



THE POWER TO TRUST

Data360[®] Analyze

Release Notes

3.8.5



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1. Setup requirements

	Server	Desktop
System requirements	<p>The minimum hardware specification for the server product is as follows:</p> <ul style="list-style-type: none">• 32GB minimum (Web Server - 12GB, Database server - 8GB, Execution Server - 4GB base + 2GB per core)• Minimum 4 cores for a server instance <div data-bbox="412 856 899 1142" style="border: 1px solid black; padding: 5px;"><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> <ul style="list-style-type: none">• At least two separate drives or partitions:<ul style="list-style-type: none">◦ One for the Data directory.◦ One for temporary execution data.	<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).

	Server	Desktop
System requirements	<p>For desktop installations and installations on Windows Server, you must install the required Visual C++ Redistributable Packages (choose the x64 variant of the .exe file):</p> <ul style="list-style-type: none"> • Visual C++ Redistributable Packages for Visual Studio 2008 • Visual C++ Redistributable Packages for Visual Studio 2013 <p>For Windows Server installations, you must also install:</p> <ul style="list-style-type: none"> • Visual C++ Redistributable Packages for Visual Studio 2019 <div style="border: 1px solid black; 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>	

	Server	Desktop
Supported platforms	<p>The following operating systems are supported on the Data360 Analyze server product:</p> <ul style="list-style-type: none"> • Windows Server Core 2019 • Windows Server 2019 (Desktop Experience) • Windows Server 2016 64-bit (Server with Desktop Experience) • RedHat Enterprise 7.X 64-bit • RedHat Enterprise 8.X 64-bit Requires the <code>libnsl-2.28-151.e18.x86_64</code> RPM package or later, and the <code>compat-libgfortran-48</code> package. <p>The following browsers are supported on both server and desktop:</p> <ul style="list-style-type: none"> • Google Chrome - Latest stable version • Microsoft Edge - New Chromium-based version 	<p>The following operating systems are supported on the Data360 Analyze single-user desktop product:</p> <ul style="list-style-type: none"> • Windows 10 64-bit
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
Single Sign-On (server only)	SAML 2.0	N/A
App servers	Tomcat 9.0.52	

2. Latest release - 3.8.5

This document provides release information for all releases of Data360 Analyze from version 3.8.0 onwards. If you require release information for an older version of Data360 Analyze, please contact us at support.precisely.com.

For information on installing Data360 Analyze, please see the installation guide. Once you are up and running, you can access the integrated product help by clicking the Help icon in the top right corner of the screen.

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

2.1 What's new

Scheduled data flow email notification

A new run property `URL_Link_To_Run` has been added to the Data360 Failed Schedule Email Notification data flow. An admin user can reference this property in the schedule email template to include a direct link to the failed run in the email.

For more information, see the "Configuring schedule emails" topic in the help.

ERP nodes to handle the max row count

The Extract ERP Table node will allow you to set the `MaxRowCount` that limits the number of rows retrieved when no `RowCount` is specified.

The `RowCount` property is used to limit the rows, however, if the SAP system does not allow for the default (2147483647) number of rows, the property can be "unhidden" then set on the node or set server-wide via adding a line in the `cust.prop` to:

```
ls.brain.node.erp.sapconnector.extractTable.maxRowCount=<maxRowCountValue>
```

Teradata driver version



Note: When using JDBC-based nodes to connect to Teradata, for example the Database Metadata node and the JDBC Query node, it is recommended that you use the latest version of the Teradata driver. Driver versions older than 17.10.0.26 can cause potential issues with the Database Metadata node where views reference objects which no longer exist.

Preserve Tomcat settings across upgrades

The upgrade installation process has been improved by ensuring that server.xml, web.xml & cacerts keystore are maintained between upgrades.

Examples of when you might change these files are while Configuring HTTPS or while Importing SSL certificates for use with certain nodes.



Note: For 3.8.5 the changes will still need to be made to the files, they will be preserved after future upgrades. Also the instructions for making such changes have changed compared to previous versions.

SharePoint 365 nodes

Four new SharePoint 365 nodes have been added to this release that were introduced in 3.10.0:

- **Download for SharePoint 365** - Downloads files from a specified SharePoint 365 server using the SharePoint API.
- **List for SharePoint 365** - Lists the contents of a SharePoint 365 document library or folder using the SharePoint API.
- **Delete for SharePoint 365** - Deletes the contents from a SharePoint document library or folder using the Microsoft graph API.
- **Upload for SharePoint 365** - Uploads the contents to a SharePoint document library or folder using the Microsoft graph API.

