

COBOL - PDF

PDF-SET-FONT

Select font, size and style

Used variables

```
02 PDF-FONTES-SET.  
  03 PDF-FONT-SZPT    PIC 9(02)V9(02)    VALUE 10.  
  03 FILLER            PIC X(01)          VALUE SPACES.  
  03 PDF-FONT-ST      PIC X(02)          VALUE "N".  
  03 FILLER            PIC X(01)          VALUE SPACES.  
  03 PDF-FONT-NAME    PIC X(10)          VALUE "ARIAL".  
02 PDF-FONT REDEFINES PDF-FONTES-SET PIC X(18).
```

PDF-FONT-SZPT: Font size

PDF-FONT-ST : Font style

- "N " - Normal
- "B " - Bold
- "I " - Italic
- "IB" - Italic bold

PDF-FONT-NAME: Font name

- "ARIAL"
- "COURIER"
- "TIMES"

PDF-FONT : Shortcut

Exemple: Font: COURIER, Size: 12 and Bold

```
MOVE 12          TO PDF-FONT-SZPT  
MOVE "B"         TO PDF-FONT-ST  
MOVE "COURIER"   TO PDF-FONT-NAME
```

OR

```
MOVE "1200,B ,COURIER" TO PDF-FONT
```

PERFORM PDF-SET-FONT

PDF-SET-FILL-COLOR

Select fill color

Used variables

```
02 PDF-FILL-SET.  
    03 PDF-FILL-R    PIC 9(03)    VALUE 189.  
    03 FILLER        PIC X(01)    VALUE SPACE.  
    03 PDF-FILL-G    PIC 9(03)    VALUE 189.  
    03 FILLER        PIC X(01)    VALUE SPACE.  
    03 PDF-FILL-B    PIC 9(03)    VALUE 189.  
02 PDF-FILL-COR REDEFINES PDF-FILL-SET PIC X(11).
```

PDF-FILL-R: Color red 0 - 255

PDF-FILL-G: Color green 0 - 255

PDF-FILL-B: Color blue 0 - 255

PDF-FILL : Shortcut

Exemple: Color red - R: 255, G: 0 e B: 0

```
MOVE 255 TO PDF-FILL-R  
MOVE 0   TO PDF-FILL-G  
MOVE 0   TO PDF-FILL-B
```

OR

```
MOVE "255,0 ,0 " TO PDF-FILL-COR
```

PERFORM PDF-SET-FILL-COLOR

PDF-SET-FONT-COLOR

Select text color

Used variables

```
02 PDF-TEXT-SET.  
    03 PDF-TEXT-R    PIC 9(03)    VALUE 189.  
    03 FILLER        PIC X(01)    VALUE SPACE.  
    03 PDF-TEXT-G    PIC 9(03)    VALUE 189.  
    03 FILLER        PIC X(01)    VALUE SPACE.  
    03 PDF-TEXT-B    PIC 9(03)    VALUE 189.  
02 PDF-TEXT-COR REDEFINES PDF-TEXT-SET PIC X(11).
```

PDF-TEXT-R : Color red 0 a 255

PDF-TEXT-G : Color green 0 a 255

PDF-TEXT-B : Color blue 0 a 255

PDF-TEXT-COR: Shortcut

Exemple: Color green – R: 0, G:255 e B: 0

```
MOVE 0    TO PDF-TEXT-R  
MOVE 255 TO PDF-TEXT-G  
MOVE 0    TO PDF-TEXT-B
```

OR

```
MOVE “0 ,255,0 “ TO PDF-TEXT-COR
```

```
PERFORM PDF-SET-TEXT-COLOR
```

PDF-SET-DRAW-COLOR

Select line and frame color

Variáveis usadas

```
02 PDF-DRAW-SET.  
  03 PDF-DRAW-R    PIC 9(03)    VALUE 189.  
  03 FILLER        PIC X(01)    VALUE SPACE.  
  03 PDF-DRAW-G    PIC 9(03)    VALUE 189.  
  03 FILLER        PIC X(01)    VALUE SPACE.  
  03 PDF-DRAW-B    PIC 9(03)    VALUE 189.  
02 PDF-DRAW-COR REDEFINES PDF-DRAW-SET PIC X(11).
```

