



COBOL Analyzer 10.0

Release Notes



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COBOL Analyzer Release Notes - Version 10.0

These release notes contain a summary of the major features of COBOL Analyzer Version 10.0, 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

Enterprise Analyzer Product Enhancements

PostgreSQL Automatic Install

The PostgreSQL database replaces the SQL Server Express option in the product installer. PostgreSQL is a free open-source database that does not have database size limits. Now you can start analyzing large workspaces right away without needing to purchase a separate commercial database license.

Source Synchronization Comparison

Source Synchronization can now compare the content of the files you want to update in the workspace in addition to just looking at the timestamp. This requires an additional staging folder into which you download the files you wish to refresh in the workspace. CA will then compare the content of the files and only update the registration folder (the folder that was registered in CA) with those files which have different content than those registered. This is a longer process than just comparing time stamps, but it is more efficient in cases where all sources are always pulled from the source management system since it will result in a much smaller set that will actually have to be updated in the Workspace. If you are only getting updated sources from your source control system then you should not modify anything in your process.

Project Specific Dialect Options for COBOL

When a Workspace contains more than one COBOL dialect, the COBOL sources can be split into projects by dialect and the specific dialect can be set at the project level overriding the one set for the Workspace level.

Count Source Lines Before Verification

By default, the number of source lines in a file is not known in the repository until the files have been verified. Now with a new feature in the admin tool the Source Lines metric can be captured for registered files of all types without needing to be verified. This may be useful in cases where you have a large set of sources and need to scope the size of the project quickly before taking the time for full analysis. Note: This will increase the registration time and should be used only in cases where you are not planning to immediately analyze the sources that you registered.

Usability

Orphan Analysis Enhancements

Several enhancements were added to the Orphan Analysis tool including, assign to project functionality, the ability to tag objects, and a tooltip that shows the number of highlighted objects. These additions should make the tool more useful for projects like migrations and modernization.

Other Enhancements and Changes

- The workspace export/import feature has been improved for tags and the state of projects.
- Impact analysis support for tracking data flow through SQL views and tables has been added.
- The Micro Focus compiler compatibility level option for the Micro Focus COBOL dialect has been updated to the latest level MFLEVEL"23".

Licensing Changes

- The SafeNet Sentinel licensing system that was available with previous releases of this product has been deprecated and is no longer available in release 10.0. This product also uses the Micro Focus AutoPass licensing technology which was introduced in release 8.0. Starting with release 10.0, AutoPass is the only licensing technology available in this product.
- The SafeNet Sentinel licenses are no longer supported, and you need to use AutoPass licenses starting with release 10.0. Contact your account manager to replace your existing SafeNet Sentinel with AutoPass licenses.

Upgrades from Previous Versions

Attention: We recommend that when you move your workspaces to version 10.0, you use the Export / Import option after installing 10.0. This will allow you to have a fresh environment analyzed with 10.0 with all your user content applied from the older environment. Once you are happy with the 10.0 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 10.0, such as 7.0 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 10.0. Before upgrading, we recommend you contact Support 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 Support with a description of the problem and include the contents of the `Upgrade` folder from the workspace as an attachment.

COBOL Analyzer 10.0 supports upgrades of workspaces directly from these versions:

- 9.0 GA and any HotFix
- 8.0 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.

Updating the CA Web Client

After installing COBOL Analyzer 10.0, 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. Open the Windows Service manager, 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. Right-click the **Micro Focus COBOL Analyzer Web Service**, click **Properties** and then click the **Log On** tab. Check **This account** and type the account of a user with access to CA and its workspace and then click **OK**.
8. Restart the **Micro Focus COBOL Analyzer Web Service**.

Note: You might need to refresh the CA Web browser page, press **Ctrl+R**.

Note: When using CA Web in Internet Explorer, the compatibility mode must be disabled.

Updating the Eclipse Plugins

Follow these steps after installing CA 10.0 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, open the Windows Service manager.
2. Right-click **Micro Focus COBOL Analyzer Web Service** and then click **Properties**. This opens the **Micro Focus COBOL Analyzer Web Service Properties** dialog box.

3. Click on the **Log On** tab and then click **This account** and type the account of a user with access to CA and its workspace.
4. Restart **Micro Focus COBOL Analyzer Web Service**.
5. Open Eclipse or Enterprise Developer on the client machine.
6. Click **Help > About Eclipse**.
This opens the **About Eclipse** dialog box.
7. Click **Installation Details**.
This opens the **Eclipse Installation Details** dialog box.
8. Click **COBOL Analyzer Access** and then click **Uninstall**.
9. In the **Uninstall** dialog box, click **Finish** and when prompted, restart Eclipse.
10. When Enterprise Developer or Eclipse opens again, click **Help > Install New Software**.
This opens the **Install** dialog box.
11. Click **Add** next to the **Work with** list.
This opens the **Add Repository** dialog box.
12. Click **Archive** and navigate to the `EAIntegration.repository-1.0.0.1.zip` file located in `[CA installed directory]\Bin`. Add the archive to the **File name** field and click **Open**.
13. In the **Install** window, check **COBOL Analyzer Access**. Click **Next**.
14. Click **Next** again.
15. 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 PostgreSQL install enabled, Install Web Client disabled, and the Administration tool enabled:

```
start COBOLAnalyzer10.exe ShowConfig=0 /s /v"/qn"
```

