

Adabas Fastpath

Adabas Fastpath Online Services

Version 8.1.2

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This document applies to Adabas Fastpath Version 8.1.2 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Adabas Fastpath Online Services

This document describes Adabas Fastpath Online Services (SYSAFP).

- **Using Online Services**
- **System Settings**
- **Parameter Maintenance**
- **Buffer Statistics**
- **Buffer History**
- **Buffer Operations and Reporting (APFCMD)**
- **Special Services**
- **Optimization Sampling (AFPLOOK)**
- **Protecting AFP Information when using Adabas Utilities**

2 Using Online Services

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This section describes the general usage of Adabas Fastpath Online Services.

Online Services Main Menu

▶ to invoke the Adabas Fastpath Online Services main menu:

- 1 logon to SYSAFP
- 2 enter the command MENU

The Main Menu screen appears as shown below:

```
11:48:52  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
                                     - Main Menu -                                F1MAINM1

      Code      Service
      ----      -
      0      System Settings
      1      Maintenance
      2      Buffer Statistics and Interaction
      3      Buffer History
      4      Printing Facility
      5      Special Services
      6      Afplook
      7      About Adabas Fastpath
      .      Exit
      ----      -
Code ..: _

You can easily switch around the tools for Fastpath, Vista etc by use of the
PF Keys shown, or use the codes COR, AFP, AVI, AAF, ATM as commands - anytime.

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit      COR      AVI  AAF  ATM      Vers
```

Main Menu Screen

The following services are available:

Service	Description
System Settings	Maintain Adabas Fastpath configuration file.
Parameter Maintenance	Maintain Adabas Fastpath optimization parameters.
Buffer Statistics	Display Adabas Fastpath buffer statistics.
Buffer History	Display Adabas Fastpath buffer history information.
Printing	Print Adabas Fastpath reports.
Special Services	Perform miscellaneous actions for the Adabas Fastpath components.
Online Sampling (APFLOOK)	Perform optimization sampling.
About Adabas Fastpath	Display Adabas Fastpath release information.



Note: When you invoke Adabas Fastpath, you are logged on automatically to the highest installed, non-demo version of Adabas Fastpath Online Services. The Adabas Fastpath version is displayed in the first line of screen headers. If you have not installed the INPL from the Adabas Fastpath installation tape, "Demo" will be appended to the version in this line. From the main menu you can then use PF12 to obtain a list of installed versions, from which you may select one.



Note: From the Adabas Fastpath main menu, you may switch to the online systems of Adabas System Coordinator, Adabas Vista, Adabas SAF Security or Adabas Transaction Manager by pressing the appropriate PF key. You may also switch from any screen with a command line by entering the appropriate three-character code (for example, AVI for Adabas Vista) as a command. You may only switch to the same version of another online system.

Navigation

You can access Adabas Fastpath Online Services screens in two ways:

- sequentially by selecting a menu option and entering it in the Option field; or
- directly by typing one of the numerical commands indicated in the following table on the command line.

For example, entering the command 1.1 on the command line directly accesses the Buffer List screen within the Parameter Maintenance function without first accessing the Parameter Maintenance menu.

Function	Object	Command
System Settings	Menu	0
Parameter Maintenance	Menu	1
	Buffer List	1.1
	Buffer Add	1.1.1
	File List	1.2
	File Add	1.2.1
	Job List	1.3
	Job Add	1.3.1
Buffer Statistics	Menu	2
	Buffer Display	2.1
	Database List	2.2
	File Lists	2.2.1
	File Set Summary List	2.2.2
	File Set List	2.2.3
	Optimized Job List	2.3
	System Job List	2.4
Buffer History	Menu	3
Online Printing (AFPCMD)		4
Special Services	Menu	5
	Buffer	5.1
	Database Component	5.2
	Local SYSAFP	5.3
Online Sampling (AFPLOOK)	Menu	6
	Start AFPLOOK	6.1
	Display Files	6.2
	Display File Detail	6.2.1
	Display Summary	6.3
About Adabas Fastpath	List	7

PF Keys

Adabas Fastpath Online Services uses PF keys for various actions. Key functions are standard throughout the system, wherever possible. The PF keys that apply to each screen are indicated at the bottom of the screen.

The following keys apply throughout the system:

PF Key	Function	Description
1	Help	Invoke the help specific to the current screen
3	Quit	Quit and return to the previous screen
12	Menu	Return immediately to the main menu

The following keys apply generally, depending upon the type of action or function in use:

PF Key	Function	Description
4	Refr	Active screens: refresh the data
5	Upd	Maintenance screens: commit the update
7	Top	Lists: return to the top of the list
8	Next	Lists: move to the next page
10	Add	Maintenance screens: add an object

Online Help

Online help information can be invoked using PF1. The help screen that appears applies to the current screen and may comprise several pages. From each help screen, you can access lower level options or return to previous, higher levels. An example of a help screen follows:

```
15:40:35 ***** A D A B A S   FASTPATH SERVICES 8.1.2 - DEMO *****      2006-05-19
                H E L P for Buffer Parameter Maintenance      Page 1 of 1      F11100H1
```

This screen allows the user to select from a list of Adabas Fastpath Buffers. All buffers are shown even though they may not be accessible from the current environment. This allows any parameters to be maintained and controlled from any environment with access to the configuration file.

The SVC and DBID shown are for the Buffer; do not confuse with file and database parameters.

If the list extends to more than one page, then PF6 may be used to restart the list at the top, PF7 to move back a page, PF8 to move to the next page and PF9

to the bottom of the list.

The following options are available:

- 1 ADD - PF10 is used
- 2 MODIFY - 'm' = modification of detailed parameters
- 3 DISPLAY - 'd' = display buffer parameter details
- 4 PURGE - 'p' = deletion of buffer and any file parameters
- 5 RENAME - 'r' = rename of the buffer and any file parameters
- 6 COPY - 'c' = copy buffer and any files to a new name
- 7 FILE - 'f' = display list of file and database parameters for the buffer

Enter options 1 to 7 for Help about the individual functions, or,
 . '.' to End Help, '-' for Previous Pages

Help Screen Example

In the above example, you can navigate by entering

-	to move backwards and up a menu level; or
1 through 7	to move down a level to the function selected.

If the help screen comprises multiple pages, you can enter

+	to move to the next page; and
-	to move to a previous page until page 1, then back up a level.

3 System Settings

This service is used to maintain the Adabas Fastpath configuration file.

```
18:21:37  ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-05-19
                                     - System Settings -                      F10000M1

          Code      Service
          ----      -
          1         LFILE 152 Maintenance
          .         Exit
          ----      -
Code..: _

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

System Settings

Option code 1 on the System Settings menu invokes the screen shown below:

```
18:24:45                LFILE 152 Maintenance                2006-05-19
                                      U1LFILM2

Current Settings for LFILE 152:
Original LFILE = ( 152 , 135      , 18      )
Current LFILE  = ( 152 , 135__ , 18__ )
                (effective only for this Natural session)
```

Default pop-up settings:

Do you want to see this window again?

- for the current SYSAFP session... N
- for future SYSAFP sessions..... N

PF3 Exit

PF5 Update/Confirm

Configuration File Maintenance

The original and current settings for the Adabas Fastpath configuration file are shown. You can enter or change the database and file number to be used for the current Adabas Fastpath configuration file.

You can also indicate whether or not you wish to have this window displayed for the current or future SYSAFP sessions.

4

Parameter Maintenance

■ Parameter Maintenance Menu	12
■ Buffer Parameters	13
■ File Parameters	16
■ Client Runtime Controls	23

This service is used to define the Adabas Fastpath optimization parameters.

Parameter Maintenance Menu

Selecting option code 1 from the main menu or entering the command 1 on the command line displays the Parameter Maintenance menu.

```
18:21:37 ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
                                     - Parameter Maintenance -                      F11000M1

      Code   Service
      ----   -
      1      Buffer Parameters
      2      File Parameters
      3      Client Runtime Controls
      .      Exit
      ----   -


Code ...: _

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

Parameter Maintenance

Select an option code to invoke the corresponding menu for the type of parameters to be defined/modified:

- **Buffer Parameters**
- **File Parameters**
- **Client Runtime Controls**

 **Note:** Before proceeding, you may wish to review the section Adabas Fastpath Parameters which provides a complete list and description of each parameter type.

Buffer Parameters

Selecting option code 1 from the Parameter Maintenance menu or entering 1.1 on a command line displays the Maintain Buffer Parameters screen.

The currently defined Adabas Fastpath buffers are listed.

For an existing buffer, you can enter any of the option codes described below.

You can use PF10 to add a new buffer definition as described in section [Adding a New Buffer](#).

```

12:36:27 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****                2006-05-19
              - Maintain Buffer Parameters -                                F11100M1

      <----- Buffer -----> Coordinator   Size   Direct   Read-
C      Name      SVC   DBID      Group      (k)     Access  ahead   Comments

_  AFPDAEF      255   11001     AFPGROUP    4096      ON      ON
_  AFPDA2F      255   11002     AFPGROUP    4096      ON      ON
_  AFPDA3F      255   11003     AFPGROUP    4096      ON      ON
_  V811ME01     244    8111     V811GR01    8192      ON      ON
_  V811ME02     244    8112     V811GR01    4096      ON      ON

Mark with D(isplay),M(odify),P(urge),R(ename),C(opy),F(iles)

End of List
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit  Refr                                Add      Menu

```

Maintain Buffer Parameters

The following information is provided:

C	Option code (D: display buffer parameters, M: modify buffer parameters, P: purge buffer, R: rename buffer, C: copy buffer, F: file parameters, E: expand to show member buffers). For more information on the Modify function, see Modifying Buffer Parameters .
Name SVC DBID	The buffer name, the Adabas SVC used by this buffer, and the database used by this buffer.

