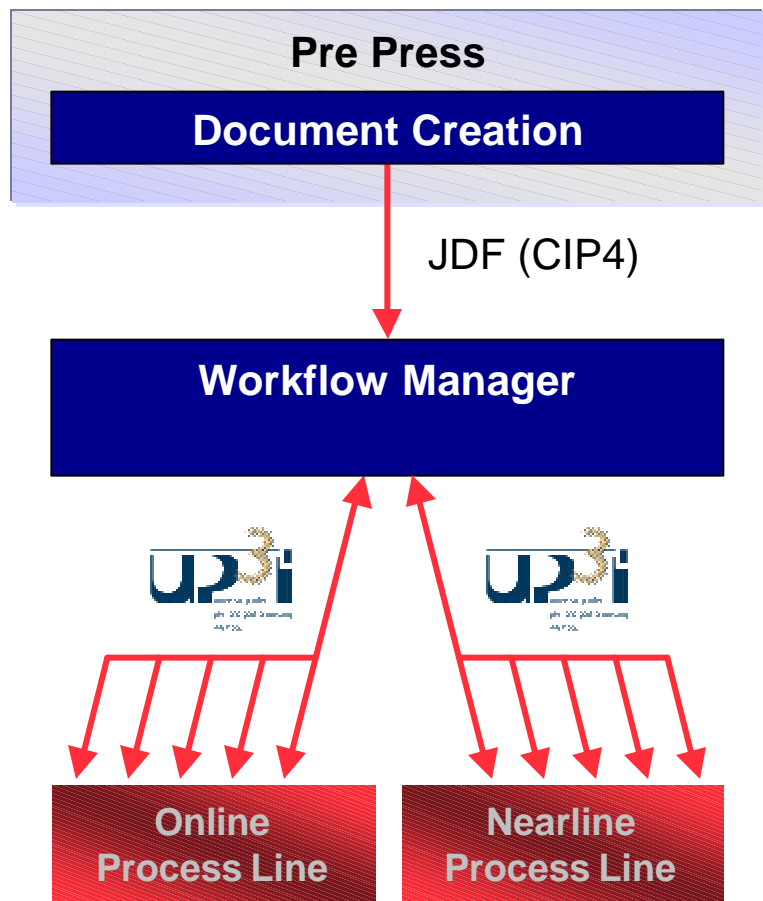


CIP4 & UP³I Association Relationship Letter of Understanding

This document is a non-binding letter of understanding between International Cooperation for the Integration of Processes in Prepress, Press, and Post Press (CIP4) Association and the Universal Printer Pre- and Post-Processing Interface (UP³I) Group. CIP4 and UP³I agree to cooperate, for mutual benefit and the benefit of the industry, and to coordinate technical standards, studies, and development activities where synergies between the respective organizations can be maximized. The document is intended to specify the areas in which each organization has a distinct competence, and to which each will endeavor to defer to and avoid duplication of effort. To that extent, both parties agree to a continuing dialog on each other's efforts and initiatives in the area of standards development. Where possible, each group will make its best effort to cooperate and work together, but this letter of understanding does not prohibit either group from involvement in any area of activity. The goals of the relationship are:

- Establish and support of joint working groups on areas of common interest and action
- Mutual support and promotion
- Leverage each party's expertise
- Avoidance of duplicate or overlapping efforts
- Avoidance of competition between the two groups
- The results of agreed upon collaborative efforts will be co-branded and mutually promoted.
- Intellectual property rights on agreed upon collaborative efforts of UP³I and CIP4 will be shared.
- This agreement does not restrict the rights of each organization from further development of the results of the agreed upon collaboration.

The common architecture view:



In recognition of these goals, both the UP³I and CIP4 agree to have each be a member of the other's organization at no cost to either.

1. CIP4 recognizes UP³I mission and distinctive contribution to the graphic communications industry and industry expertise. It is UP³I's mission to:

- define an open standard by addressing printer, pre-processing and post-processing designers, system integrators and related application programmers
- reduce the setup and make ready time of production lines and increase the overall system productivity
- offer standard paths for automatic and remote operation, for single point of operation respectively controlling, for an enhanced error recovery and for administration respectively reporting
- Create a functional expandable standard for continuous feed and cut sheet process lines. This new standard will integrate open emerging vendor specific interfaces, which in doing so would prove to make a significant contribution to the industry, one example being Xerox MMI (Machine Module Interface).
- A migration strategy for existing interfaces will be promoted. It will continue to be technically feasible for Type I, Type II, DFA, ... Interfaces, to function within a UP³I system.

As such, the UP³I Group has primarily focused on management and standards that pertain to the communication and coordination between devices involved in the digital print and finishing process, but not excluding other printing, feeding and finishing technologies.

2. UP³I recognizes CIP4, as well as its Job Definition Format (JDF) standard, for its distinctive contribution and expertise in the following areas:

JDF:

JDF is a comprehensive XML-based file format/proposed industry standard for end-to-end job ticket specifications combined with a message description standard and message interchange protocol.

- JDF is designed to streamline information exchange between different applications and systems.
- JDF is intended to enable the entire industry, including media, design, graphic arts, on demand and e-commerce companies to implement and work with individual workflow solutions.
- JDF will allow integration of heterogeneous products from diverse vendors to seamless workflow solutions.

Basic idea upon which JDF is based:

To develop an open, extensible, XML-based job ticket standard, as well as mechanism that provides new business opportunities for all individuals and companies involved in the process of creating, managing and producing published documents in the new economy. Building on existing technologies of CIP3's PPF and Adobe's PJTF, the Job Definition Format supplies a means for printing businesses to streamline the process of producing printed material.

The most prominent features of JDF:

1. Ability to carry a print job from genesis through completion. This includes a detailed description of the creative, prepress, press, postpress and delivery processes.
2. Ability to bridge the communication gap between production and Management Information Services. This ability enables instantaneous job and device tracking as well as detailed pre- and post calculation of jobs in the graphic arts.
3. Ability to bridge the gap between the customer's view of product and the manufacturing process by defining a process independent product view as well as a process dependent production view of a print job.
4. Ability to define and track any user defined workflow without constraints on the supported workflow models. This includes serial, parallel, overlapping and iterative processing in arbitrary combinations and over distributed locations.
5. Ability to do so (1,2,3&4) under nearly any precondition.

PPF:

The CIP3 Print Production Format is a container for the exchange of data processes between prepress, press and postpress based on the PostScript language. PPF productivity benefits include:

- Acquisition of the same data only once;
- Quicker machine setup
- Shorter production cycles
- Better quality control
- Streamlined production
- Reduction in errors
- Archived CIP3 PPF files can be used directly for re-runs.