Reading data from external physical file and PRINT in an External printer file

RPGLE

```
 Columns . . . :    6  76          Browse                AMIRX2/QRPGLESRC
 SEU==> _____        EMP_LIST_T
 FMT *   *. 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7 ...+.
        *************** Beginning of data ***********************************
0001.00 **PLOYEES IP   E         K DISK
0001.01 FEMPLOYEES IP  E         K DISK
0002.00
0002.01 FPRINTIT   O   E             PRINTER OFLIND(*IN90)
0003.00 ****************************************************************
0004.00 D NAME           S             15A
0005.00  /FREE
0005.01    EVAL NAME = 'AMIR';
0005.02   // EXCEPT HEADER;
0006.00    WRITE HEADER;
0007.00  /END-FREE
0007.01 C                 SETON                                        LR
0008.00 ****************************************************************
0012.00
        **************** End of data ***********************************
```

It reads from the file employees (a physical file PF) which is created by STRSEU and prompt (f4) in QDDSSRC library with emp_number, emp_name, emp_rate attributes like image

```
 Columns . . . :    1  71          Edit                  AMIRX2/QDDSSRC
 SEU==> _____        EMPLOYEES
 FMT A*  .....A*. 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
        *************** Beginning of data ***********************************
0000.01 ****************************************************************
0001.00 A              R EMP_REC
0002.00 A                EMP_NUMBER    5          TEXT('EMPLOYEE NAME')
0003.00 A                EMP_NAME      16         TEXT('EMPLOYEE NUMBER')
0004.00 A                EMP_RATE      5  2       TEXT('RATE')
0005.00 A              K EMP_NUMBER
        **************** End of data ***********************************
```

Then compile the QDD file to create an object of that.   Also use STRSQL to insert some data into the physical file.

Then it reads the employees and then write name amir into print file where Name is defined as a variable as in file PRINTIT (PRTF) is defined and compile it.

```
 Columns . . . :    1  71            Browse                    AMIRX2/QDDSSRC
 SEU==> _____         PRINTIT
 FMT DP .....AAN01N02N03T.Name+++++RLen++TDpBLinPosFunctions++++++++++++++++++
        *************** Beginning of data ***********************************
0001.00
0002.00     A          R HEADER
0003.00     A            NAME          11A        11
        ***************** End of data **************************************
```

There is Error 30 records when you compile.

Solution:

Name lentgth in RPEL file is defined as 15A but in RPTF print file is 11, they should be same !

ISSUE:

When there is no access to a compiled PF, then check EDTLIBL to see whether your library is listed or not.

QSYS Read from a file and print it into Spool file

Read info from an External same file Employees PF then write it into that spool file by initializing the name variable with amir and writing command EXCEPT.

```
 Columns . . . :    6  76            Edit                      AMIRX2/QRPGLESRC
 SEU==> _____         EMP_LIST
 FMT FX FFilename++IPEASF.....L.....A.Device+.Keywords++++++++++++++++++++++++
 ▉      *************** Beginning of data ***********************************
0001.01 FEMPLOYEES IP   E          K DISK
0002.00 FQSYSPRT   O    F   110        PRINTER OFLIND(*INOV)
0002.01
0003.00 *******************************************************************
0004.00 D NAME            S            5A
0005.00  /FREE
0005.01    EVAL NAME = 'AMIR';
0005.02    EXCEPT HEADER;
0007.00  /END-FREE
0007.01 C                 SETON                                        LR
0008.00 *******************************************************************
0009.00 OQSYSPRT   E          HEADER     1  1
0011.00 O                                        +2 '++++++++++++++++'
0012.00 O                         NAME              7
        ***************** End of data **************************************
```

Only starting with O and using 1 1 to declare 1 before and 1 after command space, +2 is using

after 2 cursors.

Because the name is 5A and print is 7, so there is no error, but reverse gives you error.

Here is our file :

```
                              Display Data
                                         Data width . . . . . . . :      38
Position to line  . . . . .    _____     Shift to column  . . . . . .   _____
....+....1....+....2....+....3....+...
EMP_NUMBER   EMP_NAME          EMP_RATE
  amir      1                    17.00
  tan       3                      .00
  frank     2                    33.00
********   End of data   ********
```

Read from file and write into a file

This program read from file employees PF all attributes and write into a file RPTF Printit a specific attribute EMP_NAME.

