

# RainCode Rule Checker for Cobol

Content	Project Sample COBOL program
RainCode Checker version	2.01
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# 1 Coding Rule Offences

## 1.1 C:/sandbox/Sample COBOL program/CBLA001.COB

### 1.1.1 Annotated listing

```

...
10: AUTHOR. Laurent.
11:
> 12:
    ^LEX-010:Too many consecutive blank lines
13: ENVIRONMENT DIVISION.
14: *****
> 15: CONFIGURATION SECTION.
    ^STR-014:CONFIGURATION SECTION not allowed
16:
17: INPUT-OUTPUT SECTION.
...
25: 01 A.
26:     02 B          PIC S9(9).
> 27: 01 C          PIC S9(9).
    ^LEX-003:Picture clause must be aligned
> 28: 01 D          PIC X(9).
    ^LEX-003:Picture clause must be aligned
29: 01 E.
> 30:     02 F PIC X.
    ^LEX-003:Picture clause must be aligned
31:
32: *****
> 33: PROCEDURE DIVISION.
> 34:     MOVE 1 TO A
    ^LEX-009:missing dot
> 35:     MOVE 0 TO B
    ^LEX-009:missing dot
> 36:     IF A < 0 THEN
    ^LEX-009:missing dot
> 37:         ADD 1000 TO A
    ^LEX-001:Invalid indentation
> 38:         PERFORM PARAG1
    ^STR-004:missing PARAG1-END paragraph
39:     END-IF
> 40:     GOBACK.
    ^LEX-013:final period of paragraph must be on a separate line
41:
> 42: PARAG1.
    ^LEX-014:Missing underline
    ^NAM-001:Wrong Paragraph Name
    ^STR-001:Paragraph are forbidden, use SECTIONS instead
> 43:     IF A > 500 THEN
    ^LEX-009:missing dot
> 44:         SUBTRACT 500 FROM A
    ^LEX-001:Invalid indentation
45:         ADD 1 TO B
> 46:         GO TO PARAG1
    ^STR-003:GO TO and PERFORM must go downward in the program
    ^STA-003:Goto statement are not allowed
47:     ELSE
> 48:         CONTINUE
    ^LEX-001:Invalid indentation
49:     END-IF
50:     ADD 1 TO C
51: .

```

### 1.1.2 Coding rule offences summary

Total of 19 coding rule offences found.

Line	Col.	Rule	Severity	Message
12	1	LEX-010	0 - Critical	Too many consecutive blank lines
15	2	STR-014	0 - Critical	CONFIGURATION SECTION not allowed
27	15	LEX-003	0 - Critical	Picture clause must be aligned
28	17	LEX-003	0 - Critical	Picture clause must be aligned
30	10	LEX-003	0 - Critical	Picture clause must be aligned

34	7	LEX-009	0 - Critical	missing dot
35	7	LEX-009	0 - Critical	missing dot
36	7	LEX-009	0 - Critical	missing dot
37	11	LEX-001	0 - Critical	Invalid indentation
38	11	STR-004	0 - Critical	missing PARAG1-END paragraph
40	13	LEX-013	0 - Critical	final period of paragraph must be on a separate line
42	2	LEX-014	0 - Critical	Missing underline
42	2	NAM-001	0 - Critical	Wrong Paragraph Name
42	2	STR-001	0 - Critical	Paragraph are forbidden, use SECTIONS instead
43	7	LEX-009	0 - Critical	missing dot
44	10	LEX-001	0 - Critical	Invalid indentation
46	10	STR-003	0 - Critical	GO TO and PERFORM must go downward in the program
46	10	STA-003	0 - Critical	Goto statement are not allowed
48	10	LEX-001	0 - Critical	Invalid indentation

## 2 Global Summary

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### 2.1 Offences per File

#### 2.1.1 Files with offences

File Name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	19
All Files	19

#### 2.1.2 Files without offences

File Name	Rule Offence
C:/sandbox/Sample COBOL program/sample.COB	0
C:/sandbox/Sample COBOL program/sample1.COB	0
C:/sandbox/Sample COBOL program/COBOLSource.COB	0

