

## Table Structure for SHEF Data Value Tables

Two different table structures were utilized for the SHEF Data Value Tables. These are 1) single value per row table, and 2) pseudo array table (multi values per row); both structures with and without table fragmentation.

Table fragmentation is a method of distributing data of a single table across multiple database spaces. For the RFC Archive DB, the fragmentation method used is fragment by expression. This method should allow for faster query performance particularly when large datasets are involved. Testing of table fragmentation with single value per row table structure was done by MBRFC<sup>1</sup>. An example of the fragment by expression used is as follows:

```
fragment by expression
pe1 = 'H' in dbs1,
pe1 = 'P' in dbs2,
pe1 = 'Q' in dbs3,
pe1 = 'S' in dbs4,
pe1 = 'T' in dbs5,
pe1 not in ('Q','S','P','T','H') in dbs6
```

The pseudo array table structure was developed and tested by CBRFC for use in their fastetc database. This table structure in itself, generally, allows for faster query performance.

The following section lists each data value table and the table structure utilized.

### single value per row table with fragmentation

pedrsep  
peoossep  
pedfsep  
unkstnvalue

### pseudo array table with fragmentation

pecrsep

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<sup>1</sup> "Test of Informix RDBMS Fragmented Table vs. Unfragmented Table Structure for a Large Dataset", March 14, 2001

single value per row table with no fragmentation

commentvalue

pedcsep

pairvalues

pseudo array table with no fragmentation

pemrsep

pedpsep

pehpsep

peqpsep

pempsep

pehfsep

peqfsep