Adabas Transaction Manager

Adabas Transaction Manager Online Services

Version 7.5.1

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Adabas Transaction Manager

This document applies to Adabas Transaction Manager Version 7.5.1 and to all subsequent releases.

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

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1 Adabas Transaction Manager Online Services

This section describes the use of the ATM Online Services.

Using ATM Online Services	Online Services general use and navigation.
System Settings	This function can be used to modify the settings for the configuration file used by ATM.
Job Parameters	This function can be used to add/maintain ATM job parameters.
ATM Daemon Information	This function can be used to perform the following actions: ■ Display Users and Transactions ■ Display Detailed Information for Users and Transactions ■ Display Error Information ■ Stop Users and Terminate Transactions ■ Display Pending ET Data ■ Display Known Databases ■ Display Partner Transaction Managers ■ Perform Database Functions ■ List Recovery Records ■ Browse Suspect Transaction Journal ■ Browse Migrated Transaction Records ■ Display Daemon Statistics ■ Display Current Statistics ■ Display Transaction Times ■ Display High-Water Marks ■ Display Zap Information

	ATM Proxy Information	This function can be used to display information from the ATM proxy: ■ List Local Users ■ Display Zap Information

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 uses an Adabas link module with a TM proxy (that is, a TMP component) loaded.

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:

```
15:21:45     ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****        2004-03-05
                              - Main Menu -                           T1MAINM1

TM Node: 7064                                                  Terminal: E001


                  Code  Service
                  ----  ---------------------------------------
                    0   System Settings
                    1   Job Parameters
                    2   Transaction Manager Daemon Information
                    3   Local User Information (ATM Proxy)
                    4   About Adabas Transaction Manager
                    .   Exit
                  ----  ---------------------------------------
           Code ..: _


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


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

Whenever the `MENU` command is executed, the transaction manager proxy searches the system for an executing transaction manager (TM):

- If one is found, its Node ID (Database ID) is displayed.

- If no TM is executing, you may specify a TM daemon Node ID later.

  When the TM Node ID is displayed, it may be followed by the text "(Host TC Active)" indicating that the ATM node interface to the host system transaction coordinator is active. On a z/OS or OS/390 system, this means that the ATM RRMS interface is active.

The following options are available:

Option	Description
System Settings	Maintain configuration file setting.
Job Parameters	Add and maintain job parameter definitions.
Transaction Manager Daemon Information	Display ATM daemon information.
Local User Information	Display local user (ATM proxy) information.
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.

You can switch from the SYSATM application to SYSCOR, SYSAFP, SYSAVI or SYSAAF by pressing PF6, PF7, PF8 or PF9, respectively. You can achieve the same from most screens by entering COR, AFP, AVI or AAF, respectively, on the command line.

Note: If you use this facility to switch to SYSAFP, for example, you might find that the same mechanism does not return you to SYSATM 7.5. This will be corrected in a future update to SYSAFP. The same applies to SYSAVI, SYSAAF and SYSCOR. Meanwhile, you can correct the error by using SYSMAIN to copy the object U1CMDLS1 from library SYSMT751 to library SYSM*x*742, where *x* is W for Adabas Fastpath., V for Adabas Vista, P for Adabas System Coordinator, and X for Adabas SAF Security. Alternatively, you can simply log on to SYSATM once again.

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 Job Parameters 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
Job Parameter Maintenance	Menu	1
	Job Parameters	1.1
Transaction Manager Daemon Information	Menu	2
	Select Different Transaction Manager	2.1
	Global User Queue	2.2
	Active Global Transactions	2.3
	Display Known Databases	2.4
	Display Partner Transaction Managers	2.5
	Database Functions	2.6
	Display Daemon Statistics	2.7
	Display Zap Information	2.8
Local User Information	Menu	3
	Local Users	3.1
	Display Zap Information	3.2

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 user request. See section **Stop User**.
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. See section **List Local Users**.

PF Key	Label	Description
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 - 8	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.

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 7.5.1 *****      2004-03-05
                        -  System Settings  -                       T10000M1


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



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

From this menu, you can	Code	Command
customize the use of the configuration file (LFILE 152)	1	0.1

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           2004-03-05
                                                   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.

4 Job Parameters

This service is used to define/maintain job parameters for jobs that are to use Adabas Transaction Manager.

Note: See section Parameters for a complete description of all job parameters.

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

List Job Parameters

To display a list of existing jobs

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

```
15:23:17     ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****       2004-03-05
                    - Maintain Job Parameters List -                  T11000M1

                                                              <-- Reposition -->
                                                              Job Type: _________
                                                             Name:     _________
                               Daemon
   C   Job    Type    Job Name   Group
   _   CICS           DAEFCI18



Mark with D(isplay),M(odify),P(urge),R(ename),C(opy)
Top of List

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

Press PF11 to view the Adabas add-on products for which a job parameter is currently defined, and then press PF11 again in order to modify the parameters related to that product.

