

# Print Plaza AG

*Jürgen Schönhut Memorial  
CIP4 International Print Production Innovation Award*

**2008 Winner**

**Most innovative use of process automation technology in an implementation**

**And**

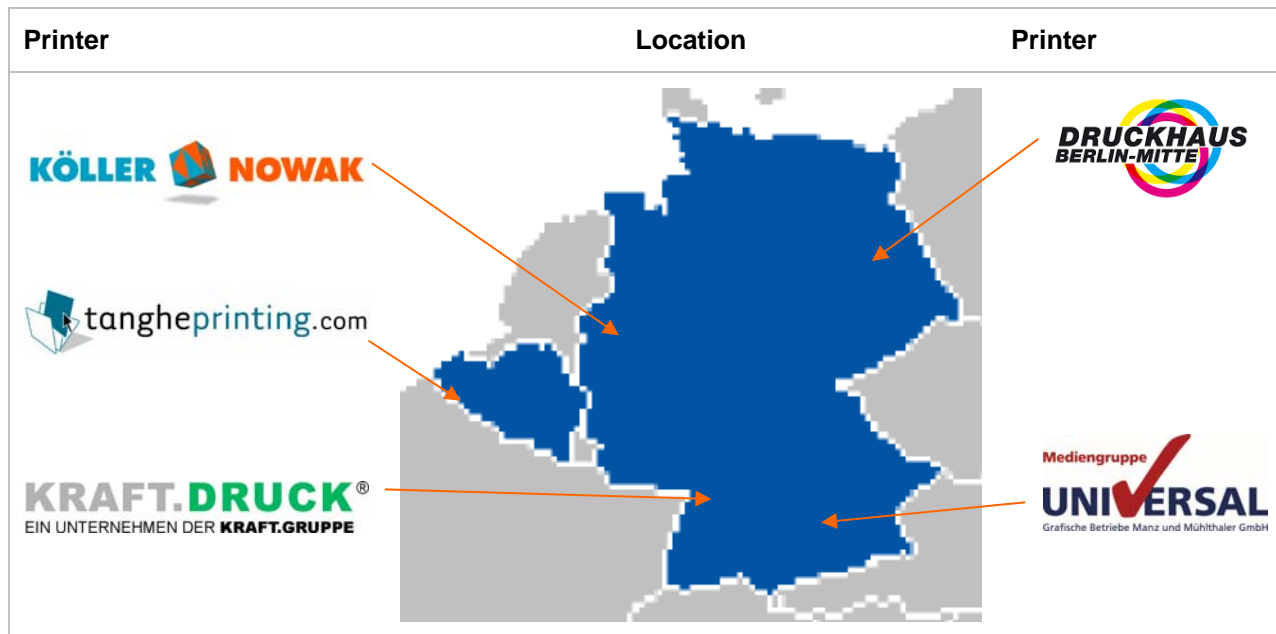
**2008 Winner**

**Best Process Automation Implementation — Europe**

## Application Outline

**Section I. Background** — Please provide a description of the subject workflow environment and conditions prior to implementation:

Print Plaza AG is a stock corporation located in drupa-city Dusseldorf, Germany. Our business model is based on running a joint web shop for print products ([www.printplaza.com](http://www.printplaza.com)) in a group of production partners that run their printing plants in Germany and the Benelux. The production partners are Köller+Nowak (Dusseldorf, Germany), Druckhaus Berlin-Mitte (Berlin, Germany), Mediengruppe UNIVERSAL Grafische Betriebe Manz und Mühlthaler (Munich, Germany), Kraft Druck und Verlag (Ettlingen, Germany), and Tanghe Printing (Komen, Belgium).



As partners we dispose of diverse print production facilities with formats ranging from 45x50 cm (= 17,72x19,69 inches) to 120x162 cm (= 47,24x63,78 inches) as well as variable finishing and refinement possibilities. Due to the comprehensive mix of production machines we can offer a extensive portfolio of print products.

All five partner companies use Hiflex MIS system internally for order processing and they all have already networked administration and production via JDF. The partner companies' profiles are these:

- ✓ Köller+Nowak (K+N), full-service printer with 10 employees. Prepress features a CTP platesetter that is controlled by Kodak's Prinergy Workflow since Dec. 2003 and networked since April 2005; FM screening is used by default. In the press department, a five-color Heidelberg SM 52 and a four-color Heidelberg SM 74 produce high quality products. Finishing includes cutting, folding and saddle stitching.
- ✓ Druckhaus Berlin-Mitte (DBM), sheet fed printing plant with approximately 100 employees. The company's production centers on general commercial printing, direct mail, posters and books,

and a PDF workflow is used. Printing is managed on two MAN Roland 700 presses, one MAN Roland 900, a Heidelberg Speedmaster and a remote KBA Rapida. In finishing, DBM has a variety of folding machines, mailing machines, a gang-stitcher, and a perfect binding line.

- ✓ Mediengruppe UNIVERSAL (Universal), sheet fed offset printer with around 50 employees. The portfolio ranges from business reports, magazines, books, promos and calendars. The prepress technology comprises two CTP plate setters and a Kodak Prinergy PDF Workflow. The press room houses a Heidelberg Speedmaster CD 74-5 (52 x 74 cm / 29") plus two B1 (74 x 105 cm / 41½") KBA Rapida 105's. Postpress capabilities include die-cutting, cutting and folding.
- ✓ Kraft Druck und Verlag (Kraft), full-service sheet-fed offset printer producing high-end commercial publications, posters, and weekly and monthly publications for the high quality end of the print market. Prepress features a Kodak Prinergy PDF Workflow and a fully-automatic Lotum 800 Quantum thermal platesetter. Print production is managed on three MAN Roland 700 sheet-fed offset presses, postpress features amongst others three MBO folding machines.
- ✓ Tanghe Printing (Tanghe), full-service sheet-fed offset operation with 35 employees. Production is specialized on 4-color- and multi-color-printing. Prepress is equipped with Kodak's PDF workflow Prinergy. The pressroom features a Komori Lithrone 440 (4c B1 41½") and a Komori Lithrone 40S (5c with varnish B1 41½"). Manifold finishing capabilities include UV varnishing. Tanghe's market comprises Belgium (40%), France (45%), Netherlands (10%) and Switzerland (5%).

The JDF networks that have already been realized in these companies have improved process control tremendously by enhancing transparency, flexibility, and productivity, equating to huge productivity increases (20% and more) and reductions in expenses.

**Section II. Objectives** — Please provide a description of the printer, publisher or prepress service's goal and motivation, including any quantities criteria upon which the goals were established:

The overall motivation in entering the W2P-market with a 24hrs / 7 days per week available Online Print Shop was to minimize / eliminate the costs for sales, commissions, and administration, and, simultaneously, to win new markets with minimal effort. Concretely, we aimed at economic growth by entering also the smaller "B to B" market and needed to set the stage for the efficient processing of many smaller orders daily (e.g. by making use of combined forms).

