

Whats New in Qube 6.1

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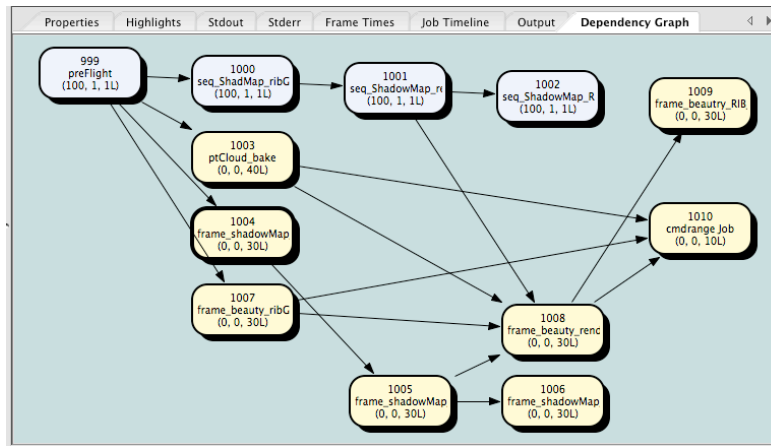
1. New Panels

1.1. Job Dependency Graph Panel

A Job Dependency Graph has been added as a panel in the Job Layout.

It visually shows per-job and per-frame dependency relationships between jobs. It will automatically put all jobs that are in the same metajob pgrp into the view as well as any upstream and downstream jobs.

The background color of the node indicates the status of that job or frame. One can directly select jobs from this panel. In addition, a right-click popup menu allows one to perform all the main job actions directly from within the panel.



It constructs this dependency graph from scanning the Job's "dependency" field for the standard link-complete-job-# and link-complete-work-#. For those writing custom event-triggered callbacks, one can manually add an info-complete-{} field to represent the complex relationships. Items in the dependency field are comma-separated.

Valid Formats for the "dependency" field:

- <jobid>
- complete-job-<jobid>
- link-<state>-<type>-<jobid>
- info-<state>-{" , [] }
 - special chars:
 - '*' mean each frame
 - " (blank) means entire job

Examples:

- link-complete-job-529, link-complete-work-430, info-complete-{'1':['540:3'], '*':['600:*'], "':['700']} , link-complete-job-300, 900, complete-job-123
- info-<state>-{'1':['123','456'], '*':['345:*'], '10':['346:2', 346:4]}

1.2. Running Processes Panel

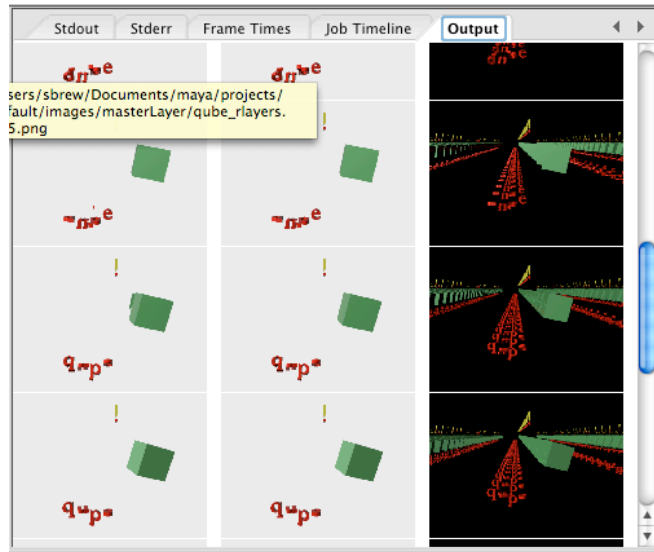
The new “Running Process Panel” (or “Running Panel” for short) provides a list of each process running across the farm. It will also pull information from the Worker, job, and frame to give a consolidated bank of useful information for monitoring what is running.

