Buffer Statistics Buffer Statistics

# **Buffer Statistics**

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

- Buffer Statistics and Interaction Menu
- Buffer Information
- Database and File Information
- Job Information
- System Job Information

# **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
                       Database and File Information
                 2
                       Optimized Job Information
                 3
                       System Job Information
                 4
                       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
```

#### **Buffer Statistics and Interaction**

The following fields are provided:

Buffer Statistics Buffer Information

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.

Buffer Information Buffer Statistics

```
17:49:00 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****
                                                          2006-05-19
                - General Information -
                                                           F12100MA
   Buffer Type: Global Name: SYSCO33 SVC: 240 DB: 33
   Connected to:
                                       Buffer Status : Active
   Connected to:

Started: Feb 4,2003 at: 12:56

Address: 099D3000 Size(k): 1024

Session Number: 111
  -----Buffer Statistics ------
                        Attempts (13%) <-----Successes (66%)
      Access Type
                           3,586 (10%)
1,291 (3%)
49 (0%)
      Read-ahead:
Direct:
                                                    2,892 (80%)
                          1,291
                                                    342 (26%)
      RCs:
                                                      49
                                                          (3%)
                         28,325 (87%)
      Excluded:
      Total:
                           33,251 (100%)
                                                   3,283 (9%)
 Command ==>
Enter-PF1---PF3---PF3---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:

Buffer Statistics Buffer Information

Field	Description			
Access Type	Attempts: the percentage of optimization attempts (opimization 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).			
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:

Buffer Information Buffer Statistics

```
2006-06-14
18:42:31 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****
                  - 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
                                                            0
          Multi-fetch was already set:
          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
                  Exit Refr Serv
                                          Gen
                                                      Parm Zero Node Menu
```

## **Excluded Command Analysis**

This screen displays the following information:

Information	Description
Excluded -	The total number of commands excluded from optimization for the listed reasons.
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**

Buffer Statistics Buffer Information

16:49:32 ***** A D A B A  Buffer:	- General Pa			2006-10-09 F12100MF
		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 Default pacing rate:	Value 10	Set Concurrer	ncy:	Value 2
Freespace Index Entries:	512	Average Item	Size:	256
Log every n minutes:	60	Keep for n da	ays:	30
Autorestart:	Y	Restart every	n Hrs:	4
Restart Time:	08:00	Synchronous F	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-PF1PF2PF3PF	'4PF5PF6	5PF7PF8	PF9PF10I	PF11PF12
Help Exit	Serv Exc	el Gen	1	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:

```
2006-05-19
10:25:30
           ***** A D A B A S FASTPATH SERVICES 8.1.2 *****
           Database Summary from Global SYSCO33 Node ID 33
                                                                          F12200MA
  Buffer Session: 111
                              Started: Feb 4,2003 12:56
   С
       DB SVC
               Attempts
                                Optimized
                                                Set Usage(k)
                                                                  Status
       19 240
                                                                  DB Down
                    5607
      198 240
                                     3774
                                                         114
                                                                  Remote Optimizing
   Totals:
                    5607 100%
                                     3774 100%
                                                         114 100%
 Mark with F(ile),D(etail),S(ervices)
 Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
                  Exit Refr
                                                                  Node Menu
```

### **Database Summary**

The following information is provided on this screen:

Buffer Statistics Database Services

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.		
С	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:
                            1,953 (34%)
53 (0%)
                           3,676 (64%)
                                                      2,938 (79%)
                                                      853 (43%)
       RCs:
                                                        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
```

#### **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	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:
                                                           0
          Unsuitable command type:
          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
                  Exit Refr Serv
                                                     Parm Zero Node Menu
      Help
                                         Gen
```

#### **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.

Detailed File Information Buffer Statistics

```
2006-05-19
10:32:21
          ***** A D A B A S FASTPATH SERVICES 8.1.2 *****
              File Summary from Global SYSCO33 Node Id 33
                                                                    F12210MA
                                 SVC 240
                   Database: 198
     File
                  Attempts
                                Optimized
                                               Set Usage(k)
                                                                   Status
                   3674 (64%)
                                 2536 (65%)
                                                15 (13%)
                                                             Optimizing
       19
                   2051 (36%)
                                1347 (35%)
                                                98 (86%)
                                                               Optimizing
                   5725 100%
                                 3883 100%
                                                114 100%
  Totals:
 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
                                                                Node
                                                                     Menu
```

## **File Summary**

The following information is provided:

Field	Description	
С	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.

