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 7.4.1 *****      2003-02-04
              -  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 7.4.1 *****            2003-02-04
                - General Information  -                           F12100MA


    Buffer Type: Global    Name: SYSCO33        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 (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:

```
17:49:50  ***** A D A B A S  FASTPATH SERVICES 7.4.1 *****           2003-02-04
                - Excluded Command Analysis  -                       F12100ME

                     Buffer: Global SYSCO33  Node Id: 33

     Excluded:- Reasons        Number  +----------------------------------------+
     Job area not avail.                |   Direct not Optimized      Number     |
     Not Fastpath command        1609   |   Repo. size overflow                  |
     DBID not qualified         26434   |   Concurrency clash                    |
     DB list overflw                    |   Startup/set off/rej         185      |
     File not qualified           250   |   DA set not found            436      |
     Misc/temp off switch           3   |   DA data not in set          291      |
     User area shortage                 |   RBL exceeds maximum          41      |
     Non-AFP CB settings            3   |                                        |
     CID area shortage                  +----------------------------------------+
     M/fetch already used               |   Read-ahead Not Optimized             |
     SetId length exceed                |   Memory shortage                      |
     Desc. not qualified           10   |   Read-ahead primer           694      |
     FB/SB not recognised               |   Sx command ignored                   |
     Unknown status                 4   |                                        |
     Sequence detection             8   +----------------------------------------+



  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 Anaylsis

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.
Direct Not Optimized	The number of direct access commands that were attempted but could not be optimized for the listed reasons. For more information, see Excluded Commands.
Read-Ahead Not Optimized	The number of read-ahead commands that were attempted but could not be optimized 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

```
16:32:58 ***** A D A B A S  FASTPATH SERVICES 7.4.1 - DEMO *****      2003-02-05
                 - General Parameters  -                              F12100MF

              Buffer: Global SYSCO33  Node ID: 33


                                      Initial                 Commands
 Main Parameters           Value      Allocation    Peak Usage  Ignored
 Size(k)..Min: 1024        4096           4096          98%
 Maximum Jobs:               12                           1         0
 RB Length Limit:          2048                                     0
 Set Length Limit:         1024                                     0
 Read-ahead Memory Sizes(k):   4    8   16   32

 Other Parameters          Value                               Value
 Direct Set Expansiom:        8       Set Concurrency:            2
 Freespace Index Entries:  1024       Average Item Size:        256

 Log every n minutes:        60       Keep for n days:           30
 Autorestart:                 Y       Restart every n Hrs:        0
 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
```

Parameter Display

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 7.4.1 *****            2003-02-05
            Database Summary from Global  SYSCO33 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(ile),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                        2003-02-05
                                 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 7.4.1 *****          2003-02-05
         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: 710      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:

```
10:31:15   ***** A D A B A S   FASTPATH SERVICES 7.4.1 *****            2003-02-05
          Database Details From Global  SYSCO33 Node Id 33                 F12200MG

                           Database: 198    SVC: 240


                                    +------------------------------------+
        Excluded:- Reasons      Number  |   Direct not Optimized      Number   |
        Misc/temp off switch        4   |   Repo. size overflow                |
        User area shortage              |   Concurrency clash                  |
        Non-AFP CB settings         3   |   Startup/set off/rej        185     |
        CID area shortage               |   DA set not found           436     |
        M/fetch already used            |   DA data not in set         398     |
        SetId length exceed             |   RBL exceeds maximum         86     |
        Desc. not qualified        10   |                                      |
        FB/SB not recognized            +------------------------------------+
        Unknown status              5   |   Read-ahead Not Optimized           |
        Sequence detection          8   |   Memory shortage                    |
                                        |   Read-ahead primer          738     |
                                        |   Sx command ignored                 |
                                        |                                      |
                                        +------------------------------------+



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

Database Excluded Count Analysis

The information is provided in the same format as that provided at the buffer level (see section Buffer Information), with the exception that the first five excluded reasons are not shown because commands excluded for those reasons do not appear at the database level.

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 7.4.1 *****        2003-02-05
             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                                      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 7.4.1 *****              2003-02-05
              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        Set Expansion: 8       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 7.4.1 *****           2003-02-05
          -  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
      Help        Exit              Excl  Gen                     Node  Menu
```

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 7.4.1 *****          2003-02-05
           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  Parms 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	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.

```
10:39:56  ***** A D A B A S  FASTPATH SERVICES 7.4.1 *****            2003-02-05
          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                         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 7.4.1 *****        2003-02-05
          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:           16 Free:             12
             Removed:         11 RLU:            11 Overwrites:
                                                    Set Resets:
     Memory  - Used(k):       4 Peak(k):        19 Free(k):          14
     Status:   00 C8 0E 08       Expansion:     16 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
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. 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 7.4.1 - DEMO *****        2003-02-04
         -  Job Summary for Global SYSCO33 Node ID 33 -               F12300MA

  Buffer Session: 3          Started: Feb  4,2003  13:59    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
  _                                                             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
       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 7.4.1 *****          2003-02-05
         - Job Details from Global SYSCO33 Node ID 33  -            F12300MB


 Job: DAEFCODE Type: COM-PLETE Number: C30694       Started: Feb  5,2003 10:02

  ------------------------- 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.

```
10:55:07  ***** A D A B A S  FASTPATH SERVICES 7.4.1 *****              2003-02-05
         Job Details from Global SYSCO33 Node Id 33                      F12300MC


Job: DAEFCODE Type: COM-PLETE Number: C30694         Started Feb  5,2003 10:02

  Job Information----------------------------------------------------------------
    Peak Concurrency...: 2
    User Areas:  In Use: 2        Peak: 2           Recovered: 0
    CID  Areas:  In Use: 0        Peak: 3

  Read-ahead Memory Categories---------------------------------------------------
    Size(k):  1 Peak No: 0      Usage.: 8          Failures: 0
              2         0             1                      0
              4         0             0                      0
              8         0             0                      0

  Job Parameters-----------------------------------------------------------------
               Job End Stats..: N           Direct Access: ON
               Start Time.....: 00:00       End Time.....: 00:00

 Read-ahead Optimization Control: TP    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 (Job Parameters) contains the current values for the job parameters. See the section Adabas Fastpath Parameters for descriptions of these parameters.

Note:
The job parameters 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  7.4.1 *****      2003-02-05
          System Job Summary for Global SYSCO33 Node ID 33          F12400MA


 Buffer Session: 111          Started: Feb  4,2003  12:56    Size(k):1024

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




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  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.