This would only be practicable with a fully integrated system with maximum automation so that orders are accepted with little or no administrative costs and data processing (from first record to delivery) would be handled most efficiently. With JDF, internal automation of order processing within our different printing plants had already been realized at a pretty high level and led to improvements such as time and cost savings, efficient and high quality data handling, enhanced productivity, and others. It was no question to stick to JDF technology for further automation in order to integrate the online market.

Our target was a clear differentiation from and a perceptible positioning on the market, and we established the claim: "Printing made easy." The new system must be easy to use for customers and easy expandable in the product offering in order to create additional benefits and excess financial value.

Our precise goal was to process more (smaller) orders per day and to win new customers with maximum reduction of sales and administrative effort.

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**Section III. Methodology** — Please provide a description of the process of selecting a solution, including alternatives and deciding factors:

The idea for setting up our company ‘Printplaza’ was initiated through our partner companies that were using the Hiflex MIS system for their internal order processing.

To really understand the deciding factors one has to understand that the Hiflex MIS is already equipped with various eBusiness modules (since 2002) that serve as a “closed” web-2-print solution. “Closed” means that print buying companies can visit the web site of their printing house partner and log into a secured area with dedicated username and password (for users without password access is denied – this is why it is called “closed”). In the “closed” area customers can track-and-trace jobs, call-off stock-on-hand products, place reprint jobs or standard products with their individual pricing, upload their print data and run through an approval workflow. Some of today’s partner companies have been using “closed” Hiflex web-2-print technology for several years.

When we decided to start with an “open” Web Shop we wanted to make sure that we can offer a big bandwidth of products and that we have a maximum level of automation in the internal order processing so that the jobs can be picked up in the prepress departments and need no administrative processing.

As our partner companies have already very efficiently worked with JDF for internal production processes, it appeared right for us to also make use of JDF technology for communication processes required for the integration of the online market. The fact that the Hiflex MIS (in place at all the partner print houses) provides a JDF import function into the order management provided the ground for using JDF in our implementation. In consequence it was only obvious to discuss our project with the Hiflex company.

Before we made the final decision to develop our Web Shop solution together with Hiflex we also searched the market for a solution that would meet our requirements and optimally fit into our networked workflows.

We soon saw that all the available Web Shop systems were built up by configuration of individual articles that had to be individually configured. This was recognized as a disadvantage because such systems require significantly higher administrative overhead to be configured for each and every product added.

We therefore decided to go for the concept that Hiflex proposed: to develop a new system that would be based on components for flexible product configuration and that would be perfectly prepared for JDF connectivity. The already available eBusiness and JDF solutions from Hiflex gave us the confidence to start this comprehensive software development project with them. So we built a project team in order to jointly develop the target specifications of the new system.

**Section IV. Implementation Story** — Please provide a description of the implementation effort including timeline, participants, critical path/milestones, obstacles overcome (if any), training and testing:

The market of Online Print Shops is growing fast with new vendors. In order to implement a best-in-class solution we analyzed web shop systems in advance of our project. An exhaustive internet research was started in order to evaluate all important criteria for our new system. The existing systems were compared against each other as regards to following features: Product portfolio, prices for print products, service, and definition of target market.

For the implementation of the Web Shop system the following steps were taken:

**I. Definition of products offered:**

- Final products and its selectable options
- Product parts connected to final products and the options applied to special parts
- All available options like grammage, format, number of pages were atomized because they have been inserted as "articles"

**II. Definition of deny list**

We defined the combination that are forbidden (due to technical reasons or not wanted - we called this the deny list) e.g. certain formats have restrictions in number of pages

**III. Definition of estimation values**

- Which products will be produced on ganged sheets? What ratio is to be expected?
- Which print sheet sizes should be considered?
- What are the setup prices for the different sheet formats and what is their print run price (defined in price per square meter)?
- What are the plate prices?

**IV. Definition of shipping costs**

- Shipping costs were defined (our UPS conditions)

**V. Definition of page content and page structure**

- Web-design: look and feel
- Sitemap and sketch book about all possible web pages and their connections
- Text and image creation

**VI. Responsibilities/workflow**

- Definition of who will receive which kind of order (based on product type and ZIP code of final customer)
- Definition of who will receive the automatically created documents like job tickets, delivery notes, UPS labels
- Definition of who will initiate the request for approval
- Definition of who will receive and process support enquiries send by WebShop customers

- Definition of who will handle additional work issues
- Definition of who will plan the production and prepare prepress

### **VII. Interfaces**

- Interface to financial office
- Maintenance of Payone transactions

The project kicked-off and development started beginning of 2007 and [www.printplaza.com](http://www.printplaza.com) went online in May 2007. At first the page was only available in German language version but since the system was designed for multiple languages other languages were added rapidly. Today, print buyers can use the system in English, Dutch and French language as well.

