API Functions

qbbackup

Purpose	Backup Supervisor state database.
Prototype	QB_BOOL qbbackup()

qbblock

Purpose	Sets job state to blocked.
Prototype	QB_BOOL qbblock(QbCommand cmd&, QbJobIdList& jobs)

qbblockwork

Purpose	Blocks work agenda items.
Prototype	QB_BOOL qbblockwork(QbCommand& cmd, QbWorkIdList& list)

qbbottom

Purpose	Moves jobs to end of execution order queue.
Prototype	QB_BOOL qbbottom(QbCommand& cmd, QbJobIdList& jobs)

qbcapturehosts

Purpose	Forces Supervisor to reacquire Worker hosts.	
Prototype	QB_BOOL qbcapturehosts()	
Parameters	None	

qbcompletework

Purpose	Sets work agenda items state to complete.
Prototype	QB_BOOL qbcompletework(QbCommand& cmd, QbWorkIdList& list)

qbconfigworkers

Purpose	Forces Supervisor to send updated configuration information to workers.	
Prototype	QB_BOOL qbconfigworkers()	

Parameters	None

qbcurrentdomain

Purpose	Returns the current domain setting.
Prototype	QbString qbcurrentdomain()
Parameters	None
Result	**Linux**: NIS domainname. **Windows**: Windows domain.
Comments	

qbcurrenttime

Purpose	Returns the current time according to the Supervisor.
Prototype	QB_INT qbcurrenttime()
Parameters	None
Result	Number of seconds since the Unix Epoch (00:00:00, Jan 1, 1970).
Comments	

qbcurrentuser

Purpose	Returns the current user name, regardless of platform.
Prototype	QbString qbcurrentuser()
Parameters	None
Result	String representing user name.
Comments	

qbdecodepackage

Purpose	Decodes job package from encoded string to data structure.
Prototype	QbString qbdecodepackage(const QbString& src)

qberror

Purpose	Creates error object.
Prototype	const QbString& qberror()
Parameters	None

qbfilterparam

Purpose	Creates a parameter filter object.	
Prototype	QbFilter* qbfilterparam(const QbString& name, const QbString& value)	
Parameters	name	String containing the name of the filter.
	value	String containing the filter's value.
Result	Filter object.	
Comments		

qbgetpass

Purpose	Reads command line password entry.	
Prototype	char* qbgetpass(char* str)	
Parameters	str	Command line prompt string.
Result	Input string, stripped of terminating newline or carriage return.	
Comments	Windows only.	

qbgrouppermissions

Purpose	Assigns permissions to user groups.
Prototype	QB_BOOL qbgrouppermissions(const QbString& method, QB_INT perm, const QbString& group, QbStringList& users)
Comments	User must have Qube administrator privileges.

qbhist

Purpose	Returns a list of history objects corresponding to the job query.	
Prototype	QB_BOOL qbhist(QbCommand& cmd, QbHistoryList& histlist)	
Parameters	cmd	Pointer to a QbCommand object containing job IDs.
	histlist	Pointer to a list of QbHistory objects.
Result	QB_TRUE if the command executed correctly, QB_FALSE otherwise.	

qbhostinfo

Purpose	Returns information from list of hosts.
Prototype	QB_BOOL qbhostinfo(QbQuery& query, QbHostList& hosts)

qbhostping

Purpose	Attempt to contact arbitrary host.
Prototype	QB_BOOL qbhostping(const QbString& host, QB_INT port, QbString& stats)

qbinterrupt

Purpose	Forces running jobs back to pending state immediately.
Prototype	QB_BOOL qbinterrupt(QbCommand& cmd, QbJobIdList& jobs)

qbjobid

Purpose	Creates new job ID.	
Prototype	QB_INT qbjobid()	
Parameters	None	

qbjobinfo

Purpose	Generates a list of job objects matching query filter.	
Prototype	QB_BOOL qbjobinfo(QbQuery& query, QbJobList& jobs)	
Parameters	query	Pointer to a query object containing a list of queries.
	jobs	List of job objects matching the query.
Result	QB_TRUE if the query returned successfully, QB_FALSE otherwise.	

