



LAVASTORM  
analytics



# Release Notes

## Lavastorm Analytics Engine 6.1

## Legal notice

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# 1. Welcome to Lavastorm Analytics Engine 6.1

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Lavastorm Analytics Engine (LAE) is a visual analytics tool that enables enterprise customers to analyze large quantities of data to generate business value and insights.

This document provides an overview of the new features and enhancements provided by Lavastorm Analytics Engine in the 6.1 release. For more detailed information about these features, please see the Lavastorm Analytics Engine User Guide and the Lavastorm Analytics Engine Administration Guide. For information on updates to nodes, please see the Lavastorm Analytics Library (LAL) Release Notes.

## 1.1 Release overview

As part of our ongoing effort to make LAE more accessible to a wide array of users, and to help users to quickly increase their productivity, we have continued to enhance the LAE Web Application. The LAE Web Application, which now includes the LAE Directory and Lavastorm Explorer, enables users to collaborate and easily discover graphs that are available on their system, view graph runs and their data, edit run parameters and run and share graphs, without ever having to open BRE.

The LAE Web Application has been designed for, and tested on, desktop browsers (including Internet Explorer, Firefox, and Chrome). Whilst the application has not been tested on mobile or tablet devices, as it is a HTML-based application, it is accessible from browsers on such devices.

Logistics Manager and the LAE Web Application are accessible via the web UI and via RESTful APIs.



**Note:** In this release of LAE, the BRG version has been updated from version 5 to version 6. Graphs that are created in LAE 6.1 with BRG version 6 are not backwards compatible and cannot be viewed in older versions of BRE which use version 5 of the BRG format.

## 1.2 Supported platforms

### Desktop client

- Windows 7 32-bit and 64-bit
- Windows 8.1 64-bit

### Server

- Windows Server 2008 SP2 64-bit
- Windows Server 2012 R2 64-bit
- Solaris SPARC 10 64-bit
- Solaris SPARC 11 64-bit
- Oracle Enterprise 6 64-bit
- Red Hat Enterprise 6 64-bit
- Red Hat Enterprise 7 64-bit
- SUSE Linux 11 SP2
- CentOS 7 64-bit
- MS SQL Server 11
- MySQL ODBC driver 5.1

### Logistics Manager and Web App Server

- Jetty 8.1.14
- Tomcat 7
- WebLogic 12c

### Logistics Manager and Web App Client

- Internet Explorer 10
- Internet Explorer 11
- Chrome (up to version 41)
- Firefox (up to version 37)



**Note:** Virtualization is not supported by Solaris.

## 1.3 Product lifecycle policy

In order to balance the needs for support of existing software versions against the demand for new functionality delivered in new releases, Lavastorm employs a phased product lifecycle policy by which older versions and functions are retired as new versions are released. Customers are encouraged to upgrade their software regularly so that they receive the most current feature set and all stability improvements. The following policies will help you to manage software versions optimally.

### Support Life Policy

All customers with a support agreement are entitled to new versions of our software, but the level of support that we provide depends on the version of software that you are running. Recent versions of our software receive full support. All other versions pass into the End of Support Phase. Lavastorm will make every effort to assist with versions in the End of Support Phase, but, as a general rule, will no longer provide fixes to the software. The official support life for our products encompasses the most recent two major versions, and within those, the most recent two minor versions. The following chart helps clarify which software versions are currently supported vs those in the End of Support Phase of their lifecycle.

Major version	Support status for minor versions
7	Targeted release mid-January 2016
6	6.0 and 6.1 minor versions fully supported
5	5.0 and 5.1 minor versions fully supported - End of Support Phase with version 7 release
4	All versions End of Support Phase - best effort support only*

\* Enhanced support agreements are occasionally made available that provide software fixes to End of Support versions.

### Functionality Deprecation Policy

As older implementations of functionality are replaced with improved versions, or some functionality is removed from the software, Lavastorm employs a deprecation mechanism to provide our customers with advanced notification of the forthcoming changes so they may plan accordingly. Deprecation is not itself the removal or replacement of functionality, but rather the signal that this use of the deprecated functionality should be limited and optimally transitioned to the newer alternative. Typically the deprecated functionality will no longer be available starting with the next major version of the software.

## Deprecation notification for upcoming version

In version 6.1 of the software, the `basic.brg` and `simple.brg` libraries are being deprecated. It will continue to function, but it will not be available in the next major (7.0) version of the software. Customers should replace any nodes from this library with the equivalent nodes from the `core.brg` library.

## 2. What's new?

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## 3. New features and enhancements

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### 3.1 LAE Directory

The 6.1 release of LAE introduces the LAE Directory. The LAE Directory brings additional user and administrator functionality to the LAE Web Application by allowing users to easily collaborate and discover graphs that are available on their system.