Coordinator Group	The name of the Adabas System Coordinator group in which this buffer is to be a member. Adabas Fastpath buffers operate as members of an Adabas System Coordinator group.
Size	The memory size for this buffer.
Direct Access	Indicates whether or not direct access optimization is to be used for this buffer.
Read Ahead	Indicates whether or not read-ahead optimization is to be used for this buffer.

Adding a New Buffer

To add a new buffer, press PF10 on the Buffer Parameter Maintenance screen. The following screen appears:

```

11:59:24                2006-05-19
      Add Buffer          F11110MB

Size(k)      : 4096

System Coordinator
Group Name   : V811GR01
Member Name  : X811ME03

(Leave empty to select)

Command ==>
      PF1 Help   PF3 Exit   PF5 Add
  
```

Add Buffer

You must provide values for the following fields:

Size	The size of the buffer to be added.
Group Name	The name of the Adabas System Coordinator group in which this buffer is to be a member. Adabas Fastpath buffers operate as members of an Adabas System Coordinator group. The group must have already been defined using Adabas System Coordinator Online Services.
Member Name	The member name is the job name of the Adabas System Coordinator daemon under which this buffer is to operate. The member name may have already been defined. If not you will be prompted to define it by entering the unique Node ID by which this member is to be identified.

Modifying Buffer Parameters

Buffers are added with default parameters. After a buffer has been added, you can view/modify all the default settings by using the **d** or **m** option code on the Maintain Buffer Parameters screen. The following sample screen lists the general parameters for buffer V811ME01.

```

16:47:23  ***** A D A B A S  FASTPATH SERVICES 8.1.2 (I001) ***** 2006-10-09
              - Buffer V811ME01 -                               F11120MA

System Coordinator Group Name: V811GR01  Member Name: V811ME01

Adabas SVC Number:    244          Designated DBID:          8111

Last Modified:        2006-10-09 By User ID:                  UKSJU
Last Buffer Address: 00000000  Length: 00000000  Session: 0

----- General Parameters -----

Size(k):              8192          Minimum Buffer Size(k):    0
Maximum Jobs:         12           Set ID Length Limit:    1024
RB Length Limit:     2048          Message Level(Hex):      00

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

```

You can use this screen to review and, if necessary, modify any of these buffer parameters.

Refer to section Adabas Fastpath Parameters for a description of each of these parameters.

By pressing PF11, you can display the detail parameters for this buffer:

```

12:09:42  ***** A D A B A S  FASTPATH SERVICES 8.1.2 ***** 2006-05-19
              Buffer V811ME01                               F11120MB

Adabas SVC Number:    244          Designated DBID:          8111

Last Modified:        2006-05-19 By User ID:                  UKSJU
Last Buffer Address: 00000000  Length: 00000000  Session: 0

----- Detailed Parameters -----

Fast cache attempts: 32          Fast set create attempts: 25

```

```
Coherence Limit (per sec): 32      Suspension Period (mins): 3
Default pacing rate: 10             Set Concurrency: 2
Freespace Index: 512               Average Item Size: 256
                                   Synchronous Remote Updates: Y

----- Operational Control -----
Log every n Minutes: 60             Keep for n Days: 30
Restart every n Hrs: 0              Restart Time: 17:30
Direct Access: ON                   Read-ahead: ON
Find Sx/L1: ON                      READ LOGICAL L3: ON
READ PHYSICAL L2: ON                HISTOGRAM L9: ON

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

Modify Detailed Buffer Parameters

You can use this screen to review and, if necessary, modify any of these buffer parameters.

Refer to section Adabas Fastpath Parameters for a description of each of these parameters.

File Parameters

For each Adabas Fastpath buffer, file parameters can be defined which indicate for exactly which databases/files optimization is to be performed. You can access the File Parameters maintenance function:

- from the Parameter Maintenance screen after specifying a previously defined buffer; or
- from any Buffer Maintenance screen.

By pressing PF10 on either of these buffer modify screens, you can access the File Optimization Parameters screen.

```
8:21:37 ***** A D A B A S FASTPATH SERVICES 8.1.2 ***** 2006-05-19
- File Optimization Parameters for: Global AFP311A - F11200MA

C DBID File SVC Start End Update Reposition
_ 11 7 254 Time Time Sensitivity DBID: _____
_ 12 7 254 Record File: _____
_ 13 7 254 Record
_ 14 7 254 Record
```

—	71	7	254			Record
—	111	66	254	12:00	16:00	Record
—	193	1				Record
—	193	2				Record
—	193	3				Record
—	193	4				Record
—	193	5				Record
—	193	7	254			Record
Mark with D(isplay),M(odify),P(urge),C(opy)						
Top of List						
Command ==>						
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12						
Help Exit Refr Fwd Bot Add Menu						

File Parameter Selection

This screen lists, for the specified Adabas Fastpath buffer, all databases and files currently defined for Adabas Fastpath optimization.



Note: You can use the Reposition function to position to a specific database/file in the list.

Field	Description
C	Option code (D: display file parameters, M: modify file parameters, P: purge file parameters, C: copy file parameters).
DBID	Adabas Database ID.
File	Adabas File Number.
SVC	Adabas SVC.
Time	The specific time period during which Adabas Fastpath optimization is to be in effect. See parameter <i>Start Time</i> .
Update Sensitivity	Controls how Adabas update commands are to be processed. See parameter <i>Update Sensitivity</i> .

■ Adding File Parameters

■ Maintaining File Parameters

Adding File Parameters

In the File Optimization Parameters screen, use PF10 to add a new file parameter. The following screen will appear:

12:30:072006-05-19F11210M1

Add File Optimization Parameter

Buffer Name: V811ME01

File: 0

(0 = DB default)

in DBID: _____

using SVC: _____ (Optional)

Optional Time Window

Start(HH:MM): _____ End: _____

(Leave empty for 24 hours)

Command ==>

PF1 HelpPF3 ExitPF5 Add

Add File Parameter

File	The Adabas file number for which Adabas Fastpath optimization is to be defined. Note: By not specifying a file number, you can define a default parameter set for all files in a database (in this case only read-ahead optimization but not direct access optimization can be applied). Individual file parameters override a database default parameter.
in DBID	The Adabas database in which the file to be optimized is located.
using SVC	The Adabas SVC number. Note: Normally, the SVC parameter is only used at z/OS, MSP, and VSE/ESA sites where multiple Adabas SVCs are required; otherwise, it need not be used. If multiple SVCs are in use, all databases defined for optimization in the same buffer must use the same SVC as the buffer (and the Adabas System Coordinator hosting the buffer).
Time Window	Optimization is only to be in effect within the specified time window. See parameter Start Time.

After a file parameter is added, the File Parameters Maintenance screen can be used to define further optimization parameters which are to be in effect for the file. This is described in the following section.

Maintaining File Parameters

The File Parameters Maintenance function can be invoked by/from:

- automatically from the Add File Parameters function
- by using option code **m** on the File Parameter Selection screen
- from an AFPLOOK File Display screen or from the File Set Summary List screen by pressing PF5 . Similarly, hot keys on this screen can be used to access AFPLOOK and File Set Summary.
- by entering 1.2 on a command line anywhere in the system, provided that a database and file number have previously been established using this screen or one of the other functions in the hot key chain.

The following screen appears:

```

15:30:34 ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-03-14
      - File Optimization Parameters for: A8P17004 -                          F11220MA

File: 9      DBID: 17003   SVC:                Last Modified: 2006-03-13 by: UKRPE

Start Time (HH:MM):  _____ End Time: _____ Update Sensitivity: D Distributed

Initial Status:      ON          Set Limit (k):    0
Set Id Length Limit: 0          RB Length Limit: 0          Set Concurrency: 0
Expanded File:       N          Cache secure file: N          Pacing: 0
Password for secure file DA-caching (not recommended):
----- Direct Access ----- Optimization Summary ----- Read-ahead -----
L1 Get/Read by ISN  ON          | L1 Read by ISN      ON
L3 Read Logical     ON          | L2 Read Physical   ON
L9 Histogram        ON          | L3 Read Logical    ON
S1 Find Records     ON          | L9 Histogram       ON
S2 Find Sorted      ON          | S1 Find Records    ON
                   | S2 Find Sorted     ON
                   | S8 Process ISN List ON
                   | S9 Sort ISN List   ON
PF10 to Modify Direct Access    + PF11 to Modify Read-ahead

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit      Upd  Look      File Dir  R-a  Menu

```

File Optimization Parameters

The following parameters can be maintained using this screen:

Parameter	Description
Start Time, End Time	Optimization is only to be in effect within the specified time window. See parameter <code>Start Time</code> . Note: You can enable optimization for a different time window by creating a different parameter set for this file.
Update Sensitivity	Indicates how Adabas Fastpath is to process commands which result in database updating. The following values are permitted: N (none). Ignore all update commands. R (record level). Remove data by identifying single records. F (file). Remove all data for the file held in the Adabas Fastpath buffer. D (distributed record level). Use only on advice from Software AG support.
Initial Status	By setting this field to OFF, you can indicate that the file parameters being defined are not to be activated until this field is changed to ON.
Set Limit	Adabas Fastpath creates sets of direct access command models. This parameter limits the size (in k) of data items within a set.
Set ID Length Limit RB Length Limit Set Concurrency	These parameters can be used to decrease (but not increase) the values of the equivalent buffer parameters. These parameters are described in section Adabas Fastpath Parameters.
Expanded File	This field must be set to Y if the file is defined to Adabas as an expanded file. If so, direct access optimization cannot be defined for L3/L9 commands.
Cache secure file	If the file is password protected, but direct access caching is still required, then set this parameter as 'Y'. Use of secure file caching is not recommended.
Password for secure file D-A caching	If the file is password protected and direct access caching is still required, and the cache secure file parameter is set to 'Y', then the password needs to be given here. Use of this parameter is not recommended.
Pacing:	Controls the rate at which housekeeping is performed for this file.
Optimization Summary	The current direct access and read-ahead optimization settings for each Adabas command used for this file. Optimization can be defined for the following commands: ■ direct access: L1, L3, L9, S1, S2 ■ read-ahead: L1, L2, L3, L9, S1, S2, S8, S9 Note: Sx commands are generally followed by L1 commands in order to retrieve subsequent records. Although it is the subsequent L1 commands that benefit from read-ahead optimization, control is through the initiating Sx command.

Use PF5 to commit all changes. Use PF3 to exit without applying any changes.

Use PF10 and PF11 to modify the direct access and read-ahead optimization parameters as described in the following sections:

- Direct Access Optimization Parameters
- Read-Ahead Optimization Parameters

Direct Access Optimization Parameters

The following screen is displayed when you press PF10 from the File Optimization Parameters screen:

