
LSF Batch Administrator's Quick Reference

Version 3.2

Platform Computing Corporation

LSF Batch Administrator's Quick Reference

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Printed in Canada

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Preface

Audience

This guide provides command reference information for administrators of LSF Base, LSF Batch, and LSF MultiCluster. Users should be familiar with executing commands in a UNIX or Windows NT environment. For detailed information see the *LSF Batch User's Guide* and the *LSF Batch Administrator's Guide*.

Common Options

All commands take the following options. They will not be shown unless they differ for a specific command:

- h Print command usage to standard error and exit.
- v Print LSF version to standard error and exit.

Related Documents

The following guides are available from Platform Computing Corporation:

- LSF Installation Guide*
- LSF Batch Administrator's Guide*
- LSF Batch Administrator's Quick Reference*
- LSF Batch User's Guide*
- LSF Batch User's Quick Reference*
- LSF JobScheduler Administrator's Guide*
- LSF JobScheduler User's Guide*
- LSF Analyzer User's Guide*
- LSF Parallel User's Guide*
- LSF Programmer's Guide*

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Online Documentation

- Man pages (accessed with the `man` command) for all commands
- Online help available through the Help menu for the `xlsbatch`, `xbmod`, `xbsub`, `xbalarms`, `xbcal` and `xlsadmin` applications.

Technical Assistance

If you need any technical assistance with LSF, please contact your reseller or Platform Computing's Technical Support Department at the following address:

LSF Technical Support
Platform Computing Corporation
3760 14th Avenue
Markham, Ontario
Canada L3R 3T7

Tel: +1 905 948 8448
Toll-free: 1-87PLATFORM (1-877-528-3676)
Fax: +1 905 948 9975
Electronic mail: support@platform.com

Please include the full name of your company.

You may find the answers you need from Platform Computing Corporation's home page on the World Wide Web. Point your browser to www.platform.com.

If you have any comments about this document, please send them to the attention of LSF Documentation at the address above, or send email to doc@platform.com.

Administration

lsfsetup

Menu-driven LSF installation, upgrade, and configuration utility.

lsfrestart and lsfshutdown

Restart or shutdown the LSF daemons on all hosts in the local cluster.

```
lsfrestart [-f]
lsfshutdown [-f]
```

-f Continue without seeking confirmation if an error is encountered.

lsadmin

LSF administrative tool to control the operation of *LIM* and *RES* daemons in an LSF cluster. Without arguments, `lsadmin` prompts for commands.

```
lsadmin [-h] [-V] [command] [command_options] [command_args]
ckconfig [-v]
```

Check LSF *LIM* configuration files. If `-v` is specified, display detailed messages about configuration file status.

```
reconfig [-v] [-f]
```

Restart *LIM* daemons on all hosts in the local cluster. If `-v` is specified, display detailed messages about configuration file status. If `-f` is specified, the operation will proceed without confirmation unless the configuration files contain fatal errors.

```
limstartup [hostname ... | [-f] all]
limrestart [-v] [-f] [hostname ... | all]
limshutdown [hostname ... | [-f] all]
```

Start-up, restart, or shut down *LIM* daemons on the hosts specified or on all hosts in the local cluster if the reserved hostname `all` is the only argument provided. Default: local host. If `-v` is specified, display detailed messages about configuration file status. If `-f` is specified, no confirmation will be requested.

```
limlock [-l lasting_time]
limunlock
```

Lock or unlock *LIM* daemon on the local host. If `-l` is specified, the host is locked for *lasting_time* seconds; otherwise, it will be locked until explicitly unlocked. When a host is locked, its *LIM* load status becomes `lockU`.

```
resstartup [hostname ... | [-f] all]
resrestart [hostname ... | [-f] all]
resshutdown [hostname ... | [-f] all]
```

Start-up, restart, or shut down *RES* daemons on the hosts specified or on all hosts in the local cluster if the reserved hostname `all` is the only argument provided. Default: local host. If `-f` is specified, no confirmation will be requested. For `resstartup`, the LSF administrator should be able to use `rsh` on all LSF hosts.