PDF-DRAW-R : Color red 0 a 255

PDF-DRAW-G : Color green 0 a 255

PDF-DRAW-B : Color blue 0 a 255

PDF-DRAW-COR: Shortcut

Exemple: Color blue – R: 0, G: 0 e B: 255

```
MOVE 0    TO PDF-DRAW-R  
MOVE 0    TO PDF-DRAW-G  
MOVE 255 TO PDF-DRAW-B
```

OR

```
MOVE “0 ,0 ,255” TO PDF-DRAW-COR
```

```
PERFORM PDF-SET-DRAW-COLOR
```

PDF-ADD-PG

Add page (Routine call at the beginning of the document, then it will be called automatically when the page comes to an end. This routine also automatically calls the PDF-CABEC routine that should be created by the user). **OBS. IMPORTANT: INSIDE PDF-CABEC DO NOT CALL PDF-DRAW-CELL CALL PDF-DRAW-CABEC**

Used variables

```
02 PDF-PAG-SET.
  03 PDF-PAG-TIPO    PIC X(02)      VALUE "A4".
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-W       PIC 9(04)V9(02) VALUE 595.28.
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-H       PIC 9(04)V9(02) VALUE 841.89.
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-ORI     PIC X(01)      VALUE "P".
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-LM      PIC 9(02)V9(02) VALUE 10.00.
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-RM      PIC 9(02)V9(02) VALUE 10.00.
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-TM      PIC 9(02)V9(02) VALUE 10.00.
  03 FILLER          PIC X(01)      VALUE SPACES.
  03 PDF-PAG-BM      PIC 9(02)V9(02) VALUE 10.00.
02 PDF-PAG REDEFINES PDF-PAG-SET PIC X(38).
```

PDF-PAG-TIPO: Page size

- "A4" - 595.28 x 841.89
- "A3" - 841.89 x 1190.55
- "A5" - 420.94 x 595.28
- "LT" - 612 x 792
- "LE" - 612 x 1008
- " " - User set values in **PDF-PAG-W** e **PDF-PAG-H**

PDF-PAG-W : Page width in mm

PDF-PAG-H : Page Height in mm

PDF-PAG-ORI : Page orientation

- "P" - Portrait
- "L" - Landscape

PDF-PAG-LM : Left margin in mm

PDF-PAG-RM : Right margin in mm

PDF-PAG-TM : Top margin in mm

PDF-PAG-BM : Bottom margin in mm

PDF-PAG : Shortcut

Exemple-1: Type: LT, Orientation: Landscape

```
MOVE "LT" TO PDF-PAG-TIPO
MOVE "L" TO PDF-PAG-ORI
```

```
PERFORM PDF-ADD-PG
```

Exemple-2: Type: 150 x 200, Orientation: Portrait e Margins: 15

```
MOVE " " TO PDF-PAG-TIPO
MOVE 150 TO PDF-PAG-W
MOVE 200 TO PDF-PAG-H
MOVE "P" TO PDF-PAG-ORI
MOVE 15 TO PDF-PAG-LM
MOVE 15 TO PDF-PAG-RM
MOVE 15 TO PDF-PAG-TM
MOVE 15 TO PDF-PAG-BM
```

OR

```
MOVE " ,015000,020000,P,1500,1500,1500,1500" TO PDF-PAG
```

```
PERFORM PDF-ADD-PG
```

PDF-GET-STR-W

Calculates the size in millimeters of a string

Used variables

```
02 PDF-STR    PIC X(500)      VALUE SPACES.  
02 PDF-SW     PIC 9(10)V9(03)  VALUE 0.
```

