

# **OBSOLESENCE HARDWARE & SUPPORT I** DCOS<sup>™</sup>

#### DCOS AUTOMATION

## "Automation Solutions for Printing presses" aiming these two targets

- Future-proofing machinery & secure uptime
- Maximize productivity and efficiency

#### We are active in these segments

- Newspaper Printing
- Commercial Printing (Coldset/Heatset)
- Book printing
- Packaging
  - Corrugated
  - Flexo Printing
- Inline Finishing
- Textile machinery

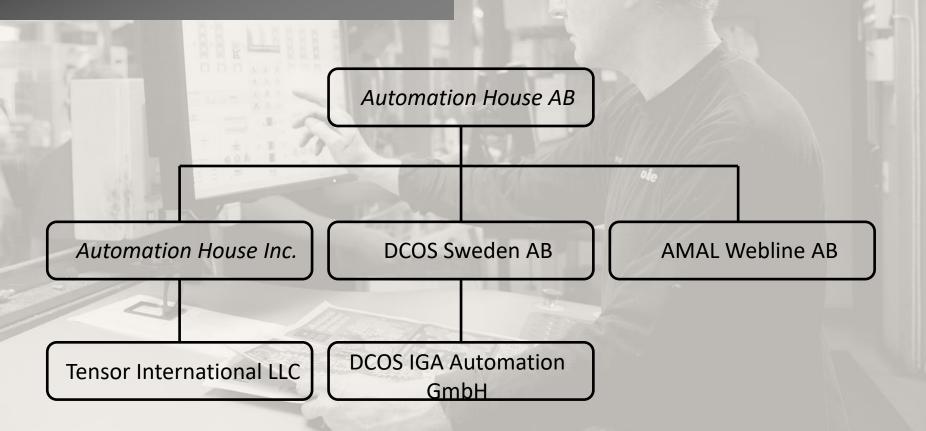






#### THE GROUP

- Four active private owners
- Technology driven organization
- 32 of 34 has a technical role/background







# OBSOLESENCE

VS.

## **OPPURTUNITY**

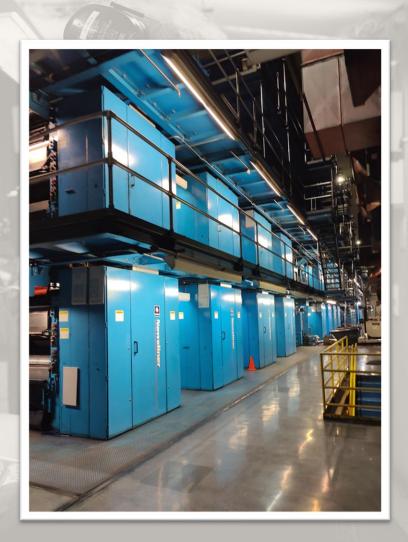


#### LAS VEGAS REVIEW JOURNAL

Bosch Rexroth Drive Retrofit (96 Drives)

#### Problem;

- All components obsolete, increases cost
  & risk
- Repair on some components available but expensive and nothing get renewed
- B-R current drive generation is not backwards compatible.





#### LAS VEGAS REVIEW JOURNAL

Bosch Rexroth Drive Retrofit (96 Drives)

#### Solution;

- Modify the motor to use standard encoder, eliminates pre-maturely replacing motors and cables
- Developed a solution to replace the Bosch Rexroth motion controller including the link to the press control system means we can offer drive replacement in steps.
- EtherCAT technology eliminate SERCOS vulnerability issues, allows us to use any drive brand.