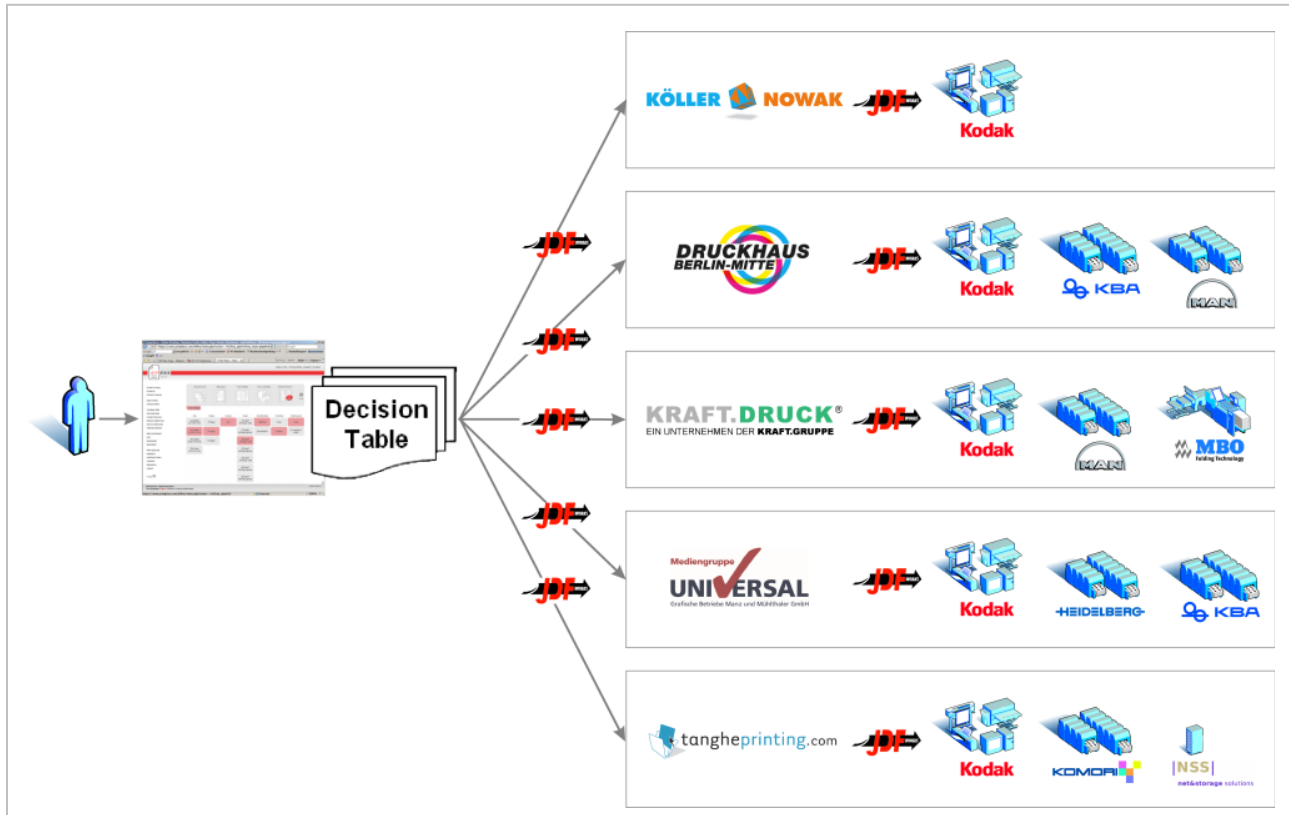
The enabling technology of the Print Web Shop is minimal: two Intel-based servers with Redhat Linux and a firewall. Both servers each run a virtual machine (VmWare). On the first server the Apache Web-server, a mail server, the Hiflex Webshop front-end as well as a PDF pre-flight system runs. The second server hosts a Hiflex MIS system that is the back-end for the Hiflex Webshop. It automates commercial processes in the background. To our knowledge the Hiflex Webshop is the only Web-2-Print System that incorporates an MIS System as a process catalyst.

The generation of JDF-files that are sent together with the automatically prepared order tickets was implemented end of 2007. This functionality allows our partner companies to import JDF job ticket information related to the customer job into their MIS system without any need to re-key data.

By the way: our partners all work with the Hiflex MIS but the JDF based communication would work with any MIS system our partners would choose as long as it provides a JDF import functionality. Today the Hiflex company also markets their WebShop system in other countries as a stand-alone solution, independent of their MIS business. They promote the JDF capabilities of the WebShop solution as a “connector” to any MIS system.

**Section V. Resulting Workflow/Processes** — A description of the resulting workflow, including any applicable workflow or process diagrams.

**Overview of the JDF workflow with Printplaza.com**



*Illustration: The print buyer selects their print product on printplaza.com and places the order. The order is allocated to one of the currently five partner printing houses for technical production processing. This automated distribution of jobs is based on product type, print run and/or ZIP code of the delivery address and managed by a decision table in the background. The according printer receives the order plus JDF job data. The JDF data can easily be integrated into their MIS systems and is then available for all integrated production systems.*

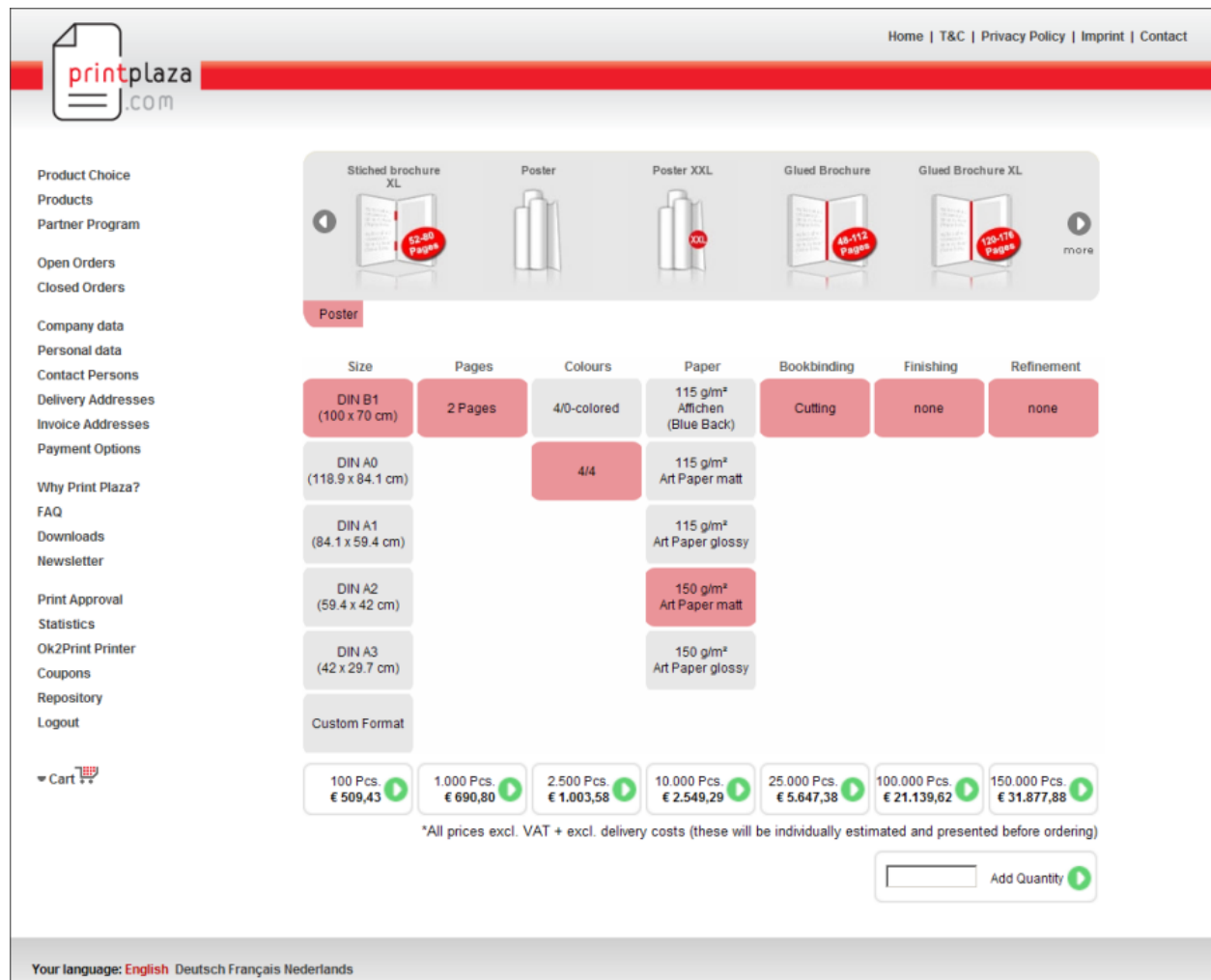
**1. Product definition**

The print buyer selects their print product from the unique (Hiflex) product browser that facilitates a simple product configuration. A print product can be quickly assembled from several modules (such as number of pages, color, paper, finishing, and refinement). During the configuration process, unworkable combinations are excluded using a plausibility check, and necessary processing steps are added (e.g. scoring with 200g/sqm paper). The products can also be based on multiple product components, for example, envelope and content. Printplaza.com also offers the online configuration and estimation of individual formats and print runs.

