VISUAL MANAGEMENT PRODUCTVITY STATION

**PROTOCOL CONVERSION | MULTI-VENDOR SUPPORT
WEB SERVER | DATA LOGGING | CRIMSON® 3.0 SOFTWARE**

RL RED LION™

EXCELLENCE. REDEFINED.

Increased profitability through insight.

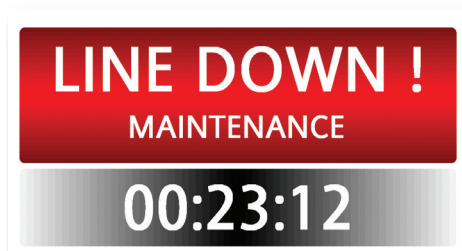## Collect and display KPIs on any TV. In just minutes!

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® 3.0 software let 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

- 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
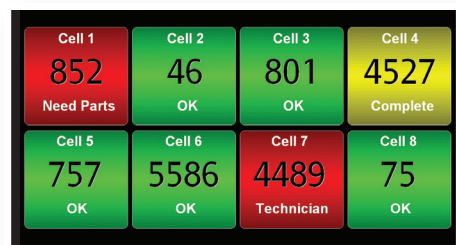
Virtually unlimited capabilities.

Display a host of production metrics, trends, alerts, messages, scheduling, guidance and more.
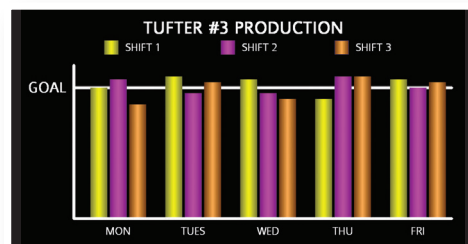
Warn of line down conditions immediately, to reduce overall downtime

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

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

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

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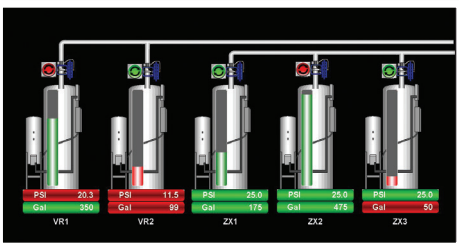
In the most efficient manufacturing or process environment, every operator on the plant floor has visual acuity to current production rates and targets in real time. In many cases, a single percent improvement in productivity can cost justify a production scoreboard in a single day.

