Redvers Consulting Limited

COBOL XML Interface

The Redvers COBOL XML Interface gives COBOL applications fast efficient access to the world of XML and web services. This off-the-shelf product is written in pure COBOL and requires just the coding of a COBOL record layout and CALL statement to generate or parse any well-formed XML document.

Main features:

- ♦ Runs on any COBOL platform
- ♦ Distributed in COBOL source code form (*cloaked*)
- ♦ No special compile/link considerations
- ♦ Easy maintenance
- ♦ Fast, efficient, professional and fully scalable
- ♦ No training required for COBOL programmers
- ♦ Supports XML attributes, namespaces, SOAP, entities, CDATA, duplicate tag names and mixed content elements
- ♦ Document Type Definition (DTD) generated if desired
- ♦ Batch and on-line versions available
- ♦ Free 30 day trial on request

We've taken the unusual step of delivering our interface in the form of COBOL source code subroutines because we understand how important it is to have a product that is easily integrated with existing applications, as well as one that provides maximum flexibility and efficiency.

The Redvers COBOL XML Interface operates at record level. This means that the interface builds all the necessary XML element structures when generating, and correctly interprets the XML structures when parsing. This approach replaces complex element level application logic with a single CALL statement that passes the next logical record to/from the application.

The product is currently used by customers all over the world, running on AS400, UNIX, HP, CA-Realia, Siemens, Fujitsu, Micro Focus and of course IBM mainframe platforms. It is frequently used in Service Oriented Architecture (SOA) projects and to integrate XML messages on IBM's MQ Series with core COBOL applications. It is also suitable for generating and parsing SWIFTNet messages and Single Euro Payments Area (SEPA) applications.

How it Works

Before a COBOL application generates or parses XML, a **COBOL Record Definition (CRD)** must be coded, consisting of a working storage field definition for each field used by the application. This CRD is placed in the standard copybook library and a COPY/INCLUDE statement for the CRD is added to the application code for inclusion at compilation time.
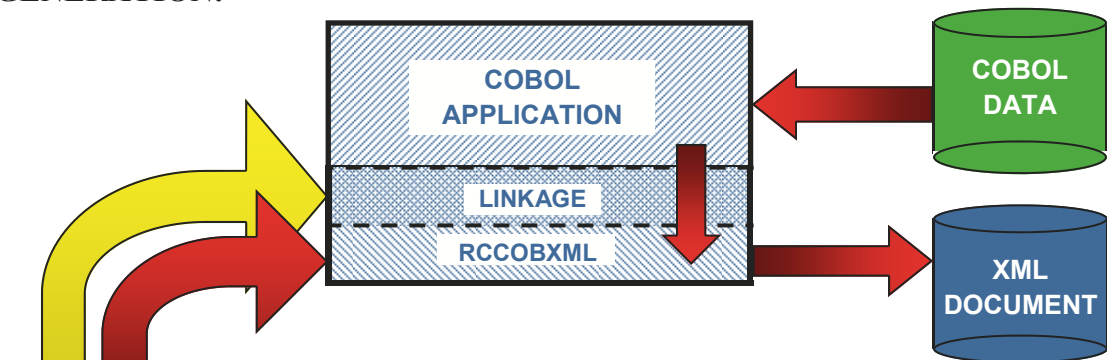
At run time, the interface modules read the CRD from the copybook library in order to interpret the passed COBOL layout.

To **generate** XML, a COBOL application populates the CRD and passes it to the generation subroutine (RCCOBXML) which writes the XML document.
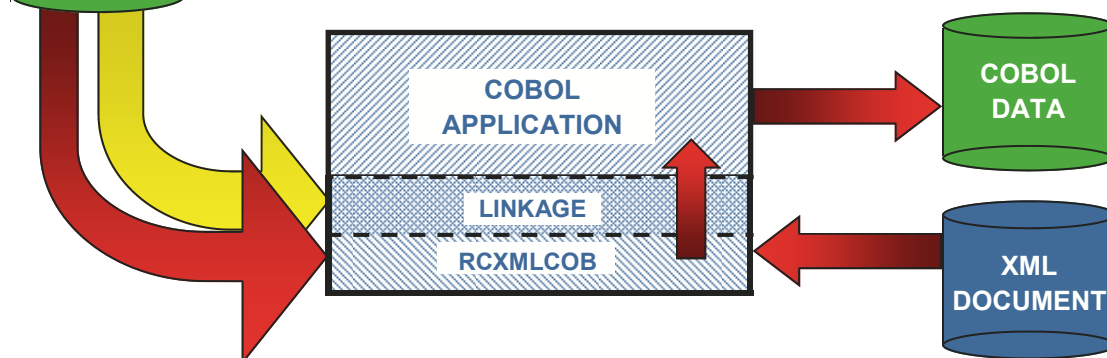
To **parse** XML, a COBOL application calls the parser subroutine (RCXMLCOB) which reads the XML document and returns the data in the CRD fields.