These nodes integrate with SharePoint 365 online.

For more information, see the “Download for SharePoint 365”, “List for SharePoint 365”, “Delete for SharePoint 365” and “Upload for SharePoint 365” in the help.

2.2 Other Changes

- The Database Metadata node has been changed to make trigger queries against Oracle using `DBA_TRIGGERS` instead of `ALL_TRIGGERS`. This removes the need for any trigger permissions via `"grant create any trigger to <user>"` and only select permissions is required via `"grant SELECT_CATALOG_ROLE to <user>"`.
- Significantly improved performance for large databases when no table filtering is used.
- In the database profiler node, if there are less than `MaxProfileSize` records in a table being profiled, then the reported null count will be the total number of nulls in the table as reported by the database. If, however, there are more than `MaxProfileSize` records in the table, then the null count will always be 0.
- Added support for data virtuality to JDBC Metadata and JDBC Profiler nodes.
- The last known location information now appears in the Library Node Conflicts dialog.
- Introduces the ability to disable the schedule of a data flow while it is running.
- Fixed an issue where the Extract ERP Table node sometimes fails with an error "Option not valid".
- Tomcat version upgraded to 9.0.62
- Spring Framework upgraded the version to 5.3.20 to prevent CVE-2022-22965
- It is possible to download the node logs directly from the canvas using the download option available when you right-click on the respective node.
- Use of the EOL library `log4j 1.2.17` has been replaced by the actively supported `replace4j` library.
- Introduced a "Metadata for Salesforce" node and superseded the current "Data360 Metadata for Salesforce" node. The new node fixes issues where it would not always return data for a specified object.
- Introduced `fistExec`, `lastExec`, and `execCount` functions to the advanced scripting capability of the Lookup node.
- The default time for scheduled backups has been changed to 02:06:30 UTC. This is to avoid collisions with scheduled data flow runs, which generally take place at daily, hourly or minute intervals.

- Added a new property "CreateFileUsingAbsolutePath" to the "Archive Compress" node, where the backwards compatibility is set to true. When set to false the path of the files in the created zip file will be relative to the source folder, as opposed to using the full file path of the source system which previously caused issues with the default Windows zip tool when trying to open the zip files produced by the node.

2.3 Corrected issues

Issue summary	Issue number
Fixed an issue where it was not possible to specify "unlimited" for <code>SessionCount</code> in the Design Session license feature.	LAE-27446
Fixed an issue where the table definition will display same tables irrespective the lower/upper case of schema filter.	LAE-28730
Fixed an issue when an Execute Data flow node is running while a system backup is ongoing, it will not be able to finish until the backup is complete.	LAE-26357
Fixed an issue on the HTTP node where the <code>DataOutputFieldType</code> property was not always being used if one of the other output field properties were set.	LAE-27559
Fixed an issue where group and property names are updated based on focus out.	LAE-28030
Fixed an issue where the leaf node designer would be used instead of the composite node designer, when creating new nodes based off a composite node.	LAE-27975
Fixed an issue where the system could become deadlocked when jobs were completed at the same time as a backup was attempting to suspend running jobs.	LAE-28792
Fixed an issue where an unexpected error was shown when pop-out data viewer opens and the data is loaded.	LAE-27693
Fixed an issue where a particular console error was encountered when trying to import a legacy run property set from the Run tab on the properties panel.	LAE-28015
Fixed out-of-date libraries of Gson.	LAE-27682

