



The Redvers COBOL JSON Interface gives COBOL applications fast, efficient access to the world of JSON objects. This off-the-shelf software is written in pure COBOL and simply requires the coding of a COBOL record layout and CALL statement to generate or parse any JSON object.

Main features:

- Runs on all COBOL platforms
- Distributed in COBOL source code ("cloaked")
- Generates and parses multiple dimension arrays (nested OCCURS)
- Easy maintenance
- Fast, efficient, professional and fully scalable
- No training required for COBOL programmers
- Runs in batch or on-line
- **Free 30 day trial available**

The **Redvers COBOL JSON Interface** operates at record level, intelligently building all necessary JSON object structures when generating and correctly interpreting object structures when parsing. This approach replaces complex object level application logic with a single **CALL** statement that passes the next logical record to/from the application.

Our interfaces are currently used by customers all over the world, running on **iSeries/AS400, UNIX, HP, Linux, Fujitsu Siemens BS2000, Micro Focus** and **IBM mainframe** platforms.

How it Works

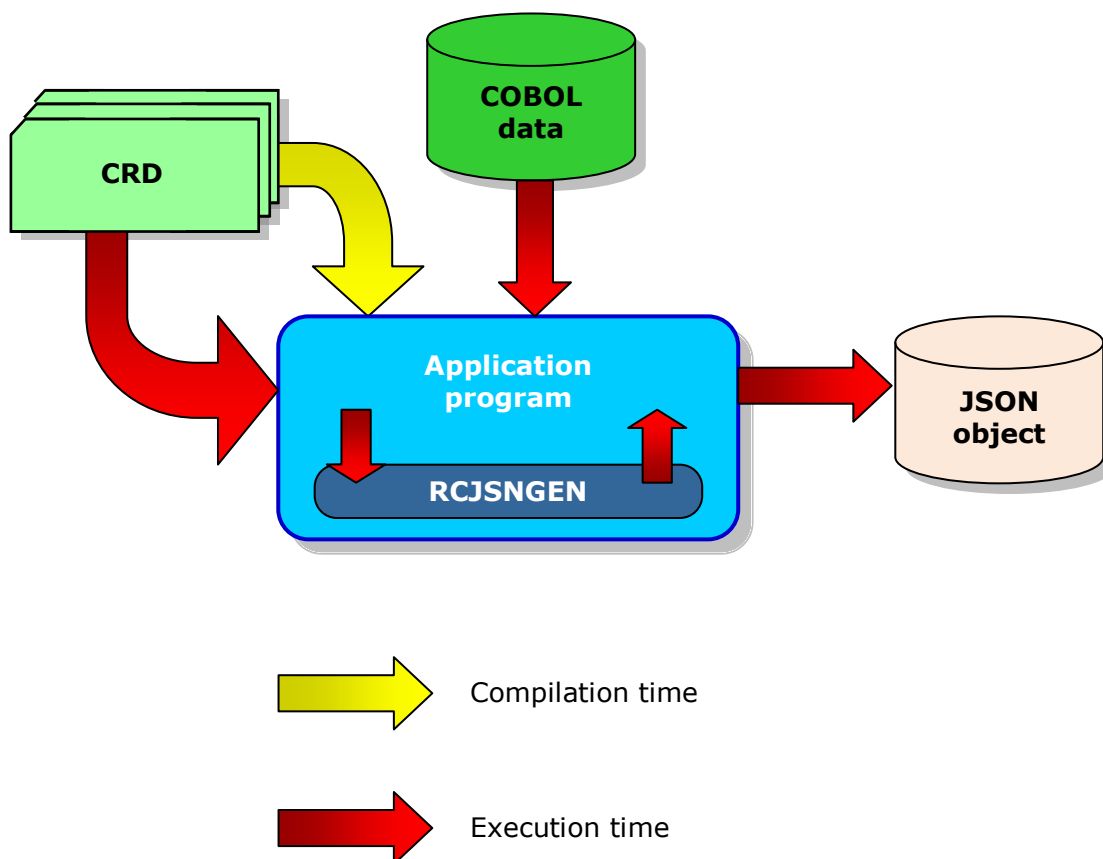
Before a COBOL application generates or parses JSON, a **COBOL Record Definition (CRD)** is coded, consisting of a working storage field definition for each JSON object. The CRD is then placed in the standard copybook library and a **COPY/INCLUDE** statement is added to the application code.

