



THE POWER TO TRUST

Data3Sixty™ Analyze

Release Notes



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1. Welcome to Data3Sixty Analyze

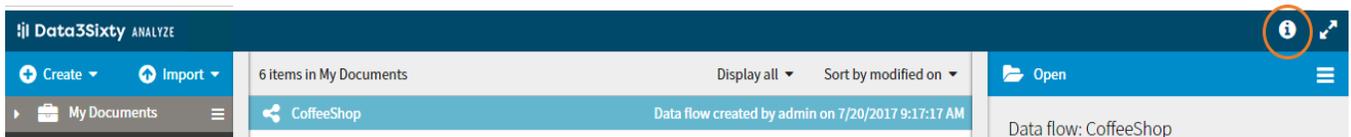
Data3Sixty Analyze is a web application that provides a comprehensive solution for agile data management and analysis, allowing you to build analytic applications that can be shared across teams with other Data3Sixty Analyze users. For more information about our Data3Sixty Analyze server and desktop product options, please visit

<https://www.infogix.com/data3sixty/analyze/analyze-download/>.



Note: This document provides release information for all releases of Data3Sixty Analyze from version 3.2.0 onwards. If you require release information for a previous release of Data3Sixty Analyze, please contact us at help.lavastorm.com.

For information on installing Data3Sixty Analyze, please see the installation guide. Once you are up and running, you can access the Getting Started guide in the integrated product help by clicking the Help icon in the corner of the screen:



1.1 Release overview

Data3Sixty Analyze enables you to acquire data from one or more sources, then analyze, reconcile, and transform the data before publishing to a file, database or external system.

Acquire data

You can import data from sources such as Microsoft Excel or CSV, or from big data platforms such as Hadoop or MongoDB by using one of the Input Connector nodes.

Build data flows to analyze your data

You can create data flows by connecting nodes and configuring their properties to customize the analysis that is performed on the underlying data at each step. Each node performs an operation on the input data and provides output data for subsequent nodes. To help beginner and



intermediate users get started, you can filter the number of nodes that are displayed to show only a curated set of commonly used nodes. If you are looking for our more advanced nodes, you can easily switch to display all available nodes, or search to find a specific node.

At each step through your data flow, you can view the underlying data in the data viewer, allowing you to validate the business logic and to discover patterns in the data which suggest new avenues of inquiry. When viewing large data sets, you can filter and sort the data to display only relevant information.

Data flows are executed interactively using the tools in the Designer user interface. Depending on your license, you can also configure data flows to automatically execute on a scheduled basis.

Simplify and reuse

You can simplify complex data flows by grouping subsets of nodes into a single composite node, and you can create custom library nodes for reuse in multiple data flows.

Share and publish results

You can share custom nodes and data flows with other users. Data from any point within the data flow can be exported to an external file for external viewing and sharing.

Finally, you can publish the results of your analysis to a file or another system, for example to Microsoft Excel or to a data visualization tool such as Tableau or Qlik by using one of the Output Connector nodes.

Manage permissions

In the Server product, administrators can set permissions on documents and folders in the Directory to grant or restrict access to specific users, groups of users or users who are assigned to a specific user role.

LDAP/AD integration

In the Server product, administrators can import users and groups from an LDAP/AD server. Data3Sixty Analyze can be configured to synchronize with an LDAP/AD server at regular intervals.

1.2 Setup requirements

	Server	Desktop
Supported platforms	<p>The following operating systems are supported on the Data3Sixty Analyze server product:</p> <ul style="list-style-type: none">• Windows Server 2016 64-bit (Server with Desktop Experience)• Windows Server 2012R2 64-bit• RedHat Enterprise 6.X 64-bit• RedHat Enterprise 7.X 64-bit• SUSE Linux Enterprise Server 12 SP3	<p>The following operating systems are supported on the Data3Sixty Analyze single-user desktop product:</p> <ul style="list-style-type: none">• Windows 7 64-bit• Windows 10 64-bit
	<p>The following browsers are supported on both server and desktop:</p> <ul style="list-style-type: none">• Chrome• Internet Explorer 11	

	Server	Desktop
System requirements	<p>The minimum hardware specification for the server product is as follows:</p> <ul style="list-style-type: none"> • 8GB RAM base + 1GB for Database + 2GB per core. • Minimum 4 cores for an on-premises server instance. <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;"> <p> Note: As the number of users and/or the number of scheduled jobs increases, you should look to increase the number of cores and thus memory.</p> </div> <p>For installations on Windows Server, you must install the required Visual C++ Redistributable Packages for Visual Studio 2013.</p>	<p>The minimum hardware specification for the desktop product is as follows:</p> <ul style="list-style-type: none"> • 8GB RAM. • Intel Core i5 or 4-core equivalent processor minimum (i7 recommended). <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;"> <p> Note: The Power R node and the nodes in the Statistical and Predictive Node Pack process data in-memory. Additional RAM will be required when processing data sets with a large volume of data. Similarly, if the R node is used, the machine hosting the R environment must have sufficient available RAM to process the data.</p> </div>
App server databases	Postgres	H2
Authentication servers (server only)	<ul style="list-style-type: none"> • Active Directory • OpenLDAP 	N/A
Authentication protocols (server only)	<ul style="list-style-type: none"> • LDAP • LDAPS 	N/A
App servers	Tomcat 8.5.34	

	Server	Desktop
Accessible databases	Within the Designer, you can connect your analytic application to a number of databases. The following accessible databases are supported: <ul style="list-style-type: none">• Oracle 11g, 12c• Teradata 14.10 / 15.10• MySQL• MS SQL Server 2012• MongoDB 2.4.9• Spark 1.5.0• Hadoop 2.6.0	

2. Latest release - 3.2.6

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ New Calculate Fields node Python modules
- ★ New Performance improvement
- ★ New UI enhancement
- ✓ Fix Directory page
- ✓ Fix Schedule settings
- ✓ Fix Update library nodes
- ✓ Fix Node categories
- ✓ Fix Licensing
- ✓ Fix Lock screen
- ✓ Fix Pivot Table node
- ✓ Fix Restore from backup
- ✓ Fix Edit library paths
- ✓ Fix Node status icons
- ✓ Fix Run purging
- ✓ Fix Calculate Fields node
- ✓ Fix Error messaging

- ✓ Fix Non-ASCII characters in filter expressions
- ✓ Fix Designer role access to settings
- ✓ Fix Input Fields menu scroll bar
- ✓ Fix Move conflict management
- ✓ Fix Rename composite output pin



Note: SSO integration is not supported in this release.

