A Case Study...

Variable Data
Print, Verification & Interface System
Business Problem

- **Overview**
  - Major Pharmaceutical company has multiple Production Lines under performing...
  - Inadequate performance and reliability with current Printing Solution

- **Business Impact**
  - Production Performance - Unstable and Inefficient
  - Drain on limited Maintenance Staff
  - Costly, too frequent Replacement of Printer Parts
  - Crucial product line has Sr. Management visibility
Business Problem

- Past Attempts at Resolving...
  - Internal Engineering Staff
  - External Component Part Suppliers
  - Lack of personnel continuity - spotted expertise
  - Short of an in-depth, Comprehensive Analysis
  - Inadequate decisions, in part due to suppliers not identifying critical issues
  - On-going frustration and dissatisfaction...
Problem Review & Analysis

- Contract code-in-motion for an Impartial Review... encompassing Process, Products, People, and Technology Used
  - On-site, continuous Production observations and information gathering across a week
  - Staff Interviews: Operators, Business Unit Management, Maintenance and Engineering Staff
  - Compiled and reviewed observations and interviews
  - Identified various solution types from incremental to full-scale changes
  - Submitted Report with Recommended and Optional Solutions
Solution

Contract …

... to design and implement a fully integrated system…
Solution - epd

- At the “core” - an epd-based Printer System
  - Another Thermal Transfer Overprinter
  - Internally proven – another CIM implementation
Solution - Mechanical

- Complete Redesign of Mechanical Structures for Printer and Foil Web
  - Resolves Wide-spread Process Vibrations
  - Easier, Safer Access to Printer & Ribbon Cassette
Solution - Controls

- Integrate Robust, Advanced Control System
  - Touchscreen Operator Interface Terminal
  - Brand Name “Top-of-the-line” PLC
  - Industry proven, fast, accurate barcode scanners
  - Integrated with “Master” Process Control System
Solution - Touchscreen
Solution - Operator Interface

- Intuitive, graphical Operator Interface
- Developed Custom Application for Setup and Stop Lots, Monitor Production, and Maintenance Activities
Solution - Operator Interface

- Easy Production Setup; no data entry errors
  - Operators scan Process Order barcodes; Exp/Lot & NDC
  - Translated and downloaded into Printer and Scanner
  - Special access QA Verification before and after
Solution - Documentation

- Quality, Comprehensive System Documentation
  - System Operations, Procedures, Preventative Maint.
  - Well written: descriptive, easy-to-read
  - Multimedia – process flows, photographs, drawings
  - Supports Testing & Training Needs
Results

- Increased Profitability…

- Increased Safety, Reliability and Production Uptime

- Print Parameters successfully qualified
  - Barcode grading improved to above “C”, mostly are high “B”

- Sets new Company Controls Architecture
  - Conforms to wider company plans
  - Future implementations to use (e.g. next CIM system to be delivered - for Print-Apply)

- Positive Feedback from Business Unit Management, Engineering and Maintenance Staffs
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