First Place Winner
2007 Jürgen Schönhut Memorial CIPPI Award
Most Innovative use of Process Automation Technology in an Implementation
Druckhaus Berlin-Mitte GmbH, Walter Grieger Offsetdruck OHG & Gutenberg-Werbering Gesellschaft m.b.H.

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

COMPANY PROFILE

Druckhaus Berlin-Mitte GmbH (DBM) was founded in 1992 and is located in the old-established Mosse-Zentrum in the heart of Berlin. We are a modern sheet fed printing house and have a workforce of around 100 employees, who together produce a turnover of about EUR 12.4 Mio (2005). We offer complete printing services, from consultation to finished products, and also cooperate with suppliers for specific tasks.

Prepress is managed with a Kodak Prinergy Workflow System which is linked up to two CTP plate setters and connected to Hiflex MIS via JDF/JMF. The press department features two MAN Roland 700 presses, one MAN Roland 900, a Heidelberg Speedmaster and two KBA Rapida presses (one of them at a remote production location). The MAN Roland and KBA printing presses are equipped with JDF-enabled press controllers (MAN Printnet Pecom and KBA Logotronic Professional) and connected to Hiflex MIS via JDF/JMF. In finishing, DBM has a variety of folding machines, mailing machines, a gang-stitcher, and a perfect binding line.

DMB is certificated „Environmental-Management-System according to ISO 4001:2004“, “Quality-Management-System according to ISO 9001:2000“, and “Certified Environmental Management according to EMAS II“.

WORKFLOW ENVIRONMENT AND CONDITIONS PRIOR TO THE IMPLEMENTATION

We have been using JDF technology since 2003 and implemented the world’s first JDF workflow to work in live conditions, thus ushering in a new era of JDF connectivity. At that time our JDF implementation started with Hiflex and MAN Roland. In the meantime the Kodak Prinergy Prepress Workflow and the KBA printing presses are also fully integrated into the JDF network. The integration of our bindery equipment (cutter and saddle stitcher) is in project status and will go live soon.

As JDF pioneers, we strove at pushing the limits of automation technology. By this, we achieved the ability to work with an advanced JDF workflow by which we increased sold productivity by at least 20%.
Our internal production processes are fully integrated (with bindery soon to come). One of our integrated KBA printing presses is located at a remote customer site 30 km apart from DBM. Moreover, automation technology enables elaborate paper management by which we order the paper just-in-time. This allowed us to remove our paper stock handling.

Whereas plant-wide standardizing and internal automation/communication processes are highly developed at DBM, we lacked a consistent workflow in the field of print procurement – whether this involved external communication processes with print buyers who order products or those with our suppliers of external work (were we acted as purchasers).

We observed that the process of purchasing print and media services was demanding and time consuming, as there was no adequate automation tool on the market which supported the many arduous steps that are required to get print orders to the printer or supplier and which provides a better and more cost effective way to communicate with printers or suppliers and to place orders. Very often, RFQs (request for quote) we received were not structured identically and did not offer all necessary information in a clear and concise manner. So when evaluating quotes from our suppliers, we at times, felt we were comparing apples to oranges. Additionally, tracking of placed orders and monitoring of deadlines did not follow any concise path due to any automated workflow.

We felt that the print purchasing workflow and our external communication processes were due to be integrated in the existing elaborate automated workflow we are working with internally. This should save us time, money and nerves and heighten communications and productivity to the ultimate, possible levels.

THE CONDITIONS PRIOR TO THE IMPLEMENTATION IN DETAIL

Prior to the implementation of the innovation our print procurement workflow processes were not automated. In consequence, many steps of non-structured written communication and multiple data input of identical data were involved.

