

IPP FAX - Meeting Minutes

April 25, 2001
Portland, Oregon

1. Attendees:

Lee Farrell	Canon Info Systems
Roelof Hamberg	Oce
Tom Hastings	Xerox, taking the notes
Harry Lewis	IBM
John Pulera	Minolta
Stuart Rowley	Kyocera
Yuji Sasaki	JCI
Gail Songer	Netreon
John Thomas	Sharp Labs
Atsushi Uchino	Epson
Shigeru Udea	Canon
Bill Wagner	NetSilicon
Don Wright	Lexmark

ACTION ITEMS are highlighted like this.

2. Charter Milestones review:

December 2000 Requirements final
January 2001 Draft specifications available *** This is a new milestone ***
June 2001 Specifications complete
September 2001 Bakeoff
January 2002 Revised specifications and possible implementers guide

We made no changes at this meeting.

3. Relationship of IPP FAX to other FAX standards

We had a long discussion about what the relationship between the IPP FAX standard and the other FAX standards: PSTN (phone) FAX, Internet FAX/T.37, and T.38. We did agree that we are talking about senders and recipients, not just recipients. And that multi-function devices were in scope, that scan documents, send documents, receive documents, and print documents. There were two points of view:

1. We should make specification and conformance decisions for the IPP FAX standard that make it straightforward to support IPP FAX along side the other FAX standards. IPP FAX should be a "sister" standard to the other FAX standards. Otherwise, the FAX community will ignore IPP FAX and IPP FAX will not get wide support, except by some Printer vendors.

2. IPP FAX is the "killer" application for IPP to make IPP popular in the market place (free, high quality, fast FAXes, etc.). The FAX world is split between a number of different FAX standards, and IPP FAX should really be considered a special kind of IPP service which might not have any other FAX protocols also supported. So we should not burden IPP FAX implementations with anything that is only needed for the other FAX standards.

An example of where which approach would affect our specification and conformance decisions for IPP FAX is: content negotiations. With point of view 1, CONNEG would be required and in the form already being implemented in Internet FAX/T.37. With point of view 2, CONNEG MUST NOT be required, but could be OPTIONAL.

We did not reach a consensus on which point of view we should take for IPP FAX in general, but see the CONNEG discussion next, where we may have a win-win approach.

4. Content Negotiation

We looked at the TIFF/FX profiles and the required capabilities. We agreed that CONNEG is hard to implement. We theorized that maybe the UIF IPP FAX document could REQUIRE specific features as part of a TIFF/FX profile in order to be IPP FAX compliant. For example, profile S (the simplest black and white), could REQUIRE 600 DPI for IPP FAX. Then an IPP FAX Printer that supports profile S (they all MUST), MUST support 600 DPI by definition. We also agreed that for profile C (color), that sending 300 dpi JPEG files has essentially as high quality as sending 600 dpi JPEG.

If we can REQUIRE enough capabilities for each profile, that maybe an IPP FAX Printer could describe what it supports, simply by having a "tiff-fx-profiles-supported" attribute with keyword values: 's', 'c', 'l', 'm', 'f', and 'j'. If an IPP FAX Printer supports additional capabilities above the REQUIRED ones and wants clients to be able to discover and make use of them, then the IPP FAX Printer would have to support CONNEG and return the CONNEG strings as specified in the CONNEG V2 RFC 2879.

It was suggested that our IPP FAX spec could have an appendix with the complete CONNEG for the REQUIRED capabilities for each IPP FAX TIFF/FX profile. That would help the client implementers who are using CONNEG for generating TIFF/FX without burdening all IPP FAX clients and all IPP FAX Printers with having to support CONNEG. If this works out, then we have a win-win situation with respect to CONNEG and don't have to resolve the debate in section 3 above with respect to CONNEG.

