Legovic Imprimeur S.A.

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Executive Summary — Legovic was born of the fusion of two independent and competing companies settled in the area of Nantes, FR: Top Imprimerie and Legovic.

Beginning 2008, both companies merged to a single site to save the two structures simplifying the production management and the systems. Before that, the procedures were heavy and consuming a lot of workforce.

Strategically, we want to concentrate on the local customers with a technological and qualitative high-level convenience service. Our production is essentially commercial printing.

Today, our company has 25 persons: 2 in the administration, 4 in the sales department, 3 CSR and 16 persons in the workshop. The turnover in 2009 amounted to 4,200,000 €.

‘MIS Partner’ (GamSys) manages all the commercial and technical information. Prepress is managed with ‘BackStage’ (EskoArtwork) and other applications. We print on Heidelberg and Manroland presses. The finishing equipment is still not ready to integrate via JDF.

Before integration (see fig. A page 6)

Both companies worked with different MIS. Once the quotations accepted by the customers, technical information was transmitted to the production by paper job tickets. (1) The description of the jobs was rather simple because few technical details were only known at this stage (colors, screening, final size of the product, paper effectively used on the presses, selected press.)

(2) The job ticket was split into paper labels to be arranged on a wall schedule.

(3) The customers sent their files by e-mail to their sales contact, to the estimator, to the CSR or to the prepress department.

The prepress operators spent a lot of time to look for the files of the customers and the schedule was informed about the availability of the elements only very late in the process (reception of files, proofer, plates, availability of papers, start of printing).

(4) The print manager had to walk to the schedule on the wall to give the orders of printing and this caused a lot of dead time in manufacturing due to both the lack of information and the delay in getting this information. The shipment to the customer is organized as soon as the Job ticket papers return to the shipping department.

After integration (see fig B page 16)

Once the quotations are accepted by the customer, the job ticket opens directly in Partner. From this moment, a JDF file is sent to BackStage to warn the prepress operators about this upcoming job. A JMF is sent to 3Zax to provoke the opening of a directory on the FTP server and send also an e-mail to the customer to inform him where he can put his file and which CSR takes care of the follow-up of its file to the printshop.

When the customer sends the file, BackStage and Partner MIS are notified of his availability. All the files are centralized in a single place and all of the persons who must be informed receive a message. The planning has also this information to organize the follow up.
The JDF sent to BackStage by Partner has a production imposition directly usable in production without manipulation at prepress in more than 70% of the job tickets.

The proofs are sent to the customer and validated by them. The information is then shared, by JMF, with the CSR, with the sales person and also with the planner. The planner has a complete and precise information about the job to be able to manage possible changes and optimize the press scheduling.

Job tickets are then sent to the press monitor.

The work is now realized in 2 shifts instead of 3 while keeping an identical equipment and a similar production volume. The third shift has been trained to be able to further develop the finishing department. Prepress staff decreased from 3 to 2 persons; this third person now takes care of customer service in the shipping department. Estimators/manufacturers are reduced from 5 to 3 and both persons are moved to the sales level.

Main benefits and results of the integration

- Reduction of the processing time per job.
- Centralized information on a single system (files, technical details of job ticket and the state of progress of production).
- Increase of the added value by the finishing and the prepress which is realized by the staff freed up with this improved way of working.
- Standardization of processes and parameters of production without human intervention.
- More flexibility in the planning with a more reliable information in real time.
- Capacity of manufacturing increased without additional investment (30% additional printing capacity).

Section I. Background — Both companies first had management and production tools without any dialogue between them.

The sales person, the CSR, the estimator and the persons in charge of prepress are directly in connection with the customer and the production files are sent to these various persons without any standardization nor security. These different persons as well as the customers had to contact each other to ensure that the files were well received and reliable.

One of both companies was equipped with the software Partner (GamSys) but only in administrative management and the other one had an obsolete software from a competitor MIS vendor. The job tickets were updated manually throughout the process. Only the paper job ticket contained the definitive and real information of production steps. This paper job ticket was the only one that transmitted the information throughout the company.

Prepress is managed by the EskoArtwork Software Suite, and mainly the workflow server BackStage. The presses were old but already supported receiving CIP3 ink profile settings. A paper list was communicated to the printer to give him job tickets to print but without any information about the state of progress of plates, approval nor paper stock.

A big part of the finishing was realized in subcontracting. The work of follow-up of the subcontractors and the delivery to go / return to the subcontractors was important. The person in charge collected the paper information to manage the logistics towards all the subcontractors.