2.1 New features and enhancements

Feature	Description
Calculate Fields node Python modules	<p>The Python math module is now imported by default on the Calculate Fields node. This provides access to mathematical functions, such as <code>math.floor()</code>, <code>math.ceil()</code>, <code>math.pow()</code>, and other common trigonometric functions and constants.</p> <p>For more information, see the "Calculate Fields" node help topic and the Python documentation, for example https://docs.python.org/2/library/math.html.</p>
Performance improvement	A number of enhancements have been made to improve the performance of the application when executing data flows.
UI enhancement	<p>The My Folders / All Folders tab in the Directory is now only visible to administrators. The All Folders option is not applicable to non-admin users.</p> <p>This enhancement applies to the Server product.</p>

2.2 Corrected issues

Issue summary	Issue number
<p>Directory page</p> <p>Resolved an issue where moving a document between folders also changed the folder that was being viewed in the Directory.</p>	LAE-9526
<p>In some cases the Directory page did not update correctly, for example after deleting an object from the items list or renaming a schedule. This issue has now been resolved.</p>	LAE-10801
<p>Schedule settings</p> <p>Resolved an issue where updates to schedule settings were not reflected in the Details panel.</p>	LAE-10053
<p>Update library nodes</p> <p>Resolved an issue where the Update Library Nodes function did not update currently selected nodes.</p>	LAE-10068
<p>Node categories</p> <p>Resolved an issue where it was not possible to collapse node categories in the Nodes panel.</p>	LAE-10426
<p>Licensing</p> <p>The product now ships with new versions of LMX and JDK which resolves a licensing issue.</p>	LAE-10744
<p>Lock screen</p> <p>Resolved an issue that caused the lock screen to be displayed despite the timeout period being set to zero.</p>	LAE-10756
<p>Pivot Table node</p> <p>Resolved an error that was encountered when running the Pivot Table node.</p>	LAE-10777

Issue summary	Issue number
<p>Restore from backup</p> <p>Resolved an issue that prevented the Restore from backup functionality from working correctly during installation.</p>	LAE-10779
<p>Resolved an issue where privacy settings were not restored when using a backup file.</p>	LAE-10790
<p>Edit library paths</p> <p>When editing or adding library paths from the Edit Library Paths dialog, the folder options were incorrectly displayed in the top left of the screen. This issue has now been resolved.</p>	LAE-10780
<p>Node status icons</p> <p>Resolved an error where in some cases node status icons were not updating to reflect the correct status of a node following a run.</p>	LAE-10781
<p>Run purging</p> <p>Resolved an issue where automatic run purging was not working correctly.</p>	LAE-10784
<p>Calculate Fields node</p> <p>The Move to Bottom menu option on the Calculate Fields node was not working correctly. This issue has now been resolved.</p>	LAE-10792
<p>Error messaging</p> <p>Previously a 'no metadata for object' error message was incorrectly shown when an object could not be found. This issue has now been resolved.</p>	LAE-10799
<p>Non-ASCII characters in filter expressions</p> <p>Filter expressions on the Split and Filter nodes now support fields that contain non-ASCII characters.</p>	LAE-10802
<p>Designer role access to settings</p> <p>Resolved an issue where Designer users did not have access to change their user-specific library paths.</p>	LAE-10803



Issue summary	Issue number
<p data-bbox="185 352 581 386">Input Fields menu scroll bar</p> <p data-bbox="185 401 1013 506">To allow you to easily view the full list of fields on an input to a node, the Input Fields menu now loads with a scroll bar if there are a large number of fields.</p>	<p data-bbox="1179 401 1321 428">LAE-10804</p>
<p data-bbox="185 548 578 581">Move conflict management</p> <p data-bbox="185 596 1024 701">Resolved an issue where the Move Conflicts dialog remained on the screen without showing any progress after selecting the Change ID option and clicking Continue.</p>	<p data-bbox="1179 596 1321 623">LAE-10806</p>
<p data-bbox="185 743 613 777">Rename composite output pin</p> <p data-bbox="185 791 1040 896">Previously, after renaming the output pin of a composite node via the canvas, the changes were not saved. This issue has now been resolved.</p>	<p data-bbox="1179 791 1321 819">LAE-10807</p>

3. New in 3.2.5

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ New New Calculate Fields node
- ★ New New Google Cloud Storage nodes
- ★ New Performance improvement
- ★ New Preserve permission level on import
- ✓ Fix Composite node pass-through data
- ✓ Fix Non-ASCII characters in field references
- ✓ Fix Node input
- ✓ Fix Re-run button
- ✓ Fix Directory items
- ✓ Fix Permissions
- ✓ Fix Edit a schedule
- ✓ Fix Node property value redaction
- ✓ Fix Upgrade, backup and restore
- ✓ Fix On demand user creation
- ✓ Fix Renamed library node
- ✓ Fix LDAP/AD authentication



Note: SSO integration is not supported in this release.



Caution: During installation, do not select the option to **Restore from a backup**. Contact support for help with restoring your system to an earlier state.

