

Introducing WorkloadWisdom 6.0

Virtual Instruments is excited to announce the brand new WorkloadWisdom 6.0!

WorkloadWisdom (formerly Load DynamiX Enterprise) is the third generation of the production workload modeling solution from Virtual Instruments, and version 6.0 delivers major improvements over the previous two generations of the product:

- Completes Production-to-Lab Automation methodology for all tier-1 storage technologies across FC, iSCSI, SMB, and NFS
- A brand new ultra-efficient statistics engine that enables some of the largest scale workload simulations and performance capacity analysis in real-time by doubling the concurrent port count while improving response time and significantly reducing the disk space consumption
- Several framework redesigns and product-wide changes to improve the user experience in browsing, searching, and identifying Resource objects (e.g. Workload Tests) and Data objects (e.g. Test Run results) faster

And many other new features and enhancements across Test Beds, Workloads, Suites, and more!

New Features

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| 25GbE Workload Generator support | Support for the brand new 25G Series Workload Generator to perform workload performance capacity testing on higher speed fabrics, with full compatibility with all Workloads and protocols supported on the current 10G and 40G Series Workload Generators. |
| Production-to-Lab Automation for SMB2 workloads | Import SMB2.x workload data (.csv format) into WorkloadWisdom and automatically create a Temporal SMB2.x Workload Model based on the imported production workload data. The solution enables customers to take SMB2.x data directly from a production network, automatically create a workload model, and perform what-if evaluations to predict the performance impact of change. With the addition of this feature, WorkloadWisdom now supports the Production-to-Lab Automation solution for all Tier 1 storage technologies workloads across FC, iSCSI, NFS, and SMB. |
| Analysis Policy for ProbeNAS SMB data | Support for importing and analyzing SMB2.x workload data from Virtual Instruments' ProbeNAS solution. |

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| Analysis Policy for Pure Storage | Support for importing and analyzing FC / iSCSI workload data from Pure Storage. |
| New Ultra-Efficient Statistics and Database Engine | A brand new statistics collection and reporting engine that delivers up to 2x increase in concurrent test ports, 5x performance improvement in statistics reporting, and 10x reduction in storage space consumption. |
| iSCSI Test Bed: Tabular Entry and CSV Import | Creating a large iSCSI Test Bed can now be done using a tabular entry format in a single table with a single Link, or created in bulk in .csv format and then import into WorkloadWisdom. The .csv can be created using commercial spreadsheet editors or generated from an iSCSI auto-discovery feature supported on the Workload Generators. In any of these approaches, the time it takes to create complex and large iSCSI Test Beds is significantly reduced. |
| Data Deduplication algorithm for NAS workloads | A new Data Reduction option for data deduplication is added for NAS Workload Models. Simply enter the desired deduplication ratio and the number of files to create in the file system, and the Workload Model will automatically generate unique and duplicated files to yield the user specified deduplication ratio. |
| Multi-CSV Workload Data Importer (WDI) | Upload multiple contiguous .csv files (split .csv files) from the same array workload data export. Also, recognizing different popular date / time formats is also improved. |
| Directory Cleanup: NFSv3 | A new Post-Test Cleanup Workload is available under Setup, to give users the ability to automatically delete the content of a particular location identified by a Test Bed. An NFSv3 Cleanup Workload is added to allow users to connect to file service using NFSv3, and clear up the content in the user specified location via NFSv3 operations. |
| Completed Results page redesign | The Completed Results page is redesigned to improve the user experience of browsing and finding Running or Completed Workload Analysis, Workload Tests, and Workload Suites. The page is redesigned to fully utilize the width of the page, and more unique information about the entry such as Test Bed and user-entered Description are shown on the page to help users find items faster. |
| Increased maximum values for Load Properties | When using the Throughput setting or the IOPS setting when specifying the Load Properties of a workload test run, the maximum value that can be set for Throughput and IOPS is increased from 30 million to 80 million. |
| Completion Time statistic | A new latency statistic called Completion Time is added to complement the existing Response Time statistic. The existing Response Time statistic measures the time elapsed between a request packet is transmitted and the immediate response to the request is received. In a large request in which the transmits and / or responses are split across multiple IOs, the Response Time is the average of the time elapsed between each of the individual transmit and response packets. The new Completion Time measures the overall time it takes to complete the request from the first request transmitted to the last response received. |
| New UI theme | A new blue UI theme with a more minimalized look is now used to provide a better visual experience as well as consistency with VirtualWisdom's light UI theme design. |