The CRD source code is also stored in the calling application so it can be passed to the interface routines in the **CALL**. This can either be done by hard-coding the source into working storage or by reading the source from the copybook library at run time.

To **generate** JSON, the COBOL application populates the CRD and passes it to the generation subroutine (**RCJSNGEN**) with the CRD source in a **CALL** statement. **RCJSNGEN** then converts the COBOL data to JSON objects and returns the JSON object to the application.

To **parse** JSON, the application passes the JSON and CRD source to the parser subroutine (**RCJSNPAR**) which returns the COBOL data in the CRD fields.

The generation process is illustrated below:



*Parsing is achieved in a similar way to the above, except the application passes the JSON object to **RCJSNPAR** which returns the COBOL data in the CRD.*

Technical Information

The **Redvers COBOL JSON Interface 2.1** programs are sold in COBOL source code form and are installed by copying to the site source code library and running the standard COBOL compiler. Compilation at client sites enables installation on multiple platforms and it ensures complete compatibility with all other COBOL applications on the platform.

Using source code also allows customers to make changes to certain values that would otherwise remain fixed. These values are known as **User Maintained Variables (UMV's)** and they can be tuned to provide additional efficiency and/or a more formatted JSON output. Full details on all UMV's can be found in the product user guides.

In order to protect both clients and authors from unauthorized code changes, the subroutine source code has been "cloaked" using the **Redvers Cloaking Device**. This process makes no logical difference to the code but renders it unintelligible to humans.

The **COBOL Record Definition (CRD)** can be coded to generate or parse any JSON object. Generated objects conform to the **JSON Data Interchange Standard** found on the www.json.org website.

The Redvers COBOL JSON parser issues an error message, identifying the erroneous character position within the input string, when an input JSON object contains JSON syntax errors. JSON syntax is defined in the JSON Data Interchange Standard on the www.json.org website. No other validation is performed.

JSON generation rate is **9.6 megabytes per second**; parsing rate is **8.8 megabytes per second**. All benchmark timings are based on an IBM zSeries mainframe running z/OS 1.10. Maximum object size is **99 megabytes**.

The Product Package

A perpetual license for the **Redvers COBOL JSON Interface** can be provided for a one-off fee. Alternatively, the software can be leased on an annual basis for 20% of the perpetual license cost (minimum two years).

All licenses include:

- Program source code ("cloaked")
- Sample COBOL calling programs
- User Guides
- Corporate level software license
- Money back guarantee
- Product upgrades and support via email*

* Free for the first two years, followed by a minimal annual fee.

Additional options:

- 24 x 7 telephone hotline support
- Software escrow agreement with the NCC Group

Software and documents are shipped in the form of email attachments unless otherwise requested. Installation is performed by copying the source code text into your COBOL source code library and running your standard site compiler.

We also provide a consultancy service for the building of client application programs that call the **Redvers COBOL JSON Interface**. Charges for this service are based on our standard hourly consultancy rate.

Full pricing details can be found at: http://www.redversconsulting.com/cobol_json_pricing.php

About Redvers Consulting

Redvers Consulting have been providing top quality products and services for COBOL applications since 1988. Our clients are primarily large financial institutions in Europe and North America, although we also have customers in many other business and geographical areas.

Our ability to deliver software in COBOL source code form, gives customers reliable, efficient and perfectly integrated solutions to business needs. Source code distribution also means our software will run on all hardware platforms and operating systems: *EBCDIC, ASCII, big endian or little endian*.

We are business partners with **IBM, HP** and **Fujitsu Siemens**, and our development team are members of the **Professional Contractors Group**. In 2009 we won the Thames Gateway **Best use of Technology Award**.

Our client list includes:

Agora (FR)
ANZ (AUS)
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Canada Life Assurance (UK)
Deutsche Bank (USA)
Deutsche Rentenversicherung Bund (DE)
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LBS / Finanz Informatik (DE)
J P Morgan (USA)
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Pacific Gas (USA)
Network Rail (UK)
R+V Allgemeine Versicherung (DE)
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