2009 Winner

CIP4 International Print Production Innovation Award for
Best Process Automation Implementation — Europe

Cloître Imprimeurs

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Executive Summary
Cloître Imprimeurs was founded by François Cloître in 1937. One of the targets of his successor Jean-François Cloître was the use of high technological process to improve the service to the customers.
Jean-Yves Lenormand, CEO of the company, gave different values to the company: the guarantee of a high quality service for the customer, the respect of the human spirit for the employees and a strong social, economical and environmental commitment.

Cloître Imprimeurs is a modern sheet fed offset and digital company with a work force of approximately 115 people located in Saint-Thonan, in Rennes and in Paris (France). The turnover of the company in 2008 was about 12.000.000 €. The range of services alongside offset and digital printing activities (books, catalogues, magazines, corporate publications, calendars, annual reports magazines, PLV, administrative documents) includes prepress and post-press. The geographical position of the printshop in Saint-Thonan made necessary to keep all the post-press services in-house.

With more than 4.000 customers, Cloître Imprimeurs is the leading printer in this part of France (Bretagne). The company is specialised in small jobs (average amount 1.350 €) but in a great number per day (40 jobtickets/day) with added values. The interest in automation was very high because of the amount of time needed to managing such a great number of jobs.

The MIS controlling the company’s commercial and technical operations is Partner from Gam-Sys Software. Prepress is equipped with a Prinergy workflow (Kodak). The press room features a latest technology press from Komori: LS 840 P. The machine console systems are equipped with KMS and supervised by Komori K-Station. The post-press features cutting, folding and binding devices, among which a Primera C130 saddle stitcher (Muller Martini).

Before automation workflow implementation (fig. A):
When the quotation is accepted by the customer, the CSR transforms the quotation into a job-ticket. The information given on a job ticket on paper is limited to description of the job without detailed parameters because of lack of information at that moment. The jobticket is sent manually to the planning. The production planning gives the job to the prepress department. Prepress operator has to create manually the job on Prinergy (prepress parameters), find the right template in Preps or create if not existing, to process the imposition. Customer approvals and plates processing has to be manually entered into administration system to inform the planner and the CSR about the status of the job. Every updates of the job is manually introduced to the management system and the re-print of the paper printout of the job ticket is necessary to inform the production operators by replacing the former job ticket. The printing department receive a list (on paper) of the orders to be produced and the press operator introduces the parameters manually on the press manager system. When an operation of production is finished, the operator informs the administration system. When the job is ready to go to the finishing, the post-press operator takes the paper jobticket and starts the preparation of the saddle stiching management system. After the end of post-press op-
After automation workflow implementation (fig B):
When the estimate is accepted by the customer, the CSR opens a jobticket by transforming a quotation and giving some additional information (delay, GFP datum, names of Pantone…). Partner sends the full completed job to Prinergy (Kodak) with technical data (strippings, proofing, responsible person for approval, product description, printing params, cutting params, folding and finishing params). Prinergy via Business Link read the JDF, create the Job with customer information (contact name, e-mail, Web approval…). When the job is created, Prinergy send the JDF to Preps, create dynamically the imposition with correct marks. During the prepress processing, Prinergy informs Partner (by JMF) about the job status and updated the cost management in real time. This update of job ticket gives to the planner a complete view of the production and the flexibility to change a job in the planning list to optimise the productivity. When the job arrives on the K-Station of the Komori, all technical parameters are preselected. K-Station monitors the press production and informs the MIS about the data collection and job status. The MIS (Partner) sends automatically the job to the Muller Martini and adjusts the parameters on the post-press consol. During saddle stitching, the MIS receive the status updates and the time registration.

Main benefits and results of the integration:
- Completely electronic job ticket
- automatic communication between productions devices
- standardisation of production parameters without human interpretation
- reliable and real time job status updates and cost management
- great flexibility in planning because of this reliable and real time status
- high level of precision in raw material consumption and make ready waste

Section I. Objectives
The values of the company are:
- the guarantee of a high quality service for the customer
- the respect of the human spirit for the employees
- a strong social, economical and environmental commitment

The JDF automation seems to be the most efficient way to achieve these goals.

A high quality service for the customer:
- increase responsiveness to customer by a more closed follow-up of jobs
- standardisation of the process to preserve the quality of the product
- more flexibility with a quicker reactivity to customer changes
- more control on processes to guarantee the delivery date

The respect of the human spirit for the employees
- better working conditions with automated workflow
- complete view on process from his working place
A strong social, economical and environmental commitment
- reliable information on job status to decrease the stress during the job tracking
- standardisation of the process to securize the production
- decrease error risk (human manipulation)
- reliable production cost by an automatic data collection
- decrease of unproductive time (no more manual job ticket)
- precision on real consumption of material per job ticket (plates, paper, ink, proofings)
- more efficient control on material waste (environmental certification)

Section II. Methodology
After a processes analysis and an involvement of the workforce, the company was ready to engage on the way of automation and standardisation.

In 2007, Jean-Yves Lenormand organised a round-table conference in order to expose Cloître objectives to his partners (GamSys, Kodak, Komori and Müller Martini) and see what is possible to achieve in the short and medium term.

