



ALTAIR

Altair Accelerator Software 2021.0

Release Notes

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Once your customer portal account is set up, you can directly get to your support page via this link: www.altair.com/customer-support/.

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Telephone and E-mail

If you are unable to contact Altair support via the customer portal, you may reach out to the technical support desk via phone or e-mail. You can use the following table as a reference to locate the support office for your region.

When contacting Altair support, please specify the product and version number you are using along with a detailed description of the problem. It is beneficial for the support engineer to know what type of workstation, operating system, RAM, and graphics board you have, so please include that in your communication.

Location	Telephone	E-mail
Australia	+61 3 9866 5557 +61 4 1486 0829	anz-pbssupport@altair.com
China	+86 21 6117 1666	pbs@altair.com.cn
France	+33 (0)1 4133 0992	pbssupport@europe.altair.com
Germany	+49 (0)7031 6208 22	pbssupport@europe.altair.com
India	+91 80 66 29 4500 +1 800 208 9234 (Toll Free)	pbs-support@india.altair.com
Italy	+39 800 905595	pbssupport@europe.altair.com
Japan	+81 3 6225 5821	pbs@altairjp.co.jp

Location	Telephone	E-mail
Korea	+82 70 4050 9200	support@altair.co.kr
Malaysia	+91 80 66 29 4500 +1 800 208 9234 (Toll Free)	pbs-support@india.altair.com
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Russia	+49 7031 6208 22	pbssupport@europe.altair.com
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2021.1.0 Release Notes

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New Features and Enhancements

The following new features and enhancements were introduced this software release:

Table 1:

Product	Issue Number	Case Number	Description
All	VOV-9454	23741	Most of the VOV Tcl files from the installation package now contain the proper Altair copyright statement and version number.
All	VOV-12801		Introduce the new "tasker" lexicon for Accelerator product environment variables. Environment variable names containing old term "SLAVE" will get new names containing "TASKER" in the place of "SLAVE". The old environment variable name will be honored unless the new name is being used. This compatibility measure will ease the transition for administrators.
All	VOV-12797		New Tcl VTK function names are added to move to the new "tasker" lexicon. Old VTK function names containing the string "slave" are deprecated, and new VTK function names containing the string "tasker" are added and should be transitioned to from this release forward.
All	VOV-9297		Support for SuSE Linux Enterprise Server (SLES) 15 has been added to the Altair Accelerator products.
All	VOV-12111		Support for CentOS and RHEL 8 has been added to the Altair Accelerator products.
All	VOV-13321		Support for Ubuntu 14.04 has been dropped.
All	VOV-13306		This release discontinues support for the SLES 11 operating system.
All	VOV-13127		All references to the term "slave" have been replaced with the new term "tasker" throughout the online help documentation.
Accelerator	VOV-12708		A REST API guide and tutorial document is added to the Accelerator documentation bookshelf reader.

Product	Issue Number	Case Number	Description
Accelerator	VOV-12537		<p>SlaveLists are deprecated and replaced with TaskerLists with the following additional functionality:</p> <ul style="list-style-type: none"> • The Taskerlists now contain the tasker names instead of only NC-internal IDs. As a result, the taskerlist does not have to be recreated when a tasker is stopped and then restarted, as had been the case with slavelists in previous releases. • The TaskerLists definition will be stored in the PR so they will survive vovserver stop-and-restart sequences. • Added support for resource 'TaskerList:XXX' in <code>nc run</code> • 'SlaveList:XXX' resources will be automatically replaced by 'TaskerList:XXX' resources.
Accelerator	VOV-12458		Implemented "Dialpad" or "Waffle" menu for mobile screens and at high zoom levels on the dashboard UI page.
Accelerator	VOV-12743		Implemented Subsets table in Set Detailed View page.
Accelerator	VOV-12747		An actions dropdown menu has been added, enabling the actions (delete, run with priority) to be performed on selected jobs. Added a search bar, allowing the user to filter the jobs by entering search strings.
Accelerator, Accelerator Plus	VOV-12150		The documentation shown by " <code>ncmgr start -h</code> " is expanded to explain some additional features that require an Accelerator queue to have the webport enabled. In the 2020.1.0 release, the following new features require the webport: 1) REST v3 API and 2) the new administrator dashboard UI page.
Accelerator	VOV-12964		Fixed CSS issues in bulk actions drop down.
Accelerator	VOV-12812		Enabled client activity logging for <code>nc cmd</code> commands.
Accelerator	VOV-12744		Added a Details section for the selected set in the Set Detailed View page.
Accelerator	VOV-12739		Added UI functionality in the Dashboard > Set Browser screen. Users can now perform actions like retrace, and delete on sets, and also filter the displayed list of sets by text string.
Accelerator	VOV-12460		Added NC queue color to the dashboard user interface.