3.1 New features and enhancements

Feature	Description
New Calculate Fields node	<p>The new Calculate Fields node allows you to create new fields by performing calculations on input field values. For each new field, you can specify a name, data type and a Python 2 expression to determine the values in the output records.</p> <p>You can find the Calculate Fields node in the Aggregation and Transformation category in the Nodes panel.</p> <p>For more information, see the "Calculate Fields" node help topic.</p>
New Google Cloud Storage nodes	<p>There are four new Google Cloud Storage nodes available in this release, enabling you to integrate your data flows with data in Google Cloud Storage buckets.</p> <p>The new nodes are: Google Cloud Get, Google Cloud List, Google Cloud Delete and Google Cloud Put.</p> <p>For more information, see the "Google Cloud Get", "Google Cloud List", "Google Cloud Delete" and "Google Cloud Put" node help topics.</p>
Performance improvement	<p>The performance of the application has been improved when executing large data flows.</p>
Preserve permission level on import	<p>When importing documents, if there are any import conflicts and you choose to overwrite the original document with a document with the same ID, the imported document will inherit any permissions previously set on the original document.</p>

3.2 Corrected issues

Issue summary	Issue number
<p>Composite node pass-through data</p> <p>If data passes through a Composite node without any modifications, the output pin will now correctly show a record count and the green successful run icon.</p>	LAE-7142
<p>Non-ASCII characters in field references</p> <p>Previously, inserting a field reference from the property menu on a Python-based node would cause the node to error if the field contained non-ASCII characters. This issue has now been resolved.</p>	LAE-9146
<p>Node input</p> <p>The Define tab of the Properties panel now automatically recognizes new node inputs that are created by drawing a connection between nodes on the canvas.</p>	LAE-9231
<p>Re-run button</p> <p>The Re-run button is now disabled immediately after it is clicked. Previously, it was possible to click the Re-run button more than once, causing an error if there was already an execution in progress.</p>	LAE-9407
<p>Directory items</p> <p>If a folder in the Directory contains a large number of items, switching to view a different folder before all items were loaded caused the items to appear as if they were located in the folder that was being viewed. This issue has now been resolved.</p>	LAE-10277
<p>Permissions</p> <p>Resolved an issue where a user with Designer access was only able to view a node in read only mode.</p>	LAE-10529
<p>Edit a schedule</p> <p>Previously, if a user tried to edit a schedule for which they did not have read access, there was no way to exit from the Schedule a Data Flow dialog. This issue has now been resolved.</p>	LAE-10566

Issue summary	Issue number
<p>Node property value redaction</p> <p>Resolved a number of issues related to property value redaction. Any properties that have been defined on a node for which you do not have read permission will be shown without the value and with a "Redacted" label. It is possible to override the redacted value.</p>	LAE-10588
<p>Upgrade, backup and restore</p> <p>Resolved an issue that caused the upgrade process to fail if the option to create a user on demand had been previously selected.</p> <p>Resolved an issue that caused the upgrade process to fail if the system had previously been restored from a backup.</p> <p>Resolved an issue that caused the restore process to fail when restoring to 3.2.4.</p> <p>Resolved an issue that caused scheduled backups to fail to execute.</p>	<p>LAE-10663</p> <p>LAE-10643</p> <p>LAE-10649</p> <p>LAE-10768</p>
<p>On demand user creation</p> <p>Resolved an issue with the on demand user creation process where changes in the LDAP/AD source system were not reflected in Data3Sixty Analyze.</p>	LAE-10680
<p>Renamed library node</p> <p>Resolved an error that was seen when closing or saving a library node that had not been modified, but had been previously renamed.</p>	LAE-10729
<p>LDAP/AD authentication</p> <p>When configuring LDAP/AD authentication, the Server URL value is automatically trimmed to remove any leading or trailing whitespace characters to prevent any errors.</p>	LAE-10741

4. New in 3.2.4

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ New Object permissions
- ★ New Local user password management
- ★ New Multiple user roles
- ★ New LDAP/AD user creation
- ★ New Session lock and timeout settings
- ★ New Audit log format
- ★ New Desktop silent installation
- ★ New SUSE Linux Enterprise Server 12 SP3 support
- ✓ Fix Users and security
- ✓ Fix Missing library node error
- ✓ Fix Search path error
- ✓ Fix Metadata
- ✓ Fix Field tracing
- ✓ Fix BRG import
- ✓ Fix Cat and BRD File nodes
- ✓ Fix Performance

✓ Fix Analyze server logging

✓ Fix Breadcrumb navigation



Note: SSO integration is not supported in this release.

4.1 New features and enhancements

Feature	Description
Object permissions	<p>On the server product, administrators can now set permissions on folders and documents in the Directory, granting access for specific users, groups of users or users who are assigned to a specific user role, while restricting access to others.</p> <p>If you are using the server product and would like to upgrade to use the permissions functionality, please contact us at license@infogix.com to request a new license.</p> <p>This enhancement applies to the server product.</p> <p>For more information, see the "Managing permissions" section in the server product help.</p>
Local user password management	<p>It is now possible for local users to change their password in the application without relying on administrator support. Previously, password management was reserved for administrators.</p>



Note: If your user account is linked to an external LDAP/AD system, you cannot change your password in the application.

This enhancement applies to the server product.

For more information, see the "Changing your password" topic in the server product help.

Feature	Description
Multiple user roles	<p>Administrators can now assign multiple roles to a single user or group. This enhancement allows more flexibility when assigning user roles as users are no longer restricted to having only one role.</p> <p>For example, a Designer user can build and edit data flows and library nodes, but not schedules. A Scheduler user can create and maintain schedules. You could choose to keep these roles separate, or you could assign both the Designer and Scheduler roles to a user to enable them to build and edit data flows, library nodes and schedules.</p> <p>This enhancement applies to the server product.</p> <p>For more information, see the "User roles" section in the "Managing users" topic in the server product help.</p>
LDAP/AD user creation	<p>The usability of the User Accounts settings page has been improved to enable system administrators to more easily configure LDAP/AD integration.</p> <p>This enhancement applies to the server product.</p> <p>For more information see the "Configuring user creation" topic in the server product help.</p>
Session lock and timeout settings	<p>Administrators can specify the period of time after which a lock screen is displayed, requiring a user to sign in again to continue using the application.</p> <p>For API users, there is a session timeout period of four hours, after which users are required to sign in again to continue working with the application. This period of time is fixed for API users and cannot be changed.</p> <p>This enhancement applies to the server product.</p> <p>For more information, see the "Managing privacy and security settings" topic in the server product help.</p>
Audit log format	<p>The format of the audit log file has been improved to output JSON fragments, allowing for post-processing and further analysis. For example, you can now run the JSON Data node in Data3Sixty Analyze against the audit log.</p> <p>The audit log provides Administrators with a high level overview of actions that have taken place, when they occurred, and which user initiated the action.</p> <p>For more information, see the "Audit logging" topic in the product help.</p>

Feature	Description
Desktop silent installation	Administrators can run a silent (unattended) installation to silently install, upgrade or uninstall Data3Sixty Analyze Desktop on user machines, applying predefined settings, without the need for user interaction. For more information, see the Data3Sixty Analyze Desktop Installation Guide.
SUSE Linux Enterprise Server 12 SP3 support	The server product now supports SUSE Linux Enterprise Server 12 SP3.



