New Features

This section provides an overview of the new features provided with this release.

- Transaction Management Service Runs within the Adabas System Coordinator Daemon

- Recovery File

- Improved Feedback During Normal Termination of the Transaction Management Service

- Alternate Console

- Transaction Manager failover

- Single-System Crash Recovery (DTP) Support

- Stop inactive Adabas sessions

- Stop Adabas sessions

- Support for the Adabas shared hold status

- Dynamic modification of TM Distribution transaction timeout

- Activity Display for jobs

- Activity Display for client sessions

- Allow new memory management options, including CICS crash recovery

- XML EXPORT for configuration objects

- Security protection for online administration

- Support for Natural zIIP

- Transaction Manager controls are now online

- New client runtime control "Distributed transaction timeout"

- New TM control "Enforce ADARUN DTP=RM"

- New client runtime control "ET data storage location"

- Unified Trace

- Support for Optimize for Infrastucture

Transaction Management Service Runs within the Adabas System Coordinator Daemon

With Version 8.2, the transaction management service now runs within the Adabas System Coordinator daemon, no longer as an ADARUN DTP=TM. This allows (for example) Transaction Manager to acquire many COR-based features such as allowing observation of client activities through the system, participation in systems-wide newcopy, etc. This also allows ATM to improve recovery and fail-over transaction management in multi-systems. It also means ATM has improved its internal recovery file processing allowing more throughput to be achieved.

Recovery File

The transaction manager uses a recovery file to store vital recovery information. With previous versions this recovery information was maintained in a number of Adabas files residing in a special Adabas database running as DTP=TM. With Version 8.2 all recovery information is maintained in a single direct access file defined to the Adabas System Coordinator daemon where the transaction manager service runs. The recovery file is shared by all transaction managers operating in the same Adabas System Coordinator group.

Note:
It is very important that all transaction managers operating within the same Adabas System Coordinator group **share the same recovery file**.

Improved Feedback During Normal Termination of the Transaction Management Service

Normal termination of the transaction management service demands that existing transactions are completed. This can delay shutdown. In the past the transactions blocking termination were not easily visible. Now normal termination shows basic details of up to 5 of the transactions presently blocking termination as messages in the daemon. These messages will appear every sixty seconds until termination can take place. In normal situations, once termination has commenced there are very few transactions that will block termination for long but if there is a situation where some transactions are not completing for some reason these messages will be invaluable in allowing you to determine the cause of the blockage.

Alternate Console

Console messages may be issued by Adabas Transaction Manager in client jobs, in databases and in System Coordinator daemons. Until now the console has been the only place where you can see them but now you can direct them to an alternate destination. You can accumulate messages as they have been in the past or you can now accumulate them in a file associated with individual client jobs or collect messages for all client jobs into a file in the Coordinator daemon.

- Transaction Manager Client Message Alternates

- Transaction Manager Database Message Alternates

- Transaction Manager Service Message Alternates

Transaction Manager Client Message Alternates

The new Adabas System Coordinator Runtime messages client runtime control allows client messages to be routed to:

- The console.

    This is compatible with previous releases.

- A local DDMSG file in the client job.

    The JCL for the job must be altered to accommodate this option.

- Both the console and a local DDMSG file.

- A DDMSG defined by the System Coordinator daemon.

    The daemon JCL must be altered.

Transaction Manager Database Message Alternates

The new Adabas System Coordinator daemon group setting Runtime messages – databases allows messages to be routed to:

- The console.

    This is compatible with previous releases.

- A local DDMSG file in the database job.

    The JCL for the job must be altered to accommodate this option.

- Both the console and a local DDMSG file.

Transaction Manager Service Message Alternates

The new Adabas System Coordinator daemon group setting Runtime messages – daemon allows messages to be routed to:

- The console.

    This is compatible with previous releases.

- A local DDMSG file in the daemon job.

    The JCL for the job must be altered to accommodate this option.

- Both the console and a local DDMSG file.

Transaction Manager failover

Transaction Managers now collaborate in multi-systems to provide failover capabilities, refer to Transaction Manager failover for more information.

Single-System Crash Recovery (DTP) Support

With Version 8.2, Adabas Transasction Manager (in conjunction with the Adabas System Coordinator) provides support for single-system crash recovery in a DTP environment.

Stop inactive Adabas sessions

Adabas Transaction Manager now provides a function to stop inactive Adabas sessions. This feature is provided as part of the *tasks* in the System Coordinator *network discovery* function.