qbjobobj

Purpose	Creates or retrieves a job description object.	
Prototype	QbJob* qbjobobj()	
Parameters	None	

qbjoborder

Purpose	Returns a list of jobs eligible to run on specified hosts.
Prototype	QB_BOOL qbjoborder(QbQuery& query, QbJobList& jobs)

qbkill

Purpose	Kills jobs.
Prototype	QB_BOOL qbkill(QbCommand& cmd, QbJobIdList& jobs)

qbkillwork

Purpose	Kills work agenda items.
Prototype	QB_BOOL qbkillwork(QbCommand& cmd, QbWorkIdList& list)

qbmigrate

Purpose	Interrupt a running job and force to run on a different host.
Prototype	QB_BOOL qbmigrate(QbCommand& cmd, QbJobIdList& jobs)

qbmodify

Purpose	Modifies various job parameters.
Prototype	QB_BOOL qbmodify(QbModifyCommand& cmd, QbJobIdList& jobs)

qbping

Purpose	Attempt to contact Supervisor
Prototype	QB_BOOL qbping(QbString& stats)

qbpreempt

Purpose	Forces running jobs back to pending state after agenda item is completed.
Prototype	QB_BOOL qbpreempt(QbCommand& cmd, QbJobIdList& jobs)

qbqueuesummary

Purpose	Generates a summary of overall job activity.
Prototype	QB_BOOL qbqueuesummary(QbStringList& types, QbDataTableList& datatablelist);

qbremove

Purpose	Removes jobs from the Supervisor database cache.

Prototype	QB_BOOL qbremove(QbCommand& cmd, QbJobIdList& jobs)

qbremovehost

Purpose	Forces Supervisor to remove host from internal tables.
Prototype	QB_BOOL qbremovehost(QbStringList& acc)

qbreportjob

Purpose	Returns updated job status to Supervisor.
Prototype	QB_BOOL qbreportjob(const QbStatus& st);

qbreportwork

Purpose	Returns updated work agenda item to Supervisor.
Prototype	QB_BOOL qbreportwork(QbWork& wrk)

qbrequestwork

Purpose	Asks Supervisor for a work agenda item.
Prototype	QB_BOOL qbrequestwork(QbWork& wrk)

qbrequeue

Purpose	Resets a failed, complete or killed job back to a initial blocked state.
Prototype	QB_BOOL qbrequeue(QbCommand& cmd, QbJobIdList& jobs)

qbrequeuework

Purpose	Reset work agenda items to blocked state.
Prototype	QB_BOOL qbrequeuework(QbCommand& cmd, QbWorkIdList& list)

qbreset

Purpose	Send signal to Supervisor requesting it to reconnect with its database server.
Prototype	QB_BOOL qbreset()

qbresource

Purpose	Query Supervisor for list of resources.
Prototype	QB_BOOL qbresource(QbResourceList& resources)

qbresume

Purpose	Sends resume signal to suspended jobs.
Prototype	QB_BOOL qbresume(QbCommand& cmd, QbJobIdList& jobs)
Comments	Unix only

qbresync

Purpose	Sends signal to Supervisor requesting a resync with slave Supervisor.
Prototype	QB_BOOL qbresync()

qbretry

Purpose	Resets failed, complete, or killed jobs back to the pending state.
Prototype	QB_BOOL qbretry(QbCommand& cmd, QbJobIdList& jobs)

qbretrywork

Purpose	Reset work agenda items to pending state.
Prototype	QB_BOOL qbretrywork(QbCommand& cmd, QbWorkIdList& list)

qbshove

Purpose	Forces Supervisor to reevaluate jobs' position in execution order.
Prototype	QB_BOOL qbshove(QbCommand& cmd, QbJobIdList& jobs)

qbsleep

Purpose	Suspends process for specified length of time.	
Prototype	QB_VOID qbsleep(QB_INT sec)	
Parameters	sec	seconds

	sec	**Windows**: milliseconds
Result	None	

qbstats

Purpose	Reports job statistics
Prototype	QB_BOOL qbstats(QbCommand& cmd, QbLogList& loglist)

qbstderr

Purpose	Retrieves job STDERR log file output.
Prototype	QB_BOOL qbstderr(QbCommand& cmd, QbLogList& loglist)

qbstderrstream

Purpose	Generates a continuous output stream of subjob STDERR
Prototype	QB_INT qbstderrstream(QB_INT jobid, QB_INT subid, QB_INT pos, QbString& data)

qbstdout

Purpose	Retrieves job STDOUT log file output.	
Prototype	QB_BOOL qbstdout(QbCommand& cmd, QbLogList& loglist)	
Parameters	cmd	Pointer to a QbCommand object containing job IDs.
	loglist	Pointer to a list of QbLog objects corresponding to the job IDs in QbComand.
Result	QB_TRUE if the command executed correctly, QB_FALSE otherwise.	

qbstdoutstream

Purpose	Generate a continuous output stream of subjob STDOUT
Prototype	QB_INT qbstdoutstream(QB_INT jobid, QB_INT subid, QB_INT pos, QbString& data)

qbsubid

Purpose	Creates new subjob ID.	
Prototype	QB_INT qbsubid()	

