Adabas Transaction Manager

Online Services

Version 8.2.1

May 2011

Adabas Transaction Manager

This document applies to Adabas Transaction Manager Version 8.2.1.

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 Online Services

This section describes the Adabas Transaction Manager online administration tool.

- **Using Online Services**
- **System Settings**
- **Client Runtime Controls**
- **Transaction Manager Information**
- **Special Services**

Refer to **Adabas System Coordinator online administration** for any other administrative functions relating to Adabas Transaction Manager.

2 Using Adabas Transaction Manager Online Services

Online Services Main Menu

ATM Online Services is available from a Natural application installed in library SYSATM and accessed from the AOS main menu. The application must be executed from a Natural session that has been configured to use ATM. Refer to section Installation for details.

To invoke Adabas Transaction Manager Online Services

- select Adabas Transaction Manager from the AOS main menu,

  Or:

  log on to SYSATM and enter the command `MENU`.

The Main Menu screen will then appear:

```
09:52:35    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                                 -  Main Menu  -                     T1MAINM1

Manager: 20531                                              Terminal: TCG3

               Code   Service
               ----   -------------------------------------
                 0    System Settings
                 1    Client Runtime Controls
                 2    Transaction Manager Information
                 3    Special Services
                 4    About Adabas Transaction Manager
                 .    Exit
               ----   -------------------------------------
       Code ..: _




 You can easily switch around the tools for Fastpath, Vista etc by use of
 PF11, 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                                          Prod  Vers
```

Whenever the `MENU` command is executed, the transaction manager proxy tries to locate its local transaction manager (TM):

- If one is found, its node ID is displayed: for example: Manager: 20531.

- If the local manager is not executing, you may specify a manager's node ID later.

  When the Manager ID is displayed, it may be followed by the text "(Host TC Active)" indicating that ATM's interface to the host system transaction coordinator is active in this node. On a z/OS system, this means that the ATM RRMS interface is active.

The following options are available:

Option	Description
System Settings	Maintain configuration file setting.
Client Runtime Controls	Add and maintain client runtime control definitions.
Transaction Manager Information	Display Transaction Manager information.
Special Services	Provide special services for the ATM components.
About Adabas Transaction Manager	Display product information.

By default, the latest installed version of Online Services is executed. If you wish to use an earlier version, use PF12 to display a list of the available versions and then select the version to be used.

Note: From the Adabas Transaction Manager main menu, you may switch to the online systems of Adabas System Coordinator, Adabas Fastpath, Adabas Vista or Adabas SAF Security by pressing PF11. This will result in a window appearing within which you can make your product selection. 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 screens in two ways:

- sequentially by selecting a menu service and entering it in the `Code` field; or
- directly by typing a numerical command on the command line.

For example, entering the command `1.1` on the command line directly accesses the Client Runtime Controls screen within the Maintenance function without first accessing the Maintenance menu.

Function	Object or Subfunction	Command
System Settings	Menu	0
	LFILE 152 Maintenance	0.1
Runtime Control Maintenance	Menu	1
Transaction Manager Information	Menu	2
	Statistics	2.1

Function	Object or Subfunction	Command
	Active Transactions	2.2
	Pending Response Codes	2.3
	Known Databases	2.4
	Partner Transaction Managers	2.5
	Recovery File Functions	2.6

Using PF Keys

The following PF keys are available on one or more of the screens:

PF Key	Label	Description
PF1	Help	Invoke help information for the current screen.
PF2	Oper	Issue the operator command typed in the command line.
PF3	Exit	Return to the previous screen.
PF4	Refr	Refresh the information on the screen.
PF5	Stop	Stop transaction request. See section **Stop Transaction**.
PF7	Top	Return to the first screen of a list display.
PF8	Fwd	Scroll forward through a list display.
PF9	HstTC / TC	Invoke the Host TC Token Display or Client TC Display.
PF10	ErrI	Display error information. See section **Display Error Information**.
PF11	Net / TID	Toggle between net name and Terminal ID.
PF11	Flip	Toggle between different list formats. See section **Active Transactions**.
PF12	Menu	Return to the main menu.

Help Information

To invoke help information

- Press 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.

You can navigate by entering

-	to move backwards and up a menu level
1 - 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
-	to move to a previous page until page 1, then back up a level

3 System Settings

This function is used to maintain the system configuration file. This file contains the definitions of ATM's client runtime controls.

System Settings Menu

To display the System Settings menu

- Select service System Settings (option 0) from the main menu. The following menu will appear:

```
15:22:49     ***** A D A B A S TRANSACTION MANAGER 8.2.1 *****      2006-04-19
                        -  System Settings  -                       T10000M1


                  Code    Service
                  ----    ---------------------
                   1      LFILE 152 Maintenance
                   2      SAF Security Settings
                   .      Exit
                  ----    ---------------------
            Code..: _



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

From this menu, you can	Code	Command
customize the use of the configuration file (LFILE 152)	1	0.1
Activate security protection for online administration	2	0.2

Configuration File (LFILE 152) Maintenance

To customize the use of LFILE 152

1 Select service `1` from the System Settings menu or enter the command `0.1` on a command line.

The LFILE 152 Maintenance window will appear:

```
15:22:59          LFILE 152 Maintenance           2006-04-19
                                                   U1LFILM2

Current Settings for LFILE 152:

Original LFILE = ( 152 , 199   ,  20    )
Current LFILE  = ( 152 , 199__ ,  20___ )
                 (effective only for this Natural session)

Default pop-up settings:
Do you want to see this window again?
                    - for the current SYSATM session... Y
                    - for future SYSATM sessions....... Y

                  PF3 Exit      PF5 Update/Confirm
```

In the Original LFILE field, the database and file number are displayed for the configuration file that was allocated to LFILE 152 at the start of your current SYSATM session.

These values were allocated to LFILE 152 using the static Natural parameter `NTFILE ID=152,..` or the dynamic Natural parameter `LFILE=(152,..)`. For more information about specifying LFILE 152, see the installation instructions relevant to your operating system.

2 In the Current LFILE field, you can change the database and file number to access a different configuration file.

Specify the new configuration file database and file number, if necessary.

3 Review the default settings.

The LFILE 152 Maintenance window is displayed whenever an Online Services function is selected that accesses the configuration file, making it possible for the user to access multiple configuration files from within a single Natural session.

You may choose to deactivate the LFILE 152 Maintenance window and thus the possibility of changing the configuration file for just the current session or for all future sessions.

Regardless of the options you choose, you can always modify those choices by invoking the LFILE 152 Maintenance function from the System Settings menu.

4 Use PF5 to confirm all changes you have entered.

SAF Security Settings

To activate security protection for online administration

- Select service 2 from the System Settings menu or enter the command 0.2 on a command line. The SAF Security settings window will appear:

```
13:54:23          SAF Security Settings           2011-03-04
                                                  U1SAFSM1

Protect SYSATM with SAF Security: N (Y/N)
System Coordinator Daemon Group : ________

Action if no daemon available (mark one):
          Disallow all functions: _
       Allow read functions only: _
             Allow all functions: _




              PF3 Exit      PF5 Update/Confirm
```

For an explanation of these settings refer to *Activating security protection for online administration of Transaction Manager* in the Adabas SAF Security documentation.

4 Client Runtime Controls

This service is used to define/maintain client runtime controls for jobs that are to use Adabas Transaction Manager.

Note: See section Parameters for a complete description of all client runtime controls.

Note: Client runtime controls are shared between all installed optional products, and can be defined by any Online Services application (SYSCOR, SYSAVI, SYSAFP, SYSATM).

List Client Runtime Controls

To display a list of jobs with runtime control definitions

- Select service `1` from the Maintenance menu or enter the command `1.1` on the command line.

