

Adam Toqe

Application Sales Manager Pre-sales

Esko Graphics

Integration between MIS and pre-press



Label Market Mega-Trends

- More but shorter print runs
 - Design variation, frequent design changes, customization,...
- Pressure on lead times
 - Brands need to react faster on consumer trends

"If you don't automate, you will spend more time in administration than actually printing the job."

Peter Overbeek— CEO at Eshuis (NL)





Run lengths continue to go down!

- Conventional print
 - -11%
 - Average = 4,598 l/m
- Digital Print
 - +7%lm
 - Average = 821 l/m

End-Use Category	% Change in <u>CONVENTIONAL</u> Run Lengths Year-over-Year	% Change in <u>DIGITAL</u> Run Lengths Year-over-Yea
Food	▼ 38%	▼ 3%
Beverage	▼ 4%	▼ 32%
Health & Beauty/Cosmetics	▼ 33%	▲ 28%
Pharmaceuticals	▼ 2%	▲ 27%
Household Chemicals	5 %	2 9%
Industrial Chemicals	15 %	▲ 8%
Retail	▼ 26%	▲ 22%
Automotive	▲ 53%	48 %
Consumer Durables (includes electronics)	12 %	37 %
Office Products	▲ N/A	\$1%
Transport/Logistics	▼ 2%	10 %



Do you have an efficient communication chain to support your business?





The traditional way...

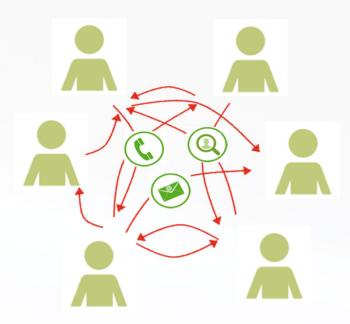
- Job bag from administration
 - Order and production information + content proof + info on where to retrieve job
- Prepress copies info into prepress system
 - Same information...duplicated





Typical environment

- Data across many systems.
 - Customer data is in MIS or CRM
 - Order information is in MIS or ERP
 - Product data in Pre-press or PLM system
 - Label data stored in PLM or documents
- Dispersed teams
 - Internal and external stakeholders
 - Different locations
- Information transfer
 - Email and phone communications
 - Tracking jobs in spreadsheets





Why integrate?













Risks of a Manual Data Entry

• Errors from manual data transfer

- Data out of synch
- Time wasted
- Visibility on progress limited
- Delays in the process
- Incorrect final output









Digitally connecting systems

Order mgt, Pricing, Planning, Finance, Stock, Admin etc..



Prepress Automation and Organization.





Web Collaboration and Approval



What can be digitally exchanged today?

Product level

- Admin info
 -) job ,project identification, customer, due dates, etc..
- Technical specifications
 - Sizes will be used in preflight to check against dimensions of the PDF to guarantee that this one is in sync with the specifications of the MIS
 - Winding
 - Substrate class
 - > Intended print process
 - > GTIN barcode value
 - Die shape
- Editing instructions
- Approval method

Production level

- Layout technical specifications
 - Actual production substrate
 - Size of the substrate
 - Step & repeat technical specs
 - #rows, #columns, cell sizes, gap sizes, which products to place in which lanes
- Platemaking specifications (conventional printing)
 - Plate type (dispro is calculated automatically)
- Digital press
 - > Target press, press preset
 - Esko Color Strategy
 - # lead in/out pages # of copies



Sample data files

JDF

```
<?xml version="1.0" encoding="UTF-8"?>
<JDF xmlns="http://www.CIP4.org/JDFSchema_1_1" DescriptiveName="BackStageTask"</pre>
    <NodeInfo JobPriority="50"/>
    <ResourcePool>
        <ea:BackStageTaskParams Class="Parameter" ID="TaskParamLink" Status="Av
            <eg:swftParam>
                <eg:PublicParameter>
                    <eg:name>ProductID</eg:name>
                    <eg:value>20170927</eg:value>
                </eg:PublicParameter>
            </eg:swftParam>
        </eg:BackStageTaskParams>
        <RunList ID="input_task" Class="Parameter" Status="Available">
            <LayoutElement>
                <FileSpec URL="file://eaw16dl233/jobcontainer/MISIntegration_to
            </LayoutElement>
        </RunList>
        <RunList ID="output_task" Status="Unavailable"/>
    </ResourcePool>
    <ResourceLinkPool>
        <eq:BackStageTaskParamsLink rRef="TaskParamLink" Usage="Input"/>
        <RunListLink rRef="input_task" Usage="Input"/>
        <RunListLink rRef="output_task" Usage="Output"/>
    </ResourceLinkPool>
</10F>
```

