lion’s powerful programming platform – Crimson. A full version of the Crimson 3.0 software suite is included at no extra charge, including free lifetime support and upgrades.

With unprecedented ease to collect, analyze and display KPI and Andon information, Crimson is unlike any other productivity visualization tool:

- Collect data directly from devices such as PLCs, drives, bar code scanners and more
- Drag-and-drop data mapping to PLCs, PCs and SCADA systems; lets a Siemens® PLC talk to an Allen Bradley® drive in just seconds
- Built-in graphics library featuring over 5,000 drag-and-drop elements
- Synchronize with FTP servers and MS SQL Server
- Mail manager allows notifications to be sent to one or several defined recipients via text message and email; report or logged data files can be attached to email

Remotely view the Productivity Station display or data from a PC or any web-enabled device, including smartphones. Receive events and alarms via email or SMS text messages.
### Ordering Information:

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTV</td>
<td>ProductTVity Station Also includes… 2GB CompactFlash Card DVI to HDMI cable – 15’ long HDMI to DVI adapter (for DVI to DVI connections)</td>
<td>PTV00000</td>
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<tr>
<td>CBL</td>
<td>USB Programming Cable</td>
<td>CBLUSB00</td>
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<tr>
<td></td>
<td>RS232 Programming Cable</td>
<td>CBLPROG0</td>
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<td></td>
<td>Communications Cables</td>
<td>CBLxxxxx¹</td>
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<tr>
<td>XCCN</td>
<td>CANopen/J1939 option card</td>
<td>XCCN0000</td>
</tr>
<tr>
<td>XCGSM</td>
<td>GSM/GPRS cellular modem option card</td>
<td>XCGSM000</td>
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<tr>
<td>XCDN</td>
<td>DeviceNet (slave) option card</td>
<td>XCDN0000</td>
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<tr>
<td>XCNET</td>
<td>Ethernet option card (adds independent, secondary port)</td>
<td>XCENET00</td>
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<tr>
<td>XCPB</td>
<td>PROFIBUS DP option card</td>
<td>XCPBDP00</td>
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<tr>
<td>XCRS</td>
<td>RS232/485 option card</td>
<td>XCRS0000</td>
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<tr>
<td>CS</td>
<td>Digital and analog I/O, and PID control modules.</td>
<td>CSxxxxxx¹</td>
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</table>

¹Visit www.redlion.net for a complete list of PID modules, data acquisition modules, communications drivers and cables.

### Features: communication, connectivity, conversion and collection, all-in-one.

- 720p DVI output to leverage affordable consumer TVs with no compatibility issues
- USB and CompactFlash® ports let you track and log data directly to IT-friendly CSV Files
- Three built-in independent serial ports plus one 10 Base-T/100 Base-TX Ethernet port capable of communicating with 10 protocols simultaneously
- Built-in protocol conversion with over 300 communications drivers
- Integrated Ethernet gateway to network-enable serial or fieldbus machines onto a common communications backbone in minutes
- Expansion port to add additional serial or Ethernet ports, as well as various fieldbuses such as DeviceNet and Profibus
- Processor with 32-bit floating-point math to calculate complex and time-based metrics
- Built-in Web and FTP servers provide worldwide access to data logs and status

### Dimensions: In inches (mm)

3.35” W x 5.21” H x 4.18” D
(85.2mm W x 132.4mm H x 106.1mm D)

Connect to sensors with CS expansion modules including analog and digital input, strain gage, thermocouple and RTD input.
A comprehensive portfolio of industrial automation and networking solutions to connect. monitor. control.

As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron® and Sixnet®. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit www.redlion.net.