Generally, this leads to the huge number of possible combinations (more than 160,000 print products). Only a few modules are needed in the background, because more than 1000 product combinations can already be generated from only 20 modules. Modifications to the products (e.g. a new price for a specific paper grade) can be entered easily, and will then apply to all dependent products. Any additional products can easily be made available.

## 2. Price calculation

The price of the configured product is immediately calculated for defined base quantities. Individual quantities can be added and are instantly calculated as well. The prospective buyer then has the option to open a PDF quote with complete fact sheet (product specification). He also receives immediate notification of when the print data must be delivered and when the product will ship. They can define the shipping type based on the calculated weight.



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Product Choice  
Products  
Partner Program  
Open Orders  
Closed Orders  
Company data  
Personal data  
Contact Persons  
Delivery Addresses  
Invoice Addresses  
Payment Options  
Why Print Plaza?  
FAQ  
Downloads  
Newsletter  
Print Approval  
Statistics  
Ok2Print Printer  
Coupons  
Repository  
Logout

Stitched brochure XL (52-80 Pages)  
Poster  
Poster XXL  
Glued Brochure (48-112 Pages)  
Glued Brochure XL (120-176 Pages)

| Size                     | Pages   | Colours     | Paper                                     | Bookbinding | Finishing | Refinement |
|--------------------------|---------|-------------|---|-------------|-----------|------------|
| DIN B1 (100 x 70 cm)     | 2 Pages | 4/0-colored | 115 g/m <sup>2</sup> Affichen (Blue Back) | Cutting     | none      | none       |
| DIN A0 (118.9 x 84.1 cm) |         | 4/4         | 115 g/m <sup>2</sup> Art Paper matt       |             |           |            |
| DIN A1 (84.1 x 59.4 cm)  |         |             | 115 g/m <sup>2</sup> Art Paper glossy     |             |           |            |
| DIN A2 (59.4 x 42 cm)    |         |             | 150 g/m <sup>2</sup> Art Paper matt       |             |           |            |
| DIN A3 (42 x 29.7 cm)    |         |             | 150 g/m <sup>2</sup> Art Paper glossy     |             |           |            |
| Custom Format            |         |             |   |             |           |            |

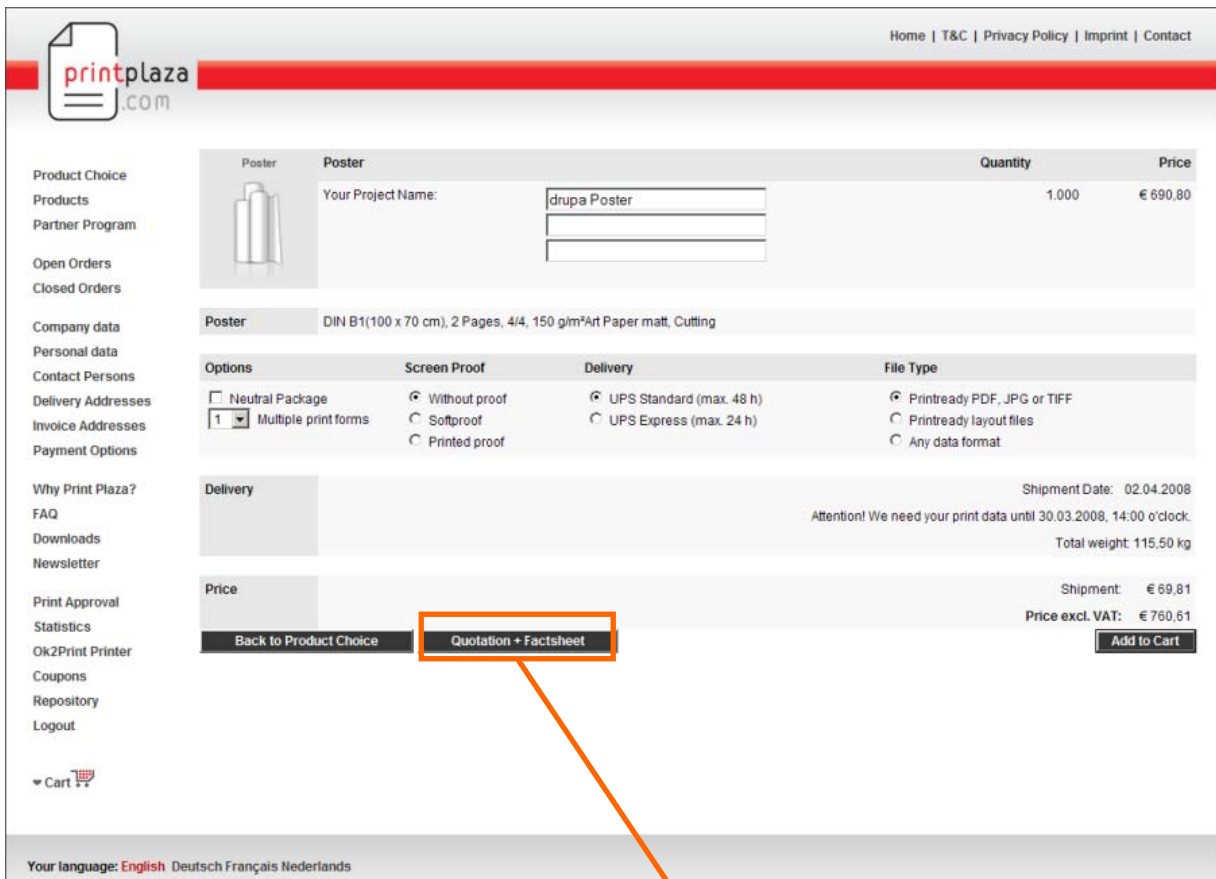
100 Pcs. € 509,43  
1.000 Pcs. € 690,80  
2.500 Pcs. € 1.003,58  
10.000 Pcs. € 2.549,29  
25.000 Pcs. € 5.647,38  
100.000 Pcs. € 21.139,62  
150.000 Pcs. € 31.877,88

\*All prices excl. VAT + excl. delivery costs (these will be individually estimated and presented before ordering)

Cart

Your language: English Deutsch Français Nederlands


Illustration: Screenshot from [www.printplaza.com](http://www.printplaza.com). Product configuration, example: “Poster”). The product is generated as a compound of different modules (DIN B1 format, 2 pages, 4/4 color, 150g/sqm Art Paper matt, cutting, no finishing, no refinement) which are set up as components in the background. The price feedback (selling price) is immediately generated, graduated according to circulation.



