The Adabas Recovery Aid

When a system failure disrupts database operation, the Adabas Recovery Aid can create a job stream that reconstructs the database to the point of failure.

The Recovery Aid combines the protection log (PLOG) and the archived database status from previous ADASAV operations with its own recovery log (RLOG) information to reconstruct the job sequence. The result is a reconstructed job statement string (recovery job stream) that is placed in a specially named output dataset.

The two major parts of the Adabas Recovery Aid are the recovery log (RLOG) and the recovery aid utility ADARAI. The RLOG is formatted like other Adabas files, using ADAFRM, and then defined with the ADARAI utility.

The DBA must run the Recovery Aid utility, ADARAI, to

- define the RLOG and set up the Recovery Aid environment;
- display current RLOG information;
- create the recovery job stream.

This chapter covers the following topics:

The Recovery Log (RLOG)

The recovery log (RLOG) records the essential information that, when combined with the PLOG, is used by the ADARAI utility’s RECOVER function to rebuild a job stream to recover and restore the database status up to the point of failure.

The RLOG information is grouped in "generations", where each generation comprises the database activity between consecutive ADASAV SAVE, RESTORE (database) or RESTORE GCB operations. The RLOG holds a minimum of four consecutive generations, up to a maximum value specified when the RLOG is activated; the maximum is 32. If RLOG space is not sufficient to hold the specified number of generations, the oldest generation is overwritten with the newest in "wraparound" fashion.

The RLOG file is formatted like other database components by running the ADAFRM utility (SIZE parameter), and then defined using the PREPARE function of the Recovery Aid ADARAI utility (with the RLOGSIZE parameter). The space required for the RLOG file is approximately 10 cylinders of 3380 or equivalent device space.

The ADARAI PREPARE function must be performed just before the ADASAV SAVE run that begins the first generation to be logged. After ADARAI PREPARE is executed, all subsequent nucleus and utility jobs that update the database must specify the RLOG file. Of course, the RLOG file can be included in any or all job streams, if desired.

The RLOG file job statement should be similar to the following:

```
//DDRLOGR1 DD DISP=SHR,DSN=... .RLOGR1
```

Starting the Recovery Aid

The activity of the Recovery Aid and RLOG logging begins when the first ADASAV SAVE/RESTORE database or RESTORE GCB function is executed following ADARAI PREPARE.

All activity between the first and second ADASAV SAVE/RESTORE database and/or RESTORE GCB operations following the ADARAI PREPARE operation belongs to the first generation. When viewing generations with the ADARAI utility's LIST function, generations are numbered relatively in ascending order beginning with the oldest generation.

For more detailed information on setting up the Recovery Aid, see *Restart and Recovery* in the Adabas Operations documentation and the ADARAI utility description in the Adabas Utilities documentation.