Product	Issue Number	Case Number	Description
Accelerator	VOV-12762		Implemented storybooks for the Table component user interface.
Accelerator	VOV-9778	23068, 23767, 23914, 24923	Irrelevant alerts are no longer generated. Addressed some implementation issues with <code>vtk_flexlm_exclude_tags</code> . Note that calls to <code>vtk_flexlm_exclude_tags</code> are cumulative and override any tags added with <code>vtk_flexlm_monitor</code> and <code>vtk_flexlm_monitor_all</code> . The <code>-nooq</code> parameter for <code>vtk_flexlm_monitor</code> has no impact at present, please use <code>vovresSetFlags</code> instead. The <code>-order</code> parameter to <code>vtk_flexlm_monitor</code> and <code>vtk_flexlm_monitor_all</code> only orders any specified tags, it no longer adds tags (use <code>-tags</code> to add tags). The optional parameters <code>vovResource</code> , <code>vovMap</code> to <code>vtk_flexlm_monitor</code> are now handled correctly.
Accelerator	VOV-12277		A new command option for <code>nc run</code> has been added called <code>-dpinitialport N</code> which allows the user to specify the starting port that <code>partialTool</code> will use to find an open port to communicate among the subtasks in the cohort. This will be reflected in a new job property named <code>DP_INITIAL_PORT</code> that can be observed being set on the job.
Accelerator	VOV-12736		The React dashboard has now implemented a Sets List view.
Accelerator	VOV-12742		Implemented Jobs table in Set Detailed View page.
Accelerator	VOV-13292		Two new server configuration parameters have been added: <code>http.workerthreads</code> and <code>http.proxytimeout</code> . <code>http.workerthreads</code> specifies the number of worker threads that the new REST HTTP server will start when <code>vovserver</code> starts with a valid webport. <code>http.proxytimeout</code> enables you to specify the timeout in seconds, used when the main webserver forwards some requests, like CGI pages, to the older http server listening on the VOV port.
Accelerator	VOV-11930	CS0120821	A new command line parameter was added for <code>nc run</code> for <code>dp</code> jobs called <code>-nocohortwait</code> . This instructs <code>partialTool</code> for each cohort task to finish when its subtask process has finished rather than wait for the primary job to complete (which is the default behavior). Passing <code>-nochortwait</code> to <code>nc run</code> sets a new property named <code>DP_COHORTWAIT</code> to 0. By default, this is set to 1 when <code>-nocohortwait</code> is not passed, and <code>partialTool</code> will behave like it always has.

Product	Issue Number	Case Number	Description
Accelerator, FlowTracer, Monitor	VOV-10198		Add support for Windows Server 2019.
Accelerator	VOV-12947		Added breadcrumb navigation to the Sets page, through which the user can navigate to the hierarchical sets.
Accelerator	VOV-12452		Add a sub-window for scheduler health monitoring and vital signs in the Accelerator admin dashboard web UI.
Accelerator	VOV-12733		Support is added for Accelerator on ARM64 systems running Centos 7, Centos 8, or Amazon Linux 2. This support is for execution hosts and submit hosts only. The "armv8" hardware resource name is added for this architecture.
Accelerator Plus	VOV-12295	CS0121114	<ol style="list-style-type: none"> 1. Fixed an issue where the NUMA_AFFINITY property on jobs always showed it as being bound to specific CPUs, even though it was bound to the entire NUMA node. 2. Fixed an issue where WX vovtaskers were overriding the affinity set by the NC vovtasker, causing WX jobs to be bound to only a subset of the available CPUs.
FlowTracer	VOV-12556		Add support for FlowTracer on Windows.
Hero	VOV-12891		Added a <code>-P <NAME=VALUE></code> parameter to the hero submit command (similar to the NC <code>-P</code> parameter).
Hero	VOV-12932		Added the <code>-modules</code> , <code>-stagein</code> , <code>-stageout</code> parameters to the hero <code>-zebu submit</code> command. The <code>DeclareEmulator</code> specification now includes the following parameters: <code>-type</code> (for future use), <code>-environment</code> , <code>z-zebu_system_dir</code> , <code>-zebu_root</code> . The commands specified in the <code>-stagein</code> , <code>-stageout</code> parameters depend on the resources <code>Limit:zebu_stagein_load</code> , <code>Limit:zebu_stageout_load</code> .
Monitor	VOV-5671		The <code>vtk_feature_add_or_create</code> API now expects an additional parameter for the associated ISV string. See the documentation for the new syntax. The <code>vtk_featureuser_*</code> APIs have had their names changed to <code>vtk_checkout_*</code> . The old <code>vtk_featureuser_*</code> names are still supported but <code>vtk_checkout_*</code> will be the official documented names.
Accelerator	VOV-6572		This should be fixed as a side effect of implementing the mutator API. See release notes for VOV-8899.