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

Add a Job Parameter

A set of job parameters includes the name of the Adabas System Coordinator group in which the job will execute. You must define the group before you create any ATM job parameters 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 job parameter definition

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

The following window will appear:

```
15:23:34          Add             2004-03-05
             Job Parameters        T11100M1

  Job Name: d
  (D = Default for Job Type)

               x  Batch
               _  COM-PLETE
               _  CICS Cluster
               _  CICS
               _  IMS/DC
               _  UTM
               _  TSO
               _  CMS
               _  TIAM
               _  None above
              Mark to Select a Job Type


 Command ==>
            PF1 Help      PF3 Exit
```

2 In the field Job Name, enter the name of the job. If you enter the value D in this field, a default job name will be assigned according to the job type that you select. Default job definitions are not available for job type CICS Cluster.

A job name may contain one or more asterisks (*) to indicate a wild card. For example, the job parameters with the name CICS**PR will be counted as a match for any job with the value CICS in positions 1-4 and the value PR in positions 7-8, no matter what the characters are in positions 5-6. If an asterisk (*) is the last character in a job name, the remainder of positions in the name through the eighth are padded with asterisks.

Job parameters are always matched on type. The order of search within type is

- a. Match on exact job name.
- b. Match on wild card definitions.
- c. Use the default for the job type, if one has been defined.

> **Note:** The number of wild card job names defined for a job type has a direct effect on the number of Adabas commands needed to establish the job parameters at initialization. This is particularly relevant to batch jobs that process relatively few Adabas commands.

3 Select a job type for the job from the list provided.

Each different job type has different characteristics, so it is important to select the correct type.

> **Note:** Select the job type "CICS" if CICS/MRO is to be used without dynamic transaction routing, or for other CICS environments. Select the job type "CICS Cluster" if CICS/MRO is to be used with dynamic transaction routing.

If you mark the selection "None above", another selection window will appear with additional job types. If you need to use any of these, contact Software AG for advice.

4 When you have entered the job name and specified the job type, press Enter. The following window will appear, showing the appropriate job name and type:

```
15:23:50           Add           2004-03-05
             Job Parameters       T11100M3


             Job Type: Batch

             Job Name: *DEFAULT
             (D = Default for Job Type)
                 ATM ON/OFF for Job: ON

             Coordinator Group Name: ______
             (Leave empty to select)

             ------------------------------------
              System Coordinator Runtime Controls
                       for Daemon Mode
                        Service Name:
              Coordinator Group Name:
             ------------------------------------
```

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

Note: The initial parameter values set up 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 used.

5 Enter or modify any of the following settings for the job, as required:

Parameter	Description
ATM ON/OFF for Job	This parameter is used to determine whether or not the job is to be managed by Adabas Transaction Manager.
Coordinator Group Name	Identifies the System Coordinator Group in which the job will execute.
System Coordinator Runtime Controls for Daemon Mode	Only required for jobs that run in daemon mode (controlled by the System Coordinator daemon). For information on these parameters, refer to the *Adabas System Coordinator* documentation.

Each job or TP system that uses Adabas Transaction Manager must belong to an Adabas System Coordinator group. 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.

Once the group has been defined, you can enter its name in the pop-up window pictured above. Alternatively, you can leave the input field blank, in which case you will be presented with a list of the groups that have already been defined; then you can select a group from the list. If only one group has been defined, this group's name will be provided instead of a list.

If the job has already been defined as running in daemon mode, the System Coordinator Runtime Control parameters will automatically appear in the pop-up window, and the name of the System Coordinator Group will also appear in the upper part of the window.

6 When you have entered all job parameter settings, press PF5 to save them and return to the list of job parameter sets. The new parameter set will appear in the list. Mark it with an 'm' and press enter. The Modify Job Parameters screen will be displayed, showing the default parameter values:

```
15:24:52    ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****       2004-03-05
                        - Modify Job Parameters -                      T11300M1

  Job Type: Batch
      Name: *DEFAULT Last modified 2004-03-05 at 15:25:50 by UKPD
                              Added 2004-03-05 at 15:24:28 by UKPD

            ATM ON/OFF ... ON
            SVC number ........................... 249
```

```
            System coordinator group name ........ CORGROUP
            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)
            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 .. YES      (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                           More  +Prod Menu
```

For specific information on each of these parameters, see section Parameters.

Use PF10 to display or modify System Coordinator parameter settings for the job or TP system. For further information refer to the *Adabas System Coordinator* documentation. See also Configuration Examples.

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

5 Transaction Manager Daemon Information

This function can be used to obtain Adabas Transaction Manager daemon information.

