Functional Overview

The ADASAV utility saves and restores the contents of the database, specific files, or an individual file to or from a sequential data set.

ADASAV should be run as often as required for the number and size of the files contained in the database, and depending on the amount and type of updating.

For large databases, ADASAV functions may be run in parallel for the various disk packs on which the database is contained.

Special ADASAV functions are available for use with the Adabas Delta Save Facility Facility. For more information, see the *Adabas Delta Save Facility Facility* documentation.

This chapter covers the following topics:

- RESTONL and RESTORE Functions

- Adabas Release Support

RESTONL and RESTORE Functions

For either RESTORE or RESTONL function operations, the Associator and Data Storage data sets must first be formatted. If either operation is interrupted, no database update activity should be attempted until the function has been successfully reexecuted.

RESTONL functions restore from a SAVE data set created while the Adabas nucleus was *active* (that is, online); RESTORE functions restore from a SAVE data set created while the Adabas nucleus was *inactive* (that is, offline).

RESTONL and RESTORE have the subfunctions GCB, FILES, and FMOVE:

- Without a subfunction, RESTONL and RESTORE restore entire databases.

- With the GCB subfunction, they restore the general control blocks (GCBs), Associator RABNs 3-30 of the database, and specified files.

- With the FILES subfunction, they restore one or more files into an existing database to their original RABNs.

- With the FMOVE subfunction, they restore one or more files into an existing database to any free space, allowing changes to extent sizes.

This section covers the following topics:

- RESTPLOG and RESTONL Functions

- Online and Offline SAVEs

RESTPLOG and RESTONL Functions

If changes occurred during the online SAVE, the RESTONL function is followed automatically by the RESTPLOG function. RESTPLOG applies the updates that occurred during, and therefore were not included in, the online SAVE.

RESTPLOG is also executed following a RESTONL or RESTONL FILES function that ended before completing restoration of protection log (PLOG) updates. RESTPLOG applies the database updates not applied by the unsuccessful RESTONL function.

Online and Offline SAVEs

The SAVE function to save a database, or one or more files may be executed while the Adabas nucleus is active (online) or inactive (offline). If the Recovery Aid option is active, a SAVE database operation begins a new RLOG generation.

Adabas Release Support

You can restore entire Adabas databases only using the same Adabas release used to create the save data set. However, you can restore individual files from save data sets created by earlier Adabas versions (down to version 5.1) using the RESTORE FILES, RESTORE FMOVE, RESTONL FILES, or RESTONL FMOVE functions.

Considerations when Restoring Files from Adabas version 5

When restoring from an Adabas 5 save data set, the RESTORE FILE function discards the unused RABN chains that may be present for the normal index or upper index. This makes all blocks of these chains "unreachable index blocks" as reported by the ADAICK ICHECK function in WARNING-163. These blocks will not be reused until they are reordered by the ADAORD REORFASSO or other reorder functions. The RESTORE FMOVE function does not discard the unused RABN chains, but rather transforms them to the new Adabas version structure.

If the database contains different device types for Data Storage and Work, restoring from an Adabas 5 save data set might be difficult if the Data Storage block size is larger than the Work block size. ADASAV may reject the restore because the maximum compressed record length of the file exceeds the length allowed by the Work block size. This is due to the increase in the length of protection record headers in later Adabas versions. To restore the file in this case, a new Work device type with a larger block size must be installed using the ADADEF NEWWORK function.