Note: The product branding has been updated in this release. Please refresh your browser cache to ensure that the latest branding changes are displayed.

4.2 Corrected issues

Issue summary	Issue number
Users and security	
Fixed a problem where a user was unable to log in after a session timeout when using a NetBios domain name as part of the username.	LAE-9849
Resolved an issue where a new user could not be created with the same user name as a previous user that had been deleted.	LAE-10023
Missing library node error	
Fixed a problem where no Missing Library node dialog was displayed when a node was not available to a data flow.	LAE-10333
Search path error	
Fixed a problem where search paths could not be updated under some conditions, and the user was unable to exit to the Directory screen.	LAE-10334 LAE-10338

Issue summary	Issue number
<p>Metadata</p> <p>Resolved an issue where metadata could not be read by the deprecated Multiple BRD Files node.</p>	LAE-10373
<p>Field tracing</p> <p>Fixed a problem where field tracing did not work for a column that included an uppercase character.</p>	LAE-10414
<p>BRG import</p> <p>Resolved an issue where some errors during import were not being correctly handled, resulting in the errors not being reported and no data being imported.</p>	LAE-10433
<p>Cat and BRD File nodes</p> <p>Resolved an issue where threads used for type conversion on Cat and BRD File nodes were not being closed.</p>	LAE-10455
<p>Performance</p> <p>Resolved an issue where a sufficiently large cache could result in users being unable to login and the web application becoming unresponsive.</p>	LAE-10470
<p>Analyze server logging</p> <p>When trying to delete files, Analyze server added a warning to the log for every file that did not exist. This has been changed to a single log entry for the whole operation, and the severity has been reduced to info.</p>	LAE-10511
<p>Breadcrumb navigation</p> <p>Fixed a problem where using the breadcrumb navigation in a Composite library node produced a workspace error.</p>	LAE-10523

5. New in 3.2.3

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ New Tomcat upgrade
- ✓ Fix Import new license
- ✓ Fix Duplicate library paths
- ✓ Fix Correlation nodes
- ✓ Fix Excel File node concatenation error
- ✓ Fix Performance issue
- ✓ Fix Data flow locked for editing
- ✓ Fix Clock dependencies within composites
- ✓ Fix Missing nodes error
- ✓ Fix Scheduled data flows

5.1 New features and enhancements

Feature	Description
Tomcat upgrade	The version of the Tomcat application server used with Data3Sixty Analyze has been upgraded to 8.5.34.

5.2 Corrected issues

Issue summary	Issue number
<p>Import new license</p> <p>Resolved an issue to allow a new license file to be imported if the existing license has expired.</p>	LAE-10203
<p>Duplicate library paths</p> <p>Resolved an issue that caused duplicate library path entries to be created when saving a data flow that had been opened from the Directory by double-clicking.</p>	LAE-10354
<p>Correlation nodes</p> <p>Resolved an issue where the default Python script was not being automatically populated in the Advanced tab of the ConfigureFields property when inputs were connected to the Lookup or Merge nodes.</p>	LAE-10394
<p>Excel File node concatenation error</p> <p>Resolved an error that caused the Excel File node to fail when importing multiple Excel files containing the same field name with different data types.</p>	LAE-10396
<p>Performance issue</p> <p>The performance of the application has been improved when adding connections and bend points to the canvas.</p>	LAE-10397
<p>Data flow locked for editing</p> <p>In some cases, the application incorrectly displayed a Locked for Editing message when a user opened a data flow in multiple tabs, rather than providing an option for the user to open the last saved version of the document. This issue has now been resolved.</p>	LAE-10411
<p>Clock dependencies within composites</p> <p>Resolved an issue that was found when running composite nodes that contained clock dependencies.</p>	LAE-10419



Issue summary	Issue number
<p data-bbox="185 352 467 384">Missing nodes error</p> <p data-bbox="185 401 1045 506">In some cases, nodes were not saved on data flows that had been edited, saved and then re-opened using the double-click action from the Directory. This issue has now been resolved.</p>	<p data-bbox="1179 401 1323 426">LAE-10429</p>
<p data-bbox="185 550 492 581">Scheduled data flows</p> <p data-bbox="185 598 1036 703">In some instances, scheduled data flows failed to complete a run due to the node container not shutting down correctly. This issue has now been resolved.</p>	<p data-bbox="1179 598 1323 623">LAE-10439</p>

6. New in 3.2.2

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ **New** Move conflict management
- ★ **New** CSV/Delimited Input node updates
- ★ **New** Import LNA via REST API
- ★ **New** Performance improvement
- ✓ **Fix** Property sources
- ✓ **Fix** Canvas display
- ✓ **Fix** Number display in the data viewer
- ✓ **Fix** Correlation nodes
- ✓ **Fix** S3 List node
- ✓ **Fix** Breadcrumb name
- ✓ **Fix** Unresolved node properties
- ✓ **Fix** In-container node processing
- ✓ **Fix** Editing property values
- ✓ **Fix** Node connections
- ✓ **Fix** XML Data and JSON Data nodes
- ✓ **Fix** Custom library nodes
- ✓ **Fix** Node output pins
- ✓ **Fix** Composite inputs
- ✓ **Fix** Deleting data flows
- ✓ **Fix** Grouping nodes

6.1 New features and enhancements

Feature	Description
Move conflict management	<p>When you move documents between folders, if there are any conflicts with existing items you can choose to overwrite the existing document, or change the name or ID of the item that is being moved.</p> <p>For more information, see the "Move conflicts" section in the integrated product help.</p>