The batch generation/parsing process is illustrated below:

GENERATION:

| COBOL APPLICATION |
| LINKAGE |
| RCCOBXML |

COBOL DATA

XML DOCUMENT

COPY LIBRARY [CRD]

PARSING:

| COBOL APPLICATION |
| LINKAGE |
| RCXMLCOB |

COBOL DATA

XML DOCUMENT

Compile copy/include

Run time input/output

Technical Information

The product operates at any of five levels:

- **Batch** level directly reads and writes XML documents of unlimited size to and from external files.

- **Message** level runs in batch mode but accepts and returns XML documents to/from linkage.

- **CICS** level runs under a CICS transaction holding XML documents in storage.

- **Standalone** level can run in batch or on-line modes as a logic only routine that requires no external data access (ideal for SOA projects).

- **Superfast** level is designed for high transaction throughput in large installations. This level can also run in batch or on-line modes.

Each level consists of a pair of COBOL subroutines that generate or parse XML. Unlimited document sizes and element repetitions are handled using multiple calls to these subroutines. This enables the interface to process complex XML documents without using large amounts of storage.

These programs are sold in source code form which permits changes to values that would normally be fixed. These values are known as **User Maintained Variables**.

Examples of **UMV**'s are the PROGRAM-ID and external file names which can be changed to comply with site standards or specific application requirements. Full details on UMV's can be found in the product user guides.

The **COBOL Record Definition (CRD)** can be coded to generate/parse any XML tag names, attributes, namespaces, SOAP and mixed content elements. The appearance of data in XML elements is controlled using standard COBOL picture editing symbols.

The generated well-formed XML standalone document conforms to the World Wide Web Consortium (W3C) Extensible Mark-up Language (XML) 1.0 (2nd Edition) definition.

Generation rate is **1.79 KB/millisecond**; Parsing rate is **1.35 KB/millisecond**.

Further information can be found at: http://www.redversconsulting.co.uk/interface/

The Product Package

A perpetual license for a generator-parser pair of modules costs **18,000 US dollars** or equivalent currency. If only a single parser or generator module is required, it can be licensed separately for just **12,000 US dollars** or equivalent currency.

With each subroutine you get:

- Module source code (*cloaked*)
- Sample calling program
- User Guide containing examples and diagnostic messages
- Corporate level software license
- Two year warranty

- Future upgrades sent free of charge
- Free advice via email on coding COBOL record layouts to parse or generate any XML document

Optional extras are:

- Hotline telephone support 24 hours/ day 365 days/year
- Software escrow agreement with the NCC Group
- Consultancy service for the building of client application programs that call the Redvers COBOL XML Interface.

Who we are

Established in 1988, Redvers Consulting is an IT products and services company providing IT solutions based around the COBOL programming language.

Our clients are primarily large financial institutions in the UK and USA although we also have customers in other business and geographical areas.

In the early years we specialised in the art of optimising large batch systems and this work continues today. More recently our focus has changed to producing COBOL based software tools and products like the Redvers COBOL XML Interface and Redvers Cloaking Device.

We are IBM, HP, WRQ and Fujitsu Siemens business partners and members of the Professional Contractors Group.

Our client list includes:

Affiliated Computer Services (USA)

Bank One / JP Morgan (USA)

Barclays Life Assurance (UK)

Canada Life Assurance (UK)

Citibank NA (USA & UK)

CUNA Mutual Life Insurance (USA)

Deutsche Bank (USA)

Deutsche Rentenversicherung Bund (DE)

Dun & Bradstreet (UK)

FirstBank (USA)

Fegro Selgros (DE)

GMAC Insurance (USA)

John Deere (USA)

Lehman Brothers (USA & UK)

Metavante (USA)

Railtrack / Network Rail (UK)

Sasktel (Canada)

Standard Life Assurance (UK)

Suncorp (AUS)

WorldCom / MCI (USA)

Contact Information

E-Mail : info@redversconsulting.co.uk

Web : www.redversconsulting.co.uk

Head Office:

Redvers Consulting Limited
1st Floor, 48 Dangan Road,
London E11 2RF,
UK

Tel: +44 (0)870 922 0633
Fax: +44 (0)707 505 5472

Development Office:

Redvers Consulting Limited
Channelsea House,
Canning Road,
London E15 3ND, UK

Tel: +44 (0)208 503 1211
Fax: +44 (0)707 505 5472

German Office:

Redvers Consulting Limited
Postfach 30 03 26,
50773 Köln,
Deutschland

Tel: +49 (0)221 1704 9000
Fax: +49 (0)221 271 1016