```
08:29:12    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                      -  Client Runtime Controls  -                 U11300M1
                                              Reposition to Type: _________
                                                            Name: _________
                           Client Controls
 C Type         Name       AFP   AVI   ATM   COR       Comments
 _ Batch        UKAQBDUS               Y     Y        Overrides,Info
 _              UKAQBMM0               Y     Y
 _              UKAQB85A               Y     Y        Overrides,Info
 _              UKPDNAT                Y     Y        Overrides,Info
 _              UKPDSER                Y     Y        Overrides,Info
 _              UKPDV75                Y     Y
 _              UKPDV75A               Y     Y
 _              UKPDV75B               Y     Y
 _              UKPDWLS                      Y        Overrides,Info
 _ CICS         *DEFAULT               Y     Y        Overrides,Info
 _ IMS (DTR)    *DEFAULT               Y     Y
 _ TSO          *DEFAULT              Off    Y        Overrides,Info

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


 Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Refr        Top   Back  Fwd   Bot   Add   Prods Menu
```

Press PF11 to view the Adabas add-on products for which runtime controls are currently defined, and then press PF11 again in order to modify the controls related to that product.

Press PF8 to move to the next page, or use the Reposition field to position anywhere within the list.

Add Client Runtime Controls

A set of runtime controls includes the name of the Adabas System Coordinator group in which the job will execute. You must define the group before you create any runtime controls that include the name of the group. Refer to the *Adabas System Coordinator* documentation for details of groups, and how to define them.

To add a new set of runtime controls

1 Once you have defined your System Coordinator group, or groups, navigate to ATM's Runtime Controls screen, and press PF10.

The following menu will appear:

```
08:33:18    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                     -  Add Client Runtime Control  -               U11310M1

 Select (mark one) :
                          x Batch
                          _ COM-PLETE
                          _ 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                                                 Menu
```

2 Select the required job type and press Enter. A new screen will prompt you to enter the name of the job for which you want to define runtime controls. You can use wild-card notation to represent a collection of jobs, and you can define a default set of runtime controls for the

chosen type of job. For further details, refer to the documentation for the Adabas System Coordinator.

3 When you have entered the job name, press PF5. You will be prompted to enter some information for the Adabas System Coordinator. Refer to the *Adabas System Coordinator* documentation for details. When you have done this, press PF5. You will see the following screen, which allows you to specify the ATM runtime controls for the current job.

```
08:58:52    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2009-05-13
              -  Adabas Transaction Manager Runtime Controls  -      U1133TM1
 Job Type: Batch
     Name: TESTJOB2           Last modified 2006-04-13 at 08:58:52 by UKPD
       ATM ON/OFF ... ON_             Added 2006-04-13 at 08:58:52 by UKPD
       System coordinator group name ...........
       Maximum number of open databases ........ 4____
       Number of log record entries ............ 0____
       Transaction control ..................... LOCAL_  (Local/Global)
       Emergency serial ET commands ............ FORCE   (Yes/No/Force)
       Coordinate Adabas DBs outside the group . YES     (Yes/RM/No)
       Application controls ET data ............ NO_     (Yes/No)
       Generate OP commands .................... NO_     (Yes/No)
       Transaction model ....................... MESSAGE (Message/Dynamic)
       External syncpoint on BT command ........ YES     (Yes/No)
       External syncpoint on CL command ........ YES     (Yes/No)
       External syncpoint on ET command ........ YES     (Yes/No)
       Use client-side transaction manager ..... NO_     (Yes/No)
       Use host system transaction manager ..... NO_     (Yes/No)
       Use extended hold processing ............ NO_     (Yes/No)



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

For specific information on each of these controls, see section ATM Client Runtime Controls.

Note: The initial controls for the new job are copied from those specified in the *DEFAULT entry for the selected job type. If no default entry exists for the job type, then product default values are displayed.

Note: Each job or TP system that uses Adabas Transaction Manager must be associated with an Adabas System Coordinator group, the name of which must be specified in the above screen. If you have not yet defined the group in which your job will execute, quit this operation, and use the Adabas System Coordinator Online Services application to define the group. Refer to the *Adabas System Coordinator* documentation for details.

4 Change any of the displayed values as required, then use PF5 to save the updated parameter settings.

5 Transaction Manager Information

This function can be used to obtain information from an executing Adabas Transaction Manager.

Transaction Manager Information Menu

To display the Transaction Manager Information menu

- Select option 2 from the Online Services main menu. The following menu will appear:

```
09:16:10    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                     -  Transaction Manager Information  -           T12000M1

Manager: 20531                                              Terminal: TCR9
                 Code   Service
                 ----   ------------------------------------
                   0    Select a different Transaction Manager
                   1    Statistics
                   2    Active Transactions
                   3    More Pending Response Codes
                   4    Known Databases
                   5    Partner Transaction Managers
                   6    Recovery File Functions
                   7    Zap Information
                   .    Exit
                 ----   ------------------------------------
          Code ..: _

     New Manager Node:  _____


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

From this menu, you can	Code	Command
select a different transaction manager	0	
display statistics	1	2.1
display active transactions	2	2.2
display pending response codes	3	2.3
display known databases	4	2.4
display partner transaction managers	5	2.5
invoke recovery file functions	6	2.6

The ID of the transaction manager you are currently working with is displayed on this screen and on most screens in this part of the application. For example,

Manager: 20531.

You can use PF2 to issue ATM operator commands to the transaction manager with which you are working. If you omit the command prefix ATM, SYSATM supplies it for you. For example, if you enter the command `NOLOG`, it will be changed to `ATM NOLOG`. The text you enter on the command line is not validated before the command is issued, except to check whether the command will terminate the transaction manager. If you enter the command `ATM HALT` or `ATM END` (or simply `HALT` or `END`), a window appears asking you to confirm your intention to close down the transaction manager. See section Operator Commands for a complete description of all operator commands.

Select Different Transaction Manager

If your system contains more than one operating system image and Entire Net-Work is being used to connect them, you may wish to work with a transaction manager that is executing in a different operating system image. In this case, select option 0 and enter the ID of the transaction manager in the field New Manager Node.

Note: Running more than one ID table in the same system with Entire Net-Work providing the connection between users of each ID table is equivalent to executing across different operating system images.

Statistics

This option provides access to current statistics maintained by the transaction manager, and allows the administrator to reset statistical counts to zero.

Selecting option 1, Statistics, from the Transaction Manager Information menu displays the following menu:

```
09:23:02    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                     -  Transaction Manager Statistics  -            T12100M1