XML

```
<?xml version="1.0" encoding="UTF-8"?>
<JOBS>
    <CreateJobParameters>
        <OrderID>NewJob_12555/OrderID>
        <Sub0rderID>001</Sub0rderID>
        <JobName>123iruh</JobName>
        <JobDescription></JobDescription>
        <DueDate>2011-10-12T16:55:37
        <CSRName>Dave Jones</CSRName>
        <CSREmail>djones@yourcompany.com</CSREmail>
        <CustomerID>084</CustomerID>
        <CustomerName>ABC Designs</CustomerName>
        <CustomerContact>Steve Smith</CustomerContact>
        <CustomerEmail>Steve.Smith@abc.com</CustomerEmail>
        <ProofType>No Proof</ProofType>
        <Press>Indigo 6000</Press>
        <Trapping>No</Trapping>
        <Trap_Distance>.003</Trap_Distance>
        <Workflow>Label</Workflow>
        <FileName>GET SET_BOTTLE_ORANGE.pdf</FileName>
        <DynaTemplate>None</DynaTemplate>
        <StepV>3</StepV>
        <StepH>2</StepH>
        <HorizontalGap>.125</HorizontalGap>
        <VerticalGap>.125</VerticalGap>
        <Rotation>0</Rotation>
        <Bleed>.125</Bleed>
        <HorizontalDistortion>100</HorizontalDistortion>
        <VerticalDistortion>100</VerticalDistortion>
    </CreateJobParameters>
-/10RS
```



One-up product level Automation

Product level

- Admin info
 -) job ,project identification, customer, due dates, etc..
- Technical specifications
 - Sizes will be used in preflight to check against dimensions of the PDF to guarantee that this one is in sync with the specifications of the MIS
 - > Winding
 - Substrate class
 - Intended print process
 - > GTIN barcode value
 - Die shape
- Editing instructions
- Approval method

Production level

- Layout technical specifications
 - Actual production substrate
 - Size of the substrate
 - Step & repeat technical specs
 - #rows, #columns, cell sizes, gap sizes, which products to place in which lanes
- Platemaking specifications (conventional printing)
 - Plate type (dispro is calculated automatically)
- Digital press
 - > Target press, press preset
 - Esko Color Strategy
 - # lead in/out pages # of copies



Consistent and automatic naming

 MIS automatically creates production folder on the prepress system

 Consistent naming and structure of the production folder

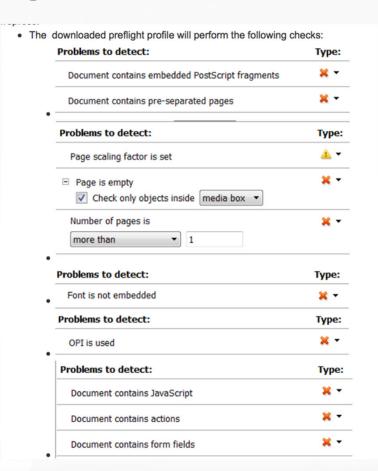
No more time spent on folder management





Automated Preflight

- Preflight check initiated by MIS
- 2nd Preflight to check if job is ready to be printed on a specific printing process





Barcode creation and inspection

- Barcode details communicated between MIS and prepress
- Automatic barcode creation
- Automatic barcode check for grading and barcode number