The Printit is like :

```
    Columns . . . :    1  71            Edit                     AMIRX2/QDDSSRC
    SEU==> _____         PRINTIT
    FMT DP .....AAN01N02N03T.Name++++++RLen++TDpBLinPosFunctions++++++++++++++++++
          *************** Beginning of data *************************************
  0001.00
  0002.00     A          R HEADER
  0003.00 _   A             EMP_NAME     16A       11
          ****************** End of data ****************************************
```

And the fie which read and write that specific attribute is as below:

```
 Columns . . . :    6  76            Edit                     AMIRX2/QRPGLESRC
 SEU==> _____      EMP_LIST_T
 FMT FX FFilename++IPEASF.....L.....A.Device+.Keywords++++++++++++++++++++++++
        *************** Beginning of data ***************************************
0001.01 FEMPLOYEES IP    E          K DISK
0002.01 FPRINTIT    O    E            PRINTER OFLIND(*IN90)
0003.00 ***********************************************************************
0004.00 D NAME            S          15A
0005.00  /FREE
0006.00    WRITE HEADER;
0007.00  /END-FREE
0007.01 C                 SETON                                          LR
        ****************** End of data ****************************************
```

Read specific attribute from a file and print that specific attribute into a spool file

---

Below program will read the employees file and extract the attribute EMP_NAME and when we mention it in header reference it know it and print it into spool file.

```
 Columns . . . :    6  76           Edit                    AMIRX2/QRPGLESRC
 SEU==> _____      EMP_LIST
 FMT FX FFilename++IPEASF.....L.....A.Device+.Keywords++++++++++++++++++++++++
        *************** Beginning of data *************************************
0001.01 FEMPLOYEES IP   E          K DISK
0002.00 FQSYSPRT   O    F  110        PRINTER OFLIND(*INOV)
0003.00 *********************************************************************
0005.00  /FREE
0005.02   EXCEPT HEADER;
0007.00  /END-FREE
0007.01 C                    SETON                                        LR
0008.00 *********************************************************************
0009.00 OQSYSPRT   E           HEADER      1  1
0011.00 O                                        +2 '+++++++++++++++++'
0012.00 O                       EMP_NAME            16
        ****************** End of data **********************************
```

ISSUE:

If EMP_NAME was less than 16 it gives us 30 errors? Why?

Anw: because EMP_NAME in external physical file defines as 16 so the print file should be equal or bigger

How to find and read a physical file line Printit?

Resource for RPG ILE http://publib.boulder.ibm.com/iseries/v5r1/ic2924/books/c0925073.pdf

SPOOL FILES:

When you compile a program like this, it doesn't create a spool file to be check by(wrksplf) and it just run. Unless you added write command into header in line 5 or 6 like

Write header, and if the header is defined in pf file PRINTIT.

```
Columns . . . :   6  76            Edit                   AMIRX2/QRPGLESRC
SEU==> _____        HEADER1
FMT FX FFilename++IPEASF.....L.....A.Device+.Keywords+++++++++++++++++++++++
       *************** Beginning of data ****************************************
0001.01 FEMPLOYEES IP   E           K DISK
0002.01 FPRINTIT   O    E             PRINTER OFLIND(*IN90)
0003.00 *********************************************************************
0003.01
0004.00 D NAME            S             15A
0005.00  /FREE
0006.00    DSPLY 'EADE';
0007.00  /END-FREE
0007.01 C                 SETON                                          LR
       ***************** End of data ********************************************
_
```

THIS IS READING FROM ITEML1.

```
  Columns . . . :    6  76           Edit                      AMIR/QRPGLESRC
  SEU==> _____       ITEMAMIR
  FMT FX FFilename++IPEASF.....L.....A.Device+.Keywords+++++++++++++++++++++++++
         *************** Beginning of data ****************************************
  0015.00 FITEML01   IF   E          K DISK
  0017.00 FITEMX     O    E             PRINTER OFLIND(*IN99)
  0024.00  /FREE
  0024.01    WRITE HEADER;
  0024.02    WRITE L1HEADER;
  0024.03    SETLL *START ITEML01;
  0024.04    DOU %EOF(ITEML01);
  0024.05      READ ITEML01;
  0024.06      IF %EOF(ITEML01);
  0024.07        LEAVE;
  0024.08      ENDIF;
  0024.09    WRITE DETAILS;
  0024.15    ENDDO;
  0024.16    DSPLY 'AMIR';
  0025.00    EVAL *INLR = *ON;
  0026.00  /END-FREE
```