Issue summary	Issue number
Fixed an issue where the overridden run property values are not used when Data Flow runs on a schedule.	LAE-27696
Fixed an issue where it was not possible to import nested groups from AD.	LAE-27794
Fixed issue where a non admin user could not successfully "Convert to library" a selected number of nodes from within a Data Flow.	LAE-27823
Fixed an issue where permissions set on Data360 Nodes and Sample Data Flows are not being preserved after an upgrade of Analyze.	LAE-27880
Fixed an issue where a data flow execution would fail if it contained a run property set with no value in the password property.	LAE-27988
Fixed an issue where the integrated REST API Documentation is not available.	LAE-27630
Fixed an issue where an error message appears, and the data does not load when you attempt to open the pop-out data viewer in a scheduled run.	LAE-27557
Fixed an issue whereby the Modify Field Prefix was not case-sensitive when detecting a field that already had a matching prefix.	LAE-28779
Fixed an issue where the query for Salesforce node would fail on some unicode characters.	LAE-27674, LAE-28480
Fixed an issue in the Data360 update for Salesforce node, where the node fails in update mode with an index out of bound issue, if the specified id field is not named Id and is not the first field on the input data set.	LAE-27691
Fixed an issue where you will be able to run the dependencies to top level composite in the composite library node developer.	LAE-27884
Fixed an issue where merge, join and lookup nodes use the wrong key fields picker configuration.	LAE-27764
Fixed an issue where the privacy and security settings panel will be available while using custom override licenses.	LAE-27930

Issue summary	Issue number
Fixed Salesforce node where Id mapping was incorrect for insert operation.	LAE-28803
Fixed an issue whereby if a username was changed then both versions of the username would count towards the amount of allowed user licenses.	LAE-27822
Fixed an issue where the textbox must be resizable in all modes except locked.	LAE-27798
Fixed an issue where the file picker was not showing the listed files upon reopen.	LAE-28856
Fixed an issue where the 'do output' statement showcased different behavior for LAE and Data360 Analyze.	LAE-28613
Fixed an issue where the query for Salesforce node failing with retryException.	LAE-28427
Fixed an issue where the file upload dialog breadcrumbs were broken.	LAE-28928
Fixed the Database Metadata node to correctly understand the difference between Azure Data Warehouse and standard SQL Server so that it can work on both.	LAE-28514
Fixed an issue where fta library in database profiler node was throwing Null pointer exception. This exception was causing the entire Database Profiler Node failure.	LAE-28857
Fixed an issue where In the Database Metadata node for DB2, the Procedure Parameters output had a field called <code>TABLE_NAME</code> which should have been called <code>PROCEDURE_NAME</code> . On the Function Parameters output, it had a field called <code>TABLE_NAME</code> which should have been called <code>FUNCTION_NAME</code> .	LAE-28804
Fixed Jython/Pip SSL to Allow for Connecting to PyPi.	LAE-27792
Fixed an issue in the Excel File node if a WorkbookSpec property was specified which did not have the start and end column defined, and the node was configured to DetectFieldTypes, and the header row in the Excel spreadsheet contained empty cells, the cells were not getting auto-named correctly and instead were winding up with field names from the first row of the data.	LAE-28351



Issue summary	Issue number
Fixed an issue whereby the Database Metadata node was reporting warnings about "USE statement is not supported" and causing the node to not retrieve correct information when running against an Azure Synapse database.	LAE-28939
Fixed an issue where the Edit Library Paths dialog does not open in leaf node designer	LAE-27981

3. New in 3.8.4

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

3.1 What's new

- The database profiler can now source `ProfileMode`, `CatalogFilter`, `SchemaFilter` and `TableViewFilter` properties from incoming fields.
- Redshift external tables can now be profiled.

3.2 Corrected issues

Issue summary	Issue number
Fixed a security issue by updating the log4j-core library to version 2.16.0, which patches the security vulnerabilities found in previous log4j libraries, addressing both CVE-2021-44228 and CVE-2021-45046.	LAE-27561, LAE-27610

4. New in 3.8.3

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

4.1 Corrected issues

Issue summary	Issue number
Fixed an issue where you could not access the application, if a node had restricted permissions.	LAE-27338
Fixed an issue that would cause occasional compilation errors, when attempting to execute nodes.	LAE-27340
Fixed an issue where the Output Excel node was reporting a warning for a missing classpath.	LAE-27343
Fixed an issue in the Query for Salesforce node, where certain properties, such as the proxy and retry sets, were not functioning as expected.	LAE-27344
Fixed an issue with the Filter and Split node, which meant data did not clear after carrying out advanced editing.	LAE-27346
Fixed an issue where hovering over a pin, didn't highlight the destination pin correctly.	LAE-27347
Fixed an issue in the Data360 Update for Salesforce node, which meant that if the <code>DataFields</code> property didn't contain an ID field, then the ID was not included in the batch update sent to Salesforce. This meant that Salesforce could not process the records, as they had no ID. A secondary issue was also fixed, which meant that if the <code>IdField</code> referenced an input field with a name different to "ID", then the node would fail during processing.	LAE-27363
Fixed an issue with the Excel File node, were it was generating an out of memory error, when reading large files.	LAE-27378

