

This Sybase IQ 12.6 Quick Reference Guide was written by Raymond Mardle (rpmardle@yahoo.co.uk). Please contact the author for any comments or suggestions. This document can be downloaded from [www.sypron.nl/asiq\\_qref.html](http://www.sypron.nl/asiq_qref.html).

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In all sections, ^ = new, + = changed

## IQ 12.6 Commands

Two styles of commenting; the same as in ASE :-

```
/*
```

**a comment between delimiters on one or more lines**

```
*/
```

**-- a comment until the end of this line**

```
ALLOCATE DESCRIPTOR descriptor-name
  [ WITH MAX { integer | host-variable } ]
```

```
^ALTER DBSPACE dbspace-name
  { READWRITE | READONLY | RELOCATE
  | SIZE dbspace-size [ KB | MB | GB | TB | PAGES ]
  | ADD dbspace-size [ KB | MB | GB | TB | PAGES ] }
```

```
ALTER EVENT event-name
  [ DELETE TYPE | TYPE event-type ]
  { WHERE { trigger-condition | NULL }
  | { ADD | [ MODIFY ] | DELETE } SCHEDULE schedule-spec
  }
  [ ENABLE | DISABLE ]
  [ [ MODIFY ] HANDLER compound-statement | DELETE HANDLER ]
```

```
^ALTER INDEX index-name ON [ owner.]table-name
  RENAME [ AS | TO ] new-name
```

```
^ALTER [ INDEX ] FOREIGN KEY role-name ON [ owner.]table-name
  RENAME [ AS | TO ] new-name
```

```
ALTER PROCEDURE [ owner.]procedure-name procedure-definition
```

```
ALTER SERVER server-name
  [ CLASS 'server-class' ]
  [ USING 'connection-info' ]
  [ CAPABILITY 'cap-name' { ON | OFF } ]
```

```
^ALTER SERVICE service-name [ TYPE 'service-type-string' ]
  [ attributes ] [ AS statement ]
```

```
+ALTER TABLE [ owner.]table-name
  { ADD column-definition [ column-constraint ] ...
  | ADD table-constraint
  | MODIFY column-definition
  | MODIFY column-name [ IDENTITY ] [ DEFAULT AUTOINCREMENT ] [ NOT ]
  NULL
  | MODIFY column-name [ CONSTRAINT constraint-name ] CHECK NULL
  | MODIFY column-name CHECK ( new-condition )
  | ALTER column-name column-modification
  | ALTER constraint-name CHECK ( new-condition )
  | { DELETE | DROP } column-name
  | { DELETE | DROP } CHECK
  | { DELETE | DROP } CONSTRAINT constraint-name
  | { DELETE | DROP } UNIQUE ( column-name [, ...] )
  | { DELETE | DROP } PRIMARY KEY
  | { DELETE | DROP } FOREIGN KEY role-name
  | RENAME new-table-name
  | RENAME column-name TO new-column-name
  | RENAME constraint-name TO new-constraint-name
  }
```

```
^ column-definition = column-name data-type [ NOT NULL ] [ IDENTITY ]
  [ DEFAULT AUTOINCREMENT ]
```

```
+ column-constraint = [ CONSTRAINT constraint-name ]
  { UNIQUE
  | PRIMARY KEY
  | REFERENCES table-name [ ( column-name ) ] [ actions ]
  | CHECK ( condition )
  | IQ UNIQUE ( integer )
  }
```