```

15:42:29      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****      2006-03-14
              - File Optimization Parameters for: A8P17004 -              F11220MB

File: 9      DBID: 17003   SVC:                Last Modified: 2006-03-13 By: UKRPE

Start Time (HH:MM):  _____ End Time: _____      Update Sensitivity: R Record
Initial Status:      ON      Set Limit (k): 0
Set Id Length Limit: 0      RB Length Limit: 0      Set Concurrency: 0
Expanded File:      N      Cache secure file: N      Pacing: 0
Password for secure file DA-caching (not recommended):
----- Direct Access Optimization -----
              On/Off      Except for:      Field level overrides
L1 Get/Read by ISN  ON
L3 Read Logical      OFF      Now Optimizes  AA  AB  _ _ _ _ _
L9 Histogram        OFF
S1 Find Records      ON      Now Excludes  BB  _ _ _ _ _
S2 Find Sorted      OFF
              _ _ _ _ _

PF11 to Modify Read-ahead

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit      Upd   Look      File  Back  R-a   Menu

```

Field	Description
Command	Adabas read or query command (L1/L3/L9/S1/S2).
On/Off	Indicates whether or not optimization is to be in effect for the command. In the screen example, L1 commands (all fields), L3 commands (for fields AA nd AB only) and S1 commands (excluding S1 commands in which field BB is used as the primary descriptor) are to be optimized. The default is OFF.
Except for	The comments Now Optimizes and Now Excludes are displayed when the Enter key is pressed to illustrate the effect of field level overrides.
Field level overrides	Used to include/exclude certain fields from optimization. In the screen example, L1 commands (all fields), L3 commands (fields AA nd AB only) and S1 commands (excluding field BB) are to be optimized.

Use PF5 to commit all changes. Use PF3 to exit without applying any changes.

Read-Ahead Optimization Parameters

The following screen is displayed when you press PF11 from the File Optimization Parameters screen:

```
15:45:35      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-03-14
              - File Optimization Parameters for: A8P17004 -                      F11220MC

File: 9      DBID: 17003      SVC:      Last Modified: 2006-03-14 by: UKRPE

Start Time (HH:MM):  _____ End Time: _____
Initial Status:      ON
Expanded File:      N

----- Read-ahead Optimization -----
L1 Read by ISN      On/Off      Except for:      Field level overrides
L2 Read Physical    ON
L3 Read Logical     OFF      Now Optimizes    AA  _ _ _ _ _
L9 Histogram        OFF
S1 Find Records     ON      Now Excludes   CC  _ _ _ _ _
S2 Find Sorted      OFF
S8 Process ISN List OFF
S9 Sort ISN List    OFF

PF10 to Modify Direct Access

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

Read-Ahead Optimization Parameters

Field	Description
Command	Adabas read or query command (L1/L2/L3/L9/S1/S2/S8/S9).
On/Off	Indicates whether or not Adabas Fastpath optimization is to be in effect for the command. In the screen example, L1 commands, L2 commands, L3 commands (only when field AA is used as the primary descriptor) and S1 commands (excluding S1 commands in which field CC is used as the primary descriptor) are to be optimized. The default is OFF.
Except for	The comments Now Optimizes and Now Excludes are displayed when the Enter key is pressed to illustrate the effect of field level overrides.

Field	Description
Field level overrides	Used to include/exclude certain fields from optimization. Field overrides are not applicable for L1/L2 commands. In the screen example, L1 commands, L2 commands, L3 commands (only when field AA is used as the primary descriptor) and S1 commands (excluding S1 commands in which field CC is used as the primary descriptor) are to be optimized.

Use PF5 to commit all changes. Use PF3 to exit without applying any changes.

Client Runtime Controls

Selecting option 3 from the Parameter Maintenance screen or entering 1.3 on a command line displays the Client Runtime controls screen:

```

11:33:50      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
                - Client Runtime Controls -                               U11300M1
                                                Reposition to Type: _____
                                                Name: _____

                        Client Controls
C Type      Name      AFP   AVI   ATM   COR      Comments
- CICS (DTR) CICTDTR                Y
- Batch      RPE***** Y                Y
-            AFPJA      Y                Y      Overrides
-            AFPJB      Y                Y
- TSO        UKRP***** Y                Y
-            UKRPE      Y                Y

Mark with Display,Expand,Modify,Purge,Rename,Copy,Overrides,Information

End of List
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit  Refr                                Add  Prods Menu

```

Maintain Client Runtime Controls

The following information is provided:

Field	Description
C	Option code (display, modify, purge, rename, copy). For more information on the Modify function, see Maintaining Client Runtime Controls .
Type	The job type.
Name	The control name. For non-DTR or API type, this will be the same as the job name.
AFP AVI ATM COR	Shows which products have Client Runtime controls defined.
Comments	Highlights existence of Session Overrides or Site Information (Info).

Press PF10 to add a new job.

Press PF11 to switch between products for maintenance of client runtime controls.

Adding Client Runtime Controls

When you press PF10 on the Maintain Job Parameters screen, the following window is displayed for adding a new job definition:

```
11:45:54      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
              - Add Client Runtime Control -                          U11310M1

Select (mark one) :
      _ Batch
      _ COM-LETE
      _ CICS (DTR - Dynamic transaction routing)
      _ CICS (Standard)
      _ IMS (DTR)
      _ UTM (DTR)
      _ TSO
      _ CMS
      _ TIAM
      _ more choices for type or
      _ API controlled

Command ==>
```



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

Adabas System Coordinator runtime controls will then be required (see the Adabas System Coordinator documentation for further details).

```
12:33:58      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
                - System Coordinator Runtime Controls -                U11310M5

                                Operation mode (mark one):
Type: TSO                                Use normal autodetect approach: X
Name: UKRRRR__                        Enable COR even if no products: _
                                Disable all products including COR: _

General Settings
    Estimated Client Sessions: 2_____ API runtime overrides..: N (Y/N)
    Memory pool extents (k)..: 256_

    Maximum idle time (sec)..: _____

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

Refer to the Adabas System Coordinator documentation for more information.

The group name will then be required.

```
12:36:08      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
                - Adabas Fastpath Runtime Controls -                U1132FM2

Name: UKRRRR
Type: TSO

Fastpath ON/OFF for Job: ON

Using Group Name: _____ (Leave empty to select)

Please add Job Parameter details for Fastpath
Command ==>
```

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           Exit           Upd                               Menu

```

Normally, the absence of client runtime controls for a job implies that optimization is not applied. Thus, you can implement optimization gradually by defining only specific jobs to receive optimization.

Alternatively, this can be reversed. Client runtime controls can be defined for default jobs so that optimization is applied to all jobs of a specific category. Then, you can specify only the jobs that are not to be optimized and those that differ from the default.



Note: A specific job definition overrides any wild card job definitions or any default definition.

Maintaining Client Runtime Controls

To maintain client runtime controls, on the client runtime controls screen, enter the option code m next to the job for which parameters are to be maintained. In the sample screen shown below, the job parameters for batch job KM27WD are displayed.

The following screen will be displayed:

```

17:44:06 ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****          2006-05-19
              -  Adabas Fastpath Runtime Controls  -                      F11320M1

Name: KM27WD                                     Last Modified: 2006-03-19
Type: Batch                                       by Userid: UKSJU

System Coordinator
(Buffer) Group Name.: SYSCO33                     Fastpath ON/OFF: ON

Job End Stats.....: N                           Direct Access...: ON

Read-ahead Optimization Control: BAT               Command Time...: 00000000 (Hex.)

Read-ahead Memory Limit(k).....: 0

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

```

Detailed Client Runtime Controls

Parameter	Description
FASTPATH ON/OFF	If OFF is specified, Adabas Fastpath optimization will be not be performed for this job.
Job End Statistics	If Y is specified, Adabas Fastpath performance information will be sent to the operator console when a job ends.
Direct Access	If OFF is specified, no direct access optimization will be performed for the job, without regard to other parameters.
Read-Ahead Optimization Control	If OFF is specified, no read-ahead optimization will be performed. In addition, you can choose between the read-ahead factor algorithms for TP monitors (TP) or for batch (BAT). While both algorithms accelerate the factor as the sequence length increases, the batch algorithm accelerator is faster than the one for TP monitors. Normally, the default setting is the most efficient.
Read-Ahead Memory Limit	Used to restrict the memory allocated to the job for read-ahead optimization.

Specifying Overrides to Client Runtime Controls

Overrides to the base-level client runtime controls may be specified. This provides the possibility for a greater granularity of control, allowing controls to relate specifically to particular logins, job steps or transactions.

Enter 'O' next to a job which already has AFP client controls in the Client Runtime Controls screen.



Note: Not all job types will support overrides.

Then enter PF10 to add some client runtime control overrides.