Feature	Description
<p>CSV/Delimited Input node updates</p>	<p>The CSV/Delimited Input node now offers increased flexibility as you can optionally derive the values for format-related properties from an input field, and you can auto-detect the CSV format and the character set of the input data.</p> <p>There are three new node properties: HasHeaderLine, DetectOnly and NumSampleRows. The HasHeaderLine property allows you to specify if the input data contains a header line with field names. The DetectOnly property can be set to auto-detect the file character set by sampling the data, and the maximum number of rows used in the detection process can be set by using the NumSampleRows property.</p> <p>For more information, see the "CSV/Delimited Input" node help topic in the integrated product help.</p>
<p>Import LNA via REST API</p>	<p>It is now possible to import an LNA file containing nodes or data flows via the Data3Sixty Analyze REST API.</p> <p>For more information, see the "LNA Import" section of the Data3Sixty Analyze API documentation.</p>
<p>Performance improvement</p>	<p>The performance of the application has been improved when navigating the user interface, moving and deleting directory items, and editing property values on data flows that contain a large number of nodes within a single composite.</p> <p>The execution performance has also been improved, particularly in the case of concurrent execution of multiple data flows (by multiple users or schedules), loop execution, and when running nodes processing small amounts of data.</p>

6.2 Corrected issues

Issue summary	Issue number
<p>Property sources</p> <p>Resolved an issue with nodes that have source based properties, where changing the property source was not recognized for example, changing the variant of the Input property on the CSV/Delimited Input node from Data (from Filename) to Data (from Filename Field).</p>	LAE-9828
<p>It is now possible to enter a custom value in a choice type property that has multiple property sources. For example, on a choice type property that has a (from Field) variant, if you typed "3" into the property field, but the dropdown choices were 1 or 2, the value would revert to one of the choice options, preventing you from saving the custom value "3". This issue has now been resolved.</p>	LAE-10364
<p>Canvas display</p> <p>The canvas screen now responds more quickly to display underlying nodes when the left or right side panels are resized.</p>	LAE-10080
<p>Number display in the data viewer</p> <p>Resolved an issue where in some cases numbers were displayed in the data viewer with a loss of precision.</p>	LAE-10141

Issue summary	Issue number
<p>Correlation nodes</p> <p>If you have applied a pattern to exclude input fields from the output, you cannot rename the fields by pattern. If an exclude pattern is applied to a set of input fields with an existing rename pattern, the rename pattern is cleared.</p>	LAE-9683
<p>Resolved an issue where editing the Advanced tab of the ConfigureFields property caused the Lookup node to become unusable.</p>	LAE-10144
<p>The Lookup node now correctly validates field types and reports an error if there is a type mismatch for non-advanced use cases.</p>	LAE-10145
<p>Resolved an issue when using field accessors (for example <code>fields["fieldname"]</code>) with the Lookup and Merge nodes.</p>	LAE-10146
<p>Resolved an issue where editing the Match Keys Grid on the Join, Lookup or Merge nodes was not correctly updating the node logic if you had previously entered script on the Advanced tab.</p>	LAE-9810
<p>Resolved an issue where in some cases the default output pin property value was unset on the Lookup, Join and Merge nodes.</p>	LAE-9914
<p>Resolved an issue that occurred when the input pins of a selected Lookup node were connected to nodes which had already run.</p>	LAE-10336
<p>S3 List node</p> <p>Resolved an issue where the S3 List node would give incorrect results for any directory that contained more than 1000 files.</p>	LAE-10150
<p>Breadcrumb name</p> <p>Resolved an issue where the canvas breadcrumb link was not updated when the Save As option was used to save a data flow with a new name.</p>	LAE-10090

Issue summary	Issue number
<p>Unresolved node properties</p> <p>Resolved an issue where a deleted node property would remain in the Unresolved Properties list despite a new property with the same name being defined.</p>	LAE-10131
<p>In-container node processing</p> <p>Resolved an issue caused by temporary files not being created in the correct directory and then not being cleaned up when using in-container node execution.</p> <p>In some cases, nodes that should have been run as part of their own process were run as part of the in-container node process, causing potential performance issues and excessive memory usage on the container. This issue has now been resolved.</p>	LAE-10194 LAE-10195 LAE-10196
<p>Editing property values</p> <p>Resolved a performance issue where the process of updating a property value was taking longer than expected and you could not edit another property during this time.</p> <p>When configuring a node property by inserting a property reference, the referenced value was always inserted at the end of any existing property value, rather than at the selected point. This issue has now been resolved and property references can be inserted at a selected point.</p>	LAE-10057 LAE-9058
<p>Node connections</p> <p>Resolved an issue where the gray connection between nodes was not visible immediately after being drawn.</p>	LAE-10072

Issue summary	Issue number
<p>XML Data and JSON Data nodes</p> <p>Resolved an error that was encountered when importing XML or JSON data that contained field names which conflicted with internally generated fields.</p> <p>Resolved an error with the JSON Data node that was encountered when importing multiple JSON files with different file structures.</p> <p>As part of this fix, the performance of the JSON Data node when processing a large number of output fields has been greatly improved.</p>	<p>LAE-10147</p> <p>LAE-10372</p>
<p>Custom library nodes</p> <p>Resolved an issue where custom library nodes with different names were incorrectly displaying in the Nodes panel with the same name.</p>	<p>LAE-10140</p>
<p>Node output pins</p> <p>Resolved an issue where additional node output pins would appear when a node was dragged onto the canvas from the Nodes panel.</p>	<p>LAE-10051</p>
<p>Composite inputs</p> <p>Resolved an issue where additional composite inputs would appear on the canvas when drilling in and out of composite nodes.</p>	<p>LAE-10356</p>
<p>Deleting data flows</p> <p>Resolved an issue where in some cases the application was not able to correctly delete data flows when multiple items were selected to delete, and the data flows selected for delete had associated run information. The application would incorrectly report that the data flow could not be deleted as it had running executions.</p>	<p>LAE-10301</p>
<p>Grouping nodes</p> <p>Resolved an error that occurred when grouping nodes that were connected to other nodes in the data flow which had already been executed.</p>	<p>LAE-10376</p>