Manager: 20531

                 Code   Service
                 ----   ---------------------------------
                   1    Current Statistics
                   2    Transaction Times
                   3    High-water Marks
                   .    Exit
                 ----   ---------------------------------
          Code ..: _




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

- Current Statistics
- Transaction Times
- High-Water Marks

Current Statistics

This function displays statistical information about transactions managed by the current transaction manager. The display has the following format.

```
09:24:35    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                          -  Current Statistics -                    T12110M1
Manager: 20531

                                                      Tran       Heur-
                      Transactions   Commits          timeout     istic
                      ------------   ----------     ----------  --------
           ATM-
            only             237          233           2

           Extrn.            1315         1311
          ----------   ----------   ----------     ----------  --------
           Total             1552         1544           2

                       ----------   ----------     ----------  --------
            Open                6
            HWM                25
                       ----------



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

The following information is provided:

Field	Description
Transactions	The number of transactions, or branches, processed by this manager appears on the line that begins “Total”. This figure is broken down on the preceding lines into transactions that were controlled only by ATM (“ATM-only”), and transactions that were controlled by an external transaction coordinator, such as the CICS syncpoint manager or RRMS (“Extrn.”). “Open” indicates the number of transactions, or branches, that are currently open and that involve this transaction manager. “HWM” indicates the high-water mark for transactions; that is, the highest number of transactions, or branches, that have been in progress at the same time, involving this transaction manager.
Commits	This column indicates how many of the transactions, or branches, that this manager has processed were committed. The total is broken down into those that were controlled solely by ATM, and those that were controlled by an external transaction coordinator.
Tran timeout	This column indicates how many of the transactions, or branches, that this manager has processed were backed out because the global transaction time limit was exceeded. The total is broken down into those that were controlled solely by ATM, and those that were controlled by an external transaction coordinator.

Field	Description
Heuristic	This column indicates how many of the transactions, or branches, that this ATM has processed, have experienced some degree of heuristic termination, either by ATM or by a database. The total is broken down into those that were controlled solely by ATM, and those that were controlled by an external transaction coordinator.

Transaction Times

This function displays timing statistics for transactions (or branches) controlled by the transaction manager. The display has the following format.

```
09:31:27    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                        -  Transaction Times  -                      T12120M1
Manager: 20531

               Upper
               bound
              (secs.)     Tran count   Committed    Backed out
              -------     ----------   ----------   ----------
               0.50           1432         1422             10
               1.00            112          108              4
               2.00              4            4              0
               5.00              0            0              0
              10.00              2            0              2
                300              0            0              0
                600              1            0              1
            9999999              0            0              0
            -------     ----------    ---------      ---------
            Total:           1551         1534             17
              -------     ----------   ----------   ----------


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

The following information is provided:

Field	Description
Upper bound (secs)	The transaction time ranges for which the manager maintains counts. The first row, for example, represents transactions that were completed within 0.5 seconds. The final row represents transactions that took longer than 600 seconds to complete.
Tran count	The number of transactions, or branches, processed by this manager, that completed within the time range indicated by the left-most column.
Committed	The number of transactions, or branches, committed by this manager, that completed within the time range indicated by the left-most column.

Field	Description
Backed out	The number of transactions, or branches, backed out by this manager, that ended within the time range indicated by the left-most column.

High-Water Marks

This function can be used to monitor the use of the transaction manager's resources, including its main storage areas.

The information provided can be used to determine if the setting for the ATM parameter `TMDRQ` is satisfactory.

```
09:37:02    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                            -  High-water Marks  -                    T12130M1
Manager: 20531

         Item/parm        Max        HWM          Hits        First hit
        Buffer areas                    27             3    04/13 08:14
        TMDRQ                10          0             0
        Request Q                       2             1    04/13 08:06

        Client IDs     16777215         13             2    04/13 08:14
        Transactions                    19             3    04/13 08:14

        TM nodes            191          3             1    04/13 08:13
        Databases           191          3             4    04/13 08:14
        DBs per tran        191          2           487    04/13 08:11

        TMs per tran        191          2           331    04/13 08:13

        Pending rsps                     2             1    04/13 09:15









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

Most entries in the list on this screen do not relate directly to any parameter, but are included for information. The following is a brief summary of the items listed

Item	Description
Buffer areas	Adabas buffer areas.
TMDRQ	Deferred request queue (TM parameter).
Request Q	Internal request queue.
Client IDs	Count of dynamic Client IDs.
Transactions	Active transactions.
TM nodes	Number of remote ATM managers.
Databases	Number of databases.
DBs per tran	Number of databases in a single transaction.
TMs per tran	Number of remote ATM managers involved in a single transaction.
Pending rsps	Response codes waiting to be returned to client sessions.

Active Transactions

Option 2 provides information about all active transactions that involve the current transaction manager.

- Screen Format Used For Listing Transactions
- Display Detail Information for a Transaction
- Display Error Information
- Stop Transaction
- Display Pending ET Data

Screen Format Used For Listing Transactions

By default, active transactions are listed in the following format:

```
10:17:20    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                              -  Transactions  -                     T12200M2

Manager: 20531                                              Terminal: TCU5

      <-------Client ID------->                      Tx.Start   Last Act
 C CL   Char         Hex          Jobname   Status  MMDD HH:MM MMDD HH:MM DBs TM
    L TM?q   ? E3D41B9800000001   DAEFCI18  GT OPEN 0413 10:17 0413 10:17  2   1
    L TM?q   ? E3D41B9800000012   DAEFCI18  GT OPEN 0413 10:17 0413 10:17  1









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

By pressing PF11, you can view the list in an alternative format, which correlates the transaction owner's Communication ID with the Client ID:

```
10:22:50    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-13
                              -  Transactions  -                     T12200M1

Manager: 20531                                              Terminal: TCU5

C L/R <----------------------Communication ID----------------------> Client ID

   L  000F7100 20640000 B902BE37 DE383581 00000001 C3C9C3E2 C5F0F0F1 TM ?q   ?
   L  000F7100 20640000 B902C0D2 914965A2 00000001 C3C9C3E2 C5F0F0F2 TM ?q   ?









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

PF11 can be used to switch back and forth between the two list formats.

The first list format provides the following information:

Item	Description
C	Enter a non-blank character and press Enter to obtain more detailed information about a particular transaction. See **Display Detailed Information for Transaction**.
CL	C: Contains one of the following transaction coordinator values: ■ P: transactions controlled by another ATM manager. ■ C: transactions controlled by a client-side transaction coordinator ■ H: transactions controlled by the host system transaction coordinator. ■ a blank indicates that the transaction is controlled by the current ATM manager L: Indicates whether the client is local to (L) or remote from (R) the manager; that is, whether or not the client is executing in the same operating system instance
Char	The transaction owner's Client ID in character format.
Hex	The transaction owner's Client ID in hexadecimal format.
Jobname	The name of the job under which the transaction is executing.
Status	A summary description of the transaction's current status. See **Display Detailed Information for Transaction** for more information.
Tx.Start	The time at which the transaction began; that is, the time of the transaction's first change-type command.
Last Act	The time at which the transaction manager was last asked to perform some action on the transaction. For example, when the transaction changed another database.
DBs	The number of databases that have been changed by the transaction.
TM	The number of remote ATM managers that are involved in the transaction. Blanks indicate that the transaction has not changed any remote databases.

The second list format provides the following information:

Item	Description
C	Enter a non-blank character and press Enter to obtain more detailed information about a particular transaction. See **Display Detailed Information for Transaction**.
L/R	Indicates whether the transaction's owner is local to (L) or remote from (R) the transaction manager; that is, whether or not the client is executing in the same operating system instance.
Communication ID	The transaction owner's Communication ID in hexadecimal format.
Client ID	The transaction owner's Client ID in character format.

Display Detail Information for a Transaction

Detail information for a transaction can be obtained by marking the C column in the Transaction screen and pressing Enter.

The following screen will appear:

