

Redvers Consulting Limited

Redvers Cloaking Device



The Redvers Cloaking Device protects the intellectual property in your COBOL source code by removing all comprehensible text, names, labels and positional structure without changing the logic.

The Redvers Cloaking Device is a COBOL source code obfuscator that keeps the intellectual property in your source code safe from unscrupulous individuals.

In these times of global outsourcing and black markets of industrial secrets, every responsible IT department should "cloak" their sensitive code before it is seen by any external personnel. Examples of sensitive code might be credit card number validation routines, security risk assessments or customer pricing profiles.

Alternatively, if you are interested in selling software written in COBOL, you can use the Redvers Cloaking Device to protect your ideas while having the flexibility of being able to sell your product in source code form, therefore compatible with all COBOL platforms.

Main features:

- ◆ Runs on any COBOL platform using the standard 80 byte reference format
- ◆ Distributed in COBOL source code form (cloaked)
- ◆ No special compile/link considerations
- ◆ Resulting code is 70% smaller than the original
- ◆ Accepts COBOL 1, SQL, CICS and many more
- ◆ Facility to select specific lines for "cloaking"
- ◆ Encryption of procedure division literals
- ◆ Operates on pre or post translated code
- ◆ Cannot be "uncloaked"
- ◆ Free 10 day trial on request

This product is listed in the IBM Global Solutions Directory and Knowledgestorm database.

