



COBOL Analyzer 9.0

Release Notes

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COBOL Analyzer Release Notes - Version 9.0

These release notes contain a summary of the major features of COBOL Analyzer Version 9.0, as well as late-breaking information about the product.

Before using COBOL Analyzer, please read the *Getting Started* manual in the online help to gain an understanding of the user interface and tool metaphor. For more detail on the behavior, usage and limitations of COBOL Analyzer, please refer to the online help.

What's New

COBOL Analyzer Product Enhancements

64-bit Installation

The product is now 64-bit only. The default installation path is now C:\Program Files\Micro Focus\. When installing version 9.0 over a previous version, the previous version will be removed from the C:\Program Files (x86)\Micro Focus\ directory.

Important: The following changes to your environment are required after installing this 9.0 version.

- 64-bit ODBC DSN's will need to be created for connecting to workspaces. If the same DSN name is used, the workspace can be opened with the same .rwp file as usual. However, if the 64-bit DSN name is different from the 32-bit DSN name, then the Build New Connection feature from the Administration tool should be used to create a new .rwp file. Note that SQL Server workspaces should connect without changes.
- Any paths to the installation directory, such as those in BRP user exits or source synchronization batch file execution, will need to be manually updated to C:\Program Files\ instead of C:\Program Files (x86)\.
- If you are using any custom plugins, the Plugins folder from the previous installation (C:\Program Files (x86)\Micro Focus\COBOL Analyzer\Plugins) will need to be copied to the new installation location (C:\Program Files\Micro Focus\COBOL Analyzer).
- (Optional) Pinned Start Menu shortcuts may need to be updated.

Usability

PostgreSQL Simple Workspace Creation Streamlined

The PostgreSQL Simple option when creating a new workspace has been simplified. The requirements to use the feature are:

- The ODBC data source named Postgres35W. This is usually the default ODBC data source name.
- In the ODBC data source add the connection information – database, user, password.
- A schema will be created with the name of the workspace in the PostgreSQL database given in the DSN.

Other Enhancements and Changes

- Support for the new Micro Focus COBOL features of local variables and parameterized sections has been added. Logic Analyzer functionality for these features is not currently supported.
- A new feature to calculate the source lines in registered files before verifying has been added. The feature is found in the Administrator tool from the Tools > Calculate LOC menu item. It submits a job and starts a separate Queue Processor to calculate the source lines for all source file objects within the workspace that do not already have a source line attribute value captured.
- The 64-bit readiness migration queries have been extended and updated to include more details in the descriptions of the queries.

Non-Functional Changes

- Microsoft SQL Server Express 2022 Express is now included with the installer.
- PostgreSQL is now the recommended database for new workspaces.

Upgrades from Previous Versions

Attention: We recommend that when you move your workspaces to version 9.0, you use the Export / Import option after installing 9.0. This will allow you to have a fresh environment analyzed with 9.0 with all your user content applied from the older environment. Once you are happy with the 9.0 setup, you can simply remove the older environment. The export / import would be required for workspaces from older product versions that are not supported for automatic upgrades to 9.0, such as 5.0 or earlier. For more information see the “Export and Import from the Workspace” topic in the product documentation.

For workspaces from versions that do support automatic upgrades, the export / import feature can be useful to avoid potential issues like an error in the automatic upgrade process for the workspace. And it would be recommended to use the export / import feature if reverification of the sources are needed due to some enhancement or fix to the source code analysis.

Important: When not using the recommended export / import from workspace feature, all workspaces must be upgraded after installing CA 9.0. Before upgrading, we recommend you contact SupportLine for the latest COBOL Analyzer updates and best practices for workspace upgrades.

Before performing the upgrade on important workspaces, be sure to backup the database and the workspace folder along with the `.rwp` file. If you experience any issues or errors with the workspace upgrade process, please contact SupportLine with a description of the problem and include the contents of the `Upgrade` folder from the workspace as an attachment.

COBOL Analyzer 9.0 supports upgrades of workspaces directly from these versions:

- 8.0 GA and any HotFix
- 7.0 GA and any HotFix

Important: Apache Tomcat needs to be upgraded to version 9.0.71. If you have an earlier version from a previous COBOL Analyzer install you should uninstall the old Apache Tomcat version and install the 9.0.71 version found with the CA installer files in the Packages\ApacheTomcat folder. The Apache Tomcat version will not be upgraded automatically by the CA installer.

Note: Upgraded SQL Server workspaces may have a backup RWP file with a name like *.rwp.bak after the upgrade. This is due to the need to update the connection properties for opening the workspace. This update is done automatically with no input needed from the user. The rwp.bak file will have the old connection properties for reference, and it can safely be deleted.