ITEMX PRTF

```
 FMT DP .....AAN01N02N03T.Name++++++RLen++TDpBLinPosFunctions+++++++++++++++++
        *************** Beginning of data ***************************************
 0001.00     A          R HEADER
 0002.00     A                                       SKIPB(001)
 0003.00     A                                  1
 0003.01     A                                   'DATE'
 0003.02     A                                  11
 0004.00     A                                   DATE
 0005.00     A                                   EDTCDE(Y)
 0006.00     A
 0008.00     A                                 44
 0009.00     A                                    'ITEM DESCRIPTION DETAIL RE
 0010.00     A                                 +44
 0011.00     A                                    'Page:'
 0012.00     A                                 +1
 0013.00     A                                   PAGNBR
 0014.00     A                                   EDTCDE(Z)
 0015.00     A          R L1HEADER
```

```
 FMT DP .....AAN01N02N03T.Name++++++RLen++TDpBLinPosFunctions+++++++++++++++++
0017.00     A                                      1
0018.00     A                                         'ITEM NBR'
0019.00     A                                     +1
0020.00     A                                         'ITEM DESCRIPTION'
0021.00     A                                    +35
0022.00     A                                         'CATEGORY DESCRIPTION'
0023.00     A                                    +31
0024.00     A                                         'ITEM PRICE'
0025.00     A          R DETAILS
0026.00     A                                         SPACEB(001)
0027.00     A            ITITNO    R       O    1
0028.00     A                                         REFFLD(ITEMR/ITITNO    AMIR
0029.00     A                                         L01)
0029.01     A                                         EDTCDE(Z)
0030.00     A            ITITDS    R       O   +2
0031.00     A                                         REFFLD(ITEMR/ITITDS    AMIR
0032.00     A                                         L01)
```

```
 FMT DP me++++++RLen++TDpBLinPosFunctions++++++++++++++++++++++++++++
0017.00                       1                                    161101
0018.00                         'ITEM NBR'                         161101
0019.00                        +1                                  161101
0020.00                         'ITEM DESCRIPTION'                 161101
0021.00                       +35                                  161101
0022.00                         'CATEGORY DESCRIPTION'             161101
0023.00                       +31                                  161101
0024.00                         'ITEM PRICE'                       161101
0025.00 TAILS                                                      161102
0026.00                         SPACEB(001)                        161101
0027.00 ITNO    R        O     1                                   161101
0028.00                         REFFLD(ITEMR/ITITNO    AMIR/ITEM-  161102
0029.00                         L01)                               161101
0029.01                         EDTCDE(Z)                          161101
0030.00 ITDS    R        O    +2                                   161101
0031.00                         REFFLD(ITEMR/ITITDS    AMIR/ITEM-  161102
0032.00                         L01)                               161101
```

ITEML01 LF

```
 Columns . . . :    1  71          Browse                 AMIR/QDDSSRC
 SEU==> _____    ITEML01
 FMT A* .....A*. 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
         *************** Beginning of data **************************************
0001.00      **********************************************************************
0002.00      *
0003.00      *  LF: ITEM
0004.00      *  Dsc: List of items e.g. a catalog of items
0005.00      *      keyed by item number
0006.00      *
0007.00      *
0008.00      **********************************************************************
0009.00   A          R ITEMR                  PFILE(ITEM)
0010.00   A          K ITITNO
         ******************** End of data ******************************************
```

```
FMT *   *. 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7 ...+.
        *************** Beginning of data **************************************
0001.00  **********************************************************************
0001.01  *                                                                    *
0001.02  * This is a simple piece of code where you retrieve all fields *
0001.03  * from a file.                                                       *
0001.04  *                                                                    *
0001.05  *                                                                    *
0001.06  *                                                                    *
0002.00  **********************************************************************
0003.00 FSQLDEMOPRTO    E              PRINTER OFLIND(*IN99)
0003.01
0003.02 DdsSTUMAS       E DS                  EXTNAME(STUMAS)
0003.03
0004.00 C/EXEC SQL
0004.01 C+ DECLARE C1 CURSOR FOR
0005.00 C+ SELECT * FROM STUMAS WHERE SMTITL IN ('MS','MISS','MRS', 'LADY')
0006.00 C/END-EXEC
```

```
0008.00 C/EXEC SQL
0009.00 C+ OPEN C1
0010.00 C/END-EXEC
0011.00
0011.01 C                    WRITE     HEADER
0012.00 C      SQLCOD        DOUEQ     100
0013.00 C      SQLCOD        ORLT      0
0013.01
0013.02 C/EXEC SQL
0013.03 C+ FETCH C1 INTO :dsSTUMAS
0013.04 C/END-EXEC
0013.05
0013.06 C      SQLCOD        IFEQ      100
0013.07 C      SQLCOD        ORLT      0
0013.08 C                    LEAVE
0013.09 C                    ENDIF
0013.10
0013.12 C      *IN99         IFEQ      *ON
0013.13 C                    SETOFF                                    99
0013.14 C                    WRITE     HEADER
0013.15 C                    ENDIF
0013.16
0013.17 C                    EVAL      FULLNAME = %TRIM(SMTITL) + ' '
0013.18 C                              + %TRIM(SMFFSM) + ' ' + %TRIM(SMFSNM)
0013.19 C                    WRITE     DETAIL
0014.00 C                    ENDDO
0014.01 C/EXEC SQL
0014.02 C+ CLOSE C1
0014.03 C/END-EXEC
0015.00 C                    SETON                                     LR
        ****************** End of data ***********************************************
```

```
  FMT ** ... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7 ...+.
0013.03 C+ FETCH C1 INTO :dsSTUMAS
0013.04 C/END-EXEC
0013.05
0013.06 C        SQLCOD        IFEQ      100
0013.07 C        SQLCOD        ORLT      0
0013.08 C                      LEAVE
0013.09 C                      ENDIF
0013.10
0013.11  * PAGE OVERFLOW
0013.12 C        *IN99         IFEQ      *ON
0013.13 C                      SETOFF                                        99
0013.14 C                      WRITE     HEADER
0013.15 C                      ENDIF
0013.16
0013.17 C                      EVAL      FULLNAME = %TRIM(SMTITL) + ' '
0013.18 C                                + %TRIM(SMFFSM) + ' ' + %TRIM(SMFSNM)
0013.19 C                      WRITE     DETAIL
```