#### Import graphs

##### Feature

The LAE Directory enables users to import graphs as LXA files to the LAE Web Application.

##### Benefit

Graphs that are imported to the LAE Directory can be run in Lavastorm Explorer and shared with other users.

To see the full list of new features, fixes and limitations, see [What's new?](#)

#### View and share graphs

##### Feature

The new LAE Directory allows users to view graphs that have been uploaded by other users and to share graphs and graph runs with other users.

##### Benefit

Users can easily collaborate with each other by viewing and sharing graphs on their system.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Import libraries

### Feature

Administrators can import default and custom node libraries to the LAE Web Application.

### Benefit

Graphs that use custom node libraries can be viewed and run in the LAE Web Application.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Import LDAP/Active Directory users and groups

### Feature

Administrators can import users and groups from an LDAP or Active Directory server to the LAE Directory.

### Benefit

By synchronizing LDAP/Active Directory users with LAE, users can sign in to LAE with their existing credentials and share graphs with other LDAP users or groups. By authenticating through an LDAP or Active Directory server, user authentication can be centrally controlled.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Configure users and groups

### Feature

Administrators can use the LAE Directory to create local LAE users and groups.

### Benefit

The LAE Directory allows administrators to combine local and imported users in local groups. All local users and groups can be viewed and edited by administrators in the LAE Directory.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Show/hide graph run data

### Feature

Administrators can choose to allow all users to view graph run data, including graph runs that were completed by other users, or they can restrict the view of graph run data to only the user who runs the graph.

### Benefit

Administrators can ensure that users only have access to graph run data that is relevant to them.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Show/hide all documents

### Feature

By default, administrators can view all documents that are available on the system, whereas normal users can only view their documents and documents that have been shared with them. This setting can be changed to allow all users to view all documents.

### Benefit

By allowing users to view all documents, administrators can ensure the discoverability of documents on the system. Administrators can also choose to ensure that users only have access to documents that are relevant to them.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 3.2 Lavastorm Explorer

Introduced with LAE 6.0, and enhanced with LAE 6.1, Lavastorm Explorer is a browser-based client for viewing graph runs and their data, editing run parameters, running graphs and tracing the flow of data. Lavastorm Explorer integrates with the Logistics Manager feature that was introduced in LAE 5.0.

### Run graphs

#### Feature

Users can run graphs and view graph run history in Lavastorm Explorer.

#### Benefit

Users do not need access to BRE or Logistics Manager to run graphs. Graphs that have been uploaded to the LAE Directory can be run in Lavastorm Explorer. The graph run history is listed in Lavastorm Explorer and allows users to easily compare multiple graph runs.

To see the full list of new features, fixes and limitations, see [What's new?](#)

### Trace field

#### Feature

The new Trace feature allows users to trace the flow of data through a selected field in a graph.

#### Benefit

A purple line highlights the flow of data through the selected field allowing users to easily trace data through the graph.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Drill down into composite nodes

### Feature

LAE 6.1 allows users to drill down into composite nodes in the Lavastorm Explorer graph canvas.

### Benefit

Users can view the nodes and connections within composite nodes to allow them to gain a better understanding of their graph.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Boxes on the graph canvas

### Feature

In LAE 6.1, boxes that have been added to graphs in BRE can also be viewed in Lavastorm Explorer.

### Benefit

Boxes improve the visual organization of graphs. The view of a graph in Lavastorm Explorer now more closely represents the view of the same graph in BRE.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 3.3 Notifications indicator

### Feature

The notifications indicator is visible in the LAE Directory and in Lavastorm Explorer and displays the status of background tasks, for example uploading a graph.

### Benefit

Users can continue to use the LAE Web Application while the background task is in progress, for example while a graph is uploaded. The notifications indicator informs users when the process has completed successfully, has failed, or is still in progress.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 3.4 Unified authentication

### Feature

All LAE user and group management, and user authentication is now centralized through the LAE Web Application. This means that all logins to LAE via both the Web Application (including both the LAE Directory and LAE Logistics Manager) and logins from the LAE Server via the BRE client, are now handled by the LAE Web Application.

### Benefit

User and group maintenance for both LAE licensing and sharing reasons are now easily performed through the LAE Directory user interface. When integrated to an LDAP or AD system, these users can now easily sign in to any part of LAE (LAE Server via BRE, or the LAE Web Application).

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 4. Bug fixes

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### 4.1 BRE

#### BRE looping logic

An error within the looping logic was causing BRE to become unusable.

This issue has been fixed.

[Issue 3245](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

#### Excel File node

The Excel File node now has a new parameter called “NoOutputPinErrorBehaviour” to deal with situations where multiple Excel files are being imported but do not have matching column names (metadata) or when an Excel file contains multiple worksheets. The default behavior is to Error when the data would result in multiple output pins being required.

