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PRESS RETROFIT

# Modular retrofit concept for manroland Geoman presses

## Case study



ABB has proven modular retrofit solutions for manroland Geoman presses. These eliminate problems with obsolete control systems, non-availability of spare parts and loss of production due to system failures – and the press doesn't even have to be taken out of production.

Production directors around the world are confronted with the same problem. Sooner or later the proprietary press control system supplied with their press will become obsolete, spare parts will no longer be available and, as a result, the reliability and availability of the press will decrease – a potentially disastrous situation in the newspaper business. In such circumstances the press controls need to be replaced to ensure the continued availability of the press, but how should this be done without taking the press out of production? ABB's modular retrofit solutions made exactly this possible at the Gannett printing site in Rochester, NY.

Our retrofit concept is a modular approach which allows the selective replacement of critical components with modern, highly available technology. The maintainability and the availability of the press are secured for a period of at least another ten years. No ABB control system product is removed from sale before an equivalent replacement is available. The core element of the modular retrofit is a gateway developed by ABB in cooperation with manroland web systems. This gateway, based on a standard Windows PC, enables ABB's MPS Control Consoles to fully control the PECOM press control system without modification of the PECOM controls software. It is therefore possible to migrate the management systems while leaving the press controls untouched

in a first step. In addition, we can integrate the new control systems based on our AC500 PLC into the PECOM press control system, allowing the replacement of unit, folder and section controls on a per unit basis.

### Two phases

We completed the retrofit project at Rochester in two main phases:

In phase one the manroland PECOM Press Manager (PPM) system was replaced with ABB's production management system, MPS Production, and the old control consoles were replaced with new ABB MPS Control Consoles.

In the second phase the following was performed:

- The obsolete PECOM unit controls were replaced with modern ABB AC500 systems.
- The reelstand controls were replaced.
- The folder controls and the press section controls were replaced.
- The communication between the control system was changed from Arcnet to Ethernet.

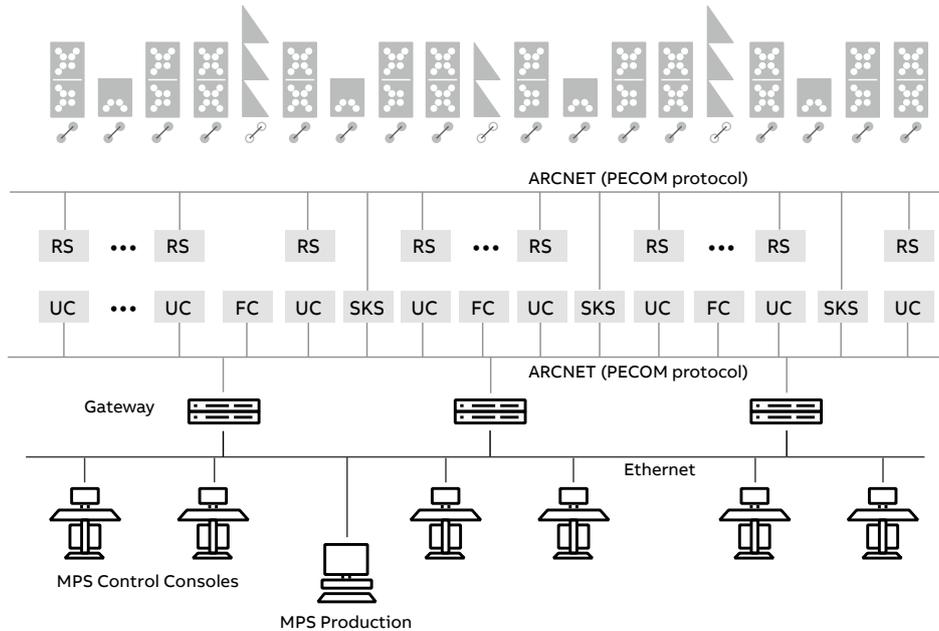
The timing of the different activities was agreed with the customers. The different points can be carried out sequentially, if required.

### No interruption to production

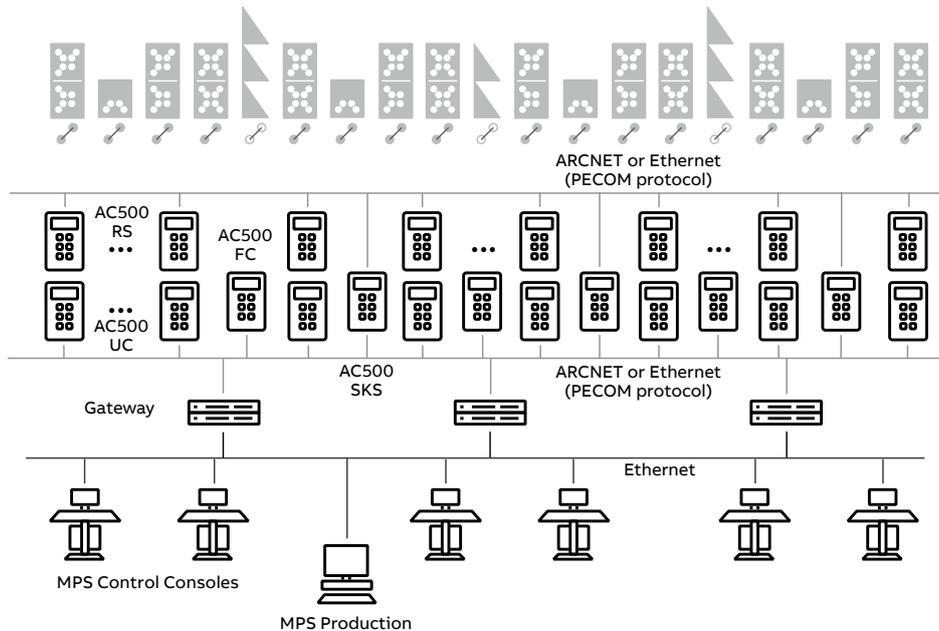
Both phases of the retrofit project were carried out without any disruption of the normal production of the newspapers. The modular system design means that it is very easy to switch between the new control system and the old one during the commissioning. Our engineers can therefore test their systems during the day and then switch back to the original controls for the night production. Once the ABB systems have been fully tested, the old ones can be removed.

Mixed operation is also possible, for example with some units using new ABB controls and others still with the obsolete PECOM controls.

We also ensure that all the basic settings, such as the ink and water curves, are transferred to the new production management system, thereby eliminating any need for fine-tuning the press again.



— Control system configuration after phase 1, replacement of the press management and control consoles



— Control system configuration after replacement of all PECOM control systems