

Redefining Fields

Redefinition is used to change the format of a field, or to divide a single field into segments.

This chapter covers the following topics:

- Using the REDEFINE Option of DEFINE DATA
 - Example Program Illustrating the Use of a Redefinition
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Using the REDEFINE Option of DEFINE DATA

The REDEFINE option of the DEFINE DATA statement can be used to redefine a single field - either a user-defined variable or a database field - as one or more new fields. A group can also be redefined.

Important:

Dynamic variables are not allowed in a redefinition.

The REDEFINE option redefines byte positions of a field from left to right, regardless of the format. Byte positions must match between original field and redefined field(s).

The redefinition must be specified immediately after the definition of the original field.

Example 1:

In the following example, the database field BIRTH is redefined as three new user-defined variables:

```
DEFINE DATA LOCAL
01 EMPLOY-VIEW VIEW OF STAFFDDM
  02 NAME
  02 BIRTH
  02 REDEFINE BIRTH
    03 #BIRTH-YEAR (N4)
    03 #BIRTH-MONTH (N2)
    03 #BIRTH-DAY (N2)
END-DEFINE
...
```

Example 2:

In the following example, the group #VAR2, which consists of two user-defined variables of format N and P respectively, is redefined as a variable of format A:

```
DEFINE DATA LOCAL
01 #VAR1 (A15)
01 #VAR2
  02 #VAR2A (N4.1)
  02 #VAR2B (P6.2)
01 REDEFINE #VAR2
  02 #VAR2RD (A10)
END-DEFINE
...
```

With the notation `FILLER nX` you can define n filler bytes - that is, segments which are not to be used - in the field that is being redefined. (The definition of trailing filler bytes is optional.)

Example 3:

In the following example, the user-defined variable `#FIELD` is redefined as three new user-defined variables, each of format/length `A2`. The `FILLER` notations indicate that the 3rd and 4th and 7th to 10th bytes of the original field are not be used.

```
DEFINE DATA LOCAL
1 #FIELD (A12)
1 REDEFINE #FIELD
  2 #RFIELD1 (A2)
  2 FILLER 2X
  2 #RFIELD2 (A2)
  2 FILLER 4X
  2 #RFIELD3 (A2)
END-DEFINE
...
```

Example Program Illustrating the Use of a Redefinition

The following program illustrates the use of a redefinition:

```
** Example 'DDATAX01': DEFINE DATA
*****
DEFINE DATA LOCAL
01 VIEWEMP VIEW OF EMPLOYEES
  02 NAME
  02 FIRST-NAME
  02 SALARY (1:1)
*
01 #PAY (N9)
01 REDEFINE #PAY
  02 FILLER 3X
  02 #USD (N3)
  02 #OOO (N3)
END-DEFINE
*
READ (3) VIEWEMP BY NAME STARTING FROM 'JONES'
  MOVE SALARY (1) TO #PAY
  DISPLAY NAME FIRST-NAME #PAY #USD #OOO
END-READ
END
```

Output of Program DDATAX01:

Note how `#PAY` and the fields resulting from its definition are displayed:

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NAME	FIRST-NAME	#PAY	#USD	#OOO
JONES	VIRGINIA	46000	46	0
JONES	MARSHA	50000	50	0
JONES	ROBERT	31000	31	0