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Updating the CA Web Client

After installing COBOL Analyzer 9.0, follow these steps to continue using the CA Web client. If COBOL Analyzer was installed with the **Install Web Client** option, steps 1 through 6 below can be skipped.

1. Stop the Apache Tomcat service.
2. Delete CAWeb.war and the CAWeb folder from C:\Program Files (x86)\Apache Software Foundation\Tomcat\webapps.
3. Delete everything in the ... \Tomcat\temp folder.
4. Delete everything in the ... \Tomcat\work\Catalina\localhost folder.
5. Copy the CAWeb.war file from [CA install directory]\Web Client into the ... \Tomcat\webapps folder.
6. Start the Apache Tomcat service.
7. In the properties for the Micro Focus COBOL Analyzer Web Service, go to the **Log On** tab, choose **This account** and enter the account of a user with access to CA and the workspace.
8. Restart the Micro Focus COBOL Analyzer Web Service.

Note: The browser clients might need to hard-refresh the CA Web page with **Ctrl+R** to get the latest version.

Note: When using CA Web in Internet Explorer, disable compatibility mode.

Updating the Eclipse Plugins

Follow these steps after installing CA 9.0 to continue using the Clipper View and Search Assistant plugins in the Eclipse IDE.

Note: The Mylyn software for Eclipse is required to install the CA Eclipse plugins.

1. On the CA server, in the properties for the Micro Focus COBOL Analyzer Web Service, go to the **Log On** tab, choose **This account** and enter the account of a user with access to CA and the workspace. Restart the Micro Focus COBOL Analyzer Web Service.

2. Open Eclipse or Enterprise Developer on the client machine.
3. Go to **Help > Install New Software**.
4. Click the **Add** button next to the **Work with** combo selection.
5. Click **Archive** and point to the `EAIntegration.repository.zip` file in `[CA install directory]\Bin`. Then add a name in the **Name** field and click **Add**.
6. In the Install window, check the box for **COBOL Analyzer Access**. Click **Next**.
7. Click **Next** again.
8. Accept the license agreement and when prompted, restart Eclipse.

Silent Install

The following command can be used to perform a silent install of the product. This command will execute the installation to the default location with the default selections of SQL Server Express install enabled and Install Web Client disabled:

```
start COBOLAnalyzer90.exe /s /v"/qn"
```

The following command will install with the default options plus the Install Web Client will be enabled:

```
start COBOLAnalyzer90.exe TomcatCheckbox=1 /s /v"/qn"
```

The parameters to disable the default selection of the SQL Server Express install is `SQLExpressCheckbox=0`. This is shown in the following command as an example of how to disable these default selections and can be used along with the `TomcatCheckbox` parameter:

```
start COBOLAnalyzer90.exe SQLExpressCheckbox=0 /s /v"/qn"
```

The install location can be changed with the `InstallFolder` parameter. The following command shows an example of using the `InstallFolder` parameter to install to any location:

```
start COBOLAnalyzer90.exe InstallFolder="D:\Install\Micro Focus\COBOL Analyzer" /s /v"/qn"
```

Silent Uninstall

The following command can be used to perform a silent install of the product:

```
start /wait COBOLAnalyzer90.exe /uninstall /quiet
```

Important Notes

- After installing CA version 9.0 with the **Install Web Client** option selected, if the Apache Tomcat service does not start automatically, it can be started from the Services application. There you can also set the **Startup Type** to **Automatic** if it is set to **Manual**.
- When installing a new version of CA with the **Install Web Client** option checked over a previous version, newer versions of the Adopt OpenJDK JRE may be installed, and older versions will be

left untouched by the CA installer. For Apache Tomcat, if an older JRE version is present Tomcat will continue to use the older version of the JRE. Note that the latest version of the JRE will always be used by default for verification of Java files in a workspace.

- When using CA on Windows Server 2019 it may be necessary, depending on the security settings, to do one of the following in order to access a workspace local to that machine:
 - Before creating a workspace share the folder or a parent folder that will contain the .rwp file and workspace folder.
 - Before creating a workspace add security permissions for the user account to the folder where the workspace will be created.
 - Add security permissions for the user account to the workspace folder that is on the same level as the .rwp file.

Updates and SupportLine

Our website gives up-to-date information on contact numbers and addresses.

Contacting Micro Focus

Micro Focus is committed to providing world-class technical support and consulting services. Micro Focus provides worldwide support, delivering timely, reliable service to ensure every customer's business success.

