

Catalogue of IPP Requests and Responses

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Introduction

This document is a catalogue of binary files of IPP requests and responses. The traces capture the communication between an IPP Client and Printer. This communications consists of the HTTP layer and the IPP layer. The TCP/IP layers are not included in the trace.

The intention for posting these traces is that people developing IPP prototypes can construct drivers that will use these trace files to test their implementations. Sort of an off-line interoperability test.

Anyone may submit trace file to the IPP TES. The traces and descriptions of the traces(see below) should be posted to the IPP TES distribution list. The distribution list is IPP@pwg.org with "TES " at the beginning of the subject list. The trace should also be posted to http://www.pwg.org/pub/pwg/ipp/new_TES/Traces . If there is any problems or questions contact the TES whip at Peter.Zehler@usa.xerox.com .

File Naming Convention

The filename will be **CCCCORSS**.trc where:

- a) **CCCC** is a unique "conversation" number. This is a sequence of numbers and case insensitive characters. The conversation number does not change through the duration of your trace. That is if you are showing an IPP Get_Jobs based on some specific jobs, the request/responses for the multiple Print_Job and subsequent Get_Jobs would all share the same "conversation" number. The next three fields in the file name will differentiate the traces.
- b) **O** is the hexadecimal number for the operation. The value can be determined by examining the operation field in the IPP request.
- c) **R** is used to indicate a request or response. An 'A' indicates a request. A 'B' indicates a response.
- d) **SS** is the sequence number. Each IPP request/response in a conversation is uniquely sequenced by a monotonically increasing number. It does not matter if the number starts at 0 or 1.

Requested information

- a. the person posting the trace file
- b. contact information for that person
- c. the unique sequence number for the conversation (SSSS)
- d. the name of the operation (O)
- d. whether it is a request or a response (R)
- e. the file name of the file
- f. the date
- g. a comment about the intent of the operation request or response, such as "submitting a job with fidelity 'false'" or "intentional invalid request, expecting a client-error-bad-request rejection" or "rejection response of 'client-error-bad-request'".

Revision History

- | | |
|--------|--|
| 2/4/98 | New document. Supersedes old version that was moved to "pre0298 " directory. Contributions from Carl Kruger. |
| 2/6/98 | Corrections to 0034A00 and 0034B00 entries from Carl Kruger, updated introduction. |

4/6/98 Added simple test print across the internet results.(pz012A00.trc)
5/27/98 Added contributions from Carl Krugler containing examples from IPP protocol spec
"draft-ietf-ipp-protocol-05.txt" (009xxxxx.trc)

00022A00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0002
// d. the name of the operation (O): PrintJob
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00022A00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
// print job submission
//
```

```
major-version-number: 0x01
minor-version-number: 0x00
PrintJob operation-id: 0x0002
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0008
name: job-name
value length: 0x0004
value: job1
value-tag: 0x22
name-length: 0x0016
name: ipp-attribute-fidelity
value length: 0x0001
value: 0x00
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name
value length: 0x0005
value: steve
value-tag: 0x42
name-length: 0x000d
name: document-name
value length: 0x0009
value: document1
job-attributes-tag: 0x02
value-tag: 0x21
name-length: 0x0006
```

```

name: copies
value length: 0x0004
value: 0x00000001
value-tag: 0x21
name-length: 0x000c
name: job-priority
value length: 0x0004
value: 0x00000001
end-of-attributes-tag: 0x03
// document data follows

```

00022B00.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0002
// d. the name of the operation (O): PrintJob
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00022B00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   print job submission
//
major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x000b
name: status-code
value length: 0x0006
value: good 2
value-tag: 0x42
name-length: 0x000b
name: status-code
value length: 0x0006
value: good 2
job-attributes-tag: 0x02
value-tag: 0x42
name-length: 0x0008
name: job-name
value length: 0x0004
value: Job1
value-tag: 0x42
name-length: 0x0009
name: job-state
value length: 0x0009
value: Job1 Job2
value-tag: 0x42
name-length: 0x0009
name: job-state
value length: 0x0009
value: Job1 Job2
value-tag: 0x42