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

```
start COBOLAnalyzer10.exe TomcatCheckbox=1 ShowConfig=0 /s /v"/qn"
```

The parameters to disable the default selections are `PostgreSQLCheckbox=0` and `CAAdminCheckbox=0`. These are 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 COBOLAnalyzer10.exe PostgreSQLCheckbox=0 CAAdminCheckbox=0 ShowConfig=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 COBOLAnalyzer10.exe InstallFolder="D:\Install\Micro Focus\Enterprise Analyzer" ShowConfig=0 /s /v"/qn"
```

Silent Uninstall

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

```
start /wait COBOLAnalyzer10.exe /uninstall /quiet
```

Important Notes

- After installing CA version 10.0 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 Support

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

Contacting Support

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.

Contact Support to resolve your issues by emailing supportline@microfocus.com.

Visit Support 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 Support

When contacting Support, please include the following information if possible. The more information you can give, the better Support 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

Application Module	Support Case	Defect	Readme information
Administration	2297104	264081	You can now navigate to the new workspace path using the Folder browser control.

Administration	2788287	652015	<p>Previously when opening workspace that does not match the current configuration from the Configuration Manager in the admin tool, an informational message was displayed to the user saying that the configurations of the installation and the workspace did not match and an upgrade of the workspace was recommended.</p> <p>This message will no longer be displayed to avoid confusion in a common scenario when opening a remote workspace with a configuration that does not match that of the workspace.</p> <p>No other behavior has been changed. The configuration of the workspace is always used even when the configuration of the installation of the remote machine did not match.</p>
Analysis		517015	<p>The options for setting the COBOL verification dialect can now be set at the project level. Click Options > Project Options. This opens the Options – Project properties dialog box. Click Verification > COBOL File. Under Dialect Specific Options click COBOL. This opens the Details dialog box. Check Use project specific dialects option to override the workspace options settings for the project.</p>
Analysis	2659171	543058	<p>An issue with impact tracing through SQL statements within an EXEC SQL block has been fixed.</p>
Analysis - Diagrammer	2667632	551005	<p>An exception that intermittently occurred when closing the Diagrammer has been fixed.</p>
Analysis - Diagrammer	2855026	684012	<p>You can now expand relationships for a selected group of objects in the entity diagram.</p>
Analysis - Diagrammer	2842106	675063	<p>BRM elements are now displayed correctly in the Diagrammer.</p>
Analysis - HyperView - Impact		645040	<p>The parameters for the ImpactReport.bj batch script have changed. You must now specify the absolute path to the program in the Name parameter. See ImpactReport.bj in your product Help for more information.</p>
Backend	2760107	639084	<p>The batch job script unregister.bj failed to process all entities. This has been fixed.</p>
Backend - Analysis - Cobol	2827760	674003	<p>Verification failed after an error occurred. This has been fixed.</p>
Backend - Analysis - Cobol - Advanced	2806933	662008	<p>Changed Generic API pattern matching to enable matches on data items containing undefined bytes in cases where the undefined bytes are not referenced in the pattern.</p>
Backend - Analysis - Cobol - Advanced	2867475	690045	<p>The VarPool maximum size for variable allocation has been increased, to enable operations on larger group data items.</p>
Backend - Parsing - Cobol	2839742	672063	<p>An SQL statement UNION would error. This has been fixed.</p>

Backend - Parsing - Cobol	2554351	439056	Control characters (unprintable hexadecimal values; such as, Shift-In, Shift-Out, Start-Of-Text) in alpha numeric data types in COBOL sources are now replaced with their escape sequences instead of the period symbol.
Backend - Parsing - Cobol	2721874	627045	The Batch Refresh Process (BRP) failed to verify all CSD files. This has been fixed.
Backend - Parsing - Cobol	2618738	515083	Missing compiler directives have been added to the repository.
Backend - Parsing - EmbeddedSQL	2698817	587008	Oracle datetime expressions failed to parse in some contexts. This has been fixed. In addition, UNIQUE was added as a synonym for DISTINCT in SELECT statements.
Backend - Verification	2827760, 2877892	684165	In COBOL, multiline copy statements that contained a debug line indicator were not processed correctly. This has been fixed.
Backend - Verification	2848022	684059	Parsing anonymous blocks inside EXEC SQL statements would generate errors. This has been fixed.
Backend - Verification	2800074	651100	Verification of control card files containing tab characters could result in a crash. This has been fixed.
Batch Refresh Process	2580055	510023	The Batch Refresh Process (BRP) failed to complete when run from a scheduled task. This has been fixed.
Batch Refresh Process	2577460	499040	The reporting of errors in the log when running the Batch Refresh Process (BRP) or .bj scripts with Brave.exe has been improved. When using unsupported or incorrect parameters, scripts will now display the correct error. Crashes in most cases, will now display meaningful errors instead of generic message or an empty log file.
Batch Refresh Process	2746906	632038	An error message from TAG.bj was not explanatory. This has been fixed.
Batch Refresh Process	2859420	684046	If update errors are detected, they will be logged in the Batch Refresh Process (BRP) log, and the execution will stop.