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```
reslogon [-c cpuTime] [hostname ... | all]
reslogoff [hostname ... | all]
```

Turn on or turn off *RES* daemon task logging on the hosts specified or on all hosts in the local cluster if the reserved hostname `all` is the only argument provided. Default: local host. *RES* will write resource usage information into the log file `lsf.acct.hostname`. If `-c` is specified, log only the tasks which used more than *cpuTime*; otherwise all tasks will be logged.

```
help [command ...]
```

Display the syntax and functionality of the specified command(s).

```
quit
```

Exit the `lsadmin` session.

`lsreconfig` is an alias for `lsadmin reconfig`, `lslockhost` is an alias for `lsadmin limlock`, and `lsunlockhost` is an alias for `lsadmin limunlock`. These commands are for backward compatibility.

badmin

Administration tool to control and monitor LSF Batch with a set of privileged and non-privileged commands. Privileged commands can only be invoked by `root` or LSF administrators; all other commands can be invoked by any user. Without arguments, `badmin` prompts for commands.

```
badmin [-h] [-v] [command] [command_options] [command_args]
```

```
ckconfig [-v]
```

Check LSF Batch configuration files. If `-v` is specified, display detailed messages about configuration file status.

```
reconfig [-v] [-f]
```

Dynamically reconfigure the LSF Batch system. If `-v` is specified, display detailed messages about configuration file status. If `-f` is specified, the operation will proceed without confirmation unless the configuration files contain fatal errors.

```
qopen [queue_name ... | all]
qclose [queue_name ... | all]
qact [queue_name ... | all]
qinact [queue_name ... | all]
```

Open, close, activate, or inactivate the LSF Batch queues specified by *queue_name*, or all queues if the reserved word `all` is given. If no queue is specified, the system default queue is assumed.

```
qhist [-t time0, time1] [-f logfile_name] [queue_name ...]
hhist [-t time0, time1] [-f logfile_name] [host_name ...]
mbdhist [-t time0, time1] [-f logfile_name]
hst [-t time0, time1] [-f logfile_name]
```

Display the event history of LSF Batch; `qhist` displays the named queues (default: all queues), `hhist` displays the named hosts (default: all hosts), `mbdhist` displays the master batch daemon (`mbatchd`) and `hst` displays all three. If `-t` is specified, display only those events that happened during the period from `time0` to `time1` (see `bhist(1)` for the time format). If `-f` is specified, use `logfile_name` as the event log file.

```
hopen [host_name ... | all]
hclose [host_name ... | all]
```

Open or close the server hosts specified or all hosts in the LSF Batch system if the reserved hostname `all` is given. Default: local host.

```
hstartup [host_name ... | [-f] all]
hrestart [host_name ... | [-f] all]
hshutdown [host_name ... | [-f] all]
```

Start-up, restart, or shut down slave batch daemons (`sbatchd`) on the server hosts specified or all hosts in the LSF Batch system if the reserved hostname `all` is given. Default: local host. If `-f` is specified, no confirmation will be requested. For `hstartup`, the LSF administrator should be able to use `rsh` on all LSF hosts.

```
help [command ...]
? [command ...]
```

Display the syntax and functionality of the specified command(s).

```
quit
```

Exit the `badmin` session.

xlsadmin

Motif-based graphical application for LSF administration.

brun

Force LSF to run a submitted, pending batch job immediately on a specified host. Only an LSF administrator can force a job to run using this command.

```
brun [-f] -m host ... jobID | "jobID[index]"
    -f      Force the job to run regardless of the queue's RUNWINDOW, loadStop, and
            STOP_COND, and the hosts' RUNWINDOW and loadStop conditions.
    -m host Specifies the host on which the job is to be run.
```

jobID | "jobID[index]"
Specifies the ID of the job or job array element.

Accounting

bacct

Report accounting statistics on completed batch jobs in the LSF Batch system.