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Product Choice  
Products  
Partner Program  
Open Orders  
Closed Orders  
Company data  
Personal data  
Contact Persons  
Delivery Addresses  
Invoice Addresses  
Payment Options  
Why Print Plaza?  
FAQ  
Downloads  
Newsletter  
Print Approval  
Statistics  
Ok2Print Printer  
Coupons  
Repository  
Logout  
Cart

| Poster  | Poster   | Quantity | Price    |
|---|--|----------|----------|
|  | Your Project Name: <input type="text" value="drupa Poster"/> | 1.000    | € 690,80 |

Poster: DIN B1(100 x 70 cm), 2 Pages, 4/4, 150 g/m<sup>2</sup>Art Paper matt, Cutting

| Options                                       | Screen Proof                                   | Delivery  | File Type  |
|---|--|---|--|
| <input type="checkbox"/> Neutral Package      | <input checked="" type="radio"/> Without proof | <input checked="" type="radio"/> UPS Standard (max. 48 h) | <input checked="" type="radio"/> Printready PDF, JPG or TIFF |
| <input type="checkbox"/> Multiple print forms | <input type="radio"/> Softproof                | <input type="radio"/> UPS Express (max. 24 h)             | <input type="radio"/> Printready layout files                |
|   | <input type="radio"/> Printed proof            |   | <input type="radio"/> Any data format                        |

Delivery: Shipment Date: 02.04.2008  
Attention! We need your print data until 30.03.2008, 14:00 o'clock.  
Total weight: 115,50 kg

Price: Shipment: € 69,81  
Price excl. VAT: € 760,61

Buttons: Back to Product Choice, **Quotation + Factsheet**, Add to Cart

Your language: English Deutsch Français Nederlands

Illustration: Screenshot from [www.printplaza.com](http://www.printplaza.com) showing the offer that has been generated by clicking on the selected circulation (here: 1.0000), example: "Poster".



Adobe Acrobat - [1007-102-factsheet-offer(1).pdf]

printplaza .COM

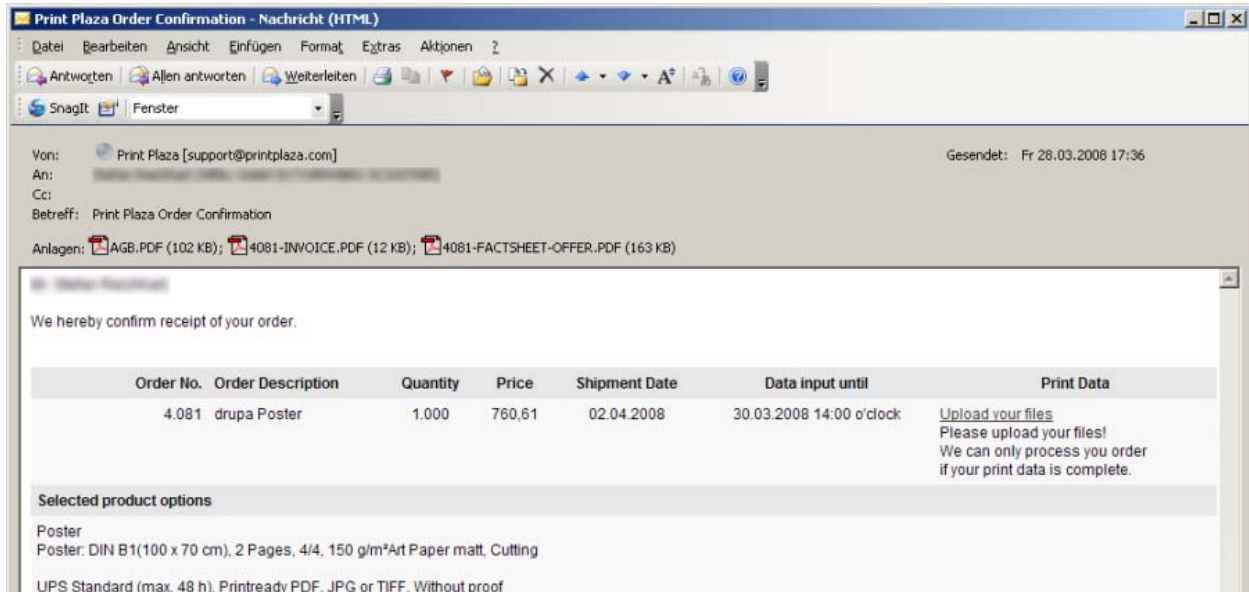
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Germany  
www.printplaza.com  
info@printplaza.com

Illustration: Quotation and Factsheet are available as PDF and can be viewed in Adobe Acrobat.

### 3. Order placement

After product configuration and order generation the customers are then brought to a virtual shopping cart and to the checkout. After the customer has registered or logged in, various payment methods can be selected, including credit card payment. The PCI Certification provides secure payment processing over the Internet. The customer receives the order confirmation and invoice document through an automated e-mail PDF.



*Illustration: Automatically generated email confirmation of order the customer receives after order placement on Printplaza.com. Attached they will find PDF files with the invoice and the factsheet-offer. The email offers a link for the convenient upload of the print data.*

### 4. Print data upload

The customer instantly after order placement sees a “thank-you-for-the-order” screen that gives him the opportunity to start an upload process for his print data. (For the case that he prefers to do the data upload at a later time he also receives an eMail with an upload link.) The upload is done via http protocol and uploaded data is immediately checked using a real-time preflight function. The customer directly receives a notification of whether the data is o.k., contains warnings or errors.

