



Quick Reference Guide

Adaptive Server[®] Enterprise

15.7

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Datatypes

See *Reference Manual: Building Blocks* for more information about datatypes.

Exact numeric: integers

- bigint: Whole numbers between 2^{63} (-9,223,372,036,854,775,808) to and $-2^{63} - 1$ (9,223,372,036,854,775,807), inclusive. Bytes of storage: 8
- int (integer): $2^{31} - 1$ (2,147,483,647) to -2^{31} (-2,147,483,648). Bytes of storage: 4
- smallint: $2^{31} - 1$ (2,147,483,647) to -2^{31} (-2,147,483,648). Bytes of storage: 2
- tinyint: 0 to 255 (negative numbers are not permitted). Bytes of storage: 1
- unsigned bigint: Whole numbers between 0 and 18,446,744,073,709,551,615. Bytes of storage: 8
- unsigned smallint: Whole numbers between 0 and 65535. Bytes of storage: 2

Exact numeric: decimals

- numeric (p, s): $10^{38} - 1$ to -10^{38} . Bytes of storage: 2 to 17
- decimal (p, s)/dec: $10^{38} - 1$ to -10^{38} . Bytes of storage: 2 to 17

Approximate numeric

- float (precision): machine dependent. Bytes of storage: 4 for default precision < 16, 8 for default precision >= 16
- double precision: machine dependent. Bytes of storage: 8
- real: machine dependent. Bytes of storage: 4

Money

- `smallmoney`: 214,748.3647 to -214,748.3648. Bytes of storage: 4
- `money`: 922,337,203,685,477.5807 to -922,337,203,685,477.5808. Bytes of storage: 8

Date/time

- `smalldatetime`: January 1, 1900 to June 6, 2079. Bytes of storage: 4
- `datetime`: January 1, 1753 to December 31, 9999. Bytes of storage: 8
- `date`: January 1, 0001 to December 31, 9999. Bytes of storage: 4
- `time`: 12:00:00AM to 11:59:59:999PM. Bytes of storage: 4
- `bigdatetime`: January 1, 0001 to December 31, 9999 and 12:00.000000AM to 11:59:59.999999 PM. Bytes of storage: 8
- `bigintime`: 12:00:00.000000 AM to 11:59:59.999999 PM. Bytes of storage: 8

Character

- `char(n)/character`: pagesize. Bytes of storage: n
- `varchar(n)/character varying, char varying`: pagesize. Bytes of storage: actual entry length
- `unichar/Unicode character`: pagesize. Bytes of storage: $n * @@unicharsize$ ($@@unicharsize$ equals 2)
- `univarchar/Unicode character/varying/char varying`: pagesize. Bytes of storage: actual number of characters * $@@unicharsize$
- `nchar(n)/national character/national char`: pagesize. Bytes of storage: $n * @@ncharsize$
- `nvarchar(n)`: pagesize. . Bytes of storage: $@@ncharsize * \text{number of characters}$
- `text`: $2^{31} - 1$ (2,147,483,647) bytes or fewer. Bytes of storage: 0 when uninitialized; multiple of 2K after initialization
- `unitext`: 1 – 1,073,741,823. Bytes of storage: 0 when uninitialized; multiple of 2K after initialization

Binary

- `binary(n)`: pagesize. Bytes of storage: n
- `varbinary(n)`: pagesize. Bytes of storage: actual entry length
- `image`: $2^{31} - 1$ (2,147,483,647) bytes or fewer. Bytes of storage: 0 when uninitialized; multiple of 2K after initialization

Bit

- `bit`: 0 or 1. Bytes of storage: 1 (one byte holds up to 8 bit columns)

Datatypes and encrypted columns

This table lists the supported datatypes for encrypted columns, as well as the on-disk length of encrypted columns for datatypes.

Datatype	A	B	C	D	E	F
date	4	varbinary	17	17	33	33
time	4	varbinary	17	17	33	33
smalldatetime	4	varbinary	17	17	33	33
bigdatetime	8	varbinary	17	17	33	33
bigint	8	varbinary	17	17	33	33
datetime	8	varbinary	17	17	33	33
smallmoney	4	varbinary	17	17	33	33
money	8	varbinary	17	17	33	33
bit	8	varbinary	17	17	33	33
bigint	8	varbinary	17	17	33	33
unsigned bigint	8	varbinary	17	17	33	33
unichar(10)	2 (1 unichar character)	varbinary	33	17	49	33
unichar(10)	20 (10 unichar characters)	varbinary	33	33	49	49
univarchar(20)	20 (10 unichar characters)	varbinary	49	33	65	49

A Input data length

B Encrypted column type

C Max encrypted data length (no init_vector)

D Actual encrypted data length (no init_vector)

E Max encrypted data length with init_vector

F Actual encrypted data length (with init_vector)

Standards and compliance

These are the ANSI SQL standards and compliance levels for Transact-SQL datatypes. See *Reference Manual: Building Blocks* for more information about standards and compliance.

Transact-SQL – ANSI SQL datatypes char, varchar, smallint, int, bigint, decimal, numeric, float, real, date, time, double precision

Transact-SQL extensions – User-defined datatypes binary, varbinary, bit, nchar, datetime, smalldatetime, bigdatetime, bigint, tinyint, unsigned smallint, unsigned int, unsigned bigint, money, smallmoney, text, unitext, image, nvarchar, unichar, univarchar, sysname, longsysname, timestamp

Adaptive Server global variables

These are the global variables and their brief descriptions for Adaptive Server. See *Reference Manual: Building Blocks* for complete information.

@@active_instances (Cluster environments only) Returns the number of active instances in the cluster.

@@authmech Indicates the mechanism used to authenticate the user.

@@bootcount Returns the number of times an installation has been booted.

@@boottime Returns the date and time Adaptive Server was last booted.

@@bulkarraysize Returns the number of rows to be buffered in local server memory before being transferred using the bulk copy interface.

@@bulkbatchsize Returns the number of rows transferred to a remote server via select into *proxy_table* using the bulk interface.

@@char_convert Returns 0 if character set conversion is not in effect, 1 if character set conversion is in effect.

@@cis_rpc_handling Returns 0 if cis rpc handling is off, 1 if cis rpc handling is on.

@@cis_version Returns the date and version of Component Integration Services.

@@client_csexpansion Returns the expansion factor used when converting from the server character set to the client character set.

@@client_csid Returns -1 if the client character set has never been initialized; returns the client character set ID from *syscharsets* for the connection if the client character set has been initialized.

@@client_csname Returns NULL if client character set has never been initialized; returns the name of the character set for the connection if the client character set has been initialized.

@@clusterboottime (Cluster environments only) Returns the date and time the cluster was first started, even if the instance that originally started the cluster start has shut down

@@clustercoordid (Cluster environments only) Returns the instance id of the current cluster coordinator.

@@clustermode (Cluster environments only) Returns the string: "shared-disk cluster."

@@clustername (Cluster environments only) Returns the name of the cluster.

@@cmpstate Returns the current mode of Adaptive Server in a high availability environment.

@@connections Returns the number of user logins attempted.

@@cpu_busy Returns the amount of time, in ticks, that the CPU has spent doing Adaptive Server work since the last time Adaptive Server was started.

- @@cursor_rows** Displays the total number of rows in the cursor result set.
- @@curloid** Either no cursors are open, no rows qualify for the last opened cursor, or the last open cursor is closed or deallocated.
- @@datefirst** Returns the current value of **@@datefirst**, indicating the specified first day of each week, expressed as tinyint.
- @@dbts** Returns the timestamp of the current database.
- @@error** Returns the error number most recently generated by the system.
- @@errorlog** Returns the full path to the directory in which the Adaptive Server error log is kept, relative to **\$\$SYBASE** directory.
- @@failedoverconn** Returns a value greater than 0 if the connection to the primary companion has failed over and is executing on the secondary companion server.
- @@fetch_status** Returns 0 if fetch operation is successful or -1 if fetch operation is unsuccessful. -2 is reserved for future use.
- @@guestuserid** Returns the ID of the guest user.
- @@hacmpservername** Returns the name of the companion server in a high availability setup.
- @@haconnection** Returns a value greater than 0 if the connection has the failover property enabled.
- @@heapmemsize** Returns the size of the heap memory pool, in bytes.
- @@identity** Returns the most recently generated IDENTITY column value.
- @@idle** Returns the amount of time, in ticks, that Adaptive Server has been idle since it was last started.
- @@invaliduserid** Returns a value of -1 for an invalid user ID.
- @@instanceid** Returns the id of the instance from which it was executed
- @@instancename** Returns the name of the instance from which it was executed
- @@invaliduserid** Returns a value of -1 for an invalid user ID.
- @@io_busy** Returns the amount of time, in ticks, that Adaptive Server has spent doing input and output operations.
- @@isolation** Returns the value of the session-specific isolation level (0, 1, or 3) of the current Transact-SQL program.
- @@instanceid** ID of the instance on which the Job Scheduler is running, or will run once enabled
- @@kernel_addr** Returns the starting address of the first shared memory region that contains the kernel region.
- @@kernel_size** Returns the size of the kernel region that is part of the first shared memory region.

@@kernelmode Returns the mode (threaded or process) for which Adaptive Server is configured.

@@langid Returns the server-wide language ID of the language in use, as specified in `syslanguages.langid`.

@@language Returns the name of the language in use, as specified in `syslanguages.name`.

@@lastkpgendate Returns the date and time of when the last key pair was generated as set by the `sp_passwordpolicy "keypair regeneration period"` policy option.

@@lastlogindate Includes a `datetime` datatype, its value is the `lastlogindate` column for the login account before the current session was established.

@@lock_timeout Returns the current `lock_timeout` setting, in milliseconds.

@@lwpid Returns the object ID of the next most recently run lightweight procedure.

@@max_connections Returns the maximum number of simultaneous connections that can be made with Adaptive Server in the current computer environment.

@@max_precision Returns the precision level used by decimal and numeric datatypes set by the server. This value is a fixed constant of 38.

@@maxcharlen Returns the maximum length, in bytes, of a character in Adaptive Server's default character set.

@@maxgroupid Returns the highest group user ID. The highest value is 1048576.

@@maxpagesize Returns the server's logical page size.

@@maxspid Returns maximum valid value for the `spid`.

@@maxsuid Returns the highest server user ID. The default value is 2147483647.

@@maxuserid Returns the highest user ID. The highest value is 2147483647.

@@mempool_addr Returns the global memory pool table address.

@@min_poolsize Returns the minimum size of a named cache pool, in kilobytes.

@@mingroupid Returns the lowest group user ID. The lowest value is 16384.

@@minspid Returns 1, which is the lowest value for `spid`.

@@minsuid Returns the minimum server user ID. The lowest value is -32768.

@@minuserid Returns the lowest user ID. The lowest value is -32768.

@@monitors_active Reduces the number of messages displayed by `sp_sysmon`.

@@ncharsize Returns the maximum length, in bytes, of a character set in the current server default character set.

- @@nestlevel** Returns the current nesting level.
- @@nextkpgendate** Returns the date and time of when the next key pair scheduled to be generated, as set by `sp_passwordpolicy "keypair regeneration period"` policy option.
- @@nodeid** Returns the current installation's 48-bit node identifier.
- @@optgoal** Returns the current optimization goal setting for query optimization
- @@options** Returns a hexadecimal representation of the session's set options.
- @@optlevel** Returns the currently optimization level setting.
- @@opttimeoutlimit** Returns the current optimization timeout limit setting for query optimization
- @@ospid** (Threaded mode only) Returns the operating system ID for the server.
- @@pack_received** Returns the number of input packets read by Adaptive Server.
- @@pack_sent** Returns the number of output packets written by Adaptive Server.
- @@packet_errors** Returns the number of errors detected by Adaptive Server while reading and writing packets.
- @@pagesize** Returns the server's virtual page size.
- @@parallel_degree** Returns the current maximum parallel degree setting.
- @@plwpid** Returns the object ID of the most recently prepared lightweight procedure.
- @@probesuid** Returns a value of 2 for the probe user ID.
- @@procid** Returns the stored procedure ID of the currently executing procedure.
- @@quorum_physname** Returns the physical path for the quorum device
- @@recovery_state** Indicates whether Adaptive Server is in recovery based on these returns
- @@remotestate** (High-availability only) Returns the current mode of the primary companion in a high availability environment.
- @@repartition_degree** Returns the current dynamic repartitioning degree setting
- @@resource_granularity** Returns the maximum resource usage hint setting for query optimization
- @@rowcount** Returns the number of rows affected by the last query.
- @@scan_parallel_degree** Returns the current maximum parallel degree setting for nonclustered index scans.
- @@servername** Returns the name of Adaptive Server.
- @@setrowcount** Returns the current value for set rowcount
- @@shmem_flags** Returns the shared memory region properties.

- @@spid** Returns the server process ID of the current process.
- @@sqlstatus** Returns status information (warning exceptions) resulting from the execution of a fetch statement.
- @@ssl_ciphersuite** Returns NULL if SSL is not used on the current connection; otherwise, it returns the name of the cipher suite you chose during the SSL handshake on the current connection.
- @@stringsize** Returns the amount of character data returned from a toString() method.
- @@sys_tempdbid** Returns the database ID of the executing instance's effective local system temporary database.
- @@system_busy** Number of ticks during which Adaptive Server was running a system task.
- @@system_view** Returns the session-specific system view setting, either "instance" or "cluster."
- @@tempdbid** Returns a valid temporary database ID (dbid) of the session's assigned temporary database.
- @@textcolid** Returns the column ID of the column referenced by @@textptr.
- @@textdataptid** Returns the partition ID of a text partition containing the column referenced by @@textptr.
- @@textdbid** Returns the database ID of a database containing an object with the column referenced by @@textptr.
- @@textobjid** Returns the object ID of an object containing the column referenced by @@textptr.
- @@textptnid** Returns the partition ID of a data partition containing the column referenced by @@textptr.
- @@textptr** Returns the text pointer of the last text, unitext, or image inserted or updated by a process (Not the same as the textptr function).
- @@textptr_parameters** Returns 0 if the current status of the textptr_parameters is off, and 1 if the current status of the textptr_parameters is on.
- @@textsize** Returns the limit on the number of bytes of text, unitext, or image data a select returns.
- @@textts** Returns the text timestamp of the column referenced by @@textptr.
- @@thresh_hysteresis** Returns the decrease in free space required to activate a threshold.
- @@timeticks** Returns the number of microseconds per tick.
- @@total_errors** Returns the number of errors detected by Adaptive Server while reading and writing.
- @@total_read** Returns the number of disk reads by Adaptive Server.

- @@total_write** Returns the number of disk writes by Adaptive Server.
- @@tranchained** Returns 0 if the current transaction mode of the Transact-SQL program is unchained, and 1 if chained.
- @@trancount** Returns the nesting level of transactions in the current user session.
- @@transactional_rpc** Returns 0 if RPCs to remote servers are transactional, and 1 if not transactional.
- @@transtate** Returns the current state of a transaction after a statement executes in the current user session.
- @@unicharsize** Returns 2, the size of a character in unichar.
- @@user_busy** Returns the number of ticks during which Adaptive Server was running a user task.
- @@version** Returns the date, version string, and so on of the current release of Adaptive Server.
- @@version_number** Returns the whole version of the current release of Adaptive Server as an integer.
- @@version_as_integer** Returns the number of the last upgrade version of the current release of Adaptive Server as an integer.

Reserved words

This section lists various reserved words. See *Reference Manual: Building Blocks* for more information.

Transact-SQL reserved words

These are reserved by Adaptive Server as keywords (part of SQL command syntax).

- A** add, all, alter, and, any, arith_overflow, as, asc, at, authorization, avg
- B** begin, between, break, browse, bulk, by
- C** cascade, case, char_convert, check, checkpoint, close, clustered, coalesce, commit, compute, confirm, connect, constraint, continue, controlrow, convert, count, count_big, create, current, cursor
- D** database, dbcc, deallocate, declare, decrypt, default, delete, desc, deterministic, disk, distinct, drop, dummy, dump
- E** else, encrypt, end, endtran, errlvl, errordata, errexit, escape, except, exclusive, exec, execute, exists, exit, exp_row_size, external
- F** fetch, fillfactor, for, foreign, from
- G** goto, grant, group
- H** having, holdlock

I identity, identity_gap, identity_start, if, in, index, inout, insensitive, insert, install, intersect, into, is, isolation

J jar, join

K key, kill

L level, like, lineno, load, lock

M materialized, max, max_rows_per_page, min, mirror, mirrorexist, modify

N national, new, noholdlock, nonclustered, nonscrollable, non_sensitive, not, null, nullif, numeric_truncation

O of, off, offsets, on, once, online, only, open, option, or, order, out, output, over

P partition, perm, permanent, plan, prepare, primary, print, privileges, proc, procedure, processexit, proxy_table, public

Q quiesce

R raiserror, read, readpast, readtext, reconfigure, references, remove, reorg, replace, replication, reservepagegap, return, returns, revoke, role, rollback, rowcount, rows, rule

S save, schema, scroll, scrollable, select, semi_sensitive, set, setuser, shared, shutdown, some, statistics, stringsize, stripe, sum, syb_identity, syb_restree, syb_terminate

T table, temp, temporary, textsize, to, tracefile, tran, transaction, trigger, truncate, tsequal

U union, unique, unpartition, update, use, user, user_option, using

V values, varying, view

W waitfor, when, where, while, with, work, writetext

X xmlextract, xmlparse, xmltest, xmlvalidate

ANSI SQL reserved words

These are ANSI SQL keywords that are not reserved by Adaptive Server.

A absolute, action, allocate, are, assertion

B bit, bit_length, both

C cascaded, case, cast, catalog, char, char_length, character, character_length, coalesce, collate, collation, column, connection, constraints, corresponding, cross, current_date, current_time, current_timestamp, current_user

D date, day, dec, decimal, deferrable, deferred, describe, descriptor, diagnostics, disconnect, domain

E end-exec, exception, extract

F false, first, float, found, full

G get, global, go

- H** hour
- I** immediate, indicator, initially, inner, input, insensitive, int, integer, interval
- J** join
- L** language, last, leading, left, local, lower
- M** match, minute, module, month
- N** names, natural, nchar, next, no, nullif, numeric
- O** `octet_length`, outer, output, overlaps
- P** pad, partial, position, preserve, prior
- R** real, relative, restrict, right
- S** scroll, second, section, `semi_sensitive`, `session_user`, size, smallint, space, sql, `sqlcode`, `sqlerror`, `sqlstate`, `substring`, `system_user`
- T** then, time, timestamp, `timezone_hour`, `timezone_minute`, trailing, translate, translation, trim, true
- U** unknown, upper, usage
- V** value, varchar
- W** when, whenever, write, year
- Z** zone

Potential ANSI SQL reserved words

If you use the ISO/IEC 9075:1989 standard, avoid using these words because they may become ANSI SQL reserved words in the future.

- A** after, alias, async
- B** before, boolean, breadth
- C** call, completion, cycle
- D** data, depth, dictionary
- E** each, elseif, equals
- G** general
- I** ignore
- L** leave, less, limit, loop
- M** modify
- N** new, none
- O** object, oid, old, operation, operators, others
- P** parameters, pendant, preorder, private, protected
- R** recursive, ref, referencing, resignal, return, returns, routine, row

- S** savepoint, search, sensitive, sequence, signal, similar, sqlexception, structure
- T** test, there, type
- U** under
- V** variable, virtual, visible
- W** wait, without

Functions

These are very brief descriptions and syntax for built-in functions. See *Reference Manual: Building Blocks* for complete information.

- abs** Returns the absolute value of an expression:
`abs(numeric_expression)`
- acos** Returns the angle (in radians) with a specified cosine:
`acos(cosine)`
- ascii** Returns the ASCII code for the first character in an expression:
`ascii(char_expr | uchar_expr)`
- asehostname** Returns the physical or virtual host on which Adaptive Server is running:
`asehostname`
- asin** Returns the angle (in radians) with a specified sine:
`asin(sine)`
- atan** Returns the angle (in radians) with a specified tangent:
`atan(tangent)`
- atn2** Returns the angle (in radians) with specified sine and cosine:
`atn2(sine, cosine)`
- avg** Returns the numeric average of all (distinct) values:
`avg([all | distinct] expression)`
- audit_event_name** Returns a description of an audit event:
`audit_event_name(event_id)`
- authmech** Determines what authentication mechanism is used by a specified logged in server process ID:
`authmech ([spid])`
- biginttohex** Returns the platform-independent 8 byte hexadecimal equivalent of the specified integer expression:
`biginttohex (integer_expression)`
- bintostr** Converts a sequence of hexadecimal digits to a string of its equivalent alphanumeric characters or varbinary data:
`select bintostr(sequence of hexadecimal digits)`

case Supports conditional SQL expressions:

```
case when search_condition then expression
      [when search_condition then expression]...[else expression] end
```

case and values syntax:

```
case expression when expression then expression
      [when expression then expression]...[else expression] end
```

cache_usage Returns cache usage as a percentage of all objects in the cache to which the table belongs.

```
cache_usage(table_name)
```

cast Returns the specified value, converted to another datatype:

```
cast (expression as datatype [(length | precision[, scale]])
```

ceiling Returns the smallest integer greater than or equal to the specified value:

```
ceiling(value)
```

char Returns the character equivalent of an integer:

```
char(integer_expr)
```

char_length Returns the number of characters in an expression:

```
char_length(char_expr | uchar_expr)
```

charindex Returns an integer representing the starting position of an expression:

```
charindex(expression1, expression2)
```

coalesce Supports conditional SQL expressions; alternative for a case expression:

```
coalesce(expression, expression [, expression]...)
```

col_length Returns the defined length of a column:

```
col_length(object_name, column_name)
```

col_name Returns the name of the column where the table and column IDs are specified:

```
col_name(object_id, column_id [, database_id])
```

compare Allows you to directly compare two character strings based on alternate collation rules:

```
compare ({char_expression1 | uchar_expression1},
         {char_expression2 | uchar_expression2}),
         [{collation_name | collation_ID}]
```

convert Returns the specified value, converted to another datatype or a different datetime display format:

```
convert (datatype [(length) | (precision[, scale])]
        [null | not null], expression [, style])
```

cos Returns the cosine of the specified angle:

```
cos(angle)
```

cot Returns the cotangent of the specified angle:

```
cot(angle)
```

count Returns the number of (distinct) non-null values, or the number of selected rows as an integer:

`count([all | distinct] expression)`

count_big Returns the number of (distinct) non-null values or the number of selected rows as a bigint:

`count_big([all | distinct] expression)`

count_bigdatetime Returns a bigtime value representing the current time with microsecond precision:

`current_bigdatetime()`

count_bigtime Returns a bigtime value representing the current time with microsecond precision:

`current_bigtime()`

create_locator Explicitly creates a locator for a specified LOB then returns the locator.

`create_locator (datatype, lob_expression)`

current_bigdatetime Returns a bigtime value representing the current time with microsecond precision. The accuracy of the current time portion is limited by the accuracy of the system clock.

`current_bigdatetime()`

current_bigtime Returns a bigtime value representing the current time with microsecond precision. The accuracy of the current time portion is limited by the accuracy of the system clock.

`current_bigtime()`

current_date Returns the current date:

`current_date()`

current_time Returns the current time:

`current_time()`

curunreservedpgs Returns the number of free pages in the specified disk piece:

`curunreservedpgs (dbid, lstart, unreservedpgs)`

data_pages Returns the number of pages used by the specified table, index, or a partition:

`data_pages(dbid, object_id [, indid [, ptnid]])`

datachange Measures the amount of change in the data distribution since update statistics last ran:

`datachange(object_name, partition_name, column_name)`

datalength Returns the actual length, in bytes, of the specified column or string:

`datalength(expression)`

dateadd Returns the date produced by adding or subtracting a given number of years, quarters, hours, or other date parts to the specified date:

`dateadd(date_part, integer, {date | time | bigtime | datetime, | bigdatetime})`

datediff Returns the difference between two dates:

```
datediff(datepart, {date, date | time, time | bigtime, bigtime | datetime,
datetime | bigdatetime, bigdatetime})
```

datetime Returns the specified datepart of the specified date or time as a character string:

```
datetime(datepart {date | time | bigtime | datetime | bigdatetime})
```

datepart Returns the specified datepart in the first argument of the specified date as an integer:

```
datepart(date_part {date | time | datetime | bigtime | bigdatetime})
```

day Returns an integer that represents the day in the datepart of a specified date:

```
day(date_expression)
```

db_attr Returns the durability, dml_logging, and template settings for the specified database:

```
db_attr('database_name' | database_ID | NULL, 'attribute')
```

db_id Returns the ID number of the specified database:

```
db_id(database_name)
```

db_instanceid (Cluster environments only) Returns the ID of the owning instance of a specified local temporary database, NULL if the specified database is a global temporary database or a nontemporary database:

```
db_instanceid([dbid | dbname])
```

db_name Returns the name of the database where the ID number is specified:

```
db_name([database_id])
```

db_recovery_status (Cluster environments only) Returns the ID of the owning instance of a specified local temporary database, NULL if the specified database is a global temporary database or a nontemporary database:

```
db_recovery_status([dbid | dbname])
```

degrees Returns the size, in degrees, of an angle with the specified number of radians:

```
degrees(numeric)
```

derived_stat Returns derived statistics for the specified object and index:

```
derived_stat("object_name" | object_id, index_name | index_id,
["partition_name" | partition_id,] "statistic")
```

difference Returns the difference between two soundex values:

```
difference(expr1, expr2)
```

dol_downgrade_check Returns the number of DOL tables in the specified database that contain variable-length columns wider than 8191 bytes.

```
dol_downgrade_check('database_name', target_version)
```

exp Returns the value that results from raising the constant to the specified power:

```
exp(approx_numeric)
```

floor Returns the largest integer that is less than or equal to the specified value:

`floor(numeric)`

get_appcontext Returns the value of the attribute in a specified context:

`get_appcontext("context_name", "attribute_name")`

getdate Returns the current system date and time:

`getdate()`

getutcdate Returns a date and time where the value is in Universal Coordinated Time:

`getutcdate()`

has_role Returns information about whether the user has been granted the specified role:

`has_role("role_name", option)`

hash Produces a fixed-length hash value expression:

`hash(expression, [algorithm])`

hashbytes Produces a fixed-length, hash value expression:

`hashbytes(algorithm, expression[, expression...][, using options])`

hextobigint Returns the bigint value equivalent of a hexadecimal string:

`hextobigint(hexadecimal_string)`

hextoint Returns the platform-independent integer equivalent of a hexadecimal string:

`hextoint(hexadecimal_string)`

host_id Returns the client computer's operating system process ID for the current Adaptive Server client:

`host_id()`

host_name Returns the current host computer name of the client process:

`host_name()`

identity_burn_max Tracks the identity burn max value for a given table:

`identity_burn_max(table_name)`

index_col Returns the name of the indexed column in the specified table or view:

`index_col(object_name, index_id, key_#, user_id)`

index_colorder Returns the column order:

`index_colorder(object_name, index_id, key_#, user_id)`

index_name Returns an index name, when you provide the index ID, the database ID, and the object on which the index is defined:

`index_name(dbid, objid, indid)`

instance_id (Cluster environments only) Returns the id of the named instance, or the instance from which it is issued if you do not provide a value for *name*:

`instance_id([name])`

instance_name (Cluster environments only) Returns the name for the Adaptive Server whose id you provide, or the name of the Adaptive Server from which it is issued if you do not provide a value for *id*:

```
instance_name([id])
```

inttohex Returns the platform-independent hexadecimal equivalent of the specified integer:

```
inttohex(integer_expression)
```

isdate Determines whether an input expression is a valid **datetime** value:

```
isdate(character_expression)
```

isnumeric Determines if an expression is a valid numeric datatype:

```
isnumeric (character_expression)
```

is_quiesced Indicates whether a database is in quiesce database mode:

```
is_quiesced(dbid)
```

is_sec_service_on Returns 1 if the security service is active and 0 if it is not:

```
is_sec_service_on(security_service_nm)
```

is_singleusermode Returns 0 if Adaptive Server is not running in single-user mode and 1 if it is.

```
is_singleusermode()
```

isnull Substitutes the value specified in *expression2* when *expression1* evaluates to NULL:

```
isnull(expression1, expression2)
```

isnumeric Determines if an expression is a valid numeric datatype:

```
isnumeric (character_expression)
```

lc_id (Cluster environments only) Returns the ID of the logical cluster whose name you provide, or the current logical cluster if you do not provide a name:

```
lc_id(logical_cluster_name)
```

lc_name (Cluster environments only) Returns the name of the logical cluster with the ID you provide, or the current logical cluster if you do not provide an ID:

```
lc_name([logical_cluster_ID])
```

lct_admin Manages the last-chance threshold, returns the current value of the last-chance threshold (LCT), and aborts transactions in a transaction log that has reached its LCT:

```
lct_admin(("{lastchance" | "logfull" | "reserved_for_rollback"},
  database_id | "reserve", {log_pages | 0 }
  | "abort", process-id [, database-id])
```

left Returns a specified number of characters on the left end of a character string:

```
left(character_expression, integer_expression)
```

len Returns the number of characters, not the number of bytes, of a specified string expression, excluding trailing blanks:

```
len(string_expression)
```

license_enabled Returns 1 if a feature's license is enabled, 0 if the license is not enabled, or NULL if you specify an invalid license name:

```
license_enabled("ase_server" | "ase_ha" | "ase_dtm" | "ase_java" |  
"ase_asm")
```

list_appcontext Lists all the attributes of all the contexts in the current session
`list_appcontext(["context_name"])`

locator_literal Identifies a binary value as a locator literal.

```
locator_literal(locator_type, literal_locator)
```

locator_valid Determines whether a LOB locator is valid.

```
locator_valid (locator_descriptor)
```

lockscheme Returns the locking scheme of the specified object as a string:

```
lockscheme(object_name)  
lockscheme(object_id [, db_id])
```

log Returns the natural logarithm of the specified number:

```
log(approx_numeric)
```

log10 Returns the base 10 logarithm of the specified number:

```
log10(approx_numeric)
```

lower Returns the lowercase equivalent of the specified expression:

```
lower(char_expr | uchar_expr)
```

lprofile_id Returns the ID associated with the specified name, or returns the ID of the current login.

```
lprofile_id(name),
```

lprofile_name Returns the name associated with the specified ID, or returns the name of the current login

```
lprofile_id(ID),
```

ltrim Returns the specified expression, trimmed of leading blanks:

```
ltrim(char_expr | uchar_expr)
```

max Returns the highest value in an expression:

```
max(expression)
```

min Returns the lowest value in a column:

```
min(expression)
```

month Returns an integer that represents the month in the `datepart` of a specified date:

```
month(date_expression)
```

mut_excl_roles Returns information about the mutual exclusivity between two roles:

```
mut_excl_roles (role1, role2 [membership | activation])
```

newid Generates human-readable, globally unique IDs (GUIDs) in two different formats, based on arguments you provide:

`newid([optionflag])`

next_identity Retrieves the next identity value that is available for the next insert:

`next_identity(table_name)`

nullif Supports conditional SQL expressions:

`nullif(expression, expression)`

objec_attr Reports the table's current logging mode, depending on the session, table and database-wide settings:

`object_attr(table_name, string)`

object_id Returns the object ID of the specified object:

`object_id(object_name)`

object_name Returns the name of the object with the object ID you specify; can be up to 255 bytes in length:

`object_name(object_id[, database_id])`

object_owner_id Returns an object's owner ID:

`object_owner_id(object_id[, database_id])`

pagesize Returns the page size, in bytes, for the specified object:

`pagesize(object_name[,])`

`pagesize(object_id[, db_id[, index_id]])`

partition_id Returns the partition ID of the specified data or index partition name:

`partition_id(table_name, partition_name[, index_name])`

partition_name Returns the partition name of the specified data or index partition ID:

`partition_name(indid, ptnid[, dbid])`

partition_object_id Displays the object ID for a specified partition ID and database ID:

`partition_object_id(partition_id [, database_id])`

patindex Returns the starting position of the first occurrence of a specified pattern:

`patindex("%pattern%", char_expr | uchar_expr[, using
{bytes | characters | chars}])`

pi Returns the constant value 3.1415926535897936:

`pi()`

power Returns the value that results from raising the specified number to a given power:

`power(value, power)`

proc_role Returns information about whether the user has been granted the specified role:

`proc_role("role_name")`

pssinfo Returns information from the process status structure:

`pssinfo(spid | 0, 'pss_field')`

radians Returns the size, in radians, of an angle with the specified number of degrees:

```
radians(numeric)
```

rand Returns a random value between 0 and 1:

```
rand([integer])
```

rand2 Returns a random value between 0 and 1, which is generated using the specified seed value, and computed for each returned row when used in the **select** list:

```
rand2([integer])
```

replicate Returns a string consisting of the specified expression repeated a given number of times:

```
replicate(char_expr | uchar_expr, integer_expr)
```

reserve_identity Allows a process to reserve a block of identity values for use by that process:

```
reserve_identity (table_name, number_of_values)
```

reserved_pages Reports the number of pages reserved for a database, object, or index:

```
reserved_pages(dbid, object_id [, indid [, ptnid]])
```

return_lob Dereferences a locator, and returns the LOB referenced by that locator.

```
return_lob (datatype, locator_descriptor)
```

reverse Returns the specified string with characters listed in reverse order:

```
reverse(expression | uchar_expr)
```

right The rightmost part of the expression with the specified number of characters:

```
right(expression, integer_expr)
```

rm_appcontext Removes a specific application context, or all application contexts:

```
rm_appcontext("context_name", "attribute_name")
```

role_contain Returns 1 if *role2* contains *role1*:

```
role_contain("role1", "role2")
```

role_id Returns the system role ID of the name you specify:

```
role_id("role_name")
```

role_name Returns the name of a system role ID you specify:

```
role_name(role_id)
```

round Returns the value of the specified number, rounded to a specified number of decimal places:

```
round(number, decimal_places)
```

row_count Returns an estimate of the number of rows in the specified table:

```
row_count(dbid, object_id [, ptnid])
```

rtrim Returns the specified expression, trimmed of trailing blanks:

```
rtrim(char_expr | uchar_expr)
```

sdc_intempdbconfig (Cluster environments only) Returns 1 if the system is currently in temporary database configuration mode; if not, returns 0:

`sdc_intempdbconfig()`

set_appcontext Sets an application context name, attribute name, and attribute value for a user session, defined by the attributes of a specified application:

`set_appcontext("context_name", "attribute_name", "attribute_value")`

setdata Overwrites some or all of a large object (LOB).

`setdata(locator_name, offset_value, new_value)`

show_cached_plan_in_xml Displays, in XML, the executing query plan for queries in the statement cache.

`show_cached_plan_in_xml(statement_id, plan_id, [level_of_detail])`

show_dynamic_params_in_xml Returns the text of a query in XML format.

`show_dynamic_params_in_xml(object_id)`

show_role Shows the login's currently active system-defined roles:

`show_role()`

show_sec_services Lists the security services that are active for the session:

`show_sec_services()`

sign Returns the sign (1 for positive, 0, or -1 for negative) of the specified value:

`sign(numeric)`

sin Returns the sine of the specified angle (in radians):

`sin(approx_numeric)`

sortkey Generates values that can be used to order results based on collation behavior:

`sortkey(char_expression | uchar_expression
[, {collation_name | collation_ID}])`

soundex Returns a four-character code representing the way an expression sounds:

`soundex(char_expr | uchar_expr)`

space Returns a string consisting of the specified number of single-byte spaces:

`space(integer_expr)`

spid_instance_id (Cluster environments only) Returns the instance ID on which the specified process id (spid) is running:

`spid_instance_id(spид_value)`

square Returns the square of a specified value expressed as a float:

`square(numeric_expression)`

sqrt Returns the square root of the specified number:

`sqrt(approx_numeric)`

stddev Is an alias for `stddev_samp`.

stdev Is an alias for `stddev_samp`.

stdevp Is an alias for `stddev_pop`.

stddev_pop Computes the standard deviation of a population consisting of a numeric expression, as a double:

```
stddev_pop ([all | distinct] expression)
```

stddev_samp Computes the standard deviation of a sample consisting of a numeric expression, as a double:

```
stddev_samp ([all | distinct] expression)
```

str Returns the character equivalent of the specified number:

```
str(approx_numeric [, length [, decimal]])
```

str_replace Replaces any instances of the second string expression that occur within the first string expression with a third expression:

```
str_replace("string_expression1", "string_expression2",  
"string_expression3")
```

strtobin Converts a sequence of alphanumeric characters to their equivalent hexadecimal digits:

```
select strtobin("string of valid alphanumeric characters")
```

stuff Returns the string formed by deleting a specified number of characters from one string and replacing them with another string:

```
stuff(char_expr1 | uchar_expr1, start, length, char_expr2 | uchar_expr2)
```

substring Returns the string formed by extracting the specified number of characters from another string:

```
substring(expression, start, length)
```

sum Returns the total of the values:

```
sum([all | distinct] expression)
```

suser_id Returns the server user's ID number from the `syslogins` table:

```
suser_id([server_user_name])
```

suser_name Returns the name of the current server user or the user whose server ID is specified:

```
suser_name([server_user_id])
```

syb_quit Terminates the connection:

```
syb_quit()
```

syb_sendmsg (UNIX) Sends a message to a User Datagram Protocol (UDP) port:

```
syb_sendmsg ip_address, port_number, message
```

sys_tempdbid (Cluster environments only) Returns the ID of the effective local system temporary database of the specified instance, or the effective local system temporary database of the current instance when *instance_id* is not specified:

```
sys_tempdbid(instance_id)
```

tan Returns the tangent of the specified angle (in radians):

```
tan(angle)
```

tempdb_id Reports the temporary database to which a given session is assigned:

`tempdb_id()`

textptr Returns a pointer to the first page of a text, image, or unitext column:

`textptr(column_name)`

textvalid Returns 1 if the pointer to the specified text or unitext column is valid; 0 if it is not:

`textvalid("table_name.column_name", textpointer)`

to_unichar Returns a unichar expression having the value of the integer expression:

`to_unichar(integer_expr)`

tran_dumpable_status Returns a true/false indication of whether dump transaction is allowed:

`tran_dumpable_status("database_name")`

tsequal Compares timestamp values to prevent update on a row that has been modified since it was selected for browsing:

`tsequal(browsed_row_timestamp, stored_row_timestamp)`

uhighsurr Returns 1 if the Unicode value at position *start* is the high half of a surrogate pair (which should appear first in the pair); returns 0 otherwise:

`uhighsurr(uchar_expr, start)`

ulowsurr Returns 1 if the Unicode value at position *start* is the low half of a surrogate pair (which should appear second in the pair); returns 0 otherwise:

`ulowsurr(uchar_expr, start)`

upper Returns the uppercase equivalent of the specified string:

`upper(char_expr)`

uscalar Returns the Unicode scalar value for the first Unicode character in an expression:

`uscalar(uchar_expr)`

used_pages Reports the number of pages used by a table, an index, or a specific partition:

`used_pages(dbid, object_id[, indid[, ptnid]])`

user Returns the name of the current user:

`user`

user_id Returns the ID number of the specified user or of the current user in the database:

`user_id([user_name])`

user_name Returns the name within the database of the specified user or of the current user:

`user_name([user_id])`

valid_name Returns 0 if the specified string is not a valid identifier or a number other than 0 if the string is a valid identifier:

`valid_name(character_expression[, maximum_length])`

valid_user Returns 1 if the specified ID is a valid user or alias in at least one database on this Adaptive Server:

```
valid_user(server_user_id)
```

var Is an alias for `var_samp`.

var_pop Computes the statistical variance of a population consisting of a numeric expression, as a double:

```
var_pop ([all | distinct] expression)
```

var_samp Computes the statistical variance of a sample consisting of a numeric-expression, as a double, and returns the variance of a set of numbers:

```
var_samp ([all | distinct] expression)
```

variance Is an alias for `var_samp`.

varp Computes the statistical variance of a population consisting of a numeric expression, as a double. `varp` is an alias of `var_pop`.

workload_metric (Cluster environments only) Queries the current workload metric for the instance you specify, or updates the metric for the instance you specify:

```
workload_metric(instance_id | instance_name [, new_value])
```

xa_bqual Returns the binary version of the `bqual` component of an ASCII XA transaction ID:

```
xa_bqual(xid, 0)
```

xa_gtrid Returns the binary version of the `gtrid` component of an ASCII XA transaction ID:

```
xa_gtrid(xactname, int)
```

xact_connmigrate_check (Cluster environments only) Determines whether or not a connection can process an external transaction.

```
xact_connmigrate_check("txn_name")
```

xact_owner_instance (Cluster environments only) Returns the instance ID on which the distributed transaction is running.

```
xact_owner_instance(XID)
```

year Returns an integer that represents the year in the `datepart` of a specified date:

```
year(date_expression)
```

XML functions

xmlextract Applies an XML query expression to an XML document and returns the specified result. Information can be returned with or without the XML tags.

```
xmlextract_expression ::=  
xmlextract (xml_query_expression,xml_data_expression  
[optional_parameters])
```

```
xml_query_expression ::=basic_string_expression
```

```
xml_data_expression ::= general_string_expression
```

```
optional_parameters ::=
```

```
options_parameter | returns_type
```

```
| options_parameter returns_type
```

```

options_parameter ::= [,] option option_string
returns_type ::= [,] returns datatype
datatype ::= {string_type | computational_type | date_time_type }
string_type ::= char (integer) | varchar (integer)
              | unichar (integer) | univarchar (integer) | text | unitext | image
computational_type ::= integer_type | decimal_type | real_type
                    | date_time_type
integer_type ::= [ unsigned ] {integer | int | tinyint | smallint | bigint}
decimal_type ::= {decimal | dec | numeric } [ (integer [, integer] ) ]
real_type ::= real | float | double precision
date_time_type ::= date | time | datetime
option_string ::= [,] basic_string_expression

```

xmlparse Parses an XML document passed as a parameter, and returns an image (default), binary, or varbinary value that contains a parsed form of the document.

```

xmlparse_call ::=
  xmlparse(general_string_expression
           [options_parameter][returns_type])
options_parameter ::= [,] option option_string
option_string ::= basic_string_expression
returns type ::= [,] returns {image | binary | varbinary [(integer)]}

```

xmlrepresentation Examines the image parameter of an expression, and returns an integer value that indicates whether the parameter contains parsed XML data or another sort of image data.

```

xmlrepresentation_call ::=
  xmlrepresentation(parsed_xml_expression)

```

xmltable Extracts data from an XML document and returns it as a SQL table:

```

xmltable_expression ::= xmltable
  (row_pattern passing xml_argument columns column_definitions
  options_parameter)
row_pattern ::= character_string_literal
xml_argument ::=
  xml_expression | column_reference | variable_reference
column_definitions ::= column_definition [{, column_definition } ]
column_definition ::= ordinality_column | regular_column

```

ordinality_column ::= *column_name* datatype for ordinality

regular_column ::=

column_name datatype [default *literal*] [null | not null]

[path *column_pattern*]

column_pattern ::= *character_string_literal*

options_parameter ::= [,] option *option_string*

options_string ::= *basic_string_expression*

Derived table syntax – returns a SQL table from within a SQL from clause:

from_clause ::= from *table_reference* [, *table_reference*]...

table_reference ::= *table_view_name* | *ANSI_join* | *derived_table*

table_view_name ::= See the select command in Reference Manual Volume 2, "Commands."

ANSI_join ::= See the select command in Reference Manual Volume 2, "Commands."

derived_table ::= (subquery) as *table_name* [(*column_name* [, *column_name*]...) | *xmltable_expression* as *table_name*

xmltest Is a SQL predicate that evaluates an XML query expression, which can reference the XML document parameter, and returns a Boolean result. `xmltest` resembles a SQL like predicate.

```
xmltest_predicate ::=
    xml_query_expression [not] xmltest xml_data
    [option option_string]
xml_data ::=
    xml_data_expression | (xml_data_expression)
xml_query_expression ::= basic_string_expression
xml_data_expression ::= general_string_expression
option_string ::= basic_string_expression
```

xmlvalidate Validates an XML document.

```
xmlvalidate_call ::=
    xmlvalidate ( general_string_expression, [optional_parameters])
optional_parameters ::= options_parameter
    | returns_type
    | options_parameter returns type
options_parameter ::= [,] option option_string
options_string ::= basic_string_expression
returns_type ::= [,] returns string_type
string_type ::= char (integer) | varchar (integer)
    | unichar (integer) | univarchar (integer)
    | text | unitext | image | java.lang.String
```

Commands

These are very brief descriptions and syntax for Adaptive Server commands. See *Reference Manual: Commands* for complete information.

alter database Increases the amount of space allocated to a database, as well as to the modified pages section of an archive database:

```
alter database database_name
    [on {default | database_device} [= size][, database_device [= size]]...]
    [log on {default | database_device} [= size]
    [, database_device [= size]]...]
    set { [durability = { no_recovery | at_shutdown | full}]
    [[,] dml_logging = {full | minimal} ]
    [[,] template = { database_name | NULL}]
    [, compression = {none | row | page}]
    [, lob_compression = {compression_level | off}]
    [, inrow_lob_length = value [log off database_device
    [= size | [from logical_page_number] [to logical_page_number]]
    [, database_device
    [= size | [from logical_page_number] [to logical_page_number]]
    [with override] [for load] [for proxy_update]
```

alter encryption key (Encrypted columns) Changes the current password, adds and drops a key copy, regenerates an encryption key. Altering the master key:

```
alter encryption key [dual] master
    with char_string { add encryption
    {with passwd char_string for user user_name [for recovery]
```

```

    | for automatic_startup} | modify encryption
    { with passwd char_string [for recovery] | for automatic_startup}
| drop encryption
    { for user user_name | for recovery | for automatic_startup}
| regenerate key [ with passwd char_string] | recovery encryption
    with passwd char_string | modify owner user_name}

```

Altering the syb_extpasswdkey service key:

```

alter encryption key syb_extpasswdkey
  [ with { static key | master key}
    { regenerate key [ with { static key | master key } ]
      | modify encryption [ with { static key | master key } ] }

```

Altering the column encryption key:

```

alter encryption key [[database.][owner.] keyname
  { [ as | not default ][dual] master
    [ with { static key | master key } ]
    regenerate key
    [ with { static key | master key [no] dual_control} ] | [with passwd
      'password' | system_encr_passwd | login_passwd |
        'base_key_password' ]
    modify encryption
    [ with {passwd {'password' | system_encr_passwd |
      login_passwd } | master key } ]
    [[no] dual_control] for automatic startup
    add encryption [ with passwd 'password' | 'key_copy_password' ]
      for user user_name
      [for [login_association] | recovery | automatic_startup]]
    drop encryption for { user user_name | recovery
      [ for recovery ] | [ for automatic_startup ] }
      | [ with passwd 'password' ]
    recover encryption with passwd 'password' | modify owner
      user_name}

```

alter login Changes the attributes of a login account.

```

alter login login_name
  { [modify attribute_value_pair_list ]
    | [add auto activated roles role_name [, role_name_list ] ]
    | [drop auto activated roles { ALL | role_name [, role_name_list ]}]
    | [drop attribute_name_list ]
    | [ with password caller_password ]
    modify password [immediately] new_loginName_password }

```

alter login profile Changes the attributes of a login profile.

```

alter login profile login_profile_name
  { [as [ not ] default ]
    | [modify attribute_value_pair_list ]
    | [add auto activated roles role_name [, role_name_list ] ]
    | [drop auto activated roles { ALL | role_name [, role_name_list ]}]
    | [drop attribute_name_list ] }

```

alter...modify owner Transfers the ownership of database objects from one owner to another.

```

alter { object_type | all } [owner.]{object_name | * }
  modify owner

```

```
{ name_in_db | loginame only login_name }
[ preserve permissions ]
```

alter role Defines mutually exclusive relationships between roles; adds, drops, and changes passwords for roles; specifies the password expiration interval, the minimum password length, and the maximum number of failed logins allowed for a specified role. Also used to lock and unlock roles:

```
alter role role1 {add | drop} exclusive {membership | activation} role2
alter role role_name [add passwd "password" |
  drop passwd] [lock | unlock]
alter role {role_name | "all overrides"}
  set {passwd expiration | min passwd length |
  max failed_logins} option_value
```

alter table Adds new columns to a table; drops or modifies existing columns; adds, changes, or drops constraints; changes properties of an existing table; enables or disables triggers on a table. Supports adding, dropping, and modifying computed columns and to enable the materialized property, nullability, or definition of an existing computed column to be changed. Partitions and repartitions a table with specified partition strategy, or add partitions to a table with existing partitions:

```
alter table [[database.][owner.]table_name
  {add column_name datatype}
  [default {constant_expression | user | null}]
  {identity | null | not null [not materialized]}
  [off row | in row] [[constraint constraint_name]
  {{unique | primary key} [clustered | nonclustered] [asc | desc]
  [with {fillfactor = pct, max_rows_per_page = num_rows,
  reservepagegap = num_pages]
  [on segment_name] | references [[database.]owner.]ref_table
  [(ref_column)] [match full] | check (search_condition)]
  [encrypt [with [database.]owner.] keyname]
  [decrypt_default {constant_expression | null}]]
  [compressed = compression_level | not compressed]
  [, next_column]... | add [constraint constraint_name]
  {unique | primary key} [clustered | nonclustered]
  (column_name [asc | desc][, column_name [asc | desc]...])
  [with {fillfactor = pct, max_rows_per_page = num_rows,
  reservepagegap = num_pages}] [on segment_name]
  | foreign key (column_name [{, column_name}...])
  references [[database.]owner.]ref_table
  [(ref_column [{, ref_column}...])] [match full]
  | add lob-colname { text | image | unitext }
  [null] [ in row [ (length) ] ]
  | check (search_condition)}
  | set dml_logging = {full | minimal | default} |
  [, compression = {none | page | row}]]
  [lob_compression = off | compression_level]
  | drop {column_name [, column_name]...
  | constraint constraint_name} | modify column_name
  [datatype [null | not null]]
  [[encrypt [with keyname] [decrypt_default [value]] | decrypt]
  [[not] compressed]
  [compressed = compression_level | not compressed]
```

```

    [, next_column]... | replace column_name
    default {constant_expression | user | null}
    | decrypt_default {constant_expression | null}
    | drop decrypt_default|
lock {allpages | datarows | datapages} }
| with exp_row_size=num_bytes
    transfer table [on | off]} | partition number_of_partitions
| unpartition | partition_clause | add_partition_clause
alter table syntax for partitions:
partition_clause::=
partition by range (column_name[, column_name]...)
    ([partition_name] values <= ({constant | MAX}
    [, {constant | MAX}] ...) [on segment_name]
    [compression_clause] [on segment_name]
    [, [partition_name] values <= ({constant | MAX}
    [, {constant | MAX}] ...) [on segment_name]...]

| partition by hash (column_name[, column_name]...)
    { (partition_name [on segment_name]
    [, partition_name [on segment_name]...]
    [compression_clause] [on segment_name]
    | number_of_partitions [on (segment_name[, segment_name] ...)]}

| partition by list (column_name)
    ([partition_name] values (constant[, constant] ...)
    [on segment_name] [compression_clause] [on segment_name]
    [, [partition_name] values (constant[, constant] ...)
    [on segment_name] ...])

| partition by roundrobin
    { (partition_name [on segment_name]
    [, partition_name [on segment_name]...]
    [compression_clause] [on segment_name]
    | number_of_partitions [on (segment_name [, segment_name]...)]}

add_partition_clause::=
add partition
    { ([partition_name] values <= ({constant | MAX}
    [, {constant | MAX}]...) [on segment_name]
    [compression_clause] [on segment_name]
    [, [partition_name] values <= ({constant | MAX}
    [, {constant | MAX}] ...) [on segment_name]...]
    | modify partition {partition_name [, partition_name . . . ] }
    set compression [= {default | none | row | page}]

    | ([partition_name] values (constant[, constant] ...)
    [on segment_name]
    [, [partition_name] values (constant[, constant] ...)
    [on segment_name] ...])

```

alter table syntax for computed columns:

```
alter table
  add column_name {compute | as}
    computed_column_expression...
    [materialized | not materialized]
  drop column_name
  modify column_name {null | not null |
    {materialized | not materialized} [null | not null] |
    {compute | as} computed_column_expression
    [materialized | not materialized]
    [null | not null]}
```

alter table syntax for dropping partitions:

```
alter table table_name drop partition
  partition_name [, partition_name]...
```

alter thread pool Alters a thread pool.

```
alter thread pool pool_name with { pool name = "new_name"
  thread count = thread_count, [pool description = "description"]}
  [idle timeout = time_period]
```

begin...end Encloses a series of SQL statements so that control-of-flow language can affect the performance of the whole group:

```
begin
  statement block
end
```

begin transaction Marks the starting point of a user-defined transaction:

```
begin tran[saction] [transaction_name]
```

break Causes an exit from a while loop. break is often activated by an if test:

```
while logical_expression
  statement
break
  statement
continue
```

checkpoint Writes all *dirty* pages to the database device:

```
checkpoint [all | [dbname[, dbname, dbname, ...]]]
```

close Deactivates a cursor:

```
close cursor_name
```

commit Marks the ending point of a user-defined transaction:

```
commit [tran | transaction | work] [transaction_name]
```

compute clause Generates summary values that appear as additional rows in the query results:

```
start_of_select_statement
  compute row_aggregate (column_name)
    [, row_aggregate (column_name)]...
  [by column_name [, column_name]...]
```

connect to...disconnect (Component Integration Services only) Connects to the specified server and disconnects the connected server. Creates a passthru to a different server:


```
connect to server_name
disconnect [from ASE] [all] [connection_name]
```

Opens a new JDBC-level connection to Adaptive Server, and does not use CIS. You can specify the arguments in any order. If you do not include an arguments, Adaptive Server prompts you for connection parameters:

```
connect
    [to ASE engine_name]
    [database database_name]
    [as connection_name]
    [user user_id]
    [identified by password]]]
```

Opens a new JDBC-level connection to Adaptive Server. This syntax does not use CIS:

```
connect using connect_string
```

continue Restarts the while loop. continue is often activated by an if test:

```
while boolean_expression
    statement
break
    statement
continue
```

create archive database Creates an archive database:

```
create archive database db_name
    [on db_device [= size][, db_device [= size]] ...]
    with scratch_database = db_name
```

create database Creates a new database. Syntax for non-clustered environments:

```
create [inmemory] [temporary] database database_name
    [use database_name as template]
    [on {default | database_device} [= size][, database_device [= size]]...]
    [log on database_device [= size] [, database_device [= size]]...]
    [with {dbid = number, default_location = "pathname", override}]
    | [[,]durability = { no_recovery | at_shutdown | full} ]
    [, compression = {none | row | page}]
    [, lob_compression = {compression_level | off}]
    [ [,] inrow_lob_length = value ] ...
    [for {load | proxy_update}]
```

Syntax for cluster environments:

```
create [inmemory] [temporary] database database_name
    [use database_name as template]
    [on {default | database_device} [= size] [, database_device [= size]]...]
    [log on database_device [= size] [, database_device [= size]]...]
    [with {dbid = number, default_location = "pathname", override}]
    | [[,]durability = { no_recovery | at_shutdown | full} ]
    [, compression = {none | row | page}]
    [, lob_compression = {compression_level | off}]
    [ [,] inrow_lob_length = value ] ... [for {load | proxy_update}]
```

create default Specifies a value to insert in a column if no value is explicitly supplied at insert time:

create default [*owner.*]*default_name* as *constant_expression*

create encryption key Creates user-specified passwords on keys. Create the master key:

create encryption key [*dual*] master [for AES] with passwd *char_literal*

Create the server key:

create encryption key *syb_extpasswdkey*

[with { static key | master key }]

create encryption key *syb_syscommkey*

[with { static key | master key }]

Create the column encryption key:

create encryption key [[*database.*]*owner.*]*keyname*

[as default] [for algorithm]

[with {{{passwd {*char_literal* | *system_encr_passwd*} | master key}}]

[*key_length* *num_bits*] [*init_vector* {null | random}]

[*pad* {null | random}] [[no *dual_control*]]]

create existing table (Component Integration Services only) Creates a proxy table, then retrieves and stores metadata from a remote table and places the data into the proxy table. Allows you to map the proxy table to a table, view, or procedure at a remote location:

create existing table *table_name* (*column_list*)

[on *segment_name*]

[[external {table | procedure | file | *connection_type*}] at *pathname*

[column delimiter "*string*"]]

create function Creates a user-defined function, which is a saved Transact-SQL routine that returns a specified value:

create function [*owner_name.*] *function_name*

[[{ @*parameter_name* [as] *parameter_datatype* [= default] } [,...n]]]

returns *return_datatype* [with recompile] as [begin] *function_body*

return *scalar_expression*

[end]

create function (SQLJ) Creates a user-defined function by adding a SQL wrapper to a Java static method. Can return a value defined by the method:

create function [*owner.*]*sql_function_name*

([*sql_parameter_name* *sql_datatype* [(*length*) | (*precision*

[, *scale*)]], *sql_parameter_name* *sql_datatype*

[(*length*) | (*precision*[, *scale*)]]) ...]])

returns *sql_datatype* [(*length*) | (*precision*[, *scale*)]]

[modifies sql data] [returns null on null input | called on null input]

[deterministic | not deterministic] [exportable] language java

parameter style java

external name '*java_method_name* [[(*java_datatype*[, *java_datatype* ...]])]'

create index Creates an index on one or more columns in a table, computed or non-computed:

create [unique] [clustered | nonclustered] index *index_name*

on [[*database.*]*owner.*]*table_name* (*column_expression* [asc | desc]

[, *column_expression* [asc | desc]]...)