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

Calculate advanced KPIs such as OEE to drive continuous improvement initiatives
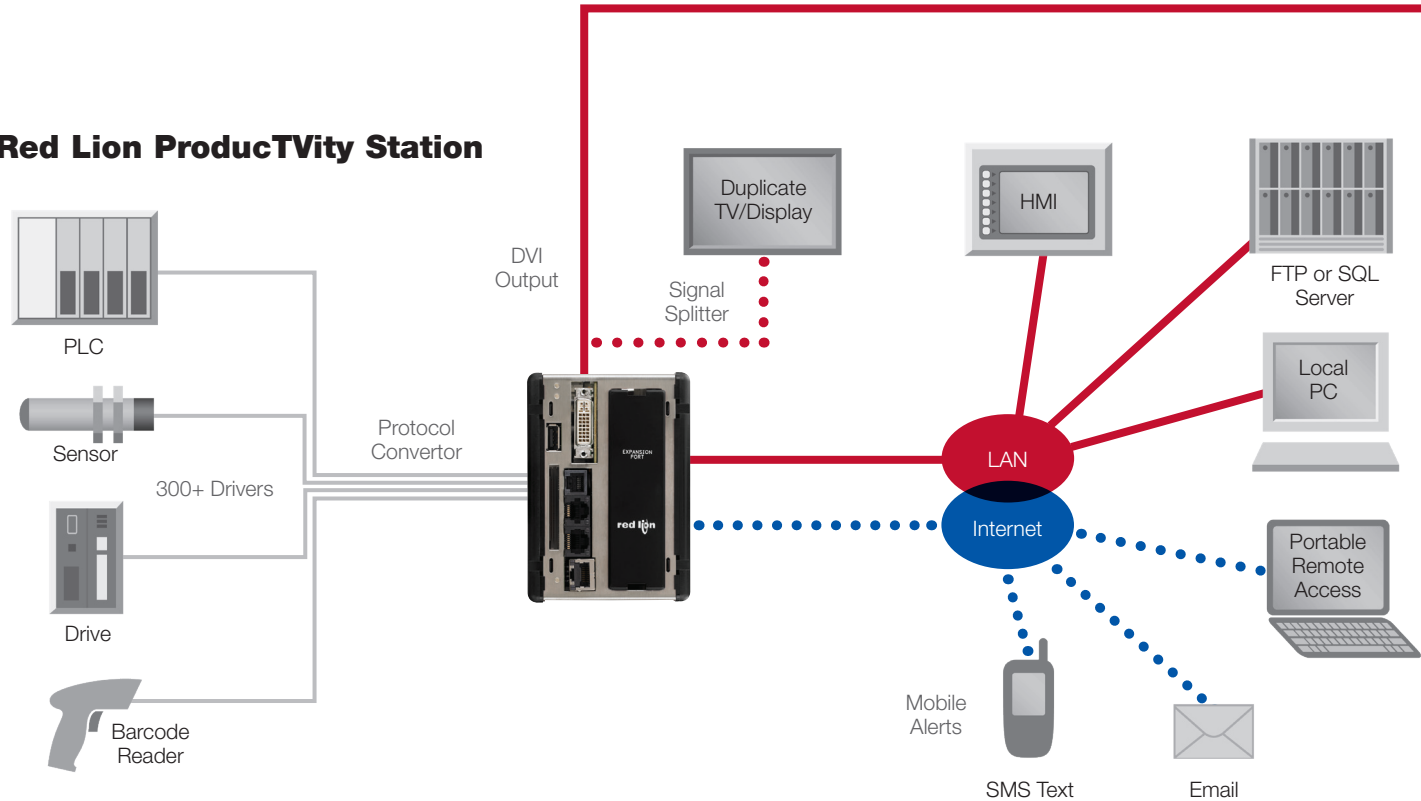

Built-in symbol library allows you to depict any process

Turn your TV into a sophisticated production scoreboard

Measure. Monitor. Motivate. Manage.

Red Lion ProducTVity Station

PLC

Sensor

300+ Drivers

Drive

Barcode Reader

Protocol Convertor

DVI Output

Duplicate TV/Display

Signal Splitter

HMI

FTP or SQL Server

LAN

Local PC

Internet

Portable Remote Access

Mobile Alerts

SMS Text

Email

The ready-to-deploy scoreboard solution that links performance to any TV.

The ProducTVity Station lets you create your own interactive, real-time productivity scoreboard in minutes, using any consumer model LED/LCD or plasma TV. Get fast and easy connectivity to your machines while saving thousands over packaged industrial displays. Capabilities include:

- **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
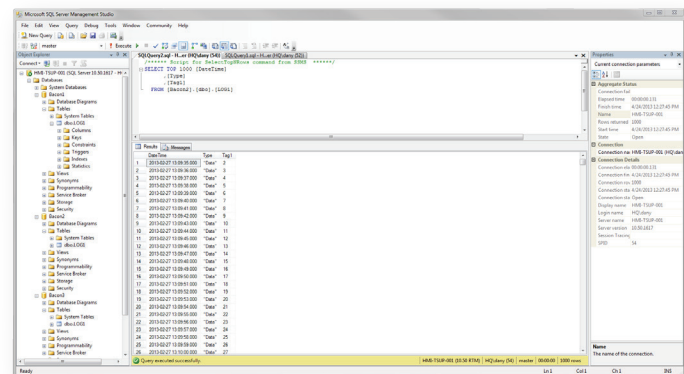- **Operator guidance:** picking, assembly
- And more