```

```

name-length: 0x0011
name: job-state-reasons
value length: 0x0004
value: Job1
value-tag: 0x42
name-length: 0x0011
name: job-state-message
value length: 0x0004
value: YO 2
value-tag: 0x42
name-length: 0x0011
name: job-state-message
value length: 0x0004
value: YO 2
unsupported-attributes-tag: 0x05
value-tag: 0x41
name-length: 0x0005
name: sides
value length: 0x000b
value: unsupported
end-of-attributes-tag: 0x03

```

00034A00.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0003
// d. the name of the operation (O): ValidateJob
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00034A00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
// print job validation; no security
//
major-version-number: 0x01
minor-version-number: 0x00
ValidateJob operation-id: 0x0004
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0008
name: job-name
value length: 0x0004
value: job1
value-tag: 0x22

```

```

name-length: 0x0016
name: ipp-attribute-fidelity
value length: 0x0001
value: 0x00
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name
value length: 0x0005
value: steve
value-tag: 0x42
name-length: 0x000d
name: document-name
value length: 0x0009
value: document1
job-attributes-tag: 0x02
value-tag: 0x21
name-length: 0x0006
name: copies
value length: 0x0004
value: 0x00000001
value-tag: 0x21
name-length: 0x000c
name: job-priority
value length: 0x0004
value: 0x00000001
end-of-attributes-tag: 0x03

```

00034B00.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0003
// d. the name of the operation (O): ValidateJob
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00034B00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//  validate job response; no security
//

```

```

major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0013
name: status-code-message
value length: 0x0004
value: good
unsupported-attributes-tag: 0x05
value-tag: 0x41
name-length: 0x0005
name: sides
value length: 0x000b
value: unsupported

```

end-of-attributes-tag: 0x03

0004AA00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0004
// d. the name of the operation (O): GetJobs
// d. whether it is a request or a response (R): request
// e. the file name of the file: 0004AA00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
// GetJobs request; no security
//
```

```
major-version-number: 0x01
minor-version-number: 0x00
GetJobs operation-id: 0x000a
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0008
name: job-name
value length: 0x0004
value: job1
value-tag: 0x22
name-length: 0x0016
name: ipp-attribute-fidelity
value length: 0x0001
value: 0x00
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name
value length: 0x0005
value: steve
value-tag: 0x42
name-length: 0x000d
name: document-name
value length: 0x0009
value: document1
value-tag: 0x42
name-length: 0x000b
name: printer-uri
value length: 0x001c
value: localhost/servlet/IPPServlet
end-of-attributes-tag: 0x03
```

0004AB00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0004
// d. the name of the operation (O): GetJobs
// d. whether it is a request or a response (R): response
// e. the file name of the file: 0004AB00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
// Response to GetJobs; no security
//
```

```
major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0012
name: attributes-charset
value length: 0x0002
value: yo
job-attributes-tag: 0x02
value-tag: 0x21
name-length: 0x0006
name: job-id
value length: 0x0004
value: 0x00000001
value-tag: 0x42
name-length: 0x0007
name: job-uri
value length: 0x0023
value: localhost/servlet/IPPServlet/jobs/1
job-attributes-tag: 0x02
value-tag: 0x21
name-length: 0x0006
name: job-id
value length: 0x0004
value: 0x00000002
value-tag: 0x42
name-length: 0x0007
name: job-uri
value length: 0x0023
value: localhost/servlet/IPPServlet/jobs/2
end-of-attributes-tag: 0x03
```

0005BA00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0005
// d. the name of the operation (O): GetJobAttributes
```