[with {fillfactor = *pct*, max_rows_per_page = *num_rows*,

```

reservepagegap = num_pages,
consumers = x, ignore_dup_key, sorted_data,
[ignore_dup_row | allow_dup_row],
statistics using num_steps values}
[on segment_name] [index_partition_clause]

```

Creates index partitions:

```

index_partition_clause ::=
    [local index [partition_name [on segment_name]
    [, partition_name [on segment_name]...]]]

```

Creates function-based indexes:

```

create [unique | nonclustered] index index_name
on [[database.] owner.] table_name
(column_expression [asc | desc]
[, column_expression [asc | desc]]...

```

create login Creates a login account; specifies a password, a login profile for the account, and user-supplied parameters to be assigned to the account.

```

create login login_name with [encrypted]
password password [attribute_value_pair_list]

```

create login profile Creates a login profile with specified attributes.

```

create login profile login_profile_name
[ as default ] [ with { attributes from login_name |
attribute_value_pair_list } ]

```

create plan Creates an abstract plan.

```

create plan query_plan [into group_name] [and set @new_id]

```

create procedure Creates a stored procedure or an extended stored procedure that can take one or more user-supplied parameters:

```

create procedure [owner.]procedure_name[:number]
[[(@parameter_name datatype [(length) | (precision [, scale])]
[= default] [output]
[, @parameter_name datatype [(length) | (precision [, scale])]
[= default] [output]...)]
[with recompile] as {SQL_statements | external name dll_name}

```

create procedure (SQLJ) Creates a SQLJ stored procedure by adding a SQL wrapper to a Java static method:

```

create procedure [owner.]sql_procedure_name
([(in | out | inout] sql_parameter_name
sql_datatype [(length) | (precision[, scale])] [=default] ...)]
[, [in | out | inout] sql_parameter_name
sql_datatype [(length) | (precision[, scale])] [=default] ...)]
[modifies sql data] [dynamic result sets integer]
[deterministic | not deterministic]
language java
parameter style java
external name 'java_method_name [(java_datatype[, java_datatype
...])]'

```

create proxy table (Component Integration Services only) Creates a proxy table without specifying a column list:

```
create proxy_table table_name [external [table | directory | file]]
    at pathname [column delimiter "string"]
```

create role Creates a user-defined role; specifies the password expiration interval, the minimum password length, and the maximum number of failed logins allowed for a specified role at creation:

```
create role role_name [with passwd "password"
    [, {passwd expiration | min passwd length |
    max failed_logins} option_value]]
```

create rule Specifies the domain of acceptable values for a particular column or for any column of a user-defined datatype, and creates access rules:

```
create [[and | or] access]] rule [owner.]rule_name
    as condition_expression
```

create schema Creates a new collection of tables, views, and permissions for a database user.

```
create schema authorization authorization_name
    create_object_statement [create_object_statement ...]
    [permission_statement ...]
```

create service Wraps the supplied SQL statement in a stored procedure with the specified name and parameters:

```
create service service-name [secure security_options][, userpath path]
    [, alias alias-name]
    type { xml | raw | soap }
    [[(@parameter_name datatype [(length) | (precision [, scale])]
    [= default] [output]
    [, @parameter_name datatype [(length) | (precision [, scale])]
    [= default] [output]]...))]
    as SQL_statements
    security_options ::= (security_option_item [security_option_item])
```

create table Creates new tables and optional integrity constraints, defines computed columns when a table is created, defines encrypted columns and decrypt defaults on encrypted columns when you create a table, and defines the table's partition property when the table is created:

```
create table [[database.]owner.]table_name (column_name datatype
    [default {constant_expression | user | null}]
    [{identity | null | not null}]
    [ in row [(length) | off row ] [[constraint constraint_name]
    {{unique | primary key} [clustered | nonclustered] [asc | desc]
    [with {fillfactor = pct, max_rows_per_page = num_rows,}
    reservepagegap = num_pages] dml_logging = {full |
minimal})]
    [on segment_name]
    | references [[database.]owner.]ref_table [(ref_column)]
    [match full] | check (search_condition)]])
[[encrypt [with [database.]owner.]key_name]
    [decrypt_default constant_expression | null]] [not compressed]
    [compressed = {compression_level | not compressed}]
[[constraint [[database.]owner.]key_name]
    {unique | primary key} [clustered | nonclustered]
    (column_name [asc | desc] [{, column_name [asc | desc]}...])
```

```

    [with {fillfactor = pct max_rows_per_page = num_rows,
          reservepagegap = num_pages}] [on segment_name]
  | foreign key (column_name [{, column_name}...])
    references [[database.]owner.]ref_table
      [(ref_column [{, ref_column}...])] [match full]
  | check (search_condition ...)
  [{, {next_column | next_constraint}...}]
  [lock {datarows | datapages | allpages}]
  [with {max_rows_per_page = num_rows, exp_row_size =
num_bytes,
        reservepagegap = num_pages, identity_gap = value
        transfer table [on | off] dml_logging = {full | minimal}
        compression = {none | page | row}}]
        lob_compression = off | compression_level
  [on segment_name] [partition_clause]
  [[external table] at pathname] [for load]
  compression_clause:=
    with compression = {none | page | row}

```

Syntax for partitions:

```

partition_clause:=
  partition by range (column_name[, column_name]...)
    ([partition_name] values <= ({constant | MAX} [, {constant | MAX}]
...))
    [compression_clause] [on segment_name]
  [, [partition_name] values <= ({constant | MAX}
  [, {constant | MAX}] ...)]
    [compression_clause] [on segment_name]...]

| partition by hash (column_name[, column_name]...)
  { (partition_name [compression_clause] [on segment_name]
  [, partition_name [compression_clause] [on segment_name]]...)
  | number_of_partitions [on (segment_name[, segment_name] ...)]}

| partition by list (column_name)
  ([partition_name] values (constant[, constant] ...)
  [compression_clause] [on segment_name]
  [, [partition_name] values (constant[, constant] ...)
  [compression_clause] [on segment_name]] ...)

| partition by roundrobin
  { (partition_name [on segment_name] [, partition_name
  [compression_clause] [on segment_name]]...)
  | number_of_partitions [on (segment_name[, segment_name]...)]}

```

Syntax for computed columns:

```

create table [database.[owner].] table_name (column_name {compute |
as})
  computed_column_expression [materialized | not materialized]}

```

Syntax for creating a virtually hashed table:

```

create table [database.[owner].]table_name
...
  | {unique | primary key} using clustered

```

(*column_name* [asc | desc] [{, *column_name* [asc | desc]}...] =
 (hash_factor [{, hash_factor}...]) with max num_hash_values key

create thread pool Creates a user-defined thread pool.

create thread pool *pool_name* with thread count = *count*
 [, pool description = *description*] [idle timeout = *time_period*]

create trigger Creates a trigger, which is a type of stored procedure that is often used for enforcing integrity constraints. A trigger executes automatically when a user attempts a specified data modification statement on a specified table.

create trigger [*owner.*]*trigger_name* on [*owner.*]*table_name*
 {for {insert , update} | instead of {insert, update, delete}}
 [as
 [if update (*column_name*) [{and | or} update (*column_name*)]...]
 SQL_statements
 [if update (*column_name*) [{and | or} update (*column_name*)]...]
 SQL_statements...]

create view Creates a view:

create view [*owner.*]*view_name* [(*column_name*[, *column_name*]...)]
 as select [distinct] *select_statement* [with check option]

dbcc Database consistency checker (dbcc) checks the logical and physical consistency of a database and provides statistics, planning, and repair functionality. Certain dbcc commands apply only to shared-disk clusters. See the separately listed dbcc syntax for clusters.

dbcc addtempdb (*dbid* | *database_name*)
 dbcc checkalloc [(*database_name*[, fix | nofix])]
 dbcc checkcatalog [(*database_name*[, fix])]
 dbcc checkdb [(*database_name*[, skip_ncindex])]
 dbcc checkindex ((*table_name* | *table_id*), *index_id*
 [, bottom_up[, *partition_name* | *partition_id*])]
 dbcc checkstorage [(*database_name*)]
 dbcc checktable (*table_name* | *table_id*
 [, skip_ncindex | fix_spacebits | "check spacebits" |
 bottom_up | NULL[, *partition_name* | *partition_id*])
 dbcc checkverify (*dbname*[, *tblname*[, *ignore_exclusions*])
 dbcc complete_xact (*xid*, [{"commit", "1pc"} | "rollback"])
 dbcc dbrepair (*database_name*, dropdb)
 dbcc engine ({offline, [*enginenum*] | "online"})
 dbcc fix_text ((*table_name* | *table_id*)
 dbcc forget_xact (*xid*)
 dbcc indexalloc (*table_name* | *table_id*, *index_id*
 [, optimized | fast | NULL [, fix | nofix | NULL
 [, *partition_name* | *partition_id*]])
 dbcc monitor (increment, <*group name*>)
 dbcc monitor (decrement, <*group name*>)
 dbcc monitor (reset, <*group name*>)
 dbcc pravailabletempdbs

```

dbcc rebuild_text (table_name | table_id | "all" [, column [, text_page
    [, data_partition_name | data_partition_id]])
dbcc reindex ((table_name | table_id)
dbcc serverlimits
dbcc stackused
dbcc tablealloc (table_name | table_id [, full | optimized | fast | NULL
    [, fix | nofix | NULL [, data_partition_name | data_partition_id]])
dbcc textalloc (table_name | table_id [, full | optimized | fast | NULL
    [, fix | nofix | NULL [, data_partition_name | data_partition_id]])
dbcc {traceon | traceoff} (flag [, flag ...])
dbcc tune ({ascinserts, {0 | 1} , table_name |
    cleanup, {0 | 1} | cpuaffinity, start_cpu {, on | off} |
    des_greedyalloc, dbid, object_name,
    " {on | off}" | deviochar vdevno, "batch_size" |
    doneinproc {0 | 1})
dbcc upgrade_object [ ( dbid | dbname
    [, [database.owner].compiled_object_name' |
    'check' | 'default' | 'procedure' | 'rule' |
    'trigger' | 'view' [, 'force' ] ] )

```

dbcc syntax for clusters only:

```

dbcc nodetraceon(trace_flag_number)
dbcc nodetraceoff(trace_flag_number)
dbcc set_scope_in_cluster("cluster"|"instance"|"scope")
dbcc quorum

```

deallocate cursor Makes a cursor inaccessible and releases all memory resources committed to that cursor:

```
deallocate [cursor] cursor_name
```

deallocate locator Deletes a large object (LOB) stored in memory and invalidates its LOB locator.

```
deallocate locator locator_descriptor
```

declare Declares the name and type of local variables for a batch or procedure.

Variable declaration:

```
declare @variable_name datatype [, @variable_name datatype]...
```

Variable assignment:

```
select @variable = {expression | select_statement}
    [, @variable = {expression | select_statement} ...]
    [from table_list] [where search_conditions]
    [group by group_by_list] [having search_conditions]
    [order by order_by_list] [compute function_list [by by_list]]

```

declare cursor Defines a cursor, by associating a select statement with a cursor name:

```
declare cursor_name
    [semi_sensitive | insensitive] [scroll | no scroll]
    cursor for select_statement
    [for {read only | update [of column_name_list]}]

```

delete Removes rows from a table:

```
delete
  [top unsigned_integer]
  [from] [[database.]owner.]{view_name | table_name}
  [where search_conditions] [plan "abstract plan"]
delete [[database.]owner.]{table_name | view_name}
  [from [[database.]owner.]{view_name [readpast] |
    table_name [(index {index_name | table_name}
      [prefetch size] [lru | mru])]}
    [readpast] [, [[database.]owner.]{view_name [readpast] |
      table_name
        [(index {index_name | table_name}
          [prefetch size] [lru | mru])]}] [readpast]}] ...]
  [where search_conditions] [plan "abstract plan"]
delete [from] [[database.]owner.]{table_name | view_name}
  where current of cursor_name
```

delete statistics Removes statistics from the sysstatistics system table:

```
delete [shared] statistics table_name
  [partition data_partition_name]
  [(column_name[, column_name] ...)]
```

disk init Makes a physical device or file usable by Adaptive Server:

```
disk init
  name = "device_name",
  physname = { 'physical_name' | 'cache_name' }
  skip_alloc={true | false},
  [vdevno = virtual_device_number,]
  size = number_of_blocks [, type = 'inmemory' ][, vstart =
virtual_address
  , cntrltype = controller_number]
  [, dsync = {true | false}][, directio = {true | false}]
  [, instance = "instance_name"]
```

disk mirror Creates a software mirror that immediately takes over when the primary device fails:

```
disk mirror name = "device_name", mirror = "physicalname"
  [, writes = {serial | noserial}] [clear = {TRUE | FALSE}]
```

disk refit Rebuilds the master database's sysusages and sysdatabases system tables from information contained in sysdevices:

```
disk refit
```

disk reinit Rebuilds the master database's sysdevices system table:

```
disk reinit
  name = "device_name", physname = "physicalname",
  [vdevno = virtual_device_number ,]
  size = number_of_blocks [, vstart = virtual_address
  , cntrltype = controller_number]
  [, dsync = {true | false}][, directio = {true | false}]
  [, instance = "instance_name"]
```

disk remirror Restarts disk mirroring after it is stopped by failure of a mirrored device or temporarily disabled by disk unmirror:

```
disk remirror name = "device_name"
```


disk resize Dynamically increases the size of the device used by Adaptive Server:

```
disk resize name = "device_name", size = additional_space
```

disk unmirror Suspends disk mirroring initiated with the disk mirror command to allow hardware maintenance or the changing of a hardware device:

```
disk unmirror
  name = "device_name"
  [, side = {"primary" | secondary}] [, mode = {retain | remove}]
```

drop database Removes one or more databases from Adaptive Server:

```
drop database database_name [, database_name] ...
```

drop default Removes a user-defined default:

```
drop default [owner.]default_name [, [owner.]default_name] ...
```

drop encryption key Allows table owners to drop the encryption or decryption key on a column by using alter table with the decrypt option:

```
drop encryption key [database.[owner.]]keyname
```

drop function Removes one or more user-defined functions from the current database:

```
drop function{ [owner_name .] function_name } [,...n]
```

drop function (SQLJ) Removes a SQLJ function:

```
drop func[tion] [owner.]function_name[, [owner.]function_name] ...
```

drop index Removes an index from a table in the current database:

```
drop index table_name.index_name [, table_name.index_name] ...
```

drop login Drops a login account or list of accounts.

```
drop login login_name [, login_name_list] [ with override ]
```

drop login profile Drops a login profile or list of login profiles.

```
drop login profile login_profile_name [, login_profile_name_list] [ with
override ]
```

drop procedure Removes a procedure:

```
drop proc[edure] [owner.]procedure_name [, [owner.]procedure_name]
...
```

drop role Drops a user-defined role:

```
drop role role_name [with override]
```

drop rule Removes a user-defined rule:

```
drop rule [owner.]rule_name[, [owner.]rule_name] ...
```

drop service Removes a user-defined Web service from the current database:

```
drop service service-name
```

drop table Removes a table definition and all of its data, indexes, partition properties, triggers, encryption properties, and permissions from the database:

```
drop table [[database.]owner.]table_name
  [, [[database.]owner.]table_name] ...
```

drop trigger Removes a trigger:

drop trigger [*owner*.]*trigger_name* [, [*owner*.]*trigger_name*] ...

drop view Removes one or more views from the current database:

drop view [*owner*.]*view_name* [, [*owner*.]*view_name*] ...

dump database Makes a backup copy of the entire database, including the transaction log, in a form that can be read in with load database. Dumps and loads are performed through Backup Server.

dump database *database_name*

to [*compress*::[*compression_level*::]]*stripe_device*

[at *backup_server_name*]

[*density* = *density_value*, *blocksize* = *number_bytes*,
capacity = *number_kilobytes*, *dumpvolume* = *volume_name*,
file = *file_name*] [*with shrink_log*]with *verify*[= *header* | *full*]

[*stripe on* [*compress*::[*compression_level*::]]*stripe_device*

[at *backup_server_name*]

[*density* = *density_value*, *blocksize* = *number_bytes*,
capacity = *number_kilobytes*, *dumpvolume* = *volume_name*,
file = *file_name*]

[[*stripe on* [*compress*::[*compression_level*::]]*stripe_device*

[at *backup_server_name*]

[*density* = *density_value*, *blocksize* = *number_bytes*,
capacity = *number_kilobytes*, *dumpvolume* = *volume_name*,
file = *file_name*]]...

[*with* {*density* = *density_value*, *blocksize* = *number_bytes*,
capacity = *number_kilobytes*, *compression* = *compress_level*
dumpvolume = *volume_name*, *file* = *file_name*,

[*dismount* | *nodismount*], [*nounload* | *unload*],

passwd = *password*,*retaindays* = *number_days*,

[*noinit* | *init*],

notify = {*client* | *operator_console*}

}]

(Tivoli Storage Manager) Use this syntax for copying the database when the Tivoli Storage Manager provides backup services.

dump database *database_name*

to "syb_tsm::*object_name*"

[*blocksize* = *number_bytes*]

[*stripe on* "[syb_tsm::*object_name*"

[*blocksize* = *number_bytes*]]...

[*with* {*blocksize* = *number_bytes*, *compression* = *compress_level*,

passwd = *password*, [*noinit* | *init*],

notify = {*client* | *operator_console*}, *verify*[= *header* | *full*] }]

dump transaction Makes a copy of a transaction log and removes the inactive portion. To make a routine log dump:

dump tran[*saction*] *database_name*

to [*compress*::[*compression_level*::]]*stripe_device*

[at *backup_server_name*]

[*density* = *density_value*, *blocksize* = *number_bytes*,
capacity = *number_kilobytes*, *dumpvolume* = *volume_name*,
file = *file_name*]

[*stripe on* [*compress*::[*compression_level*::]]*stripe_device*

[at *backup_server_name*]

[*density* = *density_value*, *blocksize* = *number_bytes*,

```

capacity = number_kilobytes, dumpvolume = volume_name,
file = file_name]]
[[stripe on [compress::[compression_level::]]stripe_device
[at backup_server_name]
[density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, dumpvolume = volume_name,
file = file_name]]...]
[with {density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, compression = compress_level,
dumpvolume = volume_name, file = file_name,
[dismount | nodismount], [nounload | unload],
retaindays = number_days, [noinit | init],
notify = {client | operator_console}, standby_access}]

```

Truncates the log without making a backup copy:

```
dump tran[saction] database_name with truncate_only
```

Truncates a log that is filled to capacity. **Use only as a last resort:**

```
dump tran[saction] database_name with no_log
```

Backs up the log after a database device fails:

```

dump tran[saction] database_name
to [compress::[compression_level::]]stripe_device
[at backup_server_name]
[density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, dumpvolume = volume_name,
file = file_name]
[[stripe on [compress::[compression_level::]]stripe_device
[at backup_server_name]
[density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, dumpvolume = volume_name,
file = file_name]]
[[stripe on [compress::[compression_level::]]stripe_device
[at backup_server_name]
[density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, dumpvolume = volume_name,
file = file_name]]...]
[with {density = density_value, blocksize = number_bytes,
capacity = number_kilobytes, compression = compress_level,
dumpvolume = volume_name, file = file_name,
[dismount | nodismount], [nounload | unload],
retaindays = number_days, [noinit | init],
no_truncate, notify = {client | operator_console}}]

```

Copies the transaction log when the Tivoli Storage Manager provides backup services:

```

dump transaction database_name
to "syb_tsm::object_name" [blocksize = number_bytes]
[stripe on "[syb_tsm::]object_name" [blocksize = number_bytes]]...]
[with {blocksize = number_bytes, compression = compress_level,
passwd = password, [noinit | init],
notify = {client | operator_console}, verify[ = header | full]} ]

```

execute Runs a procedure or dynamically executes Transact-SQL commands:

```

[exec[ute]] [@return_status =]
[[[server .]database.]owner.]procedure_name[:number]
[[@parameter_name =] value |

```

```

    [@parameter_name =] @variable [output]
    [, [@parameter_name =] value |
    [@parameter_name =] @variable [output]...]
    [with recompile]

```

Or: `exec[ute] ("string" | char_variable [+ "string" | char_variable]...)`

fetch Returns a row or a set of rows from a cursor result set:

```

    fetch [next | prior | first | last | absolute
    fetch_offset | relative fetch_offset]
    [from] cursor_name [into fetch_target_list]

```

goto label Branches to a user-defined label:

```

    label:
    goto label

```

grant Assigns permissions to individual users, groups of users, and roles. Assigns roles to users or system or user-defined roles. Grants permission to access database objects:

```

    grant {all [privileges] | permission_list}
    on {table_name [correlation_name]
    [(column_list)] | view_name[(column_list)]
    | stored_procedure_name | function_name | keyname}
    [where search_condition] [as pred_name]
    to {public | name_list | role_list} [with grant option]

```

Grants permission to use built-in functions:

```

    grant select on [builtin] builtin to {name_list | role_list}

```

Grants permission to execute certain commands:

```

    grant {all [privileges] | command_list} to {public | name_list | role_list}

```

Grants access on certain dbcc commands:

```

    grant dbcc {dbcc_command [on {all | database}]
    [, dbcc_command [on {all | database}], ...]}
    to {user_list | role_list}

```

Grants permission to create encryption keys:

```

    grant create encryption key to {user_list | role_list | group_list}

```

Grants decrypt permission on a table or a list of columns in a table:

```

    grant decrypt on [owner.]tablename[(columnname [{, columnname}])]
    to {user | group | role}

```

Grants the default permissions for specific system tables:

```

    grant default permissions on system tables

```

Grants a role to a user or a role:

```

    grant {role role_granted [, role_granted ...]} to grantee [, grantee...]

```

Switches your server user identity to any other server login and limit its use based on the target login roles:

```

    grant set proxy to role_list [restrict role role_list | all | system]

```

group by and having clauses Used in select statements to divide a table into groups and to return only groups that match conditions in the having clause. `group by` is typically used in conjunction with aggregates to specify how to group the unaggregated columns of a select query. `having` clauses are applied to these groups.

Start of select statement

```
[group by [all] aggregate_free_expression
 [, aggregate_free_expression]...]
```

```
[having search_conditions]
```

End of select statement

if...else Imposes conditions on the execution of a SQL statement:

```
if logical_expression [plan "abstract plan"] statements
```

```
[else [if logical_expression] [plan "abstract plan"] statement]
```

insert Adds new rows to a table or view:

```
insert [into] [database.[owner.]]{table_name | view_name}
 [(column_list)] {values (expression [, expression]...)
 | select_statement [plan "abstract plan"]}
```

kill Kills a process:

```
kill spid with statusonly
```

load database Loads a backup copy of a user database, including its transaction log, that was created with `dump database`, as well as materialize archive databases that have been loaded with a database dump. To make a routine database load:

```
load database database_name
 from [compression=]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]
 with verify only [= header | full]
 [stripe on [compression=]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]
 [[stripe on [compression=]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]]...]]
 [with {density = density_value, blocksize = number_bytes,
 compression, dumpvolume = volume_name, file = file_name,
 [dismount | nodismount], [nounload | unload],
 passwd = password, notify = {client | operator_console},
 [override]]}]
```

Returns header or file information without loading the backup:

```
load database database_name
 from [compress::]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]
 [stripe on [compress::]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]
 [[stripe on [compress::]stripe_device [at backup_server_name]
 [density = density_value, blocksize = number_bytes,
 dumpvolume = volume_name, file = file_name]]...]]
 [with {density = density_value, blocksize = number_bytes,
 compression, dumpvolume = volume_name, file = file_name,
 [dismount | nodismount], [nounload | unload],
 passwd = password, listonly [= full], headeronly,
 notify = {client | operator_console}}}]
```

Materializes an archive database:

```
load database database_name from dump_device
  [[stripe on stripe_device] ...][with [norecovery][, passwd=password]]
```

Loads a copy of the database when the Tivoli Storage Manager is licensed at your site:

```
load database database_name
  from syb_tsm::[[-S source_sever_name][-D source_database_name]
    ::]object_name [blocksize = number_bytes]
  [stripe on syb_tsm::[[-S source_sever_name
    [-D source_database_name]::]object_name
    [blocksize = number_bytes]]
  [[stripe on syb_tsm::[[-S source_sever_name
    [-D source_database_name]::]object_name
    [blocksize = number_bytes]]...]
  [with {blocksize = number_bytes, passwd = password,
    listonly [= full], headeronly, notify = {client | operator_console},
    [[verifyonly | verify] [= header | full]] } ]
```

load transaction Loads a backup copy of the transaction log that was created with dump transaction. To make a routine log load:

```
load tran[saction] database_name
  from [compress::]stripe_device [at backup_server_name]
    [density = density_value, blocksize = number_bytes,
    dumpvolume = volume_name, file = file_name]
  [stripe on [compress::]stripe_device [at backup_server_name]
    [density = density_value, blocksize = number_bytes,
    dumpvolume = volume_name, file = file_name]
  [[stripe on [compress::]stripe_device [at backup_server_name]
    [density = density_value, blocksize = number_bytes,
    dumpvolume = volume_name, file = file_name]]...]
  [with {density = density_value, blocksize = number_bytes,
    compression, dumpvolume = volume_name, file = file_name,
    [dismount | nodismount], [nounload | unload],
    notify = {client | operator_console} }]]
```

Returns header or file information without loading the backup log:

```
load tran[saction] database_name
  from [compress::]stripe_device [at backup_server_name]
    [density = density_value, blocksize = number_bytes,
    dumpvolume = volume_name, file = file_name]
  [stripe on [compress::]stripe_device [at backup_server_name]
    [density = density_value, blocksize = number_bytes,
    dumpvolume = volume_name, file = file_name]
  [[stripe on [compress::]stripe_device
    [at backup_server_name] [density = density_value,
    blocksize = number_bytes, dumpvolume = volume_name,
    file = file_name]]...]
  [with {density = density_value, blocksize = number_bytes,
    compression, dumpvolume = volume_name, file = file_name,
    [dismount | nodismount], [nounload | unload],
    listonly [= full], headeronly,
    notify = {client | operator_console} until_time = datetime}}]
```

Loads a transaction log into an archive database:

```
load tran[saction] database_name from dump_device
  [[stripe on stripe_device] ...]
```

