

RETURN TO MAIN MENU

Recital: Using RMS Files

Using RMS Files

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INDEX

INTRODUCTION	1
CREATING THE RECITAL TABLE	2
CREATING THE BRIDGE	2
USING THE BRIDGE	2
COBOL DATA TYPES	3

INTRODUCTION

Recital Terminal Developer and the Recital Database and Mirage Application Servers for OpenVMS support access to the following fixed length RMS File types:

- RMS Sequential
- RMS Indexed Sequential
- RMS Relative

Data access is achieved through an RMS Bridge. This requires the creation of a Bridge file and an empty Recital table that has the same structure as the RMS file.

Creating the Recital Table

Create a Recital table with the same structure as the RMS file. The fields/columns in the structure file must exactly match the data type and length of those in the RMS file. The Recital table will have one byte more in total record length due to the Recital record deletion marker.

To create the table, use the SQL CREATE TABLE command or the Recital Terminal Developer CREATE worksurface. The table should be given a '.str' file extension (rather than the default '.dbf') to signify that this is a structure file only.

Please see the end of this document for information on accessing COBOL data types.

Creating the Bridge File

In Recital Terminal Developer, the Bridge File can be created using the CREATE BRIDGE worksurface. For Server clients, the Bridge File can be created with the SQL CREATE BRIDGE command.

CREATE BRIDGE (SQL)

The CREATE BRIDGE SQL command defines and creates the bridge in one step:

e.g.

```
exec sql
CREATE BRIDGE rmsseqdemo.dbf
TYPE "RMSSEQ"
EXTERNAL "rmsseq.dat"
METADATA "rmsseqdemo.str"
ALIAS "rmsseqdemo";
```

or

```
exec sql
CREATE BRIDGE rmsseqdemo.dbf
AS "type=RMSSEQ;external=rmsseq.dat;metadata=rmsseqdemo.str;alias=rmsseqdemo";
```

Using the Bridge

The Bridge can now be used. To access the RMS file, use the 'alias' specified in the Bridge definition.

e.g.

```
Select * from rmsseqdemo
```

e.g.

- use rmsseqdemo
- edit

COBOL Data Types

The following table provides details of the COBOL data types that can be directly accessed by RECITAL using the RECITAL RMS Bridge.

COBOL Picture Clause	COBOL Usage Clause	RECITAL Data type	Storage in bytes
PIC 9(n)[n <=18]	USAGE IS DISPLAY	(N)umeric	n
PIC 9(n)[n <=18]	USAGE IS COMP-3	(P)acked	Variable
PIC 9(n)[n <=4]	USAGE IS COMP	(S)hort	2
PIC 9(n)[5 <=n <=9]	USAGE IS COMP	(I)nteger	4
PIC 9(n)[10 <=n <=18]	USAGE IS COMP	(Q)uad	8
PIC S9(n)[n <=4]	USAGE IS COMP	(S)hort	2
PIC S9(n)[5 <=n <=9]	USAGE IS COMP	(I)nteger	4
PIC S9(n)[10 <=n <=18]	USAGE IS COMP	(Q)uad	8
PIC S9(n)[10 <=n <=18]	USAGE IS INDEX	(I)nteger	4
PIC S9(n)[10 <=n <=18]	USAGE IS POINTER	(I)nteger	4
PIC S9(n)[10 <=n <=18]	USAGE IS COMP-1	(R)eal	4
PIC S9(n)[10 <=n <=18]	USAGE IS COMP-2	(F)loat	8
PIC S9(n)[n <=18]	USAGE IS COMP-3	(P)acked	Variable
PIC 9(n)[n <=18]	USAGE IS COMP-3	(P)acked	Variable
PIC X(n)[n <=254]	USAGE IS DISPLAY	(C)haracter	n
PIC A(n)[n <=254]	USAGE IS DISPLAY	(C)haracter	n
PIC 9(n)V9(s)	USAGE IS DISPLAY	(S)hort	2
PIC S9(n)V9(s)[(n+s) <=4]	USAGE IS COMP	(S)hort	2
PIC S9(n)V9(s)[5<=(n+s)<=9]	USAGE IS COMP	(I)nteger	4
PIC S9(n)V9(s)[10<=(n+s)<=18]	USAGE IS COMP	(Q)uad	8
PIC 9(n)V9(s)[n <=18]	USAGE IS COMP-3	(P)acked	Variable
PIC S9(n)V9(s)[n <=18]	USAGE IS COMP-3	(P)acked	Variable
PIC S9(n)[n <=18]	USAGE IS DISPLAY	not supported	
PIC S9(n)[n <=18]	USAGE IS DISPLAY SIGN IS TRAILING	not supported	
PIC S9(n)[n <=18]	USAGE IS DISPLAY SIGN IS LEADING	not supported	
PIC S9(n)[n <=18]	USAGE IS DISPLAY SIGN IS TRAILING SEPARATE	not supported	
PIC S9(n)[n <=18]	USAGE IS DISPLAY SIGN IS LEADING SEPARATE	not supported	
PIC S9(n)V9(s)[(n+s) <=18]	USAGE IS DISPLAY SIGN IS TRAILING	not supported	
PIC S9(n)V9(s)[(n+s) <=18]	USAGE IS DISPLAY SIGN IS TRAILING	not supported	
PIC S9(n)V9(s)[(n+s) <=18]	USAGE IS DISPLAY SIGN IS TRAILING SEPARATE	not supported	
PIC S9(n)V9(s)[(n+s) <=18]	USAGE IS DISPLAY SIGN IS LEADING SEPARATE	not supported	

NOTE:

The storage occupied packed decimal data types is calculated as follows:

if $(n+s)$ is odd then $\text{storage} = ((n+s)+1)/2$
else $\text{storage} = ((n+s)+2)/2$

When defining the “width” for binary data types, this value denotes the output display width. The storage occupied by the data type is as specified above.

When defining the number of decimal places for binary data types, this value represents the “scale” of the value. When the field is referenced, RECITAL scales it down by successive divisions of 10, as specified by “scale”, and evaluates all arithmetic in double precision floating point. When fields of this type are updated, then the result to be stored in the field is again re-scaled.