```
// d. whether it is a request or a response (R): request
// e. the file name of the file: 0005BA00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   A request for job attributes; no security.
//
major-version-number: 0x01
minor-version-number: 0x00
GetJobAttributes operation-id: 0x000b
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0006
name: job-id
value length: 0x0001
value: 1
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0013
name: requestedAttributes
value length: 0x000c
value: printer-name
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name
value length: 0x0005
value: steve
end-of-attributes-tag: 0x03
```

0005BB00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0005
// d. the name of the operation (O): GetJobAttributes
// d. whether it is a request or a response (R): response
// e. the file name of the file: 0005BB00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   Response to GetJobAttributes; no security
//
major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
```

```

operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0012
name: attributes-charset
value length: 0x0002
value: yo
job-attributes-tag: 0x02
value-tag: 0x42
name-length: 0x0006
name: copies
value length: 0x0001
value: 2
value-tag: 0x42
name-length: 0x0008
name: priority
value length: 0x0001
value: 2
end-of-attributes-tag: 0x03

```

00068A00.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0006
// d. the name of the operation (O): CancelJob
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00068A00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   Cancels a particular job. No security.
//

```

```

major-version-number: 0x01
minor-version-number: 0x00
CancelJob operation-id: 0x0008
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0007
name: job-uri
value length: 0x0008
value: /sgebart
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name

```

value length: 0x0005
value: steve
end-of-attributes-tag: 0x03

00068B00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0006
// d. the name of the operation (O): CancelJob
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00068B00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   Response to CancelJob; no security.
//
major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0012
name: attributes-charset
value length: 0x0002
value: yo
end-of-attributes-tag: 0x03
```

00079A00.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0007
// d. the name of the operation (O): GetPrinterAttributes
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00079A00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
//   Request for printer attributes; no security.
//
major-version-number: 0x01
minor-version-number: 0x00
GetPrinterAttributes operation-id: 0x0009
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x47
name-length: 0x0012
name: attributes-charset
value length: 0x0008
value: US-ASCII
value-tag: 0x48
name-length: 0x001b
```

```

name: attributes-natural-language
value length: 0x0005
value: en-US
value-tag: 0x42
name-length: 0x0013
name: requestedAttributes
value length: 0x000c
value: printer-name
value-tag: 0x42
name-length: 0x0014
name: requesting-user-name
value length: 0x0005
value: steve
end-of-attributes-tag: 0x03

```

00079B00.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0007
// d. the name of the operation (O): GetPrinterAttributes
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00079B00
// f. the date: January 30, 1998
// g. a comment about the intent of the operation request or response:
// Response to GetPrinterAttributes; no security
//
major-version-number: 0x01
minor-version-number: 0x00
status-code: 0x0000
request-id: 0x00000001
operation-attributes-tag: 0x01
value-tag: 0x42
name-length: 0x0012
name: attributes-charset
value length: 0x0002
value: yo
???: 0x04
value-tag: 0x42
name-length: 0x0005
name: info1
value length: 0x0004
value: Job1
value-tag: 0x42
name-length: 0x0005
name: info2
value length: 0x0004
value: Job2
end-of-attributes-tag: 0x03

```

00912A01.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0091
// d. the name of the operation (O): Print-Job
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00912A01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
/*
Protocol Example 9.1
```

The following is an example of a Print-Job request with job-name,
copies,
and sides specified.
*/

```
version-number 1 0 // Note: no decimal point
operation-id 0x0002
request-id 0x00000001
operation-attributes-tag
charset attributes-charset "US-ASCII"
naturalLanguage attributes-natural-language "en-US"
name job-name "foobar"
job-attributes-tag
integer copies 20
keyword sides "two-sided-long-edge"
end-of-attributes-tag
```

00912B01.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0091
// d. the name of the operation (O): Print-Job
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00912B01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
/*
Protocol Example 9.2
Here is an example of a Print-Job response which is successful:
*/
```

```
version-number 1 0
status-code 0x0000
request-id 0x00000001
operation-attributes-tag
charset attributes-charset "US-ASCII"
naturalLanguage attributes-natural-language "en-US"
text status-message "OK"
job-attributes-tag
integer job-id 147
uri job-uri "http://foo/123"
```

```
name job-state "pending"
end-of-attributes-tag
```

00912B02.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0091
// d. the name of the operation (O): Print-Job
// d. whether it is a request or a response (R): response
// e. the file name of the file: 00912B02
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
```