7. New in 3.2.1

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- ★ **New** Performance improvement
- ★ **New** Python version upgrade
- ★ **New** JSON Data node fragment support
- ★ **New** Show hidden properties
- ★ **New** About Data3Sixty Analyze
- ✓ **Fix** Decryption of password property values
- ✓ **Fix** Import legacy data flow
- ✓ **Fix** Schedules
- ✓ **Fix** Multiple imports of a data flow
- ✓ **Fix** Directory
- ✓ **Fix** Web application startup
- ✓ **Fix** User interface responsiveness
- ✓ **Fix** Excel File node
- ✓ **Fix** Statistics node
- ✓ **Fix** Library paths
- ✓ **Fix** Transpose node
- ✓ **Fix** Unresolved properties
- ✓ **Fix** Run property textual substitution
- ✓ **Fix** Concurrent editing
- ✓ **Fix** Node connection display

7.1 New features and enhancements

Feature	Description
Performance improvement	The performance of the application has been greatly improved when working with large data flows. For example, you may notice performance improvements when you first open a data flow after importing it, or when you navigate in and out of composites.

Feature	Description
Python version upgrade	The Python node has been upgraded to work with the 2.7.15 release of Python, benefiting from the latest security updates.
JSON Data node fragment support	The JSON Data node provides improved data handling, allowing you to import JSON fragments. Previously, the JSON Data node could only import JSON data that was formatted as a single object.
Show hidden properties	There are a number of node properties which are ordinarily hidden from the default view. If you need to view or edit these properties, for example when working with support, there is now an option to show hidden node properties and override the default values. <div style="border: 1px solid #0070C0; padding: 10px; margin-top: 10px;">  Note: In most cases, you will not need to view or edit these properties. Caution should be exercised when editing the values of hidden node properties. </div>
About Data3Sixty Analyze	The About Data3Sixty Analyze screen now includes the option to copy license and server details which can be useful when working with support. Additionally, the product version is now added to server logs on startup.

7.2 Corrected issues

Issue summary	Issue number
Decryption of password property values Resolved issue where password property values were corrupted during decryption when running concurrent schedules of a data flow.	LAE-10134
Import legacy data flow Resolved an issue that prevented the import of a legacy data flow which contained errors.	LAE-10128

Issue summary	Issue number
Schedules	
Resolved an issue where in some cases, a scheduled data flow would fail to run, and opening the data flow showed a previous state.	LAE-10114
If a user who does not have the required license attempts to create a schedule, a message is now displayed to explain why the option is unavailable to them.	LAE-10052
Resolved an issue where opening a scheduled run while it was in progress, showed a static state, rather than showing the data flow running to completion.	LAE-9866
Multiple imports of a data flow	
Previously, if you imported the same data flow more than once, saving the different imports in different folders, in some cases the run state of the second instance of the data flow was corrupted by deleting or moving the first data flow. This issue has now been resolved.	LAE-10095 LAE-10094
Directory	
Resolved an issue in displaying the document list when returning to the Directory from an open data flow.	LAE-10100
Resolved an issue where double-clicking to drill into a folder in the Directory disabled the multi-select function.	LAE-10043
Web application startup	
Resolved an issue where the web application would in some cases hang on startup.	LAE-10092
User interface responsiveness	
Resolved an issue that caused the user interface to become slow or unresponsive when working with multiple Join, Merge or Lookup nodes in a data flow.	LAE-10089

Issue summary	Issue number
<p>Excel File node</p> <p>The Excel File node now treats whitespace only metadata in the same way as empty header cells. You can control this behavior by using the NullHeaderCellAction property.</p>	LAE-10085
<p>Statistics node</p> <p>Resolved an error that was encountered when using the Statistics node with a field that contained Null values.</p>	LAE-10084
<p>Library paths</p> <p>Resolved an issue where library paths were not being correctly displayed after a save action until the page was refreshed.</p>	LAE-9903
<p>Transpose node</p> <p>The Transpose node now treats empty string and whitespace fields in the same way as Null values.</p>	LAE-9403
<p>Unresolved properties</p> <p>Resolved an issue where a run property with the same name as a deleted data flow property was picking up the data flow level property value, rather than the correct run property value. The deleted data flow property is now shown in the Unresolved Properties list, and from here it can be deleted to prevent the incorrect property value being used.</p>	LAE-9811
<p>Run property textual substitution</p> <p>When a node property contains textual substitution referencing a run property, it is now correctly shown as an evaluated value in the Review tab.</p>	LAE-8673
<p>Concurrent editing</p> <p>A Locked for Editing message is now displayed if two users attempt to concurrently edit a shared data flow.</p>	LAE-10059
<p>Node connection display</p> <p>Resolved an issue where in some cases the connection between two nodes that had successfully completed running was not displayed with the usual green color.</p>	LAE-10096

8. New in 3.2.0

The availability of the following new features, enhancements and corrected issues is dependent on the installed edition of the product and licensed features:

- | | | | |
|-------|---------------------------------------|-------|--------------------------|
| ★ New | Improved import process | ✓ Fix | Open data flows |
| ★ New | Notification of missing library nodes | ✓ Fix | Directory refresh |
| ★ New | MongoDB nodes | ✓ Fix | Node logs |
| ★ New | Enhanced library node information | ✓ Fix | Rewire composite input |
| ★ New | Salesforce node assignment rules | ✓ Fix | Field menu button |
| ★ New | Password properties | ✓ Fix | Timeout |
| ★ New | Performance improvement | ✓ Fix | Node execution |
| ★ New | UI enhancements | ✓ Fix | LAE server connection |
| ★ New | JDBC drivers | ✓ Fix | Property "default" value |
| ✓ Fix | Excel File node | ✓ Fix | Schedule a data flow |
| ✓ Fix | Data Converter node | ✓ Fix | Save changes |
| ✓ Fix | Lookup node | ✓ Fix | Node connections |
| ✓ Fix | Output Tableau node | ✓ Fix | Re-run nodes |
| ✓ Fix | JDBC nodes | ✓ Fix | Users and groups |
| ✓ Fix | Launch Data3Sixty Analyze Desktop | | |



Note: The v2 version of the published APIs have been deprecated in this release. We recommend that you upgrade to use v3 of the published APIs.