PDF-STR: Contains string whose size you want to calculate

PDF-SW : After the call it will contain the size in millimeters of the string

Exemple: Find the size of the string: "Calculate my size"

```
MOVE "Calculate my size" TO PDF-STR
```

```
PERFORM PDF-GET-STR-W
```

PDF-SW It will contain the size in millimeters of the string

PDF-GET-STR-LIN

Calculates number of rows that a string will occupy in a cell

Used variables

```
02 PDF-STR    PIC X(500)      VALUE SPACES.  
02 PDF-MULT-W  PIC 9(03)V9(02)  VALUE 0.  
02 PDF-SL     PIC 9(10)V9(03)  VALUE 0.
```

PDF-STR : Contains string whose number of rows you want to calculate

PDF-MULT-W: Contains the cell width in millimeters

PDF-SL : It will contain the number of rows

Exemple: Find the number of rows that this string will occupy

"DESCANSO SEMANAL REMUNERADO - DSR: VALOR CORRESPONDENTE A UM DIA DE TRABALHO DO EMPREGADO, INCIDENTE SOBRE AS VERBAS DE NATUREZA VARIÁVEL, TAIS COMO: HORAS EXTRAS, ADICIONAL NOTURNO, PRODUÇÃO, COMISSÃO, ETC..."

```
MOVE string TO PDF-STR  
MOVE 158    TO PDF-MULT-W
```

```
PERFORM PDF-GET-STR-LIN
```

PDF-SL It will contain the number of rows

PDF-DRAW-CELL

Draw a cell

Used variables

```
02 PDF-SET-CELULA.  
  03 PDF-CELL-W      PIC 9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-H      PIC 9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-BORD   PIC X(04)        VALUE SPACES.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-LN     PIC 9(01)        VALUE 0.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-ALIN   PIC X(01)        VALUE SPACE.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-FILL   PIC 9(01)        VALUE 0.  
  03 FILLER           PIC X(01)        VALUE SPACE.  
  03 PDF-CELL-TXT    PIC X(500)       VALUE SPACES.  
02 PDF-CELL REDEFINES PDF-SET-CELULA PIC X(523).
```

PDF-CELL-W : Cell width in millimeters

PDF-CELL-H : Cell height in millimeters

PDF-CELL-BORD: Sets the border drawing

- "1" - Draw all borders
- "0" - No border
- "LRTB" - Any combination of these letters to draw the desired border. Ex: right and top "RT"

PDF-CELL-LN : Sets cursor positioning after drawing

- "1" - The cursor advances to the left margin of the next row
- "0" - The cursor advances to the next column on the same row

PDF-CELL-ALIN: Alignment of text inside the cell

- "L" - Left
- "R" - Right
- "C" - Center

PDF-CELL-FILL: Sets whether to fill the cell background

- "1" - It will fill with the color defined in PDF-SET-FILL-COLOR
- "0" - Will not fill

PDF-CELL-TXT : Text to be written inside the cell

PDF-CELL : Shortcut

EXAMPLE: Draw a cell that is 100 millimeters wide, 5 millimeters height, top and bottom edge, stay on the same line, left, without filling and with the text: THIS IS A CELL.


```
MOVE 100          TO PDF-CELL-W
MOVE 5            TO PDF-CELL-H
MOVE "TB"         TO PDF-CELL-BORD
MOVE 0            TO PDF-CELL-LN
MOVE "L"          TO PDF-CELL-ALIN
MOVE 0            TO PDF-CELL-FILL
MOVE "THIS IS A CELL" TO PDF-CELL-TXT
```

OR

```
MOVE "10000,00500,TB ,0,L,0,THIS IS A CELL" TO PDF-CELL
```

```
PERFORM PDF-DESENHA-CELL
```

Obs: to underline text move "S" to PDF-FONT-UNDER to cancel underline
move " " to PDF-FONT-UNDER

PDF-DRAW-MULT

Draws a cell with multiple lines and wrapping text. NOTE: After drawing a mult cell the cursor will be positioned on the next row and in the same column that was before drawing the multcell.