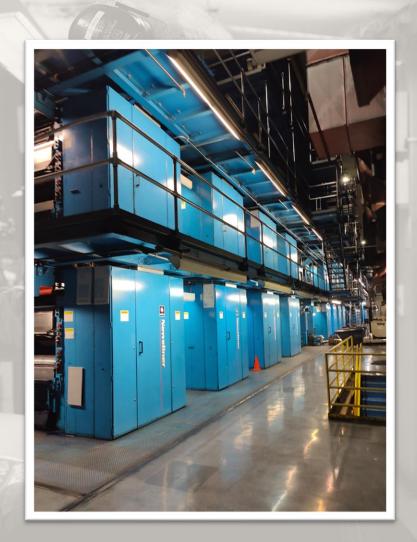


#### LAS VEGAS REVIEW JOURNAL

Bosch Rexroth Drive Retrofit (96 Drives)

#### Result;

- Reduced the scope of what really needed to be retrofitted to about 50%. Without limiting supportability.
- Network weaknesses in the old system design eliminated, increasing uptime
- Brand independent drive solution, another retrofit will never be needed
- All the money spent by the customer is towards new technology instead of repair of old hardware.





#### JYSK FYNSKE MEDIER, DMK

**KBA Colora Control System Retrofit** 

#### Problem;

- Complex control system design
- Majority of the components obsolete, but for most of the components there are part-by -part retrofits. However relatively expensive
- No matter how much money is invested, old system architecture and complexity remains





#### JYSK FYNSKE MEDIER, DMK

**KBA Colora Control System Retrofit** 

#### Solution;

- New DCOS control system
- We developed a 1:1 plug compatible standard I/O replacement
  - Proprietary -> Standard
  - Adds flexibility to execution
  - Shortens retrofit time & cost
  - Reduces risk

Customer added our Inspection System to ROI the retrofit





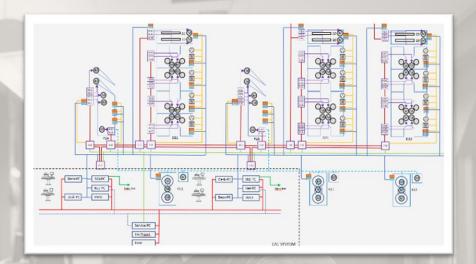
#### JYSK FYNSKE MEDIER, DMK

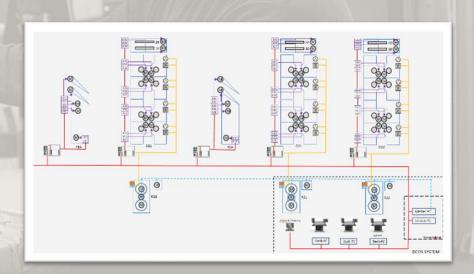
KBA Colora Control System Retrofit

#### Result;

- Modern architecture
  - 7 fieldbus systems reduced to 3
  - 33 critical CPUs reduced to 7
  - Proprietary components replaced by standard components
  - Drive- & control systems from three different vendors condensed into one DCOS system

Over their 276 newspaper runs in the month of August, they had an average start-up waste of 396 copies







#### LEHTISEPÄT, FIN

#### WIFAG & GOSS UNIVERSAL RETROFIT

#### Problem;

- Almost all drive and control systems obsolete on both presses
- Old labor-intense presses, low automation
- High failure rate and high cost of ownership, difficult to source parts





#### LEHTISEPÄT, FIN

#### WIFAG & GOSS UNIVERSAL RETROFIT

INSTALLATION OF NEW PRESS

#### Solution;

- Here the solution was to replace both presses with a used fully-automated and retrofitted Tensor press
- Install it in a new better suited building

We could provide all data to support ROI;

- the press has consistently delivered average start-up waste just over 400 copies since 2019
- Two printers and one-two roll tenders to operated two folders and up to seven webs
- Yearly spare part budget below \$8,000





#### LEHTISEPÄT, FIN

### WIFAG & GOSS UNIVERSAL RETROFIT INSTALLATION OF NEW PRESS

#### Result;

- Press removal and transport to new buyer was completed two weeks ago, foundation preparations on the way
- The fact the press had already been retrofitted that potential cost/exposure was not part of the equation
- A complete inspection system with benchmarked performance facilitated the investment and ROI calculation

This potential retrofit project turned into a press relocation project

