

IPP Extensions for Job and Capabilities Objects For Portland discussion – June 2002

Rough draft of Job Description Attributes extensions for IPP to accommodate wholesale transport of a Job Ticket and a Capabilities Object (ex. UPDF file).

EXTENDEDMAX is an "extended maximum" size for text strings which could be longer than MAX. It represents a maximum size of 4,294,967,295 octets (length is 32 bit unsigned integer).

4.3.x job-ticket (text(EXTENDEDMAX))

This OPTIONAL attribute contains the PWG job ticket for this job. (Alternately, a JobTicketType may also be defined and used to specify PWG, JDF, Adobe PJTF etc.) The job ticket represents an alternate way of specifying job printing options/instructions. Instead of (or in addition to) specifying printing options/instructions via IPP attributes, these may be specified in the job ticket. The detailed syntax of the job-ticket attribute is not covered by the IPP standard. JDF (Job Definition Format) and the proposed PWG Job Ticket are examples of XML-based job tickets.

If an option is specified in BOTH an IPP attribute and in the job ticket, the IPP attribute shall take precedence. For example, if "copies = 2" is specified in an IPP attribute and the job ticket specifies that the number of job copies is 5, then two copies shall be printed. In this way the job ticket may be used as a template of default print options with one or more of them overridden by IPP attributes.

4.3.x+1 job-ticket-reference (uri)

This OPTIONAL attribute contains a reference to a JDF job ticket for this job. This is similar to the job-ticket attribute except that, instead of passing the contents of the job ticket with the job, a reference to the job ticket is associated with the job. This URI may take any legal form which allows the IPP server to access the job ticket content (for example, "ftp://a.b.c/jobtickets/memos" or "file://jobtickets/reports/012345").

Job ticket content, syntax, and option precedence is identical to that specified under the job-ticket attribute, with the additional rule that options in job-ticket take precedence over options in job-ticket-reference. This allows the submitter to use local job tickets for override options and still use server-side job tickets as "templates". Therefore, the complete precedence order for print options is:

- Options specified as IPP attributes
- Options specified inside the job-ticket attribute value
- Options specified inside the job ticket referenced by the job-ticket-reference attribute

4.3.y capabilities-object (text(EXTENDEDMAX))

This OPTIONAL attribute contains a PWG capabilities object such as a UPDF file describing the printer capabilities. The Capabilities Object represents an alternate way of determining printer capabilities. The detailed syntax of the capabilities object attribute is not covered by the IPP standard. UPDF is one example of an XML-based capabilities object.

If an option is specified in BOTH an IPP attribute and in the capabilities object, the IPP attribute shall take precedence. In this way the capabilities object may describe general, overall capabilities of the printer and traditional IPP attributes may be use to describe the current configuration.

4.3.y+1 capabilities-object-reference (uri)

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This OPTIONAL attribute contains a reference to a capabilities object such as a UPDF file. This is similar to the capabilities-object attribute except that, instead of passing the contents of the capabilities object, a reference is provided. This URI may take any legal form which allows the IPP client to access the capabilities object.

Other

Probably need to define Job Ticket Types and typesSupported mechanism
Probably need to define Capabilities Object Types and typesSupported mechanism.