The following screen will be displayed:

```

15:54:06      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
              -   Add Client Runtime Control Override   -                  U11381M1

Type: Batch           Name: BLAH1

Select the override type ....: _ Login id
(mark one)                X Stepname

and specify the override name: AFPTEST1

```

```

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

```

In the example an overrides to a job of type batch is being created, for a specific step.

The following screen will be displayed:

```

15:55:56      ***** A D A B A S   FASTPATH SERVICES 8.1.2 *****      2006-06-09
              - Client Runtime Controls Override Summary -                U11380M1

Type: Batch           Name: BLAH1

C Type           Name      AFP    AVI    ATM    COR           Comments
_ Stepname       AFPTEST1
                  *Added (empty)

Mark with Display,Modify,Purge,Rename,Copy,Information

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

```

Select M to modify the override client runtime controls.

The following screen will be displayed:

```

15:59:56      ***** A D A B A S   FASTPATH SERVICES 8.1.2*****      2006-06-09
              - Adabas Fastpath Runtime Controls -                      U1138FM1

Control Type : Batch          Name: BLAH1          Last Modified: 2006-04-05
Override Type: Stepname      Name: AFPTEST1        by Userid: UKRPE

      System Coordinator
      (Buffer) Group Name.: RPEGRP4          Fastpath ON/OFF: ON

      Job End Stats.....: N                Direct Access..: ON

      Read-ahead Optimization Control: BAT    Command Time...: 00000000 (Hex.)

      Read-ahead Memory Limit(k).....: 0

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

These runtime controls may be modified and saved using PF5.

In the Client Runtime Controls screen 'Overrides' will appear in the comments.

These overrides will now apply in preference to the base-level controls for the specific login, job step or transaction.

5

Buffer Statistics

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▪ System Job Information	52

This section describes how to obtain and use the buffer statistics available for the active Adabas Fastpath buffer.

Buffer Statistics and Interaction Menu

Active Fastpath buffers can be monitored and controlled by selecting option code 2 on the Online Services main menu or by entering the command 2 on the command line.

The Buffer Statistics and Interaction menu is then displayed.

```
17:40:46      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
              - Buffer Statistics and Interaction -                                F12000M1

              Code   Service
              ----   -
              1      Buffer Information
              2      Database and File Information
              3      Optimized Job Information
              4      System Job Information
              .      Exit
              ----   -
Code ..: _

      ABM Node ID: 33      SYSCO33
      Status: Active
      Started Feb  4,2003 at 12:56

      Job Connection Status: Connected to SYSCO33

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

Buffer Statistics and Interaction

The following fields are provided:

Field	Description
Code	Option code. The following options are available: 1: display buffer information 2: display database and file information 3: display optimized job information 4: display system job information
ABM Node ID	The Node ID for the buffer being displayed Note: You can display buffer information for a different Node ID by entering the corresponding Node ID in this field. Note: You can enter a Node ID and press Enter without selecting a code to check the validity of the node.
Status	Indicates whether or not the buffer is active and when it was last started.
Job Connection Status	The FASTABM/System Coordinator group member to which this job is connected.

Buffer Information

Selecting option code 1 on the Buffer Statistics and Interaction screen invokes the General Information screen.



Note: You can also access this screen by entering 2.1 on the command line.

```

17:49:00 ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****          2006-05-19
                - General Information -                               F12100MA

Buffer Type: Global      Name: SYSC033          SVC:  240  DB:  33
Connected to:                                     Buffer Status : Active
Started:   Feb  4,2003   at: 12:56             Ave Memory Val: 12
Address:   099D3000 Size(k): 1024              Session Number: 111

----- Buffer Statistics -----

Access Type          Attempts  (13%) <-----Successes  (66%)

Read-ahead:           3,586  (10%)                2,892  (80%)
Direct:               1,291   (3%)                 342  (26%)
RCs:                   49   (0%)                   49   (3%)
Excluded:            28,325 (87%)

```

Total:	33,251 (100%)	3,283 (9%)

Command ==>		
Enter-PF1---	PF2---	PF3---
PF4---	PF5---	PF6---
PF7---	PF8---	PF9---
PF10--	PF11--	PF12
Help	Exit	Refr
Serv	Excl	Parm
Zero	Node	Menu

General Information

The first section of this screen provides general information for the buffer. The following information is provided:

Field	Description
Buffer Type	The buffer type (global, member).
Name	The buffer name.
SVC	The Adabas SVC used for this buffer.
DB	The Adabas database for which this buffer is used to provide optimization.
Connected to	The job to which the buffer is connected.
Buffer Status	Indicates whether or not the buffer is currently active.
Started	The time at which the buffer was last started.
Ave Memory Val ... Session Number	These fields are reserved for Software AG use.

The next section provides the buffer statistics. The following information is provided:

Field	Description
Access Type	Attempts: the percentage of optimization attempts (optimization attempts divided by total number of commands). Successes: the percentage of successful optimization attempts (successful optimization attempts divided by number of optimization attempts).
Read-Ahead	Attempts: the number of read-ahead optimization attempts, and the attempt percentage (read-ahead optimization attempts divided by total number of commands). Successes: the number of successful read-ahead optimization attempts, and the percentage of successful attempts (successful read-ahead optimization attempts divided by read-ahead optimization attempts).
Direct	Attempts: the number of direct access optimization attempts, and the attempt percentage (direct access optimization attempts divided by total number of commands). Successes: the number of successful direct access optimization attempts, and the percentage of successful attempts (successful direct access optimization attempts divided by direct access optimization attempts).

Field	Description
RCs	Attempts is always equal to successes. This is the number of optimized RCs that immediately followed a direct access command (without any intervening "next" commands).
Excluded	Attempts: the number of commands which were excluded from optimization, and percentage (number of excluded commands divided by total number of commands). Note: For more information on excluded attempts, use PF6.
Total	Attempts: the total number of commands encountered by Adabas Fastpath. Successes: the total number of successful optimization attempts, and the percentage of successful attempts (successful optimization attempts divided by total number of commands).

Pressing PF6 from any of the buffer information screens displays the Excluded Command Analysis screen:

```

18:42:31  ***** A D A B A S  FASTPATH SERVICES 8.1.2  *****                2006-06-14
          -   Excluded Command Analysis   -                                F12100ME

          Buffer: Global A8P17004 Node Id: 17004 **

Statistics for commands that have optimization potential but were
unable to be optimized:

          Unsuitable command type:                        1609
          Disqualified:                                    26684
          Optimization was disabled:                       3
          Multi-fetch was already set:                      0
          Command details exceed Set-id limit:              0
          Record Buffer exceeds the limit:                   41


Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit  Refr  Serv      Gen      Parm  Zero  Node  Menu

```

Excluded Command Analysis

This screen displays the following information:

Information	Description
Excluded - Reasons	The total number of commands excluded from optimization for the listed reasons. For more information, see Excluded Commands.

 **Note:** This same analysis can be displayed for jobs, databases, and files.

Pressing PF9 from any of the buffer information screens invokes the General Parameters screen:

Parameter Display

16:49:32 ***** A D A B A S FASTPATH SERVICES 8.1.2 (I001) ***** 2006-10-09				
- General Parameters - F12100MF				
Buffer: Global ICFDCOR1 Node ID: 650				
		Initial		Commands
Main Parameters	Value	Allocation	Peak Usage	Ignored
Size(k)..Min: 2047	2048	2047	43%	
Maximum Jobs:	12		1	0
RB Length Limit:	2048			0
Set Length Limit:	1024			0
Other Parameters	Value			Value
Default pacing rate:	10	Set Concurrency:		2
Freespace Index Entries:	512	Average Item Size:		256
Log every n minutes:	60	Keep for n days:		30
Autorestart:	Y	Restart every n Hrs:		4
Restart Time:	08:00	Synchronous Remote Updates:	Y	
Direct Access:	ON	Read-ahead Processing:		ON
FIND SX/L1:	ON	READ PHYSICAL L2:		ON
READ LOGICAL L3:	ON	HISTOGRAM L9:		ON
Command ==>				
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---				
Help Exit Serv Excl Gen Node Menu				

For description and use of these parameters, see section Adabas Fastpath Parameters.

The following PF keys are available throughout the series of buffer information screens:

PF Key	Name	Function
PF4	Refr	Refreshes the statistics
PF5	Serv	Invokes the function Asynchronous Buffer Services
PF5	Parms	Displays the file parameters for this buffer
PF6	Excl	Displays the Excluded Command Analysis screen
PF6	Look	Invokes AFPLOOK
PF7	Gen	Reverts to the General Information screen
PF9	Parm	Displays the General Parameters screen
PF9	More	Displays the next file or job detail display
PF10	Cntl	Displays details of the master control set for the file
PF10	Conc	Displays set concurrency information
PF10	SysJ	Toggles from the User Job Summary to the System Job Summary screen
PF10	UserJ	Toggles from the System Job Summary to the User Job Summary screen
PF10	Zero	Resets the display counts to zero and automatically refreshes
PF11	Node	Displays the Buffer Statistics menu

Database and File Information

Selecting option code 2 on the Buffer Statistics and Interaction screen, invokes the Database Summary screen.



Note: You can also access this screen by entering 2.2 on the command line.