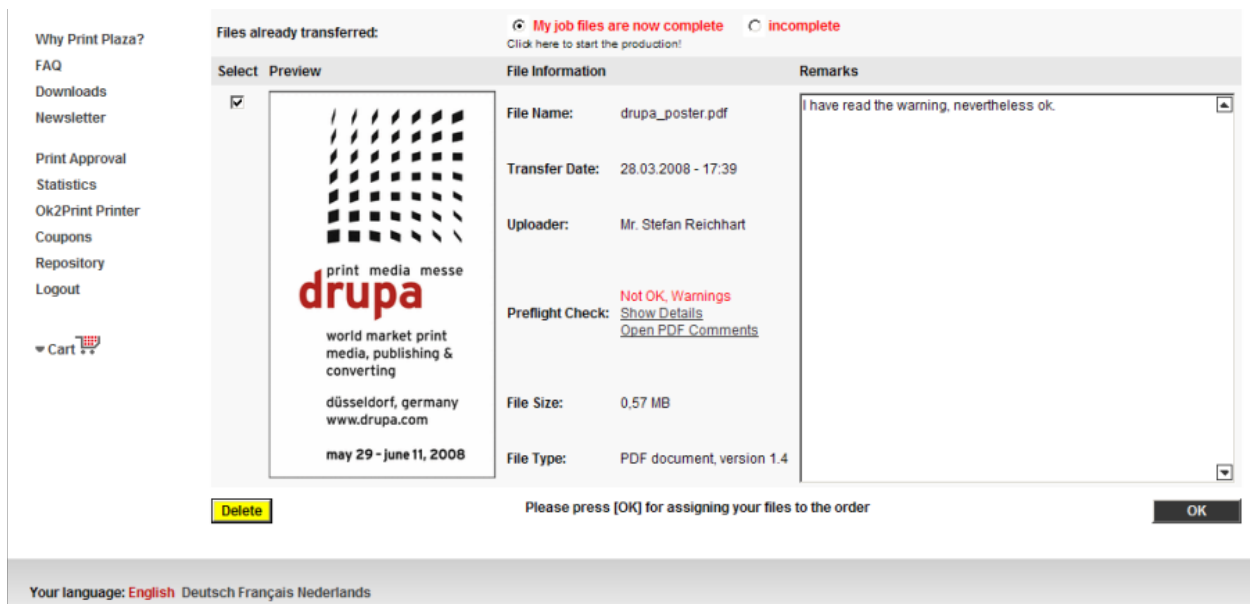


Illustration: Print data upload and preflight on Printplaza.com

### 5. Order allocation to production plant

As soon as the print data was uploaded by the customer the order is allocated to one of the currently five partner printing houses for technical production processing. This automated distribution of jobs is based on product type, print run and/or ZIP code of the delivery address.

|               | Content         | Art Paper matt |     | Art Paper glossy |        | Affichen |        |
|---------------|-----------------|----------------|-----|------------------|--------|----------|--------|
|               |                 | 115            | 150 | 115              | 150    | 115      |        |
| <b>Poster</b> | 100-1000        | A0             | DBM | Kraft            | DBM    | Kraft    | DBM    |
|               | 2500-10000      | A0             | DBM | Kraft            | DBM    | Kraft    | DBM    |
|               | 25000-100000    | A0             | DBM | Kraft            | DBM    | Kraft    | DBM    |
|               | 150000          | A0             | DBM | Kraft            | DBM    | Kraft    | DBM    |
|               | <b>100-1000</b> | <b>70x100</b>  | MGU | <b>MGU</b>       | Kraft  | Kraft    | Tanghe |
|               | 2500-10000      | 70x100         | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 25000-100000    | 70x100         | MGU | MGU              | DBM    | Kraft    | Tanghe |
|               | 150000          | 70x100         | MGU | MGU              | DBM    | Kraft    | Tanghe |
|               | 100-1000        | A1             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 2500-10000      | A1             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 25000-100000    | A1             | MGU | MGU              | DBM    | Kraft    | Tanghe |
|               | 150000          | A1             | MGU | MGU              | DBM    | Kraft    | Tanghe |
|               | 100-1000        | A2             | MGU | MGU              | Tanghe | Tanghe   | Tanghe |
|               | 2500-10000      | A2             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 25000-100000    | A2             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 150000          | A2             | MGU | MGU              | DBM    | Kraft    | Tanghe |
|               | 100-1000        | A3             | MGU | MGU              | Tanghe | Tanghe   | Tanghe |
|               | 2500-10000      | A3             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 25000-100000    | A3             | MGU | MGU              | Kraft  | Kraft    | Tanghe |
|               | 150000          | A3             | MGU | MGU              | DBM    | Kraft    | Tanghe |

Illustration: Overview of product allocation (by use of decision table) as it is configured in the back-end of the webshop, example: “poster”. The allocation is managed according to print run, format and paper (other rules also consider the ZIP code of the delivery address).

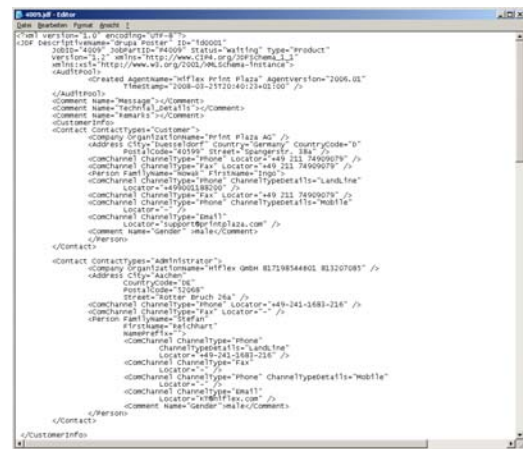
**6. Job forwarding with job ticket in PDF and JDF formats**

Once the decision is made (based on the predefined decision table as described above) in which partner print house the job will be produced the relevant job data is forwarded (via E-Mail or FTP upload) to that particular company:

(1) a one page job ticket in PDF format,



(2) a JDF job ticket,



(3) one or multiple UPS shipping labels (depending on the calculated number of boxes) with valid UPS tracking number (obtained via an UPS network programming interface (API)),



(4) the print content data (via FTP or HTTP download link)