```
07:17:35    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                        -  Transaction Details  -                    T12210M1

Manager: 20531                                                 Terminal: TCP0
Clnt Type: 84 - LOCAL   Client ID: TM?q   ? E3D41B9800000012  Jobname: QTT81013
Status: 8000000000 - GT OPEN  Co-ordinator: THIS ATM          PRR ISN: 00000000
CommID: 000FA10E 20860000 40404040 40404040 00F64400 E3F8F1F0 F1F34040
   XID: C1C4C101 00000050 00000002 5033000F A10E2086 00004040 40404040 404000F6
        4400E3F8 F1F0F1F3 4040E3F8 F1F0F1F3 4040D8E3 E3F8F1F0 F1F3BEAD 3BBC0734
        EC800000 00000000 00000000 00000000 00000000 00000000 00000000 C2D80000
        00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
   Start: 04/19 07:17.32  Tx Timeout: 07:19.38
                  Pending Response: 000           Sub Code: 0000
 <----------CHANGED DATABASES---------->      | <---PARTICIPATING ATMs-->
 DBNo. TM Node   Status     Resp/subcode      | TM Node   Status      Err
 20532         0021 CHANGED     0    0        |  20535   0020 BRANCH
 20536  20535  0021 CHANGED     0    0        |









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

The following information is provided:

Field	Description
Clnt Type	The type of client session in hexadecimal format followed by an indication of whether the client is local to or remote from the transaction manager.
Client ID	The Client ID in character and then in hexadecimal format.
Jobname	The name of the job under which the transaction is, or was executing
Status	The transaction's status codes in hexadecimal followed by an indication of the most important element of the codes in character format. Possible character indicators are: ■ GT: no transaction is in progress for this client ■ GT OPEN: the transaction has begun

Field	Description
	■ IN PREP: the transaction is in the prepare phase ■ PREPARED: the transaction has completed the prepare phase ■ IN CMIT: the transaction is in the commit phase ■ IN BKOUT: the transaction is being backed out ■ BKD OUT: the transaction was backed out ■ MIXED: the transaction completed with mixed committed and backed out status ■ BR OPEN: the transaction is a branch of a transaction owned by another ATM manager
Coordinator	The transaction coordinator that has control of the global transaction. Possible values are: ■ THIS ATM: the ATM transaction manager indicated in the Manager field (top left of screen) ■ OTHER ATM: the ATM manager *nnnnn* has control ■ CLIENT TC: the client's client-side transaction coordinator has control ■ HOST TC: the host system transaction coordinator has control
PRR ISN	The ISN of the recovery record for the transaction. The ISN is located in the ATM recovery record (PRR) file. This field will normally contain zeros until the transaction reaches prepared status.
UAB	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
GTQE	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
CommID	The transaction owner's 28-byte Adabas Communication ID.
XID	The Transaction ID of the transaction.
Start	The start time of the transaction. The date has the format MM/DD.
Tx Timeout	The time at which the transaction will reach the global transaction time limit.
Last Act	The time at which the ATM manager was last asked to perform some action on behalf of the transaction's owner. The date has the format MM/DD.
Pending Response and Sub Code	The response code and subcode that the manager will return to the transaction owner when the opportunity arises. These fields normally contain zeros.

The remainder of the screen displays

- a list of databases changed by the transaction
- a list of remote ATM managers that are responsible for remote branches of the transaction

If one or both of the lists is too long to fit on the display, "More" appears at the foot of the screen. Use PF8 to scroll down the list and PF7 to return to the top of the list.

Changed Databases

Field	Description
DBNo.	Database ID of the changed database.
Manager	The Node ID of the remote ATM manager executing in the same system image as the database. If the database is executing in the same system as the current manager, this field contains blanks.
Status	The status of the database with respect to the current transaction, followed by a summary value. Possible summary values are: ■ CHANGED: the transaction updated this database ■ IN PREP: the database was asked to prepare the transaction ■ PREPARED: the database prepared the transaction ■ IN CMIT: the database was asked to commit the transaction ■ COMMITTD: the database committed the transaction ■ IN BKOUT: the database was asked to back out the transaction ■ BKD OUT: the database backed out the transaction ■ HEURIST: a heuristic decision was taken ■ PND FRG : "forget" pending
Rsp and Sub	Any response code and subcode that the database returned to the manager for the transaction.

Participating ATMs

Field	Description
Manager	The Node ID of the ATM manager participating in the current transaction.
Status	The status of the ATM manager with respect to the current transaction, followed by a summary value. Possible summary values are: ■ BRANCH: a transaction branch was created ■ IN PREP: the manager was asked to prepare the transaction branch ■ PREPARED: the manager prepared the transaction branch ■ IN CMIT: the manager was asked to commit the transaction branch ■ COMMITTD: the manager committed the transaction branch ■ IN BKOUT: the manager was asked to back out the transaction branch ■ BKD OUT: the manager backed out the transaction branch ■ HEURIST: a heuristic decision was taken
Err	Enter a non-blank character and press Enter to display details of any errors recorded in a manager's feedback block. See **Display Error Information**.

Host TC Token Display

If the transaction is under the control of the host system transaction coordinator (HOST TC), PF9 at the foot of the screen is labelled "HstTC". Pressing PF9 invokes the Host TC Token Display window showing the identifiers used by the host transaction coordinator for the transaction.

Display Error Information

ATM records the details of errors in a feedback block in the transaction's global transaction queue entry (GTQE).

If the error occurs while processing a request from an ATM client proxy or remote ATM manager, the feedback block is returned to the component that issued the request; otherwise, it remains intact in the GTQE.

To display the feedback block for a transaction, press PF10 on the Transaction Details screen.

To display the feedback block of a remote ATM manager participating in a transaction, type a non-blank character next to the ATM manager entry in the Participating ATMs list and press Enter.

The error information is displayed in a window with the following layout:

```
07:29:20    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                        -  Transaction Details  -                    T12210M1
Manager: 20531  +-------------Error Information-------------+ erminal: TCPO
Clnt Type: 84 - |  07:29:22  Error Information   2006-04-19 | Jobname: QTT81013
Status: 8000000 |                                 T1ERRIM1   | PRR ISN: 00000000
CommID: 000FA10 |                                            | F1F34040
   XID: C1C4C10 |  ERROR CODES -       Primary: 00204        | 40404040 404000F6
        4400E3F |                    Secondary: 00204        | F1F3BEAD 3E5BBCD9
        4D00000 |                     Queueing: 00000        | 00000000 C2D80000
        0000000 |                 Database No.: 20532        | 00000000 00000000
   Start: 04/19 |                 Command Code:    ET        |
Last Act: 04/19 |            Response/Sub-Code: 022 / 0021   |
                |                                            | 00
 <----------CHA |  AUTO-BACKOUT -  Return Code: 00000        | ING ATMs-->
 DBNo. TM Node  |                 Database No.:              | us      Err
 20532          |                 Command Code:              |
                |            Response/Sub-Code: 000 / 0000   |
                |                                            |
                |                 PF3 Exit                   |
                |                                            |
               +--------------------------------------------+
 Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Refr  Stop  ET    Top               ErrI        Menu
```

The following information is provided.