For each database, a summary of activity is displayed as shown on the following example screen:

10:25:30		***** A D A B A S FASTPATH SERVICES 8.1.2 *****					2006-05-19	
		Database Summary from Global SYSC033 Node ID 33					F12200MA	
Buffer Session: 111		Started: Feb 4, 2003 12:56		Size(k): 1024				
C	DB SVC	Attempts	Optimized	Set Usage(k)	Status			
—	19 240				DB Down			
—	198 240	5607	3774	114	Remote Optimizing			
Totals:		5607 100%	3774 100%	114 100%				

```
Mark with F(file),D(etail),S(ervices)
```

```
Command ==>
```

```
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
```

```
Help          Exit  Refr
```

```
Node  Menu
```

Database Summary

The following information is provided on this screen:

Field	Description
Buffer Session	The buffer session number.
Started	The time at which the buffer was last started.
Size	The memory allocation for the buffer.
C	Option code. The following options are available: d: display detailed database information f: display file summary information s: perform database service (stop/start optimization).
DB	The Adabas database.
SVC	The Adabas SVC.
Attempts	The total number of optimization attempts.
Optimized	The total number of successful optimization attempts.
Set Usage	The number of direct access sets used.
Status	The status of the database.

Database Services

If the option code *s* is selected for a database, the following window is displayed:

```
10:27:51                2006-05-19
                        F12200MC
```

```
Stop/Start Optimization
```

```
for: Database 198
```

```
  S Stop Optimization
```

```
  R Start Optimization
```

```
  . Exit
```

```
Code...:
```

```
Command ==>
          PF1 Help    PF3 Exit
```

Database Services

Using this window, you can stop/restart optimization for a database.

If database optimization is stopped, no further optimization occurs for its files and sets. In addition, all direct access data is removed from the Adabas Fastpath buffer for sets belonging to files within this database.



Note: A similar service is available at the file and file set levels.

Detailed Database Information

If the option code d is selected for a database, the Database Details screen is displayed.

This screen contains a performance analysis for the selected database.

```
10:29:44  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****          2006-05-19
          Database Details from Global  SYSCO33 Node ID 33          F12200MB

          Database: 198    SVC: 240

----- Optimization Summary -----
Access Type          Attempts  (98%) <-----Successes  (67%)

Read-ahead:          3,676  (64%)          2,938  (79%)
Direct:              1,953  (34%)          853   (43%)
RCs:                  53    (0%)           53    (2%)
Excluded:             31    (0%)

Total:                5,713 (100%)          3,844  (67%)

-----
Updates:              11   Over-reads:          91   (3%)

Status 1: 40 0C 20 10 Bad Response:    Lock: 00000000 DBE Addr: 099F07C0
ADABAS Vers: 811      Hex: 07010200    Location: 040000FF
DBID from GCB: 198    Nuc ID: 198

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

Database Details

The first section of this screen (Optimization Summary) provides optimization statistics for this database. This information is provided in the same format as that provided at the buffer level (see section [Buffer Information](#)). The statistics shown at the database level are exclusively for commands that are eligible for optimization. The excluded count therefore differs from the buffer level count.

The second section of this screen provides the following information:

Field	Description
Updates	The number of update commands processed for this database.
Over-reads	The number of read-aheads performed but not needed by the application, and the percentage of non-needed over-reads to the number of successful read-aheads. Non-needed over-reads represent overhead that may reduce the effectiveness of read-ahead optimization. In general, over-reads should not exceed 25% of read-ahead successes.
Status ... Nuc ID	These fields are reserved for Software AG use.

Excluded Command Analysis

Pressing PF6 on the Database Details screen displays the excluded command analysis for the selected database:

```
18:49:31  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****          2006-06-14
          Database Details From Global A8P17004 Node Id 17004 **          F12200MG
```

```
Statistics for commands that have optimization potential but were
unable to be optimized:
```

```
Unsuitable command type:          0
Disqualified:                     0
Optimization was disabled:        4
Multi-fetch was already set:      0
Command details exceed Set-id limit: 0
Record Buffer exceeds the limit:   86
```

```
Command ==>
```

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help           Exit  Refr  Serv           Gen           Parm  Zero  Node  Menu

```

Excluded Command Analysis

The information is provided in the same format as that provided at the buffer level (see section [Buffer Information](#)).



Note: A similar analysis can be displayed from the file detail screen.

Summary File Information

If the option code `f` is selected for a database, the File Summary screen is displayed.



Note: You can also access this screen by entering 2.2.1 on the command line.

This screen displays a summary of activity for each file in the selected database.

```

10:32:21      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
              File Summary from Global  SYSCO33 Node Id 33                      F12210MA

              Database: 198      SVC 240

C   File           Attempts           Optimized           Set Usage(k)           Status
-   -             -
-   7              3674 (64%)          2536 (65%)           15 (13%)                Optimizing
-   19             2051 (36%)          1347 (35%)           98 (86%)                Optimizing

Totals:              5725 100%          3883 100%           114 100%
Mark with D(etail),F(ile Sets),S(ervices)

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

```

File Summary

The following information is provided:

Field	Description
C	Option code. The following options are available: d: display detailed database information d: display detailed file information f: display file set summary s: perform file service (stop/start optimization)
File	The Adabas file number.
Attempts	The total number and percentage of optimization attempts.
Optimized	The total number and percentage of successful optimization attempts.
Set Usage	The number and percentage of direct access sets used.
Status	The status of the file (optimizing or not optimizing).

Detailed File Information

If option code d is selected on the File Summary screen, the File Details screen is displayed.

This screen contains optimization performance information for the selected file.

```

10:33:26  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
          File Details from Global  SYSCO33 Node Id 33                      F12210MB

          Database: 198   SVC 240 File: 7

----- Optimization Summary -----
Access Type      Attempts  (99%) <-----Successes  (69%)
Read-ahead:      2,921  (79%)                2,508  (85%)
Direct:          740   (20%)                  15    (2%)
RCs:              13   (0%)                  13    (1%)
Excluded:         12   (0%)
Total:           3,686 (100%)                2,536  (68%)

-----
Updates:                                Over-reads:          57   (2%)

Set Limit(k): 1024                      Update Sensitivity: R
Set Id Length Limit: 1024  RB Length Limit: 2048  Set Concurrency: 2
Status: 00 D4 Last RC:      Next Event: 0:00      Addr: 099F29C0

Command ==>

```

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help      Exit  Refr      Excl      More  Zero  Node  Menu

```

File Details

The first section of this screen (Optimization Summary) provides optimization statistics for the file. This information is provided in the same format as that provided at the database level.

The second section of this screen provides the following information:

Field	Description
Updates	The number of update commands processed for this file.
Over-reads	The number of read-aheads performed but not needed by the application, and the percentage of non-needed over-reads to the number of successful read-aheads. Non-needed over-reads represent overhead that may reduce the effectiveness of read-ahead optimization. In general, over-reads should not exceed 25% of read-ahead successes.
Set Limit ... Set Concurrency	The current settings for various file optimization parameters. For a description of each parameter, see the section Adabas Fastpath Parameters.
Status ... Addr	These fields are reserved for Software AG use.

Pressing PF9 invokes the second File Details screen. This screen shows whether or not optimization has been defined for the Adabas command/descriptor pairs which are used to access the file.

```

10:37:21  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****      2006-05-19
          -  File Details for File 19 DBID 198 SVC 240  -          F12210ME
                    Expanded File N

                On/Off Adabas Field Overrides      .....Direct Access.....
                L1      On
                L3      On
                L9      On
                S1      On
                S2      On

Over-reads    Default Adabas Field Overrides      .....Read-ahead.....
                L1      On
                L2      On
34            L3      On
                L9      On
                S1      On
                S2      On
                S8      On
                S9      On

Command ==>

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
HelpExitExclGenNodeMenu

File Details 2



The two sections of the screen provide optimization information for direct access and read-ahead commands respectively.

The following information is provided:

Field	Description
Command	Adabas command.
On/Off	Indicates whether or not optimization is in effect for the command.
Adabas Field Overrides	Indicates whether or not Adabas field overrides have been defined.
Over-reads	The number of read-aheads performed but not needed for the command. Non-needed over-reads represent overhead that may reduce the effectiveness of read-ahead optimization. In general, over-reads should not exceed 25% of read-ahead successes.

File Set Summary Information

If the option code f is entered for a file on the File Summary screen, the Set Summary screen is displayed. This screen contains summary information for each Adabas command/descriptor pairing:

-  **Note:** You can also access this screen by entering 2.2.2 on any command line.
-  **Note:** You can also access this screen using PF9 from AFPLOOK File Details or File Parameter Maintenance. In addition, this screen gives hot key access to AFPLOOK (PF6) and File Parameters (PF5). Pressing PF10 displays details of the master control set for the file.

10:38:27	***** A D A B A S FASTPATH SERVICES 8.1.2 *****	2006-05-19
	Set Summary from Global SYSCO33 Node Id 33	F12220MA
Database: 198 SVC 240 File: 19		
Number of Items.... Memory (k).... Efficiency Ratings		
C CC De Sets	In Use Peak Optimized	In Use Peak Set Memory Growth
_ L1	2 5 24 25	5 27 9 5 0.13
_ L3 KK	3 10 32 75	12 39 5 6 0.15
_ S1 KK	2 19 40 772	2 21 9 386 10.15
_ L3 KK	1 8 5	9 5

Mark with D(etail),F(ull Set List)

Command ==>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
 Help Exit Refr Parm Look Cntl Node Menu

File Set Summary List

The following information is provided:

Field	Description
C	Option code. The following options are available: d: display detailed set information f: display full set list
CC De	The Adabas command/descriptor pair for which information is provided.
Sets	The number of sets that have been added together to make the summary.
Number of Items	The number of items (records) in use at the present time, the peak number of items used, and the number of times items in the set were used for optimization.
Memory	The memory in use to hold the data in the sets (in k) and the peak memory usage for all sets.
Efficiency Ratings	<p>Set Efficiency. The nominal CPU effort needed to maintain the set(s) (for example, adding, removing, overwriting) versus the CPU effort saved by optimization. The rating is on a scale of 0 to 9, where 0 means that the set(s) are estimated to use more CPU in maintenance than it gains by optimization.</p> <p>Memory. The number of commands optimized for the set(s) divided by the memory used. The higher the rating (maximum 9999), the better the value of the set(s) in terms of memory usage.</p> <p>Growth Rating. A ratio of the memory value rating to the average memory value for the whole Adabas Fastpath buffer. A rating of 1.00 is average. Adabas Fastpath uses this rating to increase set expansion for sets above average (> 1.00) and to restrict expansion for below average sets.</p>

File Set List

If the option code f is selected for a command/descriptor pair on the File Set Summary screen, the Set Summary screen will be displayed.

