

7 Internet Printing Protocol/1.0 Extension
8 Additional Optional Operations - Set 2

9 Status of this Memo:

10 This document is a PWG Working Draft. It proposes an OPTIONAL extension to the IPP/1.0
11 Model and Semantics document [ipp-mod]. There are no issues listed. The operations-ids have
12 not been assigned until there is general consensus by the WG to add these operations as
13 extensions. These operations will be registered with IANA after approval by the WG and after
14 IPP/1.0 has been published as RFCs. We may want to publish this document as an RFC as well.

16 **Abstract**

17 This document specifies a pair of OPTIONAL Printer object operations for use with the Internet
18 Printing Protocol/1.0 (IPP) [ipp-mod, ipp-pro]. These operations allow an authenticated operator
19 to set the REQUIRED IPP/1.0 "printer-is-accepting-jobs" Printer Description attribute to prevent
20 or allow the creation of new jobs. The Set 2 operations are:

- 21 Reject-Jobs
- 22 Accept-Jobs

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33 1 Summary of Set 2 and Operation-Id Assignments

34 The Set 2 operations are summarized in the following table:

Operation Name	Operation-Id	Brief description
Reject-Jobs	TBD	Causes the IPP Printer object to reject subsequent job create operations.
Accept-Jobs	TBD	Causes the IPP Printer object to accept subsequent job create operations.

35 2 Justification for these operations

36 The justification for these two operations is:

- 37 a. These operations are similar to the operator-only Pause-Printer and Resume-Printer
 38 operations [ipp-ops1]. Pause-Printer and Resume-Printer are "job on/off switches" for the
 39 output side of the Printer object while Reject-Jobs and Accept-Jobs are "job on-off
 40 switches" for the input side of the Printer object.
- 41 b. These operations only set the existing REQUIRED IPP/1.0 "printer-is-accepting-jobs"
 42 Printer Description attribute to 'false' or 'true', respectively (see [ipp-mod] 4.4.20).
- 43 c. These operations support the existing IPP/1.0 status code: 'server-error-not-accepting-
 44 jobs' (see [ipp-mod] 14.1.5.7).
- 45 d. We need these operations in order to cause the notification events 'printer-is-accepting-
 46 jobs' and 'printer-is-not-accepting-jobs' [ipp-not].
- 47 e. We need these operations to justify adding these two events to the Printer MIB
 48 [RFC1759] as trap event code enums using the registration procedures in [RFC1759] as
 49 agreed to in [ipp-not].
- 50 f. Many private Printer MIBs have ways to cause the printer to reject or accept jobs, but we
 51 can't add a new object to the Printer MIB for this purpose to be used with SNMP. IPP is
 52 the only way to define a standard operation. Also IPP has better security than the SNMP
 53 that is generally deployed since these are operator-only operations.
- 54 g. These operations have the same semantics as the ISO DPA Part 3 [ISO-10175] Disable
 55 and Enable operations for the Printer object. The Disable and Enable operations also
 56 work on ISO DPA server objects.

57 **3 Printer operations**

58 The operation attributes for these Printer operation requests are as follows:

59 Group 1: Operation Attributes

60 Natural Language and Character Set:

61 The "attributes-charset" and "attributes-natural-language" attributes as described in
62 section 3.1.4.1 of [ipp-mod].

63

64 Target:

65 The "printer-uri" (uri) operation attribute which is the target for this operation as
66 described in section 3.1.5 of [ipp-mod].

67

68 Requesting User Name:

69 The "requesting-user-name" (name(MAX)) attribute SHOULD be supplied by the client
70 as described in section 8.3 of [ipp-mod].

71

72 The operation attributes for these Printer operation responses are the same as the Pause-Printer,
73 Resume-Printer, and Purge-Jobs printer operation responses (see [ipp-ops1]):

74 Group 1: Operation Attributes

75 Status Message:

76 In addition to the REQUIRED status code returned in every response, the response
77 OPTIONALLY includes a "status-message" (text) operation attribute as described in
78 section 3.1.6 of [ipp-mod].

79

80 Natural Language and Character Set:

81 The "attributes-charset" and "attributes-natural-language" attributes as described in
82 section 3.1.4.2 of [ipp-mod].

83

84 Group 2: Unsupported Attributes

85 This is a set of Operation attributes supplied by the client (in the request) that are not
86 supported by the Printer object or that conflict with one another (see [ipp-mod] sections
87 3.2.1.2 and 16).

88

89 Group 3: Printer Attributes

90 Printer state:

91 The Printer object MUST return the "printer-state" [ipp-mod 4.4.10] and, if supported, the
92 "printer-state-reasons" [ipp-mod 4.4.11] attributes, even though these operations have no
93 effect on these attributes.

94 **3.1 Reject-Jobs**

95 This operation allows a client to stop the Printer object from accepting new jobs. The Printer
96 object sets the REQUIRED "printer-is-accepting-jobs" Printer Description attribute ([ipp-mod]
97 section 4.4.20) to 'false'. Previously submitted jobs are unaffected and the Printer object
98 continues to schedule and process jobs as usual. The Printer object MUST reject any subsequent
99 job creation operations (Print-Job, Print-URI, Validate-Job, Create-Job, and Reprocess-Job [ipp-
100 ops1]) and return the 'server-error-not-accepting-jobs' ([ipp-mod] section 14.1.5.7).

101 If the Reject-Jobs operation is supported, then the Accept-Jobs operation MUST be supported,
102 and vice-versa.

103 The IPP Printer MUST accept the request in any state as indicated by the values of the Printer's
104 "printer-state", "printer-state-reasons", and "printer-is-accepting-jobs" attributes. However, the
105 state of the Printer is not affected by this operation, except to set the value of the "printer-is-
106 accepting-job" attribute to 'false'.

107 Whether the value of the Printer object's "printer-is-accepting-jobs" attribute is 'true' or 'false' on
108 power up is implementation dependent.

109 *Access Rights:* The requesting user must be an operator or administrator of the printer.
110 Otherwise, the IPP Printer MUST reject the operation and return: 'client-error-forbidden', 'client-
111 error-not-authenticated', or 'client-error-not-authorized' as appropriate.

112 **3.2 Accept-Jobs**

113 This operation allows a client to start the Printer object accepting new jobs. The Printer object
114 sets the REQUIRED "printer-is-accepting-jobs" Printer Description attribute ([ipp-mod] section
115 4.4.20) to 'true'. Previously submitted jobs are unaffected and the Printer object continues to
116 schedule and process jobs as usual. The Printer object MUST accept any subsequent job creation
117 operations (Print-Job, Print-URI, Validate-Job, Create-Job, and Reprocess-Job [ipp-ops1]) that
118 are validated, authorized, etc.

119 If the Accept-Jobs operation is supported, then the Reject-Jobs operation MUST be supported,
120 and vice-versa.

121 The IPP Printer MUST accept the request in any state as indicated by the values of the Printer's
122 "printer-state", "printer-state-reasons", and "printer-is-accepting-jobs" attributes. However, the
123 state of the Printer is not affected by this operation, except to set the value of the "printer-is-
124 accepting-job" attribute to 'true'.

125 Whether the value of the Printer object's "printer-is-accepting-jobs" attribute is 'true' or 'false' on
126 power up is implementation dependent.

127 *Access Rights:* The requesting user must be an operator or administrator of the printer.
128 Otherwise, the IPP Printer MUST reject the operation and return: 'client-error-forbidden', 'client-
129 error-not-authenticated', or 'client-error-not-authorized' as appropriate.

130 **4 References**

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