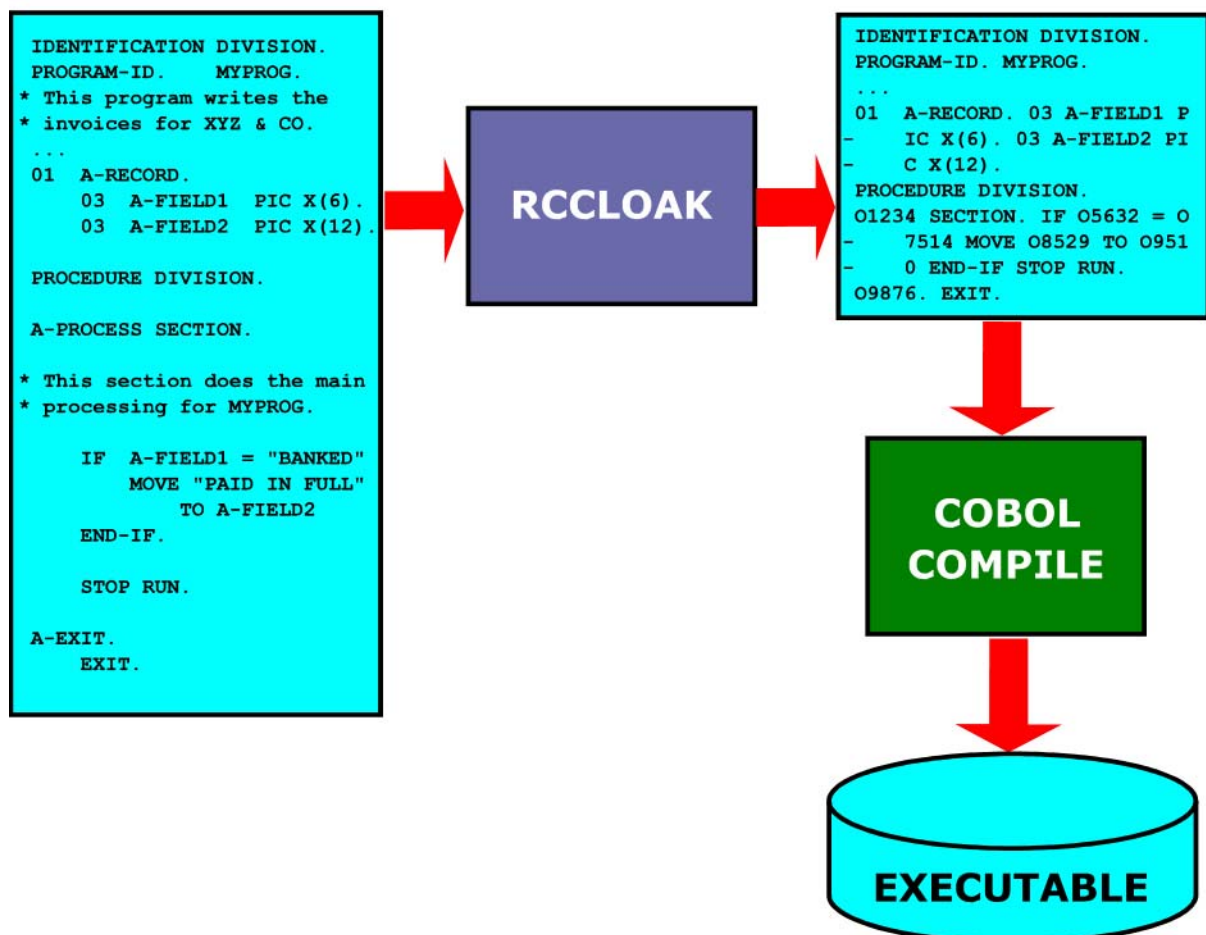
Overview

The Redvers Cloaking Device (**RCCLOAK**) is a self-contained COBOL batch program that requires no copybooks, includes or objects. The **RCCLOAK** source code has itself been "cloaked" in order to protect authors and clients from code alterations by unqualified personnel.

To install **RCCLOAK**, place the program in the site source code library and compile/link using the site COBOL batch compiler/link editor in the normal way.

The program reads a fixed length 80 byte sequential file containing the source code for a single COBOL program (top level, subroutine or on-line transaction).

The program writes a fixed length 80 byte sequential file consisting of the exact same COBOL logic but with all comprehensible text, literals, names, labels and positional structure removed. This output is then compiled, linked and run in place of the original source.



Once a program has been "cloaked" it is not possible to reverse engineer the source so that meaningful text and data names are restored.

"Cloaked" source code remains compliant with all COBOL standards and is compiled, linked and executed in the normal way.

Technical Information

The Redvers Cloaking Device performs the following changes to the input source code:

- ◆ **Data and label names** are replaced with "cloaked" names.
- ◆ **Procedure literals** are replaced with "cloaked" names referring to encrypted values in working storage.
- ◆ **Periods / full stops** are removed unless their presence is required by COBOL syntax or their removal would impact on the program logic.
- ◆ **Spaces and new lines** are removed unless their presence is required by COBOL syntax. This removes the positional structure within the source.
- ◆ **Comments** are removed.

In some circumstances it may be useful to allow certain comments and/or positional structure to be retained in the "cloaked" source. For example, parameter validation or file formats and layouts could be very useful to an outside organisation if they were required to test "cloaked" programs. This is made possible by setting **preserve mode** "on" for specific lines within the source code.

The Cloaking Device does not validate or check the syntax of the input source code. If compile errors exist before "cloaking" the same errors will exist afterwards.

Further information can be found at:
<http://www.redversconsulting.co.uk/cloaking/>

Below is a sample of "cloaked" output:

```
01539 SECTION. SET 01067 TO TRUE MOVE SPACE TO 01292 PERFORM VARY
-   ING 00459 FROM 5 BY 1 UNTIL 00459 > 65 IF 00709 (00459:1) = 0
-   3947 OR 00709 (00459:1) = 00546 MOVE 00709 (00459:1) TO 01292
-   ADD 1 TO 00459 PERFORM VARYING 00459 FROM 00459 BY 1 UNTIL 00
-   459 > 65 OR 00709 (00459:1) = 01292 CONTINUE END-PERFORM IF 0
-   0459 > 65 SET 03428 TO TRUE ELSE SET 01067 TO TRUE END-IF END
-   -IF END-PERFORM IF 01067 AND 01292 NOT = SPACE AND 00709 (65:
-   1) = 01292 SET 03428 TO TRUE PERFORM VARYING 00459 FROM 199 B
-   Y -1 UNTIL 00459 = ZERO OR 00459 < 65 AND 01067 AND 00709 (00
-   459:1) = SPACE ADD 1 TO 00459 GIVING 04515 MOVE 00709 (00459:
-   1) TO 00709 (04515:1) IF 00459 < 65 AND 03428 AND 00709 (0045
-   9:1) = 01292 SET 01067 TO TRUE ELSE IF 00459 < 65 AND 01067 A
-   ND 00709 (00459:1) = 03947 OR 00459 < 65 AND 01067 AND 00709
-   (00459:1) = 00546 MOVE 00709 (00459:1) TO 01292 SET 03428 TO
```

The Product Package

A purchase consists of:

- ◆ Cloaking Device COBOL source code ("cloaked")
- ◆ User Guide
- ◆ Corporate level software license
- ◆ Two year warranty
- ◆ Future upgrades sent free of charge
- ◆ Free support via email
- ◆ Option for 24 x 7 telephone support

There are no mandatory support or other maintenance charges, just a one-off payment for a perpetual license.

The product software and documents are shipped in the form of a text file and PDF email attachments unless otherwise requested.

Installation is performed by a cut/paste of the source code text into your COBOL source code library and a compile/link using your standard site compiler.

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)

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