

**Subject:** OCBC VPF

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**Date:** 29-1-2026, 16:32

**To:** Freddie van Rijswijk <freddie.van.rijswijk@isis-papyrus.com>

Hi Freddie,

The Line data (Channel) is now a bit clearer.

The positioning seems to be solved.

The channel code is more important than I believed.

Some findings (and open points) for Claude:

#### 1. Units for positioning

There is no Unit command in this jdt file, and the X and Y positions are expressed as a Xerox internal resolution.

So at the begin of the DFA we have to set the Units, vertical and horizontal, for the A4 page format:

```
UNIH = $LP_WIDTH/2440 ;
```

```
MTOP = UNIH*140 ;
```

```
MLEFT = UNIH*30 ;
```

```
MRIGHT = UNIH*100 ;
```

and

Therefore e.g. a Xerox command like this:

```
[0 0 1360 0 138 0 0 (MERCHANT STATEMENT) /Font8 BLACK]
```

is converted as:

```

OUTPUT 'MERCHANT STATEMENT'
FONT FONT1 BOLD
POSITION (UNIH*#1360) (MTOP+UNIH*#138)
ALIGN PAD;

```

## 2. Group of Xerox conditions.

There is a group of conditions used by Xerox:

from

```

%Condkey   RecPos  Length  Cond.  String
/IF_CND1    2      7      /eq   (Period:) SETRC

```

until

% for new card without credit card number

```

/IF_CND82  07      07      /eq   (    ) SETRCD
/IF_CND83  [IF_CND24 IF_CND82 /or]      SETRC

```

they should be in DFA like this: (long code!)

```

FOR C
  REPEAT MAXINDEX(CONTENT) ;
  IF ISTRUE(SUBSTR(CONTENT[C],2,7, "")=='Period:') ;
  THEN ;
    IF_CND1 = 1 ;
  ENDIF ;
  IF ISTRUE(SUBSTR(CONTENT[C],2,7, "")=='Period E') ;
  THEN ;
    IF_CND2 = 1 ;
  ENDIF ;
  IF ISTRUE(IF_CND1) OR ISTRUE(IF_CND2) ;
  THEN ;
    IF_CND3 = 1 ;
  ENDIF ;

