

## isCOBOL<sup>®</sup> Evolve

The comprehensive and cost-effective product to develop, maintain and modernize COBOL applications



### Features and benefits

- Supports the latest ANSI standards as well as legacy COBOL dialects
- Compiles COBOL code into pure Java class output -- preserving and extending COBOL through Java technology without rewriting or retraining
- Delivers 100% portable applications, whether deployed locally, via thin client, or distributed across the Web
- Enhances Web integration, data flexibility, and interoperability
- Delivers secure processing that takes full advantage of today's multi-threaded, multi-tier environments and application server technology
- Improves ROI by lowering licensing fees, simplifying development and deployment, and accelerating time-to-market

isCOBOL Evolve brings a choice back to the COBOL market by providing a low-risk, extensible, and economical path forward for valuable business assets. By uniquely blending COBOL development with Java deployment, isCOBOL technology takes portability and scalability to a new levels.

### The COBOL for Java platforms

isCOBOL Evolve enables customers to retain and enhance valuable COBOL applications and development assets while taking full advantage of the Java platform without rewriting or retraining. Core components of the isCOBOL suite include a 100% portable COBOL compiler; an Eclipse-based Integrated Development Environment (IDE) with a real-time syntax checker; and a 100% portable, graphical debugger that facilitates remote debugging.

All isCOBOL development and debugging tasks are performed in a familiar COBOL environment. The isCOBOL<sup>®</sup> Compiler translates COBOL source code into Java classes that are then executed with the Java Virtual Machine (JVM). The isCOBOL<sup>®</sup> Runtime Environment has been written entirely in Java, so isCOBOL applications can run on any device that supports a JVM and will take full advantage of today's multi-threaded, multi-core servers. Thin client and distributed processing capabilities are included in the isCOBOL Runtime Environment, enabling developers to maintain one graphical user interface (GUI), regardless of platform choice or deployment model.

isCOBOL technology allows developers to focus on application coding without worrying about what data storage solution will be used in deployment. With isCOBOL, no database-specific pre-compilation is required. The same executable may be leveraged for any supported database, fostering smooth transitions to new data sources when desired. The isCOBOL Runtime Environment includes a scalable file system for highly-available distributed environments and a 100% Java-based portable file system for compact devices. Popular databases such as Oracle, IBM DB2, MySQL, PostgreSQL and Microsoft SQL Server are supported by isCOBOL Evolve and both ISAM and relational data can be accessed through COBOL file verbs or embedded SQL (ESQL).

### Enhance productivity, improve profitability

isCOBOL Evolve combines the best of COBOL and Java technologies to simplify application development and deployment. 'Compile once, run anywhere' is truly delivered and new application features and data options can be rapidly introduced. Incorporating thin client and distributed processing along with a client/server file system in the isCOBOL Runtime Environment -- functionality that alternative COBOL providers may charge additional fees for -- further extends the competitive advantage and value isCOBOL technology delivers.

## isCOBOL Evolve key components

isCOBOL software provides an extensible, easy-to-use environment for ongoing development, deployment, maintenance, and modernization of COBOL applications.

- **isCOBOL Compiler:** 100% portable COBOL compiler supporting the latest ANSI standards like PIC X ANY LENGTH and OCCURS DYNAMIC, common legacy COBOL dialects as well, also supports Object Oriented COBOL, Unicode, and automatic ESQL to JDBC translation.
- **isCOBOL IDE:** adaptable, graphical environment for key development tasks such as coding, screen designing, testing, and debugging. Remote compilation feature to incorporate server-side pre-compilers and translators into the application build step.
- **isCOBOL Runtime Environment:** 100% portable environment written entirely in Java that enables applications to run on any device supporting the Java Virtual Machine; includes the isCOBOL Debugger, isCOBOL Application Server as well as c-treeRTG<sup>®</sup> isCOBOL edition and isCOBOL JISAM file systems.
- **isCOBOL Debugger:** 100% portable, graphical COBOL source-level debugger that includes support for remote debugging; provides a GUI debugging environment for all supported platforms including UNIX<sup>®</sup>, Linux and Windows.
- **isCOBOL Application Server:** implements user interfaces (UIs) across a range of clients while taking advantage of today's multi-threaded processing capabilities -- reducing network bandwidth, simplifying deployment, and eliminating the need to maintain separate UI code for different deployment platforms. It provides access to sequential, relative and indexed files on a remote server, without requiring any changes to program code as well bidirectional distributed processing.
- **isCOBOL Load Balancer:** provided as add-on of isCOBOL Application Server, allows to distribute workloads among clusters of server processes running on the same or different machines for enhanced horizontal scalability or workload separation.
- **isCOBOL Enterprise Information System:** An umbrella of tools and features for Web Applications. Support for REST/SOAP Web Services, JSON/XML stream, COBOL Servlet HTTP and legacy GUI screen section. isCOBOL developers can also design HTML5 User Interface for rich client application.
- **isCOBOL Mobile for Android:** Bring COBOL code on mobile devices reusing the existing backend COBOL logic as REST Webservice.

