Target	Act	Cmd.	Switch
SCHEDULER	SHOW	qconf	-sss
	TERMINATE	qconf	-ks
SCHEDULER CONFIG	MODIFY	qconf	-msconf
	SHOW	qconf	-ssconf
SHARE TREE	ADD NODE	qconf	-astnode *path*
	Format: /<path>=<shares> path is Xpath-style with "/" as root node		
	CREATE	qconf	-astree
	DELETE	qconf	-dstree
	SHOW	qconf	-sstree
SUBMIT HOST	CREATE	qconf	-as *name*
	DELETE	qconf	-ds *name*
	SHOW	qconf	-ss
USER	CREATE	qconf	-auser
	DELETE	qconf	-duser *name*
	MODIFY	qconf	-dq *name*
	SHOW	qconf	-usq *name*
	LIST	qconf	-suserl
USER LIST	CREATE	qconf	-au *user_name list_name*
	Note: If user list does not exist it will be created automatically		
	DELETE	qconf	-dul list_name
	DELETE USER	qconf	-du *user_name list_name*
	MODIFY	qconf	-mu list_name
	SHOW	qconf	-su list_name
	LIST	qconf	-sul
USER SET	SEE "USER LIST"		

Daemons & Job Life Cycle
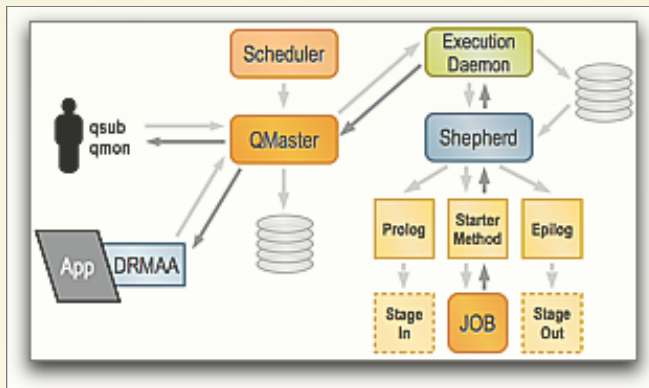
GRAPHIC SOURCE: DANIEL TEMPLETON

1. Jobs are submitted from submit hosts or via DRMAA API

2. User identity, current working directory, paths and environment values captured if available

3. Qmaster host receives job request, places entry in spool database and notifies the scheduler

4. Scheduler attempts to place job in best possible job slot. If the job can be placed during the current scheduling interval, the chosen queue instance name is returned to the qmaster daemon. If job can not be placed it remains on the pending task list.

5. Qmaster host receives queue instance name from the scheduler and dispatches job to the execution daemon running on the remote host.

6. The remote Execution daemon spawns a shepherd process to manage the job. The shepherd performs a setuid operation to effectively "become" the job submitter

7. Shepherd sets up job, including paths, cwd and environment variables recorded at submission time. The shepherd starts the job, monitors resource usage data and exit status. Shepherd also performs post-job cleanup tasks.

8. Exit status & accounting data are passed back to execution daemon which then passes the info back to the Qmaster.

Grid Engine 6.1 Quick Reference

This tri-fold brochure was created for BioTeam customers by reformatting the information contained in Dan Templeton's "SGE_Cheat_Sheet.pdf." Feel free to copy, publish and redistribute. Suggestions for improvements should be sent to chris@bioteam.net