*integer* : Should always specify IQ UNIQUE even if more than 65,536 distinct values (alternatively, set option MINIMIZE\_STORAGE to ON)

```
+ table-constraint:
  { UNIQUE ( column-name [, ...] )
  | PRIMARY KEY ( column-name [, ...] )
  | foreign-key-constraint
  | CHECK ( condition )
  }
```

```
foreign-key-constraint = FOREIGN KEY [ role-name ] [ ( column-name [, ...] ) ]
  REFERENCES table-name [ ( column-name [, ...] ) ] [ actions ]
```

```
actions = [ ON { UPDATE | DELETE } action ]
```

```
action = { RESTRICT }
```

```
ALTER VIEW
  [ owner.]view-name [ ( column-name [, ...] ) ]
  AS select-without-order-by
  [ WITH CHECK OPTION ]
```

```
+BACKUP DATABASE
  [ CRC { ON | OFF } ]
  [ ATTENDED { ON | OFF } ]
  [ BLOCK FACTOR integer ]
  [ { FULL | INCREMENTAL | INCREMENTAL SINCE FULL } ]
  [ { VIRTUAL DECOUPLED | VIRTUAL ENCAPSULATED 'shell_command' } ]
  TO archive_device [ SIZE integer ] [ STACKER integer ]
  [ [ TO archive_device [ SIZE integer ] [ STACKER integer ] ] ... ]
  [ WITH COMMENT string ]
```

```
[ statement-label : ]
  BEGIN [ [ NOT ] ATOMIC ]
  [ local-declaration ; ... ]
  statement-list
  [ EXCEPTION [ exception-case ... ] ]
  END [ statement-label ]
```

```
BEGIN PARALLEL IQ
  statement-list
END PARALLEL IQ
```

```

BEGIN TRAN[SACTION] [ transaction-name ]

[variable = ] CALL procedure-name ( [ expression ] [ , ... ] )

[variable = ] CALL procedure-name ( [ parameter-name = expression ] [ , ... ] )

CASE value-expression
  WHEN [ constant | NULL ] THEN statement-list
  [ [ WHEN [ constant | NULL ] THEN statement-list ] ... ]
  [ ELSE statement-list ]
END CASE
^Use the format above for the best performance

CASE
  WHEN value-expression = constant THEN statement-list
  [ [ WHEN value-expression = constant THEN statement-list ] ... ]
  [ ELSE statement-list ]
END CASE

CHECKPOINT

CLEAR

CLOSE cursor-name

^COMMENT ON
  { COLUMN [ owner.]table-name .column-name
    | EVENT event-name
    | FOREIGN KEY [ owner.]table-name .role-name
    | INDEX [ [ owner.]table.]index-name
    | JAVA CLASS java-class-name
    | JAVA JAR java-jar-name
    | LOGIN integrated_login_id
    | PROCEDURE [ owner.]procedure-name
    | SERVICE web-service-name
    | TABLE [ owner.]table-name
    | USER userid
    | VIEW [ owner.]view-name
  }
  IS comment

COMMIT [ WORK ]

COMMIT TRAN[SACTION ] [ transaction-name ]

CONFIGURE

CONNECT
  [ TO engine-name ]
  [ DATABASE database-name ]
  [ AS connection-name ]
  [ USER ] userid [ IDENTIFIED BY password ]

CONNECT USING connect-string

+CREATE DATABASE db-name
  [ [ TRANSACTION ] { LOG ON [ log-file-name ]
    [ MIRROR mirror-file-name ] } ]
  [ CASE { RESPECT | IGNORE } ]
  [ PAGE SIZE page-size ]
  [ COLLATION collation-label ]
  [ ENCRYPTED { ON | OFF | key-spec } ]
  [ BLANK PADDING ON ]
  [ JAVA { ON | OFF } ]
  [ JCONNECT { ON | OFF } ]
  [ PASSWORD CASE { RESPECT | IGNORE } ]
  [ IQ PATH iq-file-name ]
  [ IQ SIZE iq-file-size ]
  [ IQ PAGE SIZE iq-page-size ]
  [ BLOCK SIZE block-size ]
  [ IQ RESERVE sizeMB ]
  [ TEMPORARY RESERVE sizeMB ]
  [ MESSAGE PATH message-file-name ]
  [ TEMPORARY PATH temp-file-name ]
  [ TEMPORARY SIZE temp-db-size ]

+ page-size = { 4096 | 8192 | 16384 | 32768 }