Daemon Information Menu

To display the ATM Daemon Information menu

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

```
15:25:58    ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****        2004-03-05
                 - Transaction Manager Daemon Information -          T12000M1

TM Node: 7064                                                    Terminal: E001

                Code    Service
                ----    ---------------------------
                 1      Select a different Transaction Manager
                 2      Global User Queue
                 3      Active Global Transactions
                 4      Display known Databases
                 5      Display Partner Transaction Managers
                 6      Transaction Manager Database Functions
                 7      Daemon Statistics
                 8      Display Zap Information
                 .      Exit
                ----    ---------------------------
          Code .: _      E <== List Format - C(ommunication ID) or E(TID)

          New TM 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	1	2.1
display global user queue	2	2.2
display active global transactions	3	2.3
display known databases	4	2.4
display partner transaction managers	5	2.5
invoke transaction manager database functions	6	2.6
display daemon statistics	7	2.7
display zap information	8	2.8

The Node ID of the ATM daemon you are currently working with is displayed on this screen and on most screens in this part of the application.

You can use PF2 to issue ATM operator commands to the current ATM node. If you omit the command prefix TM, SYSATM supplies it for you. For example, if you enter the command `NOLOG`, it will be changed to `TM 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 ATM daemon. If you enter the command `TM HALT` or `TM END` (or simply `HALT` or `END`), a window appears asking you to confirm your intention to close down the ATM daemon. See section Operator Commands for a completion 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 daemon that is executing in a different operating system image. In this case, select option 1 and enter the Node ID of the transaction manager daemon in the field New TM Node.

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

Display Users and Transactions

Display Users and Transactions

Option 2 provides information from the global user queue (GUQ) for all users currently known to the transaction manager, including those with no transaction in progress.

Option 3 provides a list of currently incomplete transactions and their owners.

The display format is the same for either option. You can obtain a list showing Communication ID or ETID/Client ID by entering C or E in the field List Sequence.

The list by Communication ID correlates the Communication ID and the ETID/Client ID:

```
15:27:09      ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****         2004-03-05

                            - Global User Queue -                          T12200M1


TM Node: 7064                                                        Terminal: E001

C L/R  <----------------------Communication ID----------------------> ETID/TCID
_ L    000F7100 20640000 B902BE37 DE383581 00000001 C3C9C3E2 C5F0F0F1 TM ?q ?
_ L    000F7100 20640000 B902C0D2 914965A2 00000001 C3C9C3E2 C5F0F0F2 PD03



 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	Enter a non-blank character and press Enter to obtain more detailed information about a particular user. See **Display Detailed Information for User**.
L/R	Indicates whether the user is local to (L) or remote from (R) the ATM daemon; that is, whether or not the user is executing in the same operating system instance.
Communication ID	The user's Communication ID in hexadecimal format.
ETID/TCID	The user's ETID or Client ID in character format.

The list by ETID provides more information:

```
15:50:34       ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****        2004-03-05
                              - Global User Queue -                       T12300M11


TM Node: 7064                                                        Terminal: E001

               <-------ETID/TCID--------->              Tx. Start  Last  Act
C  CLT  Char          Hex        Jobname    Status    MMDD HH:MM  MMDD HH:MM DBs TM
_   LE  PD03    D7C4F0F340404040  DAEFCI18   GT OPEN   0305 15:48  0305 15:48   2
 1
_   LT  TM ?q ? E3D4401B98000001  DAEFCI18   GT                    0305 15:50



 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	Enter a non-blank character and press Enter to obtain more detailed information about a particular user. See **Display Detailed Information for User**.
CLT	C: Contains one of the following transaction coordinator values: ■ P: transactions controlled by another ATM daemon. ■ C: transactions controlled by a client-side transaction coordinator. ■ H: transactions controlled by the host system transaction coordinator. ■ blank: if the user has a global transaction open, a blank indicates that the user's transactions are controlled by the current ATM daemon; otherwise, a blank has no significance. L: Indicates whether the user is local to (L) or remote from (R) the ATM daemon; that is, whether or not the user is executing in the same operating system instance. T: Contains one of the following values: ■ E: Indicates presence of an ET Data ID (ETID). ■ T: Indicates presence of a TM Client ID (TCID). A user who did not open with an ETID is represented by a unique, reusable identifier known as a TM Client ID (TCID).
Char	The user's ETID or TCID in character format.
Hex	The user's ETID or TCID in hexadecimal format.
Jobname	The name of the job under which the user is executing.
Status	A summary description of the user's current status. See **Display Detailed Information for User** for more information.
Tx.Start	The time at which the user's most recent transaction began; that is, the time of the transaction's first change-type command. Blanks in this column indicate that the user currently has no transaction in progress. In the above example, only user PD03 has a transaction open.
Last Act	The time at which the ATM daemon was last asked to perform some action on behalf of the user. For example, when the user's transaction changed another database.
DBs	The number of databases that have been changed by the user's current transaction. Blanks indicate that the user has no transaction in progress.
TM	The number of remote ATM daemons that are involved in the user's current transaction. Blanks indicate either that the user has no transaction in progress or the current transaction has not changed any remote databases.

Display Detail Information for a User

Detail information for a user can be obtained by marking the C column in the Global User Queue screen.

The following screen will appear:

```
15:53:21         ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****
2004-03-05
                              - User Details (Daemon) -
T12310M1


TM Node: 7064                                                        Terminal:
E001