## isCOBOL Evolve key features

isCOBOL technologies provide many advances for ongoing development, deployment, and modernization of COBOL applications.

- **Rich GUI:** LAF, embedded HTML, Scale layout Manager, Dockable Window, PDF and Print Preview capabilities, support for JavaBean graphical controls, RGB and advanced images.
- **Internationalization:** Unicode support, multi-language resource feature, date field decimal and currency management.
- **Regular expressions:** regular expressions functionality at compile time and on many areas of COBOL code like file START and entry-field validation.
- **Interoperability:** easy bridge to JAVA and C language, EXTFH and EXTSH APIs.

*"isCOBOL acts as a bridge between the old and new at Donatos, enabling us to minimize the impact of our migration to Java by allowing users to continue using a familiar application while providing the flexibility and freedom to execute a transition plan on the company's timetable."*

Mike Born, software development manager, Donatos

## isCOBOL data access and management

isCOBOL Evolve offers numerous options for ISAM files and RDBMS systems, as well as an ESQL Generator.

- ESQL / JDBC Access
  - » **isCOBOL Compiler:** recognizes ESQL and automatically translates it into Java source code, which then directly interfaces with JDBC.
  - » **isCOBOL Database Bridge:** reads COBOL file descriptions from existing code and generates an isCOBOL file system interface implemented with ESQL in COBOL.
  - » **isCOBOL Universal Database Connector:** to access indexed files hosted by the isCOBOL Application Server using ODBC and JDBC drivers.
  - » **c-treeRTG COBOL Edition:** adds a flexible RDBMS engine to existing ISAM files without changing program code or data.
- RDBMS options
  - » RDBMS options for isCOBOL Evolve include popular databases such as Oracle, IBM DB2, MySQL, PostgreSQL, Microsoft SQL Server and other JDBC compliant DBMS.
- ISAM file system
  - » **isCOBOL JISAM:** an affordable 100% Java-based indexed sequential access (ISAM) file system with fast, self-balancing and flexible data retrieval.
  - » **c-treeRTG isCOBOL Edition:** a powerful, scalable, server-based indexed file system with compression, encryption, automatic recovery and transaction management options.
  - » **isCOBOL File Connectors:** allow isCOBOL Runtime to access to indexed files system of others COBOL's suitable for production systems.
- Other file system
  - » Line, binary sequential, relative and printer files are supported as well as internal and external SORT.

*“With isCOBOL we are able to offer SaaS without the difficult installation of proprietary and platform-specific client software. Veryant enables us to modernize our existing applications and our development suite at an affordable price point.”*

René van Oevelen, software architect,  
i-Modulus Software BV

### Getting started:

When considering a move to isCOBOL, Veryant can take a sample of your code and generate a complimentary Code Analysis Report that will tell you exactly how compatible your application is before any investment occurs on your side.

If program data resides in flat files or is supported by a database such as Oracle, there is no data migration involved. If data resides in an indexed file system it can be moved to isCOBOL JISAM, c-treeRTG or another database of choice with the aid of an isCOBOL data migration utility.

Transition services are also available for companies who would like to supplement in-house staff or prefer a turnkey solution to move to isCOBOL software.

### For additional information:

Visit [veryant.com](http://veryant.com).