Miscellaneous Enhancements

- A new option to delete PCAP from a completed Workload Test run is added. With this option, the user can delete PCAP files that consume a lot of disk space while keeping the Workload Test run's results.
- When creating or modifying a Resource (e.g. Workload Test, Iteration Suite, etc.) and saving it under a name that already exists, a postfix index number is automatically applied to ensure uniqueness of Resource names.
- On-screen recommendations are provided for NAS Workloads' Pre-Tests to help users correctly set Load Properties values to optimize Pre-Test duration.
- Improved onscreen feedback is provided when communication with a Workload Generator is lost or disrupted.
- Improved error diagnosis and onscreen feedback is provided to the user when connection to the statistics database is lost or disrupted.
- The Workload Generator page for an FC port now supports a total of 64K entries on the page.
- The Pre-Test options for a Workload Test run are now configurable via API.
- When running an Object Storage Workload Test, a new option is available to create temporary Objects to be used by the HEAD operation to prevent access collision issues that may occur when an Object is being requested for multiple different HTTP operations.
- A page will load with the user applied sorting when applying or clicking on a URL that contains sorting settings.
- Workload Data Importer now performs a quick analysis of the imported .csv file prior to a full sorting and parsing procedure to determine the csv data structure as well as errors. This provides a quick "good / bad" feedback to the user right away, instead of initializing the full procedure from the start before any feedback is provided to the user about the imported .csv file.
- A new option is available to allow the user the view the analyzed workload data in local time.
- System generated logs are now capped to maximize the storage space available for your Resources and Data.
- The Pre-Test's name is automatically updated when the Pre-Test's parent Workload Test's name is changed by the user, making it easier for users to identify different Pre-Tests from different Workload Test runs.
- Mouse-over on the name of a Resource (e.g. workload model) or Data (e.g. completed test runs) object will show the full name of the object, making it easier to find an object when its name is long and there are other similarly named objects where the full name is truncated.
- The text in the Description field is now searchable.
- A new option is added to automatically enable Maintenance Mode and perform firmware Upgrade, if the system is not already in Maintenance Mode.
- Special characters such as dots, slashes, spaces, etc. are now searchable. For example, when searching for x/y, only items with x/y in the name will return.
- Current Workload Generator(s) port usage and availability information are provided onscreen immediately when a Test Bed is selected in a Workload Test or Suite.
- When selecting a Workload Test in an Iteration Suite, the list of available Workload Tests now appears almost immediately even in very large systems with many Workload Tests, improving the user experience in creating an Iteration Suite.
- When creating or modifying a Resource (e.g. Workload Test, Iteration Suite, etc.) and saving it under a name that already exists, a postfix index number is automatically applied to ensure uniqueness of Resource names.
- A new option is available to remove saved PCAP files from Workload Test Runs while keeping the Workload Test Run results files. This allows users to remove unwanted files associated with Workload Test Runs that take up considerable space without having to remove the Test Run results (i.e. Results Dashboard).

- The Description section of a Workload Test run is repositioned to encourage the usage of this field, which becomes very useful in the long run when there are many Workload Tests and Workload Test runs in the system with the same or similar names. This Description field is now also available on the Completed Results page when you expand the entries, which will help users more quickly identify a specific entry.
- Default value placeholders are provided for the most Test Bed Link parameters to help users minimize configuration errors.
- The full name of a Test Bed is now shown in a mouse-over hover text when the Test Bed name is truncated in the Progress Bar of a Workload Test run, as well as other parts of the product.
- An "Are you sure?" confirmation is added when you delete a Workload Test to prevent accidental deletes.
- A new Finished On sorting option is added to the Completed Results page to allow users to more quickly find the most recently completed items.
- A Workload Generator's IP address is now searchable.

Version compatibility: WorkloadWisdom 6.0 is compatible with Workload Generator / TDE v5.8 SP3 or later.



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