JDF: Don’t get Duped!
By James E. Harvey, Executive Director of CIP4 Organization.

The printing industry has been working towards process automation since 1995, and now with JDF we’ve reached the consensus among vendors and users on a single common standard upon which we can build process automation. Not only were there a surprising number of JDF-enabled product introductions at drupa 2004, but there were many demonstrations of interoperability between multiple vendors, including several whom had never publicly worked with each other prior to drupa. JDF is now available and JDF works.

Now, there are naysayers out there, and that’s alright by me. I believe that exuberance and optimism need to be balanced by a healthy dose of pessimism. It is the pessimists who inspire us to double check our work, challenge our assumptions, and who point out things that we’ve overlooked. Its part of the everyday Zen of progress, development, and discovery, and I for one do not believe in building expectations up beyond what is currently possible.

I’ve always been open to pessimists who take time to educate themselves. My friend Bill Ray of Group InfoTech inspired me to clarify the roll of databases in JDF-workflows within JDF 1.1 and CIP4 Working Groups have eliminated hundreds ambiguities and possible misinterpretations in JDF 1.2, answering Bill’s call for more rigorous engineering. My friend Bill Lamparter of PrintCom Consulting has continually challenged CIP4 to provide clarity to the average printer. His many criticisms and suggestions have inspired new training and communications programs that are now available and others that are still in development. These guys are not JDF flag waivers, but they took the time to get some education on the subject and engaged CIP4 or CIP4 members and representatives with thoughts, ideas, and criticisms that CIP4 may not necessarily have discovered in a timely manner on its own (see Zen comment above.)

Pessimists who are neither educated on the topic nor engaged in any productive manner are what irk me to no end. They spread untruths around and scare printers and prepress service providers away from real opportunities, and to what end?

One such person is Frank Romano of RIT. It is very disappointing that he was an educator, and is still associated with, one of our industry’s most prominent and respected schools, yet he is spreading unfounded hearsay around that reflects badly on him, and by association RIT. The number of untruths about JDF spread by Frank is astounding. Here’s a few:


Untruth: “JDF and CIP4/CIP4 use PDF as a way of carrying a job and all its information to the printing process, …”

Truth: JDF is not carried in PDF (come on Frank, at least open the book!) JDF, (which is XML) can move with content using MIME encoding as defined in the JDF specification or can be exchanged by itself.

Untruth: “… but that can only work if the printing press, the cutting machine and the binding machine each know how to use the data.”
Truth: There are several methods of incorporating legacy systems into JDF workflows. For instance, both Heidelberg and MAN Roland provide bridging software that enables their older proprietary-language automated press systems to participate fully in JDF workflows. Several companies provide JDF controllers that can take JMF commands and JDF from a workflow or MIS system and broker it out to the appropriate device. For instance, bielomatik’s BoD Server acts as a postpress departmental server. It will pass JMF and JDF along to those devices that understand it or provide data in bielomatik’s own language for its legacy devices. You can even deal with off-line devices by providing data to a computer or keypad system for use by the operator. Once the job is done, the operator can respond with information like, time done, final count, waste numbers, etc.

Untruth: “Very few printers have the equipment to do a JDF workflow, and would need to upgrade all of their equipment.”

Truth: Nobody is suggesting that the only way to implement JDF is to replace or upgrade everything in the plant. In fact, of the 100 or so pioneering printers and prepress services that we are aware of, not one has implemented end-to-end JDF … and yet, so far we’ve not heard any negative case-studies or ROI experiences. What are they doing? Well, as CIP4 suggests, these printers have looked at their environment to identify bottlenecks, sources of errors or miscommunication, and where capital replacement is scheduled and have put a limited JDF implementation into place; perhaps the front-end exchange with customers, or prepress, pressroom, or postpress. With some JDF experience in hand, these printers then have a place to expand from and over time they may achieve enterprise-wide JDF-enabled process automation.


Untruth: “Because of limited personnel savings, we are told that the savings will be in time.” And “At present, there is no ROI for JDF--just a promise…”

Truth: Scott R. Borhauer, Central Imaging Manager at Brown Printing Company, reported at Vue/Point this year that he was able to trim 120 positions from a prepress operation of about 360 people as a result of implementing JDF. Other printers, large and small, have reported different results depending on the nature of their implementation, but uniformly the results are very positive and not “limited.” A 2002 study by Profectus showed that a printer averaging about $10 million a year in revenue would increase their net by a low of $1.2 million (conservative) to a high of $5 million (liberal) over the course of five years as a result of implanting process automation. Frank himself is inconsistent. He says in the article that “CTP mandated automated workflows, and this cut labor and increased productivity” and that was only a very limited example of process automation at work.

Untruth: “Where will JDF-enabled workflows provide a clear benefit? We already have automated systems at the press.. At the cutter as well. Soon, there will be more automation in the bindery.”

Truth: Admittedly, process automation and Computer Integrated Manufacturing (CIM) are not new to the printing industry. JDF simply brings the cost of process automation down so that it is affordable to, and achievable by, the majority of printers. Gone is the
high cost of training, maintenance, custom programming, and custom integration required to get various automated but proprietary systems to work together.

Untruth: “Total automation may also have a downside. Customers would be in control. Lights-out automation also brings every printer to the save level and does not provide the differentiation in service that allows value-added pricing.”

Truth: Has automation in the automotive industry has led to a lack of differentiation? Is your Chrysler Prowler or Ford Expedition a comparable substitute for my Chevy Ventura? (Want to trade?) Automation doesn’t mean standard workflows, standard processes, or standard products … that’s just ridiculous. And do customers provide enough job data and instructions to run processes on your shop floor? No! JDF isn’t providing customers with the ability to drive a printing plant like they do a desktop printer. It is allowing them to provide input that can be used directly, and that can lead to things like faster payment of bills that have a direct relationship (and documentation trail) to customer specifications and approvals.

Untruth: “We have a long way to go, especially when one considers that many printing plants have equipment from multiple vendors.”

Truth: Frank goes on to provide a some supporting statistics showing that most printers live in a multi-vendor environment and what is implied is that JDF only works today if you stick to one vendor’s product line. Interoperability between vendors of different systems, even competing systems, is the point of JDF. Our vendors have realized that they can compete on function, feature, and price, but not interoperability. At drupa there were just 21 companies demonstrating in the JDF Parc, (its all we had room for, but there were 70+ companies at drupa providing JDF solutions), and among them there were over 90 pairings of interoperable products being demonstrated. JDF interoperability between products of different vendors works today. If you live in a multi-vendor production environment, then JDF is only more important to you and the future of your company!

I have not met one person involved in CIP4 and the JDF development process that thinks they know it all and is unwilling to listen to new ideas. I hope printers will have the good sense to realize that the few folks such as Frank are more tabloid sensationalists than factual reporters and will look into JDF for themselves. All printers, prepress services, and other users can get involved in CIP4 activities for next to nothing where they can get real answers and real facts.