## 2.2 Offences count per Rule

### 2.2.1 Rules with offences

Rule Name	State	Severity	Category	Offence Count
LEX-001	Enabled	0 - Critical	Lexical Elements	3
LEX-003	Enabled	0 - Critical	Lexical Elements	3
LEX-009	Enabled	0 - Critical	Lexical Elements	4
LEX-010	Enabled	0 - Critical	Presentation	1
LEX-013	Enabled	0 - Critical	Lexical Elements	1
LEX-014	Enabled	0 - Critical	Comments	1
NAM-001	Enabled	0 - Critical	Naming	1
STA-003	Enabled	0 - Critical	Statement	1
STR-001	Enabled	0 - Critical	Structures	1
STR-003	Enabled	0 - Critical	Structures	1
STR-004	Enabled	0 - Critical	Structures	1
STR-014	Enabled	0 - Critical	Structures	1
Critical Rules				19

Total of 19 Offences

### 2.2.2 Rules without offences

Rule Name	State	Severity	Category	Offence Count
LEX-004	Enabled	0 - Critical	Lexical Elements	0
LEX-005	Enabled	0 - Critical	Lexical Elements	0
LEX-007	Enabled	0 - Critical	Lexical Elements	0
LEX-008	Disabled	0 - Critical	Lexical Elements	0
LEX-011	Enabled	0 - Critical	Lexical Elements	0
LEX-012	Enabled	0 - Critical	Lexical Elements	0
MET-001	Enabled	0 - Critical	Metric	0
MET-002	Enabled	0 - Critical	Metric	0
MET-003	Enabled	0 - Critical	Metric	0
MET-004	Enabled	0 - Critical	Metric	0
MET-005	Enabled	0 - Critical	Metric	0
MET-006	Enabled	0 - Critical	Metric	0
MET-007	Enabled	0 - Critical	Metric	0
NAM-002	Enabled	0 - Critical	Naming	0
NAM-005	Enabled	0 - Critical	Naming	0
NAM-006	Enabled	0 - Critical	Naming	0
NAM-007	Disabled	0 - Critical	Naming	0
POR-001	Enabled	0 - Critical	Portability	0
POR-002	Enabled	0 - Critical	Portability	0
POR-003	Enabled	0 - Critical	Portability	0

POR-006	Enabled	0 - Critical	Portability	0
POR-007	Enabled	0 - Critical	Portability	0
ParseError	Enabled	0 - Critical	Parsing	0
SEM-002	Enabled	0 - Critical	Semantics	0
SEM-003	Enabled	0 - Critical	Semantics	0
SEM-004	Enabled	0 - Critical	Semantics	0
SEM-005	Enabled	0 - Critical	Semantics	0
SEM-007	Disabled	0 - Critical	Structures	0
SEM-009	Disabled	0 - Critical	Semantics	0
SEM-010	Enabled	0 - Critical	Semantics	0
SEM-013	Disabled	0 - Critical	Semantics	0
SEM-014	Enabled	0 - Critical	Semantics	0
SEM-015	Enabled	0 - Critical	Semantics	0
STA-001	Enabled	0 - Critical	Statement	0
STA-002	Enabled	0 - Critical	Statement	0
STA-006	Enabled	0 - Critical	Statement	0
STA-007	Enabled	0 - Critical	Statement	0
STA-008	Enabled	0 - Critical	Statement	0
STA-009	Enabled	0 - Critical	Statement	0
STR-002	Enabled	0 - Critical	Structures	0
STR-005	Enabled	0 - Critical	Structures	0
STR-006	Enabled	0 - Critical	Structures	0
STR-007	Disabled	0 - Critical	Structures	0
STR-008	Enabled	0 - Critical	Structures	0
STR-009	Disabled	0 - Critical	Structures	0
STR-010	Disabled	0 - Critical	Structures	0
STR-011	Enabled	0 - Critical	Structures	0
STR-012	Enabled	0 - Critical	Structures	0
STR-013	Enabled	0 - Critical	Structures	0
STR-015	Enabled	0 - Critical	Structures	0
STR-016	Enabled	0 - Critical	Structures	0
STR-017	Enabled	0 - Critical	Structures	0
STR-018	Enabled	0 - Critical	Structures	0
STR-019	Enabled	0 - Critical	Structures	0
STR-020	Enabled	0 - Critical	Structures	0

