

IJS Protocol Specification

Version 0.30

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This document contains a specification for the IJS protocol, which is intended to make it easier to deploy raster-based printer drivers in a wide variety of environments, including Unix desktops.

1. Introduction

IJS is, first and foremost, a protocol for transmission of raster page images. The protocol is a fairly traditional client-server design. In general, the client sends one or more page images to the server, along with various metadata. Communication is through simple "commands", which are essentially size-prefixed packets. The client sends a command to the server, then waits for a response command, either ACK or NAK.

On Unix systems, the server "speaks" IJS through stdin and stdout. One consequence of this design decision is that the server can be invoked remotely, for example through ssh.

** It's not clear yet how useful this will be, but at least people can experiment with it.*

Other forms of communication (such as domain sockets) may be useful, as well, but are not specified in this version.

2. Wire protocol

After a brief initialization handshake, all IJS communication occurs through *commands*.

2.1. IJS_CMD_ACK

2.2. IJS_CMD_NAK

2.3. IJS_CMD_PING

2.4. IJS_CMD_PONG

2.5. IJS_CMD_OPEN

2.6. IJS_CMD_CLOSE

2.7. IJS_CMD_BEGIN_JOB

2.8. IJS_CMD_END_JOB

2.9. IJS_CMD_CANCEL_JOB

2.10. IJS_CMD_QUERY_STATUS

2.11. IJS_CMD_LIST_PARAMS

2.12. IJS_CMD_ENUM_PARAM

2.13. IJS_CMD_SET_PARAM

2.14. IJS_CMD_GET_PARAM

2.15. IJS_CMD_BEGIN_PAGE

2.16. IJS_CMD_SEND_DATA_BLOCK

2.17. IJS_CMD_END_PAGE

2.18. IJS_CMD_EXIT

IJS is directly inspired by the HPIJS work done by the HP Vancouver team, particularly David Suffield. This spec also benefited from comments suggestions from Robert Krawitz, Grant Taylor, Glen Petrie, and others on the inkjet-list.

** Please add your name here.*