All customers who are under a maintenance and support contract, as well as prospective customers who are evaluating products, are eligible for customer support. Our highly trained staff respond to your requests as quickly and professionally as possible.

Visit <https://support.microfocus.com/contact/supportline.html> to communicate directly with Micro Focus SupportLine to resolve your issues, or email supportline@microfocus.com.

Visit Micro Focus SupportLine at <https://www.microfocus.com/support> for up-to-date support news and access to other support information. First time users may be required to register to the site.

Information Needed by Micro Focus SupportLine

When contacting Micro Focus SupportLine, please include the following information if possible. The more information you can give, the better Micro Focus SupportLine can help you.

- The name and version number of all products that you think might be causing an issue.
- Your computer make and model.
- System information such as operating system name and version, processors, and memory details.
- Any detailed description of the issue, including steps to reproduce the issue.
- Exact wording of any error messages involved.
- Your serial number or works order (WO) number.

To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus.

For reporting issues with CA please provide the following information:

- The version and HotFix.
 - The database and database version used for the workspace.
 - Is the database local or remote?
 - Is the workspace folder local or remote?
 - Was the workspace upgraded to the currently used version and if so from what base version.
 - Runtime environment – AWS machine; Windows 10; etc.
-
- Inventory report for the Workspace.
 - User type – master / non master.
 - Configuration screenshot.
 - Plug-in Information.
 - The .rwp file of the workspace.
 - PrereqCheckerApp.exe reports/logs.
 - Zip file of the workspace Options folder.
 - Legacy.xml from the install folder and from the workspace if there is one.

Resolved Issues

The numbers that follow each issue are the support case numbers followed by the defect number (in parentheses).

CA - Administration

An issue that could result in an SQL Server driver connection error when creating a new workspace has been fixed.
2428317 (365230)

The Refresh Workspace Path feature in the Administration tool no longer requires administrative privileges.
The user still must be a master user of the workspace to use the feature.
2483446 (397032)

The Legacy.xml export has been added to the Export / Import from workspace functionality.
02353679 (301147)

CA - Analysis - Diagrammer

An issue with some relationships not being shown with a custom scope has been fixed.
2401707 (355008)

CA - Analysis - HyperView - Clipper

An issue with displaying Compilation Unit, Line, and Project attributes has been fixed.
02344554 (303017)

CA - Backend - Analysis

An issue with an incorrect SEARCH statement when the PANVALET compiler directive was not used has been fixed.
00365069 (12384)

CA - Backend - Analysis - Cobol

An issue where data access relationships were not shown correctly for COBOL files with nested programs has been fixed.
2333976 (299004)

An issue with incorrect line offsets when the COBOL parser replaces one line from the original source with more than one line as a result of processing a REPLACE statement has been fixed.
02417124 (377074)

An issue with calls to nested programs being shown in the repository has been fixed.
02542664 (427080)

CA - Backend - Analysis - Cobol - Advanced

The memory allocation when performing Generic API analysis has been fixed.
02471905 (415007)

CA - Backend - Parsing - Cobol

An issue with some nested programs not showing external call relationships has been fixed.
2341920 (303050)

An issue where verifying a nested program containing a data item with usage POINTER could cause processing to hang has been fixed.
2352588 (303052)

An issue where an invalid workspace path would cause COBOL verification to crash has been fixed.
2375847 (350021)

Improved memory usage when performing complex Program Analysis for COBOL.
00365063 (13227)

An issue where an incorrect error message would be displayed when a program is attempting to use an undeclared identifier has been fixed.

00369784 (13270)

CA - Backend - Parsing - Cobol/MicroFocus

Support for pictures based on bits like PIC 1(4) is now supported while verifying COBOL files.

2463504 (397064)

CA - Backend - Parsing - DDL

The "Use Qualified Table Names" option is now visible in Workspace options for DDL file types and unchecked by default.

As a result, when COBOL programs use table names without identifiers, the tables will now be resolved to the tables defined in the DDL files.

2386877 (340018)

An issue with verifying DDL files containing SELECT FROM VALUES has been fixed.

2473627 (394100)

CA - Backend - Parsing - Java

Methods in external jar files are now marked as externally resolved and will appear in the External Reference Report instead of the Unresolved Report.

00778868 (99061)

CA - Batch Refresh Process

An issue with the scheduled BRP process not completing in certain circumstances has been fixed.

2469748 (393123)

An error that could occur during the BRP run after upgrading a workspace has been addressed.

2465564 (394027)

The comments of the parameter descriptions in RXP.bj have been adjusted for clarity.

2470988 (394153)

The version shown in the batch script logs has been updated.

