Qube 6.5-0 Release Notes

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@RELEASE: 6.5-0

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==== CL 11260 ====

@NEW: add Python/Perl API access to the new "timecumulative" subjob and work data

==== CL 11257 ====
@NEW: add support to the data warehouse for the new "cumulative time" instance and work columns

==== CL 11254 ====
@NEW: added ReadMe.rtf for the osx supervisor installer, so that the person installing the supervisor is made aware of the upgrade potentially taking a long time to complete.

==== CL 11247 ====
@NEW: add tracking of cumulative time spent in the "running" state for subjobs (instances) and work (agenda items), stored as an additional DB field in the Nsubjob and Nwork tables.

These values are computed by taking the elapsed number of seconds since the last start time of the instance/work, and then multiplying it by the number of actual job slots occupied by the instance, as dictated by the "host.processors" reservation.

JIRA: QUBE-124, QUBE-125

==== CL 11240 ====
@NEW: add support for job tags to the data warehouse schema

==== CL 11237 ====
@NEW:qb.query module's jobinfo function now accepts a "where" argument that will pass through a mysql "where" statement (without the "where" word). Example: where="name like 'foo' OR user like 'foo'"

==== CL 11219 ====
@FIX: issue with automount in desktop user mode.

@INTERNAL: also cleaned up some Win32 automount code.

ZD: 9434

==== CL 11217 ====
@CHANGE:Python API change: all python classes can now be constructed without data. In other words, one can create empty objects.

==== CL 11216 ====
@NEW: add support for real-time log parsing and progess percentages to job instances for non-agenda-based jobtypes, currently only supported by python-based jobtypes

==== CL 11208 ====
@NEW: label text for worker parameter widget changes colour to indicate a value which will be saved
@FIX: properly support worker_path_map and worker_drive_map in new qbwrk.conf configuration dialog
@FIX: properly indicate when the value for a given parameter varies between workers, even if it's not defined for a worker but defined for others
@FIX: support greater than 5 mapping definitions for worker_path_map and worker_drive_map

==== CL 11201 ====
@NEW: add DB conversion scripts (to add new subjob table columns introduced in 6.5, DB version 32) that run when the rpm/pkg/msi supe installer runs, to provide forward-compatibility for old (pre-6.5) job/subjob data

JIRA: QUBE-119

==== CL 11200 ====
@TWEAK:Minor Python API change: You can now create an empty qb.Job()

==== CL 11190 ====
@CHANGE: added "enable_windows_job_object" flag, and deprecated "disable_windows_job_object"

The "disable_windows_job_object" flag is silently ignored. Windows Job
Objects are always disabled now, unless the job explictly specifies
otherwise with the new "enable_windows_job_object" flag.

JIRA: QUBE-117

==== CL 11185 ====
@CHANGE: modified user name and group name authentications to be case-insensitve

JIRA: QUBE-98

==== CL 11183 ====
@NEW: add supervisor_default_hostorder parameter to qb.conf

JIRA: QUBE-113

==== CL 11178 ====
@CHANGE: Added "post" to the default callback language list, supervisor_language_flags

==== CL 11175 ====
@NEW: advanced worker resource reservations, including N-M, N+M and N* reservation specifiers, and live tracking of resource "allocations" and "slots" (actually allocated host.processor value) of running job instances.

JIRA: QUBE-91

==== CL 11174 ====
@NEW: add new worker DB table schema, QbTableVersion8

==== CL 11155 ====
@NEW: Add QB_JOBSLOTS and QB_ALLOCATIONS environment variables to be set, indicating the initial jobslot allocation and the more general initial resource allocations, respectively, when jobs execute.

==== CL 11127 ====
@FIX: editing supevisor config with WranglerView->Admin->Configure causes the 'submit_job' privilege to be removed from supervisor_default_security
@CHANGE: Admin->Display Config (local) changed to Admin->Display Running Config, shows supervisor and/or worker running config if these services are running locally
@CHANGE: Admin->Configure (Local) changed to Admin->Configure Local Host
@INTERNAL: add all supervisor and worker flag values to qb.utils.flags, now used directly by configuration dialog, instead of the config dlg items being order-dependent. Allows for sorting configuratin dialog items alphabetically for ease of use.
@NEW: Admin->Configure Local Host now creates a timestamped backup of the qb.conf file in the same location as the original
@NEW: Admin->Configure Local Host is now disabled on Windows and Linux if not invoked by root (linux) or Admin-equivalent (Windows)
@COSMETIC: File->Install AppUI menu items now sorted alphabetically

==== CL 11122 ====
@NEW:New utility qbtail.py in $QBDIR/utils. This is a *nix tail-like utility implemented in Python that runs on OS X, Linux, and Windows.