User Type: 8C - LOCAL    ETID/TCID: PD03      D7C4F0F340404040   Jobname: DAEFCI18
Status: 8000100000 - GT OPEN Co-ordinator: THIS ATM               PRR ISN: 00000000
CommID: 000F7100 20640000 B902C560 B53A6482 00000001 C3C9C3E2 C5F0F0F2
   XID: C1C4C101 00000050 00000002 1B98000F 71002064 0000B902 C560B53A 64820000
        0001C3C9 C3E2C5F0 F0F2D7C4 F0F34040 4040C4C1 C5C6C3C9 F1F8B902 C6B15FFB
        76610000 00000000 00000000 00000000 00000000 00000000 00000000 C2D80000
        00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
   Start: 03/05 15:53.13    Tx Timeout: 15:59.24     N/A Timeout: 16:03.42
Last Act: 03/05 15:53.13                           UAB: 1B0287B8  GUQE: 1A9C3840
                 Pending Response: 000             Sub Code: 0000
<----------CHANGED DATABASES---------->        |   <---PARTICIPATING ATMs-->
 DBNo. TM Node    Status      Resp/subcode      |    TM Node   Status        Err
 47163   7066    0021 CHANGED   0    0         |     7066    0020 BRANCH     _
  7161           0021 CHANGED   0    0


 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
User Type	The type of user in hexadecimal format followed by an indication of whether the user is local to or remote from the ATM daemon.
ETID/TCID	The ETID or TCID in character and then in hexadecimal format.
Jobname	The name of the job under which the user session is executing.
Status	The user's status codes in hexadecimal followed by an indication of the most important element of the status code in character format. Possible character indicators are: ■ GT: no transaction is in progress for this user

Field	Description
	■ GT OPEN: this user has started a global transaction ■ IN PREP: the transaction for this user is in the prepare phase ■ PREPARED: the transaction for this user completed the prepare phase ■ IN CMIT: the transaction for this user is in the commit phase ■ IN BKOUT: the transaction for this user is being backed out ■ BKD OUT: the user's most recent transaction was backed out ■ MIXED: the user's most recent transaction completed with mixed committed and backed out status ■ BR OPEN: the user's transaction is a branch of a transaction owned by another ATM daemon
Coordinator	The transaction coordinator that has control of the global transaction. Possible values are: ■ THIS ATM: the ATM daemon indicated in the TM Node field (top left of screen) has control ■ OTHER ATM: the ATM daemon *nnnnn* has control ■ CLIENT TC: the user'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 current user's Communication ID. 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.
GUQE	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
CommID	The user's 28-byte Adabas Communication ID.
XID	The Transaction ID of the current global transaction. This field contains binary zeros if the user has no transaction is progress.
Start	The start time of the user's most recent transaction. The date has the format MM/DD.
Tx Timeout	The time at which the user's current transaction will reach the global transaction time limit. This field is blank if the user has no transaction in progress.
N/A Timeout	The time at which the user will reach the global non-activity time limit.
Last Act	The time at which the ATM daemon was last asked to perform some action on behalf of the user. The date has the format MM/DD.
Pending Response and Sub Code	The response code and subcode that ATM will return to the user when the opportunity arises. These fields normally contain zeros.

For a user with an open transaction, the remainder of the screen displays

- a list of databases changed by the current transaction;
- a list of remote ATM daemons that are responsible for remote branches of the current 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 PF7 to return to the top of the list and PF8 to scroll down the list.

Changed Databases

Field	Description
DBNo.	Database ID of the changed database.
TM Node	The Node ID of the remote ATM daemon executing in the same system image as the database. If the database is executing in the same system as the current ATM daemon, 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 ATM daemon for the transaction.

Participating ATMs

Field	Description
TM Node	The Node ID of the ATM daemon participating in the current transaction.
Status	The status of the ATM daemon with respect to the current transaction, followed by a summary value. Possible summary values are: ■ BRANCH: a transaction branch was created ■ IN PREP: the daemon was asked to prepare the transaction ■ PREPARED: the daemon prepared the transaction ■ IN CMIT: the daemon was asked to commit the transaction ■ COMMITTD: the daemon committed the transaction

Field	Description
	■ IN BKOUT: the daemon was asked to back out the transaction ■ BKD OUT: the daemon backed out the transaction ■ HEURIST: a heuristic decision was taken
Err	Enter a non-blank character and press Enter to display details of any errors recorded in an ATM'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 labeled "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 user's global user queue entry (GUQE).

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

To display the feedback block for a user, press PF10 on the User Details screen.

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

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

```
14:40:30         ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****       2004-03-05
                          - User Details (Daemon) -                        T11310M1


                     +--------------------------------------+
                     ! 15:21:34 ERROR INFORMATION 2004-03-05 !
                     !                               T1ERRIM1 !
                     !                                        !
                     ! ERROR CODES -          PRIMARY: 00204 !
                     !                      SECONDARY: 00204 !
                     !                       QUEUEING: 00000 !
                     !                     DATABASE NO.: 111 !
                     !                      COMMAND CODE: ET !
                     !          RESPONSE/SUB-CODE: 022 / 0021 !
                     !                                        !
                     ! AUTO-BACKOUT -     RETURN CODE: 00000 !
                     !                    DATABASE NO:       !
```

```
                        !                    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 user processing. The meaning of the error code in the fields Primary and Secondary can be found in the the section Messages and Codes. In the example, an ET command was issued to database 111 on behalf of the user, and a response code 22 (subcode 21) was returned. This response and subcode were returned to the user 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 User

This function can be used if it becomes necessary to stop a user because of a problem with a current or incomplete user transaction. For example, a user has abended without completing a transaction and it is necessary to free its resources. It can also be used to remove inactive users from the ATM daemon's global user queue.

To invoke this function, press PF5 on the User Details (Daemon) screen.

The following window will appear:

```
15:53:21      ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                       - User Details (Daemon) -                          T11310M1


                     +-----------------------------------------------+
                     ! 15:54:15       Stop Users          2004-03-05 !
                     !                                               !
                     ! WARNING: Transaction Integrity could be lost !
                     !     Select one of the following functions:    !
                     !     _ Stop a user                             !
                     !     _ Stop all users in same service          !
                     !     _ Stop all users                          !
                     !                                               !
                     !   Select additional options as required:      !
                     !     _ Close GUQE                              !
                     !     _ Transfer to STJ and force close         !
                     !                                               !
                     !                                               !
                     !    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        Menu
```

Mark one of the following functions:

Function	Description
Stop a user	Stop the user for which detail information is being displayed.
Stop all users in the same service	Stop the user for which detail information is being displayed and all other users in the same address space who have incomplete global transactions. This option can be used, for example, to stop all users in a given CICS region. When this option is invoked, a console message is issued so that the event can be audited.
Stop all users	Stop all users who currently have incomplete global transactions. When this option is invoked, a console message is issued so that the event can be audited.

Caution: If you stop a GUQE that represents either 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 user request, according to its current status. The GUQE for each affected user remains and correctly reflects the status of the user after the attempted completion. ATM will not, by default, attempt to complete a transaction or branch that is controlled by another ATM daemon 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 users and their incomplete transactions by marking one of the following options:

Option	Description
Close GUQE	Following ATM's attempt to complete the indicated users' transactions, it will terminate any of these users who are now at global transaction (GT) status by releasing their GUQEs. If for some reason (for example, a target database is inactive) a transaction cannot be completed, the GUQE remains.
Transfer to STJ and force close	This option causes the same processing as the Close GUQE option. Additionally, any of the selected GUQEs that then remain (because their transactions could not be completed) are copied to the suspect transaction journal (STJ) and removed from the GUQ, 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 for the affected users. This option is provided for emergency use only.

Display ET Data

Pressing PF6 from the Global Transaction Details screen will display a user's pending ET data if the transaction is partially through the commit process.

The ET data is displayed in hexadecimal and character format:

```
17:31:51     ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****           2004-03-05
                           - ET Data Display -                            T1ETDTM1


TM Node: 7064

Offset      <-------- Memory Contents -------->     <--Characters-->
00000000    C9E2D640 00010266 00000000 00000000     ISN ???
00000010    40404040 40404040 40404040 40404040
00000020    40404040 40404040 40404040 40404040



 Command ==>
```

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

Display Known Databases

Selecting option 4, Display Known Databases, from the Transaction Manager Daemon 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 ATM by remote ATM daemons.

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

```
15:57:30 ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                 - Display Known Databases -                         T12400M1


TM Node: 7064
                                                  Date/Time
C   DB No.   TM Node      DTP       Usage       MM/DD HH:MM.SS
_      131      7064        N
_      135      7064        N
_      161      7064        Y           2       03/05 10:32.42
_     7161      7064        Y           1       03/05 14:28.32
_     7169      7066        Y           2       03/05 15:49.27
_     7170      7066        Y                   03/05 15:49.30
_    47163      7064        E           1       03/05 15:49.27



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                           Menu
```

The following information is provided.

Field	Description
C	Command input field. The following options are provided: ■ L: list active global transactions that involve the selected database The format of the list is identical to that displayed using option 3 (active global transactions). ■ Q: quiesce all global transactions that involve the selected database ATM attempts to complete (commit or back out) any global transactions that involve the selected database, depending on the status of the transaction. If the ATM daemon 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.
TM Node	The Node ID of the database's local ATM daemon.
DTP	Indicates whether the database is running `DTP=RM` (Y), `DTP=NO` (N), or `DTP=ET` (E). If a `DTP=ET` database is not currently involved in any global transaction, the value N might be shown.
Usage	The number of open global transactions that involve the database.
Date/Time	The time at which the database's local ATM daemon 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 daemon started.

Display Partner Transaction Managers

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

```
16:01:49  ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                  - Display Partner ATMs -                            T12500M1


TM Node: 7064
   ATM Session: 140    COR Group: CORATMGP          Date/Time

TM Node    Jobname     Status       Session         MM/DD HH:MM.SS      Host TC
   7066    ATM7066     80 ACTIVE      65            03/05 15:49.27       N
```