Issue summary	Issue number
Fixed an issue that meant the loading of native libraries, such as .so and .dll files, would fail for JDBC nodes, which use drivers that rely upon them.	LAE-27389
Fixed an issue where run property values were not showing in the directory, when viewing a run state produced by an Execute Data Flow node.	LAE-27394
Fixed an issue where the Excel File node was reporting a warning for a missing classpath.	LAE-27396
Fixed an issue where the date values in .xlsx workbooks created to use the 1904 date system, were not getting read correctly by the Excel File node.	LAE-27398
Fixed an issue where the Excel File node would sometimes fail to read numeric data, when the DetectFieldTypes property was set to false.	LAE-27450

5. New in 3.8.2

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

5.1 What's new

New Query for Salesforce node

The "Query for Salesforce" node is a new implementation of the now superseded "Data360 Get for Salesforce" node. It fixes a number of issues logged with the old node, such as LAE-26217 and LAE-26216. The new node also introduces retry options for failed Salesforce requests.

New Tableau nodes

The "Output Tableau" node has been superseded and replaced with a new node, which allows you to create Tableau .hyper format data extracts. An "Upload Tableau" node has also been created, which allows you to upload .hyper format files directly to a Tableau server.

Other changes

- LNAs exported from a newer version of an LTS release can now be imported into an earlier version of the same release. For example, from 3.8.3 to 3.8.2.
- The database profiler can now be configured exclude selected tables from profiling.
- The Data360 Analyze CLI now supports searching across all imported dataflows. See `help -k search` for examples.

5.2 Corrected issues

Issue summary	Issue number
Fixed an issue where merge node errors happened when comparing substrings.	LAE-25740

Issue summary	Issue number
Fixed an issue so that <code>.jython_cache</code> subfolders are no longer created in the execution directory.	LAE-25787
Fixed an issue where inherited parameters did not have a "Show" option.	LAE-25839
Fixed an issue where it was not possible to configure SAML with an HTTP-Post binding.	LAE-26114
Fixed an issue that meant it was not possible to deploy the SAML configuration, if the IDP metadata contained bindings not supported by Data360 Analyze.	LAE-26115
Fixed an issue that meant you were unable to save a new data flow in Data360 Analyze, under certain circumstances.	LAE-26179
Fixed an issue where the <code>VerifyInputsSorted</code> property on the Merge node was not always causing the node to fail, when inputs were not sorted.	LAE-26623
Fixed an issue on the Pivot Data to Names node, where the <code>NamesField</code> and <code>DataField</code> properties would not accept values with single quotes around them.	LAE-26907
Fixed an issue where the application was not recognizing a node had moved, when it was by one snap position using the mouse.	LAE-27002
Fixed an issue where the "Go to Linked Item" option was sometimes not available in the composite connectable menu.	LAE-27018
Fixed an issue that meant the names of data sets appearing on composite outputs were not appearing correctly, when multiple data sets were wired through the one output.	LAE-27031
Fixed an issue that meant dragging from a connected composite output pin didn't remove the connection.	LAE-27039
Fixed an issue where entering a URL including <code>/editor#/designer/</code> when not authorized to do so, resulted in an empty page.	LAE-27058

Issue summary	Issue number
Fixed an issue that meant when grouping nodes into a composite, the inputs and outputs to the composite would be wrongly interpreted, and have to be reconnected manually to operate correctly.	LAE-27060
Fixed an issue where the node pin color was not updating for a trace field.	LAE-27065
Fixed an issue that meant a data flow already opened in read-only mode, was still was displayed as read-only when it was re-opened in editable mode.	LAE-27082
Fixed an issue where a node summary component was calling the <code>CompiledCanvas</code> to retrieve the value of the Node Count field.	LAE-27088
Fixed an issue so that the server log download through the UI will now include webapp logs for the previous days, as appropriate.	LAE-27091
Fixed an issue where it was not possible to import an LNA with errors through the LNA Import REST API or the Data360 Analyze CLI.	LAE-27095
Fixed an issue where state updates on the canvas were still faulty after a rerun.	LAE-27097
Fixed an issue so that the ADLS nodes now work as intended.	LAE-27099
Fixed an issue with input pins within a Composite node.	LAE-27101
Fixed an issue where the search indexes were not cleared correctly on deletion of a data flow. This would not have caused noticeable issues in the UI, but would have caused problems in the search done via the Data360 AnalyzeCLI.	LAE-27128
Fixed an issue in the JSON and XML Data nodes where with some structures of input data, the node would fail on case-insensitive field name conflicts.	LAE-27145
Fixed an issue where the scheduler was enabled after backup, when it was previously disabled.	LAE-27146
Fixed an issue that meant when aligning nodes with connection lines, the connection lines were not being updated.	LAE-27159