```

```

iq-page-size = { 65536 | 131072 | 262144 | 524288 }
block-size = { 4096 | 8192 | 16384 | 32768 }

^ collation-label = string

^ key-spec: [ ON ] KEY key [ ALGORITHM 'AES' ]

+CREATE DBSPACE dbspace-name AS filename
  [ { IQ STORE | IQ TEMPORARY STORE | IQ LOCAL STORE
    | CATALOG STORE } ]
  [ [ SIZE ] file-size ]
  [ RESERVE sizeMB ]

CREATE { DOMAIN | DATATYPE } domain-name data-type [ [ NOT ] NULL ]

CREATE EVENT event-name
  [ TYPE event-type
    [ WHERE trigger-condition [ AND trigger-condition ], ... ]
    | SCHEDULE schedule-spec, ... ]
  [ ENABLE | DISABLE ]
  [ AT { CONSOLIDATED | REMOTE | ALL } ]
  [ HANDLER
    BEGIN
      schedule-statements
    END
  ]

CREATE EXISTING TABLE [owner.]table_name
  [ (column-definition, ...) ] AT 'location-string'

CREATE EXTERNLOGIN login-name TO remote-server
  REMOTE LOGIN remote-user
  [ IDENTIFIED BY remote-password ]

+CREATE FUNCTION [ owner.]function-name ( [ parameter, ... ] )
  RETURNS data-type routine-characteristics
  { compound-statement | AS tsql-compound-statement | external-name }

^ routine-characteristics = ON EXCEPTION RESUME | [ NOT ] DETERMINISTIC

^ tsql-compound-statement = sql-statement
  sql-statement ...

^ external-name = EXTERNAL NAME library-call
  | EXTERNAL NAME java-call LANGUAGE JAVA

^ library-call = '[operating-system]function-name@library.dll; ...'

^ operating-system= WindowsNT | UNIX

^ java-call = '[package-name .]class-name .method-name method-signature'

^ method-signature = ( [ field-descriptor, ... ] ) return-descriptor

^ field-descriptor | return-descriptor = Z | B | S | I | J | F | D | C | V |
  [descriptor | L class-name ] ;

CREATE [ UNIQUE ] [ index-type ] INDEX index-name
  ON [ owner.]table-name
  ( column-name [ , ... ] )
  [ { IN | ON } dbspace-name ]
  [ NOTIFY integer ]
  [ DELIMITED BY 'separators-string ' ]
  [ LIMIT maxwordsize-integer ]

index-type = { CMP | HG | HNG | LF | WD | DATE | TIME | DTTM }

CREATE JOIN INDEX join-index-name FOR join-clause

^ join-clause = [ ( ) join-expression join-type join-expression
  [ ON search-condition ] [ ] ]

^ join-expression = { table-name | join-clause }

^ join-type = [ NATURAL ] FULL [ OUTER ] JOIN

^ search-condition = [ ( ) search-expression [ AND search-expression ] [ ] ]

^ search-expression = [ ( ) [ table-name . ] column-name = [ table-name . ]
  column-name [ ] ]

