

Glossary for Load DynamiX Storage Terminology and Products

Load DynamiX Term	Definition
Actions	In the TDE, all the commands in the toolbox, including protocol and TDE specific commands
Actions per Second	Load profile metric which helps assess scalability Actions per Second appears in load profile specification and charts. Generally analogous to IOPS, which includes reads / writes and all protocol commands.
Analysis Charts	User customizable test output reporting charts for Load DynamiX Enterprise; includes Multi-Stat Chart, Scatter Plot, and Baseline Chart
Conditions	Comparison (or combination of comparisons) of statistics or log file entries to values
Composite Workload	A collection of workloads created to run simultaneously and represent one larger, complex workload
Compression	In context of LDX data reduction, the generation of a data pattern (content) that allows storage devices to compress the data, with the performance impact measured by Load DynamiX
Data Content	<p>Refers to how LDX writes data to disk that synthetically mimics real world data patterns. Content types include:</p> <ul style="list-style-type: none"> • Constant - single character that repeats for the duration of the write • Sequential - data values delivered in sequence • Random - data values delivered with no pattern • Seeded random - enables files containing random data with a known seed, so de-duplication functions can be heavily stressed and tests can be repeated if errors occur. • Data reduction - compression and deduplication

Load DynamiX Term	Definition
Deduplication	In context of LDX data reduction, the generation of a data pattern (content) that allows storage devices to deduplicate the data, with the performance impact measured by Load DynamiX.
Load	Measurable I/O traffic applied to or coming from a target device, such as a storage array
Load DynamiX API	A scripting language environment in which Projects can be created and/or executed
Load DynamiX Appliance	Virtual or physical 2U devices that are used to emulate the protocol clients and generate I/O traffic based on workload models and access patterns that have been configured by Load DynamiX Enterprise or TDE software
Load DynamiX Enterprise (LDX-E)	An easy-to-use software platform with a web-based graphical user interface (GUI) that is used to (1) characterize and create workload models, (2) configure and administer tests, and (3) analyze results. It runs on a VM on a physical appliance.
Load DynamiX Enterprise Appliance	All inclusive platform that includes the physical Load DynamiX Appliance and Load DynamiX Enterprise software
Load DynamiX Test Development Environment (TDE)	Load DynamiX application used to administer Appliances and create Projects. Includes sample tests and wizards and built-in statistics and graphs. Through the TDE, client and servers can be emulated at scale for all storage protocols.
Load DynamiX Workload	A predefined Load DynamiX Enterprise Project that can be user-configured in many dimensions via parameter options to represent storage traffic on a network. Includes: <ul style="list-style-type: none"> • Command mix • I/O characteristics • Load • File system / LUN regions (hotspots)
Network Profile	Describes the layer 2 to layer 4 network properties associated with each emulated client to each port.
Ports (of a Load DynamiX Appliance)	1Gb/ 10Gb Ethernet ports or 8Gb/16Gb Fibre Channel ports. These are used to generate load against a target storage system. Can also refer to client or server virtual ports used in a test definition.
Project	Projects are tests and all the resources created by the Load DynamiX TDE, Enterprise, or the Load DynamiX API to run tests
Project Parameters	The configurable information associated with a Project such as duration of the test. Imported Projects have this information embedded and it may be changed at start time either temporarily for a specific Project execution or permanently.
Project Suite	A collection of Projects that are intended to be executed simultaneously or serially for batch execution of tests such as Regression

Load DynamiX Term	Definition
Reports	In LDX-Enterprise, an instance of a Reporting Template using results data from Project or Workload executions; enables users to view test results and analyze data
Roles	User (creates or executes Projects or Project Suites; analyzes Project or Project Suite output), Administrator (configures and administers Load DynamiX Enterprise, may also do what a User is able to do)
Scenario	Sequence of Actions (or protocol commands)
Reporting Templates	For LDX-Enterprise, the definition of the components of a Report of results that is sharable and reusable
Test	Executed Project or Project Suite and its output (statistics, log files, pcap data, etc)
Test Beds	<p>A test environment associated with a Project (i.e. Workload, Composite Workload, or Imported TDE Project) runs on. Allows the test definition and the test environment to be separated, making it possible to flexibly run a test on different applicable test environments (e.g. arrays). At a high level, a Test Bed defines the following:</p> <ul style="list-style-type: none"> • One or more Appliance Client Ports • One or more Client and/or Initiator addresses • One or more SUT Services and Appliance Server Port Services, where each Service is defined by <ul style="list-style-type: none"> - A protocol - A Server IP address or FC Target WWPN - Additional mandatory information for the selected protocol such as Shares for NFSv3 • One Link that connects an Appliance Client Port to a Service <ul style="list-style-type: none"> - Each Appliance Client Port and each Service can connect to more than one link
TDE (Test Development Environment)	Load DynamiX client application for designing and executing tests as well as validating test results. Included in all appliances.
Test Network	The network on which devices are to be tested when connected to physical ports on the Load DynamiX Appliance, or virtual ports, for Load DynamiX Virtual
Test Execution Rules	Steps to be taken if/when test execution conditions are met such as Fail Test or Fail Suite or add an entry to a log file
Timeline	In TDE, a tabular/summary view of a scenario / load profile of a Project over time
User Groups	Collections of users that have permission to control and access any LDX-E resource

Load DynamiX Term	Definition
User Parameter File	A file of inputs, or workload parameters, for a specific workload that can be incorporated into TDE or Load DynamiX Enterprise for a specific project or test
Workload Model	A representation of Load that emulates the work being placed on production IT systems by an application. In a model, all parameters can be varied such as % of read vs % of writes, % random vs % sequential, distribution of file or block sizes, etc.
Workload Parameters	Collection of the I/O attributes chosen to represent the I/O presented to storage by a real application. Typical parameters include block size, read/write ratio, access pattern, working set size, I/O demand rate, and outstanding request population / demand density.



Sales
sales@virtualinstruments.com
 1.888.522.2557

Training
training@virtualinstruments.com

Website
virtualinstruments.com