(Tivoli Storage Manager only) Loads a copy of the transaction log when the Tivoli Storage Manager is licensed at your site:

```
load transaction database_name
  from syb_tsm::[[-S source_sever_name][-D source_database_name]
  ::]object_name [blocksize = number_bytes]
  [stripe on syb_tsm::[[-S source_sever_name]
  [-D source_database_name]::]object_name
  [blocksize = number_bytes]]
  [[stripe on syb_tsm::[[-S source_sever_name]
  [-D source_database_name]::]object_name
  [blocksize = number_bytes]]...]
  [with { blocksize = number_bytes, passwd = password,
  listonly [= full], headeronly, notify = {client | operator_console},
  until_time = datetime } ]
```

lock table Explicitly locks a table within a transaction:

```
lock table table_name in {share | exclusive} mode
  [wait [numsecs] | nowait]
```

merge Transfers rows from a source table into a target table, inserts rows that are in the source and have no matching key columns in the target, and updates rows with key columns that already exist in the target with the values from the source row.

```
merge by {insert | update}
  into [[database.]owner.]identifier [as table_alias]
  using [[database.]owner.]identifier [as table_alias]
  | (select_query) as alias_name [column_list]
  on merge_search_condition
  [ when matched [and search_conditions ]
  then {update set {col_name = expression} | delete} ]
  [ when not matched [and search_conditions ]
  then insert [(column_list) values (value_list)
```

mount Attaches a database to a destination or secondary Adaptive Server:

```
mount database all | database_mapping[, database_mapping, ...]
  from "manifest_file"
  [using device_mapping [, device_mapping...] [with listonly]
```

```
database_mapping: origdbname as newdbname
  | newdbname = origdbname | origdbname | newdbname
```

```
device_mapping
  logical_device_name as new_physical_name
  | new_physical_name = logical_device_name
  | original_physical_name | new_physical_name
```

online database Marks a database available for public use after a normal load sequence:

```
online database database_name [for standby_access]
```

open Opens a cursor for processing:

```
open cursor_name
```

order by clause Returns query results in the specified columns in sorted order:

```
[Start of select statement]
[order by {[table_name. | view_name.]
column_name | select_list_number | expression}
[asc | desc][, {[table_name. | view_name.]
column_name | select_list_number | expression} [asc | desc]]...]
[End of select statement]
```

prepare transaction Used by DB-Library in a two-phase commit application to see if a server is prepared to commit a transaction:

```
prepare tran[saction]
```

print Prints a user-defined message on the user's screen:

```
print
{format_string | @local_variable | @@global_variable}[, arg_list]
```

quiesce database Suspends and resumes updates to a specified list of databases:

```
quiesce database tag_name hold database_list [for external dump]
[to manifest_file [with override]]
```

Or: quiesce database tag_name release

raiserror Prints a user-defined error message on the user's screen and sets a system flag to record that an error condition has occurred:

```
raiserror error_number [{format_string | @local_variable}][, arg_list]
[with errordata restricted_select_list]
```

readtext Reads text, unitext, and image values, starting from a specified offset and reading a specified number of bytes or characters:

```
readtext [[database.]owner.]table_name.column_name
text_pointer offset size [holdlock | noholdlock] [readpast]
[using {bytes | chars | characters}]
[at isolation [{read uncommitted | 0} | [read committed | 1] |
[repeatable read | 2] | [serializable | 3]]]
```

reconfigure No effect; it is included to allow existing scripts to run without modification:

```
reconfigure
```

remove java Removes one or more Java-SQL classes, packages, or JARs from a database, when Java classes are installed in the database:

```
remove java
class class_name[, class_name]...
| package package_name[, package_name]...
| jar jar_name[, jar_name]...[retain classes]
```

reorg Reclaims unused space on pages, removes row forwarding, or rewrites all rows in the table to new pages, depending on the option used:

```
reorg compact table_name [partition partition_name]
[with {resume, time = no_of_minutes}]
reorg forwarded_rows table_name [partition partition_name]
[with {resume, time = no_of_minutes}]
reorg rebuild table_name [index_name [partition index_partition_name]]
```



```
reorg reclaim_space table_name [index_name]
    [partition partition_name] [with {resume, time = no_of_minutes}]
```

return Exits from a batch or procedure unconditionally and provides an optional return status:

```
return [integer_expression] [plan "abstract_plan"]
```

revoke Revokes permissions or roles from users, groups, or roles. To revoke permission to access database objects:

```
revoke [grant option for]
    {all [privileges] | permission_list} on {table_name [(column_list)]
    | view_name [(column_list)] | stored_procedure_name}
    | keyname} from {public | name_list | role_list}
    [cascade]
```

Revokes permission to select built-in functions:

```
revoke select on [builtin] builtin to {name_list | role_list}
```

Revokes permission to create database objects, execute set proxy, or execute set session authorization:

```
revoke {all [privileges] | command_list}
    from {public | name_list | role_list}
```

Revokes permission to run set proxy or set tracing:

```
[revoke set {proxy | tracing} from {public | name_list | role_list}
```

Revokes a role from a user or another role:

```
revoke role {role_name [, role_list ...]} from {grantee [, grantee ...]}
```

Revokes access on some dbcc commands:

```
revoke dbcc {dbcc_command [on {all | database}]
    [, dbcc_command [on {all | database}], ...]}
    from {user_list | role_list}
```

Revokes permission from other users, groups, and roles to create encryption keys:

```
revoke create encryption key from user | role | group
```

Revokes decrypt permission on a table or a list of columns in a table:

```
revoke decrypt on [owner.] tablename[(columnname
    [{, columnname}]]) from user | group | role
```

Revokes the default permissions from public:

```
revoke default permissions on system tables
```

rollback Rolls back a user-defined transaction to the named savepoint in the transaction or to the beginning of the transaction:

```
rollback [tran | transaction | work] [transaction_name
    | savepoint_name]
```

rollback trigger Rolls back the work done in a trigger, including the data modification that caused the trigger to fire, and issues an optional raiserror statement:

```
rollback trigger [with raiserror_statement]
```

save transaction Sets a savepoint within a transaction:

```
save transaction savepoint_name
```

select Retrieves rows from database objects:

```

select ::= select [all | distinct]
         [top unsigned_integer]
         select_list [into_clause] [from_clause]
         [where_clause] [group_by_clause]
         [having_clause] [order_by_clause]
         [compute_clause] [read_only_clause]
         [isolation_clause] [browse_clause]
         [plan_clause] [for_xml_clause]

select_list ::=

into_clause ::=
into [[database.] owner.] table_name
     [(colname encrypt [with [database.[owner.] keyname] [,
      colname encrypt_clause ...])]
     | [compressed = compression_level | not compressed]
     [in row [(length)] | off row ]
     [{[external table at]
      'server_name.[database.][owner.]object_name'
      | external directory at 'pathname'
      | external file at 'pathname' [column delimiter 'string']]
     [on segment_name] dml_logging = (full | minimal)
     [partition_clause] [lock {datarows | datapages | allpages}]
     [with [, into_option[, into_option] ...]]

| into existing table table_name

partition_clause ::=
partition by range (column_name[, column_name]...)
  ([partition_name] values <= ({constant | MAX}
  [, {constant | MAX}] ...) [on segment_name]
  [compression_clause] [on segment_name]
  [, [partition_name] values <= ({constant | MAX}
  [, {constant | MAX}] ...) [on segment_name]...]
  [compression_clause] [on segment_name]

| partition by hash (column_name[, column_name]...)
  { (partition_name [on segment_name]
    [compression_clause] [on segment_name]
    [, partition_name [on segment_name]...]
    [compression_clause] [on segment_name]
  | number_of_partitions
    [on (segment_name[, segment_name] ...)]]

| partition by list (column_name)
  ([partition_name] values (constant[, constant] ...)
  [compression_clause] [on segment_name]
  [, [partition_name] values (constant[, constant] ...)
  [compression_clause] [on segment_name]

| partition by roundrobin
  { (partition_name [on segment_name]
    [, partition_name [on segment_name]...]
    [compression_clause] [on segment_name]
  | number_of_partitions
    [on (segment_name [, segment_name]...)]]

```

```

into_option ::=
  | max_rows_per_page = num_rows
  | exp_row_size = num_bytes | reservepagegap = num_pages
  | identity_gap = gap | compression = {none | page | row}
  | lob_compression = off | compression_level

from_clause ::= from table_reference [, table_reference]...
table_reference ::= table_view_name | ANSI_join
table_view_name ::=
  [[database.]owner.] {{table_name | view_name}
  [as] [correlation_name]
  [(index {index_name | table_name})]
  [parallel [degree_of_parallelism]]
  [prefetch size][lru | mru]
  [holdlock | noholdlock] [readpast] [shared]
ANSI_join ::=
  table_reference join_type join table_reference
  join_conditions
  join_type ::= inner | left [outer] | right [outer]
  join_conditions ::= on search_conditions
compression_clause ::= with compression = {none | page | row}
where_clause ::= where search_conditions for update [of column_list
group_by_clause ::= group by [all] aggregate_free_expression
  [, aggregate_free_expression]...
having_clause ::= having search_conditions
order_by_clause ::= order by sort_clause [, sort_clause]...
sort_clause ::=
  {[[database.]owner.]{table_name.|view_name.}column_name
  | select_list_number | expression } [asc | desc]
compute_clause ::= compute row_aggregate (column_name)
  [, row_aggregate (column_name)]...
  [by column_name [, column_name]...]
read_only_clause ::= for {read only | update [of column_name_list]}
isolation_clause ::= at isolation
  {read uncommitted | 0} | {read committed | 1}
  | {repeatable read | 2} | {serializable | 3}
browse_clause ::= for browse
plan_clause ::= plan "abstract plan"

```

set Sets Adaptive Server query-processing options for the duration of the user's work session; sets some options inside a trigger or stored procedure:

```

set advanced_aggregation on/off
set @variable = expression [, @variable = expression...]
set ansinull {on | off}
set ansi_permissions {on | off}
set arithabort [arith_overflow | numeric_truncation] {on | off}
set arithignore [arith_overflow] {on | off}
set bulk_array_size number
set bulk_batch_size number
set builtin_date_strings number

```

set {chained, close on endtran, nocount, noexec, parseonly,
 self_recursion, showplan, sort_resources} {on | off}
 set char_convert {off | on [with {error | no_error}] |
 charset [with {error | no_error}]}
 set cis_rpc_handling {on | off}
 set [clientname *client_name* | clienthostname *host_name*
 | clientappliance *application_name*]
 set compression {on | off | default}
 set cursor rows *number* for *cursor_name*
 set {datefirst *number*, dateformat *format*, language *language*)
 set delayed_commit {on | off | default}
 set deferred_name_resolution { on | off }
 set dml_logging {minimal | default}
 set encryption passwd '*password_phrase*'
 for {key | column} {*keyname* | *column_name*}
 set export_options [on | off]
 set fipsflagger {on | off}
 set flushmessage {on | off}
 set fmtonly {on | off}
 set forceplan {on | off}
 set identity_insert [*database*.[*owner*.]]*table_name* {on | off}
 set identity_update *table_name* {on | off}
 set index_union on | off
 set literal_autoparam on | off
 set lock {wait [*numsecs*] | nowait}
 set metrics_capture on | off
 set offsets {select, from, order, compute, table,
 procedure, statement, param, execute} {on | off}
 set option *show*
 set opttimeoutlimit
 set parallel_degree *number*
 set plan {dump | load} [*group_name*] {on | off}
 set plan exists check {on | off}
 set plan for *show*
 set plan optgoal {allrows_mix | allrows_dss}
 set plan opttimeoutlimit *number*
 set plan replace {on | off}
 set prefetch [on|off]
 set print_minlogged_mode_override
 set proc_output_params {on | off}
 set proc_return_status {on | off}
 set process_limit_action {abort | quiet | warning}
 set proxy *login_name*
 set quoted_identifier {on | off}
 set repartition_degree *number*

```

set repthreshold number
set resource_granularity number
set role {"sa_role" | "sso_role" | "oper_role" |
  role_name [with passwd "password"]} {on | off}
set {rowcount number, textsize number}
set scan_parallel_degree number
set send_locator {on | off }
set session authorization login_name
set switch [serverwide] {on | off} trace_flag [,trace_flag,]
  [with option [, option]]
set show_exec_info ["on" | "off"]
set show_sqltext {on | off}
set show_transformed_sql, {on|off}
set statement_cache on | off
set statistics {io, subquerycache, time, plancost} {on | off}
set statistics simulate {on | off}
set strict_dtm_enforcement {on | off}
set string_rtruncation {on | off}
set system_view {instance | cluster | clear}
set textsize {number}
set tracefile [filename] [off] [for spid]
set transaction isolation level {[read uncommitted | 0] |
  [read committed | 1] | [repeatable read | 2] | [serializable | 3]}
set transactional_rpc {on | off}

```

setuser Allows a Database Owner to impersonate another user:

```
setuser ["user_name"]
```

shutdown Shuts down the Adaptive Server from which the command is issued, its local Backup Server, or a remote Backup Server:

```
shutdown [srvname] [with {wait [= "hh:mm:ss" | nowait]}]]
```

Syntax for clusters:

```
shutdown {cluster | [instance_name]} [with {wait | nowait}]
```

transfer table Initiates an incremental table transfer:

```
transfer table [[db.]owner.]table [to | from] destination_file
  [for { ase | bcp | iq | csv }]
  [with {column_separator=string}, {column_order=option},
  {encryption=option}, {row_separator=string},
  {resend=id}, {progress=sss}, {tracking_id=nnn}
  {sync = true | false}, {fixed_length = true | false}
  , null_byte = true | false}]
```

truncate lob Truncates a LOB to a specified length.

```
truncate lob locator_descriptor [ ( result_length )]
```

truncate table Removes all rows from a table or partition.

```
truncate table [[database.]owner.]table_name
  [partition partition_name]
```

union operator Returns a single result set that combines the results of two or more queries. Duplicate rows are eliminated from the result set unless the all keyword is specified.

```
select [top unsigned_integer] select_list
  [into clause] [from clause] [where clause]
  [group by clause] [having clause] [union [all]
  select [top unsigned_integer] select_list
  [from clause] [where clause] [group by clause] [having clause]...
  [order by clause] [compute clause]
```

unmount Shuts down the database and drops it from the Adaptive Server, and deactivates and drops devices.

```
unmount database dbname_list to manifest_file
```

update Changes data in existing rows by adding data or modifying existing data.

```
update [top unsigned_integer]
  [[database.]owner.]{table_name | view_name}
  set [[[database.]owner.]{table_name.|view_name.}
  column_name1 = {expression1 | NULL | (select_statement)} |
  variable_name1 = {expression1 | NULL | (select_statement)}}... |
  [, column_name2 = {expression2 | NULL | (select_statement)}}... |
  [, variable_name2 = {expression2 | NULL | (select_statement)}}...

  [from [[database.]owner.]{view_name [readpast]
  | table_name [(index {index_name | table_name)
  [prefetch size][lru|mru])}]
  [readpast] [, [[database.]owner.]{view_name [readpast]
  | table_name [(index {index_name | table_name)
  [prefetch size][lru|mru])}]
  [readpast] ...][where search_conditions] [plan "abstract plan"]
update [[database.]owner.]{table_name | view_name}
  set [[[database.]owner.]{table_name.|view_name.}
  column_name1 = {expression1 | NULL | (select_statement)} |
  variable_name1 = {expression1 | NULL | (select_statement)}
  [, column_name2 = {expression2 | NULL | (select_statement)}}... |
  [, variable_name2 = {expression2 | NULL | (select_statement)}}...
  where current of cursor_name
```

update all statistics Updates all statistics information for a given table. You can run update all statistics on a single data partition:

```
update all statistics table_name [partition data_partition_name]
```

update index statistics Updates the statistics for all columns in an index:

```
update index statistics
  table_name [[partition data_partition_name] |
  [index_name [partition index_partition_name]]] [using step values]
  [with consumers = consumers][, sampling=N percent]
```

update statistics Updates information about the distribution of key values in specified indexes, for all columns in an index, table, or partition, and resets the data change counters for global nonclustered indexes:

```
update statistics table_name
  [[partition data_partition_name] [(column_list)] |
```

index_name [partition *index_partition_name*] [using step values]
[with consumers = *consumers*][, sampling=*N* percent]

update table statistics Updates statistics that are stored in systabstats table:

update table statistics *table_name*
[partition *data_partition_name*]
[*index_name* [partition *index_partition_name*]]

use Specifies the database with which you want to work:

use *database_name*

waitfor Specifies a specific time, a time interval, or an event for the execution of a statement block, stored procedure, or transaction:

waitfor {delay *time* | time *time* | errorexit | processexit | mirrorexit}

where clause Sets the search conditions in a select, insert, update, or delete statement:

where [not] *expression comparison_operator expression*
where {[not] *expression comparison_operator expression*} | {...}
where [not] *expression* [not] like "*match_string*"
[escape "*escape_character*"]
where [not] *expression* is [not] null
where [not] *expression* [not] between *expression* and *expression*
where [not] *expression* [not] in ({*value_list* | *subquery*})
where [not] exists (*subquery*)
where [not] *expression comparison_operator* {any | all} (*subquery*)
where [not] *column_name join_operator column_name*
where [not] *logical_expression*
where [not] *expression* {and | or} [not] *expression*
where *column_name* is [not] null

while Sets a condition for the repeated execution of a statement or statement block:

while *logical_expression* [plan "*abstract plan*"] *statement*

writetext Permits minimally logged, interactive updating of an existing text, unitext or image column:

writetext [[*database.*]owner.]*table_name.column_name*
text_pointer [readpast] [with log] *data*

Interactive dbsql commands

These are the syntax and very brief descriptions for interactive dbsql commands for Adaptive Server. See *Reference Manual: Commands* for more information.

clear Clears the Interactive SQL panes:

clear

configure Opens the Interactive SQL Options dialog:

configure

connect Establishes a connection to a database:

connect [to *engine_name*] [database *database_name*]
 [as *connection_name*] [user] *user_id* identified by password
engine_name, *database_name*, *connection_name*, *user_id*,
password : {*identifier* | *string* | *hostvar*}
 connect using *connect_string* : {*identifier* | *string* | *hostvar*}

disconnect Drops the current connection to a database:

disconnect [{*identifier* | *string* | *hostvar*} | current | all]

exit Leaves Interactive SQL:

{exit | quit | bye} [{*number* | *connection_variable*}]

input Imports data into a database table from an external file or from the keyboard:

input into [*owner*.]*table_name* [from *filename* | prompt]
 [format
 { *ascii* | *dbase* | *dbasel* | *dbasel* | *excel* | *fixed* | *foxpro* | *lotus* }]
 [escape character *character*] [escapes { on | off }]
 [by order | by name] [delimited by string]
 [column widths (integer, . . .)] [nostrip]
 [(*column_name*, . . .)] [encoding {*identifier* | *string*}]

output Imports data into a database table from an external file or from the keyboard:

output to *filename*
 [append][verbose] [format {*ascii* | *dbase* | *dbasel* | *dbasel*
 | *excel* | *fixed* | *foxpro* | *lotus* | *sql* | *xml*}]
 [escape character *character*] [escapes { on | off }]
 [delimited by string][quote string [all]]
 [column widths (integer, ...)] [hexidecimal { on | off | asis }]
 [encoding {*string* | *identifier*}]

parameters Specifies parameters to an Interactive SQL command file:

parameters *parameter1*, *parameter2*, ...

read Reads Interactive SQL statements from a file:

read [encoding {*identifier* | *string*}] *file_name* [*parameters*]

set connection Changes the current database connection to another server:

set connection {*identifier* | *string* | *hostvar*}

set option Changes the values of Interactive SQL options:

set [temporary] option [{*identifier* | *string* | *hostvar*}. | public.]
 {*identifier* | *string* | *hostvar*} = [*option_value*]
 set permanent
 set

start logging Starts logging executed SQL statements to a log file:

start logging *file_name*

stop logging Stops logging of executed SQL statements in the current session:

stop logging

system Launches an executable file from within Interactive SQL:

system '[*path*] *file_name*'

Procedures

These are the syntax and very brief descriptions for Adaptive Server system stored procedures. See *Reference Manual: Procedures* for complete information.

sp_activeroles Displays all active roles:

```
sp_activeroles [expand_down]
```

sp_add_qpgroup Adds an abstract plan group:

```
sp_add_qpgroup new_name
```

sp_add_resource_limit Creates a limit on the number of server resources that can be used by an Adaptive Server login and/or an application to execute a query, query batch, or transaction:

```
sp_add_resource_limit name, appname, rangename, limittype,
    limitvalue[, enforced [, action [, scope]]]
```

sp_add_time_range Adds a named time range to an Adaptive Server:

```
sp_add_time_range name, startday, endday, starttime, endtime
```

sp_addalias Allows a user to be known in a database as another user.

```
sp_addalias loginame, name_in_db
```

sp_addauditrecord Allows users to enter user-defined audit records (comments) into the audit trail:

```
sp_addauditrecord [text [, db_name [, obj_name
    [, owner_name [, dbid [, objid]]]]]]
```

sp_addauditable Adds another system audit table after auditing is installed:

```
sp_addauditable devname
```

sp_addengine Adds an engine to an existing engine group or, if the group does not exist, creates an engine group and adds the engine:

```
sp_addengine engine_number, engine_group [, instance_id]
```

sp_addexclass Creates or updates a user-defined execution class that you can bind to client applications, logins, and stored procedures:

```
sp_addexclass classname, priority, timeslice, engine_group
    [, instance_id]
```

sp_addextendedproc Creates an extended stored procedure (ESP) in the master database:

```
sp_addextendedproc esp_name, dll_name
```

sp_addexternlogin (Component Integration Services only) Creates an alternate login account and password to use when communicating with a remote server through CIS:

```
sp_addexternlogin server, loginame, externname
    [, externpasswd] [rolename]
```

sp_addgroup Adds a group to a database. Groups are used as collective names in granting and revoking privileges:

```
sp_addgroup grpname
```

sp_addlanguage Defines the names of the months and days for an alternate language and its date format:

```
sp_addlanguage language, alias, months, shortmons,  
days, datefmt, datefirst
```

sp_addmessage Adds user-defined messages to sysusermessages for use by stored procedure print and raiserror calls and by sp_bindmsg:

```
sp_addmessage message_num, message_text  
[, language [, with_log [, replace]]]
```

sp_addobjectdef (Component Integration Services only) Specifies the mapping between a local table and an external storage location:

```
sp_addobjectdef tablename, objectdef [, "objecttype"]
```

sp_addremotelogin Authorizes a new remote server user by adding an entry to master.dbo.sysremotelogins:

```
sp_addremotelogin remoteserver [, loginame [, remotename]]
```

sp_addsegment Defines a segment on a database device in a database:

```
sp_addsegment segname, dbname, devname
```

sp_addserver Defines a remote server, or defines the name of the local server:

```
sp_addserver lname [, class [, pname]]
```

CIS only: sp_addserver '*logical_server_name*', ASEEnterprise, '*host:port:filter*'

sp_addthreshold Creates a threshold to monitor space on a database segment:

```
sp_addthreshold dbname, segname, free_space, proc_name
```

sp_addtype Creates a user-defined datatype:

```
sp_addtype typename, phystype [(length) | (precision [, scale])]  
[, "identity" | nulltype]
```

sp_addumpdevice Adds a dump device to Adaptive Server:

```
sp_addumpdevice {"tape" | "disk"}, logicalname,  
physicalname [, tapesize]
```

sp_adduser Adds a new user to the current database:

```
sp_adduser loginame [, name_in_db [, grpname]]
```

sp_altermessage Enables and disables the logging of a system-defined or user-defined message in the Adaptive Server error log:

```
sp_altermessage message_id, parameter, parameter_value
```

sp_audit Allows a System Security Officer to configure auditing options:

```
sp_audit option, login_name, object_name [, setting]
```

Or: sp_audit 'restart'

sp_autoconnect (Component Integration Services only) Defines a passthrough connection to a remote server for a specific user, which allows the named user to enter passthrough mode automatically at login:

```
sp_autoconnect server, {true | false} [, loginame]
```

sp_autoformat Produces readable result set data, reformatting the width of variable-length character data to display only non-blank characters:

`sp_autoformat fulltablename [, selectlist, whereclause, orderby]`

sp_bindcache Binds a database, table, index, text, or image to a data cache:

`sp_bindcache cachename, dbname
[, [ownername.]tablename [, indexname | "text only"]]`

sp_bindefault Binds a user-defined default to a column or user-defined datatype:

`sp_bindefault defname, objname [, futureonly]`

sp_bindexeclss Associates an execution class with a client application, login, or stored procedure:

`sp_bindexeclss "object_name", "object_type", "scope", "classname"`

sp_bindmsg Binds a user message to a referential integrity constraint or check constraint:

`sp_bindmsg constrname, msgid`

sp_bindrule Binds a rule to a column or user-defined datatype:

`sp_bindrule rulename, objname [, futureonly]`

sp_cacheconfig Creates, configures, reconfigures, and drops data caches, and provides information about them:

`sp_cacheconfig [cachename [, "cache_size[P | K | M | G]"]
[, logonly | mixed | inmemory_storage][, strict | relaxed]]
[, "cache_partition=[1 | 2 | 4 | 8 | 16 | 32 | 64]"]
[, instance instance_name]`

sp_cachestrategy Enables or disables prefetching (large I/O) and MRU cache replacement strategy for a table, index, text object, or image object:

`sp_cachestrategy dbname, [ownername.]tablename
[, indexname | "text only" | "table only"
[, {prefetch | mru}, {"on" | "off"}]]]`

sp_changedbowner Changes the owner of a user database:

`sp_changedbowner loginame [, true]`

sp_changegroup Changes a user's group:

`sp_changegroup grpname, username`

sp_checknames Checks the current database for names that contain characters not in the 7-bit ASCII set:

`sp_checknames [help | silent]`

sp_checkreswords Detects and displays identifiers that are Transact-SQL reserved words:

`sp_checkreswords [user_name_param]`

sp_checksourc Checks for the existence of the source text of the compiled object, and for the existence of computed column source text:

`sp_checksourc [objname [, tablename [, username]]]`

sp_chgattribute Changes the `max_rows_per_page`, `fillfactor`, `reservepagegap`, or `exp_row_size` value for future space allocations of a table or an index; sets the `concurrency_opt_threshold` for a table. Provides the user interface for optimistic index locking:

```
sp_chgattribute objname,
  {"max_rows_per_page" | "fillfactor" | "reservepagegap" |
  "exp_row_size" | "concurrency_opt_threshold" |
  "optimistic_index_lock" | "identity_burn_max" | "plldegree"}
, value, optvalue
```

```
sp_chgattribute objname,
  {"identity_gap", set_number | "dealloc_first_txtpg", value}
```

sp_cleanpwdchecks Allows you to define when and how to remove login and password-related attributes stored in user-defined tables:

```
sp_cleanpwdchecks, login_name
```

sp_clearpsex Clears the execution attributes of an Adaptive Server session that was set by `sp_setpsex`:

```
sp_clearpsex spid, exeattr
```

sp_clearstats Initiates a new accounting period for all server users or for a specified user. Prints statistics for the previous period by executing `sp_reportstats`:

```
sp_clearstats [loginame]
```

sp_client_addr Displays the IP address of every Adaptive Server task with an attached client application, including the `spid` and the client host name:

```
sp_client_addr [spid]
```

sp_clusterlockusage (Cluster environments only) Reports on the free, used, and retained locks in the cluster:

```
sp_clusterlockusage
```

sp_cluster (Cluster environments only) Performs a number of procedures related to clusters. Migrates a connection to a different logical cluster or instance:

```
sp_cluster connection, migrate, lc_name, instance_name, "spid_list"
```

Determines if previous connection migrations to a new instance are pending, and terminates the migrations if they are:

```
sp_cluster connection, ['migrate_status' | 'migrate_cancel'][, 'spid_list']
```

Modifies an outstanding action, such as canceling the action or changing the timing of the action:

```
sp_cluster logical, "action", lc_name, {cancel, action_handle |
  modify_time, action_handle, wait_option[, timeout] |
  release, action_handle}
```

Adds a resource or one or more routes to the logical cluster:

```
sp_cluster logical, "add", lc_name, { route, route_type, key_list |
  instance, instance_list | failover, instance_list}
```

Moves a route from one logical cluster to another:

```
sp_cluster logical, "alter", lc_name, route, route_type, key_list
```

Creates a new logical cluster:

```
sp_cluster logical, "create", lc_name
```

Stops the logical cluster on one or more instances or the entire logical cluster, and places the instances or the cluster in the inactive state:

```
sp_cluster logical, "deactivate", lc_name, {
  "cluster" | "instance", instance_list }
[, wait_option[, timeout[, @handle output]]]
```