Field	Description
ERROR CODES	Describes one or more errors that occurred during processing of the transaction. The meaning of the error code in the fields Primary and Secondary can be found in the section Messages and Codes. In the example, an ET command was issued to database 20532 on behalf of the transaction, and a response code 22 (subcode 21) was returned. This response and subcode were returned to the client in the supplied Adabas control block.
AUTOBACKOUT	If an error caused ATM to attempt an autobackout, this field provides details of any error that occurred during the autobackout process. The meaning of the error code in the Return Code field can be found in the section Messages and Codes.
Err	Enter a non-blank character and press Enter to display details of any errors recorded in an ATM feedback block.

Stop Transaction

This function can be used if it becomes necessary to terminate a transaction by manual intervention. For example, a client session has abended without completing a transaction and it is necessary to free its resources.

To invoke this function, press PF5 on the Transaction Details screen.

The following window will appear:

```
07:17:35    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                      -  Transaction Details  -                      T12210M1
Manager: 20531                                              Terminal: TCP0
Clnt Type: 84 - +-----------Stop Transaction Options------------+ ame: QTT81013
Status: 8000000 |  07:26:34  -  Stop Transaction  -  2006-04-19 | ISN: 00000000
CommID: 000FA10 |                                     T1STOPM1   | 4040
   XID: C1C4C10 |                                                | 4040 404000F6
        4400E3F |  WARNING: Transaction integrity could be lost | BEAD 3BBC0734
        EC80000 |    Select one of the following functions:     | 0000 C2D80000
        0000000 |       _  Stop a transaction                   | 0000 00000000
   Start: 04/19 |       _  Stop all trans in same service       |
Last Act: 04/19 |       _  Stop all transactions                |
                |                                               |
 <----------CHA |    Select additional options as required:     | ATMs-->
 DBNo. TM Node  |       _  No rsp 9 for client                  |     Err
 20532          |       _  Transfer to STJ                      |
                |                                               |
                |     PF1 Help     PF3 Exit     PF5 Confirm     |
                |                                               |
                +-----------------------------------------------+

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

Mark one of the following functions:

Function	Description
Stop a transaction	Terminate the transaction for which detail information is being displayed.
Stop all trans in the same service	Terminate the transaction for which detail information is being displayed and all other incomplete transactions belonging to clients in the same address space. This option can be used, for example, to terminate all transactions belonging to clients in a given CICS region. When this option is invoked, a console message is issued so that the event can be audited.
Stop all transactions	Terminate all incomplete transactions. When this option is invoked, a console message is issued so that the event can be audited.

Caution: If you terminate a transaction branch or a part of a transaction that is controlled by an external transaction coordinator, only the local branch or local part of the transaction is affected. This could compromise the integrity of the global transaction as a whole.

By default, ATM attempts to complete (back out or commit) any incomplete transaction within the specified scope of the "Stop" request, according to its current status. By default, if a transaction is backed out, a pending response code 9 will be retained, either in the manager's transaction queue or in the pending response code list. ATM will not, by default, attempt to complete a transaction or branch that is controlled by another ATM manager or by an external transaction coordinator if this transaction or branch has reached the prepared state, unless ATM is certain of the intended outcome.

You can optionally increase the severity of the action to be applied to the selected incomplete transactions by marking one of the following options:

Function	Description
No rsp 9 for client	If this option is selected, no pending response code will be set for the owner of a transaction which is resolved, even if it was backed out. The transaction will disappear from the manager's list.
Transfer to STJ	This option causes the same processing as the "No rsp 9" option. Further, termination is attempted for any selected transaction or branch that is controlled by another ATM manager or an external transaction coordinator. Additionally, any of the selected transactions or branches that then remain (because they could not be resolved) are copied to the suspect transaction journal (STJ) and removed from the transaction list, without regard to the status of the transaction. Messages are written to the console giving details of the operation. **Caution:** When this option is used, global transaction integrity is likely to be lost. This option is provided for emergency use only.

Display Pending ET Data

Pressing PF6 from the Transaction Details screen will display any pending ET data if the transaction is partially through the commit process.

The ET data is displayed in hexadecimal and character format:

```
08:08:56    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                        -  ET Data Display  -                        T1ETDTM1
TM Node: 20531
   Offset          <-------- Memory Contents -------->        <--Characters-->
  00000000         C9E2D640 00010266 00000000 00000000        ISN ???
  00000010         40404040 40404040 40404040 40404040
  00000020         40404040 40404040 40404040 40404040
  00000030         40404040 40404040 40404040 40404040
  00000040         40404040 40404040 40404040 40404040
  00000050         40404040 40404040 40404040 40404040
  00000060         40404040 40404040 40404040 40404040
  00000070         40404040 40404040 40404040 40404040
  00000080         40404040 40404040 40404040 40404040
  00000090         40404040 40404040 40404040 40404040
  000000A0         40404040 40404040 40404040 40404040
  000000B0         40404040 40404040 40404040 40404040
  000000C0         40404040 40404040 40404040 40404040
  000000D0         40404040 40404040 40404040 40404040
  000000E0         40404040 40404040 40404040 40404040
  000000F0         40404040 40404040 40404040 40404040

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

Pending Response Codes

- Display Pending Response Codes
- Display Pending Response Code Details
- Delete Pending Response Code

Display Pending Response Codes

Selecting option 3, Pending Response Codes, from the Transaction Manager Information menu will display a list of client sessions for which the manager has pending response codes. Such a pending response code will be set, for example, when a transaction is timed out by the manager. The list looks like this:

```
07:42:39    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                          -  Pending Response Codes -                T12300M1
Manager: 20531                                              Terminal: TCP0
                                      Rsp-  Sub-      Time
  ID          (Hex)          Jobname   code  code   MMDD HH:MM   DBs
TM?q   ?  E3D41B9800000007   DAEFCI18    9    86   0419 07:40     1
TM?q   ?  E3D41B9800000011   QTT81013    9    86   0419 07:39     1




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

The following information is provided:

Function	Description
C	Enter a non-blank character and press Enter to obtain more detailed information about a particular pending response code. See **Display Pending Response Code Details**.
ID	The Client ID of the client session for which the pending response code is set. The ID is shown both in character and hexadecimal formats.
Jobname	The name of the job under which the client session is or was executing.
Response code	The pending response code.
Sub-code	The pending response code's subcode.
Time	The time at which the pending response code was set. The date has the format MM/DD.
DBs	The number of databases that took part in the transaction which caused the pending response code to be set.

Display Pending Response Code Details

More detailed information about a pending response code can be obtained by marking the C column in the Pending Response Codes screen.

The following screen will appear:

```
07:53:46    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                        -  Pending Response Codes -                  T12310M1
Manager: 20531                                              Terminal: TCP0


    CommID:  000FA10E 20860000 40404040 40404040 00F64400 C3C9C3E2 E3C3E3F4

                                    <--------------DATABASES-------------->
ID:              CICSTCT4          DBNo. TM Node   Status     Resp/subcode
Job name:        QTT81013          20532         0401 BKD OUT    0     0
Response code:   9
Sub-code:        86
                 MM/DD HH:MM.SS
Time:            04/19 07:39.00
ISN:             2




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

The following information is provided on the left of the screen:

Function	Description
CommID	The Adabas communication ID of the client session for which the pending response code is set.
ID	The last 8 bytes of the Adabas communication ID of the session for which the pending response code is set, in character format.
Jobname	The name of the job under which the client session is or was executing.
Response code	The pending response code.
Sub-code	The pending response code's subcode.
Time	The time at which the pending response code was set. The date has the format MM/DD.
ISN	The ISN of the record which represents this pending response code in the manager's PRR file.

The right-hand side of the screen displays a list of the databases that were changed by the transaction which caused the pending response code to be set.

If the list is too long to fit on the display, "More" appears at the foot of the screen. Use PF8 to scroll down the list and PF7 to return to the top of the list.

Delete Pending Response Code

Normally, a pending response code is kept in the manager's memory, and possibly also in its recovery file, until the manager has an opportunity to return it to the transaction's owner, or until the owner is known to have disappeared.

For more information, see the section Introduction, Pending Response Codes.

The Display Pending Response Code Details screen provides a facility for deleting the pending response code. To use this facility, display the details of the pending response code that you want to delete, then press PF5 ("Del"). You will be prompted to confirm your intention to delete the pending response code.

Note: If you use this facility, the pending response code will be removed from the manager's memory and from the recovery file, so the owner of the transaction will never receive the pending response code. This might mean, for example, that the owning client will never become aware that the previous transaction was backed out.

Display Known Databases

Selecting option 4, Display Known Databases, from the Transaction Manager Information menu will display a list of all databases in the network that are known to this ATM. The list includes all databases that are enabled for two-phase commit processing; that is,

- all local databases that are running with `ADARUN DTP=RM`, and
- all remote databases that are running with `ADARUN LOCAL=NO` and have been identified to the transaction manager by remote ATMs.

Other databases may appear in the list, depending on the way they are used. The display has the following format:

```
08:13:38    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                      -  Display Known Databases  -                 T12400M1
Manager: 20531
                                                                    Date/Time
   C      DB No.      TM Node        DTP         Usage       MM/DD HH:MM.SS
   _      131          20531          N
   _      20532        20531          Y              2       04/18 08:04.41
   _      20536        20535          Y              1       04/18 08:05.46









 Mark with L(ist) or Q(uiesce)

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

The following information is provided

Field	Description
C	Command input field. The following options are provided: ■ L: list active transactions that involve the selected database The format of the list is identical to that displayed using option 2 (active transactions). ■ Q: quiesce all transactions that involve the selected database ATM attempts to complete (commit or back out) any transactions that involve the selected database, depending on the status of the transaction. If the transaction manager is managing transaction branches that involve the selected database, it asks the ATMs that own those transactions to complete them (that is, commit them or back them out), as appropriate This option does not prevent new transactions from changing the selected database.
DB No.	The normal Database ID.
Manager	The ID of the database's local ATM.
DTP	Indicates whether the database is running `DTP=RM` (Y) or `DTP=NO` (N).
Usage	The number of open transactions that involve the database.

Field	Description
Date/Time	The time at which the database's local ATM became aware that the database was active. This can be either the time at which the database was started or the time at which its local ATM started.

Display Partner Transaction Managers

Option 5, Display Partner Transaction Managers, on the Transaction Manager Information menu displays a list of remote ATMs in the network that are known to this ATM.

```
08:18:45    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                        -  Display Partner ATMs  -                    T12500M1
Manager: 20531
  ATM Session: 43        COR Group: CORATM81           Date/Time
  TM Node     Jobname         Status       Session    MM/DD HH:MM.SS  Host TC
   20535      ATM20535      84 ACTIVE       41        04/18 08:05.26     N









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

The following information is provided.

Field	Description
ATM Session	The ATM Session field above the table on this display indicates the number of the current session of the ATM identified by the Manager field above it. Session numbers begin with 1 when the transaction manager is first started and increase by 1 each time it is restarted.
COR Group	This field above the table of partner ATMs displays the name of the Adabas System Coordinator group with which the local transaction manager and its partner ATMs are associated.
TM Node	The ID of the remote ATM.

Field	Description
Jobname	The name of the transaction manager job.
Status	The latest known status code for the remote transaction manager, together with a summary interpretation. Possible values are: ■ ACTIVE: the transaction manager is active ■ TM DOWN: the transaction manager is not available ■ DB RSTRT: a database that is local to this ATM has restarted; restart processing is required for any work involving this database ■ PND RSTT: the local ATM must perform restart processing for work involving this remote ATM
Session	The number of the current session of the partner ATM manager. Session numbers begin with 1 when an ATM manager is first started and increase by 1 each time it is restarted.
Date/Time	The time at which the remote ATM manager was started.
Host TC	Indicates whether the remote ATM is interfacing to its local host transaction coordinator. Only RRMS under z/OS is currently supported as a local host transaction coordinator for an ATM manager.

Recovery File Functions

This option can be used to list and display recovery records, to browse the suspect transaction journal, to list and display migrated transaction records, and to list and display pending error records.

Selecting option 6, Recovery File Functions, from the Transaction Manager Information menu displays the following menu:

```
08:24:28    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                        -  Recovery File Functions  -                T12600M1

Manager: 20531

                 Code   Service
                 ----   ----------------------------------
                   1    List Recovery Records
                   2    Browse Suspect Transaction Journal
                   3    List Migrated Transaction Records
                   4    List Pending Error Records
                   .    Exit
                 ----   ----------------------------------
             Code: _









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

- Displaying Recovery Records and Suspect Transactions
- List Migrated Transaction Records
- List Pending Error Records

Displaying Recovery Records and Suspect Transactions

Select code 1 or 2 to list recovery records or browse the suspect transaction journal (STJ). The order in which records are displayed is not significant.

For both options, the resulting list has the following layout; only the subheading differs:

```
08:26:51    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                         -  Suspect Transactions  -                  T12610M1
Manager: 20531                                              Terminal: TCEQ

C L/R  <----------------------Communication ID---------------------->  Client ID
_  L   000F7100 20640000 40404040 40404040 00F1E100 B8E5C585 C647B560  TM?q   ?
_  L   000F7100 20640000 40404040 40404040 00F71380 B8E71F47 3206D801  TM?q
_  L   000F7100 20640001 40404040 40404040 00F24880 E4D2D7C4 404040F2  TM?q   ?
_  L   000F7100 20640000 40404040 40404040 00F11B80 B8EFAAF9 6445FE42  TM?q




Mark with D(isplay) or P(urge)



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

The following information is provided

Item	Description
L/R	Indicates whether the transaction's owner is (or was) local to (L) or remote from (R) the transaction manager; that is, whether or not the client is (or was) executing in the same operating system instance.
Communication ID	The transaction owner's Communication ID in hexadecimal format.
Client ID	The transaction owner's Client ID in character format.