Business Rules	2836183	665190	I/O data elements are now detected when generating rules using Autodetect.
Business Rules	2837251	670070	Rule import now overrides the attributes of the Rule Set.
Business Rules	2858202	684028	A paragraph, that was executed as a fall-through, was not generated as a rule set during rules autodetect. This has been fixed.
Business Rules	2833262	672015	All lines of statements will now be included in the technical description for rules from autodetect.
Business Rules	2836153	669012	I/O data elements were not being fully cleared from the database when a rule was deleted. This has been fixed.
Common	2787310	647025	Exporting source files from a workspace now exports the full path rather than just the path under the registered folder. To export files from the

			workspace click Workspace > Export Sources from Workspace.
Common	2892973	689128	The Object Information pane in the main window now displays the descriptions of system programs.
Diagrammer	2848943	673095	Conditions on relationships are now preserved when exporting and importing Diagrammer scopes.
Diagrammer	2676701	614068	Diagram files created by the product could not be opened. This has been fixed.
Diagrammer	2669829	543126	An error could occur when loading Interactive Analysis. This has been fixed.
CAWeb	2670722	551017	A non-triggering rule was displayed with a triggering rule icon in the Web client. This has been fixed.
CAWeb	2678551	559008	The source view in the Web client now uses the encoding settings from the user preferences of the user running the service.
ED/VC Integration	2556264	446018	Refactoring a COBOL component could result in the PROGRAM-ID being lost in the original program. This has been fixed.
ED/VC Integration	363234	28048	Code after an EXEC SQL INCLUDE statement was incorrectly marked as dead. This has been fixed.
HyperView	2596335	494022	Object information was incorrectly being retained in the database after component deletion. This has been fixed.
HyperView - Callie	2642998	528113	When opening the Program Control Flow, an error message was displayed. This has been fixed.
HyperView - Code Animator	2854226	680030	The Animator now follows GOTO statements.
HyperView - Impact	2643120	542057	Impact analysis support for tracking data flow through SQL views and tables has been added.
IDE		92025	You can now rename your project, to perform this, click Project > Rename Project. This opens the Rename Project dialog box. Type the new project name and then click OK.
IDE - Options	2792488	648041	The Program Entry Point type is now always listed as a Decisions Type in the Boundary Decisions options.
IDE - Project Operations	2777484	652082	The Apply Boundary Decisions menu item will now operate on C/C++, .NET and VB files.
IDE - Project Operations		656120	Project attributes are now included when exporting or importing a workspace.
IDE - Repository Browser	2809002	657103	Repository queries would crash when chart viewer was disabled. This has been fixed.
IDE - Repository Browser	2793337	652025	In the Repository browser, right-clicking on a folder now displays the context menu.
IDE - Workspace Operations	2856135	684065	An index out of bounds error would occur when trying to load source modules into a workspace which contained a blank entry for one of the registration source file extensions. This has been fixed.

IDE - Workspace Operations	2793339	653015	An issue where using the Search > Find feature on the Repository Browser would search files multiple times if they belonged to multiple projects has been fixed.
Plugins	2826055	665004	An issue with a plugin not loading all queries correctly into a workspace has been fixed.
Reports	2820972	662049	The charts in Code Search reports have been changed to display only the selected report.
Reports	2747208	632043	For the Code Search Reports, the dialog button labels have changed from Yes and No to OK and Cancel respectively. In addition, if Cancel is clicked then the full report run will be cancelled.
Reports - CRUD Report	2587588	508057	Some files in the Create, Read, Update, and Delete (CRUD) report were displayed as empty when resolved through a decision. This has been fixed.
Reports - Inventory	2800096	651097	Opening Inventory Report when there are multiple projects for different users would result in an error. This has been fixed.
Reports - Inventory	2821040	663044	The line counts for control cards were not displayed in the Inventory Report after using the Calculate LOC feature from the administration tool. This has been fixed.
Reports - Portability Assessment	2856223	684181	A PostgreSQL error would occur when the Portability Assessment report was executed during the Batch Refresh Process (BRP). This has been fixed.
Reports - Verification Report	2603374	504092	If a Verification report for Oracle workspaces contained a count of more than 1000 in the Files Affected column then it could result in an error. This has been fixed.
Upgrade	2734759	630060	Importing an exported workspace would fail if it contained unassigned project options. This has been fixed.
Upgrade	2836143	666231	The start menu shortcut would not be displayed after installing. This has been fixed.
Upgrade	2836136	667230	More informative messages will now be given when the upgrade procedure fails due to a missing configuration file.
Upgrade	2753952	639027	An issue when using the Export / Import from Workspace feature in the admin tool that reported errors when importing an export file into a workspace that did not match the configuration of the exported workspace has been fixed. The issue was due to having Diagrammer scopes in the export file with relationships that did not exist in the import workspace.

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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