2485132 (397006)

The reporting in logs when a BRP user exit fails has been improved.

2462607 (400001)

An issue with a failure when running MFCobolCLink.bj has been fixed.

02485202 (415010)

An issue with BRP not finishing when run from the Windows schedule has been fixed.

02514172 (415012)

A particular issue with BRP not verifying modules after COBOL has been fixed.
02526411 (415019)

CA - CAWeb

An issue with saving Code Search Report results in the web client has been fixed.
2390279 (348043)

CA - Change Analyzer

An issue with tracing of the same variable from different programs has been fixed.
N/A (326014)

CA - Decision Resolution

An issue with manually resolved decisions not being restored has been fixed.
N/A (414211)

CA - Diagrammer

An issue where relationships for data stores could be missing for the Data Flow (Detailed) scope has been fixed.
2321193 (284099)

An issue that caused C# source files to not be correctly displayed in the analysis windows has been fixed.
02344555 (303018)

CA - ED/VC Integration

The Uninitialized Data Items query has been modified to match the intended behavior of the rule.
743788 (87092)

CA - HyperView - Clipper

An issue with the Policy.Simple.xml from the installation being used rather than the workspace folder has been fixed.
02513338 (406099)

The ability to run long running Code Search queries has been enabled for non-master users.
02510013 (405060)

CA - IDE - Repository Browser

An issue in the Web client where performing a Query Repository search with certain region settings could return with an error has

been fixed.
2361043 (312046)

The performance of repository search for large workspaces has been improved.
N/A (328004)

CA - IDE - Workspace Operations

An issue with the workspace path when creating the workspace in the root directory has been fixed.
2392077 (351019)

A new feature to calculate the source lines in registered files before verifying has been added. The feature is found in the Administrator tool from the Tools > Calculate LOC menu item. It submits a job and starts a separate Queue Processor to calculate the source lines for all source file objects within the workspace that do not already have a source line attribute value captured.
2391222 (387019)

CA - Reports

An issue with the Custom Code Search Report failing when used with a specific plugin has been fixed.
02494000 (401140)

CA - Reports - Portability Assessment

An issue with the export of custom code search reports has been fixed.
2372878 (322015)

The Generate HTML Report checkbox is now checked by default in the Code Search Reports dialog.
2382675 (330010)

An issue with the Embedded Hex query has been fixed.
2383515 (335006)

An issue with the headers of some report pages has been fixed.
2389110 (348032)

Query repository searches for custom reports can now be updated during configuration.
02425447 (364186)

An issue where the output location of code search reports could not be changed has been fixed.
02541539 (433006)

An issue with some Portability Assessment reports that were intended to return unique results, but did not, has been fixed.
02541488 (435009)

Support has been added to enable categories to be moved in preview.
02497870 (402145)

CA - Reports - Reference

Several issues with Cross Reference Report on large workspaces have been fixed.
2358785 (285183)

An issue with using the exclusions in the Unreferred Report has been fixed.
2390344 (344030)

An issue that caused some .NET entities to not be displayed in Reference Reports has been fixed.
02344538 (304011)

CA - REST API

The Direct References (all) query should now give the same results from the main tool, the web client, and the REST API.
02518488 (414098)

The CA Jenkins Plugin version has been updated.
02475219 (403088)

CA - Tag Manager

An issue with tags not being applied to some derived objects has been fixed.
2388838 (365056)

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Appendix I: COBOL Analyzer Features per Client

The web client provides a subset of the features available in the Windows desktop application. The table below shows the features that are available in each client. Note that this is not a full feature list for the desktop application.

Capability	Desktop Application	Web Interface
System Level Objects		
Repository Browser	Yes	Yes
Search Assistant	Yes	Yes
Repository Queries	Yes	Yes
Reference Reports	Yes	No
Diagrammer (project)	Yes	No
Diagrammer (object)	Yes	Yes
CRUD Report (project)	Yes	No
CRUD Report (object based)	Yes	Yes
Complexity Metrics	Yes	Overview charts only
Syntactical Analysis		
Code Search	Yes	Yes, execute only
Source pane with navigation	Yes	Yes
Program Control Flow	Yes	No
Code Search Reports	Yes	Yes, execute only
Migration Reports	Yes	Yes, execute only
Quality Reports	Yes	Yes, execute only
Business Rules	Yes, licensed separately	Yes, view and edit only
Advanced Analysis Options		
Change Analyzer (full)	Yes	No
Change Analyzer (single data item)	Yes	Yes
Impact Analysis	Yes	Yes
Execution Path Analysis	Yes	No