Resolved Issues

The following issues were resolved in this release.

Table 2:

Product	Issue Number	Case Number	Description
All	VOV-13252		<p>Web server improvements (when the web port is configured as non-zero):</p> <ol style="list-style-type: none"> Added the following headers to all HTTP responses: <ul style="list-style-type: none"> Strict-Transport-Security X-Frame-Options X-Xss-Protection X-Content-Type-Options X-Content-Security-Policy Content-Security-Policy Added support for web ports higher than 32000.
All	VOV-13181		Some stability improvements were made in the Webserver code to avoid potential crashes of vovserver.
All	VOV-12989	CS0145649	Fixed an issue where stopping more than 1 vovtasker by name (<code>vovtaskermgr stop <tasker1> <tasker2>...</code>) was renaming only the last named tasker to <code><taskername>_stopped_<timestamp></code> .
All	VOV-9560	23740	Fixed an issue with <code>vovnotifyd</code> using only the first RAM value for jobs with multiple RAM requests (e.g.: <code>-r+ RAM/100 -r+ RAM/200</code>) to determine if the job is exceeding requested RAM usage (health check of requested RAM).
Accelerator	VOV-11388	25153	Fixed an issue with the vovserver failing to start when <code>epoll</code> is enabled (<code>set config(useepoll) 1</code>) in <code>policy.tcl</code> .
All	VOV-12582		The <code>vovtaskermgr start</code> command will now only utilize the configured <code>rshcmd</code> (one of: <code>inetd/rsh/ssh/vovtsd</code>) for starting remote taskers. Prior to this change, the <code>inetd</code> method was always attempted, and the <code>vovtsd</code> method would be attempted if the configured <code>vovtsd</code> port was non-zero.
All	VOV-12512		All references to PBS Works support have been updated to direct the user to the new Altair One website.

Product	Issue Number	Case Number	Description
All	VOV-6287	20738	Fixed the issue in the error message "too many elements in array" where the max array was not getting updated as per the <code>config(maxJobArray)</code> .
All	VOV-13247		Network security testing port scans had in certain cases caused vovserver to hang up in an infinite loop.
Accelerator, Accelerator Plus, Monitor	VOV-13009	CS0133888	In the help information displayed by <code>nc cmd vovdaemonmgr -h</code> , a note was added indicating that the <code>-f</code> (force) option applies only to the start subcommand, and only when a daemon list is specified.
Accelerator	VOV-12418	CS0121215	By default, interactive jobs will also write to a logfile just like normal jobs do. You can also specify the log file with the <code>-l</code> parameter to <code>nc run</code> like normal jobs. If you do not want an interactive job to write to the log file, use <code>-nolog</code> as a parameter to <code>nc run</code>
Accelerator	VOV-12135		The axis labels in the jobs histogram in the dashboard UI page showed repeated "1" labels with a small number of running or queued jobs.
Accelerator	VOV-13000	CS0128274	Fixed an issue where incrementing grabbed resources was not incrementing the count of used resources in some cases.
Accelerator	VOV-13039	CS0146315	The network data sent as a result of <code>nc info</code> was made more compact, which will make running the command more efficient.
Accelerator	VOV-13113		Fixed CSS issues in Set Browser page.
Accelerator	VOV-13026	CS0149221	Handle window/weight inheritance for new FairShare groups that are being created during job submission. The window will be inherited from the parent. Both the window and weight will be inherited from a sibling group named "default".
Accelerator	VOV-12714		Fixed the following issues with job container support: <ul style="list-style-type: none"> 1. The <code>VOV_CONTAINER_<resource></code> (where <code><resource></code> is CORES, RAM, or TMP) environment variable was not being set in the hook environments for containers that were configured to use the job's resource specification as container limits. 2. The <code>VOV_CONTAINER_JOB_RUNDIR</code> environment variable was not being set in the hook environments