Used variables

```
02 PDF-MULT-CELL
  03 PDF-MULT-W      PIC 9(03)V9(02)  VALUE 0.
  03 FILLER          PIC X(01)        VALUE SPACE.
  03 PDF-MULT-H      PIC 9(03)V9(02)  VALUE 0.
  03 FILLER          PIC X(01)        VALUE SPACE.
  03 PDF-MULT-BORD   PIC X(04)        VALUE SPACES.
  03 FILLER          PIC X(01)        VALUE SPACE.
  03 PDF-MULT-ALIN   PIC X(01)        VALUE SPACE.
  03 FILLER          PIC X(01)        VALUE SPACE.
  03 PDF-MULT-FILL   PIC 9(01)        VALUE 0.
  03 FILLER          PIC X(01)        VALUE SPACE.
  03 PDF-MULT-TXT    PIC X(500)      VALUE SPACES.
02 PDF-MULT REDEFINES PDF-MULT-CELL PIC X(521).
```

PDF-MULT-W : Cell width in millimeters

PDF-MULT-H : Cell height in millimeters

PDF-MULT-BORD: Sets the border drawing

- "1" - Draw all borders
- "0" - No borders
- "LRTB" - Any combination of these letters to draw the desired border. Ex: Right and top edge "RT"
-

PDF-MULT-ALIN: Alignment the text inside the cell

- "L" - Left
- "R" - Right
- "C" - Center
- "J" - Justify

PDF-MULT-FILL: Sets whether to fill the cell background

- "1" - It will fill with the color defined in PDF-SET-FILL-COLOR
- "0" - Will not fill

PDF-MULT-TXT : Text to be written inside the cell

PDF-MULT : Shortcut

EXAMPLE: Draw a mult cell of 50 millimeters wide, 5 millimeters of row height, border around, justified alignment, without filling and with the text THIS IS A MULT CELL, A CELL WITH VARIOUS LINES AND WITH AUTOMATIC LINE BREAK.

```
MOVE 50 TO PDF-MULT-W
MOVE 5 TO PDF-MULT-H
MOVE "1" TO PDF-MULT-BORD
MOVE "J" TO PDF-MULT-ALIN
MOVE 0 TO PDF-MULT-FILL
MOVE "THIS IS A MULT CELL, A CELL WITH VARIOUS LINES AND WITH
AUTOMATIC LINE BREAK." TO PDF-MULT-TXT
```

OR

```
MOVE "05000,00500,1 ,J,0,THIS IS A MULT CELL, A CELL WITH VARIOUS
LINES AND WITH AUTOMATIC LINE BREAK." TO PDF-MULT
```

```
PERFORM PDF-DESENHA-MULT
```

Note: to underline the text move "S" to PDF-FONT-UNDER to cancel
"underline" move to PDF-FONT-UNDER

PDF-ROT-TEXT0

Draws rotated text at determined coordinates and rotation.
Rotation occurs counterclockwise.

Used variables

```
02 PDF-ROTACIONA-SET.  
03 PDF-ROT-X      PIC S9(03)V9(02)  VALUE 0.  
03 FILLER          PIC X(01)         VALUE SPACES.  
03 PDF-ROT-Y      PIC S9(03)V9(02)  VALUE 0.  
03 FILLER          PIC X(01)         VALUE SPACES.  
03 PDF-ROT-ANG    PIC S9(03)         VALUE 0.  
03 FILLER          PIC X(01)         VALUE SPACES.  
03 PDF-ROT-TXT    PIC X(100)        VALUE SPACES.  
02 PDF-ROT REDEFINES PDF-ROTACIONA-SET PIC X(116).
```

PDF-ROT-X : Horizontal position in millimeters

PDF-ROT-Y : Vertical position in millimeters

PDF-ROT-ANG: Rotation angle

PDF-ROT-TXT: Text to be rotated

PDF-ROT : Shortcut

Example: Rotate the word ROTATION by 90 degrees in the horizontal position 20 millimeters and vertical 30 millimeters

```
MOVE 20      TO PDF-ROT-X  
MOVE 30      TO PDF-ROT-Y  
MOVE 90      TO PDF-ROT-ANG  
MOVE "ROTATION" TO PDF-ROT-TXT
```

