

1 Name of Job Submission Protocol: IETF IPP  
 2 Version of Job Submission Protocol: V1.0, Internet-Draft, 6/3/97  
 3 Is your Job Submission Protocol to a Server (config 2 and 3) or to a Printer (config 1) or  
 4 both: all 3 configurations  
 5 File name (please use file name listed above): ietf-ipp.doc  
 6 Assigned person: Tom Hastings  
 7 Date: 6/14/97

8  
 9 Any general mapping problems that apply to a number of attributes, such as length of  
 10 strings, size of integers, ASCII vs. binary encoding of attribute values, etc.:

- 11  
 12 1. IPP names are 255 characters long while JMP names are limited to 63 octets.  
 13  
 14 2. IPP encodes values as UTF-8 keywords (ASCII is a one-octet subset), while JMP uses  
 15 enums for some corresponding attributes (a JMP ISSUE - see below).  
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Attribute or object	page	Job submission protocol attribute	Notes
<b>The General Group (Mandatory)</b>	<b>57</b>		
<b>jmGeneralNumberOfActiveJobs</b>	57	queued-job-count	IPP ISSUE: Should/does include <b>pendingHeld</b> or not?
<b>jmGeneralOldestActiveJobIndex</b>	58		
<b>jmGeneralNewestActiveJobIndex</b>	58		
<b>jmGeneralJobPersistence</b>	59		
<b>jmGeneralAttributePersistence</b>	59		
<b>jmGeneralJobSetName</b>	59	printer-name	63 octets vs. IPP 255 characters
<b>The Job ID Group (Mandatory)</b>	<b>60</b>		
<b>jmJobSubmissionID</b>	61		
<b>jmJobSetIndex</b>	61	job-URI?	The JMP agent MAY need to convert from a URI to a jmJobSetIndex?  <i><b>JMP ISSUE: should we add a jobIdentifier attribute to the attribute table?</b></i>
<b>The Job Group (Mandatory)</b>	<b>63</b>		
<b>jmJobState:</b>	64	job-state:	
<b>other</b>	31	other	
<b>pending</b>	31	pending	
<b>pendingHeld</b>	31	pending-held	

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<b>processing</b>	31	processing	
<b>processingStopped</b>	32	processing-stopped	
<b>canceled</b>	32	canceled	
<b>aborted</b>	32	aborted	
<b>completed</b>	32	completed	
<b>jmJobStateReasons1:</b>	64	job-state-reasons:	0 bits == IPP 'none'
<b>other</b>	49	other	
<b>JobIncoming</b>	50	job-incoming	
<b>jobOutgoing</b>	50	job-outgoing	
<b>jobHoldSpecified</b>	50		
<b>jobHoldUntilSpecified</b>	50	job-hold-until-specified	
<b>jobProcessAfterSpecified</b>	50		
<b>resourcesAreNotReady</b>	50	resources-not-ready	
<b>deviceStoppedPartly</b>	50	printer-stopped-partly	note name change
<b>deviceStopped</b>	50	printer-stopped	note name change
<b>jobPrinting</b>	50	job-printing	
<b>jobCanceledByUser</b>	50	canceled-by-user	
<b>jobCanceledByOperator</b>	51	canceled-by-operator	
<b>abortedBySystem</b>	51		IPP uses aborted state only
<b>jobCompletedSuccessfully</b>	51	job-completed-successfully	
<b>jobCompletedWithWarnings</b>	51	job-completed-with-warnings	
<b>jobCompletedWithErrors</b>	51	job-competed-with-errors	
<b>jmNumberOfInterveningJobs</b>	65	number-of-intervening-jobs	
<b>jmJobKOctetsRequested</b>	65	job-k-octets	
<b>jmJobKOctetsProcessed</b>	65	job-k-octets-completed	IPP Issue: processed vs. completed
<b>jmJobImpressionsRequested</b>	66	job-impressions	
<b>jmJobImpressionsCompleted</b>	66	job-impressions-completed	
<b>JmAttributeTypeTC - attribute type definitions</b>	33		
<b>other</b>	35		
<b>unknown</b>	35		
<b>Job State attributes</b>	35		
<b>jobStateReasons2</b>	36		
<b>jobStateReasons3</b>	36		
<b>jobStateReasons4</b>	36		
<b>deviceAlertCode</b>	36	printer-state, printer-state-reasons	Mapping approximate
<b>processingMessage</b>	36	job-state-message	
<b>Job Identification attributes</b>	36		
<b>jobOwner (MANDATORY)</b>	36	job-originating-user	63 octets vs. IPP 255 characters
<b>jobAccountName</b>	37		
<b>serverAssignedJobName</b>	37		
<b>jobName</b>	37	job-name	63 octets vs. IPP 255 characters
<b>jobServiceTypes</b>	37		
<b>jobSourceChannelIndex</b>	38		
<b>jobSourcePlatformType</b>	38		
<b>submittingServerName</b>	38		
<b>submittingApplicationName</b>	38		
<b>jobOriginatingHost</b>	38	job-originating-host	63 octets vs. IPP 255 characters

