



The following is a list of compelling reasons for the graphic arts industry to aggressively pursue total process automation for folded materials:

- Demand for “lights-out” automation is growing with the steady increase in digital short run printing, web-to-print, and print-on-demand business models.
- Shorter run lengths and faster turnaround times require frequent makereadies—manual tasks and human error waste time and money.
- There is a growing need to automate folding because skilled bindery operators are slowly phasing out of the industry.
- A downturn in the economy, the commoditization of print, international competition and pricing pressures demand a more efficient and cost effective process.
- Fold placement is math, and because of this, standardizing the file set-up process for folded material is a real possibility. We cannot automate a process that has not been standardized, and therefore without a standardized file submission process for folded materials, we cannot even hope for total process automation.

### Assessing the Current Scenario

Turning folding into the streamlined, standardized, computerized process it should be is a fairly ambitious task. Here’s the problem as it stands:

- Currently, there is absolutely no control over the digital document creation process. So, a printer basically has to work with whatever file they get from a client. And since file setup for folding can be a fairly complex task, who knows what you’ll actually get from the client, and how long it will take the print provider to fix the file. That’s problem number one;
- Problem number two is that once you have a press-ready file, and that file can be sent through to the MIS system as a PDF in a digital workflow, currently the file does not carry the information necessary to communicate with the system to tell it what the folding style is, the placement of the folds, etc., which leads to problem number three:
- Even if the folding machinery is a programmable JDF compliant machine, it will still require some degree of manual adjustment because the file does not hold JDF folding information, and without the JDF data, the MIS cannot send precise settings to the automated folding machine.

The path to fully automated folding can be simplified to two major issues:

1. The need to control the file submission process
2. The need to embed JDF folding intent into the file to enable communication downstream to finishing.

### Assessing Current Technologies

Existing technologies as they relate to the two major issues we’ve identified:

**JDF folding intent** – There have been dramatic improvements in the folding section of the latest iteration of the JDF specification. The JDF 1.4 specification has expanded to not only offer the standard set of folding styles from the previous version, but it also offers the ability to define your own folding settings. This is a huge step forward.

**Control over the file submission process** – FOLDRite is an award-winning technology that builds dynamic custom digital templates that are mathematically adjusted for the folding process. These templates also have been proven to populate and embed JDF folding intent. FOLDRite™ standardizes the file submission process for folded materials, and the mathematics of FOLDRite can be integrated into MIS systems, programmable folding machinery, and online layout for Web-to-Print solutions.

### WORKFLOW DIAGRAM FOR END-TO-END FOLDING AUTOMATION