8.1 New features and enhancements

Feature	Description
Improved import process	When you import a document, you are now able to choose a target folder, and if there are any import conflicts, you can decide whether to overwrite the existing document or import to a different location.
Notification of missing library nodes	When you open a document (data flow or library node), the library paths defined for that document are used to locate all dependencies so that the document can be reconstructed. If there are library nodes used by the document which cannot be found, then your document will not be able to reconstruct itself. In this case, you will see the Library Node Conflicts dialog where you can investigate which nodes are missing and resolve the issue.
MongoDB nodes	<p>The MongoDB nodes have been rewritten and now use the 3.6.3 version of the MongoDB driver.</p> <div data-bbox="438 903 1442 1039" style="border: 1px solid #0070C0; padding: 5px;"><p> Note: This is a breaking change. You will need to reconfigure any data flows that contain one of the MongoDB nodes.</p></div> <p>For more information, please see the MongoDB documentation, for example: https://docs.mongodb.com/ecosystem/drivers/driver-compatibility-reference/</p>
Enhanced library node information	If you have a data flow that contains a missing ("unspecified") library node, the error messaging has been improved to include the node's last known name and location. This can help you to identify whether the node is located at a library path that is not referenced by the data flow, or if it has been deleted.
Salesforce node assignment rules	The Data3Sixty Update for Salesforce node has a new UseActiveAssignmentRules property which allows you to override the default Assignment Rule behavior if you do not want to apply the active assignment rules. For more information see the Salesforce documentation, for example: https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/headers_autoassign.htm

Feature	Description
Password properties	In general, password property values are encrypted. However, to increase the portability of data flows between systems, if a password property contains textual substitution (e.g. <code>{{^otherproperty^}}</code>), the substitution expression is now treated as a string value and is not encrypted. This does not pose a security risk given that the substitution expression is not itself sensitive but rather, is referring to a sensitive value stored elsewhere.
	<div style="border: 1px solid #0070C0; padding: 5px;">  Note: For security, it is therefore recommended that you only substitute password properties into other password properties. </div>
Performance improvement	The performance of nodes when processing a moderate number of records has been greatly increased due to a new in-container execution process, whereby nodes are processed in a "container" to reduce the latency in initializing node execution.
UI enhancements	The width of dialog boxes has been rationalized to ensure consistency when multiple dialogs are shown in a flow.
JDBC drivers	The Amazon Redshift and SQL Server drivers that are shipped with Data3Sixty Analyze have been upgraded.

 **Note:** All superseded nodes are now hidden from the **Nodes** panel by default. These nodes are still available for backwards compatibility and can be displayed by choosing **Show Superseded Nodes** from the **Nodes** panel menu, however, it is recommended that you begin using the new Python-based nodes where possible.

8.2 Corrected issues

Issue summary	Issue number
<p>Excel File node</p> <p>When importing data from an Excel file that contains a broken formula, the error messaging has been improved to help you to identify which cell contains the invalid data.</p>	LAE-9824

Issue summary	Issue number
<p>Data Converter node</p> <p>The Data Converter node has been fixed so that it will not erroneously convert Unicode type fields into string type fields.</p>	LAE-8372
<p>Lookup node</p> <p>The Lookup node error messaging has been improved in cases where there are duplicate keys on the lookup input.</p>	LAE-9957
<p>Output Tableau node</p> <p>The error messaging has been improved on the Output Tableau node when the specified project does not exist.</p>	LAE-9877
<p>JDBC nodes</p> <p>Resolved an error that was encountered when working with the JDBC Store node to load data into Teradata tables with the LoadMethod property set to optimized, where some non-string fields contained both null and non-null values. This fix ensures that for the Teradata driver, when storing non-null non-string data, the data to store is set on the driver using the JDBC type of the column against which it is to be bound (if the type is known).</p>	LAE-10012
<p>Launch Data3Sixty Analyze Desktop</p> <p>Resolved an issue where Chrome users were not being automatically directed to the login page after launching the Desktop application.</p>	LAE-9925
<p>Open data flows</p> <p>Resolved an issue that prevented you from opening LNAs which were identified as having issues during import.</p>	LAE-9906
<p>Resolved an error that was seen after viewing a scheduled run then attempting to open a data flow from a different folder in the Directory.</p>	LAE-9891
<p>Resolved an error that was seen after a restart when attempting to open an existing data flow before creating a new data flow.</p>	LAE-10003

Issue summary	Issue number
<p>Directory refresh</p> <p>The Directory screen will now automatically update to display the latest information after a document is imported and when multiple folders are selected for delete.</p>	<p>LAE-9869</p> <p>LAE-9598</p>
<p>Node logs</p> <p>Resolved an issue where the node log was becoming corrupted when the Delimited File node imported invalid encoded values into a string field. This fix ensures that the node log will no longer become corrupted in this situation.</p> <p>Resolved an issue where node logs could be erroneously deleted during node execution.</p>	<p>LAE-9722</p> <p>LAE-9953</p>
<p>Rewire composite input</p> <p>Resolved an issue where in certain situations, rewiring the input of a composite caused errors when the node was executed.</p>	<p>LAE-9962</p>
<p>Field menu button</p> <p>Resolved an issue where the field menu button was in some cases incorrectly displayed against a white background.</p>	<p>LAE-9671</p>
<p>Timeout</p> <p>Resolved an issue where in some cases, after a period of inactivity, an error message was displayed rather than the timeout screen, preventing continued use of the application.</p>	<p>LAE-9151</p>
<p>Node execution</p> <p>Resolved an issue where a data flow may continue to appear to be running despite the execution having failed to complete successfully.</p>	<p>LAE-9937</p>
<p>LAE server connection</p> <p>Users can now access the web application if the LAE server is down. Additionally, the error handling has been improved when the LAE server is down and a user attempts to execute a node.</p>	<p>LAE-9872</p> <p>LAE-9871</p>