Product	Issue Number	Case Number	Description
			if the job's run directory had been configured as an equivalence, as would be the case for jobs submitted from within the user's home directory.
Accelerator	VOV-13108		As per the new API response, changes made to the footer version text.
Accelerator	VOV-13272		Increased virtual memory limit for <code>nc run</code> .
Accelerator, FlowTracer	VOV-12908		The Accelerator new dashboard UI for administrators, when accessed, will increase the vovserver memory "Size" metric printed by the <code>vsi</code> command. The large reported memory size is virtual memory address space size, with only modest associated increase in actual memory usage. The number of worker threads used by the web server can be controlled with <code>config(http.workerthreads) N</code> in <code>policy.tcl</code> . Changing this value will require a vovserver restart, because it can only be set once before the multithreaded webserver is initialized. Also, a timeout value for when the multi-threaded webserver has to delegate some requests, such as CGI pages, to the old vovserver web server, can be configured by setting <code>config(http.proxytimeout)</code> . This value can be changed at any time.
Accelerator	VOV-12977	CS0143428	Fixed an issue with interactive jobs (<code>nc run -I</code>) failing with the error message "Job has problems with PTY. Bad pipes".
Accelerator	VOV-12811	CS0129987	<code>vtk_resourceemap_set</code> now requires that the user either own the resource, or the user have ADMIN security rights for it to take effect.
Accelerator	VOV-10921	24781, 24803	To better clarify jobs that have been queued due to reserved taskers, additional information has been added to the output of the <code>nc why</code> command. Under the "Per-slave/per-tasker analysis" section, a count of taskers that would have been compatible but are reserved will be shown as: 'n is currently reserved by others'
Accelerator	VOV-5980	21105	The <code>nc modify</code> command has been modified to exit with a status of 1 if any part of the modification request fails.
Accelerator	VOV-12892		With certain types of product install methods, the Accelerator documentation bookshelf link in the Web UI is nonfunctional. This only impacts customers who download and un-tar both <code>common.tar</code> and <code>win64.tar</code> with the intent of installing both linux64 and win64 into the same master

Product	Issue Number	Case Number	Description
			installation directory. The workaround is to un-tar and install win64 first, then go back and un-tar <code>common.tar</code> and <code>linux64.tar</code> , and then install linux64 only. If you have an existing installation then un-tar <code>common.tar</code> and reinstall linux64 only.
Accelerator	VOV-12547		Fixed an issue with the <code>-I1</code> option for interactive jobs that prevented the user from typing in the terminal window and interacting with the job.
Accelerator	VOV-11452	-	Added <code>-orphanreservations</code> option to the <code>vovforget</code> command for forgetting the reservations not attached to any tasker. Behaviour is modified to allow overlapping reservation in the system, but it will never be in effect unless the dominant reservation is deleted. Fixed an issue where the tasker reservation gets duplicated after server restart. Also, changed the tasker instance reservation (created using <code>vtk_tasker_define</code> (<code>-reserve</code> option) or by passing the <code>-e</code> option to <code>vovtasker</code>) to be non-persistent by default. No change in behavior for tasker reservations created using <code>vtk_reservation_create</code> .
Accelerator	VOV-11662	29869	Fixed "no such variable 'killTimePP'" alerts when health checks are enabled for stuck jobs with <code>-stuckKillTime</code> .
Accelerator	VOV-9254	23430	Fixed issue that prevented child FairShare groups from being displayed when viewing the top-level group via <code>vovfsgroup show</code> .
Accelerator	VOV-11261		Addressed issue where delays were encountered due to <code>vovserver</code> not being immediately notified of an update.
Accelerator	VOV-7490	20070, 24363	Fixed an issue leading to "URGENT vovnotifyd Cannot send mail. can't read "code": no such variable" alerts. Reduced the severity to WARN, in case of failures to send mail. Also, added an alert if the list of recipients for notification emails is empty.
Accelerator	VOV-12464	CS0122942	Requests for CGROUP:RAM with more than 1 RAM specification will now limit RAM usage to the total amount requested by all RAM specifications rather than the last one. For example the command: <code>nc run -r CGROUP:RAM RAM/60 RAM/40 -- sleep 0</code> will limit ram usage to 100 megabytes rather than 40.

Product	Issue Number	Case Number	Description
Accelerator, Accelerator Plus	VOV-13030	CS0149277	Fixed an issue with Ctrl-C not working as expected with interactive jobs (<code>nc run -I/-Il/-Ir</code>).
Accelerator, Accelerator Plus, FlowTracer	VOV-4998	CS0143832	<p>For all products, strict job name checking has been enabled and invalid job name characters will cause an error. For Accelerator and Accelerator Plus, this can be overridden by putting the following in <code>\$VOVDIR/local/vncrun.config.tcl</code></p> <pre>set ::jobname_lexicon legacy</pre> <p>or</p> <pre>set ::jobname_lexicon replace</pre> <p>Legacy will use the more lax job naming rules from earlier releases. Replace will identify invalid characters in the job name, replace them with "_", and issue a warning to the console An issue with <code>vsm</code> being enabled to handle some invalid job name characters was addressed.</p>
Accelerator, Accelerator Plus	VOV-13051	CS0121039	Fixed an issue with interactive jobs (<code>nc run -I</code>) failing with error messages similar to "Error=98: Address already in use [vovttyserver2:244]" and "FATAL ERROR: Cannot open PTY port (with remote signal handling): Cannot open pty server sockets [vncrun.tcl:2257]". This is accompanied by job errors similar to "Cannot connect to PTY server on submission host lava1 13316 Z@:x=XGa56cT_Hd6 from lava5".
Accelerator	VOV-12519		<p>For consistency across CLI and web UI, the default values for the following VovPreemptRule options have changed in some cases from previous versions.</p> <ul style="list-style-type: none"> The option <code>-resumedelay</code> default is now 5 seconds previously the CLI default was 10 seconds. The default pool name is now <code>mainpool</code>, previously the web UI default was <code>MainPool</code>. The default for <code>-mqthresh</code> is now 0.1=10%, before the web UI default was 0.01. The <code>-killage</code> option default is now 60, previous version of the web UI had a default of 0. For <code>-skipresumedjob</code> option default is 120, previous versions of the web UI had a default of 0.