```

```

CREATE MESSAGE message-number AS 'message-text'

CREATE PROCEDURE [ owner. ] procedure-name ( [ parameter , ... ] )
{ EXTERNAL NAME library-call | [ DYNAMIC RESULT SETS integer-expression ]
  EXTERNAL NAME java-call | LANGUAGE JAVA | [ RESULT ( result-column , ... ) ]
  [ ON EXCEPTION RESUME ]
  compound-statement
  [ AT location-string
}

CREATE PROCEDURE [ owner. ] procedure_name
[ [ ( ) @parameter_name data-type [ = default ] [ OUTPUT ] [ , . ] [ ( ) ] ] ]
[ WITH RECOMPILE ]
AS
statement-list

CREATE SCHEMA AUTHORIZATION userid
[ [ { create-table-statement | create-view-statement | grant-statement } ] ... ]

server-class = { ASAJDBC | ASEJDBC | ASAOBDC | ASEODBC | DB2ODBC
  | MSSODBC | ORAOBDC | ODBC }

connection-info = { machine-name:port-number [ /dbname ] | data-source-name }

CREATE SERVER server-name CLASS 'server-class' USING 'connection-info'
[ READ ONLY ]

^CREATE SERVICE service-name TYPE service-type-string [ attributes ]
[ AS statement ]

^ attributes = [ AUTHORIZATION { ON | OFF } ] [ SECURE { ON | OFF } ]
  [ USER { user-name | NULL } [ ] ] URL [ PATH ] [ { ON | OFF | ELEMENTS } ]
  [ USING { SOAP-prefix | NULL } ]

^ service-type-string = { 'RAW' | 'HTML' | 'XML' | 'SOAP' | 'DISH' }

+CREATE [ GLOBAL TEMPORARY ] TABLE [ owner. ] table-name
( column-definition [ column-constraint ]
  [ , column-definition [ column-constraint ] ... ]
  [ , table-constraint ] ... )
[ { IN | ON } dbspace-name ]
[ ON COMMIT { DELETE | PRESERVE } ROWS ]
[ NOT TRANSACTIONAL ]
[ AT location-string ]

location-string = { remote-server-name . [ db-name ] . [ owner. ] object-name
  | remote-server-name : [ db-name ] . [ owner. ] object-name }

See ALTER TABLE for column-constraint and table-constraint

CREATE VARIABLE identifier data-type

CREATE VIEW [ owner. ] view-name [ ( column-name [ , ... ] ) ]
AS select-without-order-by
[ WITH CHECK OPTION ]

DEALLOCATE DESCRIPTOR descriptor-name :string

EXEC SQL BEGIN DECLARE SECTION;
  C declarations
EXEC SQL END DECLARE SECTION;

DECLARE variable_name data-type

+DECLARE cursor-name
[ { SCROLL | NO SCROLL | DYNAMIC SCROLL } ]
CURSOR FOR { select-statement | statement-name
  [ FOR { READ ONLY | UPDATE [ OF column-name-list ] } ]
  [ USING variable-name ] }

DECLARE cursor-name CURSOR
FOR select-statement
[ FOR { READ ONLY | UPDATE } ]

DECLARE LOCAL TEMPORARY TABLE table-name
( column-definition [ column-constraint ] ...
  [ , column-definition [ column-constraint ] ... ]
  [ , table-constraint ] ... )
[ ON COMMIT { DELETE | PRESERVE } ROWS NOT TRANSACTIONAL ]

