

Glossary

Active	Refers to objects currently being displayed or used. For example, in graphical user interface, the <i>active window</i> is the window currently receiving mouse and keyboard input. In spreadsheet applications, the <i>active cell</i> is the cell, usually highlighted, in which data can be entered or modified. The <i>active program</i> is the program currently running.
Activity	A collection of Microsoft COM+ objects that has a single distributed logical thread of execution. An <i>activity</i> is a set of objects executing on behalf of a base client application. Every COM+ object belongs to one activity. This is an intrinsic property of the object and is recorded in the object's context. The association between an object and an activity cannot be changed. An activity includes the COM+ object created by the base client, as well as any COM+ objects created by that object and its descendants. These objects can be distributed across one or more processes, executing on one or more computers.
Aggregation	A composition technique for implementing component objects whereby a new object can be built using one or more existing objects that support some or all of the new object's required interfaces.
Algorithm	A formula or set of steps for solving a particular problem. To be an algorithm, a set of rules must be unambiguous and have a clear stopping point.
Apartment Thread	A thread used to execute calls to objects of components configured as "apartment threaded". Each object "lives in an apartment" (thread) for the life of the object. All calls to that object execute on the apartment thread. This threading model is used, for example, for component implementations that keep object state in thread local storage (TLS). A component's objects can be distributed over one or more apartments.
Attribute	A characteristic or property of an application monitor that the user can change.
COM	Component Object Model, an open architecture for cross-platform development of client/server applications based on object-oriented technology. Clients have access to an object through interfaces implemented on the object. COM is language neutral, so any language that produces ActiveX components can also produce COM applications.
Component	A small binary object or program that performs a specific function and is designed in such a way to easily operate with other components and applications. Increasingly, the term is being used interchangeably with applet.
Concurrency	The appearance of simultaneous execution of processes or transactions by interleaving the execution of multiple pieces of work.

Current	Refers to an object that is acting as a reference point. For example, the <i>current directory</i> is the same as the <i>working directory</i> or <i>default directory</i> .
Heuristic	Use of artificial intelligence to make an educated guess or decision based on common-sense rules drawn from experience to solve problems. Heuristic programming is based on self-learning computer programs whose decision-making capabilities improve with experience. This is in contrast to <i>algorithmic programming</i> , which is based on mathematically provable procedures. In an application monitor logging an In Doubt situation, a heuristic decision to abort or commit is made.
In-doubt Transaction	A transaction that has been prepared but hasn't yet received a decision to commit or abort because the server coordinating the transaction is unavailable.
Instance	An object of a particular component class. Each instance has its own private data elements or member variables. A component instance is synonymous with object.
Load Balancing	Distribution of the processing load among several servers carrying out network tasks to increase overall network performance.
Main Thread	A single thread used to run all objects of components marked as "single threaded."
Marshaling	A process of packaging and sending interface method parameters across thread or process boundaries.
Method	A procedure function that acts on an object.
Metrics	The statistical analyses that result from aggregating and correlating the events provided by COM+ and the underlying operating system.
Object	Generally, any item that can be individually selected and manipulated. This can include shapes and pictures that appear on a display screen as well as less tangible software entities. In object-oriented programming an object is a self-contained entity that consists of both data and procedures for manipulating the data.
Package	A set of components that perform related application functions A package is a trust boundary that defines when security credentials are verified, and a deployment unit for a set of components. You can create packages with the Transaction Server Explorer. Packages can be either a library package or server package.
Package file	A file that contains information about the components and roles of a package. A package file is created using the package export function of the Transaction Server Explorer. When you create a pre-built package, the associated component files (DLLs, type libraries, and proxy-stub DLLs, if implemented) are copied to the same directory where the package file was created.

Remote Procedure Call	A standard that allows one process to make calls to functions that are executed in another process. The process can be on the same computer or on a different computer in the network.
Snap-in	An administrative program hosted by the Microsoft Management Console (MMC).
Thread	The basic entity to which the operating system allocates CPU time. A thread can execute any part of the application's code, including a part currently being executed by another thread. All threads of a process share the virtual address space, global variables, and operating-system resources of the process.
Transaction	A unit of work that is done as an atomic operation, that is, the operation succeeds or fails as a whole. A computer process in which the computer responds to a user request. Each request is a transaction. The opposite of transaction processing is batch processing, in which a batch of requests is stored and then executed all at one time. Batch processing can occur without a user being present.
Transaction Context	An object used to allow a client to dynamically include one or more objects in one transaction.
Transaction Manager	A system service that is responsible for coordinating the outcome of transactions in order to achieve atomicity. The transaction manager ensures that the resource managers reach a consistent decision on whether the transaction should commit or abort.
Transaction Timeout	The maximum period of time that a transaction can remain active before being automatically aborted by the transaction manager.
Two-phase Commit	A protocol that ensures that transactions that apply to more than one server are completed on all servers or not at all. Two-phase commit is coordinated by the transaction manager and supported by resource managers.