```
bacct [-h] [-V] [-b] [-l] [-w] [-d] [-e] [-f logfile] [-N host_spec]
[-C time0, time1] [-S time0, time1] [-D time0, time1] [-q queuelist]
[-m hostlist] [-u userlist | all] [-P projectlist] [jobId ...]
```

- b Display brief information on each job and a summary. Default: display only the summary.
- l Display all the information on each job and a summary. Default: display only the summary.
- w Display in wide format. No truncation is performed on user name, queue name, from host, execution host or job name.
- d Consider only successfully completed jobs (DONE status). Default: all finished jobs (DONE or EXIT status).
- e Consider only exited jobs (EXIT status). Default: all finished jobs (DONE or EXIT status).
- f logfile
Use *logfile* as the job log file to be analysed. Default: the current job log file (*lsb.acct*).
- N host_spec
Display normalized CPU time, adjusted by the scaling factor of the execution host or host model given by *host_spec*.
- C time0, time1
Consider only those jobs whose completion or exit times were within the time interval *time0* to *time1*. Default: all logged jobs.
- S time0,time1
Consider only those jobs whose submission times were within the time interval *time0* to *time1*. Default: all logged jobs.
- D time0,time1
Consider only those jobs whose dispatch times were within the time interval *time0* to *time1*. Default: all logged jobs.

-
- q *queuelist*
Consider only jobs submitted to the named queues. If two or more queues are given, they must be enclosed by (") or ('). Default: all queues.
 - m *hostlist*
Consider only jobs executed on the named hosts. If two or more hosts are given, they must be enclosed by (") or ('). Default: all hosts.
 - u *userlist* | *all*
Consider only jobs submitted by the named users, or all users if the reserved name *all* is given. A mixture of user names and user IDs can be listed. If two or more names or IDs are given, they must be enclosed by (") or ('). Default: the invoker.
 - P *projectlist*
Consider only those jobs submitted to *projectlist*. If two or more project names are given, they must be enclosed by (") or ('). The default is to consider all project names.
 - jobId* Consider only the specified jobs. This option overrides all other options except *-h*, *-v*, *-b*, *-l*, and *-f*. Default: all jobs that satisfy the other options.

LSF Components

LSF has four parts to its architecture: a Load Information Manager (*LIM*), a Remote Execution Server (*RES*), a slave batch daemon (*sbatchd*) and a master batch daemon (*mbatchd*).

They are root-owned daemons. *LIM*, *RES* and *sbatchd* run on each host in a load sharing cluster. These daemons are invoked at boot time. The *sbatchd* daemon on the master host invokes *mbatchd*.

LIM

The *LIM* collects load and resource information about all hosts in the cluster and provides host selection services to applications through *LSLIB*. The *LIM* maintains information on static system resources and dynamic load indices.

RES

The *RES* provides the mechanisms for transparent remote execution of tasks. The *RES* accepts remote execution requests from all load sharing applications and handles input/output on the remote host for load shared processes.

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mbatchd

User jobs are held by `mbatchd` when submitted. `mbatchd` periodically checks the load information on all candidate hosts by contacting the master *LIM*. When a host with the necessary resource becomes available, `mbatchd` will send a job to the *sbatchd* on that host for execution. When more than one candidate host becomes available, `mbatchd` chooses the best host.

sbatchd

An `sbatchd` daemon accepts job execution requests from the *mbatchd*, and monitors the progress of its jobs. `sbatchd` controls the execution of the jobs and reports job status to *mbatchd*.

Troubleshooting

What Should Be Running?

The process status command, `ps`, run on an LSF server host should show the *LIM* (`lim`), *RES* (`res`), and *sbatchd* daemons. The master host should also show the *mbatchd* daemon.

LSF Files	Directory
<code>lsf.conf:</code>	<code>\$LSF_CONFDIR</code> - default installation <code>\$LSF_SERVERDIR</code> - custom installation
<code>lsfsetup</code>	<code>\$LSF_SERVERDIR</code>