```
 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
ATM Session	The ATM Session field above the table on this display indicates the number of the current session of the ATM daemon identified by the TM Node field above it. Session numbers begin with 1 when the ATM daemon is first started and increase by 1 each time ATM is restarted.
COR Group	This field above the table of partner ATM daemons displays the name of the Adabas System Coordinator group with which the local ATM daemon and its partner ATM daemons are associated.
TM Node	The remote ATM daemon's Database ID.
Jobname	The name of the ATM daemon job.
Status	The latest known status code for the remote ATM daemon, together with a summary interpretation. Possible values are: ■ ACTIVE: the ATM daemon is active ■ TM DOWN: the ATM daemon is not available ■ DB RSTRT: a database that is local to this ATM daemon has restarted; restart processing is required for any work involving this database ■ PND RSTT: the local ATM daemon must perform restart processing for work involving this remote ATM daemon
Session	The number of the current session of the partner ATM daemon. Session numbers begin with 1 when an ATM daemon is first started and increase by 1 each time it is restarted.
Date/Time	The time at which the remote ATM daemon was started.
Host TC	Indicates whether the remote ATM daemon is interfacing to its local host transaction coordinator. Only RRMS under z/OS or OS/390 is currently supported as a local host transaction coordinator for an ATM daemon.

Transaction Manager Database Functions

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

Selecting option 6, Transaction Manager Database Functions, from the Transaction Manager Daemon Information menu displays the following menu:

```
17:37:38 ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****            2004-03-05
               - Transaction Manager Database Functions -              T12600M1


TM Node: 7064
               Code Service
               ---- ----------------------------------
                  1 List Recovery Records
                  2 Browse Suspect Transaction Journal
                  3 List Migrated Transaction 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

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

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

```
16:04:01  ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****            2004-03-05
                     - Suspect Transactions -                           T12610M1


TM Node: 7064                                                    Terminal: E001

C L/R  <----------------------Communication ID---------------------->  ETID/TCID
_ 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
_ L    000F7100 20640000 B8F9938D 47175901 00000001 C3C9C3E2 C5F0F0F0  03
_ L    000F7100 20640000 B8F99907 AC956D22 00000001 C3C9C3E2 C5F0F0F0  33


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 fields on this screen are described in the section **Display Users and Transactions**.

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 **User Details screen**.

To delete a record from the STJ or the recovery record file, type P 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 user executes in an environment in which dynamic transaction routing can take place, and the user's session is migrated from one system image to another while the user 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, not in the ATM daemon's database, but in a central file store that is provided for the Adabas System Coordinator daemons in the associated COR group.

```
16:04:01 ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****             2004-03-05
                     - Migrated Transactions -                          T12630M1


TM Node: 7064                                                 Terminal:TCX5

C      <----------------------Communication ID---------------------->  TM Node
_      000F7100 20640000 40404040 40404040 00F71380 B8E71F47 3206D801   7066




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 user's 28-byte Adabas Communication ID.
TM Node	The Node ID of the ATM daemon that is currently local to the user who owns the transaction.

The Display function produces a display with the following format:

```
16:04:01   ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                  - Migrated Transaction Details -                     T12631M1


TM Node: 7064                                                    Terminal:TCX5

CommID: 000F7100 20640000 40404040 40404040 00F71380 B8E71F47 3206D801
   XID: C1C4C101 00000050 00000002 1B98000F 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 daemon:  7066




 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
CommID	The 28-byte Adabas Communication ID of the user 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 applID 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 daemon	The Node ID of the ATM daemon that is currently local to the user who owns the transaction.

Display Daemon Statistics

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

Selecting option 7, Daemon Statistics, from the Transaction Manager Daemon Information menu displays the following menu:

```
10:24:20  *****  A D A B A S TRANSACTION MANAGER 7.5.1    *****      2004-03-05
               -  Transaction Manager Statistics Functions  -        T12700M1


                     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                                                  Menu
```

Current Statistics

This function displays statistical information about transactions and clients for which this ATM daemon has done work. The display has the following format.

```
10:32:47   ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****       2004-03-05
                     -  Current Statistics  -                        T12710M1


TM Node: 7064

                                Tran        Nonact      Heur-     Client
       Transactions  Commits    timeout     timeout     istic     sessions
       ------------  -------    -------     -------     -----     --------
ATM-
 only           235      227          2
Extrn.         1311     1307
       ------------  -------    -------     -------     -----     --------
Total          1546     1534          2           0         0
       ------------  --------   --------    --------    -----     --------
 Open             0                                                    22
 HWM             19                                                    53
       ------------                                                 --------




  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 ATM daemon appears on the line that begins “Total”. This figure is broken down on the preceding lines into transactions that were controlled only by ATM daemons (“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 global transactions, or branches, that are currently open and that involve this ATM daemon. “HWM” indicates the high-water mark for global transactions; that is, the highest number of transactions, or branches, that have been in progress at the same time, involving this ATM daemon.

Field	Description
Commits	This column indicates how many of the transactions, or branches, that this daemon has processed were committed. The total is broken down into those that were controlled solely by ATM daemons, and those that were controlled by an external transaction coordinator.
Tran timeout	This column indicates how many of the transactions, or branches, that this daemon 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 daemons, and those that were controlled by an external transaction coordinator.
Nonact timeout	This column indicates how many of the transactions, or branches, that this daemon has processed were backed out because the global nonactivity time limit was exceeded. The total is broken down into those that were controlled solely by ATM daemons, and those that were controlled by an external transaction coordinator.
Heuristic	This column indicates how many of the transactions, or branches, that this daemon has processed, have had some degree of heuristic termination, either by an ATM daemon or by a database. The total is broken down into those that were controlled solely by ATM daemons, and those that were controlled by an external transaction coordinator.
Client sessions	The line beginning “Open” indicates the current number of users who are currently known to the ATM daemon; that is, the current number of global user queue elements. The line beginning “HWM” indicates the high-water mark for global user queue elements; that is, the highest number of elements that have existed at the same time in this ATM daemon’s global user queue.

Transaction Times

This function displays timing statistics for transactions (or branches) managed by the daemon. The display has the following format.