Product	Issue Number	Case Number	Description
			<ul style="list-style-type: none"> For <code>-preemptslavenum</code> new default will always be 1, some variants of CLI had a default value of 2 previously.
Accelerator	VOV-10558	23924	Empty job class sets are not deleted, thereby preserving all properties for future submissions.
Accelerator	VOV-12807		When you hover the mouse over the job graph line in the dashboard UI window, a small pop-up displays the Y unit, the Y number, and a time. The Y number is actually an average over a surrounding time window, and not an instantaneous value as implied by the information shown.
Accelerator	VOV-13169		When <code>vovserver</code> was configured with <code>webport</code> and <code>failover</code> was configured, it was found that <code>vovserver</code> could lose access to the <code>webport</code> and get restarted with the <code>webport</code> disabled. This has been fixed. Also, if Accelerator was configured to use License Monitor, it was observed that <code>failover</code> could leave an extra copy of the <code>voveventmon</code> process launched by <code>vovresourced</code> running every time <code>vovserver</code> crashes and restarted. <code>vovresourced</code> has been modified to properly shut down <code>voveventmon</code> in the case where <code>vovserver</code> has crashed.
Accelerator	VOV-13036		Fixed a server crash caused by memory corruption when running queries from a 2016.09 client.
Allocator	VOV-10997	CS0156459	Suppressed the log, "Could not add FTResJob...", as it is not impacting the functionality.
Allocator	VOV-12724	CS0130000	Fixed issues with the allocation of resource groups in Allocator. Prior implementations based the allocation on demand for the component resources only. The new implementation bases the allocation on demand for the resource group and all of its component resources.
Allocator	VOV-11883	CS0120726	Fixed issue when the same feature serviced by different daemons with different tags which makes <code>-ExcludeTagRx</code> ignored.
Allocator	VOV-11894	CS0120781	Fixed CSV export of the Home > Overview and Home > Resources > Matches tabular reports.
Allocator	VOV-11224	24981	Fixed an issue with Allocator showing incorrect "Distributable" values when 'SetReserverForUser' is used with * (all users).

Product	Issue Number	Case Number	Description
Allocator	VOV-13025	CS0145466	Added a config key <code>MQ (pjProbeKillTimeout)</code> for the maximum time that the <code>vovlad</code> daemon should wait for existing probes to be killed at startup.
FlowTracer	VOV-7956	21595	Addressed issue that prevented alert text from being displayed in the <code>vovconsole</code> alerts window.
FlowTracer	VOV-12960	CS0143848	Fixed issue with keyword substitution for array job submissions that caused arbitrary matches to the array reference job's ID and IDINT values to be substituted with the ID and IDINT values from the individual array jobs in the job metadata. For example, an array job submission of "echo 000001070" where the reference job was coincidentally job 1070 would result in the command being changed in each individual array job to reflect its own ID, such as "echo 000001072" for job 1, "echo 000001074" for job 2, and so on.
FlowTracer	VOV-12815	CS0137268	Evaluation of resources when used with an indirect tasker (taskerVNC) now applies the jobclass followed by the resource list which is the opposite of what was done previously.
FlowTracer	VOV-12203	CS0120999	Re-evaluation of a job class to compute the union of resources when used with an indirect tasker(taskerVNC) is no longer done. This is typically relevant for FlowTracer integration with either Accelerator (NC) or Accelerator Plus (WX). To restore the old behavior, please contact Altair support.
FlowTracer	VOV-12901		Fixed an issue where the user may see PIPELOG related errors in the console on Windows, when running a FlowTracer job directly from the command line, such as : <code>vov cmd.exe /c echo "Hello"</code>
FlowTracer	VOV-12918	CS0142609	Improved the behavior of the Taskers > NC Interface: <code>vovwxd vovconsole</code> menu option, which configures and starts the <code>vovwxd</code> daemon. The daemon will be configured to use the default queue name (vnc) unless the <code>NC_QUEUE</code> environment variable is present.
FlowTracer	VOV-10189		Schedule priority and execution priority are now saved in the persistent representation.