All LSF daemons	<code>\$LSF_SERVERDIR</code>
Administration tools	<code>\$LSF_BIN</code>
Configuration file	<code>\$LSF_CONFDIR</code>
Batch configuration files	<code>\$LSF_CONFDIR/lsbatch/cluster/configdir</code>
<code>lsf.acct.host</code>	<code>\$LSF_RES_ACCTDIR</code> or <code>/tmp</code>

LSF Files

Directory

<code>lsb.acct</code>	<code>\$LSB_SHAREDIR/cluster/logdir</code>
<code>lsb.events</code>	<code>\$LSB_SHAREDIR/cluster/logdir</code>
<code>daemon.log.host</code>	<code>\$LSF_LOGDIR</code>

LSF Error Log Files

LSF error messages can be logged to either `syslog`, or log files if `LSF_LOGDIR` is defined in `lsf.conf`. There are three error log files for each server host: `lim.log.host`, `res.log.host` and `sbatchd.log.host`. In addition, the master host has `mbatchd.log.host`.

LSF Configuration Files

lsf.conf

Generic environment configuration file describing the configuration and operation of the LSF installation.

`LSF_CONFDIR`

The directory where all the rest of the LSF configuration files are installed.

`LSF_SERVERDIR`

The directory where all LSF server binaries are installed.

`LSF_ROOT_REX`

Allow root to run jobs through LSF.

`LSF_LOG_MASK`

Set the level of daemon error message logging.

`LSF_LOGDIR`

Directory under which error messages from all daemons are logged.

`LSF_SERVER_HOSTS`

Defines one or more LSF server hosts that the application must contact in order to get in touch with a *LIM*. Typically used by client-only hosts that do not run a *LIM*.

`LSF_RES_ACCT`

If defined, RES will log task information by default.

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LSF_RES_ACCTDIR

The directory used by RES to store its task log file.

LSF_AFS_CELLNAME

AFS cellname must be specified here if AFS is installed.

LSF_AUTH

Defines the type of authentication to use.

LSF_STRIP_DOMAIN

If all hosts in the cluster can be reached using short host names, this parameter can be used to specify the portion of the domain name to remove.

LSF_LICENSE_FILE

The full pathname of the FLEXlm license file used by LSF.

LSF_LIM_PORT

Defines the UDP port number *LIM* uses to serve all applications.

LSF_RES_PORT

Defines the TCP port number *RES* uses to serve all applications.

LSF_LIM_DEBUG

If defined, the Load Information Manager operates in single-user mode.

LSF_RES_DEBUG

If defined, the Remote Execution Server operates in single-user mode.

LSF_USE_HOSTEQUIV

If defined, LSF will trust all hosts configured in the LSF cluster that are defined in *hosts.equiv*, or in the file *.rhosts* in the user's home directory.

LSF_RES_RLIMIT_UNLIM

Specifies that the hard limits for a remote task be unlimited.

LSF_CROSS_UNIX_NT

If defined as no, No, or NO, all cross-platform job submissions and requests will fail (in a mixed UNIX/NT cluster).

lsf.shared

This is the system configuration file that is shared by all load sharing clusters of an LSF installation. This file contains the following sections:

Cluster

Contains a list of the names of the clusters in this LSF installation. Keywords: *ClusterName*, *Servers*.

HostType

Defines the list of valid host types. Keywords: *TypeName*.

HostModel

Defines the host models and their associated CPU scaling factors. Keywords: *ModelName*, *CPUFactor*.

Resource

Defines static resource names. Keywords: ResourceName, Type, Interval, Increasing, Description.

lsf.cluster.cluster

The configuration file for the named *cluster*. The cluster name must be defined in *lsf.shared*.

Parameters

Specifies miscellaneous parameters.

ELIMARGS

Specifies the arguments to be passed to the external *LIM* on startup.

EXINTERVAL

Specifies the minimum load exchange interval (in seconds) used by the LIM.

ELIM_POLL_INTERVAL

Specifies the interval (in seconds) at which the LIM samples load information.

HOST_INACTIVITY_LIMIT

Specifies a multiple of EXINTERVAL which controls the maximum time a slave will take to send its load information to the master as well as the frequency with which the master LIM will send a heartbeat message to its slaves.

MASTER_INACTIVITY_LIMIT

Specifies a multiple of EXINTERVAL which affects the amount of time a slave will wait before attempting to become master.

PROBE_TIMEOUT

Used by a slave LIM before it becomes the master.

RETRY_LIMIT

