

APPLICATION PROFILE

Wide Format Printing

Using Linear Motors and Logix Control System

Success Criteria

- **Quality & Performance** – Printer output quality is paramount in the market where advertisers want their product to stand out. To maintain quality, the printer automation system must be able to produce high quality print at the higher production speeds required for today's higher throughput demands.
- **Flexibility** – To meet fast changing customer demands, the printer design needs to be able to print on different types of media that varies in thickness. The automation system controlling the printer needs to be able to compensate for the different media quickly and easily without mechanical changes for quick changeovers.
- **Ease of Use** – Customers need printer equipment that is intuitive to use, so if problems occur, they can be diagnosed quickly and easily. For more difficult issues that only the OEM can resolve, remote diagnostic capabilities reduce costly downtime and may eliminate the need for on-site service.

Partnering with an Automation supplier that provides low cost standard products that are easily integrated, maintained and supported long term lowers the Total Cost of Ownership of the printer.

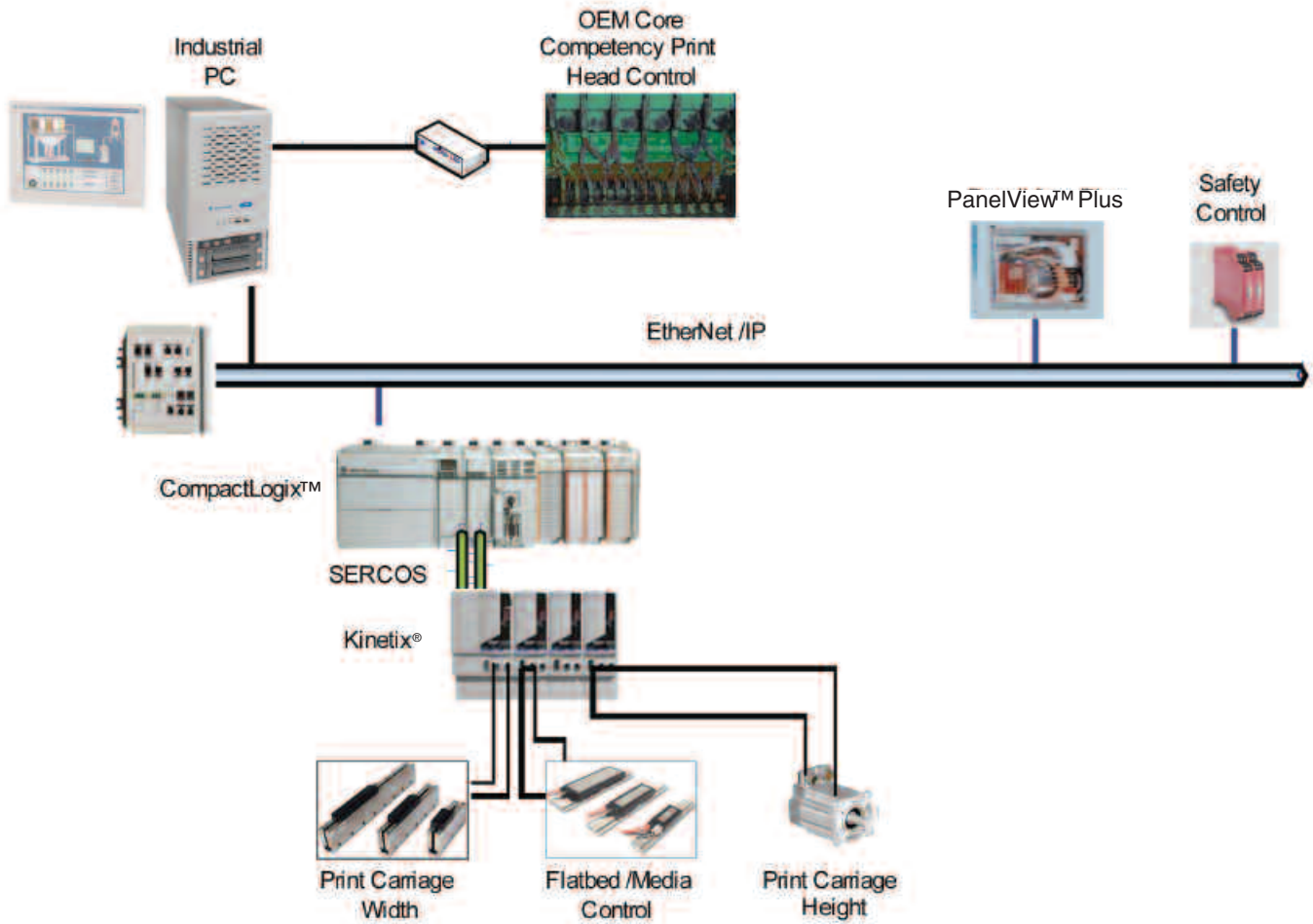


Overview

Printers have found that they need to tackle a great variety of projects from indoor or outdoor displays, banners, wallpaper or even fine art. This is driving the need for printer OEMs to fabricate printers that can print on a variety of different media from paper, plastic to rigid substrate. OEMs can save costs by eliminating steps such as mounting, laminating and finishing and wasted prints due to human error. The printers need to be faster, have the ability to print on finished products, and be easier to use and last longer. The quality of print from the equipment needs to be maintained while putting higher demands on the computer interface. Partnering with an Automation supplier that provides low cost standard products that are easily integrated, maintained and supported long term lowers the Total Cost of Ownership of the printer. The ability to add options to the printer to meet specific customer needs quickly and have on-line diagnostics that reduce down time are important concepts for getting new printers out the door quickly and demonstrating ease of operation and maintenance.

The Solution

The Allen Bradley® CompactLogix™ programmable automation controller from Rockwell Automation, networked I/O, Kinetix® 2000 servo drives, with MP-Series™ motors and LC- and LZ-series linear motors, provide an architecture that wide format printer OEMs can use to control the operations of the printer independent of the print head control. The PC will still do the typical RIP (raster image processing) and the related operator interface control functions but the other control portions of the printer can be placed where they belong, in a standard controller thereby freeing up processing speed for the PC. Rockwell Automation combines world class products and expertise to deliver an effective solution that enables quick deployment, easier maintenance, and unsurpassed reliability.



Key Components

CompactLogix Controller – Din rail mounted automation controller that can be programmed in four IEC 61131-3 languages: Ladder Logic, Sequential Function Chart, Structured Text and Function Block.

Networked I/O – Wire in standard I/O to perform sequential and process control.

Servo Drives on SERCOS - SERCOS fiber optic controller / drive link replaces up to 18 discrete wires per drive, reduces installation costs and saves time. Commissioning can be performed from one single point.

Linear Motors – Direct drive balanced or iron core linear motors replace belts and rotary motors. The linear motors have a lower settle time which enables the print heads to get to speed much quicker than traditional belts which also stretch and wear.

CompactLogix, Kinetix, MP-Series and PanelView are trademarks of Rockwell Automation.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846