

# AFPLOOK (Optimization Sampling)

AFPLOOK can be used to determine whether or not Adabas Fastpath optimization for specific databases or files should be used. This section describes how to use AFPLOOK in online mode.

**Note:**

This section describes only the usage of AFPLOOK using Online Services. For a complete description, see the section AFPLOOK.

- AFPLOOK Menu
- Starting an AFPLOOK Session
- AFPLOOK File Summary
- AFPLOOK Summary Display

## AFPLOOK Menu

Selecting option code 6 from the Online Services main menu or entering the command 6 on the command line displays the AFPLOOK Services menu:

```

18:10:59 ***** A D A B A S FASTPATH SERVICES 8.2.2 - DEMO *****                2006-05-19
                                     - Afplook Services -                               F16000MA

                                     Code      Service
                                     -----
                                     1        Start Afplook
                                     2        File Display
                                     3        Display Summary
                                     4        Freeze/Pause Afplook
                                     5        Release Afplook
                                     .        Exit
                                     -----
Code ..: _

                                     DB ID: 131      NUC131
                                     Status: Active
                                     User= UKPAL   May 19,2006 17:52
                                     System Coordinator Node: _____

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit                                     Menu
    
```

## AFPLOOK Menu

The following fields are provided:

Field	Description
Code	<p>For a specified database, the options provided can be used to start, stop, release, or display information for the database as a whole or for individual files.</p> <p><b>Note:</b> Adabas Fastpath automatically detects when a database supported by a cluster of Adabas nuclei, either in a single operating system image (ADASMP) or across multiple operating system images (Adabas Cluster Services), has been selected for APFLOOK. In this case, a separate menu screen is displayed so that you can indicate which nucleus is to be used.</p>
DB ID / Status / User	<p>These fields contain:</p> <ul style="list-style-type: none"> <li>● the number of the database for which APFLOOK is currently active. This number may have been carried forward from a previous action.</li> <li>● the name of the database job.</li> <li>● the APFLOOK status.</li> <li>● the user who started APFLOOK for the database, and when it was started (date and time).</li> </ul>
System Coordinator Node	<p>The Adabas System Coordinator Node ID is required for a clustered database only when it is not already known by the system. If this is the case, you are prompted to enter the Node ID.</p>

Because only one APFLOOK can be active for a database at one time, a strict record of events is needed to establish sequence.

The screen example shows the status of database 131 as *active*. To display the APFLOOK status of a different database, you may change the database number and press Enter. This may show that the new database is *not active* or it may say "AFPADA not installed". Otherwise, the name changes and the status of the new database is displayed.

- Initially, APFLOOK is at status *released* : a start can only be invoked when this status is current.
- Once at status *started*, APFLOOK can be stopped (but not directly released).
- Status *stopped* can then be changed to released, at which point all statistics are discarded.

Statistics, both general and for files, can be displayed when the status is either *active* or *stopped*. When the Adabas nucleus terminates normally, any active or stopped statistics are printed on the DDPRINT file. APFLOOK statistics can also be printed using AFPCMD.

## Starting an APFLOOK Session

Selecting option code 1 from the APFLOOK Services menu or entering 6.1 on any command line displays the APFLOOK Start Sampling screen:

```

16:36:23 ***** A D A B A S FASTPATH SERVICES 8.2.2                2006-05-19
- Afplook - Start Sampling for DB 198 -                               F16100MA

Maximum Files                    64                (See Note 2)
Max.Commands/Descriptors per File  32
Maximum Concurrent Users          100
Max.CIDs per User                 10

Max.Commands to Sample            0                (0=No Limit)
Restrict to Job Name              _____

Restrict to Files _____

Notes: 1. To sample ALL files - leave the above file table empty
       2. Max. files will be set automatically if file numbers
          are selected

Press PF5 to Confirm Start

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit      Start                               Menu

```

### Start APFLOOK Processing

The parameters on this screen are described briefly in the following table. Initially, default values for the parameters are shown. You can modify certain parameter values from this screen.

Parameter	Description
Maximum Files	The maximum number of files to be sampled. If one or more files are specified in the parameter Restrict to Files, this parameter will be set automatically to the number of restricted files.
Maximum Commands/Descriptors per File	The maximum number of command/descriptor pairs which can be included in the sampling session. This parameter controls the table size for each file. When all entries are used, the last table entry is used as a general accumulator.
Maximum Concurrent Users	The maximum number of concurrent users for this sampling session. When all user table entries are full, new users reuse the least active/oldest user in the table. This may lead to inaccurate reports if the table size is too small. The number of reused user areas is shown in the sample summary section.
Maximum CIDs per User	The maximum number of Command IDs per user for this sampling session. If this maximum is reached, additional commands will be ignored.
Maximum Commands to Sample	The maximum number of commands to be sampled. A value of 0 indicates no restriction.
Restrict to Job Name	The sampling session is to be restricted to commands for the specified job, or for a series of jobs that match the job name as defined using an asterisk (*) as a wild card character.
Restrict to Files	The sampling session is to be restricted to the files specified.

## AFPLOOK File Summary

Selecting option code 2 from the AFPLOOK Services menu or entering 6.2 on any command line displays the AFPLOOK File Summary screen.