Drops a logical cluster, or one or more resources from the logical cluster:

```
sp_cluster logical, "drop", lc_name,
  {cluster | instance, instance_list | failover, instance_list |
  route, route_type, key_list }
```

Reverses a manual failover, reinstating the original base instances:

```
sp_cluster logical, "failback", lc_name, {cluster[, wait_option[, timeout
  [, @handle output]]] | instance, from_instance_list, to_instance_list
  [, wait_option[, timeout[, @handle output]]] }
```

Initiates a manual failover from base instances to failover instances:

```
sp_cluster logical, "failover", lc_name, {cluster
  [, to_instance_list[, wait_option[, timeout[, @handle output]]]
  | instance, from_instance_list, to_instance_list[, wait_option[,
  timeout[, @handle output]]] }
```

Manually gathers and migrates a group of connections to a different logical cluster:

```
sp_cluster logical, 'gather', lc_name
```

Displays complete syntax for `sp_cluster logical`:

```
sp_cluster logical, "help"
```

Stops the logical cluster on one or more instances or the entire logical cluster:

```
sp_cluster logical, "offline", lc_name,
  {cluster | instance, instance_list }
[, wait_option[, timeout[, @handle output]]]
```

Starts the default logical cluster on one or more instances:

```
sp_cluster logical, "online", { lc_name[, instance_list]}
```

Sets logical cluster rules: the open logical cluster, the failover mode, the system view, the start-up mode, and the load profile:

```
sp_cluster logical, "set", lc_name, { open | failover, failover_mode
  | system_view, view_mode | startup, { automatic | manual }
  | load_profile, profile_name }
  login_distribution, { affinity | "round-robin" }
```

Displays information about a logical cluster:

```
sp_cluster logical, "show"
  [, lc_name[, {action[, state] | route[, type[, key]]}] ]]
```

Lets you set up and manage the load profile for the logical cluster:

```
sp_cluster profile, ["show" [, profile_name] | "create", profile_name
  | "drop", profile_name | "set", profile_name [, weight [, wt_metric
  [, wt_value] | threshold [, thr_metric [, thr_value]]]
```

Lets you set up and manage the load profile for the logical cluster:

```
sp_cluster profile, ["show" [, profile_name] | "create", profile_name |
  "drop", profile_name | "set", profile_name [, weight [, wt_metric [,
  wt_value] | threshold [, thr_metric [, thr_value]]]
```

sp_cmp_all_qplans Compares all abstract plans in two abstract plan groups:

`sp_cmp_all_qplans group1, group2 [, mode]`

sp_cmp_qplans Compares two abstract plans:

`sp_cmp_qplans id1, id2`

sp_commonkey Defines a common key between two tables or views:

`sp_commonkey tabaname, tabbname, col1a, col1b
[, col2a, col2b, ..., col8a, col8b]`

sp_companion Performs cluster operations such as configuring Adaptive Server as a secondary companion in a high availability system and moving a companion server from one failover mode to another:

`sp_companion
[server_name {, configure[, {with_proxydb | NULL}]
[, srvlogin][, server_password][, cluster_login][, cluspassword]]
| drop | suspend | resume | prepare_failback | do_advisory}
{, all | help | group_attribute_name | base_attribute_name}`

sp_compatmode Verifies whether full compatibility mode can be used:

`sp_compatmode`

sp_configure Displays configuration parameters by group, their current values, their non-default value settings, the value to which they have most recently been set, and the amount of memory used by this setting. Displays only the parameters whose display level is the same as or below that of the user:

`sp_configure [configname [, configvalue] | group_name |
non_unique_parameter_fragment] 'drop instance'
[, instance_name] [display_nondefault_settings]
sp_configure "configuration file", 0, {"write" | "read" | "verify" | "restore"}
"file_name"`

sp_copy_all_qplans Copies all plans for one abstract plan group to another group:

`sp_copy_all_qplans src_group, dest_group`

sp_copy_qplan Copies one abstract plan to an abstract plan group:

`sp_copy_qplan src_id, dest_group`

sp_countmetadata Displays the number of indexes, objects, or databases in Adaptive Server:

`sp_countmetadata "configname" [, dbname]`

sp_cursorinfo Reports information about a specific cursor or all execute cursors that are active for your session:

`sp_cursorinfo [{cursor_level | null}][, cursor_name]`

sp_dbextend Allows you to install automatic database expansion procedures on database/segment pairs and devices; define site-specific policies for individual segments and devices; and simulate execution of the database expansion machinery, to study the operation before engaging large volume loads:

`sp_dbextend 'help'[, command]
sp_dbextend [['set', ['threshold', dbname, segmentname, freespace |
'database', dbname, segmentname [{[, growby][, maxsize]]] |`

```

'device', devicename { [, growby ][, maxsize] } |
'clear', 'threshold', dbname, segmentname
sp_dbextend 'clear', 'database' [, dbname [, segmentname]]
sp_dbextend 'clear', 'device' [, devicename]
sp_dbextend 'modify', 'database', dbname, segmentname,
{ 'growby' | 'maxsize' }, newvalue
sp_dbextend 'modify', 'device', devicename, { 'growby' | 'maxsize' },
newvalue
sp_dbextend { 'list' | 'listfull' } [, 'database' [, dbname [, segmentname
[, order_by_clause]]]]
sp_dbextend { 'list' | 'listfull' }
[, 'device' [, devicename [, order_by_clause]]]
sp_dbextend { 'list' | 'listfull' }, ['threshold' [, @dbname
[, @segmentname]]]
sp_dbextend 'check', 'database' [, dbname [, segmentname]]
sp_dbextend { 'simulate' | 'execute' }, dbname, segmentname
[, iterations]
sp_dbextend 'trace', { 'on' | 'off' }
sp_dbextend 'reload [defaults]'
sp_dbextend { 'enable' | 'disable' }, 'database'
[, dbname [, segmentname]]
sp_dbextend 'who' [, 'spid' | 'block' | 'all']

```

sp_dboption Displays or changes database options, and enables the asynchronous log service feature:

```
sp_dboption [dbname, optname, optvalue [, dockptf]]
```

sp_dbrecovery_order Specifies the order in which user databases are recovered and lists the user-defined recovery order of a database or all databases:

```
sp_dbrecovery_order [database_name [, rec_order
[, force [relax | strict]]]]
```

sp_dbremap Forces Adaptive Server to recognize changes made by alter database. Run this only when instructed to do so by an Adaptive Server message:

```
sp_dbremap dbname
```

sp_defaultloc (Component Integration Services only) Defines a default storage location for objects in a local database:

```
sp_defaultloc dbname, defaultloc, defaulttype
```

sp_deletesmobj Deletes specified backup objects from the IBM Tivoli Storage Manager (TSM):

```
sp_deletesmob "syb_tsm", "server_name", "database_name",
"object_type", "dump_type", "until_time", "bs_name"
```

sp_depends Displays information about database object dependencies in the database that depend on a specified table or view, and the tables and views in the database on which the specified view, trigger, or procedure depends; also displays information about table column dependencies defined in either the column specified or on all the columns in the table:

```
sp_depends objname[, column_name]
```

sp_deviceattr (UNIX only) Changes the device parameter settings of an existing database device file:

`sp_deviceattr logicalname, optname, optvalue`

sp_diskdefault Specifies whether or not a database device can be used for database storage if the user does not specify a database device or specifies **default** with the `create database` or `alter database` commands:

`sp_diskdefault logicalname, {defaulton | defaultoff}`

sp_displayaudit Displays the status of audit options:

`sp_displayaudit ["procedure" | "object" | "login" | "database" | "global" | "default_object" | "default_procedure" [, "name"]]`

sp_displaylevel Sets or shows which Adaptive Server configuration parameters appear in `sp_configure` output:

`sp_displaylevel [loginame [, level]]`

sp_displaylogin Displays information about a login account:

`sp_displaylogin [user_id | '[loginame | wildcard']`

sp_displayroles Displays all roles granted to another role, or displays the entire hierarchy tree of roles in table format:

`sp_displayroles [grantee_name [, mode]]`

sp_downgrade Validates readiness for downgrade to an earlier 15.0.x release and downgrades the system catalog changes Adaptive Server 15.0.2 modified:

`sp_downgrade @cmd = {'prepare' | 'downgrade' | 'help',}
@toversion = 'n'[, @verbose = 0 | 1][, @override = 0 | 1]`

sp_dropalias Removes the alias user name identity established with `sp_addalias`:

`sp_dropalias loginame [, force]`

sp_drop_all_qplans Deletes all abstract plans in an abstract plan group:

`sp_drop_all_qplans name`

sp_drop_qpgroup Drops an abstract plan group:

`sp_drop_qpgroup group`

sp_drop_qplan Drops an abstract plan:

`sp_drop_qplan id`

sp_drop_resource_limit Removes one or more resource limits from Adaptive Server:

`sp_drop_resource_limit { name, appname }
[, rangename, limittype, enforced, action, scope]`

sp_drop_time_range Removes a user-defined time range from Adaptive Server:

`sp_drop_time_range name`

sp_dropdevice Drops an Adaptive Server database device or dump device:

`sp_dropdevice logicalname`

sp_dropengine Drops an engine from a specified engine group or, if the engine is the last one in the group, drops the engine group:

`sp_dropengine engine_number [, engine_group] [, instance_id]`

sp_dropexeclss Drops a user-defined execution class:

`sp_dropexeclss classname`

sp_dropextendedproc Removes an extended stored procedure (ESP):

`sp_dropextendedproc esp_name`

sp_dropexternlogin (Component Integration Services only) Drops the definition of a remote login previously defined by `sp_addexternlogin`:

`sp_dropexternlogin server [, loginame [, rolename]]`

sp_dropglockpromote Removes lock promotion values from a table or database:

`sp_dropglockpromote {"database" | "table"}, objname`

sp_dropgroup Drops a group from a database:

`sp_dropgroup grpname`

sp_dropkey Removes from the syskeys table a key that had been defined using `sp_primarykey`, `sp_foreignkey`, or `sp_commonkey`:

`sp_dropkey keytype, tablename [, deptabname]`

sp_droplanguage Drops an alternate language from the server and removes its row from master.dbo.syslanguages:

`sp_droplanguage language [, dropmessages]`

sp_droplogin Drops an Adaptive Server user login by deleting the user's entry from master.dbo.syslogins:

`sp_droplogin loginame`

sp_dropmessage Drops user-defined messages from sysusermessages:

`sp_dropmessage message_num [, language]`

sp_dropobjectdef (Component Integration Services only) Deletes the external storage mapping provided for a local object:

`sp_dropobjectdef tablename`

sp_dropremotelogin Drops a remote user login:

`sp_dropremotelogin remoteserver [, loginame [, remotename]]`

sp_droprowlockpromote Removes row lock promotion threshold values from a database or table:

`sp_droprowlockpromote {"database" | "table"}, objname`

sp_dropsegment Drops a segment from a database or unmaps a segment from a particular database device:

`sp_dropsegment segname, dbname [, device]`

sp_dropserver Drops a server from the list of known servers or drops remote logins and external logins in the same operation:

`sp_dropserver server [, droplogins]`

sp_dropthreshold Removes a free-space threshold from a segment:

sp_droptreshold *dbname, segname, free_space*

sp_droptype Drops a user-defined datatype:

sp_droptype *typename*

sp_dropuser Drops a user from the current database:

sp_dropuser *name_in_db*

sp_dumpoptimize Specifies the amount of data dumped by Backup Server during the dump database operation:

sp_dumpoptimize ['archive_space = {maximum | minimum | default }']

sp_dumpoptimize ['reserved_threshold = {*nnn* | default }']

sp_dumpoptimize ['allocation_threshold = {*nnn* | default }']

sp_encryption Reports encryption information:

sp_encryption help | helpkey [, *key_name* | wildcard]
[, all_dbs | key_copy | display_cols]

sp_encryption help | helpkey [, *system_encr_passwd*][, display_keys]

sp_encryption helpcol [, *table_name* | *column_name*]

sp_encryption helpuser [, *user_name* | wildcard][, key_copy]

sp_encryption system_encr_passwd, '*newpasswd*' [, '*oldpasswd*']

sp_engine Enables you to bring an engine online or offline:

sp_engine {"online" | [offline | can_offline][, *engine_id*] |
["shutdown", *engine_id*]}

sp_estspace Estimates the amount of space required for a table and its indexes, and the time needed to create the index:

sp_estspace *table_name, no_of_rows, fill_factor,*
cols_to_max, textbin_len, iosec, page_size

sp_export_qpgroup Exports all plans for a specified user and abstract plan group to a user table:

sp_export_qpgroup *usr, group, tab*

sp_extendsegment Extends the range of a segment to another database device:

sp_extendsegment *segname, dbname, devname*

sp_extengine Starts and stops, and displays status information about EJB Server:

sp_extengine '*ejb_server*', '{ start | stop | status }'

sp_extrapwdchecks Contains user-defined logic for password complexity checks:

sp_extrapwdchecks *caller_password, new_password, login_name*

sp_familylock Reports information about all the locks held by a family executing a statement in parallel:

sp_familylock [*fpid1* [, *fpid2*]]

sp_find_qplan Finds an abstract plan, given a pattern from the query or plan text:

sp_find_qplan *pattern* [, group]

sp_fixindex Repairs a set of indexes on a system table when it has been corrupted:

```
sp_fixindex database_name, table_name [, index_id | null]
           [, index_name | null][, force_option]
```

sp_flushstats Flushes statistics from in-memory storage to the systabstats and sysstatistics system tables:

```
sp_flushstats [objname]
```

sp_forceonline_db Provides access to all the pages in a database that were previously marked suspect by recovery:

```
sp_forceonline_db dbname, {"sa_on" | "sa_off" | "all_users"}
```

sp_forceonline_object Provides access to an index previously marked suspect by recovery:

```
sp_forceonline_object dbname, objname, indid,
                    {sa_on | sa_off | all_users} [, no_print]
```

sp_forceonline_page Provides access to pages previously marked suspect by recovery:

```
sp_forceonline_page dbname, pgid, {"sa_on" | "sa_off" | "all_users"}
```

sp_foreignkey Defines a foreign key on a table or view in the current database:

```
sp_foreignkey tablename, pktablename, col1 [, col2] ... [, col8]
```

sp_freedll Unloads a DLL that was previously loaded into XP Server memory to support the execution of an extended stored procedure:

```
sp_freedll dll_name
```

sp_getmessage Retrieves stored message strings from sysmessages and sysusermessages for print and raiserror statements:

```
sp_getmessage message_num, result output [, language]
```

sp_grantlogin (Windows only) Assigns Adaptive Server roles or default permissions to Windows users and groups when Integrated Security mode or Mixed mode (with Named Pipes) is active:

```
sp_grantlogin {login_name | group_name} ["role_list" | default]
```

sp_ha_admin Performs administrative tasks on Adaptive Servers configured in a high availability system:

```
sp_ha_admin [cleansessions | help]
```

sp_help Reports information on a database object, system or user-defined datatypes, user-defined functions, computed columns, and function-based indexes:

```
sp_help [objname]
```

sp_help_resource_limit Reports on resource limits:

```
sp_help_resource_limit [name [, appname [, limittime
                    [, limitday [, scope [, action[, verbose]]]]]]]
```

sp_help_qpgroup Reports information on an abstract plan group:

```
sp_help_qpgroup [group [, mode]]
```

sp_help_qplan Reports information about an abstract plan:

```
sp_help_qplan id [, mode]
```

sp_helpapptrace Determine which sessions Adaptive Server is tracing:

`sp_helpapptrace`

sp_helppartition Lists partition-related information of a table or index:

`sp_helppartition [tablename [, { null | indexname | 'all' }], partitionname]]]`

sp_helpcache Displays information about the objects that are bound to a data cache or the amount of overhead required for a specified cache size:

`sp_helpcache {cache_name | "cache_size[P | K | M | G]" ,
'instance instance_name'}`

sp_helpcomputedcolumn Reports information on the computed columns in a specified table:

`sp_helpcomputedcolumn {tablename}`

sp_helpconfig Reports help information on configuration parameters:

`sp_helpconfig "configname"[, "size"]`

sp_helpconstraint Reports information about integrity constraints used in the specified tables:

`sp_helpconstraint [objname][, detail]`

sp_helpdb Reports information about a particular database or about all databases:

`sp_helpdb [dbname [, order]]`

sp_helpdevice Reports information about a particular device or about all Adaptive Server database devices and dump devices:

`sp_helpdevice [devname]`

sp_helpextendedproc Displays extended stored procedures in the current database, along with their associated DLL files:

`sp_helpextendedproc [esp_name]`

sp_helpexternlogin (Component Integration Services only) Reports information about external login names:

`sp_helpexternlogin [server[, loginname[, rolename]]]`

sp_helpgroup Reports information about a particular group or about all groups in the current database:

`sp_helpgroup [grpname]`

sp_helpindex Reports information about the indexes created on a table, and on computed column indexes and function-based indexes:

`sp_helpindex objname`

sp_helpjava Displays information about Java classes and associated JARs that are installed in the database:

`sp_helpjava ["class"[, java_class_name[, "detail" | "depends"]] |
"jar", jar_name[, "depends"]]]]`

sp_helpjoins Lists the columns in two tables or views that are likely join candidates:

`sp_helpjoins lefttab, righttab`

sp_helpkey Reports information about a primary, foreign, or common key of a particular table or view, or about all keys in the current database:

sp_helpkey [*tablename*]

sp_helplanguage Reports information about a particular alternate language or about all languages:

sp_helplanguage [*language*]

sp_helplog Reports the name of the device that contains the first page of the transaction log:

sp_helplog

sp_helpobjectdef (Component Integration Services only) Reports owners, objects, and type information for remote object definitions:

sp_helpobjectdef [*objname*]

sp_helpremotelogin Reports information about a particular remote server's logins or about all remote server logins:

sp_helpremotelogin [*remoteserver* [, *remotename*]]

sp_helpprotect Reports on permissions for database objects, users, groups, or roles:

sp_helpprotect [*name* [, *username* [, "grant"
[, "none" | "granted" | "enabled" | *role_name* [, *permission_name*]]]]]

sp_helpsegment Reports information about a particular segment or about all segments in the current database:

sp_helpsegment [*segment*]

sp_helpserver Reports information about a particular remote server or about all remote servers:

sp_helpserver [*server*]

sp_helpsort Displays Adaptive Server's default sort order and character set:

sp_helpsort

sp_helptext Displays the source text of a compiled object, as well as the text for user-defined functions, computed columns, or function-based index definitions:

sp_helptext *objname* [, *grouping_num*] [, *numlines* [, *printopts*]]

sp_helpthreshold Reports the segment, free-space value, status, and stored procedure associated with all thresholds in the current database or all thresholds for a particular segment:

sp_helpthreshold [*segment*]

sp_helpuser Reports information about a particular user, group, or alias, or about all users, in the current database:

sp_helpuser [*name_in_db* [, *display_object*]]

sp_hidetext Hides the source text for the specified compiled object, as well as the text of computed columns and function-based index keys:

sp_hidetext [*objname* [, *tablename* [, *username*]]]

sp_import_qpgroup Imports abstract plans from a user table into an abstract plan group:

```
sp_import_qpgroup tab, usr, group
```

sp_indsuspect Checks user tables for indexes marked as suspect during recovery following a sort order change:

```
sp_indsuspect [tab_name]
```

sp_jreconfig Manages the Java PCA/JVM. Enables or disables arguments and directives, changes configuration values, and reports configuration values:

```
sp_jreconfig {add array_arg, new_string | array_clear array_arg |  
array_enable array_arg | array_disable array_arg |  
delete array_arg, string_value |  
disable { directive | argument | array_arg, string_value } |  
enable { directive | argument | array_arg, string_value } |  
list { list_type [, formatted] | units | units, units_type [, formatted] } |  
reload_config |  
report { directive [, formatted] | directive, args [, formatted]  
| argument [, formatted] } |  
update { argument, old_value, new_value } }
```

sp_ldapadmin Creates or lists an LDAP URL search string, verifies an LDAP URL search string or login, or specifies the access accounts and tunable LDAPUA-related parameters:

```
sp_ldapadmin command [, option1 [, option2]]
```

Valid *command* [, *option1* [, *option2*]] options are:

```
'set_primary_url', 'url'  
'set_secondary_url', 'url'  
'set_dn_lookup_url', 'url'  
'set_secondary_dn_lookup_url', 'url'  
'set_access_acct', 'distinguished_name', 'password'  
'set_secondary_access_acct', 'distinguished_name', 'password'  
'set_failback_interval', time_in_minutes  
'suspend', {'primary' | 'secondary'}  
'activate', {'primary' | 'secondary'}  
'list'  
'list_urls'  
'list_access_acct'  
'check_url', 'url'  
'reinit_descriptors'  
'check_login', 'name'  
'set_timeout', timeout_in_milli_seconds  
'set_log_interval', log_interval_in_minutes  
'set_num_retries', num_retries  
'set_max_ldapua_native_threads', max_ldapua_native_threads  
'set_max_ldapua_desc', max_ldapua_desc  
'set_abandon_ldapua_when_full', {true | false}  
'starttls_on_primary', {true | false}  
'starttls_on_secondary', {true | false}  
'help'
```

sp_listener Dynamically starts and stops listeners on Adaptive Server on any given port on a per-engine basis. For threaded mode, the syntax is:

sp_listener "command", "server_name | network", engine | remaining

Or:

sp_listener "command", "[protocol:]machine:port:CN=common_name"

For process mode, the syntax is:

sp_listener "command", "server_name | network", engine | remaining

Or:

sp_listener "command", "[protocol:]machine:port:CN=common_name", engine

sp_listsuspect_db Lists all databases that currently have offline pages because of corruption detected on recovery:

sp_listsuspect_db

sp_listsuspect_object Lists all indexes in a database that are currently offline because of corruption detected on recovery:

sp_listsuspect_object [dbname]

sp_listsuspect_page Lists all pages in a database that are currently offline because of corruption detected on recovery:

sp_listsuspect_page [dbname]

sp_lmconfig Configures license management-related information on Adaptive Server:

```
sp_lmconfig ['edition' [, edition_type]]
            [, 'license type' [, license_type_name]]
            [, 'smtp host' [, smtp_host_name]]
            [, 'smtp port' [, smtp_port_number]]
            [, 'email sender' [, sender_email_address]]
            [, 'email recipients' [, email_recipients]]]
            [, 'email severity' [, email_severity]]
```

sp_lock Reports the object names and IDs of processes that currently hold locks:

sp_lock [spid1[, spid2]] | [@verbose = int]

sp_locklogin Locks an Adaptive Server account so that the user cannot log in, or displays a list of all locked accounts:

```
sp_locklogin login | NULL | wildcard_string, "lock" | "unlock",
            [except_login_name | except_role_name]
            [, number_of_inactive_days]
```

Or: sp_locklogin

sp_logdevice Moves the transaction log of a database with log and data on the same device to a separate database device:

sp_logdevice dbname, devname

sp_loginconfig (Windows only) Displays the value of one or all integrated security parameters:

sp_loginconfig ["parameter_name"]

sp_logininfo (Windows only) Displays all roles granted to Windows NT users and groups with sp_grantlogin:

sp_logininfo ["login_name" | "group_name"]

sp_logiosize Changes the log I/O size used by Adaptive Server to a different memory pool when doing I/O for the transaction log of the current database:

```
sp_logiosize ["default" | "size" | "all"]
```

sp_logintrigger Sets and displays the global login trigger:

```
sp_logintrigger 'global login trigger name'
```

sp_maplogin Maps external users to Adaptive Server logins:

```
sp_maplogin (authentication_mech | null), (client_username | null),  
(action | login_name | null)
```

sp_merge_dup_inline_default Removes existing duplicate inline default objects, converting the unique inline defaults to sharable inline default objects.

```
sp_merge_dup_inline_default [report_only = {yes | no}  
[, show_progress = {yes | no}]]
```

sp_metrics Backs up, drops, and flushes QP metrics and their statistics on queries:

```
sp_metrics ['backup' backup_group_ID | 'drop', 'gid' [, 'id' |  
'flush' | 'help', 'command']
```

sp_modify_resource_limit Changes a resource limit by specifying a new limit value, or the action to take when the limit is exceeded, or both:

```
sp_modify_resource_limit {name, appname}  
rangelimit, limitvalue, enforced, action, scope
```

sp_modify_time_range Changes the start day, start time, end day, and/or end time associated with a named time range:

```
sp_modify_time_range name, startday, endday, starttime, endtime
```

sp_modifylogin Modifies the default database, default language, default role activation, login script, full name, the password expiration interval, the minimum password length, and the maximum number of failed logins allowed for a specified Adaptive Server login account:

```
sp_modifylogin {loginame | "all overrides"}, option, value
```

sp_modifystats Allows the System Administrator, or any user with permission to execute the procedure and update statistics on the target table, to modify the density values of columns in sysstatistics:

```
sp_modifystats [database].[owner].table_name,  
{column_group | "all"}, MODIFY_DENSITY,  
{range | total}, {absolute | factor}, "value"
```

Or:

```
sp_modifystats [database].[owner].table_name, column_name,  
REMOVE_SKEW_FROM_DENSITY
```

sp_modifythreshold Modifies a threshold by associating it with a different threshold procedure, free-space level, or segment name:

```
sp_modifythreshold dbname, segname, free_space  
[, new_proc_name][, new_free_space][, new_segname]
```

sp_monitor Displays statistics about Adaptive Server:


```
sp_monitor [[connection | statement], [cpu | diskio | elapsed time]]
           [event, [spid]] [procedure, [dbname, [procname], summary | detail]]]
           [enable] [disable] [help], [deadlock] [procstack]
```

sp_monitor_server Provides server-wide monitoring information.

```
sp_monitor_server [server_name]
```

sp_monitorconfig Displays cache usage statistics regarding metadata descriptors for indexes, objects, and databases:

```
sp_monitorconfig "configname" [, "result_tbl_name" [, "full"]]
```

sp_object_stats Shows lock contention, lock wait-time, and deadlock statistics for tables and indexes:

```
sp_object_stats interval[, top_n[, dbname, objname[, rpt_option]]]
```

sp_opt_querystats Returns a performance analysis for the selected query.

```
sp_opt_querystats "query_text" | help [, "diagnostic_options" | null
[, database_name] [, user_name]]
```

sp_options Shows option values:

```
sp_options [[show | help[, option_name | category_name | null
[, dflt | non_dflt | null [, spid]]]]]
```

sp_passthru (Component Integration Services only) Allows the user to pass a SQL command buffer to a remote server:

```
sp_passthru server, command, errcode, errmsg, rowcount
[, arg1, arg2, ... argn]
```

sp_password Adds or changes a password for an Adaptive Server login account:

```
sp_password caller_passwd, new_passwd [, loginame, immediate]
```

sp_passwordpolicy An interface that a user with `sso_role` can use to configure login and password policy options.