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<b>deviceNameRequested</b>	38	printer-name	63 octets vs. IPP 255 characters
<b>queueNameRequested</b>	39		
<b>physicalDevice</b>	39	output-device-assigned	63 octets vs. IPP 255 characters
<b>numberOfDocuments</b>	39		IPP ISSUE: should have read-only "number-of-documents" set by Printer
<b>fileName</b>	39	document-URI	JMP ISSUE: clarify that the fileName attribute could be a URI
<b>documentName</b>	39	document-name	63 octets vs. IPP 255 characters
<b>jobComment</b>	39		
<b>documentFormatIndex</b>	39		
<b>documentFormat</b>	40	document-format	The MIME type value maps to the MIME type value, 63 octets vs. IPP 255 characters
<b>Job Parameter attributes</b>	40		
<b>jobPriority</b>	40	job-priority	
<b>jobProcessAfterDateAndTime</b>	40		
<b>jobHoldUntil</b>	41	job-hold-until	
<b>outputBin</b>	41		
<b>sides</b>	41	sides	map 'one-sided' to 1, 'two-sided-long-edge' and 'two-sided-short-edge' to 2
<b>finishing</b>	41	finishings	same values, but map IPP keywords to JMP enums. Both can be MULTI-VALUED  JMP ISSUE: also allow Octets as supplement?
<b>Image Quality attributes (requested and used)</b>	41		
<b>printQualityRequested</b>	42	print-quality	same values, but map IPP keywords to JMP enums  JMP ISSUE: also allow Octets as supplement?
<b>printQualityUsed</b>	42		
<b>printerResolutionRequested</b>	42	printer-resolution	same values, but map IPP keywords to JMP enums  JMP ISSUE: also allow Octets as supplement?
<b>printerResolutionUsed</b>	42		
<b>tonerEcomonyRequested</b>	42		
<b>tonerEcomonyUsed</b>	42		
<b>tonerDensityRequested</b>	42		
<b>tonerDensityUsed</b>	42		
<b>Job Progress attributes (requested and consumed)</b>	42		
<b>jobCopiesRequested</b>	42	copies	
<b>jobCopiesCompleted</b>	43		

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<b>documentCopiesRequested</b>	43	copies	only >1 documents in the job
<b>documentCopiesCompleted</b>	43		
<b>jobKOctetsTransferred</b>	43		
<b>Impression attributes (requested and consumed)</b>	43		
<b>impressionsSpooled</b>	44		
<b>impressionsSentToDevice</b>	44		
<b>impressionsInterpreted</b>	44		
<b>impressionsCompletedCurrent Copy</b>	44		
<b>fullColorImpressionsCompleted</b>	44		
<b>highlightColorImpressionsCompleted</b>	44		
<b>Page attributes (requested and consumed)</b>	44		
<b>pagesRequested</b>	44		
<b>pagesCompleted</b>	45		
<b>pagesCompletedCurrentCopy</b>	45		
<b>Sheet attributes (requested and consumed)</b>	45		
<b>sheetsRequested</b>	45		
<b>sheetsCompleted</b>	45	job-media-sheets-completed	
<b>sheetsCompletedCurrentCopy</b>	45		
<b>Resource attributes (requested and consumed)</b>	45		
<b>mediumRequested</b>	45		
<b>mediumConsumedName</b>	46		
<b>colorantRequested</b>	46		
<b>colorantConsumed</b>	46		
<b>Time attributes (set by server or device)</b>	46		
<b>jobSubmissionToServerTime</b>	46		
<b>jobSubmissionToDeviceTime</b>	47		
<b>timeSinceJobWasSubmittedToDevice</b>	47	time-since-submission	<b><i>JMP ISSUE: Should this be seconds or like IPP milliseconds?</i></b>
<b>jobStartedBeingHeldTimeStamp</b>	47		
<b>jobStartedProcessingTime</b>	47		
<b>timeSinceStartedProcessing</b>	47	time-since-processing	in milliseconds
<b>jobCompletedTime</b>	47		
<b>timeSinceCompleted</b>	47	time-since-completion	in milliseconds
<b>jobProcessingCPUTime</b>	47		

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 19 IPP job attributes not in JMP are:  
 20 . job-sheets  
 21 . notification-events  
 22 . notification-addresses

## Template for Mapping from Job Submission Protocols to JMP objects/attributes

- 23 . multiple-documents-are
- 24 . best-effort
- 25 . job-URI
- 26 . user-locale
- 27 . job-message-from-operator