Fig. A : Workflow before integration (see comments (1), (2)… on page 3)
Section II. Objectives — The two firms do not have the same MIS and employees of the both know each others only through the competition market.

The economical crisis places the new owners in front of a critical challenge for the survival of the new structure:

- Produce more internally (to increase the added value) while keeping all the workforce,
- Attract more local customers,
- Reduce the cost of structure.

Decided method of implementing this was the following :

- Enhance reliability of the treatment of job tickets through centralization of all the information on a single system for all the company members (internal/external).
- Increase the flexibility and the reliability for the customers with an “in real time” production planning.
- Considerably reduce the press downtime (production stops, make-ready) that is due to lack of reliable information.
- Give more time to the sales people by keeping them away from the production.
- Manage in a secure and standardized way the exchanges of production files with the customer.
Section III. Methodology — An action plan is established in several phases according to the priorities but also according to the degree of feasibility without important financial investment due to the economical crisis.

Phase 1: standardize the management tool of the information

The integration of both company structures is made at the beginning of 2008. We have to choose the best adapted MIS to support the concentration of both companies and our desire to rationalize processes. The state and progress that the MIS had in supporting JDF was a priority factor.

We made our choice on the MIS software ‘Partner’ from GamSys.

Phase 2: Integrate the information of Partner MIS with the prepress workflow BackStage

The job ticket has to become digital and contain all the technical information of this job up to date to save time in the prepress activity.

Phase 3: simplify and secure the management of the customer’s files

We had two alternatives :
- Integrate the management modules of customer files and on-line approval of our prepress supplier.
- Develop a solution which answers our needs.

We choose the solution of the customized development for reasons of control of development, cost and opening of our MIS towards not standard solutions thanks to the JDF.

Phase 4: transmission of the orders of production directly on the press monitor

Our machine park is quite old and the economic situation does not allow us to invest in new JDF enabled material. We choose a second hand 700 Manroland press which can be equiped by PrintNet from Manroland.

Section IV. Implementation Story —

Phase 1: standardize the information management tool

March, 2008: upgrade of the teams of both companies on one common MIS.

GamSys realized an audit of organization to define the most adequate way of setting up the administrative management standardized on Partner. After the organized training sessions, operators take in hand the development of the MIS.

Estimates, order registering, production follow-up by data collection at the workshops level and invoicing are implemented.

It became crucial that all users can have information shared in real time on a single system.

We met two main obstacles :
- The users had to change their management system during a bad economic climate
- The habits of the former structures were still well established.

The phase 1 was finished at the end of 2008.

Phase 2: Integrate the information of Partner with prepress workflow server BackStage

March, 2009: skill assessment at the level of Partner and of prepress workflow BackStage

Both partners had to estimate together the state of the internal skills at the company in order to set up a JDF integration.
Our main asset: both companies already know each other and have integrated via JDF before

A training & assistance plan is made after the audits. A standardization of procedures within Partner must be organized. These are needed to increase the information inside these job tickets. This will avoid that CSRs have to look for info that the administration had but did not communicate yet.

**May-June, 2009: implementation of standardization plan for the optimal use of Partner**

The users had 4 days of training to give them tools for standardization of the production files and the implementation of the data collecting tools in the workshops (production workplace without JDF (press and finishing)).

**Start of production on MIS Partner**

**July-August, 2009: implementation of digital planning in Partner**

Within 2 months, operators already mastered all the new available information and could feed the job tickets in a effective and reliable way..

The digital planning schedule allows the planner to consult in real time all the job information and optimizes the go-to-press while communicating the plates deadlines to the prepress department..

**September-October, 2009: automatic generation of the Partner Job ticket to Backstage**

From the opening of a job ticket in Partner, the JDF file is automatically created in BackStage. The administrative specification in the MIS (product decomposition, customer, contact of customer, colors) are now also available for the prepress operators.
Job ticket in BackStage with screening selections made on Partner MIS based on type of paper and colors.

The job’s ‘Milestones’ (typically proofing and plate making) are automatically communicated via JMF back to the MIS Partner and there update the production planning and warn the CSR and the sales people in real time.

Partner 5

Job tacking in Partner: Proofs have been sent to the customer and we are waiting the approval => orange color indicator
Phase 3: simplify and secure the customer files management

December, 2009: integration between Partner and 3Zax (management system of customer files)

Implementation of a solution developed for LeGovic Inc. allowing its own customers, to upload production files to the printing office Website.

From the opening of the job ticket in Partner, the MIS generates not only a JDF for BackStage but sending also a JMF to the System 3Zax containing the job and customer information. The directory is opened on the FTP site and an e-mail is sent to the customer to let him upload his files and to inform him about the status of the job.