```

```
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='From M') ;
THEN ;
  IF_CND4 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='TERMIN') ;
THEN ;
  IF_CND5 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='Mercha') ;
THEN ;
  IF_CND6 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND4) OR ISTRUE(IF_CND5) ;
THEN ;
  IF_CND7 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND7) OR ISTRUE(IF_CND6) ;
THEN ;
  IF_CND8 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,14, "")=='Settlement No:') ;
THEN ;
  IF_CND9A = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='Settle') ;
THEN ;
  IF_CND9 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='Period') ;
THEN ;
  IF_CND10 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,6, "")=='Termin') ;
```

```
THEN ;
  IF_CND11 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND9) OR ISTRUE(IF_CND10) ;
THEN ;
  IF_CND12 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND12) OR ISTRUE(IF_CND11) ;
THEN ;
  IF_CND13 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='HD1') ;
THEN ;
  IF_CND14 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],45,6, "")=='Amount') ;
THEN ;
  IF_CND15 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],44,5, "")=='  ');
THEN ;
  IF_CND16 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND14) AND ISTRUE(IF_CND15) ;
THEN ;
  IF_CND17 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND14) AND ISTRUE(IF_CND16) ;
THEN ;
  IF_CND18 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],7,1, "")=='4') ;
THEN ;
```

```
    IF_CND19 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],7,1, "")=='5') ;
THEN ;
    IF_CND20 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],7,1, "")==' ') ;
THEN ;
    IF_CND21 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND19) AND ISTRUE(IF_CND21) ;
THEN ;
    IF_CND22 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND20) AND ISTRUE(IF_CND21) ;
THEN ;
    IF_CND23 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND22) AND ISTRUE(IF_CND23) ;
THEN ;
    IF_CND24 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,5, "")=='====') ;
THEN ;
    IF_CND25 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='MSG') ;
THEN ;
    IF_CND26 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],3,7, "")=='**Total') ;
THEN ;
    IF_CND27 = 1 ;
```

```
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],3,7, "")=='****Tot') ;
THEN ;
  IF_CND28A = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],15,7, "")=='Termina') ;
THEN ;
  IF_CND28B = 1 ;
ENDIF ;
IF ISTRUE(IF_CND28A) AND ISTRUE(IF_CND28B) ;
THEN ;
  IF_CND28 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND27) OR ISTRUE(IF_CND28) ;
THEN ;
  IF_CND29 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],3,7, "")=='*****To' ;
THEN ;
  IF_CND30 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],3,7, "")=='*Total ') ;
THEN ;
  IF_CND31 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND29) OR ISTRUE(IF_CND30) ;
THEN ;
  IF_CND32 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND32) OR ISTRUE(IF_CND31) ;
THEN ;
  IF_CND33 = 1 ;
ENDIF ;
```

```
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='VISA') ;
THEN ;
  IF_CND36 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='MAST') ;
THEN ;
  IF_CND37 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,9, "")=='MC CREDIT' ;
THEN ;
  IF_CND51 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,8, "")=='MC DEBIT' ;
THEN ;
  IF_CND52 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,10, "")=='MC PREPAID' ;
THEN ;
  IF_CND73 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,7, "")=='SUMMARY' ;
THEN ;
  IF_CND34 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,1, "")=='-' ;
THEN ;
  IF_CND35 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,4, "")=='VISA' ;
THEN ;
  IF_CND36 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],2,4, "")=='MAST' ;
```

```
THEN ;
  IF_CND37 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],10,4, '')=='Char' ;
THEN ;
  IF_CND38 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],10,4, '')=='Adju' ;
THEN ;
  IF_CND39 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND36) OR ISTRUE(IF_CND37) ;
THEN ;
  IF_CND40 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND40) OR ISTRUE(IF_CND38) ;
THEN ;
  IF_CND41 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND41) OR ISTRUE(IF_CND39) ;
THEN ;
  IF_CND42 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],10,4, '')=='Curr' ;
THEN ;
  IF_CND43 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],10,4, '')=='Cheq' ;
THEN ;
  IF_CND44 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND43) OR ISTRUE(IF_CND44) ;
THEN ;
```



```
    IF_CND45 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],10,4, "")=='TOTA' ;
THEN ;
    IF_CND46 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND42) OR ISTRUE(IF_CND46) ;
THEN ;
    IF_CND47 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],16,4, "")=='Merc' ;
THEN ;
    IF_CND48 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND28A) AND ISTRUE(IF_CND48) ;
THEN ;
    IF_CND49 = 1 ;
ENDIF ;
IF SUBSTR(CONTENT[C],3,14, "")=='****Total of T' ;
THEN ;
    IF_CND50 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='DCI') ;
THEN ;
    IF_CND53 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='CCI') ;
THEN ;
    IF_CND54 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='DCDO') ;
THEN ;
    IF_CND55 = 1 ;
```

```
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='CCDO') ;
THEN ;
    IF_CND56 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='DCDF') ;
THEN ;
    IF_CND57 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='CCDF') ;
THEN ;
    IF_CND58 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,3, "")=='PCI') ;
THEN ;
    IF_CND70 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='PCDO') ;
THEN ;
    IF_CND71 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,4, "")=='PCDF') ;
THEN ;
    IF_CND72 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND51) AND ISTRUE(IF_CND52) ;
THEN ;
    IF_CND59 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND59) AND ISTRUE(IF_CND47) ;
THEN ;
    IF_CND60 = 1 ;
ENDIF ;
```

```
IF ISTRUE(IF_CND60) AND ISTRUE(IF_CND73) ;
THEN ;
    IF_CND74 = 1 ;
ENDIF ;
IF ISTRUE(POS('GST Sum',CONTENT[C],1)>0) ;
THEN ;
    IF_CND61 = 1 ;
ENDIF ;
IF ISTRUE(POS('Rumusan GST',CONTENT[C],1)>0) ;
THEN ;
    IF_CND62 = 1 ;
ENDIF ;
IF ISTRUE(POS('Invoice Number',CONTENT[C],1)>0) ;
THEN ;
    IF_CND63 = 1 ;
ENDIF ;
IF ISTRUE(POS('SR',CONTENT[C],1)>0) ;
THEN ;
    IF_CND64 = 1 ;
ENDIF ;
IF ISTRUE(POS('OS',CONTENT[C],1)>0) ;
THEN ;
    IF_CND65 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND64) AND ISTRUE(IF_CND65) ;
THEN ;
    IF_CND66 = 1 ;
ENDIF ;
IF ISTRUE(POS('ZR',CONTENT[C],1)>0) ;
THEN ;
    IF_CND67 = 1 ;
ENDIF ;
IF ISTRUE(POS('ES',CONTENT[C],1)>0) ;
```

```
THEN ;
  IF_CND68 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND67) AND ISTRUE(IF_CND68) ;
THEN ;
  IF_CND69 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],2,7, "")=='MyDebit') ;
THEN ;
  IF_CND75 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND73) AND ISTRUE(IF_CND75) ;
THEN ;
  IF_CND76 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND60) AND ISTRUE(IF_CND76) ;
THEN ;
  IF_CND77 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],10,7, "")=='Refunds') ;
THEN ;
  IF_CND80 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND77) AND ISTRUE(IF_CND80) ;
THEN ;
  IF_CND81 = 1 ;
ENDIF ;
IF ISTRUE(SUBSTR(CONTENT[C],7,7, "")=='    ');
THEN ;
  IF_CND82 = 1 ;
ENDIF ;
IF ISTRUE(IF_CND24) AND ISTRUE(IF_CND82) ;
THEN ;
```

```

    IF_CND83 = 1 ;
  ENDIF ;
ENDFOR ;