Automatic quality report

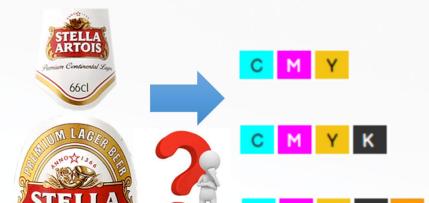


Color Preflight

 Additional press time

 Save Clicks per year

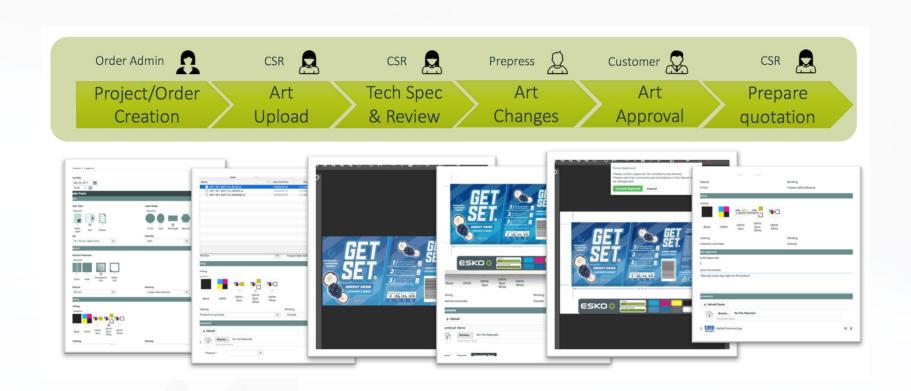
 Accurate ink estimation



LEUVEN



Automated Approval Process





Production level

Product level

- Admin info
 -) job ,project identification, customer, due dates, etc...
- Technical specifications
 - Sizes will be used in preflight to check against dimensions of the PDF to guarantee that this one is in sync with the specifications of the MIS
 - > Winding
 - Substrate class
 - Intended print process
 - > GTIN barcode value
 - Die shape
- Editing instructions
- Approval method

Production level

- Layout technical specifications
 - Actual production substrate
 - Size of the substrate
 - Step & repeat technical specs
 - #rows, #columns, cell sizes, gap sizes, which products to place in which lanes
- Platemaking specifications (conventional printing)
 - > Plate type (dispro is calculated automatically)
- Digital press
 - > Target press, press preset
 - Esko Color Strategy
 - # lead in/out pages # of copies



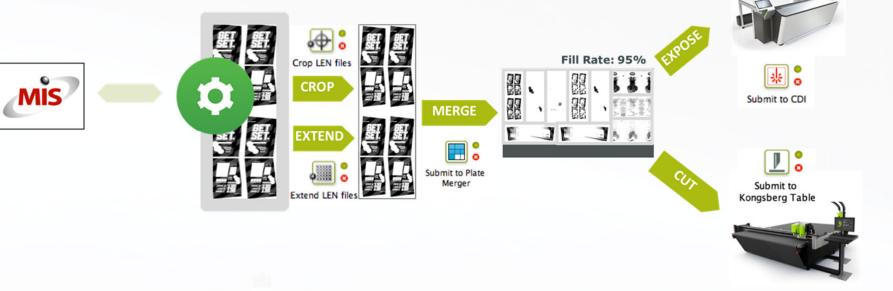
Layout Automation

- Automated Step&Repeat based on incoming parameters
 - Single Product
 - Ganged products in 1 S&R layout
 - Automated marks





Plateroom Automation





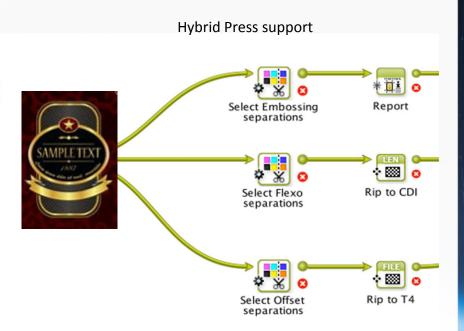
Plateroom Automation

- Fully automatic merging on plates
 - Time saving: no manual editing required
 - Error reduction: the correct parameters are guaranteed (provided of course they are correct in the MIS system)
- No human interaction required to merge separations
 - Less waste
 - No errors due to merging wrong combinations
- Accurate plate cutting
 - Higher quality
 - Less errors



Automation for combination presses

- Tag separations per printing/finishing method
- Saves between 20 60 minutes in interactive preparation
- Guarantees job integrity





Summary













Takeaways: Business value

- Increased efficiency
 - Reduced process time
 - Eliminate double entry
 - Free up time for value-added tasks
- Improved visibility
 - Consolidated information
 - Simplified communication
 - Automatic notifications
- Reduced risk
 - Real-time data access
 - Automatic asset and data synchs









Thank You!

Questions?