Specifies a multiple of EXINTERVAL which controls the number of retries a master (slave) LIM makes before assuming the slave (master) is unavailable.

ADJUST_DURATION

Specifies a multiple of EXINTERVAL which controls the period during which a load adjustment is in effect when the *lsplace(1)* and *lsloadadj(1)* commands artificially raise the load on the selected host.

PRODUCTS

Specifies the names of those LSF products that are to be enabled for all the hosts in the cluster. Valid names: *LSF_Base*, *LSF_Batch*, *LSF_MultiCluster*, *LSF_JobScheduler*, and *LSF_Analyzer*. Default: *LSF_Base* and *LSF_Batch*.

ClusterAdmins

Defines LSF administrators for this cluster.

ADMINISTRATORS.

Specifies which users are LSF administrators. May be login or group names.

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RemoteClusters

Defines the remote clusters that the local cluster is interested in. Only used in an LSF MultiCluster environment.

CACHE_INTERVAL

Controls how long load information from the remote cluster is cached locally.

EQUIV

Specifies that the remote cluster may be "equivalent" to the local cluster.

RECV_FROM

Controls whether remote cluster users can run interactive jobs on local cluster.

Host

Lists the hosts that form this cluster together with their attributes.

HOSTNAME

The official host name (as returned by `hostname(1)`). Mandatory.

model

Determines the CPU scaling factor for the host. Mandatory.

type

Defines the host type. Mandatory.

server

Defines the host as a server. Optional. Default: 1 (server).

ND

Defines the number of local disks on this host. Optional. Used when *LIM* does not report disks correctly.

r15s, *r1m*, *r15m*, *ut*, *pg*, *it*, *io*, *ls*, *swp*, *mem*, *tmp*, and external dynamic numeric non-shared resources as defined in the 'Resource' section of the `lsf.shared` file

Load threshold indices. The host is marked as *busy* when any value is exceeded. All are optional.

RESOURCES

The static Boolean resources associated with this host. Optional.

RUNWINDOW

Defines when the host accepts remote jobs. Optional.

REXPRI

Specifies the default priority that the RES uses to run remote jobs on this host.

ResourceMap

This section is used to associate resources defined in the 'Resource' section of the `lsf.shared` file with hosts in the cluster.

RESOURCE_NAME

Specifies the name of the resource.

LOCATION

Defines the hosts which share a resource.

lsf.task, lsf.task . cluster, and .lsftask

Task eligibility and resource requirement files. `lsf.task` applies to all clusters and all users while `lsf.task . cluster` applies to the named *cluster*. Individual users can define a `.lsftask` in their home directory.

RemoteTasks

Defines the tasks that can be run remotely. A resource requirement string may be appended to a task.

LocalTasks

Defines tasks that can be run locally. A resource requirement string may be appended to a task.

hosts

Optional file, stored in `LSF_CONFDIR`. Defines LSF hosts in order to resolve inconsistent host naming practices in some environments. The format is the same as `/etc/hosts`.

lsb.params

This file defines the operating parameters of LSF Batch.

DEFAULT_QUEUE

The system default queues.

DEFAULT_HOST_SPEC

A host name or host model name used as the system default for adjusting CPU time limit.

MBD_SLEEP_TIME

The job dispatching interval in seconds.

SBD_SLEEP_TIME

The job checking interval in seconds.

JOB_ACCEPT_INTERVAL

The minimum interval between dispatching jobs to the same host. Measured in numbers of `MBD_SLEEP_TIME` periods.

JOB_TERMINATE_INTERVAL

Specifies the time interval between sending `SIGINT`, `SIGTERM`, and `SIGKILL` signals when terminating a job.

MAX_SBD_FAIL

The maximum number of retries for reaching a non-responding *sbatchd* daemon.

CLEAN_PERIOD

The amount of time that records are kept by the *mbatchd* daemon for non-repetitive jobs that have finished or been killed.

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MAX_JOB_NUM

The maximum number of finished jobs that the `lsb.events` file can store before `mbatchd` switches to a new file.

HIST_HOURS

The number of hours during which the CPU time used by a user is considered when calculating the priorities of a fairshare queue.

PG_SUSP_IT

