isCOBOL® Evolve

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

Cloud Ready

Web Enablement

Multiplatform Application development and deployment

SOA and WebService technologies

isCOBOL Evolve Suite 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 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® Compiler translates COBOL source code into Java classes that are then executed with the Java Virtual Machine (JVM). The isCOBOL® 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 Evolve offers multiple robust options for running your application in the Cloud and in a web browser; from simply running in a web browser without any changes to your application, to creating REST or SOAP web services from the strategic processes in your application to be accessed by a front-end language of your choice.

isCOBOL technology lets COBOL 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, DBMaker, 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.

- **Compiler:** A platform agnostic, ANSI-compliant COBOL compiler that generates object-orientated code which efficiently runs on any platform that supports a Java Runtime Environment (JRE). Includes support for extended ANSI standards such as PIC X ANY LENGTH and OCCURS DYNAMIC, as well as most common legacy COBOL dialects for enhanced compatibility. The compiler also supports Object Oriented COBOL, Unicode, and automatic ESQL to JDBC translation.
- **IDE:** Enabling rapid COBOL application development, the isCOBOL IDE includes a COBOL source editor, complete with COBOL syntax highlighting, compiling, and project handling, providing a single, flexible environment for all COBOL development tasks (design, coding, testing and debugging) in the open and extensible Eclipse framework. A remote compilation feature is included to incorporate server side pre-compilers and translators.

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 develop-ment and deployment, and accelerating time-to-market

> *"The Veryant solution has given us improved cross-platform application portability, provided a very cost-effective solution with a fast time to value, and we find the performance is ex-cellent."*
>
> *Mark Rawlins CEO, InfoTrax*

- **Runtime Environment:** A portable environment written entirely in Java that enables applications to run on any device supporting the Java Virtual Machine. The runtime environment includes the isCOBOL Debugger, isCOBOL Application Server as well as c-treeRTG® isCOBOL edition and isCOBOL JISAM file systems.
- **Debugger:** A graphical COBOL source-level debugger that includes support for remote debugging. Provides a GUI debugging environment for all supported platforms including UNIX®, Linux and Windows.
- **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.
- **Load Balancer:** Provided as add-on to isCOBOL Application Server, it's used to distribute workloads among clusters of server processes running on the same or different machines for enhanced horizontal scalability or workload separation.
- **WebClient:** Run your character or GUI application unmodified in a Web browser or encapsulate it in a web page and communicate with your front end language.
- **Extend Internet System (EIS):** 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 sections. isCOBOL developers can also design HTML5 User Interfaces for rich client application.
- **Mobile for Android:** Bring COBOL code on mobile devices reusing the existing backend COBOL logic as REST Webservice.

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**
  - » **Compiler:** recognizes ESQL and automatically translates it into Java source code, which then directly interfaces with JDBC.
  - » **Database Bridge:** reads COBOL file descriptions from existing code and generates an isCOBOL file system interface implemented with ESQL in COBOL.
  - » **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.

> *"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"*
>
> *Renè van Oevelen, software architect, i-Modulas Software BV*

isCOBOL Evolve key features

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

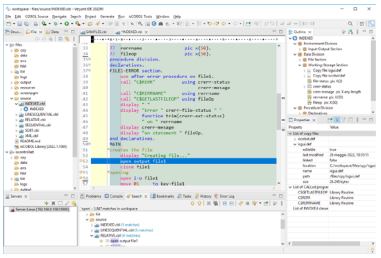
- **Rich GUI:** LAF, embedded HTML, Scale layout Manager, Dockable Window, PDF and Print Preview capabilities, support for JavaBean graphical controls, RGB and advanced images.
- **Internationalization:** Unicode support, multi- language resource feature, date field decimal and currency management.
-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

- **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**
  - » **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 managementoptions.
  - » **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.

ISCOBOL FOR THE CLOUD

isCOBOL Evolve offers a comprehensive options to migrate your COBOL application to the cloud.

- **Weblient:** Run your existing isCOBOL Client/Server applications, both graphical and character based, unmodified in a web browser. You can run your application on it's own, or encapsulated in a web page, communicating with surrounding Front End languages. Use WebClient clustering to easily spread the processing and memory loads across multiple servers.
- **Extend Internet System:** (EIS) provides state-of-the-art technology to give COBOL application developers the power to build the next generation of commercial applications and services:
  - » Extensible Markup Language (XML)
  - » JavaScript Object Notation (JSON)
  - » HyperText Transfer Protocol (HTTP)
  - » Simple Object Access protocol (SOAP)
  - » Representational state transfer (REST)
  - » to provide a state-of-the-art technology to develop modern applications based on the architecture, function and appearance of HTML5 and CSS3.



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

veryant.com

Corporate Headquarters
6390 Greenwich Dr., Suite 225
San Diego, CA 92122 - USA
Tel:(En) +1 619 797 1323
Tel:(Es) +1 619 453 0914
info@veryant.com

European Headquarters
Via Pirandello, 29
29121 - Piacenza - Italy
Tel: +39 0523 490770
Fax: +39 0523 480784
emea@veryant.com

Evolution, without revolution