- Requests for quote (RFQ):
  - We received RFQs from print buyers by email, mail or fax. Our order clerk read the document and typed customer data (e.g. customer name, address, contact person, deadlines etc.) and technical specifications (e.g. product type, format, colors, paper, type of postpress process, etc.) into Hiflex MIS in order to generate a quote.
  - The quote was either emailed, faxed from the Hiflex system or it was printed out and mailed to the print buyer.
  - When we needed to order external services (e.g. in the area of postpress or printing services), we generated an RFQ that included product specifications and technical parameters. Usually, this involved sending RFQs to at least two or three of our suppliers in order to receive alternative quotes. All personalized versions were generated separately and then sent by email, mail or fax to the suppliers.
  - When our suppliers received our RFQ for external work they again had to enter customer data (e.g. customer name, address, contact person, deadlines etc.) and technical specifications (e.g. product type, format, colors, paper, type of postpress process, etc.) into their administrative system in order to generate the quote (which was then emailed, faxed, mailed back to us…..)
Most innovative use of process automation technology in an implementation

- Research for suppliers: via internet or recommendations. Time was spent on investigation and on phone calls whether a certain service was offered or not.
- Quote responses were received by email, mail or fax and had to be processed individually. There was neither a standard nor a tool that would automatically compare the quotes against each other.
- Any supplementary info (e.g. subsequent queries, additional remarks, entering into negotiations) were also not handled in a standardized manner. Communication with the appropriate supplier was managed either by email or phone calls. All info, remarks, etc. had to be managed. This rendered tracking and evaluation of supplementary info an effortful process (time and cost consuming).
- When evaluating the quotes, we at times felt we were comparing apples to oranges, as the quotes we received from different suppliers were never structured identically. Due to individual habits of writing quotes it happened that we were not offered all necessary information in a clear and concise manner. Again, this rendered the evaluation process effortful (time and cost consuming).
- We placed and received orders by email, mail or fax.
- Rejections of quotes were communicated - if time allowed it at all – via phone calls or email. This involved an operator’s time and effort.
- Communication happened in an asynchronous manner. Due to the non-automated external communication processes (in the way as they are provided e.g. by automated email confirmations) there was no certainty whether (and when) documents had been received or not. This situation resulted in unhandy planning possibilities.

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:

Regarding JDF many case studies have proven the business boosting effects of internal automation processes. These effects are an enhanced transparency and efficiency, and enormous productivity increases of 20% or higher.

At DBM, automation technology based on HiFlex MIS and JDF connectivity to in-house and remote production systems from Kodak, KBA and MAN Roland optimized the processes required to drive printed orders most efficiently through our printing plant. Already at an early stage of JDF connectivity, when we connected the MAN Roland presses to our HiFlex MIS, we directly realized a very high increase of productivity which was further improved with the integration of the KBA Rapida presses and Kodak Prinergy.

The practical use of JDF has highly increased our productivity by internal automation processes. For us, the bottleneck for higher productivity was not print production itself. We rather saw a high potential for workflow optimization in the external communication processes with print buyers, print production managers/production coordinators, and suppliers in the area of paper and postpress processes.

We handle about 10,000 requests from print buyers or to suppliers per year. In order to most efficiently get print orders to our suppliers and to realize a better and more cost effective way to communicate with them (negotiate, evaluate diverse quotes, place orders, track orders, etc.) we were looking for an adequate solution. This should lead to an optimized interface between all parties involved into the print procurement process.
It was important for us that a new tool would not be an auction tool or competitive bidding platform. It also should not redesign the traditional process of print procurement but should provide a highly developed tool to organize it most efficiently.

Our precise goal was to cut time for communication processes that are required until the order is placed by one day.
Section III. Methodology — Please provide a description of the process of selecting a solution, including alternatives and deciding factors:

As we already very efficiently worked with JDF for internal production processes it appeared right for us to also make use of JDF technology for external communication processes. In consequence it was only obvious to discuss such a project with a supplier who had already successfully realized internal JDF projects at DBM.

Taking into consideration that we would rely on a partner with comprehensive JDF know-how, we contacted Hiflex and discussed our goal with them. In the course of a project meeting the idea was born to develop a tool that can be used for automated and JDF-based print procurement processes with suppliers and customers.