```

### 3. Read the single document:

After the header of all the data documents (in DocFormat \$\_BEFOREFIRSTDOC)  
you start to reader the lines until finding the "1" character or the \$EOF.

This is (briefly) the structure, where the first element of the data array is initialized to 1 and created

```

C = 1 ;
CONTENT[C] = '1' ;

FOR N
  REPEAT 1 ;
  RECORD INPUTREC
    REPEAT 1 ;
    VARIABLE LINE1 SCALAR START 1;
  ENDIO;
  /* Check for page break (form feed '1') */
  IF LINE1=='1' OR $EOF ;
  THEN ;
    /* Output of the document */
  ELSE ;
    N = 0 ;
    C = C+1 ;
    CC[C] = LEFT(LINE1,1, " ) ;
    CONTENT[C] = SUBSTR(LINE1,2,1024, " ) ;
  ENDIF ;
ENDFOR ;

```

A new array CC is created, containing the channel type.

The channel type is important because Xerox reads certain lines one after each other.

the advantage is that Xerox consider the "1" data line not as end but as begin.  
Xerox counts the lines from Line "1".

e.g.

data:

1

0 OCBC BANK (MALAYSIA) BERHAD

Page: 1

0 DETAIL STATEMENT

1

- MERCHANT STATEMENT -

Merchant Number

+ ZXYZXYXZYX

Xerox:

6 FROMLINE

[0 0 210 0 122 40 0 99 /Font14 BLACK]

DFA:

```
OUTPUT SUBSTR (CONTENT [6] , 0 , 99 , ' ')
FONT FONT1
POSITION (UNIH*#210) (MTOP+UNIH*#122+UNIH*#40)
ALIGN RIGHT PAD;
```

#### 4. Channel codes for output

Probably in output the lines must be indicated by a variable.

This can help in such a situation:

data since line 9, record 1

```

0          15 XXX XXX XXX
          XXX XXXXXX XXX
          LOT XX, XXX 101/1A, , , XXXXXXXX
          XXXXXX XXXX
-          4YYYY   ZYYYYZXYZY

9 FROMLINE
% Merchant Number
[0      0      1870      0      300      0      24      11      /Font6      BLACK]
% Date
[0      0      1870      0      380      0      69      8      /Font6      BLACK]
% Statement Title
%[0      0      1350      0      127      0      0 (MERCHANT DETAIL STATEMENT) /Font8 BLACK]
[0      0      1360      0      138      0      0 (MERCHANT STATEMENT) /Font8 BLACK]
%9 FROMLINE
10 FROMLINE
%10 FROMLINE
11 FROMLINE
[0      0      230      0      320      50      29      34      /Font11 BLACK]
[1      0      2440      0      300      0      1      3      /Font7      BLACK]
%11 FROMLINE
12 FROMLINE
[0      0      230      0      370      50      29      34      /Font11 BLACK]
[1      0      2440      0      339      0      1      3      /Font7      BLACK]
%12 FROMLINE
13 FROMLINE
[0      0      230      0      420      50      29      34      /Font11 BLACK]
[1      0      2440      0      378      0      1      3      /Font7      BLACK]

```

Actually in DFA:

```

LIN = 9 ;
MEASURE = 320 ;
FOR Z
  REPEAT 1 ;
  OUTPUT SUBSTR (CONTENT [LIN] ,29,34, ' ')
  FONT COURIER BOLD
  POSITION (UNIH*#230) (MTOP+UNIH*MEASURE) ;
  IF CC[LIN+1]<>'-' ;
  THEN ;
  Z = 0 ;
  LIN = LIN+1 ;
  MEASURE = MEASURE+50 ;
  ELSE ;
  OUTPUT SUBSTR (CONTENT [LIN+1] ,29,34, ' ')
  FONT COURIER BOLD
  POSITION (UNIH*#230) (MTOP+UNIH* (MEASURE+#50+#50)) ;
  ENDIF ;
ENDFOR ;

```

## 5. Conditional output

to be adapted because the DFA is not very precise.