To specify, remove, and list new password complexity options:

```
sp_passwordpolicy {"set" | "clear" | "list"}, policy_option, option_value
```

To verify the password complexity options:

```
sp_passwordpolicy 'validate password options'
```

To generate asymmetric key pairs for network login password encryption:

```
sp_passwordpolicy "regenerate keypair"
```

To expire passwords:

```
sp_passwordpolicy "expire role passwords", "[rolename | wildcard]"
```

```
sp_passwordpolicy "expire login passwords", "[login_name | wildcard]"
```

```
sp_passwordpolicy "expire stale role passwords", "datetime"
```

```
sp_passwordpolicy "expire stale login passwords", "datetime"
```

sp_pciconfig Manages the Java PCI Bridge. Enables or disables arguments and directives, changes configuration values, and reports configuration values:

```
sp_pciconfig {
  disable { directive | argument } | enable { directive | argument } |
  list { list_type [, formatted] | units | units, units_type[, formatted] } |
  report { directive[, formatted] | directive, args[, formatted] }
```

```
argument[, formatted] } |  
update { number_arg, old_value new_value } }
```

sp_placeobject Puts future space allocations for a table or index on a particular segment:

```
sp_placeobject segname, objname
```

sp_plan_dbccdb Recommends suitable sizes for new dbccdb and dbccalt databases, lists suitable devices for dbccdb and dbccalt, and suggests a cache size and a suitable number of worker processes for the target database:

```
sp_plan_dbccdb [dbname]
```

sp_poolconfig Creates, drops, resizes, and provides information about memory pools within data caches. To create a memory pool in an existing cache, or to change pool size:

```
sp_poolconfig cache_name["mem_size [P | K | M | G]", "config_poolK"  
[, "affected_poolK"], instance instance_name]
```

To change a pool's wash size:

```
sp_poolconfig cache_name, "affected_poolK",  
"wash=size[P | K | M | G]"
```

To change a pool's asynchronous prefetch percentage:

```
sp_poolconfig cache_name, "affected_poolK",  
"local async prefetch limit=percent"
```

sp_post_xpload Checks and rebuilds indexes after a cross-platform load database where the endian types are different:

```
sp_post_xpload
```

sp_primarykey Defines a primary key on a table or view:

```
sp_primarykey tablename, col1 [, col2, col3, ..., col8]
```

sp_processmail (Windows only) Reads, processes, sends, and deletes messages in the Adaptive Server message inbox:

```
sp_processmail [subject][, originator [, dbuser  
[, dbname [, filetype [, separator]]]]]
```

sp_procxmode Displays or changes the execution modes associated with stored procedures:

```
sp_procxmode [procname [, tranmode]]
```

sp_querysmobj (Tivoli Storage Manager only) Queries TSM for a list of the Adaptive Server backup objects:

```
sp_querysmobj "syb_tsm", "output_file", "server_name"  
{, "database_name", "object_name", "dump_type",  
"until_time", "bs_name"}
```

sp_recompile Causes each stored procedure and trigger that uses the named table to be recompiled the next time it runs:

```
sp_recompile objname
```

sp_refit_admin (Cluster environments only) Provides an interface to perform various disk refit-related actions, such as showing the current status of the disk refit process, resetting the state of the disk refit process, skipping the disk refit process for an instance, and so on:

```
sp_refit_admin ['help'] | 'status' | ['reset' | 'skiperfit' [, instance_name]]
| ['removedevice', device_name]
```

sp_remap Remaps a stored procedure, trigger, rule, default, or view from releases later than 4.8 and prior to 10.0 to be compatible with releases 10.0 and later:

```
sp_remap objname
```

sp_remotoption Displays or changes remote login options:

```
sp_remotoption [remoteserver[, loginame
[, remotename[, optname[, optvalue]]]]]
```

sp_remotesql (Component Integration Services only) Establishes a connection to a remote server, passes a query buffer to the remote server from the client, and relays the results back to the client:

```
sp_remotesql server, query[, query2, ..., query254]
```

sp_rename Changes the name of a user-created object or user-defined datatype in the current database:

```
sp_rename objname, newname [,"index" | "column"]
```

sp_rename_qpgroup Renames an abstract plan group:

```
sp_rename_qpgroup old_name, new_name
```

sp_renamedb Changes the name of a user database:

```
sp_renamedb dbname, newname
```

sp_reportstats Reports statistics on system usage:

```
sp_reportstats [loginame]
```

sp_revokelogin (Windows only) Revokes Adaptive Server roles and default permissions from Windows NT users and groups when Integrated Security mode or Mixed mode (with Named Pipes) is active:

```
sp_revokelogin {login_name | group_name}
```

sp_role Grants or revokes roles to an Adaptive Server login account:

```
sp_role {"grant" | "revoke"}, rolename, loginame
```

sp_sendmsg Sends a message to a User Datagram Protocol (UDP) port:

```
sp_sendmsg ip_address, port_number, message
```

sp_securityprofile Lists the attributes or bindings associated with a login profile.

```
sp_securityprofile 'attributes', 'login profile',
{wildcard | login_profile_name | 'default'}
sp_securityprofile 'bindings', 'login profile'
[, {wildcard | login_profile_name | 'default'}
[, 'login' ,{wildcard | login_name}}]
sp_securityprofile 'help'
```

sp_sendmsg Sends a message to a User Datagram Protocol (UDP) port.

`sp_sendmsg ip_address, port_number, message`

sp_serveroption Displays or changes remote server options:

`sp_serveroption [server, optname, optvalue]`

sp_set_qplan Changes the text of the abstract plan of an existing plan without changing the associated query:

`sp_set_qplan id, plan`

sp_setlangalias Assigns or changes the alias for an alternate language:

`sp_setlangalias language, alias`

sp_setpglockpromote Sets or changes the lock promotion thresholds for a database, for a table, or for Adaptive Server:

`sp_setpglockpromote {"database" | "table"}, objname, new_lwm,
new_hwm, new_pct`

`sp_setpglockpromote server, NULL, new_lwm, new_hwm, new_pct`

sp_setpsexex Sets custom execution attributes for a session while the session is active:

`sp_setpsexex spid, exeattr, value`

sp_setrowlockpromote Sets or changes row-lock promotion thresholds for a datarows-locked table, for all datarows-locked tables in a database, or for all datarows-locked tables on a server:

`sp_setrowlockpromote "server", NULL, new_lwm, new_hwm, new_pct`

`sp_setrowlockpromote {"database" | "table"}, objname, new_lwm,
new_hwm, new_pct`

sp_setsuspect_granularity Displays or sets the recovery fault isolation mode for a user database, which governs how recovery behaves when it detects data corruption:

`sp_setsuspect_granularity
[dbname [, "database" | "page" [, "read_only"]]]`

sp_setsuspect_threshold Displays or sets the maximum number of suspect pages that Adaptive Server allows in a database before marking the entire database suspect:

`sp_setsuspect_threshold [dbname [, threshold]]`

sp_setup_table_transfer Run once in each database containing the tables marked for incremental transfer to create the `spt_TableTransfer` table in this database:

`sp_setup_table_transfer`

sp_show_options Prints all the server options that have been set in the current session:

`sp_show_options`

sp_showcontrolinfo Displays information about engine group assignments, bound client applications, logins, and stored procedures:

`sp_showcontrolinfo [object_type, object_name, spid]`

sp_showexeclass Displays the execution class attributes and the engines in any engine group associated with the specified execution class:

`sp_showexeclass [execlassname]`

sp_showoptstats Similar in function to the `optdiag` standalone utility in an XML document but in a system procedure format, `sp_showoptstats` extracts and displays statistics and histograms for various data objects from system tables such as `sysabstats` and `sysstatistics`.

`sp_showoptstats` [[*database_name*.*owner*].*table_name*],
[*column_name*], [h]

sp_showplan Displays the showplan output for any user connection for the current SQL statement or for a previous statement in the same batch:

`sp_showplan` *spid*, *batch_id* output, *context_id* output, *stmt_num* output

Displays the showplan output for the current SQL statement without specifying the *batch_id*, *context_id*, or *stmt_num*:

`sp_showplan` *spid*, null, null, null

sp_showpsex Displays execution class, current priority, and affinity for all client sessions running on Adaptive Server:

`sp_showpsex` [*spid*]

sp_spaceusage Reports the space usage for a table, index, or transaction log and estimates the amount of fragmentation for tables and indexes in a database:

The “help” action syntax:

`sp_spaceusage` 'help' [, 'all']
`sp_spaceusage` 'help' [, {'display' | 'display summary' | 'report'
| 'report summary' | 'archive'} [, {'table' | 'index' | 'tranlog'}]]

The “display” action syntax:

`sp_spaceusage` 'display summary [using unit=
{KB | MB | GB | PAGES}]', {'table' | 'index'}, *name*
[, *where_clause* [, *order_by* [, *command*]]]

`sp_spaceusage` 'display [using unit={KB | MB | GB | PAGES}]',
{'table' | 'index'}, *name*
[, *select_list* [, *where_clause* [, *order_by* [, *command*]]]]

`sp_spaceusage` 'display [using unit={KB | MB | GB | PAGES}]',
'tranlog' [, *name* [, *select_list* [, *where_clause* [, *order_by*]]]]

The “archive” action syntax:

`sp_spaceusage` 'archive [*using_clause*]',
{'table' | 'index'}, *name* [, *where_clause* [, *command*]]

`sp_spaceusage` 'archive [*using_clause*]',
'tranlog' [, *name* [, *where_clause*]]

The “report” action syntax:

`sp_spaceusage` 'report summary [*using_clause*]',
{'table' | 'index'}, *name*
[, *where_clause* [, *order_by* [, *from_date* [, *to_date*]]]]

`sp_spaceusage` 'report [*using_clause*]', {'table' | 'index'}, *name*
[, *select_list* [, *where_clause* [, *order_by* [, *from_date* [, *to_date*]]]]]]

`sp_spaceusage` 'report [*using_clause*]',
'tranlog' [, *name* [, *select_list* [, *where_clause* [, *order_by*
[, *from_date* [, *to_date*]]]]]]]
using_clause = USING *using_item* [, *using_item* ...]

```
using_item = { unit={ KB | MB | GB | PAGES }  
| dbname=database_name | prefix=string }
```

sp_spaceused Displays estimates of the number of rows, the number of data pages, the size of indexes, and the space used by a specified table or by all tables in the current database:

```
sp_spaceused [objname [,1]]
```

sp_ssladmin Adds, deletes, or displays a list of server certificates for Adaptive Server:

```
sp_ssladmin {[addcert, certificate_path [, password | NULL]]  
[dropcert, certificate_path] [lscert] [help]} [lsciphers] [setciphers,  
{'FIPS' | "Strong" | "Weak" | "All" | quoted_list_of_ciphersuites}]
```

sp_syntax Displays the syntax of Transact-SQL statements, system procedures, utilities, and other routines for Adaptive Server, depending on which products and corresponding sp_syntax scripts exist on your server:

```
sp_syntax word [, mod][, language]
```

sp_sysmon Displays performance information:

```
sp_sysmon begin_sample  
sp_sysmon { end_sample | interval }[, section[, applmon]]  
[, 'cache wizard' [, top_N [, filter]]]
```

sp_tab_suspectptn Lists tables with suspect partitions:

```
sp_tab_suspectptn [table_name]
```

sp_tempdb Provides the binding interface for maintaining bindings in sysattributes that are related to the multiple temporary database:

```
sp_tempdb [  
  [{ "create" | "drop" }, "groupname" ] |  
  [{ "add" | "remove" }, "tempdbname", "groupname" ] |  
  [{ "bind", "objtype", "objname", "bindtype", "bindobj"  
    [, "scope", "hardness" ] } |  
  { "unbind", "objtype", "objname" [, "scope" "instance_name" ] } |  
  ["unbindall_db", "tempdbname" ] |  
  [show [, "all" | "gr" | "db" | "login" | "app" [, "name" ] ] |  
  [who, "dbname" ] [help]]
```

sp_tempdb_markdrop (Cluster environments only) Places a local system temporary database in the drop state:

```
sp_tempdb_markdrop database_name [, {'mark' | 'unmark'}]
```

sp_thresholdaction Executes automatically when the number of free pages on the log segment falls below the last-chance threshold, unless the threshold is associated with a different procedure. Sybase does not provide this procedure:

```
sp_thresholdaction @dbname, @segment_name, @space_left,  
@status
```

sp_tran_dumpable_status If you cannot make a transaction dump on a database, sp_tran_dumpable_status displays the reasons the dump is not possible:

```
sp_tran_dumpable_status [database_name]
```

sp_transactions Reports information about active transactions:

```
sp_transactions ["xid", xid_value] |
  ["state", {"heuristic_commit" | "heuristic_abort"
  | "prepared" | "indoubt"} [, "xactname"]] | ["gtrid", gtrid_value]
```

sp_unbindcache Unbinds a database, table, index, text object, or image object from a data cache:

```
sp_unbindcache dbname [, [owner].tablename
  [, indexname | "text only"]]
```

sp_unbindcache_all Unbinds all objects that are bound to a cache:

```
sp_unbindcache_all cache_name
```

sp_unbindefault Unbinds a created default value from a column or from a user-defined datatype:

```
sp_unbindefault objname [, futureonly]
```

sp_unbindexclass Removes the execution class attribute previously associated with an client application, login, or stored procedure for the specified scope:

```
sp_unbindexclass object_name, object_type, scope
```

sp_unbindmsg Unbinds a user-defined message from a constraint:

```
sp_unbindmsg constrname
```

sp_unbindrule Unbinds a rule from a column or from a user-defined datatype:

```
sp_unbindrule objname [, futureonly [, "accessrule" | "all"]]
```

sp_version Returns the version information of the installation scripts that was last run and whether it was successful:

```
sp_version [script_file, [all]]
```

sp_volchanged Notifies the Backup Server that the operator performed the requested volume handling during a dump or load:

```
sp_volchanged session_id, devname, action [, fname [, vname]]
```

sp_webservices Creates and manages the proxy tables used in the Adaptive Server Web Services Engine. Creates a proxy table:

```
sp_webservices 'add', 'wsdl_uri' [, sds_name]
  [, 'method_name=proxy_table [, method_name=proxy_table]* ']
```

Displays usage information for sp_webservices:

```
sp_webservices help [, 'option']
```

Lists the proxy tables mapped to a WSDL file:

```
sp_webservices 'list' [, 'wsdl_uri'] [, sds_name]
```

Modifies timeout setting:

```
sp_webservices 'modify', 'wsdl_uri', 'timeout=time'
```

Removes proxy tables mapped to a WSDL file:

```
sp_webservices 'remove', 'wsdl_uri' [, sds_name]
```

(Options for user-defined Web services) Creates a database alias for user-defined Web services:

```
sp_webservices 'addalias' alias_name, database_name
```

Deploys a user-defined Web service:

```
sp_webservices 'deploy', ['all' | 'service_name']
```

Drops a database alias in user-defined Web services:

```
sp_webservices 'dropalias' alias_name
```

Lists the proxy tables mapped to a WSDL file in user-defined Web services:

```
sp_webservices 'listudws' [, 'service_name']
```

Lists a database alias or aliases for a user-defined Web service:

```
sp_webservices 'listalias'
```

Undeploys a user-defined Web service:

```
sp_webservices 'undeploy', ['all' | 'service_name']
```

sp_who Reports information about all current Adaptive Server users and processes or about a particular user or process:

```
sp_who [loginame | "spid"]
```

Catalog stored procedures

These are the syntax and very brief descriptions for Adaptive Server catalog stored procedures. See *Reference Manual: Procedures* for complete information.

sp_column_privileges Returns permissions information for one or more columns in a table or view:

```
sp_column_privileges table_name [, table_owner  
[, table_qualifier [, column_name]]]
```

sp_columns Returns information about the type of data that can be stored in one or more columns:

```
sp_columns table_name [, table_owner][, table_qualifier][,  
column_name]
```

sp_databases Returns a list of databases in Adaptive Server:

```
sp_databases
```

sp_datatype_info Returns information about a particular ODBC datatype or about all ODBC datatypes:

```
sp_datatype_info [data_type]
```

sp_fkeys Returns information about foreign key constraints created with the create table or alter table command in the current database:

```
sp_fkeys pktable_name [, pktable_owner][, pktable_qualifier][,  
fktable_name][, fktable_owner][, fktable_qualifier]
```

sp_pkeys Returns information about primary key constraints created with the create table or alter table command for a single table:

```
sp_pkeys table_name [, table_owner][, table_qualifier]
```

sp_server_info Returns a list of Adaptive Server attribute names and current values:

```
sp_server_info [attribute_id]
```

sp_special_columns Returns the optimal set of columns that uniquely identify a row in a table or view; can also return a list of timestamp columns, whose values are automatically generated when any value in the row is updated by a transaction:


```
sp_special_columns table_name [, table_owner]
    [, table_qualifier][, col_type]
```

sp_sproc_columns Returns information about a stored procedure's input and return parameters:

```
sp_sproc_columns procedure_name [, procedure_owner]
    [, procedure_qualifier][, column_name]
```

sp_statistics Returns a list of indexes on a single table:

```
sp_statistics table_name [, table_owner]
    [, table_qualifier][, index_name][, is_unique]
```

sp_stored_procedures Returns information about one or more stored procedures:

```
sp_stored_procedures [sp_name [, sp_owner [, sp_qualifier]]]
```

sp_table_privileges Returns privilege information for all columns in a table or view:

```
sp_table_privileges table_name [, table_owner][, table_qualifier]
```

sp_tables Returns a list of objects that can appear in a from clause:

```
sp_tables [table_name][, table_owner]
    [, table_qualifier][, table_type]
```

Extended stored procedures

These are the syntax and very brief descriptions for Adaptive Server extended stored procedures. See *Reference Manual: Procedures* for complete information.

xp_cmdshell Executes a native operating system command on the host system running Adaptive Server:

```
xp_cmdshell command[, no_output] [return_status | no_wait]
```

xp_deletemail (Windows only) Deletes a message from the Adaptive Server message inbox:

```
xp_deletemail [msg_id]
```

xp_enumgroups (Windows only) Displays groups for a specified Windows NT domain:

```
xp_enumgroups [domain_name]
```

xp_findnextmsg (Windows only) Retrieves the next message identifier from the Adaptive Server message inbox:

```
xp_findnextmsg @msg_id = @msg_id output[, type]
    [, unread_only = {true | false}]
```

xp_logevent (Windows only) Provides for logging a user-defined event in the Windows NT Event Log from within Adaptive Server:

```
xp_logevent error_number, message[, type]
```

xp_readmail (Windows only) Reads a message from the Adaptive Server message inbox:

```
xp_readmail [msg_id][, recipients output][, sender output]
    [, date_received output][, subject output][, cc output]
```

```
[, message output][, attachments output]
[, suppress_attach = {true | false}]
[, peek = {true | false}][, unread = {true | false}]
[, msg_length output][, bytes_to_skip [output]][, type [output]]
```

xp_sendmail (Windows only) Sends a message to the specified recipients. The message is either text or the results of a Transact-SQL query:

```
xp_sendmail recipient [; recipient] . . .
[, subject][, cc_recipient] . . .
[, bcc_recipient] . . . [, {query | message}][, attachname]
[, attach_result = {true | false}][, echo_error = {true | false}]
[, include_file [, include_file] . . .][, no_column_header = {true | false}]
[, no_output = {true | false}]
[, width][, separator][, dbuser][, dbname][, type]
[, include_query = {true | false}]
```

xp_startmail (Windows only) Starts an Adaptive Server mail session:

```
xp_startmail [mail_user][, mail_password]
```

xp_stopmail (Windows only) Stops an Adaptive Server mail session:

```
xp_stopmail
```

dbcc stored procedures

These are the syntax and very brief descriptions for Adaptive Server dbcc stored procedures. See *Reference Manual: Procedures* for complete information.

sp_dbcc_alterws Changes the size of the specified workspace to a specified value, and initializes the workspace:

```
sp_dbcc_alterws dbname, wsname, "wssize[K | M]"
```

sp_dbcc_configreport Generates a report that describes the configuration information used by the dbcc checkstorage operation for the specified database:

```
sp_dbcc_configreport [dbname]
```

sp_dbcc_createws Creates a workspace of the specified type and size on the specified segment and database:

```
sp_dbcc_createws
  dbname, segname, [wsname], wstype, "wssize[K | M]"
```

sp_dbcc_deletedb Deletes from dbccdb all the information related to the specified target database:

```
sp_dbcc_deletedb [dbname | dbid]
```

sp_dbcc_deletehistory Deletes the results of dbcc checkstorage operations performed on the target database before the specified date and time:

```
sp_dbcc_deletehistory [cutoffdate [, dbname | dbid]]
```

sp_dbcc_differentialreport Generates a report that highlights the changes in I/O statistics and faults that took place between two dbcc operations:

```
sp_dbcc_differentialreport [dbname [, objectname]],
  [db_op][, "date1" [, "date2"]]
```


Tables

These are very brief descriptions for Adaptive Server system tables. See *Reference Manual: Tables* for complete information, or the *System Tables Diagram* poster for a visual presentation of tables, columns, and their relationships.

syblicenseslog (master database only) Contains one row for each update of the maximum number of licenses used in Adaptive Server per 24-hour period. Columns: status, logtime, maxlicenses.

sysalternates (All databases) Contains one row for each Adaptive Server user that is mapped or aliased to a user of the current database. Columns: suid, altsuid

sysaltusages (Scratch database) Maps page numbers in an archive database to the actual page within either the database dump and its stripes, or the modified pages section. Columns: dbid, altsuid, lstart, start, size, vstart, vdevno, segmap

sysattributes (All databases) Defines properties of objects. Columns: class, attribute, object_type, object_cinfo, object_cinfo2, object, object_info1, object_info2, object_info3, int_value, char_value, text_value, image_value, comments

sysauditoptions (sybsecurity database) Contains one row for each server-wide audit option and indicates the current setting for that option. Columns: num, val, minval, maxval, name, sval, comment

sysaudits_01 – sysaudits_08 (sybsecurity database) Contains the audit trail. Columns: event, eventmod, spid, eventtime, sequence, suid, dbid, objid, xactid, loginname, dbname, objname, objowner, extrainfo, nodeid, instanceid

syscacheinfo (master database) Provides information about the configuration of data caches and pools. Columns: cache_name, cache_status, cache_type, config_size, run_size, config_replacement, run_replacement, config_partitions, run_partitions, overhead, cacheid, instanceid, scope

syscachepoolinfo Provides a row for each data cache pool that includes configuration information for the data cache. Columns: cache_name, cache_status, cache_type, cache_config_size, cache_run_size, cache_config_replacement, cache_run_replacement, cache_config_partitions, cache_run_partitions, cache_overhead, pool_io_size, pool_config_size, pool_run_size, pool_apf_percent, pool_wash_size, cacheid, instanceid, scope

syscharsets (master database only) Contains one row for each character set and sort order defined for use by Adaptive Server. Columns: type, id, csid, status, name, description, definition, sortfile

syscolumns (All databases) Contains one row for every column in every table and view, and a row for each parameter in a procedure. Columns: id, number, colid, status, type, length, offset, usertype, cdefault, domain, name, printfmt, prec, scale, remote_type, remote_name, xstatus, xtype, xdbid, accessrule, status2, status3, computedcol, encrtype, lobcomp_lvl, enclen, encrykeyid, encrykeydb, encrdate, inrowlen

syscomments (All databases) Contains entries for each view, rule, default, trigger, table constraint, partition, procedure, computed column, function-based index key, and other forms of compiled objects. Columns: id, number, colid, texttype, language, text, colid2, status, partitionid

sysconfigures (master database only) Contains one row for each configuration parameter that can be set by the user. Columns: config, value, comment, status, name, parent, value2, value3, value4, instanceid

sysconstraints (All databases) Whenever a user declares a new check constraint or referential constraint using `create table` or `alter table`, Adaptive Server inserts a row into the `sysconstraints` table. The row remains until a user executes `alter table` to drop the constraint. Columns: colid, constrid, tableid, error, status, spare2

syscoordinations (sybssystemdb database) Contains information about remote Adaptive Servers participating in distributed transactions (remote participants) and their coordination states. Columns: participant, starttime, coordtype, owner, protocol, state, bootcount, dbid, logvers, spare, status, xactkey, gtrid, partdata, srvname, nodeid, instanceid

syscurconfigs (master database only) Contains an entry for each of the configuration parameters, as does `sysconfigures`, but with the current values rather than the default values. In addition, it contains four rows that describe the configuration structure. Columns: config, value, comment, status, value2, defvalue, minimum_value, maximum_value, memory_used, display_level, datatype, message_num, apf_percent, nodeid, instanceid, type

sysdatabases (master database only) Contains one row for each database in Adaptive Server. When Adaptive Server is installed, `sysdatabases` contains entries for the master database, the `model` database, the `sybssystemprocs` database, and the `tempdb` database. If you have installed auditing, it also contains an entry for the `sybsecurity` database. Columns: name, dbid, suid, status, version, logptr, crdate, dumptrdate, status2, audflags, deftabaud, defvwaud, defpraud, def_remote_type, def_remote_loc, status3, status4, audflags2, instanceid, durability

sysdepends (All databases) Contains one row for each procedure, view, or table that is referenced by a procedure, view, or trigger. Columns: id, number, depid, depnumber, status, selall, resultobj, readobj, columns

sysdevices (master database only) Contains one row for each tape dump device, disk dump device, disk for databases, and disk partition for databases. Columns: low, high, status, cntrltype, name, phyname, mirrorname, vdevno, crdate, resizedate, status2, instanceid, uuid

sysencryptkeys Each key created in a database, including the default key, has an entry in the database-specific system catalog `sysencryptkeys`. Columns: id, ekalgorithm, type, status, eklen, value, uid, eksalt, ekpairid, pwdate, expdate, ekpwdwarn

sysengines (master database only) Contains one row for each Adaptive Server engine currently online. Columns: engine, osprocid, osprocname, status, affinityid, cur_kpid, last_kpid, idle_1, idle_2, idle_3, idle_4, starttime, nodeid, instanceid

sysgams (All databases) Stores the global allocation map for the database.