```
10:33:22  ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****        2004-03-05
                   -  Transaction Times   -                          T12720M1


TM Node: 7064

                 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 ATM daemon 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 ATM daemon, that completed within the time range indicated by the left-most column.
Committed	The number of transactions, or branches, committed by this ATM daemon, that completed within the time range indicated by the left-most column.
Backed out	The number of transactions, or branches, backed out by this ATM daemon, 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 ATM daemon's resources, including its main storage areas.

The information provided can be used to determine if the settings for the ATM parameters `TMDRQ` and `TMDYNTCIDS` are satisfactory.

```
10:35:56 ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                      - High-Water Marks -                           T12730M1


TM Node: 7064

         Item           Max     HWM    Hits           First Hit

         TMABA                   37       4          03/05 09:54
         TMDRQ            10      0       0
         TMRQ2                    2       1          03/05 09:54
         TMDYNTCIDS    10000     13       2          03/05 09:51
         TMGUQ                   53       1          03/05 09:55
         TMGTQ                   19       3          03/05 09:54
         TMNODES         191      3       1          03/05 09:41
```

```
         TMTARGETSG     191       3       4          03/05 09:45
         TMTARGETST     191       2    1058          03/05 09:50
         TMs/tran       191       2     331          03/05 09:49



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

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
TMABA	Adabas buffer areas.
TMDRQ	Deferred request queue (ADARUN parameter).
TMRQ2	Internal request queue.
TMDYNTCIDS	Count of dynamic Client IDs (ADARUN parameter).
TMGUQ	Global user queue.
TMGTQ	Global transaction queue. This is a subset of the global user queue. A global user queue element belongs also to the global transaction queue, if and only if it is associated with a currently open global transaction or branch.
TMNODES	Number of remote ATM daemons.
TMTARGETSG	Number of databases.
TMTARGETST	Number of databases in a single transaction.
TMs/tran	Number of remote ATM daemons in a single transaction.

Display Zap Information

This function can be used to determine the zaps that have been applied to the ATM kernel module that is being used by the ATM daemon with which you are working.

This function is invoked by selecting option 8, Display Zap Information, on the Transaction Manager Daemon Information menu. The following screen will appear:

```
16:07:35 ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****        2004-03-05
                    - Display Zap IDs (ATvrlnnn) -                 T1ZAPDM1



04/16/04 7064 ATMZ      Version: 7.5.1        Job Name: ATM7064

--- --- --- ---   5 ---   7 --- --- --- --- --- --- --- --- ---
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---




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

The number displayed represents the last 3 digits of the actual zap number with leading zeros suppressed. In the example, zap AT751005 appears as 5 and zap AT751007 appears as 7.

6 Local User Information

The Local User Information option provides information from the TM proxy component in the Adabas link module that your ATM Online Services session is currently using. For example, if your session is executing in a CICS region, information is provided about users in that CICS system who are using the same Adabas link module.

Local User Information Menu

To display the User Information menu

- Select service 3 from the Online Services main menu.

  The following menu will appear:

```
16:08:30  ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                        - User Information -                          T13000M1


Job Name: DAEFCI18

                     Code    Service
                     ----    --------------------------------
                       1     Local Users
                       2     Display Zap Information
                       .     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
list local users	1	3.1
display zap information	2	3.2

List Local Users

This function produces a list of all users of the TM proxy currently being used by your session.

```
16:08:43   ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****            2004-03-05
                        - Local Users -                                  T13100M1


Job Name: DAEFCI18

   <------Terminal ID------>    <-------ETID/TCID------->  T
C   Char  Hex              T    Char Hex              Typ  C  Status
_   E000  C5F0F0F000000000 T         0000000000000000 NTR     804000 GT
_   E000  C5F0F0F000000000 T         0000000000000000 DTP  A  806000 GT
_   E001  C5F0F0F100000000 T         0000000000000000 NTR     804000 GT
_   E001  C5F0F0F100000000 E     05  F0F5404040404040 DTP  A  802000 GT
_   E002  C5F0F0F200000000 T         0000000000000000 NTR     804000 GT
_   E002  C5F0F0F200000000 E   PD03  D7C4F0F340404040 DTP  A  002000 TRN OPEN



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

The following information is provided:

Field	Description
C	Enter a non-blank character and press Enter to obtain more detailed information about a particular user.
Terminal ID	The environment-dependent identifier of the user session in character and hexadecimal format. For example, the identifier for a CICS user is usually the user's CICS terminal ID. Use PF11 to toggle between Terminal ID and Net Name.
Net Name	The environment-dependent identifier of the user session. For example, the identifier for a CICS user is usually the session's VTAM LUname. Use PF11 to toggle between Terminal ID and Net Name.
T	The value T indicates the presence of a TM Client ID (TCID). The value E indicates an ETID. A user who did not open with an ETID is represented by a unique, reusable identifier known as a TM Client ID (TCID).
ETID/TCID	The ETID or TCID for each user, in character and hexadecimal format.
Typ	The user type. Possible values are: ■ DTP: a normal DTP-mode user

Field	Description
	■ SER: a user that is operating in serial ET/BT mode ■ NTR: a user for whom the TM proxy does not invoke transparent global transaction processing
TC	The transaction coordinator that has control of the user's global transactions. Possible values are: ■ A: the local ATM daemon has control ■ C: the local client-side transaction coordinator has control ■ H: the host system transaction coordinator has control
Status	The user's current status values together with a summary interpretation, as known by the TM proxy. 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 ■ SESS ERR: the user is not in session with ATM ■ 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

Display User Details

Whenever the C column for a particular user is marked, a screen similar to the following will be displayed:

```
16:09:34  ***** A D A B A S TRANSACTION MANAGER 7.5.1 *****          2004-03-05
                        - User Details -                             T13110M1


Job Name: DAEFCI18      Co-ordinator: ATM  User Type: 00 - DTP
Terminal ID:  E002        C5F0F0F200000000 Net Name: TPXGE002 E3D7E7C7C5F0F0F2
ID Type: E ETID/TCID:PD03 D7C4F0F340404040 Status: 0020000000 - TRN OPEN
CommID: 000F7100 20640000 B902C560 B53A6482 00000001 C3C9C3E2 C5F0F0F2
   XID: C1C4C101 00000050 00000002 1B98000F 71002064 0000B902 C560B53A 64820000
```

```
        0001C3C9 C3E2C5F0 F0F2D7C4 F0F34040 4040C4C1 C5C6C3C9 F1F8B902 C7FCD5C9
        D5010000 00000000 00000000 00000000 00000000 00000000 00000000 C2D80000
        00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
Adabas Calls: 862   Transactions: 3               UAB: 1B0287B8 GUQE: 1A9C3840
Last Function Call: 24 - NEW TRGT                 Transaction model: MESSAGE

DBNo. L/R DTP Status                          | Pending Response Codes
  135  L   N  8067 ET                        | Resp. Subcode
47163  R   Y  0064 CHANGED                   |
 7161  L   Y  0265 CHANGED                   |


 Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---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 Online Services session is running.
Coordinator	The transaction coordinator that has control of the user's global transactions. Possible values are: ■ ATM: the local ATM daemon has control ■ CLIENT SIDE TC: the user's client-side transaction coordinator has control ■ HOST TC: the host system transaction coordinator has control
User Type	The internal type code for the user, followed by a summary interpretation. Possible values are: ■ DTP: a normal DTP-mode user ■ SER: a user that is operating in serial `ET/BT` mode ■ NTR: a user for whom the TM proxy does not invoke transparent global transaction processing
Terminal ID	Environment-specific identifier of the user session in character and hexadecimal format.
ETID/TCID	The ETID or TCID for each user, in character and hexadecimal format.
Net-Name	Environment-specific identifier of the user session.
ID Type	Indicates whether the user has an ETID (E) or a TCID (T).
SETID/TCID	The ETID or TCID in character and hexadecimal format.
Status	The user's status code in hexadecimal followed by a summary interpretation in character format. Possible values are:

Field	Description
	■ 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 ■ SESS ERR: the user is not in session with ATM ■ 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 user's 28-byte Adabas Communication ID.
XID	The Transaction ID of the current global transaction. This field contains binary zeros if the user has no transaction is progress.
Adabas Calls	The number of Adabas calls issued by the user.
Transactions	The number of global transactions executed by the user.
UAB	This field contains internal information which might be useful to Software AG's support staff in problem resolution.
GUQE	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 ATM daemon for the user. Included for diagnostic purposes.
Transaction Model	The transaction model that is currently in use for the user.

The remainder of the screen displays:

- a list of databases with which the user 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 user; 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`.
Status	A summary of the current status of the database with respect to the current user. Possible summary values are: ■ ET: the user has no pending updates on this database ■ CHANGED: the user 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 user 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 daemon when the TM proxy last sent a command to it on behalf of the user.

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

Display Zap Information

This function can be used to determine the zaps that have been applied to the ATM kernel module that is being used by the TM proxy executing in the Adabas link module that your session is currently using.

This function is invoked by selecting option 2, Display Zap Information, on the User Information menu.

The **resulting screen** output has the same format as that described for displaying zaps for an ATM daemon.

Use PF9 to produce a similar display that shows which zaps have been applied to the Adabas System Coordinator kernel (CORKRN) that is being used by your current session.

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