The number of seconds during which a host should be interactively idle before a `pg` suspended job can be resumed.

DEFAULT_PROJECT

The system default project name. Default: `default`.

MAX_JOB_ARRAY_SIZE

Defines the maximum job array size. Maximum: 16384. Default: 1000.

DISABLE_UACCT_MAP

This option, if set to Y, causes LSF Batch to disallow user level account mapping.

CPU_TIME_FACTOR

Weighting factor for the CPU time consumed by a user in calculating that user's fairshare priority in a fairshare queue or host partition.

RUN_TIME_FACTOR

Weighting factor for the run time consumed by a user in calculating the user's fairshare priority in a fairshare queue or host partition.

RUN_JOB_FACTOR

Weighting factor for the number of job slots used or reserved by a user in calculating the user's fairshare priority in a fairshare queue or host partition.

lsb.queues

This file defines the job queues configured for an LSF cluster.

QUEUE_NAME

Name of the queue. `default` is reserved and cannot be used as queue name.

DESCRIPTION

A brief description of the queue.

PRIORITY

Priority of the queue. Larger values indicate higher priorities.

NICE

The nice value for running jobs.

QJOB_LIMIT

The maximum number of job slots available to the jobs in the queue.

UJOB_LIMIT

Per-user maximum number of job slots available to each user's jobs in the queue.

HJOB_LIMIT
Per-host maximum number of job slots available to the jobs sent to the same host from the queue.

PJOB_LIMIT
Per-processor maximum number of job slots available to jobs sent to each processor from the queue.

FAIRSHARE
Jobs in this queue are scheduled based on a fairshare policy.

JOB_CONTROLS
Control actions for suspending, resuming, and terminating jobs dispatched to this host.

TERMINATE_WHEN
Specifies that the `TERMINATE` action be invoked (instead of the `SUSPEND` action) when the run window closes, the load exceeds the suspending thresholds, or the job is being preempted to allow another job to run.

PREEMPTION
Defines the preemption relationship between this queue and other queues:
`PREEMPTIVE`—Jobs in this queue may preempt started jobs (running or suspended) from lower priority queues.
`PREEMPTABLE`—Running jobs from this queue may be preempted by jobs in higher priority queues even if those higher priority queues have not specified `PREEMPTIVE`.

EXCLUSIVE
Jobs dispatched from this queue can run exclusively on a host if the user so specifies at job submission time.

INTERACTIVE
Specifies the queue's policy in accepting interactive jobs.

JOB_ACCEPT_INTERVAL
The minimum interval between dispatching jobs to the same host. Overrides the same parameter in *lsb.params*. Measured in numbers of `MBD_SLEEP_TIME` periods.

DISPATCH_WINDOW
Defines the times (weekly) during which jobs in this queue can be dispatched.

RUN_WINDOW
Defines the times (weekly) during which jobs in this queue may execute.

IGNORE_DEADLINE
Specifies whether or not LSF Batch schedules jobs in the queue regardless of whether the job would be affected by deadline constraints.

NEW_JOB_SCHED_DELAY
The delay time after a new job has been submitted to this queue before *mbatchd* starts a new schedule session.

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SLOT_RESERVE

Job slots reservation time threshold for scheduling parallel jobs. Measured in numbers of MBD_SLEEP_TIME periods. Default: 0.

BACKFILL

Specifies whether or not any job in this queue can use slots reserved by other jobs.

USERS

The names of users and user groups that are authorized to use this queue.

ADMINISTRATORS

Administrators of the queue.

HOSTS

Names of hosts, host groups and host partitions that are used to run jobs from this queue.

r15s, r1m, r15m, ut, pg, io, ls, it, swp, mem, tmp, and external index names

The threshold values for the individual load indices used in scheduling and suspending jobs.

RES_REQ

The resource requirements for selecting and sorting candidate hosts to run jobs in this queue.

STOP_COND

Resource requirement string specifying the condition for suspending a running job in this queue.

RESUME_COND

Resource requirement string specifying the condition for resuming a suspended job in this queue.

MIG

The automatic job migration threshold in minutes.

DEFAULT_HOST_SPEC

