MacKinney Systems, Inc.

CICS/MAPR II

Create, test, and prototype CICS maps fast

```
MAPM001
                      CICS/MAPR MAIN MENU             MacKinney Systems
                          RELEASE X.X
   Type in the requested information, then press ENTER or a PF key to continue
           MAPSET NAME        SAMPLES
           MAP NAME           SAMPLEM
           FUNCTION CODE      C        Valid Function Codes:
                                       A=Add        M=Demo
                                       C=Change     O=Copy
                                       D=Delete     T=Test

           TERMINAL MODEL     2
           COPY FROM MAPSET   _____
           COPY FROM MAP      _____

   PF1-Help PF2-Paint PF3-Exit PF4-Parm PF5-D
```

```
   SAMP        **  QUANTITIES IN WAREHOUSE  **      00000000     PAGE ZZ

   PART NO. XXXXXXXX     0000000000000000000000000000000000

   UNIT OF MEASURE CODE   00     TOTAL QTY.  ZZZZZZ9

   LOCATION      QTY ON     QTY ON      DUE        ISSUE      COUNT       BY
                 HAND       ORDER       DATE       DATE       DATE

   XXXXXXX       ZZ,ZZ9-    ZZ,ZZ9      99B99B99   99B99B99   99B99B99    000




            0000000000000000000000000000000000000000000000000000000000
   NEXT PAGE - PF1    PREVIOUS PAGE - PF2
   MAIN MENU - PF4    LOGOFF        - PF11
```

How CICS/MAPR II works:

The online facility is initiated by entering the transaction code 'MAPR' on a blank screen. The Map Definition Screen is displayed. It asks for mapset name, map name, function (add, change, delete, etc.), terminal model, and if you are copying from another map, the 'copy from' information.

When you are ready to paint the map, press PF2.

After pressing PF2 on the Main Menu the Map Image screen is displayed. If function code 'A' (add) was selected and no 'copy from' screen was entered, a blank screen is displayed. At this point you paint the screen (titles, literals, and data fields).

You paint the screen using 'X's for input fields, 'O's for output fields, '9's for input numeric fields, and 'Z's for output numeric fields. Enter constants just as you want them to appear.

If you are modifying an existing map, simply modify the painted screen image.

Field definition

```
MAPSET NAME    SAMPLES  CICS/MAPR FIELD DEFINITION    MacKinney Systems
MAP NAME       SAMPLEM
MAP ROW    03
...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8
         XXXXXXXX

FIELD NAME  = PART-NO_____    ROW 03   Column 012   LENGTH = 008

ATTRB =    A A=ASKIP,P=PROT,Blank=UNPROT    PICIN   = _____
           B B=BRT,D=DRK,Blank=NORM         PICOUT  = _____
           _ N=NUM _ D=DET _ I I=IC _ F=FSET

COLOR  =   _ D=Default,B=Blue,G=Green,N=Neutral   HILIGHT = _ B=Blink,R=Reverse
             P=Pink,R=Red,T=Turquoise,Y=Yellow              O=Off,U=Underline
VALIDN =   _ E=Mustenter,F=Mustfill,T=Trigger     JUSTIFY = L L=Left,R=Right
PS     =   _ B=Base,psid char                               _ B=Blank,Z=Zero

OTHER:

PF1-Help PF2-Paint PF3-End PF4-Parm PF7-Prev PF8-Next PF9-Array PF12-Cancel
```

Pressing ENTER on the painted screen displays the Field Definition screen. This allows defining field names and attributes for all fields painted beginning with the first field on the screen.

To define or change field information without beginning with the first field, place the cursor under the field to be modified and press PF6. The Field Definition screen will be displayed for the selected field.

In this case the cursor was under the variable part number field when PF6 was pressed. Specification of field attributes, color, PICIN/PICOUT, hilight, etc. for this field are specified on this screen.