Issue summary	Issue number
Fixed an issue where selected connection points werenot included when promoting to the library node.	LAE-27165
Fixed an issue where a data flow search would not always work correctly on newly imported data flows.	LAE-27167
Fixed an issue with closing open data viewer tabs when clearing or re-running.	LAE-27216
Fixed an issue that caused a <code>connectionNotFound</code> error, when selecting all data sets on a connection line with a bend point.	LAE-27217
Fixed an issue where scheduled data flows that started at the same time as a system backup, could cause the system to hang.	LAE-27220
Fixed an issue where virtual connections with bend points were being displayed as a solid line.	LAE-27221
Fixed an issue where apply autofixes was not working correctly, when inconsistencies existed in the text box layering that were to be resolved.	LAE-27226
Fixed an issue where clicking on the items in a data flow search result would not always correctly select the corresponding node.	LAE-27263
Fixed an issue that meant property updates could be applied against the incorrect node.	LAE-27268

6. New in 3.8.1

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

6.1 What's new

- The version of Jackson used by Data360 Analyze has been upgraded.
- Postgres upgraded to 13.4 for server products.
- A new Cron expression interval option is now available when scheduling a dataflow.
- The Tomcat version has been upgraded to 9.0.52.

6.2 Corrected issues

Issue summary	Issue number
Fixed an issue to improve performance when moving folders that had a lot of content in the directory, such as nested folders, or those containing the run state of data flows, with a lot of composite layers.	LAE-24579
Fixed an issue where it was possible to copy a folder into itself, leading to infinite recursion. This was possible, if your My Documents workspace was pointing to a location other than the home default.	LAE-25822
Fixed an issue where a schedule that was moved, could not be edited in Schedules.	LAE-25917
Fixed an issue with the canvas, where nudge positioning did not persist, until the grid threshold was met.	LAE-25972
Fixed an issue where you could not select multiple nodes and convert them into a library node.	LAE-26135

Issue summary	Issue number
Fixed an issue to ensure BRG import is more lenient when handling bendpoints that are defined in the BRG, but which reference connections on non-existent inputs and outputs. The legacy BRE product can now load without error and ignore any such issues. Similar logic is implemented in Data360 Analyze, although a warning will now be logged.	LAE-26236
Fixed an issue where executing data flow nodes that were launched at the same time as a backup, could, in certain rare timing dependent cases, lead to a deadlock.	LAE-26246
Fixed an issue that led to duplicate library nodes in the node palette.	LAE-26358
Fixed an issue concerning unexpected failures during an execution due to, for example, running out of memory. The problem will now be logged and the process will attempt to mark the execution as failed, to avoid a deadlock.	LAE-26367
Fixed an issue where LDAP users could not log in after upgrading from 3.6.3 or earlier, because the LDAP password in Settings > Authentication was corrupted after the upgrade.	LAE-26483
Fixed an issue where certain API end-points were not stopping operations during backup, leading to a deadlock, or inaccurate backup results.	LAE-26519
Fixed an issue that led to lower performance levels, when navigating around a canvas with multiple nodes in a run state.	LAE-26749
Fixed an issue where Undo was not working correctly within a composite node in a data flow.	LAE-26766
Fixed a BRG import issue, so that imports will now succeed, despite invalid connectable references.	LAE-26823
Fixed an issue so that BRG imports can proceed successfully, when X/Y coordinates in the BRG have negative values.	LAE-26824