Product	Issue Number	Case Number	Description
FlowTracer	VOV-12813	CS0137660	systemjob state is now saved in the representation so that it's persistent across FlowTracer restarts.
Hero	VOV-12931		Wrapper daemon now runs on the emulator vovtasker associated with the emulator. Previously it ran from wherever the <code>autostart</code> command was executed. Fixed an issue that prevented the command <code>hero -zebu stop_all_wrappers</code> from working correctly in some instances.
Monitor	VOV-9774	24058, CS0121121	Fixed problem parsing MathLM licenses when one of HH MM SS time values starts with 08 and 09.
Monitor	VOV-12253	CS0120851	Fixed MathLM parser for features with "Sub" and space prefix.
Monitor	VOV-12634	CS0126701	Fixed Altair Monitor GUI to correctly show expiration date if one of the licenses expired.
Monitor	VOV-12324	CS0121132, 21139	The output format for more recent versions of Sentinel RMS has changed. The new format caused <code>ftlm_parse_sentinel</code> to incorrectly calculate capacity. It now recognizes the new format and only counts instances of capacity appearing inside a feature block. Support for older formats has been retained.
Monitor	VOV-9100	23225	Fixed LM report plotting with "Breakdown By Feature" option.

2021.0 Supported Platforms

Supported Operating Systems

Table 3: x86_64 Architecture

Operating System	Version	Altair Package
Red Hat Enterprise Linux RHEL	6.x, 7.x, 8.x	linux64.tar
CentOS	6.x, 7.x, 8.x	linux64.tar
SLES	12.x, 15.x	linux64.tar
Ubuntu	16.04, 18.04, 20.04	linux64.tar
Amazon Linux	2	linux64.tar
Windows ¹	7, 8, 10	win64.tar
Windows Server ¹	2012, 2012R2, 2016, 2019	win64.tar

Table 4: ARM64 Architecture

Operating System	Version	Altair Package
Red Hat Enterprise Linux RHEL	7.x, 8.x	armv8.tar
CentOS	7.x, 8.x	armv8.tar
Amazon Linux	2	armv8.tar

 **Note:** On ARM64, only Accelerator execution hosts and submit hosts are supported.

Supported Browsers

Table 5:

Browser	Supported
Safari 10.x +	Yes

Browser	Supported
FireFox 55.x+	Yes
Chrome 60.x+	Yes
Edge (current version)	Yes

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1. On Windows, only the following are supported: FlowTracer, Monitor, and Accelerator (taskers only).

This chapter covers the following:

- [2020.1.0 Release](#) (p. 24)

2020.1.0 Release

New Features and Enhancements

The following new features and enhancements were introduced this software release:

Product(s)	Case Number	Internal Number	Description
All		VOV-11377	A new document viewer for the Accelerator product family is provided in the web UI. This document viewer provides a modernized interface with new client-side search capability.
All		VOV-11059	Field descriptions have been populated for all supported fields. These can be queried via the "fieldesc" metadata field, available for each object.
Accelerator, Accelerator Plus	CS0121103	VOV-12279	The output of <code>nc info</code> and <code>wx info</code> now includes the project/queue name.
Accelerator		VOV-11378	A modernized web UI dashboard page has been added to the Accelerator web UI. To access the page, browse to the URL generated by this command: <code>nc cmd vovbrowser -url /dashboard</code> . ADMIN privileged users may access this dashboard.
Accelerator	24397	VOV-10124	The following commands <code>nc run</code> , <code>vovset resources</code> , <code>nc modify -res</code> , now support binary unit conversion for all memory based resources as a convenience from Petabytes (PB), Terabyte (TB), or Gigabyte (GB) to Megabytes (MB), which is still used internally and reported by all commands. The input conversion will accept either decimal or integer form and are all case-insensitive, so for example both <code>nc run -r RAM/0.1Tb - sleep 0</code> and <code>nc run -r SWAP/1GB - sleep 0</code> are supported. The currently supported parameter names for which this conversion is supported are <code>RAM/</code> , <code>RAM#</code> , <code>RAMFREE#</code> , <code>RAMFREE/</code> , <code>RAMTOTAL#</code> , <code>RAMFREE/</code> , <code>SWAP/</code> , <code>SWAP#</code> , <code>SWAPFREE#</code> , <code>SWAPFREE/</code> , <code>SWAPTOTAL#</code> , <code>SWAPTOTAL/</code> and <code>TMP#</code> or <code>TMP/</code> . By default the unit is MB (Megabytes), where 1MB is 1<<20 bytes.
Accelerator	24092, 24093	VOV-9830	Added confirmation WebUI dialogs for MakeDefault and ClearDefault job class - Writing MakeDefault and ClearDefault job class events to server log