ADDITIONAL RESOURCES

http://gridengine.sunsource.net

MAIL LISTS	HOWTOS	MANPAGES
ADMIN & USER GUIDES	BLOG	WIKI

BIOTEAM
Enabling Science

Alphabetical Reference by Target

TARGET	ACT	CMD.	SWITCH
ACL		SEE "USER LIST"	
ADMIN HOST	CREATE	qconf	-ah *name*
	DELETE	qconf	-dh *name*
	LIST	qconf	-sh
ADVANCE RESERVATION	CREATE	qrsub	*(SEE MANPAGE)*
	DELETE	qrdel	res_id
	SHOW	qrstat	-ar ar_id
	LIST	qrstat	
CALENDAR	CREATE	qconf	-acal *name*
	DELETE	qconf	-dcal *name*
	MODIFY	qconf	-mcal *name*
	SHOW	qconf	-scal *name*
	LIST	qconf	-scall
CHECKPOINT ENVIRONMENT	CREATE	qconf	-ackpt *name*
	DELETE	qconf	-dckpt *name*
	MODIFY	qconf	-mckpt *name*
	SHOW	qconf	-sckpt *name*
	LIST	qconf	-sckptl
COMPLEX ENTRY	CREATE	qconf	-mc
	DELETE	qconf	-mc
	MODIFY	qconf	-mc
	SHOW	qconf	-sc
CONSUMABLE		SEE "COMPLEX ENTRY"	
DEPARTMENT		SEE "USER LIST"	
EVENT CLIENT	SHOW LIST	qconf	-secl
EXEC HOST	STOP	qconf	-ke *name*
	If name is "all",all exec hosts will be killed		
EXEC HOST CONFIG	CREATE	qconf	-ae [*config*]
	Name config with "-ae" to import as template		
	DELETE	qconf	-de name|*global*
	MODIFY	qconf	-me name|*global*
	SHOW	qconf	-se name|*global*
	LIST	qconf	-sel

TARGET	ACT	CMD.	SWITCH
GLOBAL EXEC HOST CONFIG		SEE "EXEC HOST CONFIG"	
GLOBAL HOST CONFIG		SEE "HOST CONFIG"	
HOST CONFIG	CREATE	qconf	-aconf *name*
	DELETE	qconf	-dconf *name*
	MODIFY	qconf	-mconf *[name]*
	SHOW	qconf	-sconf *[name]*
	LIST	qconf	-sconfl
	Note: The "global" host configuration can not be deleted. If [name] not provided, SGE assumes "global".		
HOST GROUP	CREATE	qconf	-ahgrp @name
	DELETE	qconf	-dhgrp @name
	MODIFY	qconf	-mhrgp @name
	SHOW	qconf	-shgrp @name
	LIST	qconf	-shgrpl
JOB	ALTER	qalter	*(SEE MANPAGE)*
	CLEAR ERROR	qmod	-cj *jobID*
	HOLD	qalter	-hold_jid *jobID*
	HOLD	qhold	*jobID*
	RELEASE	qrls	-h n *jobID*
	RESCHEDULE	qmod	-rj *jobID*
	SHOW	qstat	-j *jobID*
	Note: In most cases, job name and wildcard ("") patterns can be used in place of jobID*		
	LIST	qstat	
	SUBMIT	qrsh	*(SEE MANPAGE)*
	SUBMIT	qsub	*(SEE MANPAGE)*
	SUSPEND	qmod	-sj *jobID*
	TERMINATE	qdel	*jobID*
MANAGER / OPERATOR	CREATE	qconf	-am name
	DELETE	qconf	-dm name
	LIST	qconf	-sm
	Note: substitute "-ao, -do and -so" for operator specific create/delete/list actions.		

TARGET	ACT	CMD.	SWITCH
PARALLEL ENVIRONMENT ("PE")	CREATE	qconf	-ap name
	DELETE	qconf	-dp name
	MODIFY	qconf	-mp name
	SHOW	qconf	-sp name
	LIST	qconf	-spl
PROJECT	CREATE	qconf	-aprj *name*
	DELETE	qconf	-dprj *name*
	MODIFY	qconf	-mprj *name*
	SHOW	qconf	-sprj *name*
	LIST	qconf	-sprjl
QMASTER	STOP / TERMINATE	qconf	-km
QUEUE	CLEAR ERROR	qmod	-cq *name* | '*'
	CREATE	qconf	-aq *name*
	DELETE	qconf	-dq *name*
	MODIFY	qconf	-mq *name*
	RESUME	qmod	-usq *name*
	SHOW	qconf	-sq *[name]*
	-sq used without [name] prints default template		
	LIST	qstat	-f | -u '*'
	LIST	qselect	
	LIST	qconf	-sql
	SUSPEND	qmod	-sq *name*
RESOURCE		SEE "COMPLEX ENTRY"	
RESOURCE QUOTA SET	CREATE	qconf	-arqs *[name]*
	DELETE	qconf	-drqs *name*
	MODIFY	qconf	-mrqs *name*
	SHOW	qconf	-srqs *[name]*
	LIST SETS	qconf	-srqsl
	SHOW	qquota	

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