Issue summary	Issue number
Fixed an issue where a data flow and library node import could spawn a large number of threads, when there were errors or warnings on the items being imported. When using Linux, this could result in the import failing with <code>OutOfMemory</code> errors.	LAE-26825
Fixed an issue to ensure that while documents can be moved out of the "Data360 Samples" folders, you cannot move items into them, as these are maintained by Data360 Analyze.	LAE-26844
Fixed an issue that meant a new connectable was created, but not the connection itself, when connecting to a ghost pin in a composite library node.	LAE-26878
Fixed an issue that meant a node did not snap to the grid when dropped onto the canvas.	LAE-26879
Fixed an issue where the canvas was frozen after displaying the server connection error dialog.	LAE-26881
Fixed an issue where the server connection dialog was not displayed.	LAE-26887
Fixed an issue where the third party license page was not available on a server installation.	LAE-26896
Fixed an issue that meant the browser tab did not show the data flow name.	LAE-26897
Fixed an issue where you couldn't edit a scheduled data flow, after installing Data360 Analyze 3.8.0	LAE-26909
Fixed an issue where the Convert to Library Node option was disabled, when multiple nodes were selected on the canvas.	LAE-26910
Fixed an issue where upgrading a system to 3.8.0 would fail, if it had caches larger than 2GB.	LAE-26922
Fixed an issue where a library node could be duplicated in the node palette, if you had duplicate entries in your "library path" settings for the data flow.	LAE-26932
Fixed an issue that caused problems with saving a data flow, after updating the search paths.	LAE-26938

Issue summary	Issue number
Fixed an issue that meant upgrading from 3.6.7 to 3.8.0 would not work successfully.	LAE-26943
Fixed an issue so that if an execution is interrupted by a system backup, it will now resume when the backup is finished.	LAE-26959
Fixed an issue where dragging from a ghost pin to make a connection did not work.	LAE-26970
Fixed an issue where the Unbundle dialog was not showing, when connecting from a bundle connection point to a composite output.	LAE-26971
Fixed an issue that generated an <code>elementNotFound</code> exception, when attempting to undo inside a Composite node.	LAE-26972
Fixed an issue where an error dialog would occasionally appear after navigating within a data flow following the insertion of a connection point.	LAE-26999
Fixed an issue where an <code>ObjectNotFound</code> exception was sometimes displayed, when opening a data flow.	LAE-27017
Fixed an issue where the ERP nodes on a Windows Server would fail to run, due to library path issues.	LAE-27045

7. New in 3.8.0

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

7.1 What's new

Performance improvements

Overall, the user experience with Data360 Analyze 3.8.0 has been considerably enhanced, especially with regard to designing and building data flows.

In particular, the performance of the application when navigating and making changes to large data flows, where the number of nodes could be in excess of 3000+, has been significantly improved, ensuring a far more expeditious experience when building them.

There have also been further performance improvements across Data360 Analyze, but in particular:

- When applying autofixes against a large data flow.
- Loading the canvas, and the response to various UI operations, such as connecting nodes and similar, due to improvements in compilation performance.
- Improved responsiveness for the first data flow modification operation that is done after the data flow is saved.

Node enhancements

CSV/Delimited Input node

- The `DuplicateFieldNameBehavior` property has been added, which allows an incoming data set to be managed if it contains fields that appear multiple times in the metadata. Duplicate field names are suffixed with "`_<occurrenceNumber>`".
- New `MissingFieldBehavior` and `AdditionalFieldBehavior` properties are now available, which allow you to decide what to do if a record is missing field values, or contains additional field values.

- A new `MissingFieldNameBehavior` property is available, which allows you to decide what to do if the header is missing a fieldname.
- You can now specify multiple characters for the field delimiter.
- The Record Delimiter can now be specified within the node, which can be a maximum of 2 characters in length.
- A new `SubstituteInvalidChars` property is available, which allows you to process files when fieldnames include an invalid character.
- A new `HeaderMode` property has been added, which allows you to easily specify whether a file contains a header, and if the header includes type information. `HasHeader` and `TypedHeader` properties have been deprecated.
- New `dateFormat`, `timeFormat` and `datetimeFormat` properties have been added, which can be used to specify what format the relevant type is on the incoming dataset, when the `headerMode` property is set to "Typed".
- A new `NullMode` property has been added, which determines what should be interpreted as a NULL value, when reading the input data.
- New `MaxCharsPerColumn` and `MaxColumns` properties are now available, which allow you to overwrite the defaults when processing either very large data within one or more individual fields, or a very substantial data set.
- A new `CommentCharacter` property is now available, which allows you to change what character indicates that a line in a CSV file is a comment, and so should be ignored.

