COBOL Analyzer

Micro Focus COBOL Analyzer is a powerful code analysis and visualization toolset, designed to address the challenges of working with largescale, complex applications. It provides an inventory-wide understanding of business applications, their relationships and dependencies, providing invaluable application insight to executives, developers and analysts. COBOL Analyzer’s knowledge repository helps IT teams plan and implement application change with confidence by ensuring they have a complete understanding of its impact across the entire codebase.

Business Challenge
Every major business process—from financial reporting to customer management—depends on software applications. They must be efficient, reliable, compliant and flexible enough to support new business requirements. But these applications have been developed over many years or even decades, across diverse environments, and enhanced under tight time pressures. Documentation is rarely current and system experts have often moved on. The complexity of these systems and limited insight into the application portfolio can lead to:

- **A lack of subject matter expertise:** Retiring SMEs leave a knowledge gap and with limited documentation, new application development is put at risk
- **Costly development processes:** Global development teams can spend 80% and more of IT budgets on application maintenance activities, diverting resources from new innovation
- **Inconsistent information:** Limited visibility between the analysis and development phase leads to risky application change and costly re-work
- **Stalled modernization projects:** Businesses recognize the value of modernizing application portfolios, but cannot do so without the insight to prioritize and scope these high-value activities

How Micro Focus COBOL Analyzer Can Help
COBOL Analyzer is a comprehensive analysis solution designed for applications written in Micro Focus COBOL. It enables developers, analysts and executives to achieve a deeper understanding of the application portfolio providing business and technical insight across applications with information stored in a secure, centralized repository. COBOL Analyzer enables IT teams to identify, prioritize and implement application change activities that align with current business needs.

Key Features

- **Slow turnaround on business change requests:** Applications are too complex to be adapted quickly and without risk. In addition, business users and IT struggle to translate business needs into development requirements
- **Application insight at the point of change:** Developers are able to continuously analyze their code before and after making changes on their local environment and before committing that changes to the source control management stream
- **Scalable application repository:** COBOL Analyzer is built on an industry standard relational database management system (RDBMS) for centralized storage of application information.

Key Benefits

- **Robust report capabilities:** Generate reports to manage and monitor modernization projects, coding standards, quality metrics and much more. COBOL Analyzer offers a highly customizable framework to create reports with the latest information to give you control over your projects.
- **Accelerate change requests:** Designed for complex applications and tailor made for COBOL, this impact analysis tool identifies code changes across the application and eliminates unexpected work
- **Reuse business rules:** Application architects can easily isolate business logic into reusable components to support new use cases
- **Facilitate knowledge transfer:** These tools remove obstacles slowing the pace of knowledge transfer and create new application experts using integrated visualization and documentation tools
- **Enterprise scalability:** Designed to meet the needs of even the largest of codebases, COBOL Analyzer supports millions of lines of code using its unique scalable architecture
■ **Application visualization:** Intuitive, synchronized and interactive visualizations ensure that developers receive current code change updates on even the most complex applications by visualizing:
  - How applications fit into the inventory, their dependencies and relationships
  - Program structure with fast navigation to areas of interest
  - The impact of application change within programs, data flows and source modules

■ **Powerful, fully customizable code search facilities:** A pre-built query library includes a set of common queries to locate points of interest in the application code. These are fully customizable and the results can be shared with application developers to improve visibility to code change. Built-in queries include coding standards, performance optimizations and migrations issues discovery related searches.

■ **Code slicing facility:** Enables developers and architects to create new, re-usable components by separating business logic and computations into new callable objects. This allows simplifying programs complexity and exposing the needed logic for testing, documentation and creating new APIs from existing code.

■ **In-depth analysis tools:** Enable code analysis modules, across the application portfolio and within specific areas of interest including:
  - Application and program level understanding using extensive metrics, reports, diagrammatic views and querying tools
  - Comprehensive tools to analyze and determine the impact of code change within an application inventory, tracing impacts through code, data, report and application interfaces
  - Portability and migration assessments to help assess portfolio inventory, key

Figure 1. Interactive analysis and application visualization

Figure 2. Pre-built query library that can be fully customized
“The information COBOL Analyzer provides can make or break a business. Within half an hour of installation I had a general synopsis of what I was dealing with and I could dive in very quickly without having complete business knowledge.”

ERIC DUCHACEK
Developer
David Kopf Instruments

metrics and risk areas for application platform rehosting, product upgrade and modernization projects
- Standard code quality queries serving as guidance to improve code quality practice across development and maintenance phases

■ Dead code identification: Find dead statements and paragraphs, unused data items and similar code across the application. Removal and consolidation of these findings can significantly reduce the size of the application source code.

■ New Analysis REST API and Jenkins Plugin: A new, standard and easy to use Analysis REST API now available for integration with other tools such as Continuous Integration pipelines. A Jenkins plugin is also available.

■ New Support for COBOL Security Scans powered by Micro Focus Fortify: COBOL Analyzer now allows a 1-click creation of a Micro Focus Fortify package (MBS) for security scans of COBOL applications. The package can be used in Fortify SCA and Fortify on Demand.

■ Change Analyzer: This tool will provide all the code that is affected by the planned code change event. Users can then easily investigate and take next steps to complete that code change activity.

■ Easily accessible application knowledge: Gain instant access to application knowledge through an intuitive web interface. This powerful web-search style interface is accessible within the available COBOL Analyzer repository enabling fast roll-out to development teams

■ Integrated to development tool chain: Built-in integration with Micro Focus Visual COBOL. Batch interface and REST API available for integration with other tools as well as a Jenkins plugin for seamless integration to Jenkins.

System Requirements
COBOL Analyzer server and client tools are available on the following 32/64 bit operating systems:
- Windows 10
- Windows Server 2012 R2, 2016 and 2019

COBOL Analyzer repositories can be created using the following 32/64 bit RDBMS platforms:
- New PostgreSQL 13
- Out-of-the-box Microsoft SQL Server Express 2014 is also provided as an install option

COBOL Analyzer web client access requires one of the following browsers:
- Firefox 3.6 or higher
- Internet Explorer 6 or higher
- Chrome 6 or higher

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Figure 3. Powerful code slicing capabilities to create reusable components from existing business logic