From the arrival of files on the FTP directory on the server, BackStage takes the file, renames it to an agreed name containing Job-ID (decided by Partner in the JDF) and also informs Partner of the availability of these files.

3Zax server is informed about the job by a JMF and allows the end customer to send production files

December, 2009: recovery of Partner’s production imposition by BackStage

The dynamic impositions of Partner are directly communicated to BackStage and interpreted by EskoArtwork’s imposition tool FastImpose.
MIS Partner generates a production imposition for BackStage.

BackStage processes the stripping to set positioning of pages. The result is here viewed in FastImpose.
January, 2009: sales force communicates to customer on the set up tools

The sales force contacts her customers to inform and train them on the new tools.

**Phase 4: transmission of the job tickets orders directly to the press monitor**

August, 2010: set up of manroland 700 press and of PrintNet (in progress in August 2010)

The new press is set up and the connection is made between PrintNet and Partner. The data collection unit of Partner is not used any more on the press but the press monitor now has a reliable real-time information about the job (this step is in preparation at this moment, August 2010)

*Partner sends Jobtickets PrintNet (manroland) via JDF*

**Section V. Resulting Workflow/Processes** — Please find a schema in the section I. BackGround (page 6), representing the information workflow before the integration.

After the integration of the different steps, our information & production workflow is now standardized and transparent for all company members but also for the end customer (see fig. B on page 16). Once the quotation was accepted by the customer, the job ticket opens directly in Partner.

(1) From now on, a JDF file is sent on BackStage to warn the prepress operators of the arrival of this job. A JMF is sent to 3Zax to open a directory on the FTP server and sent by e-mail to the customer to inform him about the place where he can put down his file and inform on the contact person who will manage the follow-up of his job to the printing office. Previously, the sales person, the CSR and the persons in charge of prepress worried on the file’s location and the customer called them back systematically to make sure that his files were indeed in the correct place at LeGovic.
(2) BackStage and Partner are warned of the arrival of the file as soon as the file is put down by the customer. Files are centralized in a single place and all the persons who must be informed get the information. The Planning also has this information in order to organize the follow-up.

The JDF sent to BackStage by Partner results in a production imposition, fully automatic, without any manipulation by prepress operators. The proofs are sent and validated by the customers. The information is then shared via JMF with the CSR, the sales person and with the planner. The planner has a complete and precise information about the job to be able to manage the possible changes and optimize the on-press schedule.

(3) Files are then passed on the press monitor. The work is realized in 2 shifts instead of 3 while keeping an identical equipment and a similar production volume. The third shift was trained to be able to develop the department of finishing. Prepress is reduced from 3 to 2 persons, the third person now takes care of the customer service in shipping department. Estimator/CSR are reduced from 5 to 3 and both persons are moved to the sales level.

2 people moved away from the prepress & press production level (now integrated via JDF) to now develop a finishing & logistics department for the customers. These operations were previously done by subcontractors.

Both CSRs no longer have to follow-up customer files and organization of job tickets anymore. They can now focus in the sales department on increasing the prospecting of our market. While the graphic companies turnover is getting down (more than 15 %), our turnover is unchanged thanks to our presence on the market without additional investment.

Fig. B : Workflow after integration (see comments (1), (2)...)
Section VI. Optional Detail —

- **ROI:** This ROI calculation is build on the integration started in 2009 and with the steps described above. Savings on press: The work is realized in 2 shifts instead of 3 while keeping an identical equipment and a similar production volume. The third shift was trained to be able to develop the finishing department. The hourly cost saved is 28 €/hour. One person works 220 days/year and 8 hours per day.

  Savings on prepress: Prepress decreased from 3 to 2 persons, the third person takes care now of the customer service in the expedition. The hourly cost saved is 24 €/hour. One person works 220 days/year and 8 hours per day.

  Increase in added value up to 8 % additional. The margin on added value is 5 % higher than on subcontracting.

  In this ROI, we don’t take into account that 2 CSRs from the old way of working are now on the market to prospect new customers. The turnover of the company doesn’t decrease like the turnover of the sector.

  The result is after 5 years a ROI of 638 %
## Benefits in C (in savings)

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## Investment in C

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## Annual benefits (€)

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**ROI** : **638%**
Improvement in Quality and Customer Service

The advantage for customers is very important:

- simplified way of following job files and having information about job tracking
- delivery deadlines are more respected through reduction of lack of time in production
- better following by sales person who is now more available for customers
- more responsiveness to customer demand because the production capacity is increased.