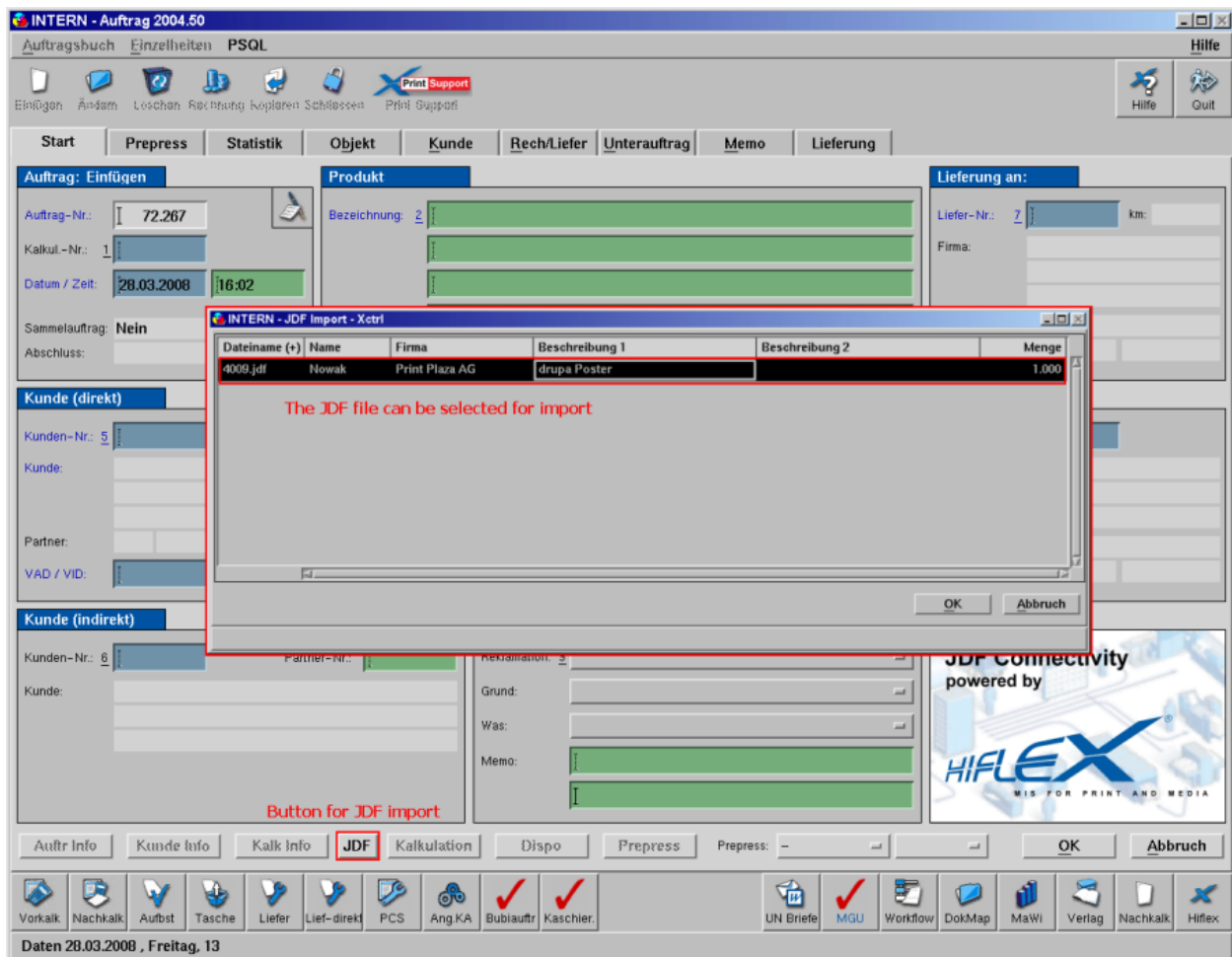
(5) the already created delivery note in PDF format.



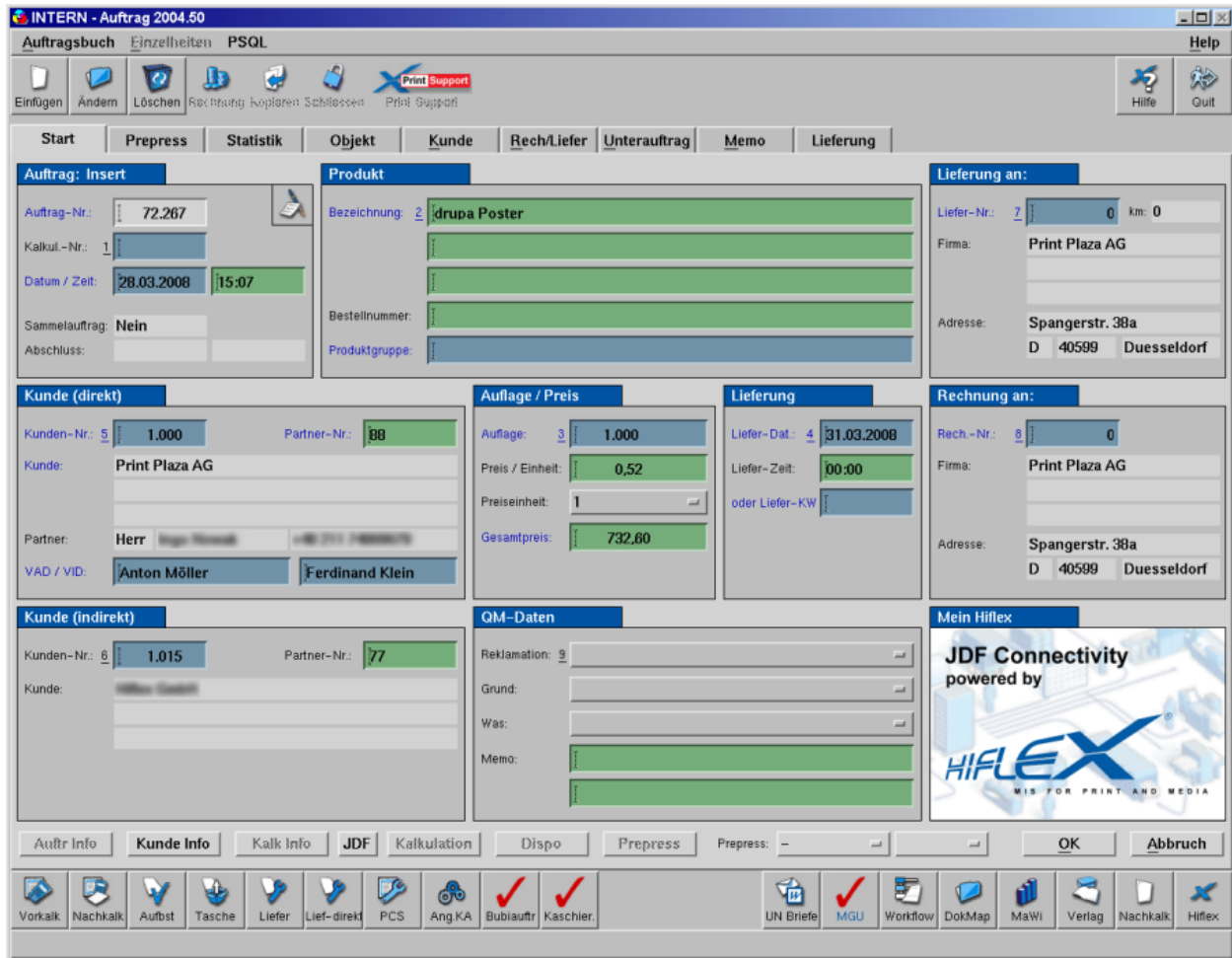
Just for completeness: if at initial order placement the customer decided for a proofing cycle then a special, integrated approval workflow has to be completed before the mentioned job data is send to the production site (we will forgo a detailed illustration of the approval cycle in the Webshop).

### 7. Loading of JDF job ticket to the MIS system of the partner printing house

The JDF job ticket can be loaded to the MIS system of the partner printing house by the click of a “JDF import” button in the Hiflex order book application. All available JDF job tickets are displayed in a file selection window and upon selection a new order is created and the relevant job data is loaded from the JDF file. This data includes: order date, purchase number (order number within Print Plaza’s Webshop system), job title, customer data (ordering customer is always Print Plaza AG), final customer details, delivery address, deliver date, invoice address, quantity and price.



