software AG

Adabas Transaction Manager

Glossary

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Adabas Transaction Manager

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Glossary

This glossary provides definitions for major terms used within Adabas Transaction Manager.

A

Adabas System Coordinator	A set of software components that provides common interfaces and services for use by products such as Adabas Transaction Manager, Adabas Fastpath and Adabas Vista.
Adabas Transaction Manager	A software component that executes in its own address space as a special type of Adabas nucleus. ATM manages the process of committing global transactions across Adabas databases on behalf of users to ensure global transaction integrity.
ATM	See Adabas Transaction Manager.
ATM daemon	The server component of ATM. This component of ATM provides transaction coordination and restart/recovery logic.

B

back out	The process of removing the changes made as part of a global transaction that has not completed (synonymous with roll back).
branch	See transaction branch.

C

commit	The successful completion of a transaction. After commit, all actions by resource managers on behalf of the transaction are guaranteed to be durable (permanent), even if any parts of the system fail. In terms of Adabas: end-of-transaction (ET).
complete a global transaction	The process of either backing out or committing a prepared global transaction.

See also back out, roll back, rollback, commit, global transaction, and prepare.

COR	An abbreviation for Adabas System Coordinator.
COR group	A group of one or more Adabas System Coordinator daemons that together provide services to a related group of application jobs or other software components.

D

distributed transaction processing	The execution of business transactions that are allowed to extend over multiple resource managers. A DTP system implies the use of two-phase commit processing and typically consists of application programs, resource managers, and a transaction manager per system image.
DTP	See distributed transaction processing.
DTP mode	The method of committing global transactions that relies on the two-phase commit protocol (see also serial mode).
DTR	See dynamic transaction routing.
dynamic Client ID	A unique but reusable identifier assigned by the transaction manager to a user who has no ETID.
dynamic transaction routing	A load-balancing and availability function, offered by some application environments, which allows user sessions to migrate from one address space to another, possibly in a different operation system image.

G

global transaction	A complete unit of work involving a number of actions performed by one or more resource managers. A transaction must be atomic (performed completely or not at all), consistent, isolated from other transactions, and (once it has been completed) durable.
	See also transaction.
global user queue	The user queue that the ATM daemon maintains. It contains an entry for:

- each DTP-mode user known to ATM in the local system; and

- each active transaction branch belonging to a remote user.

GUQ	See global user queue.

J

job parameters	Parameters that govern the behavior of the ATM proxy for a particular job, or the behaviour of an ATM daemon.

P

partner ATM daemon	In a configuration that includes more than one operating system instance, an ATM daemon must execute in each system that is to participate in distributed transaction processing. The ATM daemons are referred to as partner ATM daemons.
PRR file	Persistent recovery record file. See recovery record file.
prepare	The first phase of the two-phase commit process, during which target databases arrive at a recoverable state from which they can either commit or roll back the changes they have made as part of a global transaction.

R

recovery record file	A file in the ATM daemon's database that contains recoverable details of active transactions that have not fully completed.
resource manager	A software component that is responsible for managing changes to a set of resources. Typically, an RM is an instance of a database management system (DBMS).
RM	See resource manager.
roll back	The process of removing the changes made as part of a global transaction that has not completed (synonymous with back out). After a rollback, all actions by resource managers on behalf of the transaction have been undone.
	In terms of Adabas: back out transaction (`BT`).

S

serial mode	The method of transaction control that relies on a series of single-phase commit operations to secure a global transaction. This protocol does not guarantee global transaction integrity.

	See also DTP mode.
STJ file	See suspect transaction journal file.
suspect transaction journal file	A file in the transaction manager daemon's database that contains details of incomplete transactions that have been purged from the transaction manager memory by operator intervention or by using Online Services.
syncpoint	The point in a transaction at which the decision to commit or back out takes place.
SYSCO daemon	An abbreviation for Adabas System Coordinator daemon – a software component that executes in its own address space and provides services to the ATM daemon and other software components.
SYSCO file	A central file store, managed by a group of SYSCO daemons, for use by other software components, such as ATM daemons.

T

TM	See transaction manager.
TMP	See transaction manager proxy.
transaction	A complete unit of work involving a number of actions performed by one resource manager. A transaction must be atomic (performed completely or not at all), consistent, isolated from other transactions, and (once it has been completed) durable. See also global transaction.
transaction branch	A part of a global transaction that is managed as a subordinate unit of the transaction as a whole. A transaction that crosses system boundaries has a branch on each affected system that is remote from the user; the ATM daemon on each of these systems manages the corresponding transaction branch on behalf of the ATM daemon that is local to the user.
transaction identifier	A unique identifier of a global transaction. Also known as XID.
transaction manager	A software component that is responsible for coordinating transactions that change resources controlled by more than one resource manager.
transaction manager proxy	A software component that executes as a subroutine of an Adabas link module and interfaces with Adabas Transaction Manager on behalf of each user.

transactional Adabas command	A type of Adabas command that affects or is related to the processing of global transactions.
transparency	The feature of Adabas Transaction Management that makes it possible for an application program to benefit from global transaction integrity without being aware of the two-phase commit process.
two-phase commit	A protocol for ensuring the integrity of global transactions.

U

unsolicited syncpoint request	A request to commit or back out a global transaction that is issued by some software component without involving the application's ATM proxy.

X

XID	See transaction identifier.