This screen contains an activity summary for each direct access set used by the selected command/descriptor pair.

```

10:39:56  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
          Set Summary from Global SYSCO33 Node Id 33                        F12230MA

          Database: 198   SVC 240 File: 19   CC: L3 De: KK

          Number of Items.....      Memory (k).....  Efficiency Ratings
          C  SSID      In Use      Peak  Optimized  In Use      Peak  Set Memory Growth
          -   3          4          16    45         4          19    5    11    0.28
          -   5          6           8    30         7          10    7     4    0.10
          -   7           8           8           10

Mark with D(etail),S(start/stop)

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

```

File Set List for Command/Descriptor

The following information is provided:

Field	Description
C	Option code. The following options are available: d: display detailed set information s: start/stop optimization for the set
SSID	SSID (Short Set ID) is a number used internally to identify different sets. The lower the number, the older the set.
Sets ... Ratings	The remaining fields on this screen are as described in the previous section File Set Summary .

Detailed Set Information

The Set Detail screen can be invoked by selecting the option code d for a set or pressing PF10 on the File Set Summary screen:

```

10:40:31  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
          Set Detail from Global SYSCO33 Node Id 33                          F12230MB

          Database: 198   SVC 240 File: 19

Command: L3      Primary Descriptor: KK                      SSID: 3

Efficiency Ratings:  Set:  5 Memory:          11 Growth:          0.28
Items - Optimized:    45 Added:             15 Collisions:
      Current:         4 Peak:              5   Free:              12
      Removed:        11 RLU:              11 Overwrites:
                                           Set Resets:

Memory - Used(k):      4 Peak(k):          19 Free(k):           1
Status:  00 C8 0E 08      Expansion:       1 Acc.Mask Entries   1
Used      FB:   27 RB: 1056 Indexes:        3 Address:          09A00234
Lengths:  SB:    8 VB:  32 Code:           Lock:          00000000
SetID Length:  47
Reject:
SB KK,32,B.
FB KK,032,B,DD0001-0016,064,B.

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

```

Set Detail

The following information is provided:

Field	Description
Efficiency Ratings	<p>Set Efficiency. The nominal CPU effort needed to maintain the set(s) (for example, adding, removing, overwriting) versus the CPU effort saved by optimization. The rating is on a scale of 0 to 9, where 0 means that the set(s) are estimated to use more CPU in maintenance than it gains by optimization.</p> <p>Memory. The number of commands optimized for the set(s) divided by the memory used. The higher the rating (maximum 9999), the better the value of the set(s) in terms of memory usage.</p> <p>Growth Rating. A ratio of the memory value rating to the average memory value for the whole Adabas Fastpath buffer. A rating of 1.00 is average. Adabas Fastpath uses this rating</p>

Field	Description
	to increase set expansion for sets above average (> 1.00) and to restrict expansion for below average sets.
Items ...	Optimized: the number of successful optimizations from data records in the set. Added: the number of times a data record was inserted into the set. Collisions: the number of times a set was inaccessible because concurrency for the set was exhausted. Current: the number of data records currently in the set. Peak: the highest number of data records which have been in the set. Free: the number of free data item areas currently available. Removed: the number of data records which have been removed from the set. RLU: the number of times an individual data record was removed from the set as a result of a database modification command (for example, update, insert, delete). Overwrites: the number of times a new data record was inserted by overwriting an existing record because no free area was available. Set Resets: the number of times a complete set was emptied.
Memory	The memory in use to hold the data in the sets (in k) and the peak memory usage for all sets.
Status ... Reject	These fields are reserved for Software AG use.

Press PF10 to display set concurrency information.

Job Information

Selecting option code 3 on the Buffer Statistics and Interaction menu, displays the Job Summary screen.



Note: You can also access this screen by entering 2.3 on the command line.

This screen displays a summary of activity for each job.

14:37:30 ***** A D A B A S FASTPATH SERVICES 8.1.2 - DEMO *****						2006-05-19
- Job Summary for Global SYSCO33 Node ID 33 -						F12300MA
Buffer Session: 3		Started: May 19, 2006 13:59		Size(k): 4096		
C Job Name	Number	Job Type	Attempts	Optimized	Memory(k)	Status
_ DAEFCODE	C30694	COM-LETE	258	194		Active
-						Unused
-						Unused
-						Unused
-						Unused
-						Unused
-						Unused

```

- Unused
- Unused
- Unused
- GXNDGP72 B41763 Batch Disconnected
- GXNDGP72 B41766 Batch Disconnected

Mark with D(etail),S(ervices)

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

```

Optimized Job Summary

The following information is provided:

Field	Description
C	Option code. The following options are available: d: display detailed job information s: stop/start optimization
Job Name Number Type	The job name, job number and job type.
Attempts	The number of optimization attempts.
Optimized	The number of successful optimization attempts.
Memory	Memory used by the job.
Status	The status of the job (active, unused, disconnected). Note: Status Disconnected indicates that a job is no longer being optimized, usually because it has completed. The job details can still be displayed until the job area is reused.

Press PF10 to display the System Job Summary screen.

Detailed Job Information

Selecting option code d for a job on the Job Summary screen displays the Job Details screen.

```

10:52:46  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
          - Job Details from Global SYSCO33 Node ID 33 -                F12300MB

Job: DAEFCODE Type: COM-LETE Number: C30694

----- Optimization Summary -----
Access Type      Attempts   (4%) <-----Successes   (73%)

```

Read-ahead:	85	(1%)	45	(52%)
Direct:	173	(3%)	143	(82%)
RCs:	6	(0%)	6	(3%)
Excluded:	4,161	(96%)		

Total:	4,425	(100%)	194	(4%)

Memory(k):	RA Memory:	Over-reads:	6	
Status: 00 00 00 00	System ID: DAEFCODE	Area Address:	099E28C8	
Command ==>				
Enter-PF1---	PF2---	PF3---	PF4---	PF5---
PF6---	PF7---	PF8---	PF9---	PF10---
PF11---	PF12			
Help	Exit	Refr	Excl	More
		Zero	Node	Menu

Job Details

The first section of this screen (Optimization Summary) provides optimization statistics for this job. This information is provided in the same format as that provided at the buffer and database level (see section [Buffer Information](#)).

The following additional fields are displayed:

Field	Description
Memory	The total memory, in kilobytes, of all memory classes used for this job.
RA Memory	The total memory, in kilobytes, of all read-ahead areas allocated to this job.
Over-reads	The number of read-aheads performed but not needed by this job, and the percentage of non-needed over-reads to the number of successful read-aheads. Non-needed over-reads represent overhead that may reduce the effectiveness of read-ahead optimization. In general, over-reads should not exceed 25% of read-ahead successes.
Status ... Address	These fields are reserved for Software AG use.

PF9 on the Job Details screen can be used to display the second job detail screen.

15:51:19	***** A D A B A S FASTPATH SERVICES 8.1.2 *****	2006-06-15
	Job Details from Global RDUABM81 Node Id 8004	F12300MC
Job:	UKRPE Type: TSO	Number: U43517
		Started Jun 15,2006 15:00
Job Information-----		
Peak Concurrency...	0	
User Areas:	In Use: 0	Peak: 0
		Recovered: 0
CID Areas:	In Use: 0	Peak: 2

```

Read-ahead Memory Categories-----
Size(k):  4 Peak No: 0      Usage: 89      Failures: 0
           8           0           1           0
          16          0           0           0
          32          0           0           0

Client Runtime
Controls-----
                Job End Stats.: N                Direct Access: ON

Read-ahead Optimization Control: BAT      Read-ahead Limit(k): 0

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

```

Job Details 2


The first section of this screen (Job Information) provides the following information:

Field	Description
Peak Concurrency	The number of command work areas allocated to this job.
User Areas	<p>In Use: the number of user areas currently in use.</p> <p>Peak: the highest number of user areas which have been concurrently in use.</p> <p>Recovered: the number of times an old user area was recovered (reused) to satisfy the requirement for a new user area.</p>
CID Areas	<p>In Use: the number of Command ID areas currently in use.</p> <p>Peak: the highest number of Command ID areas which have been concurrently in use.</p>

The second section (Read-Ahead Memory Categories) provides the following information:

Field	Description
Size(k)	The four sizes available for read-ahead memory allocation from the Adabas Fastpath buffer.
Peak No	The highest number of read-ahead areas, by size, allocated to this job.
Usage	The number of times the size category was used.
Failures	The number of times the size category request could not be satisfied.

The third section contains the current values for the client runtime controls. See the section Adabas Fastpath Parameters for descriptions of these parameters.

 **Note:** The parameter values currently being used by the job are displayed. Once a job is disconnected, these values are reset automatically to the default parameter values.

PF6 can be used to display the Excluded Command Analysis screen as described in the section [Buffer Information](#).

System Job Information

Selecting option code 4 on the Buffer Statistics and Interaction screen invokes the System Job Summary screen.