For more information, see the "CSV/Delimited Input" topic in the help.

XML and JSON Data nodes

- The ability to exclude field paths from XML and JSON Data nodes, using the `ExcludeFieldPaths` property has been added.
- The `MissingExcludeFieldBehavior` property has also been added to specify behavior when any of the fields referenced in the `ExcludeFieldPaths` property, do not exist.

For more information, see the "JSON Data" and "XML Data" topics in the help.

DeepSQL node

The DeepSQL node now supports lineage generation for Google BigQuery data.

Other changes

- The Apache POI has been upgraded to version 5.0.0.
- When nodes are running, you can now see the current execution run duration, on the properties panel.
- The QVD File node has been deprecated.
- Data360 Analyze no longer supports Windows Server 2012R2 64-bit.
- Data360 Analyze no longer supports SUSE Linux Enterprise Server.

7.2 Corrected issues

Issue summary	Issue number
<p>Fixed an issue that meant if a field was always null or empty, it would never appear in the output of the XML or JSON nodes. An <code>OutputAllNullFields</code> property has been introduced on the nodes, to determine whether or not such fields should be produced. The default is to output the fields.</p> <p>For backwards compatibility and to maintain the previous behavior, set a server property in your <code>cust.prop</code> file. For XML Data nodes, add the line: <code>ls.brain.node.structuredData.xml.outputAllNullFields=false</code></p> <p>For backwards compatibility on the JSON Data node, add the line: <code>ls.brain.node.structuredData.json.outputAllNullFields=false</code></p>	LAE-9988
<p>Fixed an issue where data was sometimes not getting produced correctly in the JSON data node.</p>	LAE-24352
<p>Fixed an issue where data was sometimes not getting produced correctly in the XML data node.</p>	LAE-24911
<p>Fixed an issue where logs were sometimes created in the system, but no longer referenced anywhere, and never removed.</p>	LAE-25185
<p>Fixed an issue that meant changing the monthly schedule settings did not pick up the correct number of months.</p>	LAE-25911
<p>Fixed an issue where The JSON Data node was incorrectly trimming the content of attributes.</p>	LAE-26026

Issue summary	Issue number
Fixed an issue where multiple nodes couldn't be selected and converted into a library node .	LAE-26135
Fixed an issue where the User Search Filter was not being applied while authenticating AD users, when using the <code>sAMAccountName</code> username attribute.	LAE-26382
Fixed an issue where inserting a field reference from a context menu was not working correctly.	LAE-26404
Fixed an issue where you could not log in properly, if your username contained a backslash.	LAE-26632
Fixed an issue where it was not possible to edit disabled schedules, after upgrading from 3.6.3.	LAE-26810
Fixed an issue where <code>NullPointerException</code> s could be thrown when attempting to compile data flows, while navigating around the data flow. This happened especially when using the Node log dialog > Error panel > View data link and the pop out data viewer.	LAE-26826
Fixed an issue where non admin. users could not move or delete run property sets to which they had access.	LAE-26860
Fixed a series of concurrency issues, which could lead to inconsistent results and potentially error dialogs in the UI, especially during save, edit and node state retrieval operations.	LAE-26861

8. 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 support.precisely.com. If your query has not been discussed previously in the forums, you can create a new topic and receive answers from our Data360 Analyze experts.

8.1 Third parties

The following table lists third party known issues and limitations:

Feature	Description
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 Data360 Analyze nodes, these fields will need to be converted to string data types.</p>
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>

8.2 Web application

The following table lists Data360 Analyze known issues and limitations:

Feature	Description
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>
Logistic Regression node	<p>The Logistic Regression node does not support Unicode for categorical data.</p>

9. Contact us

If you encounter any technical issues, we recommend that you visit the support portal at support.precisely.com.

Download

Precisely recommends that you use the latest version of the product. To download Data360 Analyze, please go to <https://data.precisely.com/software/product-details/data360-analyze>.

Our product is constantly evolving and input from you is highly valued. If you have any suggestions, please contact the product team by submitting a feature request on the [Community](#).



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