Anyway it look like a nested IF group based on point "2. Group of Xerox conditions."

The DFA is not precise, and uses instead than the above LIN variable, a II variable. You can alway use LIN which can be modified as a kind of counter when necessary.

Please check carefully string position and lenght, positions, and nested conditions (the DFA is not precise)

Xerox:

14 FROMLINE

/IF\_CND53

[0 0 230 0 3000 50 2 80 /Font6 BLACK]



```

/ELSE/IF_CND54
[0      0      230      0      3050 50      2      80      /Font6      BLACK]

/ELSE/IF_CND55
[0      0      230      0      3100 50      2      80      /Font6      BLACK]

/ELSE/IF_CND56
[0      0      230      0      3150 50      2      80      /Font6      BLACK]

/ELSE/IF_CND57
[0      0      230      0      3200 50      2      80      /Font6      BLACK]

/ELSE/IF_CND58
[0      0      230      0      3250 50      2      80      /Font6      BLACK]

% change request 25/05/2015 - Lian
/ELSE/IF_CND70
[0      0      230      0      3300 50      2      80      /Font6      BLACK]

/ELSE/IF_CND71
[0      0      230      0      3350 50      2      80      /Font6      BLACK]

/ELSE/IF_CND72
[0      0      230      0      3400 50      2      80      /Font6      BLACK]

/ELSE
[0      0      230      0      470      50      29      34      /Font11 BLACK]
[1      0      2440      0      414      0      1      3      /Font7      BLACK]
/ENDIFALL

```

DFA:

```
II = 14 ;
IF ISTRUE(IF_CND53==1) ;
THEN ;
  OUTPUT SUBSTR(CONTENT[II],2,80, '')
  FONT FONT1 NORMAL
  POSITION (UNIH*#230) (MTOP+UNIH*(#3000-#50)) ;
ELSE ;
  IF ISTRUE(IF_CND54==1) ;
  THEN ;
    OUTPUT SUBSTR(CONTENT[II],2,80, '')
    FONT COURIER BOLD
    POSITION (UNIH*#230) (MTOP+UNIH*(#3050-#50)) ;
  ELSE ;
    IF ISTRUE(IF_CND55==1) ;
    THEN ;
      OUTPUT SUBSTR(CONTENT[II],2,80, '')
      FONT COURIER BOLD
      POSITION (UNIH*#230) (MTOP+UNIH*(#3100-#50)) ;
    ELSE ;
      IF ISTRUE(IF_CND56==1) ;
      THEN ;
        OUTPUT SUBSTR(CONTENT[II],2,80, '')
        FONT COURIER BOLD
        POSITION (UNIH*#230) (MTOP+UNIH*(#3150-#50)) ;
      ELSE ;
        IF ISTRUE(IF_CND57==1) ;
        THEN ;
          OUTPUT SUBSTR(CONTENT[II],2,80, '')
          FONT COURIER BOLD
          POSITION (UNIH*#230) (MTOP+UNIH*(#3200-#50)) ;
        ELSE ;
```

```
IF ISTRUE(IF_CND58==1) ;
THEN ;
  OUTPUT SUBSTR(CONTENT[II],2,80, '')
  FONT COURIER BOLD
  POSITION (UNIH*#230) (MTOP+UNIH*(#3250-#50)) ;
ELSE ;
  IF ISTRUE(IF_CND70==1) ;
  THEN ;
    OUTPUT SUBSTR(CONTENT[II],2,80, '')
    FONT COURIER BOLD
    POSITION (UNIH*#230) (MTOP+UNIH*(#3300-#50)) ;
  ELSE ;
    IF ISTRUE(IF_CND71==1) ;
    THEN ;
      OUTPUT SUBSTR(CONTENT[II],2,80, '')
      FONT COURIER BOLD
      POSITION (UNIH*#230) (MTOP+UNIH*(#3350-#50)) ;
    ELSE ;
      IF ISTRUE(IF_CND72==1) ;
      THEN ;
        OUTPUT SUBSTR(CONTENT[II],2,80, '')
        FONT COURIER BOLD
        POSITION (UNIH*#230) (MTOP+UNIH*(#3400-#50)) ;
      ELSE ;

        OUTPUT SUBSTR(CONTENT[II],1,3, '')
        FONT COURIER BOLD
        POSITION (UNIH*#2440) (MTOP+UNIH*#414)
        ALIGN RIGHT PAD;
      ENDIF ;
    ENDIF ;
  ENDIF ;
```

```
        ENDIF ;  
    ENDIF ;  
ENDIF ;  
ENDIF ;  
ENDIF ;  
ENDIF ;
```

Regards,  
Luca