

# Functional Overview

The ADAORD utility can be used to:

- Reorder the Associator or Data Storage for a database or a single file in a database (REORASSO, REORFASSO, REORDATA, REORFDATA, REORDB, and REORFILE functions)
- Restructure a database or a single file in a database and store the resulting output files into an existing database (RESTRUCTUREDDB, RESTRUCTUREF, and STORE functions).

Only one function may be executed during a given execution of ADAORD.

Parts of the database are overwritten during ADAORD execution. We therefore recommend that you back up the database (or file) using the ADASAV utility before running ADAORD functions.

In addition, all ADAORD functions except RESTRUCTUREF (file) require exclusive EXF control of the database files involved in the operation. RESTRUCTUREF requires EXU control; other users may access database files being used by RESTRUCTUREF, but only for reading. Note, however, that operations involving checkpoint, security, or files loaded using ADALOD's SYSFILE option require exclusive database control.

## Notes:

1. When specifying the starting RABN for Associator extents, the space needed for the FCBs, FDTs, and DSST should also be considered.
2. Logically deleted fields will be present in ADAORD utility output.
3. Logically deleted field data in the file is loaded by the ADAORD STORE utility function.

This chapter covers the following topics:

- Reorder Functions
- Restructure Functions
- Store Function
- Space Allocation
- Adabas 8 Considerations

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## Reorder Functions

The REORASSO function physically reorders all Associator blocks for all files; the REORFASSO function reorders the Associator for a single file. This eliminates Associator space fragmentation and combines multiple address converter, normal and upper index, and Data Storage Space Table (DSST) component extents into a single logical extent for each component.

The REORDATA function reorders Data Storage for all files in the database; the REORFDATA function reorders Data Storage for a single file. This condenses extents containing only empty blocks, and also eliminates any Data Storage fragmentation caused by file deletion.

The REORDB function performs both the REORASSO and REORDATA functions in a single execution of ADAORD.

The REORFILE function performs both the REORFASSO and REORFDATA functions in a single execution of ADAORD. The records may be reordered in the logical sequence by a descriptor, by ISN, or in the current sequence.

The REORDATA, REORDB, REORFDATA and STORE functions do not reorder ADAM files. However, these functions can be used to relocate an ADAM file to different RABNs.

## Restructure Functions

The RESTRUCTUREDB function unloads an entire database to a sequential data set; the RESTRUCTUREF function unloads one or more files to a sequential data set. This data set containing unloaded data can be used as input to the STORE function.

The RESTRUCTURE functions are used to relocate the database to a different physical device or a file or files to another device.

The format of the sequential data set produced by the RESTRUCTURE functions is independent of the database device type, and is *not* compatible with the format required by the ADALOD or ADASAV utilities. Therefore, the target database may be contained on a device type different from the source database.

The Associator and Data Storage are reordered as part of RESTRUCTURE/STORE processing.

When RESTRUCTUREDB/F restructures an ADAM file that uses the overflow area, and then STORE stores the restructured file in a database with a smaller DATA block size, an ADAORD ERROR-103 may occur. Use the ADAULD and ADALOD utilities to move ADAM files instead.

## Store Function

The STORE function loads one or more files into an existing database using the DDFILEA output created by the RESTRUCTUREDB, RESTRUCTUREF, or REORDB function.

The Associator and Data Storage are reordered as part of RESTRUCTURE/STORE processing.

The STORE function does not reorder ADAM files. However, it can be used, in combination with other ADAORD functions, to relocate an ADAM file to different RABNs. When the RESTRUCTUREDB or RESTRUCTUREF functions restructure an ADAM file that uses the overflow area, and then STORE stores the restructured file in a database with a smaller DATA block size, an ADAORD ERROR-103 may occur. Use the ADAULD and ADALOD utilities to move ADAM files instead.

### **Note:**

Logically deleted field data in the file is loaded by the ADAORD STORE utility function.

## Space Allocation

ADAORD allocates the amount of space required by the *xxSIZE* or *MAXISN* and *MAXISN2* parameters, if specified. Otherwise, ADAORD allocates space based on the current size of the file. Note that the *xxRELEASE* parameters affect the amount of space required.

If possible, space is allocated on the volume specified by the *xxxxVOLUME* parameter. If insufficient free space is available on the specified volume, ADAORD allocates the remainder of the required space on other volumes, according to its default rules of allocation.

An *xxRABN* parameter overrides the associated *xxxxVOLUME* parameter.

## Adabas 8 Considerations

You can restructure databases and files from an Adabas version prior to Adabas 8 and store them in an Adabas 8 database using ADAORD STORE. However, you cannot store the restructured output of an Adabas 8 database or file in a database running with any prior Adabas version (for example, Adabas 7). If you attempt this, the following warning will be generated and ADAORD will end with a CC=4:

```
*** Warning: The input data set is from V8 and will not be processed
```