OR

```
MOVE "02000,03000,090,ROTATION" TO PDF-ROT
```

PERFORM PDF-ROT-TEXT0

ROTATION

PDF-RECT

Draws a rectangle at the specified position and size

Used variables

```
02 PDF-RECT-SET.  
  03 PDF-RECT-X      PIC S9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)         VALUE SPACES.  
  03 PDF-RECT-Y      PIC S9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)         VALUE SPACES.  
  03 PDF-RECT-W      PIC S9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)         VALUE SPACES.  
  03 PDF-RECT-H      PIC S9(03)V9(02)  VALUE 0.  
  03 FILLER           PIC X(01)         VALUE SPACES.  
  03 PDF-RECT-STYLE  PIC X(01)         VALUE SPACES.  
02 PDF-RECTANGLE REDEFINES PDF-RECT-SET PIC X(25).
```

PDF-RECT-X : Horizontal position in millimeters

PDF-RECT-Y : Vertical position in millimeters

PDF-RECT-W : Width in millimeters

PDF-RECT-H : Height in millimeters

PDF-RECT-STYLE: Rectangle style

- “f” - Fill only
- “B” - Edge and fill
- “S” - Only edge

Example: Rectangle in horizontal 20, vertical 30, width 100 and height 5 with fill.

```
MOVE 20 TO PDF-RECT-X  
MOVE 30 TO PDF-RECT-Y  
MOVE 100 TO PDF-RECT-W  
MOVE 5 TO PDF-RECT-H  
MOVE “f” TO PDF-RECT-STYLE
```

OR

```
MOVE “02000,03000,10000,00500,f” TO PDF-RECTANGLE
```

PERFORM PDF-RECT

PDF-BAR-EAN13

Draws an EAN13 bar code at the specified position and size

Used variables

```
02 PDF-EAN13.  
  03 PDF-EAN13-X PIC S9(03)V9(02) VALUE 0.  
  03 FILLER      PIC X(01)        VALUE SPACES.  
  03 PDF-EAN13-Y PIC S9(03)V9(02) VALUE 0.  
  03 FILLER      PIC X(01)        VALUE SPACES.  
  03 PDF-EAN13-W PIC S9(03)V9(02) VALUE 0.  
  03 FILLER      PIC X(01)        VALUE SPACES.  
  03 PDF-EAN13-H PIC S9(03)V9(02) VALUE 0.  
  03 FILLER      PIC X(01)        VALUE SPACES.  
  03 PDF-BARCODE PIC X(13)        VALUE SPACES.  
02 PDF-EAN13-SET REDEFINES PDF-EAN13 PIC X(37).
```

PDF-EAN13-X: Horizontal position in millimeters

PDF-EAN13-Y: Vertical position in millimeters

PDF-EAN13-W: Width of bars

PDF-EAN13-H: Code height

PDF-BARCODE: Cod with 13 positons

Example: Create a horizontal barcode 10, vertical 10, bar width 0.35, height 10, and code 1234567890128

```
MOVE 10          TO PDF-EAN13-X  
MOVE 10          TO PDF-EAN13-Y  
MOVE 0.35        TO PDF-EAN13-W  
MOVE 10          TO PDF-EAN13-H  
MOVE "1234567890128" TO PDF-BARCODE
```

OR

```
MOVE "01000,01000,00035,01000,1234567890128" TO PDF-EAN13-SET
```

PERFORM **PDF-BARRA-EAN13**

Useful variables

PDF-X : Contains horizontal position value in millimeters

PDF-GX : Can be used to save the value of PDF-X

PDF-Y : Contains value of vertical position in millimeters

PDF-GY : Can be used to save PDF-Y value

PDF-NUM-PAG: Contains the current page number