Parameters	None	

qbsubmit

Purpose	Submits a list of jobs to be dispatched by the Supervisor.	
Prototype	QB_BOOL qbsubmit(QbJobList& submit, QbJobList& result, QB_BOOL deferTableCreation = QB_FALSE)	
Parameters	submit	Pointer to a list of job objects to be submitted.
	result	Pointer to an updated list of job objects submitted to the Supervisor.
	deferTableCreation	Whether the supervisor should defer DB table creation or not (default FALSE).
Result	QB_TRUE if the job list was submitted successfully, QB_FALSE otherwise.	

qbsubmitcallback

Purpose	Submit a list of callbacks associated with certain events.	
Prototype	QB_BOOL qbsubmitcallback(QbCallbackList& sub, QbCallbackList& cbs)	
Parameters	sub	Pointer to a list of callback objects to be submitted.
	cbs	Pointer to the updated list of callback objects registered with the Supervisor.
Result	QB_TRUE if the callbacks were submitted successfully, QB_FALSE otherwise.	

qbsupervisorconfig

Purpose	Query Supervisor for configuration information.
Prototype	QB_BOOL qbsupervisorconfig(QbConfig& config)

qbsupervisorsetmode

Purpose	Sets Supervisor operating modes.
Prototype	QB_BOOL qbsupervisorsetmode(const QbString& val)

qbsupervisorunsetmode

Purpose	Unsets Supervisor operating modes.

Prototype	QB_BOOL qbsupervisorunsetmode(const QbString& val)

qbsuspend

Purpose	Sends the SUSPEND signal to running jobs
Prototype	QB_BOOL qbsuspend(QbCommand& cmd, QbJobIdList& jobs)
Comments	Unix only

qbsystem

Purpose	Executes an arbitrary command process.
Prototype	QB_INT qbsystem(QbString cmd)

qbthishostname

Purpose	Returns the name of the host, regardless of platform.	
Prototype	QbString qbthishostname()	
Parameters	None	
Result	Host name if it can be determined, "127.0.0.1" (the loopback host address) otherwise.	
Comments		

qbtop

Purpose	Moves jobs to the head of execution order queue.
Prototype	QB_BOOL qbtop(QbCommand& cmd, QbJobIdList& jobs)

qbtrigger

Purpose	Signal Supervisor with event trigger.
Prototype	QB_BOOL qbtrigger(const QbString& trigger)

qbunblock

Purpose	Unblocks jobs so they can begin executing when hosts become available.
Prototype	QB_BOOL qbunblock(QbCommand& cmd, QbJobIdList& jobs)

qbunblockwork

Purpose	Unblocks work agenda items.
Prototype	QB_BOOL qbunblockwork(QbCommand& cmd, QbWorkIdList& list)

qbupdatepassword

Purpose	Update Supervisor with new password information.
Prototype	QB_BOOL qbupdatepassword(const QbString& user, const QbString& domain, const QbString& passwd);
Comments	Windows only.

qbupdateresource

Purpose	Update Supervisor resource.
Prototype	QB_BOOL qbupdateresource(QbResourceList& acc)

qbuserpermissions

Purpose	Assigns access permissions to users.
Prototype	QB_BOOL qbuserpermissions(const QbString& method, QB_INT perm, QbStringList& users)
Comments	User must have Qube administrator privileges.

qbusers

Purpose	Returns current users list.
Prototype	QB_BOOL qbusers(QbAccessList& acc)

qbversion

Purpose	Returns Qube version number.	
Prototype	QbString qbversion()	
Parameters	None	
Result	QB_VERSION_NUMBER	
Comments		

qbworkerassign

Purpose	Sets Worker assignment list.
Prototype	QB_BOOL qbworkerassign(const QbString& host, QbAssignmentList& info)

qbworkerconfig

Purpose	Query Worker for configuration information.
Prototype	QB_BOOL qbworkerconfig(const QbString& name, QbConfig& config)

qbworkerinfo

Purpose	Gathers information from Worker.
Prototype	QB_BOOL qbworkerinfo(const QbString& host, QbHost& info)

qbworkerlock

Purpose	Registers locks with hosts.
Prototype	QB_BOOL qbworkerlock(QbString& locks, const QbString& host);

qbworkerping

Purpose	Attempt to contact specified Worker
Prototype	QB_BOOL qbworkerping(const QbString& host, QbString& stats)

qbworkerupdatevars

Purpose	Force Worker to update variable list.
Prototype	QB_BOOL qbworkerupdatevars(QbStringHash& vars, const QbString& host)