```
/* Protocol Example 9.3 Print-Job Response (failure)
Here is an example of a Print-Job response which fails because the
printer
does not support sides and because the value 20 for copies is not
supported:
*/
```

```
version-number 1 0 // No ".!"
status-code 0x0400
request-id 0x00000001
operation-attributes-tag
charset attributes-charset "US-ASCII"
naturalLanguage attributes-natural-language "en-US"
text status-message "bad-request"
unsupported-attributes-tag
integer job-k-octets 16777216
integer copies 20
unsupported sides
end-of-attributes-tag
```

00943A01.trc

```
// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0094
// d. the name of the operation (O): Print-URI
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00943A01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
//
// Protocol Example 9.4
//
// 9.4 Print-URI Request
// The following is an example of Print-URI request with copies and
// job-name parameters.
```

```

version-number 1 0
operation-id 0x0003
request-id 0x00000001
operation-attributes-tag
charset attributes-charset "US_ASCII"
naturalLanguage attributes-natural-language "en-US"
uri document-uri "ftp://foo.com/foo"
name job-name "foobar"
job-attributes-tag
integer copies 1
end-of-attributes-tag

```

00955A01.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0095
// d. the name of the operation (O): Create-Job
// d. whether it is a request or a response (R): request
// e. the file name of the file: 00955A01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
/*

```

9.5 Create-Job Request

The following is an example of Create-Job request with no parameters and no attributes.

```
*/
```

```

version-number 1 0
operation-id 0x0005
request-id 0x00000001
operation-attributes-tag
charset attributes-charset "US_ASCII"
naturalLanguage attributes-natural-language "en-US"
end-of-attributes-tag

```

0096AA01.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0096
// d. the name of the operation (O): Get-Jobs
// d. whether it is a request or a response (R): request
// e. the file name of the file: 0096AA01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
/*

```

9.6 Get-Jobs Request

The following is an example of Get-Jobs request with parameters but no attributes.

```
*/
```

```

/*****
*****
Change Log:
4/8/98 CK3 fixed typo: requested-attributes -> requested-attributes
*****
*****/

```

```

version-number 1 0
operation-id 0x000A
request-id 0x00000123
operation-attributes-tag
charset attributes-charset "US-ASCII"
naturalLanguage attributes-natural-language "en-US"
integer limit 50
keyword requested-attributes "job-id"
keyword + "job-name" // additional value
keyword + "document-format" // additional value
end-of-attributes-tag

```

0096AB01.trc

```

// a. the person posting the trace file: Carl Kugler
// b. contact information for that person : kugler@us.ibm.com
// c. the unique sequence number for the conversation (SSSS): 0096
// d. the name of the operation (O): Get-Jobs
// d. whether it is a request or a response (R): response
// e. the file name of the file: 0096AB01
// f. the date: Mon 04/06/1998
// g. a comment about the intent of the operation request or response:
/*
  9.7 Get-Jobs Response
  The following is an of Get-Jobs response from previous request with
  3 jobs. The Printer returns no information about the second job.
*/

```

```

version-number 1 0
status-code 0x0000
request-id 0x00000123
operation-attributes-tag
charset attributes-charset "ISO-8859-1"
naturalLanguage attributes-natural-language "en-US"
text status-message "OK"
job-attributes-tag // 1st object
naturalLanguage attributes-natural-language "fr-CA"
integer job-id 147
name job-name "fou"
job-attributes-tag // 2nd object
// No data returned
job-attributes-tag // 3rd object
integer job-id 148
nameWithLanguage job-name "de-CH" "isch guet"
end-of-attributes-tag

```


PZ012A00.trc

PZ012B00.trc

- a. the person posting the trace file: Peter Zehler
- b. contact information for that person: Peter.Zehler@usa.xerox.com
- c. the unique sequence number for the conversation (SSSS): PZ01
- d. the name of the operation (O): Print_Job(2)
- d. whether it is a request or a response (R): Request
- e. the file name of the file: pz012A00.trc
- f. the date: 4/6/98
- g. a comment about the intent of the operation request or response: Test of a simple print job across the Internet. The print data is included in this trace.