==== CL 11096 ====
@NEW:Updated and cleaned up all Python API examples in QBDIR/examples/python

==== CL 11088 ====
@INTEG: dev-supervisor-additional-job-params>main,CL11087

@NEW: added prod_{show,shot,seq,client,dept,custom[1-5]} fields to the job object.

The C++, Python, and Perl APIs have been updated.
The qbsub, qbjobs, and qbmodify commands and their online help text have been updated.

JIRA: QUBE-79

==== CL 11024 ====
@NEW: supervisor reread qb.conf file feature.

The qbadmin command has been updated with a "-reread" option, to be called as in "qbadmin s -reread" to
instruct the supervisor to reread its qb.conf file and update the dynamically modifiable parameters, which are
as of this writing:

* qb_domain
* supervisor_default_group_security
* supervisor_default_p_agenda_priority
* supervisor_default_pgrp_subjob_limit
* supervisor_default_priority
* supervisor_default_security
* supervisor_default_user_subjob_limit
* supervisor_flags
* supervisor_global_resources
* supervisor_highest_user_priority
* supervisor_job_flags
* supervisor_max_priority
* supervisor_p_agenda_max
* supervisor_pgrp_subjob_limits
* supervisor_user_subjob_limits
* supervisor_verbosity
* supervisor_worker_configfile

(Note: DB schema change was involved, and QbTableVersion32 was added)

JIRA: QUBE-92

==== CL 10972 ====
@CHANGE: modified qbworkerpathmap() to return the localhost's worker_path_map when called outside of a jobtype back-end environment.

JIRA: QUBE-95

==== CL 10953 ====
@FIX: remove digit/number from worker's journal file name (worker6.jnl -> worker.jnl)

==== CL 10946 ====
@TWEAK: error code now prints when QbTrackOSX in trackAssignment() encounters an error.

==== CL 10945 ====
@FIX: fix yet another issue with previous CL, concerning graceful worker shutdown.

Also swithced a couple of calls to qbvcout to qbvout so that more useful info such as timestamp and pid print.

==== CL 10943 ====
@INTERNAL TWEAK: added/corrected comments, and removed unneeded #ifdef/endif macro, while working on previous CL

==== CL 10942 ====
@CHANGE: modified worker shutdown code so that it immediately returns all running subjobs to the supe, and report a status of "down", so the supervisor marks it "down" promptly.

JIRA: QUBE-90

==== CL 10927 ====
@FIX: changed the initial state of a newly dispatched instance on a worker to "running" instead of "pending", so that early calls to qbjobobject() in the back-end code will return "running" as the job's status

JIRA: QUBE-45
==== CL 10827 ====
@NEW: a new interface for configuring multiple workers and writing out the qbwrk.conf
@FIX: add "convert_path" flag to client_ and supervisor_job_flags control
@FIX: default value in config UI for worker_max_threads was 8, now 256
@FIX: "Confgure on Supervisor" worker menu item is only enabled if user has the qube "admin" privilege AND is on the supervisor
@COSMETIC: all checkbox lists from "Choices" buttons are now sorted alphabetically

==== CL 10667 ====
@CHANGE:Python API-level change: QBObject is now simply a python dictionary. It no longer re-implements any functions
@CHANGE:Python API-level change: qb.updatelocalconfig now uses the subprocess module rather than the depricated popen2.Popen4.

==== CL 10589 ====
@FIX: job list not updating when switching supervisors, always show jobs from the default supervisor.
==== CL 10255 ====
@INTEG: rel-6.4 -> main

@NEW: pyCmdline and pyCmdrange do run-time path translation

==== CL 10061 ====
@CHANGE: index all datawarehouse fact tables on time_sk column, since it's so frequently accessed.

==== CL 10056 ====
@FIX: PFX_CREATE_DATASUBSET_TABLE doesn't use an indexed column for the WHERE clause, now does an INNER JOIN to the time dimension table
==== CL 10037 ====
@FIX: allow qube-core to be repaired if other qube products are already installed

==== CL 9730 ====
@TWEAK: modified so that worker name and IP print when job is accepted by worker, in assignJob()