Job Layout Running Layout Farm Layout Admin Layout												
Job id	Job Process	Host	Job.name	Job.user	Task.name	Task.timestart	Task.timeelapsed	Task.eta_remain	Task.eta	Tasks_comp	Job.avg	Job.eta
25964	25964.1	osx105intel.local	test_01_024 fra...	sbrew	17	03:43:46 PM	0:00:02	0:00:00	03:43:52 PM	[1, 3, 5, ...	0:00:06	03:44:55 PM
25964	25964.0	suse93	test_01_024 fra...	sbrew	16	03:43:46 PM	0:00:02	0:00:00	03:43:52 PM	[2, 4, 6, ...	0:00:06	03:44:55 PM
25962	25962.5	fc8-64	test_01_024 fram...	sbrew	8	03:43:37 PM	0:00:08	0:00:00	03:44:02 PM	[3]	0:00:25	03:44:08 PM
25962	25962.4	suse101	test_01_024 fram...	sbrew	7	03:43:35 PM	0:00:10	0:00:00	03:44:00 PM	[]	0:00:25	03:44:08 PM
25962	25962.1	fc30	test_01_024 fram...	sbrew	9	03:43:38 PM	0:00:07	0:00:00	03:44:03 PM	[4]	0:00:25	03:44:08 PM
25962	25962.0	vm-suse101-64	test_01_024 fram...	sbrew	11	03:43:42 PM	0:00:03	0:00:00	03:44:07 PM	[5]	0:00:25	03:44:08 PM
25962	25962.3	rhel51-64	test_01_024 fram...	sbrew	10	03:43:39 PM	0:00:06	0:00:00	03:44:04 PM	[1]	0:00:25	03:44:08 PM
25962	25962.2	rhe40	test_01_024 fram...	sbrew	12	03:43:44 PM	0:00:01	0:00:00	03:44:09 PM	[2, 6]	0:00:25	03:44:08 PM
25961	25961.0	suse111-64	test_01_024 fra...	sbrew	12	03:43:38 PM	0:00:00	0:00:00	03:43:41 PM	[2, 4, 6, ...	0:00:03	03:44:10 PM
25961	25961.1	vm-fc50-64	test_01_024 fra...	sbrew	11	03:43:37 PM	0:00:01	0:00:00	03:43:40 PM	[1, 3, 5, ...	0:00:03	03:44:10 PM
25886	25886.11	WINXP64	Incremental NewR.	perforce	n/a	03:27:28 PM	0:16:07	2:06:13	05:50:39 PM	[]	2:23:11	05:54:33 PM
25886	25886.16	osx106.local	Incremental NewR.	perforce	n/a	03:35:17 PM	0:08:18	2:14:02	05:58:28 PM	[]	2:23:11	05:54:33 PM

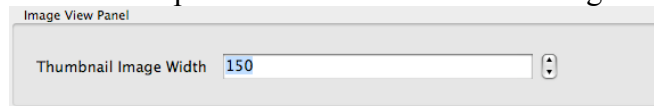
2. Panel Enhancements

2.1. *Output Image Thumbnails*

The “Output Image Panel” will optionally create smaller thumbnails of the output images and put them into columns. The number of columns depends on the width of the panel.



The width of the thumbnails is specified in the Preferences dialog.



Tip:

If there are 4 layers per frame, then the width can be adjusted to display 4 images per row, one column per layer. Then one can “scrub” up and down to see the image progression.

Note:

For performance reasons, the number of frames displayed per job is capped. For displaying large numbers of images, please consider using an external viewer.

2.2. *JobList has tally fields for status*

There are now individual columns that provide a running tally per job for pending, complete, running, blocked, killed, and failed frames or subjob processes. These columns can also be sorted.

% Done	State	State Frames	Name	Priority	Processes	Frames	User	Type	#P	#B	#R	#C	#F
100% (10/10)	complete	C		9999	0/1	10	sbrew	cmdrange	0	0	0	10	0
0% (0/1)	blocked	B		9999	0/1	0	sbrew	cmdline	0	1	0	0	0
100% (1/1)	complete	C	cmdline Job	9999	0/1	0	sbrew	cmdline	0	0	0	1	0
0% (0/5)	failed	F	3dsMax BatchRender Job	9999	0/1	5	sbrew	cmdrange	0	0	0	0	5
0% (0/5)	failed	F	3dsMax BatchRender Job	9999	0/1	5	sbrew	cmdrange	0	0	0	0	5
100% (10/10)	complete	C	maya Job	9999	0/1	10	sbrew	maya	0	0	0	10	0
100% (10/10)	complete	C	maya Job	9999	0/1	10	sbrew	maya	0	0	0	10	0