## **2.3 Suppressed Offences**

### **2.3.1 Files with suppressed offences**

No element

## 2.4 Globally disabled Rules

Rule	Reason
LEX-008	
NAM-007	
SEM-007	
SEM-009	
SEM-013	
STR-007	
STR-009	
STR-010	

## 2.5 Critical Offences

### 2.5.1 LEX-001 Offence Summary

<b>Message</b>	Invalid indentation
<b>Level</b>	0 - Critical
<b>Description</b>	Sub-statements must be indented from father's statement and aligned between them.THEN and END-IF must be aligned to IFWHEN Clause of EVALUATE must be indented too.All END-xxx keyword must be aligned to the statement they referere.

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	3

### 2.5.2 LEX-003 Offence Summary

<b>Message</b>	Picture clause must be aligned
<b>Level</b>	0 - Critical
<b>Description</b>	All Picture clause must be aligned.If parameter Colmun is set to 0, alignment is set by the first Picture clause else it is the absolute value for all Picture clause.

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	3

### 2.5.3 LEX-009 Offence Summary

<b>Message</b>	missing dot
<b>Level</b>	0 - Critical
<b>Description</b>	All statement of the first level must have final dot

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	4

### 2.5.4 LEX-010 Offence Summary

<b>Message</b>	Too many consecutive blank lines
<b>Level</b>	0 - Critical
<b>Description</b>	Check for too many consecutive blank lines. The maximum number of blank line allowed is set in MaxBlankLines parameter.

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

### 2.5.5 LEX-013 Offence Summary

<b>Message</b>	final period of paragraph must be on a separate line
----------------	--

<b>Level</b>	0 - Critical
<b>Description</b>	The final period of a paragraph must be on separate line

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.6 LEX-014 Offence Summary

<b>Message</b>	Missing underline
<b>Level</b>	0 - Critical
<b>Description</b>	Paragraph and sections names must be underlined by comments. The content of the comment character for section and paragraph are both describe by the parameters

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.7 NAM-001 Offence Summary

<b>Message</b>	Wrong Paragraph Name
<b>Level</b>	0 - Critical
<b>Description</b>	Paragraph's name should respect the regular expression given in parameter

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.8 STA-003 Offence Summary

<b>Message</b>	Goto statement are not allowed
<b>Level</b>	0 - Critical
<b>Description</b>	Do not allow use of Goto statement Several exception can be enabled using parameters:- GO TO which goint to the ending paragraph wich is the error handling paragraph- GO TO wich going to the paragraph at end of the current section- GO TO wich goign to the next paragraph

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.9 STR-001 Offence Summary

<b>Message</b>	Paragraph are forbidden, use SECTIONS instead
<b>Level</b>	0 - Critical
<b>Description</b>	Paragraph are forbidden, only SECTIONS are allowed

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.10 STR-003 Offence Summary

<b>Message</b>	GO TO and PERFORM must go downward in the program
<b>Level</b>	0 - Critical
<b>Description</b>	Label of "go to" and "perform" must be downward of the instruction.

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.11 STR-004 Offence Summary

<b>Message</b>	missing %(Paragraph)-END paragraph
<b>Level</b>	0 - Critical
<b>Description</b>	Ensure that all paragraphs which are PERFORMed are coupled with a matching -END label

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1

## 2.5.12 STR-014 Offence Summary

<b>Message</b>	CONFIGURATION SECTION not allowed
<b>Level</b>	0 - Critical
<b>Description</b>	CONFIGURATION SECTION is not allowed

File name	Rule Offence
C:/sandbox/Sample COBOL program/CBLA001.COB	1