sysindexes (All databases) Contains one row for each clustered index, one row for each nonclustered index, one row for each table that has no clustered index, and one row for each table that contains text or image columns. Columns: name, id, indid, doampg, ioampg, oampgtrips, status3, status2, ipgtrips, first, root, distribution, usageent, segment, status, maxrowsperpage, minlen , maxlen , maxirow, keycnt, keys1, keys2, soid, csid, base_partition, fill_factor, res_page_gap, exp_rowsize, keys3, identitygap, crdate, partitiontype, conditionid

sysinstances A fake table that reports on the state of the instances. sysinstances includes a row for each instance defined in the cluster configuration. Columns: id, name, state, hostname, starttime, connections_active, engines_online

sysjars (All databases) Contains one row for each Java archive file that is retained in the database. Columns: jid, jstatus, jname, jbinary

syskeys (All databases) Contains one row for each primary, foreign, or common key. Columns: id, type, depid, keycnt, size, key1 ... key8, depkey1 ... depkey8, spare1

syslanguages (master database only) Contains one row for each language known to Adaptive Server. Columns: langid, dateformat, datefirst, upgrade, name, alias, months, shortmonths, days

syslisteners (master database only) Contains a row for each network protocol available for connecting with the current Adaptive Server. Columns: net_type, address_info, spare, nodeid, instanceid

syslocks (master database only) Contains information about active locks, and built dynamically when queried by a user. Columns: id, dbid, page, type, spid, class, fid, context, row, loid, partitionid, nodeid, instanceid

sysloginroles (master database only) Contains a row for each instance of a server login possessing a system role. Columns: suid, srid, status

syslogins (master database only) Contains one row for each valid Adaptive Server user account. Columns: suid, status, accdate, totcpu, totio, spacelimit, timelimit, resultlimit, dbname, name, password, language, pwdate, audflags, fullname, srvname, logincount, procid, lastlogindate, crdate, locksuid, lockreason, lockdate, crsuid, lpid

syslogs (All databases) Contains the transaction log. It is used by Adaptive Server for recovery and roll forward. It is not useful to users. Column: xactid, op

syslogshold (master database only) Contains information about each database's oldest active transaction (if any) and the Replication Server truncation point (if any) for the transaction log, but it is not a normal table. Rather, it is built dynamically when queried by a user. Columns: dbid, reserved, spid, page, xactid, masterxactid, starttime, name, xloid

sysmessages (master database only) Contains one row for each system error or warning that can be returned by Adaptive Server. Columns: error, severity, dlevel, description, langid, sqlstate

sysmonitors (master database only) Contains one row for each monitor counter. Columns: field_name, group_name, field_id, value, description, nodeid, instanceid

sysobjects (All databases) Contains one row for each table, view, stored procedure, extended stored procedure, log, rule, default, trigger, check constraint, referential constraint, computed column, function-based index key, and (in tempdb only) temporary object, and other forms of compiled objects. It also contains one row for each partition condition ID when object type is N. Columns: name, id, uid, type, userstat, sysstat, indexdel, schemacnt, sysstat2, systat3, crdate, expdate, deltrig, instrig, updtrig, seltrig, ckfirst, cache, audflags, objspare, versions, loginame, identburnmax, spacestate, erlchgts, lobcomp_lvl

sysoptions (All databases) The fake table queried by sp_options. Columns: spid, name, category, currentsetting, defaultsetting, scope, number

syspartitionkeys (All databases) Contains one row for each partition key for hash, range, and list partitioning of a table. All columns are not null. Columns: indid, id, colid, position

syspartitions (All databases) Contains one row for each data partition and one row for each index partition. Columns: name, indid, id, partitionid, segment, status, dataampage, indoampage, firstpage, rootpage, data_partitionid, crdate, cdataptnname, lobcomp_lvl

syspoolinfo (master database only) Provides information about data caches and pools. Columns: cache_name, io_size, config_size, run_size, apf_percent, wash_size, cacheid, instanceid, scope

sysprocedures (All databases) Contains entries for each view, default, rule, trigger, procedure, declarative default, partition condition, check constraint, computed column, function-based index key, and other forms of compiled objects. Columns: type, qp_setting, id, sequence, status, number, version

sysprocesses (master database only) Contains information about Adaptive Server processes, but it is not a normal table. Columns: spid, kpid, enginenum, status, suid, hostname, program_name, hostprocess, cmd, cpu, physical_io, memusage, blocked, dbid, uid, gid, tran_name, time_blocked, network_pktsz, fid, execclass, priority, affinity, id, stmntnum, linenum, origsuid, block_xloid, clientname, clienthostname, clientapplname, sys_id, ses_id, loggedindatettime, ipaddr, nodeid, instanceid, pad, lcid

sysprotects (All databases) Contains information on permissions that have been granted to, or revoked from, users, groups, and roles. Columns: id, uid, action, protecttype, columns, grantor, pred_id, protstatus

sysquerymetrics (All databases) Presents aggregated historical query processing metrics for individual queries from persistent data. Columns: uid, gid, hashkey, id, sequence, exec_min, exec_max, exec_avg, elap_min, elap_max, elap_avg, lio_min, lio_max, lio_avg, pio_min, pio_max, pio_avg, cnt, abort_cnt, qtext

sysqueryplans (All databases) Contains two or more rows for each abstract query plan. Uses datarow locking. Columns: uid, dbid, qdate, sprocid, hashkey2, key1, key2, key3, gid, hashkey, id, type, sequence, status, text

sysreferences (All databases) Contains one row for each referential integrity constraint declared on a table or column. Columns: `indexid`, `constrid`, `tableid`, `reftabid`, `keycnt`, `status`, `frgndbid`, `pmrydbid`, `spare2`, `fokey1` ... `fokey16`, `refkey1` ... `refkey16`, `frgndbname`, `pmrydbname`

sysremotelogins (master database only) Contains one row for each remote user that is allowed to execute remote procedure calls on this Adaptive Server. Columns: `remoteserverid`, `remoteusername`, `suid`, `status`

sysresourcelimits (master database only) Contains a row for each resource limit defined by Adaptive Server. Columns: `name`, `appname`, `rangeid`, `limitid`, `enforced`, `action`, `limitvalue`, `scope`, `spare`

sysroles (All databases) Maps server role IDs to local role IDs. Columns: `id`, `lrid`, `type`, `status`

syssecmechs (master database only) Contains information about the security services supported by each security mechanism that is available to Adaptive Server. Columns: `sec_mech_name`, `available_service`

syssegments (All databases) Contains one row for each segment (named collection of disk pieces). Columns: `segment`, `name`, `status`

sysservers (master database only) Contains one row for each remote Adaptive Server, Backup Server, or Open Server on which this Adaptive Server can execute remote procedure calls. Columns: `srv`, `srvstatus`, `srvstatus2`, `srvstat2`, `srvname`, `srvnetname`, `srvclass`, `srvsecmech`, `svrcost`, `srvprincipal`

syssessions (master database only) Contains one row for each client that connects to Adaptive Server with the failover property. Columns: `sys_id`, `ses_id`, `state`, `spare`, `status`, `dbid`, `name`, `nodeid`, `instanceid`, `ses_data`

syslices (All databases) Contains one row for each slice (page chain) of a sliced table. `syslices` is used only during the Adaptive Server upgrade process. Columns: `state`, `id`, `partitionid`, `firstpage`, `controlpage`, `spare`

sysrvroles (master database only) Contains a row for each system or user-defined role. Columns: `srid`, `name`, `password`, `pwdate`, `status`, `logincount`, `locksuid`, `lockreason`, `lockdate`

sysstatistics (All databases) Contains one or more rows for each indexed column on a user table and for each partition. May also contain rows for unindexed column. Columns: `statid`, `id`, `sequence`, `moddate`, `formatid`, `usedcount`, `colidarray`, `c0`...`c79`, `indid`, `ststatus`, `partitionid`, `spare2`, `spare3`

sysstabstats (All databases) Contains one row for each clustered index, one row for each nonclustered index, one row for each table that has no clustered index, and one row for each partition. Columns: `indid`, `id`, `activestatid`, `indexheight`, `leafcnt`, `pagecnt`, `rowcnt`, `forwrowcnt`, `delrowcnt`, `dpagecrnt`, `ipagecrnt`, `drowcrnt`, `oamapgcnt`, `extent0pgcnt`, `datarowsize`, `leafrowsize`, `status`, `plljoindegree`, `spare2`, `rslastoam`, `rslastpage`, `frlastoam`, `frlastpage`, `conopt_thld`, `plldegree`, `emptypgcnt`, `spare4`, `partitionid`, `spare5`, `statmoddate`, `unusedpgcnt`, `oampagecnt`

systhresholds (All databases) Contains one row for each threshold defined for the database. Columns: `segment`, `free_space`, `status`, `proc_name`, `suid`, `currauth`

sysrangeranges (master database only) Stores named time ranges, which are used by Adaptive Server to control when a resource limit is active. Columns: name, id, startday, endday, starttime, endtime

systransactions (master database only) Contains information about Adaptive Server transactions, but it is not a normal table. Columns: xactkey, starttime, failover, type, coordinator, state, connection, status, status2, spid, masterdbid, loid, namelen, xactname, srvname, nodeid, instanceid

sysatypes (All databases) Contains one row for each system-supplied and user-defined datatype. Domains (defined by rules) and defaults are given, if they exist. Columns: uid, usertype, variable, allownulls, type, length, tdefault, domain, name, printfmt, prec, scale, ident, hierarchy, xtypeid, xdbid, accessrule

sysusages (master database only) Contains one row for each disk allocation piece assigned to a database. Each database contains a specified number of database (logical) page numbers. Columns: dbid, segmap, lstart, size, vstart, pad, unreservedpgs, crdate, vdevno

sysusermessages (All databases) Contains one row for each user-defined message that can be returned by Adaptive Server. Columns: error, uid, description, langid, dlevel

sysusers (All databases) Contains one row for each user allowed in the database, and one row for each group or role. Columns: suid, uid, gid, name, environ

sysxtypes (All databases) Contains one row for each extended, Java-SQL datatype. Columns: xtoid, xtstatus, xtmetatype, xtcontainer, xtname, xtsource, xtbinaryinrow, xtbinaryoffrow

DBCC tables

These are very brief descriptions for Adaptive Server dbcc tables. See *Reference Manual: Tables* for complete information.

dbcc_config Describes the currently executing or last completed dbcc checkstorage operation. Columns: dbid, type_code, value, stringvalue

dbcc_counters Stores the results of the analysis performed by dbcc checkstorage. Columns: dbid, id, indid, partitionid, devid, opid, type_code, value

dbcc_exclusions Stores the faults, tables or a combination of them that should be excluded from processing by checkverify and fault reporting via sp_dbcc_faultreport. Columns: dbid, type, fault_type, table_name

dbcc_fault_params Provides additional descriptive information for a fault entered in the dbcc_faults table. Columns: dbid, opid, faultid, type_code, intvalue, realvalue, binaryvalue, stringvalue, datevalue

dbcc_faults Provides a description of each fault detected by dbcc checkstorage. Columns: dbid, id, indid, partitionid, devid, opid, faultid, type_code, status

dbcc_operation_log Records the use of the dbcc checkstorage operations. Columns: dbid, opid, optype, suid, start, finish, seq, id, maxseq

dbcc_operation_results Provides additional descriptive information for an operation recorded in the `dbcc_operation_log` table. Columns: `dbid`, `opid`, `optype`, `type_code`, `intvalue`, `realvalue`, `binaryvalue`, `stringvalue`, `datevalue`, `seq`

dbcc_types Provides the definitions of the datatypes used by `dbcc` checkstorage.

Monitoring tables

These are very brief descriptions for Adaptive Server monitoring tables. See *Reference Manual: Tables* for complete information, or the *Monitoring Tables Diagram* poster for a visual presentation of the tables, columns, and their relationships.

monCachedObject Stores statistics for all tables, partitions, and indexes with pages currently in a data cache. Columns: `CacheID`, `InstanceID`, `DBID`, `IndexID`, `PartitionID`, `CachedKB`, `CacheName`, `ObjectID`, `DBName`, `OwnerUserID`, `OwnerName`, `ObjectName`, `PartitionName`, `ObjectType`, `TotalSizeKB`, `ProcessesAccessing`

monCachePool Stores statistics for all pools allocated for all data caches. Columns: `CacheID`, `InstanceID`, `IOBufferSize`, `AllocatedKB`, `PhysicalReads`, `Stalls`, `PagesTouched`, `PagesRead`, `BuffersToMRU`, `BuffersToLRU`, `CacheName`, `LogicalReads`, `PhysicalWrites`, `APFReads`, `APFPercentage`, `WashSize`

monCachedProcedures Stores statistics for all stored procedures, triggers, and compiled plans currently stored in the procedure cache. Columns: `ObjectID`, `InstanceID`, `OwnerUID`, `DBID`, `PlanID`, `MemUsageKB`, `CompileDate`, `ObjectName`, `ObjectType`, `OwnerName`, `DBName`, `RequestCnt`, `TempdbRemapCnt`, `AvgTempdbRemapTime`, `ExecutionCount`, `CPUTime`, `ExecutionTime`, `PhysicalReads`, `LogicalReads`, `PhysicalWrites`, `PagesWritten`

monCachedStatement Stores detailed monitoring information about the statement cache, including information about resources used during the previous executions of a statement, how frequently a statement is executed, the settings in effect for a particular plan, the number of concurrent uses of a statement, and so on. Columns: `SSQLID`, `HashKey`, `UserID`, `SUserID`, `DBID`, `DBName`, `CachedDate`, `LastUsedDate`, `CurrentUsageCount`, `StatementSize`, `MaxUsageCount`, `SessionSettings`, `ParallelDegree`, `QuotedIdentifier`, `TransactionIsolationLevel`, `TransactionMode`, `SAAuthorization`, `SystemCatalogUpdates`, `ExecutionMetrics`, `MetricsCount`, `MaxElapsedTime`, `MinElapsedTime`, `AvgElapsedTime`, `MaxLIO`, `MinLIO`, `AvgLIO`, `MaxPIO`, `MinPIO`, `AvgPIO`, `NumRecompilesPlanFlushes`, `NumRecompilesSchemaChanges`, `MaxPlanSize`, `MinPlanSize`, `LastRecompiledDate`, `UseCount`, `HasAutoParams`, `OptimizationGoal`, `OptimizerLevel`

monCIPC (Specific to the Cluster Edition) Provides summary figures for total messaging within the cluster, as viewed from the current instance or all instances. Columns: `InstanceID`, `ReceiveCount`, `TransmitCount`, `Multicast`, `Synchronous`, `ReceiveSoftError`, `ReceiveHardError`, `TransmitsSoftError`, `TransmitHardError`, `Retransmits`, `Switches`, `FailedSwitches`, `RegularBuffersInUse`, `FreeRegularBuffers`, `MaxRegularBuffersInUse`, `LargeBuffersInUse`, `FreeLargeBuffers`, `MaxLargeBuffersInUse`

monCIPCEndpoints (Specific to the Cluster Edition) Provides a detailed summary, giving traffic data for each subsystem within the cluster instance. Columns: InstanceID, ReceiveCount, TransmitCount, ReceiveBytes, TransmitBytes, ReceiveQ, MaxReceiveQ, DoneQ, MaxDoneQ, MaxRecvQTime, AvgRecvQTime, EndPoint

monCIPCLinks (Specific to the Cluster Edition) Monitors the state of the links between instances in the cluster. Columns: InstanceID, LocalInterface, RemoteInterface, PassiveState, PassiveStateAge, ActiveState, ActiveStateAge

monCIPCMesh (Specific to the Cluster Edition) Gives summary figures for the mesh of connections, from the current instance to all other instances in the cluster, on a per-instance basis. Columns: InstanceID, FarInstanceID, , Received, Dropped, Transmitted, Resent, Retry, ControlRx, ControlTx, SendQ, MaxSendQ, SentQ, MaxSentQ, MaxSendQTime, AvgSendQTime, Mesh, MinRTT, MaxRTT, AverageRTT

monCLMObjectActivity (Specific to the Cluster Edition) Collects cluster lock information. Columns: InstanceID, DBID, Object_PartitionID, LockRequests, LocalMaster, Waited, Granted, RWConflictWaited, AvgRWConflictWaitTime, MaxRWConflictWaitTime, WWConflictWaited, AvgWWConflictWaitTime, MaxWWConflictWaitTime, ClusterMsgWaits, AvgClusterMsgWaitTime, MaxClusterMsgWaitTime, DowngradeReqRecv, DowngradeReqRecvWithNoBlocker, ClusterDeadlock, Locktype

monClusterCacheManager (Specific to the Cluster Edition) Stores diagnostic information about the cluster cache manager daemon running on each instance. monClusterCacheManager reports cluster-wide information on a per-instance basis. Columns: InstanceID, RequestsQueued, RequestsRequeued, RequestsServed, DiskWrites, SleepCount, DaemonName, TransfersInitiated, Downgrades, Releases, AvgServiceTime, MaxQSize

monCMSFailover (Specific to the Cluster Edition) Tracks the time at which the cluster membership service (CMS) detects the failure, gets a new cluster view, resynchronizes the heartbeat, posts the failure event, and completes the failure event. Columns: InstanceID, FailedInstanceID, FailDetectTime, InitViewTime, FinalViewTime, ResynchHBTime, NotifyFailTime, EventdoneTime

monDataCache Stores statistics relating to Adaptive Server data caches. Columns: CacheID, InstanceID, RelaxedReplacement, BufferPools, CacheSearches, PhysicalReads, LogicalReads, PhysicalWrites, Stalls, CachePartitions, CacheName, Status, Type, CacheSize, ReplacementStrategy, APFReads, Overhead

monDBRecovery (Specific to the Cluster Edition) Contains rows from all instances in the cluster and contains rows for every database that contributes to recovery. Columns: DBID, InstanceID, MaxOpenXacts, MaxPFTSEntries, Buckets, LogBTotPages, LogBTotAPFWaited, LogBTotIO, AnITotRec, AnIPhase1Recs, AnIPhase1RedoRecs, AnIPhase2Recs, AnIPhase2RedoRecs, AnITotPages, AnITotAPFWaited, AnITotIO, RedoOps, RedoOpsNotRedonePFTS, RedoOpsRedonePFTS, RedoOpsRedoneTS, RedoOpsNotRedoneTS, RedoLogTotPages, RedoLogTotAPFWaited, RedoLogTotIO, RedoRecTotPage, RedoRecTotAPFWaited, RedoRecTotIO, UndoRecsUndone, UndoLogTotPages, UndoLogTotAPFWaited, UndoLogTotIO, UndoRecTotPages, UndoRecTotAPFWaited, UndoRedTotIO, DBName, FailedInstanceID, Command, RecType, LobBStartTime, LogBEndTime, AnIStartTime, AnIEndTime, RedoStartTime, RedoEndTime, UndoStartTime, UndoEndTime

monDBRecoveryLRTypes (Specific to the Cluster Edition) Tracks log records seen during recovery. Contains a row for each log record type for which at least one log record was seen by recovery. Columns: DBID ,InstanceID ,NumRecs, LogRecType

monDeadLock Provides information about deadlocks. Use deadlock pipe max messages to tune the maximum number of messages returned. Columns: DeadLockID, VictimKPID, InstanceID, ResolveTime, ObjectDBID, PageNumber, RowNumber, HeldFamilyId, HeldSPID, HeldKPID, HeldProcDBID, HeldProcedureID, HeldBatchID, HeldContextID, HeldLineNumber, WaitFamilyId, WaitSPID, WaitKPID, WaitTime, ObjectName, HeldUserName, HeldAppName, HeldTranName, HeldLockType, HeldCommand, WaitUserName, WaitLockType, HeldSourceCodeID, WaitSourceCodeID, HeldClientAppName, HeldClientName, HeldClientHostName, HeldHostName, HeldNumLocks, HeldProcDBName, HeldProcedureName, HeldStmtNumber, ObjectDBName, ObjectID, WaitAppName, WaitBatchID, WaitClientAppleName, WaitClientHostName, WaitClientName, WaitCommand, WaitContextID, WaitHostName, WaitLineNumber, WaitProcDBID, WaitProcDBName, WaitProcedureID, WaitProcedureName, WaitStmtNumber, WaitTranName

monDeviceIO Returns statistical information relating to activity on database devices. Columns: InstanceID, Reads, APFReads, Writes, DevSemaphoreRequests, DevSemaphoreWaits, IOTime, LogicalName, PhysicalName

monDeviceSpaceUsage Provides information about the file systems on which database devices are allocated. Space information is available only for file system devices. Columns: InstanceID, VDevNo, LogicalName, PhysicalName, DeviceSizeMB, FileSystemName, FileSystemSizeMB, FileSystemFreeMB

monEngine Provides statistics regarding Adaptive Server engines. Columns: EngineNumber, ThreadID, InstanceID, CurrentKPID, PreviousKPID, CPUTime, SystemCPUTime, UserCPUTime, IOCPUTime, IdleCPUTime, Yields, Connections, DiskIOChecks, DiskIOPolled, DiskIOCompleted, MaxOutstandingIOs, ProcessesAffinitied, ContextSwitches, HkgcMaxQSize, HkgcPendingItems, HkgcHWMItems, HkgcOverflows, Status, Starttime, StopTime, AffinitiedToCPU, OSPID

monErrorLog Returns the most recent error messages from the Adaptive Server error log. Columns: SPID, InstanceID, KPID, FamilyID, EngineNumber, ErrorNumber, Severity, State, Time, ErrorMessage

monFailoverRecovery (Specific to the Cluster Edition) Contains aggregated failover recovery diagnostic information for the cluster lock manager (CLM), database recovery, and cluster membership service (CMS) modules. Columns: InstanceID, ModuleName, FailedInstanceID, StartTime, EndTime

monIOController Provides information about I/O controllers. Columns are: InstanceID, ControllerID, KTID, EngineNumber, BlockingPolls, NonBlockingPolls, EventPolls, NonBlockingEventPolls, FullPolls, Events, EventHWM, Pending, Completed, Reads, Writes, Deferred, Type

monIOQueue Provides device I/O statistics displayed as data and log I/O for normal and temporary databases on each device. Columns: InstanceID, IOs, IOTime, LogicalName, IOType

monLicense Provides a list of all licences currently checked out by the Adaptive Server. Columns: InstanceID, Quantity, Name, Edition, Type, Version, Status, LicenseExpiry, GraceExpiry, LicenseID, Filter, Attributes

monLocks Returns a list of granted locks and pending lock requests. Columns: SPID, InstanceID, KPID, DBID, ParentSPID, LockID, Context, DBName, ObjectID, LockState, LockType, LockLevel, WaitTime, PageNumber, RowNumber, BlockedBy, BlockedState, SourceCodeID

monLockTimeout Provides information about lock timeouts. Columns: InstanceID, LockWaitPeriod, LockTimeoutLevel, ObjectDBID, ObjectDBName, ObjectID, ObjectName, PageNumber, RowNumber, ExpiredAtTime, HeldSPID, HeldKPID, HeldUserName, HeldAppName, HeldHostName, HeldClientName, HeldClientAppName, HeldClientHostName, HeldTranName, HeldCommand, HeldFamilyID, HeldProcDBID, HeldProcDBName, HeldProcDBName, HeldProcedureName, HeldBatchID, HeldContextID, HeldLineNumber, HeldStmtNumber, HeldLockType, HeldNumLocks, HeldNumTimeoutsCausedByTran, HeldNumTimeoutsCausedByLock, HeldSourceCodeID, WaitSPID, WaitKPID, WaitUserName, WaitAppName, WaitHostName, WaitClientName, WaitClientAppName, WaitClientHostName, WaitTranName, WaitCommand, WaitFamilyID, WaitProcDBID, WaitProcDBName, WaitProcedureName, WaitBatchID, WaitContextID, WaitLineNumber, WaitStmtNumber, WaitLockType, WaitNumTimeoutsCausedByTran, WaitSourceCodeID, HeldProcedureID, WaitProcedureID

monLogicalCluster (Specific to the Cluster Edition) Displays information about the logical clusters currently configured on the system. Columns: LCID, Attributes, ActiveConnections, BaseInstances, ActiveBaseInstances, FailoverInstances, ActiveFailoverInstances, Name, State, DownRoutingMode, FailoverMode, StartupMode, SystemView, Roles, LoadProfile, ActionRelease, Gather

monLogicalClusterAction (Specific to the Cluster Edition) Shows all administrative actions against local clusters from start-up until these actions are released. Columns: Handle, State, LCID, LogicalClusterName, Action, FromInstances, ToInstances, InstancesWaiting, WaitType, StartTime, Deadline, CompleteTime, ConnectionsRemaining, NonMigConnections, NonHAConnections

monLogicalClusterInstance (Specific to the Cluster Edition) Displays information about the many-to-many relationship between instances and logical clusters. Columns: LCID, LogicalClusterName, InstanceID, InstanceName, Type, FailoverGroup, State, ActiveConnections, NonMigConnections, NonHAConnections, LoadScore

monLogicalClusterRoute (Specific to the Cluster Edition) Displays information about the configured routes (application, login, and alias bindings). Columns: LCID, LogicalClusterName, RouteType, RouteKey

monNetworkIO Returns network I/O statistics for all communication between Adaptive Server and client connections. Columns: InstanceID, PacketsSent, PacketsReceived, BytesSent, BytesReceived

monOpenDatabases Provides state and statistical information pertaining to databases that are currently in the server's metadata cache. Columns: DBID, InstanceID, BackupInProgress, LastBackupFailed, TransactionLogFull, AppendLogRequests, AppendLogWaits, DBName, BackupStartTime, SuspendedProcesses, QuiesceTag, LastCheckpointTime, LastTranLogDumpTime

monOpenObjectActivity Provides statistics for all open tables and indexes. Columns: DBID, ObjectID, IndexID, InstanceID, DBName, ObjectName, LogicalReads, PhysicalReads, APFReads, PagesRead, PhysicalWrites, PagesWritten, RowsInserted, RowsDeleted, RowsUpdated, Operations, LockRequests, LockWaits, OptSelectCount, LastOptSelectDate, UsedCount, LastUsedDate, HkgcRequests, HkgcPending, HkgcOverflows, PhysicalLocks, PhysicalLocksRetained, PhysicalLocksRetainWaited, PhysicalLocksDeadlocks, PhysicalLocksWaited, PhysicalLocksPageTransfer, TransferReqWaited, AvgPhysicalLocksWaitTime, AvgTransferReqWaitTime, TotalServiceRequests, PhysicalLocksDowngraded, PagesTransferred, ClusterPageWrites, AvgServiceTime, AvgTimeWaitedOnLocalUsers, AvgTransferSendWaitTime, AvgIOServiceTime, AvgDowngradeServiceTime, SharedLockWaitTime, ExclusiveLockWaitTime, UpdateLockWaitTime, ObjectCacheDate

monOpenPartitionActivity Provides information about the use of each open partition on the server. Columns: DBID, ObjectID, IndexID, PartitionID, InstanceID, DBName, ObjectName, PartitionName, LogicalReads, PhysicalReads, APFReads, PagesRead, PhysicalWrites, PagesWritten, RowsInserted, RowsDeleted, RowsUpdated, OptSelectCount, LastOptSelectDate, UsedCount, LastUsedDate, HkgcRequests, HkgcPending, HkgcOverflows, PhysicalLocks, PhysicalLocksRetained, PhysicalLocksRetainWaited, PhysicalLocksDeadlocks, PhysicalLocksWaited, PhysicalLocksPageTransfer, TransferReqWaited, AvgPhysicalLockWaitTime, AvgTransferReqWaitTime, TotalServiceRequests, PhysicalLocksDowngraded, PagesTransferred, ClusterPageWrites, AvgServiceTime, AvgTimeWaitedOnLocalUsers, AvgTransferSendWaitTime, AvgIOServiceTime, AvgDowngradeServiceTime, ObjectCacheDate

monPCIBridge Contains information about the Java PCI Bridge. Columns: InstanceID, Status, ConfiguredSlots, ActiveSlots, ConfiguredPCIMemoryKB, UsedPCIMemoryKB

monPCIEngine Displays engine information for the PCI Bridge and its plug-ins. Columns: InstanceID, Engine, Status, PLBStatus, NumberofActiveThreads, PLBRequests, PLBwakeUpRequests

monPCISlots Contains information about the plug-in bound to each slot in the PCI Bridge. Columns: InstanceID, Slot, Status, Modulename, engine

monPCM (Specific to the Cluster Edition) Tracks the peer coordination module (PCM) client activities in the cluster, and contains a row for each PCM client. Columns: InstanceID, Sent, Fragments_sent, Fragments_received, Received, Reply, Unicast, Mulicat, Sync, Async, MinBytes, AvgBytes, MaxBytes, MinDialog, AvgDialog, MaxDialog, Dialog, MinTimeSyncApi, AvgTimeSyncApi, MaxTimeSyncApi, MinTimeAsyncApi, AvgTimeAsyncApi, MaxTimeAsyncApi, MinTimeCIPCMsgAlloc, AvgTimeCIPCMsgAlloc, MaxTimeCIPCMsgAlloc, MinTimeCIPCMsgSendCB, AvgTimeCIPCMsgSendCB, MaxTimeCIPCMsgSendCB, MinTimeCIPCUnicastmsg, AvgTimeCIPCUnicastmsg, MaxTimeCIPCUnicastmsg, AvgTimeCIPCUnicastmsg, MinTimeCIPCUnicastmsg, AvgTimeCIPCUnicastmsg, MaxTimeCIPCUnicastmsg, MinTimeCIPCUnicastmsg, AvgTimeCIPCUnicastmsg, MaxTimeCIPCUnicastmsg, MinTimeCIPCUnicastmsg, AvgTimeCIPCUnicastmsg, MaxTimeCIPCUnicastmsg, MinTimeClientRecvCB, AvgTimeClientRecvCB, MaxTimeClientRecvCB, ModuleName

monProcedureCache Returns statistics relating to Adaptive Server procedure cache. Columns: Requests, Loads, Writes, Stalls, InstanceID

monProcedureCacheMemoryUsage Includes one row for each procedure cache allocator. Columns: InstanceID, AllocatorID, ModuleID, Active, HWM, ChunkHWM, AllocatorName, NumReuseCaused

monProcedureCacheModuleUsage Includes one row for each module that allocates memory from procedure cache. Columns: InstanceID, ModuleID, Active, HWM, NumPagesReused, ModuleName

monProcess Provides detailed statistics about processes that are currently executing or waiting. Columns: SPID, InstanceID, KPID, ServerUserID, BatchID, ContextID, LineNumber, SecondsConnected, DBID, EngineNumber, Priority, FamilyID, Login, Application, Command, NumChildren, SecondsWaiting, WaitEventID, BlockingSPID, BlockingXLOID, DBName, EngineGroupName, ExecutionClass, MasterTransactionID, HostName, ClientName, ClientHostName, ClientAppName

monProcessActivity Provides detailed statistics about process activity. Columns: SPID, InstanceID, KPID, ServerUserID, CPUTime, WaitTime, PhysicalReads, LogicalReads, PagesRead, PhysicalWrites, PagesWritten, MemUsageKB, LocksHeld, TableAccesses, IndexAccesses, WorkTables, TempDbObjects, ULCBytesWritten, ULCFlushes, ULCFlushFull, ULCMaxUsage, ULCCurrentUsage, Transactions, Commits, Rollbacks, HostName, Application, ClientName, ClientHostName, ClientAppName

monProcessLookup Provides identifying information about each process on the server. Columns: SPID, InstanceID, KPID, Login, Application, ClientHost, ClientIP, ClientOSPID, ClientName, ClientHostName, ClientAppName