State tally Labels:

- #P pending
- #B blocked
- #C complete
- #F failed
- #R running
- #K killed
- #L badlogin
- #W waiting
- #S suspended

2.3. JobList has summary of all task status items

A summary of all frame or subjob process states has been added to the JobList as the “State Frames” column. It allows one at a glance to identify all the states for individual items within a job. The states are separated by a “/”.

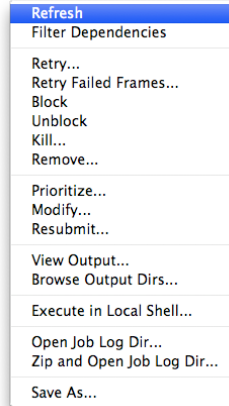
Id	% Done	State	State Frames	Name	Priority	Processes	Frames	User	Type
1184	3% (1/30)	running	C/K/P/R	cmdrange Job	9999	1/1	30	sbrew	cm

Order	Name	Status	Started	Elapsed	Completed	Host	SubjobID	Output
1	1	complete	08:34:34 PM	0:00:20	08:34:54 PM	MacBrew.local	0	
2	2	running	08:34:54 PM	0:00:10		MacBrew.local	0	
3	3	killed	08:35:02 PM	0:00:00	08:35:02 PM		-1	
4	4	pending					-1	
5	5	pending					-1	

3. UI Customization

3.1. *Dynamically Loaded Menus*

All the main and popup menus are now dynamically loaded and exposed to the user. This allows one add, remove, or tweak the menu items in the interface.



Tip:

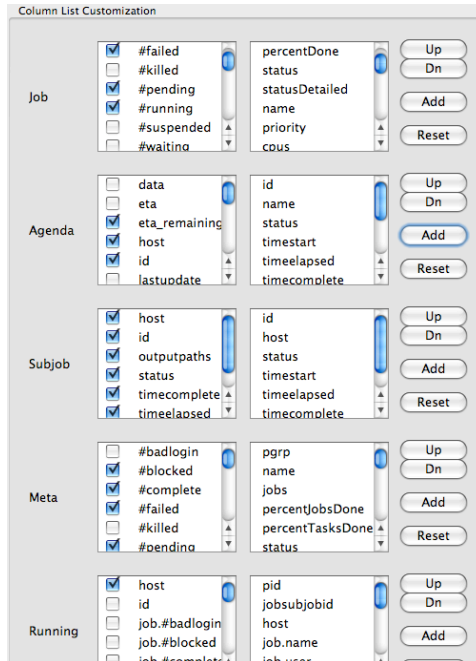
For example, one could add a “ssh <hostname>” menu item to the HostList popup menu to have it ssh into the selected host. Another useful item would be to tie it into the renderfarm’s power management controls to start or shutdown machines.

Default menus under simplecmds/

- menu_jobOutput.py
- menu_jobProcessesRunning.py
- menu_jobSubjobs.py
- menu_jobTasks.py
- menu_jobs.py
- menu_main.py
- menu_metajobs.py
- menu_users.py
- menu_workers.py

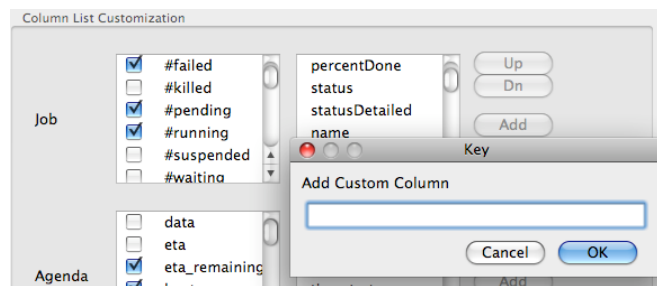
3.2. *All List Panels now with Customizable Columns*

All of the List Panels now have customizable columns under the Preferences dialog, instead of just the JobList and HostList.



