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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'qstat.1p' command

\$ man qstat.1p

QSTAT(1P) POSIX Programmer's Manual QSTAT(1P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

qstat ? show status of batch jobs

SYNOPSIS

qstat [-f] job_identifier...
qstat -Q [-f] destination...
qstat -B [-f] server_name...

DESCRIPTION

The status of a batch job, batch queue, or batch server is obtained by a request to the server. The qstat utility is a user-accessible batch client that requests the status of one or more batch jobs, batch queues, or servers, and writes the status information to standard out? put.

For each successfully processed batch job_identifier, the qstat utility shall display information about the corresponding batch job.

For each successfully processed destination, the qstat utility shall display information about the corresponding batch queue.

For each successfully processed server name, the qstat utility shall

display information about the corresponding server.

The qstat utility shall acquire batch job status information by sending a Job Status Request to a batch server. The qstat utility shall acquire batch queue status information by sending a Queue Status Request to a batch server. The qstat utility shall acquire server status information by sending a Server Status Request to a batch server.

OPTIONS

The qstat utility shall conform to the Base Definitions volume of POSIX.1?2017, Section 12.2, Utility Syntax Guidelines.

The following options shall be supported by the implementation:

-f Specify that a full display is produced.

The minimum contents of a full display are specified in the STDOUT section.

Additional contents and format of a full display are implementation-defined.

-Q Specify that the operand is a destination.

The qstat utility shall display information about each batch queue at each destination identified as an operand.

-B Specify that the operand is a server name.

The qstat utility shall display information about each server identified as an operand.

OPERANDS

If the -Q option is presented to the qstat utility, the utility shall accept one or more operands that conform to the syntax for a destination (see Section 3.3.2, Destination).

If the -B option is presented to the qstat utility, the utility shall accept one or more server_name operands.

If neither the -B nor the -Q option is presented to the qstat utility, the utility shall accept one or more operands that conform to the syntax for a batch job_identifier (see Section 3.3.1, Batch Job Identifier).

STDIN

Not used.

INPUT FILES

None.

ENVIRONMENT VARIABLES

The following environment variables shall affect the execution of `qs?`

tat:

HOME Determine the pathname of the user's home directory.

LANG Provide a default value for the internationalization variables that are unset or null. (See the Base Definitions volume of POSIX.1?2017, Section 8.2, Internationalization Variables, the precedence of internationalization variables used to determine the values of locale categories.)

LC_ALL If set to a non-empty string value, override the values of all the other internationalization variables.

LC_COLLATE

Determine the locale for the behavior of ranges, equivalence classes, and multi-character collating elements within regular expressions.

LC_CTYPE Determine the locale for the interpretation of sequences of bytes of text data as characters (for example, single-byte as opposed to multi-byte characters in arguments).

LC_MESSAGES

Determine the locale that should be used to affect the format and contents of diagnostic messages written to standard error.

LC_NUMERIC

Determine the locale for selecting the radix character used when writing floating-point formatted output.

ASYNCHRONOUS EVENTS

Default.

STDOUT

If an operand presented to the `qstat` utility is a batch job identifier and the `-f` option is not specified, the `qstat` utility shall display the following items on a single line, in the stated order, with white space

between each item, for each successfully processed operand:

- * The batch job_identifier
- * The batch job name
- * The Job_Owner attribute
- * The CPU time used by the batch job
- * The batch job state
- * The batch job location

If an operand presented to the qstat utility is a batch job_identifier and the -f option is specified, the qstat utility shall display the following items for each successfully processed operand:

- * The batch job_identifier
- * The batch job name
- * The Job_Owner attribute
- * The execution user ID
- * The CPU time used by the batch job
- * The batch job state
- * The batch job location
- * Additional implementation-defined information, if any, about the batch job or batch queue

If an operand presented to the qstat utility is a destination, the -Q option is specified, and the -f option is not specified, the qstat utility shall display the following items on a single line, in the stated order, with white space between each item, for each successfully processed operand:

- * The batch queue name
- * The maximum number of batch jobs that shall be run in the batch queue concurrently
- * The total number of batch jobs in the batch queue
- * The status of the batch queue
- * For each state, the number of batch jobs in that state in the batch queue and the name of the state
- * The type of batch queue (execution or routing)

If the operands presented to the qstat utility are destinations, the -Q

option is specified, and the -f option is specified, the qstat utility shall display the following items for each successfully processed operand and:

- * The batch queue name
- * The maximum number of batch jobs that shall be run in the batch queue concurrently
- * The total number of batch jobs in the batch queue
- * The status of the batch queue
- * For each state, the number of batch jobs in that state in the batch queue and the name of the state
- * The type of batch queue (execution or routing)
- * Additional implementation-defined information, if any, about the batch queue

If the operands presented to the qstat utility are batch server names, the -B option is specified, and the -f option is not specified, the qstat utility shall display the following items on a single line, in the stated order, with white space between each item, for each successfully processed operand:

- * The batch server name
- * The maximum number of batch jobs that shall be run in the batch queue concurrently
- * The total number of batch jobs managed by the batch server
- * The status of the batch server
- * For each state, the number of batch jobs in that state and the name of the state

If the operands presented to the qstat utility are server names, the -B option is specified, and the -f option is specified, the qstat utility shall display the following items for each successfully processed operand and:

- * The server name
- * The maximum number of batch jobs that shall be run in the batch queue concurrently
- * The total number of batch jobs managed by the server

- * The status of the server
- * For each state, the number of batch jobs in that state and the name of the state
- * Additional implementation-defined information, if any, about the server

STDERR

The standard error shall be used only for diagnostic messages.

OUTPUT FILES

None.

EXTENDED DESCRIPTION

None.

EXIT STATUS

The following exit values shall be returned:

- 0 Successful completion.
- >0 An error occurred.

CONSEQUENCES OF ERRORS

In addition to the default behavior, the `qstat` utility shall not be required to write a diagnostic message to standard error when the error reply received from a batch server indicates that the batch job identifier does not exist on the server. Whether or not the `qstat` utility waits to output the diagnostic message while attempting to locate the batch job on other servers is implementation-defined.

The following sections are informative.

APPLICATION USAGE

None.

EXAMPLES

None.

RATIONALE

The `qstat` utility allows users to display the status of jobs and list the batch jobs in queues.

The operands of the `qstat` utility may be either job identifiers, queues (specified as destination identifiers), or batch server names. The `-Q` and `-B` options, or absence thereof, indicate the nature of the oper?

ands.

The other options of the qstat utility allow the user to control the amount of information displayed and the format in which it is displayed. Should a user wish to display the status of a set of jobs that match a selection criteria, the qselect utility may be used to acquire such a list.

The -f option allows users to request a "full" display in an implementation-defined format.

Historically, the qstat utility has been a part of the NQS and its derivatives, the existing practice on which it is based.

FUTURE DIRECTIONS

The qstat utility may be removed in a future version.

SEE ALSO

Chapter 3, Batch Environment Services, qselect

The Base Definitions volume of POSIX.1-2017, Chapter 8, Environment Variables, Section 12.2, Utility Syntax Guidelines

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