We also cross-checked our ideas within the Pegasus Group (www.pegasus-pns.com) an alliance of companies from the graphic arts industry. The goal of Pegasus is to discover new potentials to automate processes and then to economically use the new technologies within the group in a competent and cooperative manner. Pegasus meetings are held 3 times a year at different places and we decided to discuss our ideas at our so-called ‘Pegasus Mountain Meeting 2006’ in Austria. All group members supported us in our ideas, therefore we were pretty sure that we were on the right track.

Members of Pegasus Group are (from left to right): Ingo Nowak (MD of K+N Printing), Thomas Brickwedde (Head of IT at Kraft Printing), Thomas Reichhart (CEO of Hiflex Group), Wilhelm Driessen (Sales Manager and authorized signatory of Grieger Printing), Herbert Preissler (GM of DBM Printing), Patrick Tanghe (MD of Tanghe Printing) and left on the bottom right picture at the table Roland Kastner (MD of Hiflex Streamlining). Not on the picture: Albert Contzen (MD at MGU Printing).
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 development of a JDF-enabled automation tool called ‘Hiflex Print Support’ that connects print purchasers and printers started in 2006 and was led by Thomas Reichhart, Board Chairman of the Hiflex Group.

Most relevant in the course of developing the system was that it had to be accepted as a procurement tool by the print & media industry. It was not meant as a tool that optimizes merely a very specific workflow between a certain group of printers, their customers and suppliers. Moreover, all partners (purchasers and suppliers) involved in any procurement process would truly benefit from using Hiflex Print Support.

To achieve this, the capabilities of Hiflex Print Support were developed and optimized with the close collaboration of experienced industry users from both sides. At the inception of Hiflex Print Support, Hiflex established an advisory board representing the two groups. This board consists of five printers (amongst them DBM) and of five major print buying concerns with a very high level of purchasing power of printing products.

Hiflex Print Support went online in September 2006 in a German language version. The launch of the English version followed in February 2007, additional language versions are soon to come.

The generation of JDF files and the attachment of JDF files to the requests was implemented in early 2007.

The JDF file is attached to each RFQ and order that is sent out via Hiflex Print Support. The JDF file contains administrational data (name of customer, name of product etc.) and product specifications (product type, formats, colors, amount, dates, etc.).

Hiflex Print Support can be integrated into any MIS system. Hiflex itself updated their MIS system with an import function for JDF files in early 2007. Because we are using Hiflex MIS at our company sites we were able to import RFQs via JDF from the early beginning of the project.
Section V. Resulting Workflow/Processes — A description of the resulting workflow, including any applicable workflow or process diagrams.

WORKFLOW ENVIRONMENT AND CONDITIONS AFTER THE IMPLEMENTATION

Today we use the newly developed JDF-enabled and web-based procurement tool Hiflex Print Support. The portal highly optimizes our business/communication processes for print selling and print purchasing as it eases both our handling of quotes and the purchasers’ effort to generate RFQs. Hiflex Print Support efficiently connects us to our customers / print product purchasers and our suppliers. We are brought together into a single internet platform for the purposes of requesting quotations, ordering and managing print & media jobs. Standard communication processes are automated, and job data is transferred via email including JDF attachment. As customers / purchasers receive JDF via Print Support now, the JDF workflow, therefore, has been expanded to external communication processes.

JDF files contain customer and job data and can easily be integrated into any MIS, in our case Hiflex MIS. Vice versa, quote and order data, and our supplier list can be imported from Hiflex MIS into Hiflex Print Support.