 **Note:** You can also access this screen by entering 2.4 on the command line.

This screen contains a list of system job areas for the active Adabas Fastpath buffer. This is normally the Asynchronous Buffer Manager task and any database components.

```
10:56:03  ***** A D A B A S  FASTPATH SERVICES  8.1.2  *****          2006-05-19
          System Job Summary for Global SYSCO33 Node ID 33          F12400MA

Buffer Session: 111          Started: May 19,2006 12:56          Size(k):1024

C   Job Name   Number   Job Type   SVC    DB    Nuc ID   Status
-   SYSCO33    C21567    AFPABM
-   NUC193     C21002    AFPADA    254    193    193      Active
-                                     Unused

Mark with D(etail),S(ervices)

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

System Job Summary

The following information is provided:

Field	Description
C	Option code. The following options are available: d: display the Asynchronous Buffer Services menu s: display the Database Component Services menu Note: These services are described in the section Special Services .
Job Name Number Type	The job name, job number and job type.
SVC	The Adabas SVC used for this job.
DB	The Adabas database used for this job. This is the "external" DBID (DBID used by the application program).
Nuc ID	This ID is used by a member of Adabas Parallel/Cluster Services. These services may have "internal" DB numbers.
Status	The status of the job (active, unused).

PF10 can be used to display the Optimized Job Summary screen.

6 Buffer History

This function can be used to display the Adabas Fastpath buffer history information that has been recorded in the Adabas Fastpath configuration file either

- automatically (see the Adabas Fastpath Log Parameter) or
- by using the log function of [Adabas Fastpath Special Services](#).

If history logs are present for more than one buffer, selecting option code 3 from the main menu or entering the direct command 3 from the command line displays the following screen:

```
10:59:34      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****      2006-05-19
                                   - Buffer History -                      F13000MA

                Please mark to select Buffer for History Display

                        _  AFP811A      Global
                        _  SYSCO33      Global

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

Buffer History Selection

Mark the buffer for which history information is to be provided. The following Buffer History Available screen appears:

 **Note:** This is the first screen displayed if history logs exist for only one buffer.

```

11:06:19      ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
              - Buffer History Available for Global SYSCO33 -                      F13100MA

      Buffer  <---Logged at--->  <---Direct Access--->  <---Read-ahead--->
Sel Session  Date      Time      Attempts  Optimized  Attempts  Optimized

___ 42      May 15,2002 12:38 E
___ 43      May 15,2002 12:55 E
___ 44      May 15,2002 15:27 E
___ 45      May 15,2002 16:09 E
___ 46      May 15,2002 17:08 E
___ 47      May 15,2002 17:45 E
___ 48      May 15,2002 17:48 E
___ 49      May 16,2002 11:07 E          144          97          140          80
SS 50      May 16,2002 12:14          147          51          168          96
___ 50      May 16,2002 13:14          193         129          182         104
SS 50      May 16,2002 14:14 E        364         256          360         234
___ 51      May 16,2002 14:27 E

Select using S or an SS pair, Purge using P or a PP pair.
Position to: Jul 25,2002

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

```

Buffer History

This screen displays a line for each log record of the selected (or default) buffer. Each line includes the following information:

Column	Description
Sel	<p>The following option codes can be used to process one or more lines (records) of the log:</p> <p>s: display details for one log record ss: display the difference in statistics between a pair of log records p: purge a single log record pp: purge from the first to the last marked log records t: display trace counts for one record tt: display the difference in trace counts between a pair of logs</p> <p>You must enter the options ss pp tt in pairs. The second element of the pair need not be on the same screen but must be within the same buffer session.</p> <p>Use PF6 to clear all entries in the Select column.</p>
Buffer Session	The buffer session number. Certain operations cannot be performed across sessions.

Column	Description
Logged at Date/Time	The date and time the log was recorded.
E M	E indicates end-of-job. M indicates a special log request using the function Special Services.
Direct Access Read-Ahead	The number of attempted and successful direct access and read-ahead optimizations for each logging period.

Use PF8 to display the next page of log records.

If option code *ss* is marked for a pair of records, the following History Interval screen appears. This screen displays the statistics for the time interval specified in the screen heading.

11:07:11	***** A D A B A S FASTPATH SERVICES 8.1.2 *****	2006-05-19
	History Interval - May 19,2006 12:14 to 14:14	F13110MA
Buffer Type: Global	Name: SYSCO33	SVC: 240 DB: 33
Connected to:		Buffer Status : Active
Started: May 19,2006	at: 11:14	Ave Memory Val: 51
Address: 099CB000	Size(k): 1024	Session Number: 50
----- Buffer Statistics -----		
Access Type	Attempts (46%) <-----	Successes (68%)
Read-ahead:	360 (23%)	234 (65%)
Direct:	364 (23%)	256 (70%)
RCs:	(0%)	(0%)
Excluded:	865 (54%)	
Total:	1,589 (100%)	490 (31%)

Command ==>		
Enter-PF1---	PF2---PF3---PF4---	PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
Help	Exit	Next Excl Gen Buff Parm Menu

History Interval Logs

The information contained on this screen is exactly like the General Information screen available directly from this screen by pressing PF7. The excluded command analysis, buffer memory and parameter screens can also be invoked by pressing PF6, PF8, and PF9, respectively. All of these screens are described in the section [Buffer Information](#).

If, on the Buffer History screen, you marked a record with an s instead of marking a pair, the following screen will appear displaying the statistics at the time the history log was recorded:

```
11:07:11  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
          -  Buffer History - Logged May 19,2006 12:14 -                        F13110MA

Buffer Type: Global      Name: SYSCO33      SVC: 240 DB: 33
Connected to:                               Buffer Status : Active
Started:   May 19,2006   at: 11:14          Ave Memory Val: 51
Address:   099CB000 Size(k): 1024          Session Number: 50

----- Buffer Statistics -----
Access Type           Attempts  (13%) <-----Successes  (46%)

Read-ahead:           168    (7%)                96    (57%)
Direct:               147    (6%)                51    (34%)
RCs:                  (0%)                      (0%)
Excluded:             865   (87%)
Total:                1,865 (100%)                147   (6%)

-----

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

Buffer History

This screen displays the details for a single log record. PF keys can be used to display the next sequential log record until the end of session is found:

PF Key	Displays...
PF5 Next	The statistics from the current log record.
PF10 Next	The difference between the current and previous log records. The effect of this function varies depending on the type of information being displayed. This key can be used to skip from one statistics time slice to the next showing the statistics achieved in that time slice (taking the difference between one time slice and the next rather than simply displaying the details of each time slice).

Other PF keys provide direct access to the Excluded Command Analysis, General Information, Buffer Memory, and Parameter screens, which are described in the [Buffer Information](#) section.

7

Buffer Operation and Reporting (AFPCMD)

■ Using AFPCMD in Online Mode	60
-------------------------------------	----

The function AFPCMD provides operating and reporting functions for the Adabas Fastpath buffer. AFPCMD can be used interactively in online mode or it can be invoked using Natural in batch mode.



Note: This section describes only the basic usage of AFPCMD using Online Services. For a complete description, see the section AFPCMD.

Using AFPCMD in Online Mode

In online mode, AFPCMD can be invoked by:

- selecting option code 4 from the Online Services main menu, or
- by entering the command 4 on any screen command line, or
- by entering AFPCMD on any screen command line.

The Online Printing Facility screen will appear:

```
11:14:31  ***** A D A B A S  FASTPATH SERVICES 8.1.2 *****                2006-05-19
              - On-Line Printing Facility -                                F14000MA
```

Please enter the following to specify the required report:

Command: _____ DISPLAY, LIST, PARMS

Objects: _____ BUFFER, JOB, AFPLOOK, TRACE, DATABASE, FILE, SUMMARY, SET
or ALL

Keywords: _____
(Press Enter to be prompted for the appropriate keywords)

Printer: _____

PC for download via NATURAL CONNECTION to a PC printer or file.

SOURCE for output to the NATURAL source area.

CONNECT for output into a CON-NECT folder.

Valid Name known to COMPLETE, NAF or any spooling system

Command ==>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12

Help

Exit

Menu

Online Printing Facility

You must enter a valid command, object, keywords and printer. To print to PC or a printer, print file 7 must be defined correctly.

You can either enter the keywords or repeatedly press the `Enter` key to be prompted for keywords one at a time. When all keywords are valid, the function is executed and control is returned to this screen.

Refer to the following sections for information on commands, objects and keywords:

- AFPCMD Commands
- AFPCMD Objects
- AFPCMD Keywords

8

Special Services

■ Special Services Menu	64
■ Asynchronous Buffer Services	65
■ Database Component Services	66
■ Local Services	67

This section describes the special services functions provided by Online Services.

Special Services Menu

Selecting option code 5 from the Online Services main menu or entering the command 5 on the command line displays the Special Services menu.

```
11:15:24  ***** A D A B A S  FASTPATH SERVICES 8.1.2  *****                2006-05-19
                                     - Special Services -                        F15000M1

      Code      Service
      ----      -
      1      Asynchronous Buffer Services
      2      Database Component Services
      3      Local SYSAFP Services
      .      Exit
      ----      -
Code ...: _

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

Special Services Menu

The following services are available, and can be invoked using the appropriate option code.

Code	Service	Provides communication facilities for the...
1	Asynchronous Buffer Services	selected active Adabas Fastpath buffer.
2	Database Component Services	database(s) for which Adabas Fastpath has been installed.
3	Local SYSAFP Services	job (a TP monitor, for example) in use when executing the functions.

Asynchronous Buffer Services

Selecting option code 1 from the Special Services menu or entering the command 5.1 on any command line displays the following window:

```

11:15:55                2006-05-19
                        F15100MA

Special Services for
  ABM Node Id: 33      SYSCO33
  Status Active

      R Restart...(Stop/Start)
      S Stop.....(Terminate)
      N Newcopy...(and Restart)
      P Snap
      L Log
      I ABM Information
      Z Zap Information
      . Exit
Code..: _

Command ==>
      PF1 Help   PF3 Exit

```

Asynchronous Buffer Services Menu

Asynchronous Buffer Services communicates with the buffer indicated at the top of the window. If the job is connected to a buffer, that buffer is shown when the window opens. You can override the default buffer by changing the database number to the one defined for the required buffer. All actions are a request to the Asynchronous Buffer Manager (AFPABM) to perform the function.