Users can change this default behavior by uncommenting the following property in the compatibility-6.1.0.0.prop file:

```
ls.brain.node.excelFile.noOutputPinErrorBehaviour=Ignore
```

This file can be found in the following location (assuming the default location for installation is used):

```
C:\Program Files (x86)\Lavastorm\LA6.1\conf\brain
```

[Issue LAL-4401](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Output Excel node

The Output Excel node has been enhanced to convert dates prior to 1900 as string due to an Excel limitation.

Issue [LAL-4903](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 4.2 Logistics Manager

### Generate Link

In the case of a user receiving an error after clicking "Generate Link", the error messages were not displaying all error details.

This issue has been fixed to include all error details in "Generate Link" error messages so that users can better understand the errors.

Issue [3246](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

### Auto-clean up mechanism

An error preventing the correct functioning of the auto-clean up mechanism of graphs generated from Logistics Manager has been fixed.

Issue [3384](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Run parameters

Run parameters in Logistics Manager that contained ampersands (&) caused graph runs to fail.

This issue has been fixed to allow users to include ampersands in run parameters in Logistics Manager.

[Issue 2398](#)

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 5. Limitations and known issues

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### 5.1 Lavastorm Explorer and the LAE Directory

#### Uploading multiple libraries

Uploading multiple libraries when one of the libraries already exists in the system results in an error. To work around this issue, upload new libraries separately from libraries which you are updating.

To see the full list of new features, fixes and limitations, see [What's new?](#)

#### Node graphics

For graphs that contain inFlow nodes, graphics or charts are not displayed when the graph is viewed in Lavastorm Explorer.

To see the full list of new features, fixes and limitations, see [What's new?](#)

#### Data Viewer

A sample of up to the first 1000 records of node data can be displayed in the Data Viewer. Data sets that contain more than 100 columns may cause the browser to become slow and unresponsive. Lavastorm Explorer can operate with up to 2000 columns of data, but the data may load slowly and users may receive messages stating that some scripts have stopped responding.

To see the full list of new features, fixes and limitations, see [What's new?](#)

#### Re-run graphs

To re-run a graph that has been run in Logistics Manager in Lavastorm Explorer, the execution plan that is set in Logistics Manager must contain only one run definition and must be set to run manually.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Evaluated expressions

In BRE, when advanced parameters are used, they are displayed as unevaluated expressions, however, Lavastorm Explorer only displays evaluated expressions.

For example, when `{{?Fieldname??}}` is used in BRE, the unevaluated expression is displayed, `{{?Fieldname??}}`; however, in Lavastorm Explorer this expression is evaluated to True or False, depending on whether the Fieldname parameter has a value set.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## BRE values

When `{{^CurrentDate^}}` is used in BRE, this is displayed as 'value unavailable' in Lavastorm Explorer. Also, the use of `{{??}}` evaluation in BRE will not work correctly in Lavastorm Explorer if the referenced parameter itself contains a textual substitution.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Top level connections

Within older versions of BRE, it is possible to have connections at the top level of the library. Such connections are ignored when importing into the Lavastorm Explorer, so the inherited connections will not be present. This also means that data passing through bypasses on those connections does not appear in Lavastorm Explorer.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Bypasses

Bypasses cannot be disabled in BRE; the enabled setting is not respected. The setting is respected in Lavastorm Explorer, which means that data which is visible on disabled bypass outputs in BRE will not be visible in the LAE Web Application user interface.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Negative coordinate values

It is possible that nodes and node pins may appear off the screen in BRE; this produces nodes with negative coordinate values. Negative coordinate values are not supported in Lavastorm Explorer.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## Enabled parameter

When the Enabled parameter is set to reference a runtime parameter (directly or indirectly) then this can cause inconsistent results in Lavastorm Explorer.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## "Bad type" nodes

Lavastorm Explorer does not support graphs containing "bad type" nodes, that is, nodes that are not correctly defined. "Bad type" nodes can be fixed in BRE and can be identified by a red label. "Bad type" nodes are also reported by the compatibility scanner.

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 5.2 Environment

### LAE Web Application installation

The LAE server and the LAE Web Application must be deployed on the same machine to allow users to view the output data of the graph in Lavastorm Explorer.

To see the full list of new features, fixes and limitations, see [What's new?](#)

### Java heap size

Lavastorm Explorer is a memory intensive application, therefore it may be necessary to increase the Java heap size (default heap size: 25% of RAM or 1G, whichever is smaller).

To see the full list of new features, fixes and limitations, see [What's new?](#)

## 5.3 Logistics Manager

### Generating a graph link

As graphs increase in size and complexity, the time that it takes for the Generate Link process to complete increases.

To see the full list of new features, fixes and limitations, see [What's new?](#)

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