Screenshot of Hiflex MIS showing the JDF import functionality. Click on the button “JDF” opens a window in which the new JDF file is displayed. After selecting the file it is imported into Hiflex MIS.



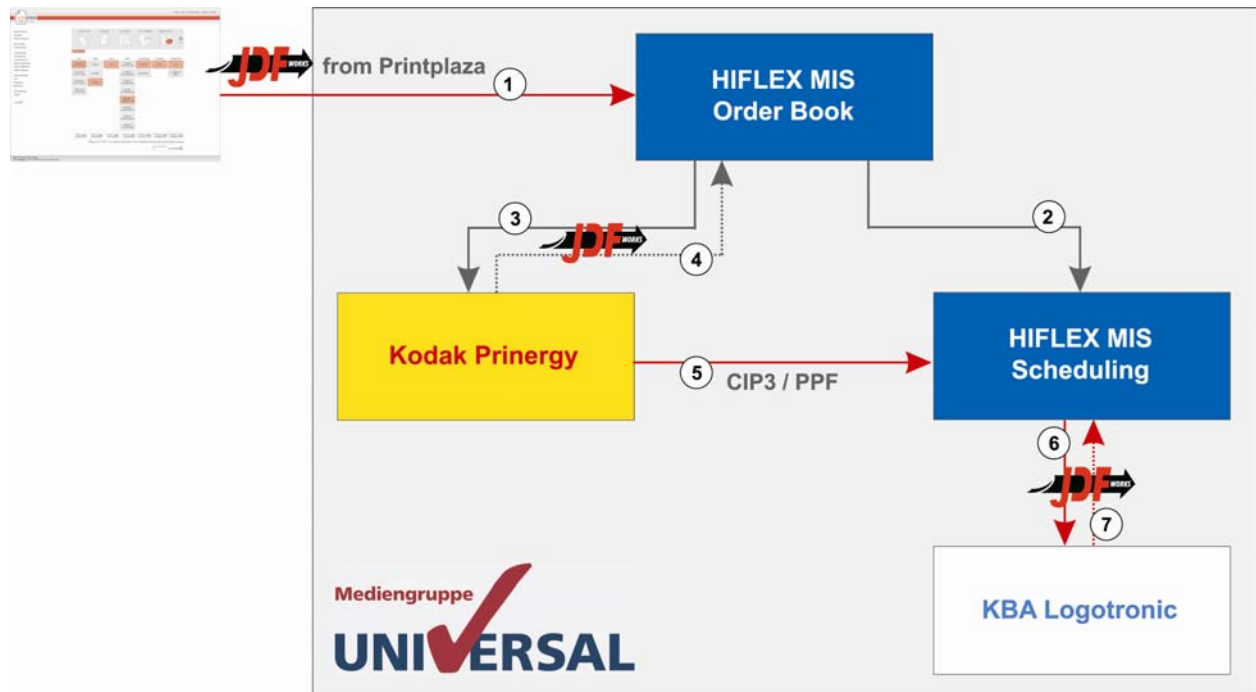
Screenshot of Hiflex MIS showing the Hiflex Order Book after JDF import.

The created order is also the basis for the invoicing process of the partner printing house towards Print Plaza. This ensures that the invoice data is completely in accordance with the job data in Print Plaza's administrative system (the Webshop system).

### 8. Order processing at partner printing houses (using company internal JDF connectivity), example: poster production at Mediengruppe UNIVERSAL

At the partner printing houses technical data relevant for order processing is added within the respective MIS system. Usually, a template estimation containing product imposition and all respective process information on prepress, press and finishing is linked to the JDF created order. In consequence, for instance, at Mediengruppe UNIVERSAL the JDF job data is made available for the subsequent production systems of Kodak and KBA. Firstly, and upon order entry in Hiflex, a job is automatically created in Kodak Prinergy via JDF. Prinergy receives the relevant administrative and technical data. As soon as the job is ready to print, JDF job data is sent to KBA Rapida Logotronic Professional System via JDF. All the networked production systems provide Hiflex with JMF feedback on production.

Overview of JDF Workflow



- (1) JDF job ticket is loaded into the Hiflex MIS at Mediengruppe Universal
- (2) On order entry in Hiflex Order Book the job is automatically available in Hiflex Scheduling
- (3) On order entry in Hiflex Order Book the relevant administrative and technical JDF job data is transferred to Kodak Prinergy via JDF
- (4) Transfer of time and material costs (marked as included, extra chargeable, error etc.) from Prinergy to Hiflex.
- (5) Transfer of PPF color profiles (CIP3 data) from Prinergy to Hiflex where they are interpreted and (later) forwarded to the presses together with the JDF job-ticket.
- (6) As soon as the job is ready to print, JDF job data is sent to KBA Rapida Logotronic Professional System via JDF
- (7) Logotronic provides Hiflex with JMF feedback from production

By the way: the customer can keep track of the order status at all times during the order processing. The statuses 'Waiting for data,' 'Data complete,' 'Data check,' 'Waiting for release,' 'Data released,' 'Production,' and 'Shipment' are seamlessly documented. As soon as the delivery process has begun, the customer can also track the status using Package Tracking (UPS).

### **Section VI. Optional Detail** — Please provide at least one of the following:

- **ROI** — Please provide a quantitative analysis of the hard and soft ROI factors expected and realized, to include breakeven analysis, IRR or NPV determination of hard factors and testimonial evidence from users or customers as to the realization of soft benefits.
- **Improvement in Quality and Customer Service** — Please provide quantitative evidence of improvements in product quality, production feedback and analysis, and quality control as well as data and/or testimonials providing evidence of improved customer service, which may include improved delivery times, fewer errors in production or communications, better customer communications and production reporting and so forth.
- **Innovation** — Please Provide a description of the innovative aspect of the process and an argument for why this is unique and new, with a comparison to traditional alternatives and a description of the primary benefit the innovative aspect of the new process.

**The usage of JDF job tickets as described in this application is most innovative: it led to the realization of a completely new business concept.** Five independent companies, without any shares to one another (thus all working internally with JDF networked production systems) are providing their printing services to one marketing Webshop. They all have their core competences and provide their expertise which leads to an unparallel product portfolio offered within the Webshop.

The JDF networked companies can work very efficient not only because they can concentrate on their core competence of production but also because the geographical allocation of the partner printing houses throughout Germany and the Benelux accommodates the fact that customers of a Webshop also have a geographically wide spread.

JDF built the ground for establishing a kind of “virtual company”, a network of collaboration where very high flexibility, synergy effects and advantages in competition are generated. With the help of JDF technology the information and communication infrastructure was established to overcome the obstructive borders of time and distance.

JDF data originally generated by the web2print application is made available in the administrative system (Hiflex MIS). Hiflex MIS transfers JDF data to the integrated subsequent systems and receives feedback from production in the course of the production process.

**It is the first time that JDF technology meets web2print in an implementation.**