Define a repeated row or array

```
MAPM007            CICS/MAPR ARRAY DEFINITION        MacKinney Systems

MAPSET: SAMPLES  MAP: SAMPLEM

REPEAT   COLUMN   COLUMN   ROWS TO  REPEAT   INDEX        GROUP
 ROW     START     END     REPEAT   OCCURS   NAME      FIELD NAME
------   ------   ------   -------  ------   -------   ------------------------
  10      003      070       01       12     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____
  __      ___      ___       __       __     _____   _____

PF1-Help PF2-Paint PF3-End PF4-Parm PF6-Fields PF12-Cancel Enter-Upd Clear-Exit
```

To define a repeated row or array, the fields in the array only need to have the individual field names and attributes defined once for the first occurrence of each. Then the ARRAY DEFINITION screen is used to describe what repeats and how many times it repeats.

Here we have said that row 10 on map SAMPLEM beginning with column 003 and ending with column 070 is to be repeated 12 times.

Multiple rows can also be repeated. To do this ROWS TO REPEAT would define the number of rows being repeated. Up to ten groups of repeated rows can be defined.

Screen generation reports

```
**********1*********2*********3*********4*********5*********6*********7*********8*
*  SAMP           ** QUANTITIES IN WAREHOUSE **      00000000     PAGE ZZ  *
*                                                                          *
*  PART NO. XXXXXXXX    00000000000000000000000000000000000000             *
*                                                                          *
*  UNIT OF MEASURE CODE  00     TOTAL QTY. 9999999                         *
*                                                                          *
*  LOCATION    QTY ON   QTY ON   DUE      ISSUE     COUNT    BY             *
*              HAND     ORDER    DATE     DATE      DATE                    *
*                                                                          *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*  XXXXXXX   ZZ,ZZ9-   ZZ,ZZ9  99B99B99  99B99B99  99B99B99  000           *
*          00000000000000000000000000000000000000000000                   *
*             NEXT PAGE - PF1    PREVIOUS PAGE - PF2                        *
*                 MAIN MENU - PF4   LOGOFF - PF11                           *
**********1*********2*********3*********4*********5*********6*********7*********8*
```

The report to the left is produced by the map print program. Note lines 10-21 are all the same. Line 10 was entered and defined on the ARRAY DEFINITION screen as a row to be repeated 12 times.

```
MAPP020   X.X   02/26/98          CICS/MAPR - MAP UTILITY PROGRAM                    PAGE    2
                                     PRINT SELECTED MAPS

MAPSET: SAMPLES  MAP:SAMPLEM ROWS:24 COLUMNS:80 CREATION DATE: 01/12/98 LAST UPDATE: 02/26/98 COPYBOOK PREFIX: NONE

-----FIELD NAME------   ROW COL LEN OCCR -------ATTRIBUTES------- EXTENDED ATTRIBUTES ----PICOUT------- -----PICIN----

TRAN-CODE                 1   3   4       ASKIP   FSET            COLOR=TURQUOISE
                                                                  HILIGHT=UNDERLINE
CURRENT-DATE              1  57   8       ASKIP                   COLOR=RED
PAGE-NUMBER               1  77   2       ASKIP           NUM     COLOR=DEFAULT
                                                                  JUSTIFY= RIGHT ZERO
PART-NUMBER               3  12   8               BRT     IC      COLOR=GREEN
                                                                  VALIDN=MUSTENTER
PART-DESCRIPTION          3  25  33       ASKIP                   COLOR=GREEN
UNIT-OF-MEASURE           5  25   2       ASKIP                   COLOR=GREEN
TOTAL-ON-HAND             5  45   7               FSET    NUM     COLOR=BLUE
LOCATION                 10   3   7  12                           COLOR=GREEN
QTY-THIS-LOCATION        10  15   7  12                   NUM     COLOR=TURQUOISE    ZZ,ZZ9-
QTY-ORDERED              10  25   6  12                   NUM     COLOR=TURQUOISE    ZZ,ZZ9
DUE-DATE                 10  34   8  12                   NUM     COLOR=TURQUOISE    99B99B99
ISSUE-DATE               10  46   8  12                   NUM     COLOR=TURQUOISE    99B99B99
COUNT-DATE               10  58   8  12                   NUM     COLOR=TURQUOISE    99B99B99
INITIALS                 10  68   3  12   ASKIP
ERROR-MSG                22  20  50       ASKIP                   COLOR=YELLOW
                                                                  HILIGHT=BLINK
```