Buffer Statistics Detailed File Information

10:33:26 ***** A D A B A S File Details fr					2006-05-19 F12210MB
Database:	198 SVC	240 Fi	le: 7		
	- Optimiza	ition Si	ımmary		
Access Type	Attempts	(99%)	<	Successes	(69%)
Read-ahead:	2,921			2,508	
Direct:	740	(20%)		. 15	(2%)
RCs:		(0%)		13	(1%)
Excluded:	12	(0%)			
Total:	3,686	(100%)		2,536	(68%)
Updates:			Over-read	ls: 57	(2%)
Set Limit(k): 1024				Update Sen	sitivity: R
Set Id Length Limit: 1024	RB Leng	th Lim:	it: 2048	Set Concur	rency: 2
Status: 00 D4 Last RC:	Next Ev	rent: (	0:00	Addr: 099F	2900
Command ==>					
Enter-PF1PF2PF3PF4-	PF5PF	6PF	7PF8	-PF9PF10	PF11PF12
Help Exit Refr	Ex	cl		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
             Ь9
                  On
             S1
                  On
             S2
                  On
             Default Adabas Field Overrides
 Over-reads
                                             ......Read-ahead.....
             L1
                   On
             L2
                   On
         34 L3
                   On
             Ь9
                   On
             S1
                   On
             S2
                   On
             S8
                   On
             S9
                   On
 Command ==>
 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
      Help
```

### 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.

```
***** A D A B A S FASTPATH SERVICES 8.1.2 *****
                                                             2006-05-19
10:38:27
        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
                                                         5
                                                               6
                                     75
                                                    39
           3
                  10
                           32
                                             12
                                                                   0.15
 _ S1 KK
                                                    21
                                                         9
                                                              386 10.15
           2
                   19
                            40
                                     772
                                             2
 _ L3 KK
                                                          5
                             8
                                      5
                                                     9
 Mark with D(etail),F(ull Set List)
 Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
                Exit Refr Parms Look
      Help
                                                      Cntl Node
                                                                 Menu
```

## File Set Summary List

The following information is provided:

File Set List Buffer Statistics

Field	Description
С	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	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.
	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.
	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.

# 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.

Buffer Statistics Detailed Set Information

```
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
   SSID
            In Use Peak Optimized In Use Peak
                                                       Set Memory Growth
      3
                  4
                          16 45
                                            4
                                                  19
                                                         5
                                                               11
                                                                    0.28
                                            7
                                                          7
       5
                  6
                           8
                                    30
                                                   10
                                                               4
                                                                    0.10
       7
                           8
                                                   10
 Mark with D(etail),S(start/stop)
 Command ==>
Enter-PF1---PF3---PF3---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
С	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:

Detailed Set Information Buffer Statistics

```
2006-05-19
10:40:31 ***** A D A B A S FASTPATH SERVICES 8.1.2 *****
              Set Detail from Global SYSCO33 Node Id 33
                                                                                                 F12230MB
                    Database: 198 SVC 240 File: 19
  Command: L3
                   Primary Descriptor: KK
                                                                          SSID: 3
                                                                11 Growth:
     Efficiency Ratings: Set: 5 Memory:
                                                                                                  0.28
     15 Collisions:
                                                                    5
                                                                          Free:
                                                                                                      12
                                                                  11 Overwrites:
                Removed:
                                        11 RLU:

      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:
      100k:
      100k:

                                                                          Set Resets:
     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
```

### **Set Detail**

The following information is provided:

Buffer Statistics Job Information

Field	Description
Efficency Ratings	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.
	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.
	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.
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.

Job Information Buffer Statistics

```
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
                             Started: May 19,2006 13:59
 Buffer Session: 3
                                                             Size(k): 4096
 C Job Name Number Job Type
                                Attempts
                                          Optimized Memory(k) Status
 _ DAEFCODE C30694 COM-PLETE
                                     258
                                                 194
                                                               Active
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
                                                               Unused
 _ GXNDCP72 B41763 Batch
                                                               Disconnected
 _ GXNDCP72 B41766 Batch
                                                               Disconnected
 Mark with D(etail),S(ervices)
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12
                  Exit Refr
                                                            Sysj Node Menu
```

## **Optimized Job Summary**

The following information is provided:

Field	Description
С	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.

Buffer Statistics Detailed Job Information

### **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-PLETE Number: C30694
  ------ Optimization Summary -----
      Access Type Attempts (4%) <-----Successes (73%)
Read-ahead: 85 (1%) 45 (52%)
Direct: 173 (3%) 143 (82%)
                              6 (0%)
                                                      6 (3%)
      RCs:
      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.

Detailed Job Information Buffer Statistics

```
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
                       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
 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	In Use: the number of user areas currently in use.  Peak: the highest number of user areas which have been concurrently in use.  Recovered: the number of times an old user area was recovered (reused) to satisfy the
	requirement for a new user area.
CID Areas	In Use: the number of Command ID areas currently in use.
	Peak: the highest number of Command ID areas which have been concurrently in use.

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
    Job Name Number Job Type SVC DB Nuc ID Status
     SYSCO33 C21567 AFPABM
                                                Active
      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
               Exit
                                                      UserJ Node
      Help
Menu
```

# **System Job Summary**

The following information is provided:

Field	Description
С	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.