Option Code	Description
R: Restart	Stop the buffer in an orderly fashion, and then restart it again. Both primary and alternate configuration files (if used) must be available for this operation.
S: Stop	Terminate the buffer in an orderly fashion. Both primary and alternate configuration files (if used) must be available for this operation.
N: Newcopy	Reload the Adabas Fastpath modules for the buffer and every other component connected to the buffer. AFPABM also performs a buffer restart. Both primary and alternate configuration files (if used) must be available for this operation.
P: Snap	Produce a snap dump of the buffer.
L: Log	Write a statistical log to the Adabas Fastpath configuration file.
I: ABM Information	Display general diagnostic information for the Adabas Fastpath buffer job.

Option Code	Description
Z: ZAP Information	Display the numbers of ZAPs that have been applied to the Adabas Fastpath nucleus being used by the Adabas Fastpath buffer job.

Database Component Services

Selecting option code 2 from the Special Services menu or entering the command 5.2 on any command line displays the following window:

```
17:52:34                2006-05-19
                        F15200MA

Special Services for:
  DBID: 0
  SysCo Node: _____

  Z Zap Information
  I Connection Information
  . Exit
Code..: _

Command ==>

PF1 Help  PF3 Exit  PF5 Action
```

Database Component Services Menu

The following fields are provided:

Field	Description
DBID	Database Component Services provides services for the database indicated at the top of the window. This can be any active database for which Adabas Fastpath has been installed. If the function is invoked from the System Job Summary screen as in the above example, the database for which communication is required is already established and is shown on the screen. Otherwise, the database number must be entered.
SysCo Node	The Adabas System Coordinator Node ID. This is only required for clustered databases: <ul style="list-style-type: none">■ If the Node ID is known, a screen follows showing a cluster map for the database.■ If the Node ID is not known, you must enter it in this field.

Field	Description
Option Codes	<p>The following option codes may be used:</p> <p>Z : Zap Information. Displays the ZAPs applied to the Adabas Fastpath nucleus used by the selected database component. See the Zap Information screen as described in the next section.</p> <p>I: Connection Information. Displays connection information between the selected database and the Adabas Fastpath buffer to which the database is connected. See the Connection Information screen as described in the next section.</p>

Local Services

Selecting option code 3 from the Special Services menu or entering the command 5.3 on any command line displays the following window.

Local Services provides service request communication for a local job with the TP monitor in use.

```

11:16:44                                2006-05-19
                                           F15300MA

Special Services for:
  Local Job DAEFCODE

  Z Zap Information
  I Connection Information
  S Job Statistics
  C ReConnect
  D Disconnect from Buffer
  N Newcopy
  . Exit
Code..: _

Command ==>

PF1 Help  PF3 Exit

```

Database Component Services Menu

The following fields are available:

Field	Description
Local Job	The local job for which the request is to be made.
Option Codes	<p>The following option codes may be used:</p> <p>Z: Zap Information. Displays the numbers of zaps that have been applied to the Adabas Fastpath nucleus being accessed from the local job.</p> <p>I: Connection Information. Displays connection information for the job.</p> <p>S: Job Statistics. Displays statistics for the local job when it is not connected to a buffer because read-ahead optimization may be taking place even when the buffer is not active.</p> <p>C: Reconnect. Attempts to connect to a buffer for the local job.</p> <p>D: Disconnect. Disconnects from the buffer for the local job.</p> <p>N: Newcopy. Temporarily disconnects the local job before reloading the Adabas Fastpath modules. Software AG does not recommend using Newcopy from Local SYSAFP Services. The preferred method is to use Newcopy from Asynchronous Buffer Services.</p>

ZAP Information

The following screen is an example of the zap information that can be retrieved from any of the Service options:

[illegible]

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                                Exit                                SysCo                                Menu

```

This information is useful for checking the zaps that have been applied to the Adabas Fastpath modules, as used by the selected service option.

Connection Information

The Connection Status screen, which can be accessed from any of the Service options, displays connection status information:

```

11:18:48 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****                2006-05-19
              - Connection Status Information -                               F1CNXSMA

***** Information Request *****
Status Indicators: 00 1E 00 A0                      Owner: 000000000000000000
Jobname: DAEFCODE  No: C30694   Type: 21   Amode: 80

      Address List: 1018ADB8      Initialization Error:      RC:
      Linker Stub:  1098DEE8      Retry Count: 1000  Limit: 1000
      Connection-0: 10996664      Linker SVC: 254
      Connection-1: 003E8D00      Event:
      Connection-X: 003E54E0      Configuration File:  SVC: 240  DB: 198
      AFPKRN        90B29BB0      FNR: 19
      AFPDEP        00399578      Buffer:  SVC: 240      DB: 33
      AFPCFG        00311218      Poolname:
      Anchor:       099D3000      Pool Address: 00000000
      Session:      099E28C8      User Exit 4 Routine:
      Reserved:     0000000000000000      CLOGIO: 00

This Information Screen may be useful to Software AG Technical Support

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
                                Exit                                CodeI

```

Connection Information Screen

Although this screen is primarily intended for Software AG use to assist in identifying connection problems, some of the following information may be helpful to users.

Field	Description
Linker Stub	Load address of the Adabas Fastpath module that was linked with the Adabas link routine.
AFPKRN / AFPDEP / AFPCFG	Load addresses of the Adabas Fastpath modules. A zero address indicates that the module could not be found.
Anchor	Address of the Adabas Fastpath buffer pool, if it could be located. This address is usually zero if connection could not be made.
Session	Address of the job area (BSA) within the Adabas Fastpath buffer.
Initialization Error	Error code relating to job initialization. Code 10 indicates that a parameter was corrected by the system and should be ignored. Other codes are related to errors detected when reading the Adabas Fastpath configuration file. RC shows the Adabas response code received.

Job Statistics

The Local Job Statistics screen can be invoked by selecting option code s from the Special Services for Local Job window:

```

11:19:30 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****      2006-05-19
                - Local Job Statistics -                          F15310MA

Job: DAEFCODE Type: COM-LETE Number: C30694      Started: May 19,2006 10:02

----- Optimization Summary -----
Access Type      Attempts (100%) <-----Successes (85%)

Read-ahead:      896 (100%)              765 (85%)
Direct:          (0%)                    (0%)
RCs:             (0%)                    (0%)
Excluded:        (0%)                    (0%)

Total:           896 (100%)              765 (85%)

-----
Memory(k): 368      RA Memory:      Over-reads:

Status: 00 1E 00 A0  System Id: DAEFCODE  Area Address: 10996664

Command ==>

```

Enter-PF1---	PF2---	PF3---	PF4---	PF5---	PF6---	PF7---	PF8---	PF9---	PF10--	PF11--	PF12
Help		Exit	Refr								Menu

Local Job Statistics Screen

This screen is useful when the job is not connected to a buffer to show the read-ahead optimization, which can continue even when the buffer is not connected.

The information provided is in the same format as that described in the section [Detailed Job Information](#).

9 Optimization Sampling (APFLOOK)

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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

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 8.1.2 - 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	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. Note: 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 AFPLOOK. In this case, a separate menu screen is displayed so that you can indicate which nucleus is to be used.
DB ID / Status / User	These fields contain: <ul style="list-style-type: none"> ■ the number of the database for which AFPLOOK is currently active. This number may have been carried forward from a previous action. ■ the name of the database job. ■ the AFPLOOK status. ■ the user who started AFPLOOK for the database, and when it was started (date and time).
System Coordinator Node	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.

Because only one AFPLOOK 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 AFPLOOK 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, AFPLOOK is at status *released* : a start can only be invoked when this status is current.
- Once at status *started*, AFPLOOK 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. AFPLOOK 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 8.1.2                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.

Parameter	Description
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 8.1.2 *****					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
—	11					
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 8.1.2 *****						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			
						Prefetch 0
						Excluded 2255
						Spare 0
						No CID 0
						Max.CIDs 0
						Bad Rsp. 0
						Max.Rec.Buff.Len
Total	480804		440	2590506		Direct Acc 1120
Total Commands for File					3071847	Sequential 1120
Command ==>						
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12						
Help		Exit		Refr		Parms
						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 8.1.2  *****                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 8.1.2  *****                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           Reused User Areas:
Max.Files: 64      Files Needed: 21           Max. DE: 32      Overflows:
Max.Users: 100     Peak Users:   9           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
```

APFLOOK Command Summary Display

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

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

10

Protecting AFP Information when using Adabas Utilities

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- Using Adabas Utilities with Previous Versions 84

Using Adabas Utilities with Version 7.4.2

The following Software AG products support automatic control of Adabas Fastpath data when an Adabas utility is operating:

- Adabas Cluster Services Version 7.2.2 (or above)
- Adabas Parallel Services Version 7.4.2 (or above)
- Adabas Version 7.4.2 (or above)

Using Adabas Utilities with Previous Versions

When using Adabas version 7.1, the Adabas Fastpath stop/start function must be used to protect databases and files when an Adabas utility is operating on that database/file.

Databases and files may be protected online using Adabas Fastpath Online Services (SYSAFP) or in batch mode using the Adabas Fastpath tool AFPCMD. The batch job name must be defined as a job parameter linked to the global buffer for which the operation is required.

The commands are as follows:

- For the whole buffer:

```
STOP BUFFER  
RESTART BUFFER
```

- For a database:

```
STOP DATABASE DBID=dbid  
START DATABASE DBID=dbid
```

- For an individual file:

```
STOP FILE DBID=dbid FNR=fnr  
START FILE DBID=dbid FNR=fnr
```