For a more detailed display of an item, type D in the C column next to the item and press Enter. The resulting display has the same layout as the Transaction Details screen.

To delete a record from the STJ or the recovery record file, type P (for "purge") in the C column next to the selected item and press Enter. You are prompted to confirm that the record should be deleted.

Caution: The purge function is provided for housekeeping of the STJ file. If you use it to delete a record from the recovery record file, you could compromise the integrity of the related global transaction, and results are unpredictable. Therefore, for audit purposes, a console message is issued when a recovery record is deleted.

List Migrated Transaction Records

To list migrated transaction records, enter code 3. If a client executes in an environment in which dynamic transaction routing can take place, and the client's session is migrated from one system image to another while the client has a global transaction in progress, a migrated transaction record (MTR) is created. An MTR is deleted when the transaction finally terminates. MTRs are stored in a central file store that is provided for the Adabas System Coordinator daemons in the associated COR group.

```
08:30:35    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                        -  Migrated Transactions -                   T12630M1
Manager: 20531                                                Terminal: TCEQ
C      <----------------------Communication ID---------------------->  TM Node
_      000F7100 20640000 40404040 40404040 00F71380 B8E71F47 3206D801  20535




Mark with D(isplay) or P(urge)

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

The following information is provided.

Field	Description
C	Command input field. The following options are provided: ■ D: display the selected record The resulting display is described below. ■ P: purge the record This function is provided for housekeeping by the administrator in exceptional cases. Normally, records are deleted automatically when the associated transaction completes. **Caution:** If you purge a record, it is possible that ATM will be unable to resolve the associated transaction with integrity.
Communication ID	The client's 28-byte Adabas Communication ID.
TM Node	The Node ID of the transaction manager that is currently local to the client who owns the transaction.

The Display function produces a display with the following format:

```
08:33:14    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-18
                        -  Migrated Transactions -                   T12631M1
Manager: 20531                                              Terminal: TCEQ

CommID: 000F7100 20640000 40404040 40404040 00F71380 B8E71F47 3206D801
   XID: C1C4C101 00000050 00000002 5033000F 71002064 00004040 40404040 404000F7
        1380B8E7 1F473206 D801D7C4 F0F34040 4040C4C1 C5C6C3C9 F1F8B902 C6B15FFB
        76610000 00000000 00000000 00000000 00000000 00000000 00000000 C2D80000
        00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

CICS URID: 0000000000000000      Appl ID:               TRUE:

RRS  URID: 00000000000000000000000000000000

Owning ATM: 20535




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

Field	Description
CommID	The 28-byte Adabas Communication ID of the client who owns the transaction.
XID	The ID of the transaction.
CICS URID	If the transaction is controlled by the CICS syncpoint manager, the CICS URID might be displayed.
Appl ID	If the transaction is controlled by the CICS syncpoint manager, the CICS appl ID might be displayed.
TRUE	If the transaction is controlled by the CICS syncpoint manager, the name of the CICS Task Related User Exit might be displayed.
RRS URID	If the transaction is controlled by RRMS, the RRS URID might be displayed.
Owning ATM	The Node ID of the transaction manager that is currently local to the client who owns the transaction.

List Pending Error Records

To list pending error records, enter code 4. If a transaction fails in such a way that the ATM manager sets a pending response code, a pending error record might also be stored, so that the pending response code will survive a component failure, or restart of the transaction manager. Pending error records are listed like this:

```
07:41:53    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****     2006-04-19
                          -  Pending Error Records -                  T12640M1

Manager: 20531                                                Terminal: TCP0
                                                 Rsp- Sub-       Time
 C      ID          (Hex)          Jobname     code code    MMDD HH:MM   DBs
 _   TM?q   ?  E3D41B9800000007    DAEFCI18      9    86    0419 07:40     1
 _   TM?q   ?  E3D41B9800000011    QTT81013      9    86    0419 07:39     1









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

The fields in this screen are as described in the section **Display Pending Response Codes**.

For a more detailed display of an item, type D in the C column next to the item and press Enter. The resulting display has the same layout as the Pending Response Code Details screen

To delete a pending error record, type P (for "purge") in the C column next to the selected item and press Enter. You are prompted to confirm that the record should be deleted

Note: If you delete a pending error record using this function, the transaction manager retains details of the pending response code in memory. If the owner of the transaction tries to do further transactional work during the current execution session of the transaction manager, the pending response code will be given. If you want to remove the pending response code from the transaction manager's memory as well as from the recovery file, use the "delete" function of the Pending Response Details display.

6 Special Services

Special Services Menu

To display the Special Services menu

- Select service 4 from the main menu.

```
16:32:59    ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****      2006-05-29
                          -  Special Services  -                      V13000M1



                 Code    Service
                 ----    ---------------------------
                  1      Fix Display
                  .      Exit
                 ----    ---------------------------
          Code ..: _



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

From this menu, you can	Code	Command
access the fix display	1	4.1

Fix Display

To display the applied fixes

- Select option 1 from Special Services menu.

```
08:36:03   ***** A D A B A S   TRANSACTION MANAGER 8.2.1 *****    2010-04-23
            -  Fix Display: ATM 8.2.1 Patch: 0000 02/21/09  -     U1FIX0M1
              Local client job running this current session

  C  Patch Reference Type Description
  _  0000  AT821001  EXE  For example only









 Mark with any character for detail


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

Initially the screen will list all fixes applied to the Adabas Transaction Manager kernel in the local client environment.

Note: You can select other display perspectives (e.g. Coordinator daemon or Adabas database) by using PF4. You can also directly list the applied fixes for Adabas System Coordinator, Adabas Vista, and Adabas Fastpath by using PF11 to first select the appropriate product.

7 Adabas System Coordinator online administration

This section describes the administrative functions relating to Adabas Transaction Manager that are found with Adabas System Coordinator.

TM Global Transaction Time Limit

You can use the *network discovery* function in System Coordinator administration to display/modify the transaction manager global transaction time limit. Use the tasks function against a System Coordinator daemon to see what can be performed as follows…

Display/Modify TM global transaction time limit

To display/modify the Transaction Manager global transaction time limit

1 Use "T" on the row for the System Coordinator daemon where your transaction manager service is running to see the list of tasks allowed.

2 Select the "Set TM global transaction time limit" task and press PF5.

3 The following window will appear showing the current time limit:

```
10:30:49   Set TM Global Transaction Time Limit  2011-03-03
 Current target: 1650  Type: System Coord