Today, we are externally networked to print purchasers and suppliers via Hiflex Print Support. The number of partners with whom we are connected via Print Support is steadily increasing. In the following section we will describe the resulting Hiflex Print Support workflow using the example of a typical print procurement process as it often occurs at DBM. This print procurement process involves three companies:

Druckhaus Berlin-Mitte (Berlin, Germany) are requested a quote for poster productions by Gutenberg-Werbering Gesellschaft m.B. H. (Linz, Austria). Gutenberg is the print buyer. Their RFQ contains two versions of the poster: (1) “Poster version 1” on 115 g/qm illustration printing paper and (2) “Poster version 2” on 500 g/qm GD2. Both are requested for different amounts (650 / 800 posters). “Poster version 2” involves carton printing, a service that we usually buy as external work from the packaging specialist Walter Grieger Offsetdruck OHG (Nettetal, Germany). Consequently, we request a quote from Grieger (i.e. for “Poster version 2” of Gutenberg’s RFQ). Grieger’s quote will be incorporated into DBM’s full version of the quote to Gutenberg.
Gutenberg-Werbering Gesellschaft m.B.H. (Gutenberg) is located in Linz, Austria. Founded in 1910 Gutenberg is a publishing company, who manages and rents billboards in Austria. Gutenberg is also having an in-house offset printing company with 90 employees.

Walter Grieger Offsetdruck OHG (Grieger), founded in 1973, is a family-run sheet fed offset printer located in Nettetal (Germany) near the Dutch border. Grieger is ISO 9001:2000 certified and keeps around 100 employees on 8,000 m² busy. The company is specialized on packaging printing (large format printing) and on the complete production of high-quality displays.

In prepress an Artwork ArtPro System exposes the plates for the offset printing presses. These are four KBA Rapida presses: one 5-color and one 6-color Rapida 162a, one Rapida 142 (5-color), and one 18,000er Rapida 105 (6-color). They are equipped for carton printing and have varnishing (coating) units. All machines have color and density measuring systems and are connected CIP4 conform to Hiflex MIS on basis of JDF/JMF.

Among Grieger’s customers there are branded companies as well as printing companies that order external work in the area of large format or packaging printing.

THE RESULTING WORKFLOW AFTER THE IMPLEMENTATION IN DETAIL

(Compare Illustration on the following page. Details / explanations follow after the illustration)
Illustration of the Print Purchasing Workflow after the implementation of the innovation (numbers are explained in the text).

Blue: requesting for quotes process, green: ordering process.
1. We receive RFQs via the web platform Hiflex Print Support. This portal eased both our handling of quotes and the purchasers’ effort to generate RFQs. When Gutenberg today requests a quote for external work from us, this involves the following steps:

   a. Registration/login into Print Support System (one time)
   
   b. Definition of the print job by "Basic data" (title, product type, etc.), "Detail data" (print runs and deadlines) and "Technical specification". Technical specifications can be entered manually, by copy & paste or alternatively by making use of a Print Support internal database with specifications for printing and finishing which can be applied as a template. Moreover, Gutenberg can, as any user of Print Support, extend their own database for technical specifications.
   
   c. Based on the requirements (product type) and on Gutenberg’s individual supplier database, which each user of Print Support builds up according to their requirements, Print Support automatically suggests suitable suppliers for the job. They can then choose which suppliers receive the request or whether they are interested in further vendors. In the later case, Print Support provides easy access to all known information about the capabilities of all the suppliers.

   Screenshot of Hiflex Print Support: Technical specifications that are essential for requests can be entered manually or transferred by copy & paste. Hiflex Print Support also contains an extensive database with specifications for print products. These can be imported as templates into the request. The screenshot shows the import of a template for a poster.
After the print job has been defined, Gutenberg sends the RFQ to the selected suppliers (DBM and maybe also to other potential suppliers) at the push of a button. They can attach any documents such as a preview of the printing file, for example. The system automatically generates an email request with JDF attachment. This JDF-file contains the administrative and technical job data. We receive Gutenberg’s RFQ by email (plus JDF attachment). The RFQ-email provides two links which were automatically generated from Print Support when Gutenberg sent out the request. Both links directly lead us to the Hiflex Print Support System. (Click on link 1 to enter quote into web platform, click on link 2 for cancellation.)