This screen lists the active files for the selected database, the number of commands for each file, and the potential optimization.

```

12:31:26      ***** A D A B A S  FASTPATH SERVICES 8.2.2 *****      2006-05-19
                Afplook - Files Summary for DB 198                          F16200MA

                Started: May 19,2006 at: 12:30 by: UKDEV1

C   Fnr      Total      Direct Access      RCs      Sequential
-   --      -
x   18      3071741 (91%)      480751 (16%)      440      2590453 (84%)
-   21      166      37 (22%)      2 ( 1%)      115 (69%)
-   24
-   27      524      200 (38%)      110 (21%)      145 (28%)
-   28      1126      631 (56%)      117 (10%)      192 (17%)
-   30      121927 ( 4%)      30121 (25%)      17411 (14%)      63882 (52%)
-   31      68034 ( 2%)      21588 (32%)      16214 (24%)      25353 (37%)
-   32      12596      5936 (47%)      3900 (31%)      1705 (14%)
-   33      3649      3649
-   34      833      188 (23%)      65 ( 8%)      486 (58%)
-   37      2      1 (50%)      1 (50%)
Total      3382726 (100%)

Mark to Display File Details

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit Refr      Sumry
    
```

**APFLOOK File Summary**

The following fields are provided:

Field	Description
C	This field can be marked to display further details for a file.
Fnr	Adabas file number.
Total	The number of commands for this file, and the percentage of file commands to database commands.
Direct Access	The number of direct access commands for this file, and the percentage of potential optimization for direct access commands.
RC	<p>The number of Release Command ID commands for this file, and the percentage of potential optimization for RC commands.</p> <p>The Adabas RC command releases one or more Command IDs currently assigned to a user. See the <i>Adabas Command Reference</i> documentation for more information. When a direct access command is optimized, it is often possible to optimize its matching RC command. The RCs column indicates the potential cases. RC commands cannot be optimized for sequential (that is, read-ahead) access.</p>
Sequential	The number of sequential commands for this file, and the percentage of potential optimization for sequential commands.
Total (bottom of screen)	The total number of commands for all files.

In the above example, file 18 would be a prime candidate for optimization in that 91% of the database commands are for file 18. In addition, the sampling indicates that 16% of direct access commands and 84% of sequential access for file 18 can be optimized using Adabas Fastpath.

Further details for a file can be obtained by

- marking column C for the file, or
- entering 6.2.1 on any command line to display a previously accessed file.

The File Details screen will appear. This screen provides information for each command/descriptor pair which could be defined for Adabas Fastpath optimization.

```

12:32:21 ***** A D A B A S FASTPATH SERVICES 8.2.2 *****                2006-05-19
          - Afplook - Details for DB 198   File 19 -                          F16210MA

          Started: May 19,2006 at: 12:30 by: UKDEV1

CC DE Direct Acc          RCs Sequential Sequences          Non-Qualifying
L3 KK      480777          415    2590506    480362          Updates 34
L1 --              2                                     Inserts 1620
L9 KK              15              15          Deletes 1670
S1 KK              10              10

Total      480804          440    2590506                                     Prefetch 0
Total Commands for File                                     Excluded 2255
                                                         Spare 0
                                                         No CID 0
                                                         Max.CIDs 0
                                                         Bad Rsp. 0
                                                         Max.Rec.Buff.Len
                                                         Direct Acc 1120
                                                         Sequential 1120

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit Refr  Parm      File      Menu
    
```

**APFLOOK File Details Display**

For information on how to interpret the above information, refer to the section APFLOOK.

**APFLOOK Summary Display**

Selecting option code 3 from the APFLOOK Services menu, or pressing PF10 from the Files Summary screen displays the APFLOOK Summary screen.

This screen summarizes the potential for Adabas Fastpath optimization. It is important to note that whereas the estimates provided are useful in determining where optimization potential may exist, it cannot be guaranteed that this potential will always be attained to the extent estimated.

```

12:33:10 ***** A D A B A S FASTPATH SERVICES 8.2.2 *****                2006-05-19
          - Afplook - Summary for DB 198 -                                F16300MA

          Afplook Started May 19,2006 at 12:30 by UKDEV1

----- Potential Optimization Summary -----

          Sampled Commands                                Potential Optimization

Sampled File Commands    3383333 (75%) <=== Sequential:        2722211 (80%)
                               Direct Access:        579729 (17%)
                               RCs:            58540 ( 2%)

Excluded Commands        1130492 (25%)

Totals                    4513825 (100%)                                3360480 (74%)

-----

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help           Exit Refr                                File More Menu
    
```

**AFPLOOK Summary Display**

Refer to the section AFPLOOK for descriptions of the statistics shown.

Pressing PF11 on the previous screen displays the Summary Command Analysis screen:

```

12:33:41 ***** A D A B A S FASTPATH SERVICES 8.2.2 *****                2006-05-19
          - Afplook - Summary for DB 198 -                                F16300MB

          Afplook Started May 19,2006 at 12:30 by UKDEV1

----- Command Analysis -----

Rejected Commands:
  Max.Users Exceeded:
  Max.CIDs Exceeded:
  Max.Files Exceeded:

Excluded Commands:
  Bad Commands:                365
  Non-File Commands:          1000944
  Non-File RCs:                31309
  Excluded File Commands:      44988
  Update Commands:            52886
  Already Prefetched:          1130492 (25%)
Sampled File Commands:        3383333 (75%)
All Commands Seen:           4513825 (100%)

----- Parameters and High Water Marks -----
Max.Files: 64   Files Needed: 21
Max.Users: 100 Peak Users: 9

----- Reused User Areas -----
Max. DE: 32   Overflows:
Max.CID: 10   Peak CIDs: 5

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help           Exit Refr                                File Prev Menu
    
```



**AFPLOOK Command Summary Display**

This screen summarizes command processing and also displays the parameters that were used for the sampling session.

Refer to the section AFPLOOK for descriptions of the statistics shown.