A host name or host model name for adjusting CPU time limits.

SNDJOBS_TO

Specifies the list of remote queues to which jobs may be sent. For LSF MultiCluster use only.

RCVJOBS_FROM

Specifies the list of remote clusters that are allowed to send jobs to the queue. For LSF MultiCluster use only.

CPULIMIT

The total amount of normalized CPU time that a job from this queue is allowed to consume.

RUNLIMIT

The wall-clock run time limit for a job from this queue.

PROCLIMIT
The processor limit (parallelism limit) for a parallel job which can be accepted by this queue. Default: infinity.

FILELIMIT
The per-process file size limit (in KB) for all jobs from this queue. Default: infinity.

DATALIMIT
The per-process data segment size limit (in KB) for all jobs from this queue. Default: infinity.

STACKLIMIT
The per-process stack segment size limit (in KB) for all jobs from this queue. Default: infinity.

CORELIMIT
The per-process `core` file size limit (in KB) for all jobs from this queue. Default: infinity.

MEMLIMIT
The amount of total resident set size limit (in KB) for a job from this queue. Default: infinity.

SWAPLIMIT
The amount of total virtual memory limit (in KB) for a job from this queue. Default: infinity.

PROCESSLIMIT
The number of concurrent processes for a job from this queue.

PRE_EXEC
The pre-execution command for the jobs in the queue.

POST_EXEC
The post execution command for the jobs in the queue.

REQUEUE_EXIT_VALUES
The exit values used by LSF Batch to requeue jobs dispatched from a queue.

JOB_STARTER
Job starter command for jobs in the queue.

NQS_QUEUES
The NQS destination queues.

lsb.hosts

This file contains information about the batch server hosts in an LSF cluster.

Host
Defines the hosts that are used by an LSF cluster as batch job servers.

HOST_NAME
The host name. It can be the official host name, the host type name, the host model name, or the reserved word `default`.

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MXJ

The maximum number of job slots that this host can process concurrently.

JL/U

The maximum number of job slots per user that can be processed concurrently on this host.

DISPATCH_WINDOW

Defines the times (weekly) during which batch jobs may be dispatched to this host to run.

r15s, r1m, r15m, ut, pg, io, ls, it, swp, mem, tmp, and external index names

The threshold values for individual load indices used in scheduling and suspending jobs.

CHKPNT

Specifies special types of checkpoint support available on the host.

MIG

The automatic job migration threshold, in minutes.

HostGroup

Defines host groups, which are aliases for groups of hosts.

GROUP_NAME

The name of a host group.

GROUP_MEMBER

A list of names of hosts and host groups that are members of the group.

HostPartition

Defines subsets of hosts that must be accessed by users in a controlled manner, giving each user or user group a fair share of the resources.

HPART_NAME

The name of the host partition.

HOSTS

A list of names of hosts and host groups that are members of the host partition.

USER_SHARES

A number of [username, share] pairs.

lsb.users

This file contains information about the batch users in an LSF cluster.

UserGroup

Defines user groups, which are aliases for groups of users.

GROUP_NAME

The name of a user group.

GROUP_MEMBER

A list of names of users and user groups that are members of the group.

USER_SHARES

A number of [username, share] pairs.

User

Defines the maximum number of jobs that can be run concurrently by the LSF Batch system for specific users or user groups.

USER_NAME

The user name, the user group name or the reserved word default.

MAX_JOBS

The maximum number of job slots for this user or user group that can be used concurrently in the cluster.

JL/P

The maximum number of job slots for this user or user group that can be used concurrently on each processor.

UserMap

Defines the system user account mapping for multi-cluster jobs. For LSF_MultiCluster use only.

LOCAL

Specifies a list of local LSF users or user groups.

REMOTE

Specifies a list of LSF users or user groups on remote clusters.

DIRECTION

Specifies whether the local cluster accepts the user map specified in LOCAL, or proposes the user account mapping. It may be either import or export.