ACTION ITEM (John Pulera): Look at tiff/fx and/or CONNEG V2 (RFC 2879) and propose a set of REQUIRED capabilities for each profile that would allow us to describe the capabilities of an IPP FAX Printer in one or more simple IPP Printer "xxx-supported" attributes sufficiently well to avoid the need for CONNEG to be a REQUIRED part of IPP FAX.

5. Review of the UIF document

The rest of the meeting was spent reviewing the UIF document. John made a number of edits as we went along.

ACTION ITEM (John Pulnera): Post the updated UIF spec on the PWG server and announce to the list.

Here are the highlights:

5.1 Support of TIFF/FX

We re-affirmed that IPP Printers MUST support UIF which is TIFF/FX with some of the OPTIONAL capabilities made MANDATORY.

5.2 New U profile versus using TIFF/FX S profile

Section 2.1, Profile U: We discussed the feasibility of using the S profile directly in the TIFF/FX standard, but with increased REQUIREMENTS, such as 600 DPI. That seem reasonable to us, and better than defining new profiles.

We re-affirmed that 600 DPI was required for profile S. We did not agree to REQUIRE 300 DPI for profile S (simple black and white). However, we did agree that 300 DPI for profile C (color) was high enough quality that we wouldn't need to REQUIRE 600 DPI for profile C. Needs more work with implementation experts on the cost and benefit of resolution for each of the TIFF/FX profiles.

ACTION ITEM (Tom Hastings, John Pulnera): Tom to setup a call to talk to a tiff/fx expert, such as Lloyd McIntyre or Rob Buckley, to discuss the strategy of using TIFF/FX profiles directly, rather than defining additional profiles, such as U in the current UIF document, while still meeting the requirements of IPP FAX for .

5.3 The 'MRC-limited-uif' tag

Section 3, Capabilities communication: The 'MRC-limited-uif' tag is eliminated, since the TIFF/FX 'MRC-limited' tag allows more than one TIFF strip per page.

5.4 Spooling IPP FAX Printers

We agreed that it was an implementation decision whether or not a conforming IPP FAX implementation spooled jobs or not. Presumably one that does not spool jobs will start to refuse IPP FAX much jobs sooner than one that spools them.

5.5 Capabilities with/without human intervention

Section 3, Capabilities communication: there was a big debate as to whether a Printer that was configured to use a certain size of media, say 'na-letter', does when the media runs out? MUST the IPP FAX Printer no longer indicate that it supports 'na-letter' in its Printer attribute? Which attribute: "media-ready" or "media-supported"? MUST an IPP Printer only have values in its "media-supported" that are available without operator intervention, since this is a "FAX" machine?

5.6 "uif-scale" attr: Job Template or Operation/Description?

We agreed to change the "uif-scale" (boolean) attribute from being an operation attribute that the Printer copies to the Job object as a Job Description attribute to simply being a Job Template attribute, but without a "uif-scale-default" defined. The client MUST always explicitly request scaling, instead of the Printer being able to do that by default. As with all Job Template attribute, "uif-scale" is an OPTIONAL attribute for an IPP FAX Printer to support.

5.7 Adobe TIFF Licensing Issue

Adobe has raised issues with the IETF over licensing of TIFF for use in the TIFF/FX RFCs. Do we face the same problem for IPP FAX?

6. Review of the IPP FAX Protocol document (IFX)

We did not have time to review this document.

ACTION ITEM (all): Read and make comments on the IFX document:

<ftp://ftp.pwg.org/pub/pwg/QUALDOCS/ifx-spec-03.doc>

7. Next telecon, Wednesday, May 30, 2001

ACTION ITEM (Tom Hastings): Setup and announce a conference call for Wednesday, May 30, 2001 10-12 PDT (1-3 EDT) to discuss the updated specifications.

8. Next Meeting, July 30, 2001, Toronto, Canada

The next meeting will be during the week of July 30 in Toronto, Canada, along with the other PWG meetings. It will probably be on Monday, July 30. The exact date and hotel information will be announced later.