Queuing System Status Overview for AIX 3.2

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About this Document

This document describes possible print queue statuses for AIX versions 3.2.3 and later. (AIX 3.2.5 is the latest version at the time of this writing.)

Overview

If a printer/device is added as a tty, then the queuing system looks for carrier detect (CD) to recognize the printer. If it is an LP device, then it will use CTS to detect the printer.

The following are possible queue statuses:

DEV_BUSY

This status occurs when

- more than one queue is defined to a printer device (lp0) and another queue is currently using the printer device, or
- the qdaemon attempts to use the printer port device (lp0) and another application is currently using that printer device.

Normal recovery: To recover from a DEV_BUSY, wait until the queue or application has released the printer device or kill the job or process that is using the printer port.

DEV_WAIT

This status means that the queue is waiting on the printer because the printer is off-line, out of paper, jammed, or the cable is loose, bad, or wired incorrectly. DEV_WAIT can be caused by improper flow control to the printer (particularly when using XON/XOFF software control) or bad or incorrectly wired cabling.

Normal Recovery: To recover from a DEV_WAIT, you will have to correct the problem that caused it to wait. Check to see if the printer is off-line, out of paper, jammed, or loosely cabled. Sometimes the jobs must be removed from the queue before the problem can be corrected.

Note: A queue that is in DEV_WAIT for longer than TIME OUT seconds will go into a DOWN state. See DOWN for more information on the TIME OUT value and the DOWN state.

DOWN

This status is set when the device driver cannot communicate with the printer (CD or CTS dropped or is low) after TIMEOUT seconds. The TIME OUT value, which can be set through SMIT, indicates the amount of time, in seconds, that the queuing system waits for a printer operation to complete.

A queue will usually go into a DOWN state after it has been in the DEV_WAIT state. If a queue goes directly into the DOWN state, it may be that the TIME OUT value is too small or that there are cabling problems. Usually, this situation occurs when the printer device driver cannot tell if the printer is there due to the absence of correct signaling. However, some printers may not have the capability to signal "off-line" and may signal "off" instead (i.e., drop CTS if an lp or drop CD if a tty).

If the printer device is off, the queue will go DOWN. Also, the system administrator can intentionally bring a queue to the DOWN state with the queuing commands (qadm, disable, enq, etc.). This may be necessary for system maintenance.

Normal recovery: To recover from a DOWN state, correct the problem that brought the queue down and have the system administrator bring the queue back up (i.e., the qadm, enable, or enq commands with appropriate flags). The queue MUST be manually brought up before it can be used again.

OPR_WAIT

This status is set when the backend program is waiting on the operator to change paper, change forms, and so on. This is usually software-related (i.e., the write command).

Normal Recovery: To recover from a OPR_WAIT state, respond appropriately to the request that is made by the queuing system.

QUEUED

This status is set when a print file is queued and is waiting in line to be printed.

READY

This is the status of a queue when everything involved with the queue is ready to queue and print a job.

RUNNING

This status is set when the a print file is printing.

UNKNOWN

This status is set when a user creates a queue on a device file that another queue is using and its status is DEV_WAIT. The queue cannot get a status from the printer device (lp0) when it is on hold (DEV_WAIT).

Normal recovery: To correct this, bring down the other queue or fix the problem with the printer (paper out, jammed, off-line, and so on). Bring the new queue down and then back up so that the queue will register as READY.

Statuses for Remote Queues Only

- CONNECT:

  This status is set when the backend has connected to the remote host.

- GET_HOST:

  This status is set when the backend is getting the host to which to send the print job.

- INITING:

  This is set when the backend is in the process of establishing the connection to the network.

- SENDING:

  This is set when the backend is sending the print job to the remote host.

- HOST DOWN:

  This indicates that the remote queue cannot be contacted. If the server is an AIX system, make sure that lpd is running on the server by issuing "startsrc -slpd".

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Reader's Comments

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