3.3. Package and other parameters now Column Prefs

The columns in the List panels can now display items in the package and other dicts. The preferences have a place to add a custom value along with the other standard fields. Use a “.” to separate the dict items.



Package.shell	% Done	State	State Frames	Name	Package.scenefile	Priority	Processes	Frames	A
bin/sh	100% (1/1)	complete	C	Maya BatchRender (sw) Job	/Users/sbrew/Documents/m ...	9999	0/1	1	0:
bin/sh	100% (1/1)	complete	C	Maya BatchRender (mr) Job	/Users/sbrew/Documents/m ...	9999	0/1	1	0:
bin/sh	100% (1/1)	complete	C	Maya BatchRender (mr) Job	/Users/sbrew/Documents/m ...	9999	0/1	1	0:
bin/sh	0% (0/1)	failed	F	Maya BatchRender (mr) Job	/Users/sbrew/Documents/m ...	9999	0/1	1	0:

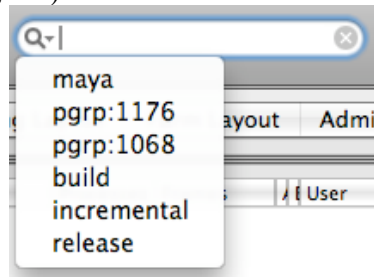
Examples:

- package.scenefile

4. Usability

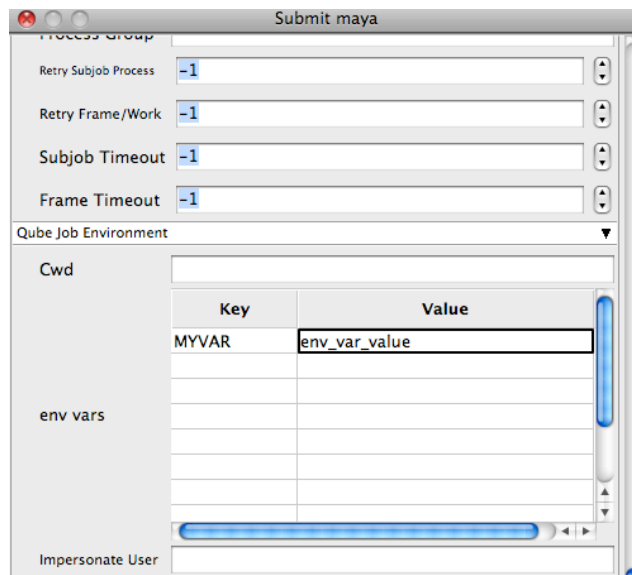
4.1. Search History

The search bar will now store recently used searches that can be retrieved by clicking on the search icon (magnifying glass).



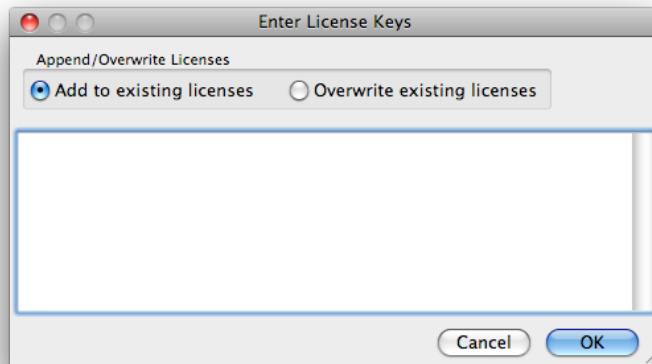
4.2. Submit Jobs with environment variables

When submitting jobs, one can now specify the cwd (current working directory) and individual environment variables directly.



4.3. Admin->Install License now a Cut/Paste Dialog Box

Installing a Qube primary license or rental license has now gotten easier thanks to a new cut-and-paste license dialog reached by the “Administration->Install License” menu item.



5. Applications

5.1. *New in-app submission: Houdini hython render*

Houdini now has in-application submission for its “hython render” submission interface. This will auto-fill the required fields like scenefile and framerate to make it easier to render directly to your Qube renderfarm while remaining in Houdini.