Screenshot of the email RFQ from Gutenberg (including JDF attachment) as transmitted to DBM via the Print Support Portal. The request includes two versions of a poster: “Version 1” on 115 g/qm illustration paper and “Version 2” on 500 g/qm GD2 paper. The data from the JDF file can be imported into our Hiflex MIS so that we have the relevant data for the estimate with minimized manual input. We can click on ‘Link 1’ to enter quote into web platform or click on ‘Link 2’ for cancellation.
3. The JDF attachment to the RFQ is imported into our Management Information System (Hiflex MIS), so that with minimized manual data entry the job data is directly available in Hiflex MIS. Gutenberg’s RFQ for the production of the poster contains requests for two poster versions which differ from each other with respect to the paper. Our quote will provide offers for both versions.

Screenshot of Hiflex MIS – JDF import functionality: When pressing the ‘JDF Import’ button, the window containing new ‘JDF RFQs’ is shown. After selecting one of the displayed lines (JDF files) the data is imported into Hiflex MIS.

4. Poster “Version 1” of Gutenberg’s RFQ can be calculated in our Hiflex MIS.
5. Poster “Version 2” of Gutenberg’s RFQ is exported to Hiflex Print Support.
6. The Job information for “Poster version 2” is automatically generated in Hiflex Print Support.

Screenshot of Hiflex Print Support – RFQ import functionality: The job information which is taken from MIS system on-the-fly was inserted into Hiflex Print Support database and can be checked and edited there.
7. After the print job ("poster version 2") has been exported and checked in Print Support, we send the request to our supplier Grieger at the push of a button. The system automatically generates an email-request with JDF attachment. This JDF-file contains the administrational and technical job data. Again, the RFQ-email provides automatically generated links: ‘Link 1’ for entering the actual quote into Print Support and a ‘Link 2’ by which the RFQ can be rejected by Grieger.

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<tr>
<th>From:</th>
<th>Mr. Henry Witzhoft</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>c/o Druckhaus Berlin-Mitte GmbH, Schützenstraße 18, Berlin, 10117, D</td>
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<td>To:</td>
<td>Mr. Wilhelm Driessen</td>
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<td></td>
<td>c/o Walter Grieger Offsetdruck OHG, Südliche Wambacher Straße 10, Nettetal-Kaldenkirchen, 41334, D</td>
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<td>Subject:</td>
<td>RFQ: Plakat A0 (P10164)</td>
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<tr>
<td>Attachments:</td>
<td>1. Request_P10164.jdf (JDF file: About JDF)</td>
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<td>JDF Attachment</td>
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<tr>
<td>Message:</td>
<td>Dear Mr. Driessen,</td>
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<td></td>
<td>Sehr geehrte Damen und Herren, bitte erstellen Sie uns ein Angebot für das nachstehende Objekt. Soweit Sie diesbezüglich Fragen haben, bitte Sie hiermit um zeitnahe Kontaktaufnahme. Ich werde Ihre Fragen gerne beantworten.</td>
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<td></td>
<td>Please submit your offer via the following link: Offer: 'Plakat A0 (P10164)' submit. If you do not wish to submit an offer please inform us briefly via this link.</td>
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<td></td>
<td>Mit freundlichen Grüßen</td>
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<td></td>
<td>Henry Witzhoft</td>
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<td>Vertriebsleiter</td>
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<td></td>
<td>Tel: 030 / 20 353 212</td>
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<tr>
<td>Job name:</td>
<td>Plakat A0 (P10164)</td>
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<tr>
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</table>

Screenshot of the eMail RFQ only for “Poster version 2” from DBM (including JDF attachment) as transmitted to Grieger via the Print Support Portal. Grieger can directly import the attached JDF data into their Hiflex MIS and estimate without further manual input of customer data or job specifications. Grieger can click on ‘Link 1’ to enter quote into web platform or click on ‘Link 2’ for cancellation.
8. Grieger receives our RFQ via Print Support (email + JDF). The JDF file contains customer data and the product specification. When Grieger imports the JDF data into their Management Information System (HiFlex MIS) they have important data for the quote available in the HiFlex MIS with minimized manual input.