monProcessMigration (Specific to the Cluster Edition) Displays information about the connection currently migrating. Columns: SPID, KPID, LogicalCluster, Instance, MigrationLogicalCluster, MigrationInstance, Command

monProcessNetIO Provides the network I/O activity information for each process. Columns: SPID, InstanceID, KPID, NetworkPacketSize, PacketSent, PacketsReceived, BytesSent, BytesReceived, NetworkEngineNumber

monProcessObject Provides statistical information regarding objects currently being accessed by processes. Columns: SPID, InstanceID, KPID, DBID, ObjectID, PartitionID, IndexID, OwnerUserID, LogicalReads, PhysicalReads, PhysicalAPFReads, DBName, ObjectName, PartitionName, ObjectType, PartitionSize

monProcessProcedures Returns a list of all procedures being executed by processes. Columns: SPID, InstanceID, KPID, DBID, OwnerUID, ObjectID, PlanID, MemUsageKB, CompileDate, ContextID, LineNumber, DBName, OwnerName, ObjectName, ObjectType, ExecutionCount, CPUTime, ExecutionTime, PhysicalReads, LogicalReads, PhysicalWrites, PagesWritten

monProcessSQLText Provides the SQL text currently being executed by the process. Columns: SPID, InstanceID, KPID, ServerUserID, BatchID, LineNumber, SequenceInLine, SQLText

monProcessStatement Provides information about the statement currently executing. Columns: SPID, InstanceID, KPID, DBID, ProcedureID, PlanID, BatchID, ContextID, LineNumber, CPUTime, WaitTime, MemUsageKB, PhysicalReads, LogicalReads, PagesModified, PacketsSent, PacketsReceived, NetworkPacketSize, PlansAltered, RowsAffected, DBName, StartTime

monProcessWaits Provides a list of all wait events for which current processes on the server are waiting. Columns: SPID, InstanceID, KPID, ServerUserID, WaitEventID, Waits, WaitTime

monProcessWorkerThread Provides statistics for the activity of each currently configured worker process. Columns: SPID, InstanceID, KPID, ThreadsActive, MaxParallelDegree, MaxScanParallelDegree, ParallelQueries, PlansAltered, FamilyID

monRepLogActivity Collects information from monitor counters updated by Replication Agent. Columns: DBID, SPID, InstanceID, LogRecordsScanned, LogRecordsProcessed, NumberOfScans, TotalTimeForLogScans, LongestTimeForLogScans, AvgTimeForLogScans, Updates, Inserts, Deletes, StoredProcedures, SQLStatements, DDL, Writetext, LobColumns, CLR, Checkpoints, BeginTransaction, CommitTransaction, AbortedTransaction, PreparedTransaction, DelayedCommit, MaintenanceUserTransaction, NumberOfLogExtentions, TotalTimeOfLogExtentions, LongestTimeOfLogExtentions, AvgTimeOfLogExtentions, MaxHashSchemaSize, NumberOfSchemasReused, NumberOfSchemaFwdLookup, TotalTimeOfSchemaFwdLookup, LongestTimeOfSchemaFwdLookup, AvgTimeOfSchemaFwdLookup, NumberOfSchemaBckwLookup, TotalTimeOfSchemaBckwLookup, LongestTimeOfSchemaBckwLookup, AvgTimeOfSchemaBckwLookup, NumberOfMempoolAllocates, NumberOfMempoolFrees, MempoolCurrentSize, MempoolHighUsage, DBName

monRepScanners Provides information on where the Rep Agent Scanner task is spending its time. Columns: DBID, SPID, InstanceID, EngineBinding, LogRecordsScanned, LogrecordsProcessed, NumberOfTruncPointRequested, NumberOfTruncPointMoved, DBName, Status, SleepStatus, StartMarker, EndMarker, CurrentMarker, OldestTransaction

monRepScannersTotalTime Provides information on where the Rep Agent Scanner task is spending its time. Columns: DBID, SPID, InstanceID, LogRecProcessed, BytesPacked, TotalTime, MRPBootstrapTime, ScanTime, ProcessTime, SchemaLookupsTime, PackTime, QueueingTime, HashBindingSize, HashBindingEntries, HashBindingCollisions, YieldsOnFullQueue, WaitsOnSenderThread, WaitTimeOnSenderThread, LongestWaitOnSenderThread

monRepSenders Provides processing information about Rep Agent Sender tasks. Columns: DBID, SPID, InstanceID, EngineBinding, MessageQueueSize, MessagesInQueue, NumberOfScannerYields, NumberOfScannerSleeps, NumberOfBytesSent, LastRepServerError, NumberOfRetries, SleepsOnEmptyQueue, NumberOfQueueFlushes, SleepTimeOnEmptyQueue, LongestSleepTimeOnEmptyQueue, MaxQueueSize, DBName, Dataserver, ReplicationServer, Username, Status, SleepStatus

monSQLRepActivity Provides statistics for SQL statements that were successfully replicated on all open objects. Columns: DBID, ObjectID, InstanceID, DBName, ObjectName, UpdateStmts, InsertSelectStmts, DeleteStmts, SelectIntoStmts, RowsThreshold

monSQLRepMisses Provides statistics for SQL statements that were not successfully replicated for all open objects. Columns: DBID, ObjectID, InstanceID, DBName, ObjectName, Threshold, QueryLimitation, Configuration

monState Provides information regarding the overall state of Adaptive Server. Columns: InstanceID, LockWaitThreshold, LockWaits, DaysRunning, CheckPoints, NumDeadlocks, Diagnostic Dumps, Connections, MaxRecovery, Transactions, StartDate, CountersCleared

monStatementCache Provides statistical information about the statement cache. Columns: InstanceID, TotalSizeKB, UsedSizeKB, NumStatements, NumSearches, HitCount, NumInserts, NumRemovals, NumRecompilesSchemaChanges, NumRecompilesPlanFlushes

monSysLoad (Specific to the Cluster Edition) Provides trended statistics on a per-engine basis. Columns: InstanceID, EngineNumber, SteadyState, Avg_1min, Avg_5min, Avg_15min, Max_1min, Max_5min, Max_15min, Max_1min_Time, Max_5min_Time, Max_15min_Time, Statistic, Sample, Peak, Peak_time, StatisticID

monSysPlanText Provides the history of the query plans for recently executed queries. Columns: PlanID, InstanceID, SPID, KPID, BatchID, ContextID, SequenceNumber, DBID, ProcedureID, DBName, PlanText

monSysSQLText Provides the most recently executed SQL text, or the SQL text currently executing. Columns: SPID, InstanceID, KPID, ServerUserID, BatchID, SequenceInBatch, SQLText

monSysStatement Provides a history of the most recently executed statements on the server. Columns: SPID, InstanceID, KPID, DBID, ProcedureID, PlanID, BatchID, ContextID, LineNumber, CpuTime, WaitTime, MemUsageKB, PhysicalReads, LogicalReads, PagesModified, PacketsSent, PacketsReceived, NetworkPacketSize, PlansAltered, RowsAffected, ErrorStatus, HashKey, SsqlId, ProcNestLevel, StatementNumber, DBName, StartTime, EndTime

monSysWaits Provides a server-wide view of the statistics for events on which processes have waited. Columns: InstanceID, WaitEventID, WaitTime, Waits

monSysWorkerThread Returns server-wide statistics related to worker thread configuration and execution. Columns: InstanceID, ThreadsActive, TotalWorkerThreads, HighWater, ParallelQueries, PlansAltered, WorkerMemory, TotalWorkerMemory, WorkerMemoryHWM, MaxParallelDegree, MaxScanParallelDegree

monTableColumns Describes all the columns for each monitoring table. Columns: TableID, ColumnID, TypeID, Precision, Scale, Length, Indicators, TableName, ColumnName, TypeName, Description, Label, Language

monTableCompression Contains the table's compression history. Columns: InstanceID, DBID, TableID, PartitionID, TableName, CompRowInserted, CompRowUpdated, CompRowForward, CompRowScan, RowPageDecompressed, RowDecompressed, ColDecompressed, RowCompNoneed, PageCompNoneed, PagesCompressed, BytesSavedPageLevel

monTableParameters Provides a description for all columns in a monitoring table used to optimize query performance for the monitoring tables. Columns: TableID, ParameterID, TypeID, Precision, Scale, Length, TableName, ParameterName, TypeName, Description

monTables Provides a description of all monitoring tables. Columns: TableID, Columns, Parameters, Indicators, Size, TableName, Description, Language

monTableTransfer MonTableTransfer provides historical transfer information for tables in Adaptive Server's active memory. Columns: InstanceID, DBID, TableID, TableName, SequenceID, TrackingID, PercentDone, BeginTime, EndTime, EndCode, TransferFloor, TransferCeiling, RowsSent, BytesSent, Format

monTask Specific to Adaptive Server in threaded mode, contains one row for each task. Columns: InstanceID, KTID, ThreadPoolID, ThreadID, KPID, SPID, Name, ThreadPoolName

monTempdbActivity (Specific to the Cluster Edition) Provides statistics for all open local temporary databases, including global system tempdb when the instance is started in tempdb configuration mode. Columns: DBID InstanceID, DBName, AppendLogRequest, AppendLogWaits, LogicalReads, PhysicalReads, APFReads, PagesRead, PhysicalWrites, PagesWritten, LockRequests, LockWaits, CatLockRequests, CatLockWaits, AssignedCnt, SharableTabCnt

monThread Specific to Adaptive Server in threaded mode: Contains one row for each thread. Columns: InstanceID, ThreadID, KTID, OSThreadID, AltOSThreadID, ThreadPoolID, State, ThreadAffinity, ThreadPoolName, TaskRuns, TotalTicks, IdleTicks, SleepTicks, BusyTicks, UserTime, SystemTime, MinorFaults, MajorFaults, VoluntaryCtxtSwitches, NonVoluntaryCtxtSwitches

monThreadPool Specific to Adaptive Server in threaded mode: Contains one row for each thread pool. Columns: ThreadPoolID, Size, TargetSize, Tasks, ThreadPoolName, ThreadPoolDescription, Type, IdleTimeout

monWaitClassInfo Provides a textual description for all of the wait classes (for example, waiting for a disk read to complete). Columns: WaitClassID, Description

monWaitEventInfo Provides a textual description for every possible situation where a process is forced to wait within Adaptive Server. Columns: WaitEventID, WaitClassID, Description, Language

monWorkload (Specific to the Cluster Edition) Displays the workload score for each logical cluster on each instance according to its load profile. Columns: LCID, InstanceID, LoadProfileID, LoadScore, ConnectionsScore, CpuScore, RunQueueScore, IoLoadScore, EngineScore, UserScore, LogicalClusterName, InstanceName, LoadProfileName

monWorkloadPreview (Specific to the Cluster Edition) Provides an estimate of how a load profile impacts the workload score without enabling the profile. Columns: InstanceID, LoadProfileID, LoadScore, ConnectionScore, CpuScore, RunQueueScore, IoLoadScore, EngineScore, UserScore, InstanceName, LoadProfileName

monWorkloadProfile (Specific to the Cluster Edition) Displays currently configured workload profiles. Columns: ProfileID, ConnectionsWeight, CpuWeight, RunQueueWeight, IoLoadWeight, EngineWeight, UserWeight, LoginThreshold, DynamicThreshold, Hysteresis, Name, Type

monWorkloadRaw (Specific to the Cluster Edition) Provides the raw workload statistics for each instance. You need not have the mon_role role to query this monitor table. Columns: InstanceID, ConnectionsRaw, CpuRaw, RunQueueRaw, IoLoadRaw, EngineRaw, UserRaw, InstanceName

monWorkQueue Provides information on work queues. Columns: InstanceID, CurrentLength, MaxLength, TotalRequests, QueuedRequests, WaitTime, Name

sybpcidb tables

The sybpcidb database stores configuration information for the Java PCI Bridge and the PCA/JVM plug-in. This section lists the sybpcidb tables in alphabetical order.

pca_jre_arguments Stores information about the arguments used to configure the PCA/JVM plug-in. Columns: jre_args_directive_index, jre_args_name, jre_args_units, jre_args_number_value, jre_args_string_value, , jre_args_description, jre_args_enabled, jre_args_status

pca_jre_directives Stores information about the directives used to configure the PCA/JVM. Columns: jre_directives_index, jre_directives_name, jre_directives_description, jre_directives_enabled, jre_directives_status

pci_arguments Stores information that defines each of the arguments used to configure the PCI Bridge. Columns: pci_args_directive_index, pci_args_name, pci_args_units, pci_args_number_value, pci_args_string_value, pci_args_description, pci_args_enabled, pci_args_status

pci_directives Stores the directives that configure the PCI Bridge. Columns: pci_directives_index, pci_directives_name, pci_directives_description, pci_directives_enabled, pci_directives_status

pci_slotinfo Contains information describing each slot, including table names for the slot's directives and arguments. Columns: slot_number, slot_name, slot_pca_directives_table_name, slot_pca_arguments_table_name, slot_status

pci_slot_syscalls Contains the runtime system call configuration information for the runtime dispatching model used by the PCI Bridge. Columns: syscall_slot_number, syscall_system_call, syscall_dispatch_name, syscall_enabled, syscall_status

Utilities

These are the syntax and very brief descriptions for Adaptive Server utilities. See *Utility Guide* for complete information.

backupserver The executable form of the Backup Server program:

```

backupserver
  [-C server_connections] [-S b_servername]
  [-l interfaces_file] [-e error_log_file] [-M sybmultbuf_binary]
  [-N network_connections] [-T trace_value]
  [-L Sybase_language_name] [-J Sybase_character_set_name]
  [-c tape_config_file] [-D n] [-A pathname]
  [-P active_service_threads] [-V level_number]
  [-p n] [-m max_shared_memory]

```

Or: backupserver -v

bcp Copies a database table to or from an operating system file in a user-specified format:

```

bcp [[database_name.]owner.]table_name [: [ partition_id |
slice_number ] |
partition partition_name] {in | out} datafile
  [-f formatfile] [-e errfile] [-d discardfileprefix]
  [-F firstrow] [-L lastrow] [-b batchsize] [-m maxerrors]
  [-n] [-c] [-t field_terminator] [-r row_terminator]
  [-U username] [-P password] [-l interfaces_file]
  [-S server] [-a display_charset] [-z language]
  [-A packet_size] [-J client_charset] [-T text_or_image_size]
  [-E] [-g id_start_value] [-N] [-W] [-X]
  [-M LabelName LabelValue] [-labeled] [-K keytab_file]
  [-R remote_server_principal] [-C] [-V [security_options]]
  [-Z security_mechanism] [-Q] [-Y] [-y sybase_directory]
  [-x trusted.txt_file]
  [--maxconn maximum_connections]
  [--show-fi]
  [--hide-vcc]
  [--colpasswd [[[database_name.]owner.]table_name.]column_name
  [password]]]
  [--keypasswd [[database_name.]owner.]key_name [password]]]
  [--initstring 'Transact-SQL_command']

```

Or: bcp -v

certauth Converts a server certificate request to a CA- (certificate authority) signed certificate:

```

certauth
  [-r] [-C caCert_file] [-Q request_filename] [-K caKey_filename]
  [-N serial_number] [-O SignedCert_filename] [-P caPassword]
  [-s start_time] [-T valid_time]

```

Or: certauth -v

certpk12 Export or import a PKCS #12 file into a certificates file and a private key:

```

certpk12
  {-O Pkcs12_file | -I Pkcs12_file} [-C Cert_file]
  [-K Key_file] [-P key_password] [-E Pkcs12_password]

```

Or: certpk12 -v

certreq Creates a server certificate request and corresponding private key:

```

certreq
  [-F input_file] [-R request_filename] [-K PK_filename]
  [-P password]

```

Or: `certreq -v`

charset (UNIX) Loads the character sets and sort order files in Adaptive Server.
Located in `$$SYBASE/$$SYBASE_ASE/bin`:

```
charset  
[-Ppassword] [-Sserver] [-linterface]sort_order[charset]
```

Or: `charset -v`

cobpre Precompiler for COBOL.

cpre Precompiler for C.

dataserver (UNIX) The executable form of the Adaptive Server program:

```
dataserver [-f] [-g] [-G] [-h] [-H] [-m] [-q] [-v] [-X]  
[-a path_to_CAPs_directive_file]  
[-b master_device_size [k | K | m | M | g | G | t | T ]]  
[-c config_file_for_server] [-d device_name]  
[-e path_to_error_log] [-i interfaces_file_directory]  
[-K keytab_file] [-L config_file_name_for_connectivity]  
[-M shared_memory_repository_directory]  
[-N licinstanf] [-n sa_login_name [-p sa_login_name]  
[-r mirror_disk_name] [-s server_name] [-T trace_flag]  
[-u sa/sso_name] [-w master | model database]  
[-y [password] ] [-z page_size [ k | K ] ]
```

Syntax for the Cluster Edition:

```
dataserver  
-u, --admin-name=sa/sso_name  
--buildquorum=[force]  
-a, --caps-file=filename  
-F, --cluster-input=filename  
--cluster-takeover  
-L, --conn-config-file=[filename]  
--create-cluster-id [=quorum]  
-D, --default-db-size=size_spec  
-e, --error-log=[filename]  
-G, --event-log-server=logserv_name  
-f, --forcebuild  
-H, --ha-server  
-h, --help={0|1|2|3}[,display_width]  
--instance=instance_name  
-y, --key-password=[key_password]  
-K, --keytab-file=filename  
-N, --license-prop-file=filename  
-z, --logical-page-size=page_size  
-Z, --master-db-size=size_spec  
-d, --master-dev=master_device_name  
-b, --master-dev-size=[size_spec]  
--master_key_password [=password]  
-r, --master-mirror=filename  
-m, --masterrecover  
-g, --no-event-logging  
-Q, --quorum-dev=quorum_dev  
-q, --recover-quiet  
-w, --rewrite-db=database_name
```

```
-p, --sa-name={SSO_login_account | sso_role | sa_role}
-k, --server-principal=s_principal
-M, --shared-mem-dir=directory_name
-X, --sybmon
-T, --trace=trace_flag
-v, --version
```

Or: `dataserver -v`

ddlgen A Java-based tool that generates definitions for server- and database-level objects in Adaptive Server:

```
ddlgen
-Ulogin -Ppassword
-S[[ssl:]server | host_name : port_number]
[-I interfaces_file] [-Tobject_type] [-Nobject_name]
[-Ddbname] [-Xextended_object_type] [-Ooutput_file]
[-Error_file] [-Lprogress_log_file]
[-Jclient_charset] [-LC -N logical_cluster_name
-F [% | SGM | GRP | USR | R | D | UDD | U | V |
P | XP | I | RI | KC | TR | PC ]
```

Or: `ddlgen -v`

defncopy Copies definitions for specified views, rules, defaults, triggers, or procedures from a database to an operating-system file or from an operating-system file to a database:

```
defncopy
[-X] [-a display_charset] [-I interfaces_file] [-J [client_charset]]
[-K keytab_file] [-P password] [-R remote_server_principal]
[-S [server_name]] [-U username] [-V security_options]
[-Z security_mechanism] [-z language]
{ in file_name database_name | out file_name database_name
[owner.]object_name [[owner.]object_name... ] }
```

Or: `defncopy -v`

dscp (UNIX) Allows you to view and edit server entries in the interfaces file from the command line in UNIX platforms:

```
dscp [-p]
```

Or: `dscp -v`

dsedit (On UNIX) Allows you to view and edit server entries in the interfaces file using a GUI based on X11/Motif in UNIX platforms. (On Windows) The `dsedit.exe` utility creates and modifies network connection information in the interfaces file.:

```
dsedit
```

Or: `dsedit -v`

extractjava Copies a retained JAR and the classes it contains from an Adaptive Server into a client file:

```
extractjava (extrjava in Windows)
-j jar_name -f file_name [-S server_name] [-U user_name]
[-P password] [-D database_name] [-I interfaces_file]
[-a display_charset] [-J client_charset] [-z language]
[-t timeout] [-v]
```

Or: `extractjava -v`

installjava Installs a JAR from a client file into an Adaptive Server:

```
installjava
  -f file_name [ -new | -update ] [ -j jar_name ]
  [-S server_name] [-U user_name] [-P password]
  [-D database_name] [-I interfaces_file] [-a display_charset]
  [-J client_charset] [-z language] [-t timeout] [-v]
```

Or: `installjava -v`

isql Is the interactive SQL parser to Adaptive Server:

```
isql [-b] [-e] [-F] [-p] [-n] [-v] [-W] [-X] [-Y] [-Q]
  [-a display_charset] [-A packet_size] [-c cmdend]
  [-D database] [-E editor] [-h header] [-H hostname] [-i inputfile]
  [-I interfaces_file] [-J client_charset] [-K keytab_file] [-l login_timeout]
  [-m errorlevel] [-o outputfile]
  [-P password][-R remote_server_principal]
  [-s colseparator] [-S server_name] [-t timeout] -U username
  [-V [security_options]] [-w columnwidth] [-z locale_name]
  [-Z security_mechanism] [--conceal]
```

langinstall Installs a new language in an Adaptive Server:

```
langinstall
  [-S server] [-U user] [-P password] [-R release_number] [-I path]
  language_character_set
```

Or: `langinstall -v`

optdiag Displays optimizer statistics or loads updated statistics into system tables:

```
optdiag [binary] [simulate] statistics
  { -i input_file | database.[owner].[table.[column] ] } [-o output_file] }
  [-U user_name] [-P password] [-T trace_value] [-I interfaces_file]
  [-S server] [-v] [-h] [-s] [-z language]
  [-J client_character_set] [-a display_charset]
```

preupgrade Performs tests on an installation or database to determine its readiness for upgrade, and reports found problems:

```
preupgrade [-v] [-h] [-N]
  [-p [skip_sybprocs] [-D database_name]
  [-I interfaces_file] [-P password] [-S server_name]
  [-U user_name] [-X option,option]...
```

pwdcrypt Creates and prints an encrypted LDAP password in the *libtcl.cfg* file:

```
pwdcrypt
```

qptune Enables users to fix missing statistics and identify the best query plan, optimization goals, or other configuration settings, and apply them at the query or server level:

```
qptune
  [-U username] [-P password] [-S hostname:port/database]
  [-A action] [-M mode] [-T appTime] [-i inputFile]
  [-o outputFile] [-f fileList(,)] [-c configFile]
  [-l limit] [-e evalField] [-d <diff%,(diff_abs)>]
  [-m missingCount] [-n login] [-J charset>] [-N (noexec)]
  [-g (applyOptgoal)] [-v (verbose)] [-s (sort)] [-h (help)]
```


qrmutil (Cluster environments only) Allows you to back up, restore, and reconfigure the quorum device:

```
--additional-run-parameters=parameter_list
--ase-config-extract=file_name
--ase-config-info
--ase-config-store=file_name
--ase-config-version=version_number
--buildquorum=[force]--cluster-take-over
--config-file=file_name
--diag={all | boot | toc | nodes | locks | config | cms}
--display={boot | nodes | heartbeat | master | cluster |
instance | config | state}
--drop-cluster=[force]
--drop-instance=instance_name
--errorlog=file_name
--extract-config=file_name
-h, --help
-F, --cluster-input=file_name
--fence-capable=device_path
--installation=installation_mode
-s, --instance=instance_name
--instance-node=node_name
--interfaces-dir=path_to_interfaces_file
--max-instances=number_of_instances
--master-dev=master_device
--membership-mode=membership_mode
--primary-address=interconnect_address
--primary-port=port_number
--primary-protocol=protocol
-Q, --quorum-dev=quorum_device
--register-node=node_name
--secondary-address=interconnect_address
--secondary-port=port_number
--secondary-protocol=protocol
--traceflags=traceflag_list
--unregister-node=node_name
--verify-node=node_name
-v, --version]
```

showserver (UNIX) Shows the Adaptive Servers and Backup Servers that are currently running on the local machine, available only in UNIX platforms:

```
showserver
```

sqldbgr Debugs stored procedures and triggers:

```
sqldbgr
-U username -P password -S host.port
```

sqlloc (UNIX only) Installs and modifies languages, character sets, and sort order defaults for Adaptive Server using a GUI based on X11/Motif:

```
sqlloc
[-S server] [-U user] [-P password]
[-s sybase dir] [-l interfaces file] [-r resource file]
```

Or: sqlloc -v

sqllocres (UNIX only) Installs and modifies languages, character sets, and sort order defaults for Adaptive Server, using a resource file:

```
sqllocres  
  [-S server] [-U user] [-P password]  
  [-s sybase_dir] [-l interfaces_file] [-r resource_file]
```

Or: sqllocres -v

sqlsrvr (Windows only) The executable form of the Adaptive Server program:

```
sqlserver [-f] [-g] [-G] [-h] [-H] [-m] [-P] [-q] [-v] [-X]  
  [-a path_to_CAPs_directive_file]  
  [-b master_device_size] [k | K | m | M | g | G | t | T ]  
  [-c config_file_for_server] [-d device_name]  
  [-e path_to_error_log] [-i interfaces_file_directory]  
  [-K keytab_file] [-L config_file_name_for_connectivity]  
  [--master_key_password [=password]  
  [-M shared_memory_repository_directory]  
  [-p sa_login_name] [-r mirror_disk_name]  
  [-s server_name] [-T trace_flag]  
  [-u sa/sso_name] [-w master | model database]  
  [-y [password] ] [-z page_size [ k | K ] ]
```

sqlupgrade (UNIX) Upgrades your currently installed version of Adaptive Server to the newest release using a GUI based on X11/Motif:

```
sqlupgrade [-s sybase_dir] [-r resource_file]
```

Or: sqlupgrade -v

sqlupgraderes (UNIX) Upgrades your currently installed release of Adaptive Server to the newest release using resource files:

```
sqlupgraderes [-s sybase_dir] [-r resource_file]
```

Or: sqlupgraderes -v

srvbuild (UNIX) Creates a new Adaptive Server, Backup Server, Monitor Server, or XP Server with default or user-specified values for key configuration attributes:

```
srvbuild [-s sybase_dir] [-l interfaces_file] [-r resource_file]
```

Or: srvbuild -v

srvbuildres (UNIX) Creates, using resource files, a new Adaptive Server, Backup Server, Monitor Server, or XP Server with default or user-specified values for key configuration attributes:

```
srvbuildres [-s sybase_dir] [-l interfaces_file] [-r resource_file]
```

Or: srvbuildres -v

startserver (UNIX) Starts an Adaptive Server or a Backup Server:

```
startserver [[-f runserverfile] [-m]] ...
```

sybcluster (Cluster environments only) Manages a Sybase shared-disk cluster. sybcluster lets you create, start, stop, and manage a cluster or any instance in a cluster. The default value of *user_name* is "uafadmin":

```
sybcluster  
  [-C cluster_name] [-d discovery_list] [-F agent_connection ]  
  [-h] [-l instance_name] [-i input_file_path] [-L ]  
  [-m message_level ] [-P [password ]] [-U user_name] [-v ]
```

sybdiag Is a Java-based tool that collects comprehensive Adaptive Server configuration and environment data. Sybase Technical Support uses this information to diagnose server issues, thus expediting customer cases.

```
sybdiag -U username [-P password] -S [server_name | host.port]
[-l interfaces_file] [-L log_file] [-N num_threads]
[-O output_directory] [-R resource_file] [-T feature_list]
[-h] [-m message_level] [-v]
```

sybmigrate Converts an Adaptive Server from one page size to another page size, and to migrate between platforms:

```
sybmigrate [-v ] [-h ] [-f ] [-D 1 | 2 | 3 | 4 ]
[-l interfaces_file ] [-r input_resource_file ]
[-m setup | migrate | validate | report ]
[-rn status | space_est | repl | diff | password ]
[-l log_file ] [-t output_template_resource_file ]
[-J client_charset ] [-z language ]
[-T trace_flags ] [-Tase trace_flags ] [-f ]
```

sybtsmpasswd (Tivoli Storage Manager) Records or changes the user password and creates the TSM encrypted password file, *TSM.PWD*, on the TSM client machine. The location of the file is the directory specified by the *PASSWORDDIR* configuration parameter in the TSM configuration file:

```
sybtsmpasswd
```

xpserver Starts XP Server manually:

```
xpserver -S XP_Server
xpserver
-SXP_Server [-linterfaces_file] [-ppriority] [-sstack_size] [-u] [-v] [-x]
```