This report provides good documentation, saving the programmer/analyst from manually documenting screens.

```
000390   05  LOCATIONDI                    OCCURS 12 TIMES.
000400       10   LOCATIONL PIC S9(04) COMP.
000410       10   LOCATIONF PIC X(001).
000420       10   LOCATIONA REDEFINES
000430            LOCATIONF              PIC X(001).
000440       10   LOCATIONI PIC X(007).
000450       10   QTY-THIS-LOCATIONL       PIC S9(04) COMP.
000460       10   QTY-THIS-LOCATIONF       PIC X(001).
000470       10   QTY-THIS-LOCATIONA       REDEFINES
000480            QTY-THIS-LOCATIONF       PIC X(001).
000490       10   QTY-THIS-LOCATIONI       PIC X(007).
000500       10   QTY-ORDEREDL             PIC S9(04) COMP.
000510       10   QTY-ORDEREDF             PIC X(001).
000520       10   QTY-ORDEREDA             REDEFINES
000530            QTY-ORDEREDF             PIC X(001).
000540       10   QTY-ORDEREDI             PIC X(006).
```

This is a partial print of the COBOL Copybook generated by MAPR II. It shows how the repeated lines generate an OCCURS clause. This makes programming much easier.

Screen generation reports *(cont.)*

```
* 'LOCATION'              ARRAY 01  OCCURRENCE 01 OF 12
F000079  DFHMDF POS=(10,002),LENGTH=007,                    X
         ATTRB=(NORM)
    DFHMDF POS=(10,010),LENGTH=001,ATTRB=(ASKIP,DRK)
* 'QTY-THIS-LOCATION'     ARRAY 01  OCCURRENCE 01 OF 12
F000083  DFHMDF POS=(10,014),LENGTH=007,                    X
         ATTRB=(NORM,NUM),                                  X
         PICOUT='ZZ,ZZ9-'
    DFHMDF POS=(10,022),LENGTH=001,ATTRB=(ASKIP,DRK)
* 'QTY-ORDERED'           ARRAY 01  OCCURRENCE 01 OF 12
F000088  DFHMDF POS=(10,024),LENGTH=006,                    X
         ATTRB=(NORM,NUM),                                  X
         PICOUT='ZZ,ZZ9'
    DFHMDF POS=(10,031),LENGTH=001,ATTRB=(ASKIP,DRK)
* 'DUE-DATE'              ARRAY 01  OCCURRENCE 01 OF 12
F000093  DFHMDF POS=(10,033),LENGTH=008,                    X
         ATTRB=(NORM,NUM),                                  X
         PICOUT='99B99B99'
    DFHMDF POS=(10,042),LENGTH=001,ATTRB=(ASKIP,DRK)
* 'ISSUE-DATE'            ARRAY 01  OCCURRENCE 01 of 12
F00009B  DFHMDF POS=(10,045),LENGTH=008,                    X
```

This report shows the BMS source produced by MAPR II. Here again we have shown only part of the report (part of the array).

CICS/MAPR II features

1. Runs under CICS.

2. Generates BMS Macros and DSECTS.

3. Allows for full length COBOL and PL1 data names.

4. Repeated rows need only be entered once. A group-level data name with an OCCURS clause is generated for the DSECT to allow use of a subscript when referencing the repeated fields.

5. Supports extended attributes and various screen sizes.

6. Prints a screen image and a list of variables showing row, column, and length.

7. Demo facility allows users to prototype screens in sequence to simulate production use.

8. Test facility allows sending a test version of a map to a terminal without requiring a batch run to generate and assemble BMS source macros.

9. HELP screens for all functions.

10. ASKIP fields are automatically generated following each unprotected field to skip the cursor to the next field when the previous field has been entered.

11. Both lower and upper case characters can be painted on the screen.

12. MAPS are saved on a VSAM file for easy maintenance.

13. Existing MAPS may be copied to a new MAP, then modified to create new screens.

14. Old MAPS may be loaded into the CICS/MAPR II dataset by reading the BMS Macros with a utility program we provide.

15. Conversion facility including conversion from SDF, SDF/II, BMS/GT, MAPGEN, and others.

16. On line directory of mapsets and maps.

Price
Call or Email for price

Operating systems
VSE and MVS

Installation
Takes 1-2 hours to catalog the MAPS and programs, modify the CICS tables, load VSAM file, customize JCL, and test using the supplied sample screen.

Free 30 day trial
For a trial, mail in the license agreement or give us a call.