Stop Adabas sessions

Adabas Transaction Manager now provides a facility to stop a selected Adabas session in all the databases where it is active. This feature is provided as part of the *tasks* in the System Coordinator *current activity/session display* function. This is a large productivity gain because it avoids the administrator having to seek out manually those databases where this session is active, it is far quicker to have it performed by Transaction Manager automatically.

Support for the Adabas shared hold status

Adabas Transaction Manager supports the use of the Adabas competitive updating control called Shared Hold Status. Refer to the Shared Hold Status section in Termination Commands: ET and BT for more information.

Dynamic modification of TM Distribution transaction timeout

You can now adjust the TM's Distribution transaction timeout setting. This feature is provided as part of the *tasks* in the System Coordinator *network discovery* function.

Activity Display for jobs

You can now display all Transaction Manager activities for every job in the system whether running local, pulsing or daemon mode. This allows you to see exactly what is happening in each job in the system. Please refer to the Transaction Manager Activity display for jobs.

Activity Display for client sessions

You can now display all Transaction Manager activities for every Adabas client session in the system whether running local, pulsing or daemon mode. This allows you to see exactly what is happening in each Adabas client session in the system. Please refer to the Transaction Manager Activity display for client

sessions.

Allow new memory management options, including CICS crash recovery

Transaction Manager is fully compliant with the new memory management options introduced with Adabas System Coordinator. These options reduce the amount of memory consumed and also allow advanced crash-recovery capabilities for compliant TP systems such as CICS. Refer to the Adabas System Coordinator for more information on the types of options you can choose.

XML EXPORT for configuration objects

Configuration objects can now be exported in XML form. For more information please refer to the Adabas System Coordinator documentation.

Security protection for online administration

Adabas SAF Security sites who also use Transaction Manager can now secure the use of Transaction Manager online administration. Refer to the section SAF Security Settings for more information on how to implement this.

Support for Natural zIIP

Compliance for running in z/OS zIIP mode is introduced. This also requires the use of the base Adabas maintenance ADA824.LX08 (or equivalent for other releases of Adabas).

Transaction Manager controls are now online

You can now define and maintain Transaction Manager controls using the daemon maintenance (within group) function in System Coordinator administration.

For more information refer to How to maintain TM controls.

The table below shows the old TM parameter input and the corresponding new online configuration (including any corresponding client runtime controls):

Old TM Parameter	Values	Online configuration	Values
TMETDATA	ATM / TARGETS	**TM Control:** ET data storage location	TM / RM
		Client runtime control: ET data storage location	TM / Adabas / RM / NONE
TMGTT	1 to 16777215	**TM Control:** Distributed transaction timeout	1 to 16777215
		Client runtime control: Distributed transaction timeout	0 to 16777215
TMRESTART	Normal / Force / Forceall	**TM Control:** Transaction recovery	Normal / Force / Forceall
TMSYNCMGR	None / RRMS	**TM Control:** Open distributed transaction (system)	No / Yes
TMDRQ	10 to 32767	**TM Control:** Open distributed transaction (system)…Concurrency	10 to 32767
TMMSGSEV	0 / 4 / 8	Discontinued	
TMTCIDPREF	Alphanumeric	Discontinued	

Important:
Please review your new online TM configuration controls to make sure it correctly reflects your processing requirements.

New client runtime control "Distributed transaction timeout"

You can now override the TM distributed transaction timeout control value by using the new client runtime control of the same name. For more information about this new client runtime control refer to Distributed transaction timeout in the *Adabas Transaction Manager, Parameters, Client Runtime Controls* documentation.

New TM control "Enforce ADARUN DTP=RM"

Using this new TM control, you can make sure that all databases involved in a distributed transaction are running with ADARUN DTP=RM and are successfully connected to the TM. For more information about this new TM control refer to Enforce ADARUN DTP=RM in the *Adabas Transaction Manager, Parameters, TM Controls* documentation.

New client runtime control "ET data storage location"

You can now specify your required ET data storage location at the job level with this new client runtime control. For more information about this new client runtime control refer to ET data storage location in the *Adabas Transaction Manager, Parameters, Client Runtime Controls* documentation.

Unified Trace

Adabas System Coordinator 8.2.2 provides a unified trace feature that allows consistent diagnosis of client, database and daemon jobs configured to use Adabas System Coordinator and any of its related products: Adabas Fastpath, Adabas Transaction Manager, Adabas Vista and Adabas SAF Security.

This feature replaces the internal logging capability previously provided by the ATM client proxy and TM.

Support for Optimize for Infrastucture

Adabas Transaction Manager client jobs keep statistics for each job that is running in addition to each session. These statistics can be seen in the activities displays of System Coordinator. These statistics will form the basis of integration with Optimize for Infrastructure in a forthcoming service pack of this release