9. After importing the product specifications into HiFlex Estimate, the quote for poster version 2 can be generated in HiFlex MIS for both amounts. This requires only minimum input in the HiFlex Estimate application.

10. Grieger then sends quote of version 2 via Print Support to DBM. Grieger therefore uses the link that is provided in DBM’s RFQ-email and which directly brings them to Print Support. The prices for both print runs, which were automatically calculated in HiFlex, are then transcribed into Print Support. As soon as the quote is entered by Grieger, we automatically receive an email that Grieger has conveyed the quote. The email contains the following details: Number and title of RFQ, the person and company that required the quote, total price / price per piece / prize per 1000 pieces for each print run. Moreover, any comments that have been added.

![Screenshot of the ‘Quote Submission Screen’ in HiFlex Print Support Portal. Besides inserting prices the supplier can also give feedback via the comment field.](image-url)
11. We can now mix the price of version 2 as received from Grieger via Print Support and the price of version 1 into one quote. The full version quote – containing version 1 and version 2 of the poster – is managed in Hiflex MIS.

12. We can now send the full version quote to Print Support (using the provided link in Gutenberg’s RFQ-email) the quote flows into Print Support where it is displayed in the execution workflow (see next step). Print Support automatically generates a) an email to Gutenberg that contains the estimate and b) an acknowledgment email to DBM (supplier) about the quote receipt by Gutenberg.

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**Screenshot of acknowledgment email:** This email was automatically generated in Print Support when DBM’s quote for version 1 was conveyed. The email contains the details of the quote (number RFQ, product name, requesting company, contact person, total prize / prize per exemplar / prize per 1000 copies for each print run, and comments.
All quotes are received online. The responses are displayed highly structured in the execution (workflow) overview, whereas the system automatically highlights which supplier offers the best price and for which quantity.

Sample Screenshot (different job) from “Execution (Workflow)” in Print Support: Buyers now have the possibility to see at a glance the total price, including price per unit and per thousand and for each print run as well as the price for additional (unit) quantities.

13. By pushing a link in the “Execution (Workflow)” overview Gutenberg sends the order to the selected supplier. As they assign the complete poster job to us (DBM), we receive the order for the full version (i.e. both versions of poster, 800 copies) by an email that was automatically generated in Print Support. This order includes also a JDF attachment with the order information.

14. We convert the quote into an order in Hiflex MIS and the estimate evolves into a live job in Hiflex MIS. If we got this order without a quote (e.g. contract based job) we could use the attached JDF file to create the order in Hiflex MIS on-the-fly.
15. We can now make the JDF job data (originally received as JDF attachment generated by the print buyer via Hiflex Print Support!) available for the subsequent production systems. Firstly, and upon order entry in Hiflex, a job is automatically created in Kodak Prinergy via JDF. Prinergy receives the relevant administrational and technical data. As soon as the job is ready to print, JDF job data is sent to our MAN Roland Printnet System via JDF. All the networked production systems provide Hiflex with JMF feedback on production.

Screenshots of our internal JDF workflow managed by Hiflex MIS, Kodak Prinergy and MAN Roland Printnet (Pecom). Besides these systems our KBA presses are also fully integrated into our JDF workflow.

16. On purchase order reception from Gutenberg we can purchase the “Poster version 2” from Grieger via Print Support. As we received Grieger’s quote via Print Support, we can use the link provided in the “Execution (Workflow)” overview that was built up for our “Poster version 2”-RFQ. A push of a link in the overview is all we have to do in order to get the order to Grieger.

Screenshot from “Execution (Workflow)” in Print Support. DBM clicks on the link ‘Order (binding)’. This will create a purchase order for Grieger of Poster Version 2, 800 copies (selected quantity).
17. Grieger receives our purchase order by email that was generated in Print Support. The email contains a JDF attachment with the administrational data and job specifications. On order reception Grieger can now convert the estimate into a live job in their Hiflex MIS. They can also import the JDF file with order details into their MIS system.