Product(s)	Case Number	Internal Number	Description
Accelerator	23068, 23767, 23914, 24923	VOV-9778	Irrelevant alerts are no longer generated. Addressed some implementation issues with <code>vtk_flexlm_exclude_tags</code> . Note that calls to <code>vtk_flexlm_exclude_tags</code> are cumulative and override any tags added with <code>vtk_flexlm_monitor</code> and <code>vtk_flexlm_monitor_all</code> . The <code>-noooq</code> parameter for <code>vtk_flexlm_monitor</code> has no impact at present, please use <code>vovresSetFlags</code> instead. The <code>-order</code> parameter to <code>vtk_flexlm_monitor</code> and <code>vtk_flexlm_monitor_all</code> only orders any specified tags, it no longer adds tags (use <code>-tags</code> to add tags). The optional parameters <code>vovResource</code> , <code>vovMap</code> to <code>vtk_flexlm_monitor</code> are now handled correctly.
Accelerator	21777	VOV-8055	Added a new capability to limit the number of interactive jobs that can run concurrently, both at the global and user levels. This is accomplished by creating a limit resource and setting is as the interactive job limit in the <code>vncrun.config.tcl</code> configuration file. For example: set <code>VOV_JOB_DESC(interactive,limit) Limit:interactive</code> or for per-user a limit: set <code>VOV_JOB_DESC(interactive,limit) Limit:interactive_@USER@</code> The resource must exist prior to adding these lines to the file.
Accelerator	23067	VOV-9017	MAXCPUPROGRESS now provides the maximum sampled percentage of CPU time as an integer used by a job, including all its children, which can be greater than 100 if the job is utilizing multiple cores.
Accelerator	23265	VOV-9130	Added the <code>-sickslave</code> parameter to the <code>vovinvalidate</code> command, to invalidate running/retracing jobs that are no longer attached to a slave.
Accelerator	21342	VOV-7811	Added ability to provide a stop reason when stopping jobs via the web UI.
Accelerator		VOV-12458	Implemented Dialpad menu for mobile screens.
FlowTracer		VOV-10618	Added the <code>NODEGRAPH</code> , <code>JOBGRAPH</code> , <code>NODEGRAPHHIER</code> and <code>JOBGRAPHHIER</code> fields for <code>vovselect</code> or REST to return node dependency information for Set objects. The information can be used to construct a FlowTracer flow graph of nodes.
All		VOV-11323	<code>vovdoc</code> CLI utility is retired
All		VOV-11454	<code>vov_rest_v3.py</code> is the new Python module used to make v3 REST API requests against vovserver.

Product(s)	Case Number	Internal Number	Description
All		VOV-11251	Accelerated processing of Crash Recovery file.
All		VOV-10844	Provide a REST API addition to allow job control. The following operations can be performed via the v3 REST API: 1. Dispatch 2. Forget 3. Preempt 4. Rerun 5. Resume 6. Suspend
All		VOV-10964	Job attributes can now be modified via the v3 REST API in ways that are also possible via the command line with <code>nc modify</code> .

Resolved Issues

The following issues were resolved in this release.

Product(s)	Case Number	Internal Number	Description
All		VOV-5570	Fixed behavior of the ROWCOUNT field used by <code>vovselect</code> and related commands; <code>vovselect</code> will print "0" instead of an empty string when there are no rows in the query, and will print a correct count instead of 0 for "vovselect rowcount from objects".
All		VOV-12721	Fixed an issue with the 2020.1.0 beta that caused a user to be logged out of a web session for one product when the user logged into a different product session in the same browser.
All	24114	VOV-9853	When determining if a shell is configured for a project, the environment variables <code>VOV_PROJECT_NAME</code> and <code>VOV_HOST_NAME</code> must be set. New checks were added to ensure the values of these variables may not be empty strings and may not be set to "unknown".
All	CS0120819	VOV-12027	Add the previously missing documentation for the <code>vovlicensemgr</code> command.
All		VOV-12583	Fixed an issue where querying for "maxnumacores" was returning the total number of cores in the system instead of the maximum number of cores in a NUMA node.
Accelerator	25220	VOV-11515	Added a new server configuration parameter, <code>tasker.uninterruptableSignalCascades</code> , that controls whether taskers should process incoming job control