   Current global transaction time limit: 720_____



              PF3 Exit    PF5 Set TMGTT
```

Modify the time limit by changing the value and pressing PF5.

Stop inactive Adabas sessions

You can use the *network discovery* function in System Coordinator administration to stop all sessions on a selected database that have been dormant for a specified number of seconds. Use the tasks function against a database to see what can be performed as follows…

Stop inactive sessions

To stop inactive sessions

1 Use "T" on the row for the appropriate database to see the list of tasks allowed.

2 Mark the "Stop inactive users" task, specify the dormant period and press PF5.

Current activity display

Use the System Coordinator *current activity display* function to see the activities of Adabas jobs and the client sessions within them, including specific detail for Transaction Manager.

Display job statistics

To display Adabas Transaction manager job statistics within System Coordinator:

- Use PF11 to select Adabas Transaction Manager and the following will appear:

```
12:31:24     ***** A D A B A S   SYSTEM COORDINATOR 8.2.1 *****     2011-03-03
                 -  Transaction Manager Session Statistics  -       U1STSOM4

 Node ID: LOCAL Session ID: CICSTC43 Hex: C3C9C3E2E3C3F4F3 Job Name: DAEFCI18

                  Transactions         Commits    Tran Timeout       Heuristic
                  ------------    ------------    ------------    ------------
   ATM only:                 0               0
   External:                 0               0

   Global:                   0               0               0               0









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

Display session statistics

To display Adabas Transaction manager session statistics within System Coordinator:

- Use PF11 to select Adabas Transaction Manager and the following will appear:

```
12:31:24     ***** A D A B A S   SYSTEM COORDINATOR 8.2.1 *****     2011-03-03
                  -  Transaction Manager Session Statistics  -       U1STSOM4

 Node ID: LOCAL Session ID: CICSTC43 Hex: C3C9C3E2E3C3F4F3 Job Name: DAEFCI18

                   Transactions         Commits    Tran Timeout       Heuristic
                   ------------    ------------    ------------    ------------
   ATM only:                  0               0
   External:                  0               0

   Global:                    0               0               0               0









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

Display session details

To display session details:

- Press PF9 from the Adabas Transaction Manager session statistics screen and the following will appear:

```
 12:32:32     ***** A D A B A S   SYSTEM COORDINATOR 8.2.1 *****     2011-03-03
                           -  Session Details  -                     U1TMAOM1

Job Name: DAEFCI18      Co-ordinator: ATM                Client Type: 00 - DTP
Terminal ID: TCR9     E3C3D9F900000000      Net Name: DAEETCR9 C4C1C5C5E3C3D9F9
Client ID:   TM?q   ? E3D41B9800000005      Status: 0020002002F0  TRN OPEN
CommID: 000FA10E 20860000 BEAD4038 F1705B42 00000001 C3C9C3E2 E3C3D9F9
   XID: C1C4C101 00000050 00000002 5033000F A10E2086 0000BEAD 4038F170 5B420000
        0001C3C9 C3E2E3C3 D9F9D7C4 E3C5E2E3 4040C4C1 C5C6C3C9 F1F8BEAD 405F290D
        7C020000 00000000 00000000 00000000 00000000 00000000 00000000 C2D80000
        00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
Adabas calls: 123                                  ASA: 1BC14FE8 GTQE: 1B63EA80
Last Function Call: 23 - STRT TRN                 Transaction model: DYNAMIC
 DBNo.   L/R   DTP  ETID    Status           |        Pending Response Codes
 135      L     N  PDTEST   8067 ET          |           Resp.   Subcode

 20532    L     Y           0265 CHANGED     |
                                             |
                                             |
                                             |
                                             |


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

The following information is provided:

Field	Description
Jobname	The name of the job under which this client session is running.
Coordinator	The transaction coordinator that has control of the session's transactions. Possible values are: ■ ATM: the local ATM has control. ■ CLIENT SIDE TC: the session's client-side transaction coordinator has control. ■ HOST TC: the host system transaction coordinator has control.
Client Type	The internal type code for the client session, followed by a summary interpretation. Possible values are: ■ DTP: a normal DTP-mode client. ■ SER: a client session that is operating in serial ET/BT mode. ■ NTR: a session for which the TM proxy does not invoke transparent transaction processing.

Field	Description
Terminal ID	Environment-specific identifier of the client session in character and hexadecimal format.
Net-Name	Environment-specific identifier of the client session.
Client ID	The Client ID in character and hexadecimal format.
Status	The session's status code in hexadecimal followed by a summary interpretation in character format. Possible values are: ■ CLT SYNC: syncpoint requested by client-side transaction coordinator. ■ FORCE BT: forced backout in progress. ■ GT: global transaction status. ■ IN BKOUT: an attempt to back out has not yet completed. ■ IN CMIT: an attempt to commit has not yet completed. ■ IN ET/BT: prepare/commit/backout in progress. ■ TM DOWN: TM unavailable. ■ TRN OPEN: transaction in progress. ■ UNKNOWN: transaction status not known. ■ XH ET: in extended hold (ET) status. ■ XH BT: in extended hold (BT) status .
CommID	The session's 28-byte Adabas Communication ID.
XID	The Transaction ID of the current transaction. This field contains binary zeros if the session has no transaction is progress.
Adabas Calls	The number of Adabas calls issued by the session.
ASA	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
GTQE	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
Last Function Call	The type of the most recent internal call sent by the TM proxy to the transaction manager for the session. Included for diagnostic purposes.
Transaction Model	The transaction model that is currently in use for the session.

The remainder of the screen displays:

- a list of databases with which the client is in session; and
- a list of up to five pairs of pending Adabas response codes and subcodes in reverse chronological order.

  If the list of databases is too long to fit on the display, "More" appears at the foot of the screen. Use PF7 to return to the top of the list and PF8 to scroll down the list.

List of Databases

Field	Description
DBNo.	Database ID.
L/R	Indicates whether the database is local to or remote from the client; that is, whether or not the database is executing in the same operating system instance.
DTP	Indicates whether distributed transaction processing is enabled for the database; that is, whether it is running with the runtime parameter ADARUN DTP=RM. If this field is blank, the setting of the database's DTP parameter is not currently known.
ETID	If the database session has an ETID, it is shown here; otherwise the field is blank.
Status	A summary of the current status of the database with respect to the current client session. Possible summary values are: ■ ET: the client has no pending updates on this database. ■ CHANGED: the client has uncommitted updates on this database. ■ XH: the database is in extended hold status. ■ BT RQD: backout must be performed on this database .

Client TC Display

If the session has an open transaction under the control of the local environment's client-side transaction coordinator (CLIENT SIDE TC), PF9 at the foot of the screen is labeled "TC". Pressing PF9 invokes the Client TC Display window showing the identifier used by the client-side transaction coordinator for the transaction.

Error Information

Press PF10 to display the contents of the feedback block returned by the local ATM when the TM proxy last sent a command to it on behalf of the session.

The format of the resulting pop-up window is the same as described in section **Display Error Information**.

Stop Adabas sessions

You can use the *current activity* function in System Coordinator administration to perform tasks against a selected session. First identify the session, and then use the PF10 "tasks" function off the session statistics display to see what tasks can be performed. One such task is the ability for administrators to automatically stop a selected session in all databases where that session is active. This is a large productivity gain because it avoids the administrator having to seek out manually those databases where this session is active.

To stop an Adabas session

1 Use PF10 “Tasks” off the session statistics display to see the list of tasks allowed.

2 Mark the “Stop Adabas UQEs” task, and press ENTER.