Hasqd Command Line Options

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Introduction

Hasqd recognises a set of command line options. The primary purpose of the options is to configure hasqd server during start time. However, they can also be used to instruct hasqd components to perform certain actions.

All command line options come in the following form: *key=value*. For example, *quiet=yes.* Some options have default values - the ones used when the option is not specified. Some options also have a shortcut - one letter representing a particular key-value combination. A shortcut is specified with a dash, and multiple shortcuts can be combined into one dash option. For example, *-q* means *quiet=yes* and *-c* means *console=no*; both can be combined into *-qc*.

Each option has a data type associated with it. The three supported types are string, integer and boolean. String values may have different formats. Boolean values can be specified as follows: *1, yes, y, Y* for *true* and *0, no, n, N* for *false*. For example, *quiet=yes* can also be written as *quiet=1* or *quiet=y*.

List of shortcuts

Shortcut	Default value
-1	threads=none
-2	threads=svt
-c	console=no
-l	lock=no
-n	log=no
-q	quiet=yes
-x	quit=yes
-a	let=all
-p	p=0
-y	cycle=0

Hasqd components

The following tables refer to a number of hasqd components: Secretary, Ced (Chief Editor), Servant, Database, and Worker. For more details on hasqd components and their functions see Hasqd_arch.pdf.

Administrative options

These options define the environment the server is running in as well as some high-level server properties. They are mainly used by hasqd server administrators.

Key	Value type / format	Default value	Description
ban	*net-command* | all		Force *net-command* to be used in privileged mode only. *all* makes all network commands available in privileged mode only.
console	boolean	yes	Start console thread.
db	string	"."	Set Database root directory.
family	string	""	Set family name.
iplock	*host:port*		Add *host:port* ip-address to the list of locked neighbours. If another hasqd with this address connects to hasqd, it will be locked from possible deletion from the list.
lastdata_max	integer	100	Set search limit for *lastdata* network command.
let	*net-command* | all		Let *net-command* to be used in unprivileged mode. *all* makes all network commands available in unprivileged mode.
lock	boolean	yes	Create lock file after successful hasqd start.
log	boolean	yes	Create log file upon correct hasqd exit. Forceful abort or crash do not produce log file.
nbs	integer	4	Set number of close neighbours.
nodename, nn	string	@*host*@*port*	Set server name. Server defines two constants - @*host,* which value is equal to the name of a computer the server is running on, and @*port* with value equal to the port number the server is listening on. The default server name is a combination of these two constants. For example, if @*host*=Hasqd and @*port*=13131, then the default server name

			will be Hasqd13131. These constants can be used in *nodename* option. When found, they will be replaced by their corresponding values. For example, *nodename* =My@*host*On@*port* will produce server name MyHasqdOn13131
pleb	string	"."	Set root directory for *pleb* network command.
proxy	*host:port*		Act as proxy for hasqd server located at *host:port* ip-address.
quiet	boolean	no	Do not produce standard print output.
quit	boolean	no	Accept remote *quit* network command.
range_max	integer	100	Set maximum number of records which can be extracted by *range* network command.
script, s	string		HSL statements to execute or name of file with HSL statements to execute. If argument starts with @ then a list of semicolon-separated HSL statements is expected. For example, *s="@print [hello]; quit"*.
skckey	string	""	Add shared key to the list of keys.
skcseed	string	""	Set seed for shared key encryption. If not specified, the seed is initialised from system's enthropy.
tcp_port, p	integer	13131	Set port to listen to for incoming connections. Special value 0 means no listening.
info	ver | logo | lic		Print server version, logo or licence and exit. *ver* - print server version only *logo* - print complete server logo *lic* - print hasqd server licence
webdir	string		Format: *dir1*:*dir2* | *dir* Translate requests to directory *dir1* into directory *dir2*. *dir1* - directory in original network request *dir2* - server file system directory where requests to *dir1* will be translated to If single *dir* value is specified, it will be used for both *dir1* and *dir2*. This is required to make *dir* directory accessible.
webhome	string	/index.html	Default path to server home page.

webroot	string	slice	Set root directory for web browsers.
xfwd	string	0.0.0.0	Set ip-address of a proxy (e.g. nginx) hasqd is running behind. This is needed to correctly establish clients' ip-addresses. Hasqd expects proxy to pass clients' ip-addresses in *X-Forwarded-For* http header field.
zlim	int	-1	Set limit on “zero” commands per day per IP. Default –1 denotes no limit.

Low-level options

These options modify low-level hasqd server settings and it's not advisable to change them. However, if changing, thorough understanding of hasqd architecture and the effect that the new settings might have is expected. If in doubt, contact hasqd developers for more information.

Key	Value type / format	Default value	Description
cycle	integer	6000	Secretary cycle in milliseconds. This option determines how often alarms are checked.
dced	boolean	no	Print Ced debug messages.
devt	boolean	no	Print messages triggered by alarms.
dprn	boolean	no	Print Servant messages.
dpul	boolean	no	Print '.' each Secretaty cycle.
dsec	boolean	no	Print Secretary debug messages.
dsvt	boolean	no	Print Servant debug messages.
dwkr	boolean	no	Print Worker debug messages.
id	integer	0	Set server id for debugging purposes.
net_conntime	integer	10000	Maximum waiting time in millisecond during establishing connection to another hasqd.
net_readtime	integer	30000	Maximum waiting time in millisecond during reading from TCP socket.
qbin	integer	100	Ced/Worker communication queue length.
qced	integer	100	Ced queue length (queue of records submitted to Ced for adding to Database).

qsvt	integer	200	Servant queue length (maximum number of unprocessed requests to Servant).
qwkr	integer	100	Worker jobs queue length.
qlim	integer	1000	
reorgS	integer	10800	Reorganization alarm period in seconds.
threads	none | svt | all	all	Set threads allocation for hasqd components. *none* - all components will share one thread *svt* - Servant will be running in a separate thread, all other components will share one thread *all* - all components will have separate threads
workers	integer	4	Set number of workers. If 0, network requests cannot be processed.
workDelay	integer	0	Set delay in worker response in milliseconds

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