18. As soon as the posters (version 2) can be printed at Grieger, the scheduler can send JDF data from the Hiflex Scheduling application to KBA Logotronic professional System via JDF. The JDF file contains customer data and job specifications as conveyed by Print Support. The information which is sent via JDF to the KBA presses at Grieger (subcontractor of DBM) was originally received as JDF attachment generated by the print buyer Gutenberg!

Due to automating communication processes in the procurement process we today save time and effort and reached the aim to cut time for communication processes that are required until the order is placed. We receive quotes from our subcontractor at least one day earlier than before.

As all the correspondences will be recorded with each of your individual print & media jobs we today have a perfect overview over our procurement processes. And because all quotes and cancellations are automatically structured in an overview (“Execution (Workflow)”) – one workflow overview per requested job - we are making “apples to apples” comparisons for each quote today.

In general, we profit from simple and easy communications capabilities, such as individual queries, sending changes or updates, tracking deadlines, sending reminders as well as receiving structured offers. Since the emails for RFQ and purchase orders which we receive via Print Support have a JDF attachment with relevant job data that we can easily import into our Management Information System (Hiflex MIS), this saves us from re-keying data that has already been entered by anybody before.
Most innovative use of process automation technology in an implementation

Section VI. Details for most innovative use of process automation technology in an implementation — 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 innovative aspect of the process automation technology that is the subject of this application is the fact, that the Job Definition Format “JDF” was transported beyond the boundaries of internal production processes. Print Buyers, printers and subcontractors were integrated via a cross-company JDF workflow which covers the entire graphic arts industry.

This innovation provides a JDF-enabled, web-based automation tool that supports important aspects of print procurement. The innovation made the integration of print buyers and suppliers into the JDF workflow possible. The JDF network as it is realized through Hiflex Print Support connects all partners of the procurement process (which are print buyers, printers, and the printer’s suppliers) within a single platform.

Automated communication processes by email naturally include JDF attachments with the relevant job data (customer data and job specifications). This largely contributes to the dissemination of JDF as an industry standard designed to simplify information exchange between different applications and systems in and around the graphic arts industry. As more and more users register with Print Support and handle their procurement processes via the platform, JDF technology will experience a further boost within the graphic production industry. This has the potential of a snowball effect which ideally supports and propagates the JDF format.

Our contribution was the initiation of the development of an open Web-Tool (Hiflex Print Support) that can be used by anybody involved into the graphic industry and minimizes the efforts and costs of transactions between the print buyers, their vendors and the many related suppliers.

To reach this goal, the capabilities of Hiflex Print Support were developed and optimized with the close collaboration of experienced industry users from both sides, the buyers and suppliers, so that both partners can truly benefit from using the procurement tool. This was crucial for Hiflex Print Support to be accepted as a procurement tool by the print & media industry.

The acceptance of Print Support is truly reflected in the following figures:

1. Since product launch in September 2006, the number of registered users is increasing every day. Today hundreds of print buyers, printers and subcontractors are registered at Hiflex Print Support.

2. To date print and media purchasers with a total buying power of more than 950 million US Dollar have registered and are using Hiflex Print Support.

3. Requests for the implementation of JDF-import into MIS system are increasing strongly all across the industry.
This rapid acceptance speaks in great favour of the new Hiflex Print Support System and to the future success of these types of products as well. It proves that optimizing communication processes in the graphic arts industry based on JDF technology leads to clear efficiency enhancements and has a great future.

The clear benefit for print buyers, printers and subcontractors using web-based Hiflex Print Support lay within the use of the internet and e-mail (+ JDF attachment) in conjunction with Hiflex Print Support. The use of JDF technology is saving significant amounts of money and time as requests and quotations are communicated in an extremely efficient manner.

Almost as a side-effect, JDF has now been introduced to print buyers as well and will become established as a means of streamlining communication processes within the entire graphic arts industry.