

Accessing Partitioned Files

This section describes the access modes which can be used to access partitioned files.

Access Modes

Adabas Vista supports the following modes of access to a partitioned Adabas file:

- *focused mode* is based on the partitioning field and allows direct access to a particular partition.
- *distributed mode* is not based on the partitioning field and requires access to all partitions of a file.
- *mixed mode* allows a partition to be addressed directly by its real file number, even while using the single file image.
- Focused Mode
- Distributed Mode
- Mixed Mode

Focused Mode

A file often has a field which is used primarily for access to the file. In fact, many sites regularly re-order files according to their dominant key field. When using Adabas Vista, this key field is most commonly used as the *partitioning field*.

Applications generally access a file using search data that is based, in whole or in part, on the primary key field. In these cases, Adabas Vista is able to detect the specific partition(s) needed to satisfy the access. This is referred to as *focused mode access*.

For example, a Natural application contains the following:

```
0250  FIND EMPLOYEES WITH COUNTRY = 'USA'  
0260      DISPLAY NAME EMP-NUMBER COUNTRY  
0270  END-FIND
```

Adabas Vista

- detects access explicitly or implicitly based upon the partitioning field Country;
- directs the access to the corresponding partition (USA) based on the search argument.

Using this access mode, Adabas Vista can focus access to only one partition, which results in a low processing overhead..

Performance Notes:

Selecting the correct partitioning field is very important when first partitioning a file. It is often the case that files are regularly re-ordered according to a key in order to achieve greater I/O performance. Such a key is generally suitable as the Adabas Vista partitioning field.

If certain groups of users focus on specific portions of a file, the partition restriction feature may be beneficial, especially if access can be completely restricted to a partition. Restricting access increases the amount of focused access achieved.

Distributed Mode

Adabas Vista also provides *distributed mode access* using data that is not related to the partitioning field. For example:

```
0250  FIND EMPLOYEES WITH NAME = 'SMITH'  
0260      DISPLAY NAME EMP-NUMBER COUNTRY  
0270  END-FIND
```

Access by Name cannot be focused onto one particular partition. Adabas Vista distributes the access to all partitions before collating the results in the expected order.

Mixed Mode

Adabas Vista also provides mixed mode, in which applications can not only access a single file image for all partitions, but also can access a partition directly using its actual Adabas file number. This is referred to as *mixed mode access*.