When it was done, an action plan was proposed to all actors.

Section III. Implementation Story
Step 1 : Implementation of production planning (GamSys MIS)

February 2007

Jobticket is presented in a Gantt diagram and give the opportunity to the planner to sort jobs in relation to status, production criteria, availabilities and production delay.
Step 2: Job creation in Prinergy -> administrative informations (Kodak)

June 2007

When a jobticket is received, Prinergy creates the job automatically and gives additional informations related to customer administration (contact name, e-mail, Web approval…). Web enable job for InSite.
An email with job access via InSite is sent to the customer (Kodak)

Step 3: Jobticket sent to the Komori press

Partner (GamSys MIS) sends the jobticket to K-Station. K-Station is managing and monitoring the press room through the KMS. The link between the prepress and the press concerning the ink profiles is made by the PCC software. The production registration is sent to the MIS to update the job status and for cost management.
Step 4: Stripping integration

May 2008

Partner (GamSys MIS) generate a JDF with stripping parameters (virtual imposition) received in Prinergy which via Preps create a dynamic imposition. Correct marks are automatically updated by Preps.
Step 5: JMF from prepress (proof, plates, files, customer approvals)

May 2008

During the prepress processing, Prinergy informs Partner (by JMF) about the job status and updated the cost management in real time.
Step 6: JDF to post-press (Muller Martini)

February 2009

The MIS (Partner) sends automatically the job to the Muller Martini and adjusts the parameters on the post-press console. During saddle stitching, the MIS receives the status updates and the time registration.
Section IV. Resulting Workflow/Processes

Before automation workflow implementation (fig. A):

When the quotation is accepted by the customer, the CSR transforms the quotation into a job-ticket. The information given on a job ticket on paper is limited to the description of the job without detailed parameters because of lack of information at that moment.

The jobticket is sent manually to the planning. The production planning gives the job to the prepress department. Prepress operator has to create manually the job on Prinergy (prepress parameters), find the right template in Preps or create if not exist, to process the imposition.

Customer approvals and plates processing has to be manually entered into administration system to inform the planner and the CSR about the status of the job. Every updates of the job is manually introduced to the management system and the re-print of the paper printout of the job ticket is necessary to inform the production operators by replacing the former job ticket.

The printing department receive a list (on paper) of the orders to produce and the press operator introduces the parameters manually on the press manager system. When an operation of production is finished, the operator informs the administration system.

When the job is ready to go to the finishing, the post-press operator takes paper jobticket and starts the preparation of the saddle stitching management system. After the end of post-press operations, the management system has to be manually informed about the status of the job, the actual amount of brochures produced.
Consequently:
  - loss of time by creating incomplete paper job ticket
  - loss of time by communicating the jobs list to the different process
  - risk of error by manual interpretation of technical information
  - delay in updating the job status
  - loss of time in manual introduction of parameters in prepress, press and post-press management systems
  - low reliability in the information given by operators during production
  - lack of information about the reprints operations or extra plates producing (chargeable or not to the customer)
  - low flexibility for the planning
  - loss of time by non electronic information about the job status (phone calls, meetings, different offices visits…)
  - loss of time and of reliability when additional or changing information comes on a job by a customer
  - limited precision in raw material consumption
  - no control on make ready waste
  - delay in cost management and invoicing because of a necessary control of manual data collection
After automation workflow implementation (fig B):

When the quotation is accepted by the customer, the CSR opens a jobticket by transforming the quotation and giving some additional information (delay, GFP datum, names of Pantone…). Partner sends the full completed job to Prinergy (Kodak) with technical data (strippings, proofing, responsible person for approval, product description, printing params, cutting params, folding and finishing params). Prinergy via Business Link reads the JDF, creates the Job with customer infos (contact name, e-mail, Web approval…). When the job is created, Prinergy sends the JDF to Preps, creates dynamically the imposition with correct marks.

During the prepress processing, Prinergy informs Partner (by JMF) about the job status and updated the cost management in real time.

This update of job ticket gives to the planner a complete view of the production and the flexibility to change a job in the planning list to optimise the productivity. When the job arrives on the K-Station of the Komori, all technical parameters are preselected. K-Station monitors the press production and informs the MIS about the data collection and job status. The MIS (Partner) sends automatically the job to the Muller Martini and adjusts the parameters on the post-press consol. During saddle stitching, the MIS receives the status updates and the time registration.

Main benefits and results of the integration:
- electronical complete job ticket
- automatical communication between productions devices
- standardisation of production parameters without human interpretation
- reliable in real time job status updates and cost management
- great flexibility in planning because of this reliable and real time status
- high level of precision in raw material consumption and make ready waste

Section V. Improvement & innovation

Improvement in Quality and Customer Service:
Customer get access to his job just after submission, can follow in real time job evolution and interact to it.
No more lack of time or misunderstanding due to human interpretation.

The respect of the human spirit for the employees
Due to a gain of time with automation, employees can focus more on customer satisfaction.
Operators find their job more attractive and with more added value.

A strong social, economical and environmental commitment
Due to automation, they save more than 30 minutes per job for the complete process.
Decrease on waste of materials (paper, plates, ink, chemical products) with a relevant impact on the environment.