Product(s)	Case Number	Internal Number	Description
			requests when there is an existing signal cascade being processed. If TRUE, taskers will ignore incoming job control requests if an existing request is in-process and a message will be printed to the slave log indicating as such. Default is FALSE.
Accelerator		VOV-10850	NUMA support has been updated to work correctly on systems configured with the number of sockets unequal to the number of NUMA nodes (Click here for an example). On such systems, the earlier implementation would report the number of NUMA nodes and associated memory incorrectly. The earlier implementation could also result in degraded memory performance if a socket has more than 1 NUMA node.
Accelerator	21578, 24177	VOV-7947	Fix a failure to remove an Accelerator job's pre-command and post-command script log files by the command <code>nc clean</code> .
Accelerator	22946, 29901	VOV-8975	The output of <code>nc getfield JOB cputime</code> with a lowercase <code>cputime</code> is changed to be the integer accumulated CPU time for a job scaled in milliseconds. This is now consistent with the output of <code>nc getfield JOB CPUTIME</code> with an uppercase <code>CPUTIME</code> field name.
Accelerator	21073	VOV-5439	Execution information shows, "job has never run" instead of epoch dates for jobs that have not run yet.
Accelerator	24894	VOV-11041	Large v2 REST queries that produced no results have been fixed in the v3 REST API. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> Note: The problem still persists with v2, the fix is in v3 only.</p> </div>
Accelerator		VOV-11261	Addressed issue where delays were encountered due to vovserver not being immediately notified of an update.
Accelerator		VOV-12337	Fixed timing issue with <code>nc wait</code> command when run immediately after submitting multiple jobs in background mode using <code>nc run</code> command
Accelerator, Accelerator Plus	CS0120716	VOV-12305	Fixed issue that prevented the <code>wxagent</code> job in an Accelerator base queue from reflecting the job placement policy and priority of the user's job in an Accelerator Plus queue.

Product(s)	Case Number	Internal Number	Description
Accelerator	25247	VOV-11657	Performance of <code>vovselect</code> and related Tcl commands has been improved in general, as well as specific enhancements for the ID field in all tables, and the WHY and FairShare-related fields in JOBS.
Accelerator	CS0120864	VOV-12023	Jobs that have been autokilled no longer show duplicate autokill reasons in the job status explanation.
Accelerator		VOV-12032	The integrated REST HTTP server now has a separate log under <code>SWD/logs/httpserver.log</code> .
Accelerator	CS0120906, CS0121020	VOV-12030	Fixed issue that caused taskers to be killed with the message "Tasker instructed to exit brutally". This also fixes server messages like "Cannot find tasker rdc-cad-svr12 (illegal id 365667285) pid=32830"
Accelerator		VOV-12560	Fixed <code>nc stop -after</code> option, which was not waiting for the specified number of seconds before issuing the stop request.
Accelerator	CS0127402	VOV-12628	Fixed a bug where License: was prepended the resource name if the resource parameter was specified in <code>vtk_flexlm_monitor</code> , even if the resource name already started with License:.
Accelerator		VOV-12543	Fixed a crash in <code>vovserver</code> caused by trying to select a job graph or node graph field from a set by name, e.g. " <code>vovselect NODEGRAPH from System:jobs</code> ".
Accelerator, Accelerator Plus, Monitor	24282	VOV-10682	Features names such as set via <code>vtkle_feature_set</code> can now include the '+' character and will be handled properly via the web UI.
Accelerator, Accelerator Plus	CS0121177	VOV-12403	Fixed an issue where NUMA jobs that span multiple NUMA nodes would not return all cores used by the job to the free pool on job completion.
FlowTracer	24393	VOV-10362	Fix to retrace all the jobs of selected sets in <code>vovconsole</code> hierarchically.
FlowTracer		VOV-12090	The default product name is now "ft" and is no longer determined by a prefix of the project name. The product name "auto" is no longer supported.
FlowTracer	CS0120999	VOV-12203	When a job is submitted by FlowTracer to an indirect tasker and the job is associated with a class, the resource list could

Product(s)	Case Number	Internal Number	Description
			contain duplicate entries because it was constructed as a union of two resource lists. Construction of the resource list now ensures duplicates are avoided.
Monitor	23225	VOV-9100	Fixed LM report plotting with "Breakdown By Feature" option.
Monitor	CS0122686	VOV-12627	A defective hypertext link in the Monitor Administrator Guide labeled "Advanced Control of the Product Ports" has been repaired.
None	25011	VOV-11221	Monitor email notifications set in the Admin->Notifications UI page using legacy mode email delivery had failed to successfully deliver email to the recipient.
All		VOV-10844	Provide a REST API addition to allow job control. The following operations can be performed via the v3 REST API: 1. Dispatch 2. Forget 3. Preempt 4. Rerun 5. Resume 6. Suspend
All		VOV-10913	Fixed a bug that caused vovselect to issue an error when requesting the field "env" in all lowercase.
All		VOV-9988	Made the WHY property more prominent in the Main Reasons section of the output of vsvy and related commands for FAILED jobs.
Accelerator	22097	VOV-8599	See VOV-11848.