Crimson® 3.0 Software

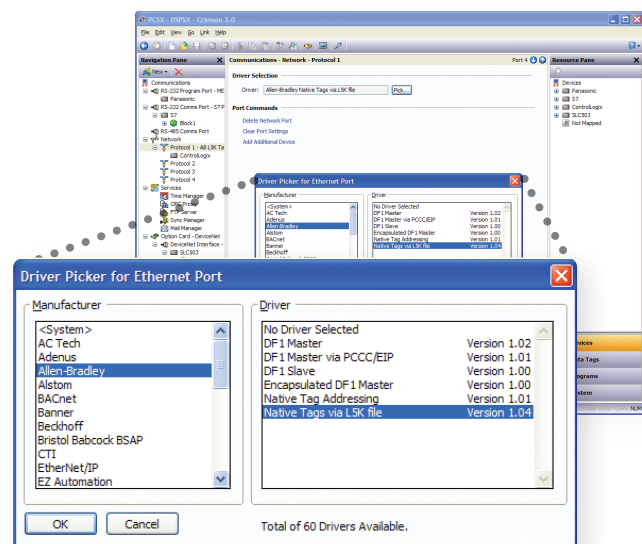**Red Lion Crimson 3.0 software lets you connect, collect, convert and control with simplicity and power.**

ProducTVity Station is driven by Red Lion's powerful Crimson programming platform. 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 software 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

CRIMSON® 3.0
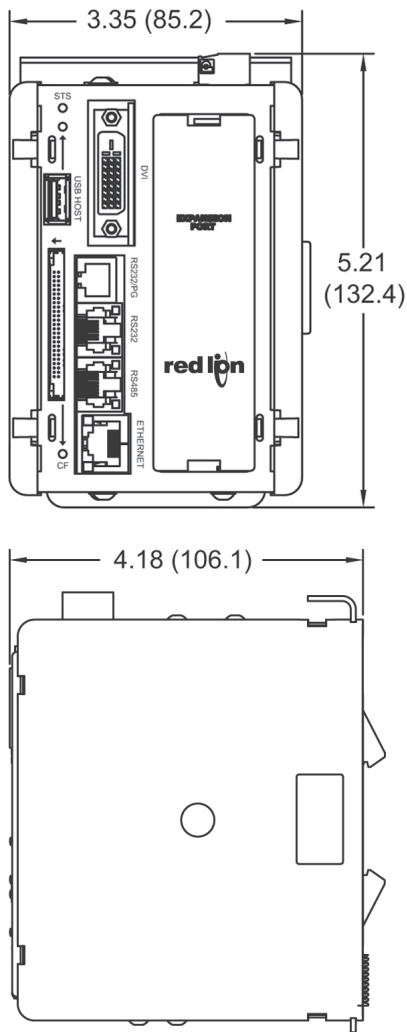
sets up in
Minutes

Remotely view the ProducTVity Station display or data from a PC or any web-enabled device, including smart phones. Receive events and alarms via email or SMS text messages

PTV Ordering Information

Dimensions:

In inches (mm)

3.35 (85.2)

5.21 (132.4)

4.18 (106.1)

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

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

Ordering Guide

MODEL NUMBER	DESCRIPTION

PTV00000	ProducTVity Station
	Also includes…
	  2GB CompactFlash Card
	  DVI to HDMI cable – 15' long
	  HDMI to DVI adapter
	  (for DVI to DVI connections)

CBLUSB00	USB Programming Cable
CBLPROG0	RS232 Programming Cable
CBLxxxxx*	Communications Cables
XCCN0000	CANopen/J1939 option card
XCGSM000	GSM/GPRS cellular modem option card
XCDN0000	DeviceNet (slave) option card
XCENET00	Ethernet option card (adds independent, secondary port)
XCPBDP00	PROFIBUS DP option card
XCRS0000	RS232/485 option card
CSxxxxxx*	Digital and analog I/O, and PID control modules.

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

Specifications are subject to change. Visit www.redlion.net for more information.

Connect to sensors with CS expansion modules including analog and digital input, strain gage, thermocouple and RTD input

- 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

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