Issue summary	Issue number
<p>Property "default" value</p> <p>The default option has been removed from the property drop-down menu to resolve an issue where it was being set incorrectly. You can use the Restore Default Value to return the property value to its default.</p>	LAE-9890
<p>Schedule a data flow</p> <p>Resolved an error that was seen when attempting to select a data flow in the Schedule a Data Flow dialog.</p>	LAE-9907
<p>Save changes</p> <p>Resolved an error that was sometimes encountered when saving immediately after making changes to your data flow.</p>	LAE-9984
<p>Node connections</p> <p>Resolved an issue where making a connection from an output pin to an optional input pin caused the application to freeze.</p> <p>Resolved an issue where inserting a new node while adding a connection caused the application to freeze.</p>	LAE-9986 LAE-9813
<p>Re-run nodes</p> <p>Resolved an issue where the re-run functionality would not complete successfully when attempting to re-run a set of Create Data nodes that had been edited after an initial run.</p>	LAE-9408

Issue summary	Issue number
<p>Users and groups</p> <p>When multiple items are selected in the Directory, and one of the items is an imported user or group, the delete user/group menu option is no longer available.</p>	LAE-9923
<p>Resolved an issue that caused the delete action to fail if there were missing user preferences.</p>	LAE-9919 LAE-9920
<p>The error messaging has been improved on application startup if there are missing user preferences.</p>	LAE-10010
<p>Resolved an issue that caused LDAP/AD updates to fail when a member was missing from a group.</p>	LAE-9935
<p>Resolved an issue that prevented the editing of user groups.</p>	LAE-9909
<p>Resolved an issue that prevented users from being able to log in when one of the user groups within Data3Sixty Analyze was missing a specified member.</p>	LAE-9870
<p>The groups list is now automatically refreshed after any change is made to a group from the Edit Group dialog.</p>	LAE-9737 LAE-9735
<p>Resolved an issue that prevented the creation of a new user with the same name as another user, even if the existing user had been renamed.</p>	LAE-9940

9. Known issues and limitations

We would like to make you aware of the following list of issues and limitations.

If you encounter any other technical issues, please get in touch with us by visiting the [forum](#). If your query has not been discussed previously in the forums, you can create a new topic and receive answers from our Data3Sixty Analyze experts.

9.1 Third parties

The following table lists third party known issues and limitations:

Feature	Description
Apache	<p>The Spark SQL Query node has highlighted some Apache issues in the following scenarios:</p> <ul style="list-style-type: none">• Selecting a field with binary type fails with the exception "UnresolvedUnionException: Not in union [\"bytes\", \"null\"]". This is already raised on Apache JIRA: https://issues.apache.org/jira/browse/AVRO-1401• Describe operation returns 3 fields (col_name, col_type, comment) however the comment field is handled as not "nullable" but returns a NULL value. <p>The Spark SQL Query node processes against Hive tables. When Hive tables are processed by the cluster, the minimum memory requirement is higher compared to the memory required to run other Spark nodes that do not access Hive. The DriverMemory and ExecutorMemory both have a minimum 5G threshold. We recommend that you increase this for larger environments.</p>
Avro	<p>The Avro 1.7.7 specification lists some supported metadata constraints. Specifically, it places restrictions on the names of fields, as follows:</p> <ul style="list-style-type: none">• The field names must start with [A-Za-z_]• The field names must only contain [A-Za-z0-9_] <p>Avro 1.7.7 does not support date, time and datetime data types. As a result, if you want to upload data and use the Data3Sixty Analyze nodes, these fields will need to be converted to string data types.</p>

Feature	Description
Hadoop Hive Cluster	<p>When downloading files from the Hadoop Hive Cluster, the WebHDFS API automatically encodes files to base64 format. As a result, it is not always possible to view the contents of the download in the fields on the output.</p> <p>For example, if the DataOutputMode property is set to Field, due to the automatic base64 encoding, the encoded result will be visible instead of the contents.</p> <p>To view the contents, set the DataOutputFieldEncoding property to None. However, this is not always possible due to invalid characters in the original file; in this case, the workaround is to set the DataOutputMode to File and then import the data using one of the input connector nodes.</p>

9.2 Web application

The following table lists Data3Sixty Analyze known issues and limitations:

Feature	Description
Data viewer	<p>A sample of up to the first 1000 records of node data can be displayed in the data viewer.</p> <p>The data viewer only shows the first line of multi-line values. You can hover over the cell to show the full multi-line value in a tooltip. Selected records can also be copied from the data viewer to another application (e.g. Notepad).</p>
Composite library nodes created in previous versions	<p>When importing or running a data flow that was created in an older version of the product, you may see error messages if the data flow contains composite library nodes that have been upgraded since the data flow was first created. If the data flow did not previously show these errors, you can resolve the issues as follows:</p> <ol style="list-style-type: none"> 1. Open the data flow and select all nodes. 2. Choose Apply Auto-Fixes. 3. Save the data flow, then return to the Directory before reopening the data flow.
Links from tooltips to help	<p>Although it is not currently possible to open the integrated help from the links in node property tooltips, you can manually navigate to the help by pressing F1 then searching for the relevant topic.</p>



Feature	Description
Logistic Regression node	The Logistic Regression node does not support Unicode for categorical data.

10. Contact us

If you encounter any technical issues, we recommend that you visit the forums at help.lavastorm.com. If your query has not been discussed previously in the forums, you can create a new topic and receive answers from our product experts.

Alternatively, you can log a support ticket:

1. Select **Sign in** from the top right corner of the screen:



GETTING STARTED
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If you are not already a registered Support Portal user, click **Sign up**:

Sign in to Lavastorm

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Sign in

Your credentials will be sent over a secure connection

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2. Once you have registered and signed in, select **Submit a request** from the top right corner of the screen.
3. Complete all fields, then click **Submit** at the bottom of the screen.



Download

We recommend that you use the latest version of the product. To download Data3Sixty Analyze, please go to <https://www.infogix.com/data3sixty/analyze/analyze-download/>.

Our product is constantly evolving and input from you is highly valued. If you have any suggestions, please go to the [Community page](#) and add a new feature request.

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