```

```

DELETE [ FROM ] [ owner. ] table-name
[ FROM table-list ]
[ WHERE search-condition ]

^DELETE WHERE CURRENT OF cursor-name

DESCRIBE
[ USER TYPES ]
[ { ALL | BIND VARIABLES FOR | INPUT | OUTPUT | SELECT LIST FOR } ]
[ { LONG NAMES [ long-name-spec ] | WITH VARIABLE RESULT } ]
[ FOR ] { statement-name | CURSOR cursor-name } INTO sqlda-name

DISCONNECT [ { connection-name | CURRENT | ALL } ]

+DROP
{ DBSPACE dbspace-name
  | { DATATYPE | DOMAIN } datatype-name
  | EVENT event-name
  | INDEX [ [ owner. ] table-name . ] index-name
  | JOIN INDEX [ owner. ] join-index-name
  | MESSAGE message-number
  | TABLE [ owner. ] table-name
  | VIEW [ owner. ] view-name
  | PROCEDURE [ owner. ] procedure-name
  | FUNCTION [ owner. ] function-name
}

DROP CONNECTION connection-id

+DROP DATABASE db-filename [ KEY key-spec ]

DROP EXTERNLOGIN login-name TO remote-server

DROP SERVER server-name

^DROP SERVICE service-name

DROP STATEMENT [ owner. ] statement-name

DROP VARIABLE identifier

EXECUTE ( string-expression )

EXECUTE statement-name
[ { USING DESCRIPTOR sqlda-name | USING host-variable-list } ]
[ { INTO DESCRIPTOR into-sqlda-name | INTO into-host-variable-list ]
  [ ARRAY :nnn ] ]

EXECUTE [ @return_status = ] [ owner. ] procedure_name
  { [ @parameter-name = ] expression | [ @parameter-name = ]
    @variable [ output ] } , ...

+EXECUTE IMMEDIATE [ execute-option ] string-expression

{ EXIT | QUIT | BYE }

FETCH
{ NEXT | PRIOR | FIRST | LAST | ABSOLUTE row-count | RELATIVE row-count }
  cursor-name
  { [ INTO host-variable-list ] | USING DESCRIPTOR sqlda-name
    | INTO variable-list }
  [ PURGE ] [ BLOCK n ] [ ARRAY fetch-count ]
  INTO variable-list
  IQ CACHE row-count

[ statement-label : ]
FOR for-loop-name AS cursor-name
CURSOR FOR statement
[ { FOR UPDATE | FOR READ ONLY } ]
DO statement-list
END FOR [ statement-label ]

FORWARD TO server-name { sql-statement }

FORWARD TO [ server-name ]

GET DESCRIPTOR descriptor-name
  { hostvar = COUNT } | VALUE n assignment [ , ... ] }

```

```

label:
  GOTO label
GRANT CONNECT TO userid [, ...] IDENTIFIED BY password [, ...]
GRANT
{ DBA
| GROUP
| MEMBERSHIP IN GROUP userid [, ...]
| RESOURCE
| ALL
}
TO userid [, ...]
GRANT
{ ALL [ PRIVILEGES ]
| ALTER
| DELETE
| INSERT
| REFERENCES [ ( column-name [, ...] ) ]
| SELECT [ ( column-name [, ...] ) ]
| UPDATE [ ( column-name [, ...] ) ]
}
ON [ owner.]table-name TO userid [, ...] [ WITH GRANT OPTION ]
GRANT EXECUTE ON [ owner.]procedure-name TO userid [, ...]
GRANT INTEGRATED LOGIN TO user_profile_name [, ...] AS USER userid
HELP [ topic ]
IF search-condition THEN statement-list
[ ELSE IF search-condition THEN statement-list ]...
[ ELSE statement-list ]
END IF
IF expression
statement
[ ELSE [ IF expression ] statement ]...
IF expression
BEGIN
statement-list
END
[ ELSE
BEGIN
statement-list
END ]
INCLUDE filename
INSERT [ INTO ] [ owner.]table-name [ ( column-name [, ...] ) ]
VALUES ( expression ... )
INSERT [ INTO ] [ owner.]table-name [ ( column-name [, ...] ) ]
insert-load-options
select-statement
+INSERT [ INTO ] [ owner.]table-name [ ( column-name [, ...] ) ]
insert-load-options
[ LOCATION 'servername.dbname '
[ ENCRYPTED PASSWORD ][ PACKETSIZE packet-size ] ]
{ select-statement }
INSTALL JAVA [ install-mode ] [ JAR jar-name ] FROM source
IQ UTILITIES { MAIN | PRIVATE }
[ INTO ] table-name
{ START MONITOR ['monitor-options'] | STOP MONITOR }
LEAVE statement-label

```

```

+LOAD [ INTO ] TABLE [ owner ].table-name
( load-specification [, ...] )
FROM { 'filename-string' | filename-variable } [, ...]
[ CHECK CONSTRAINTS { ON | OFF }
[ IGNORE CONSTRAINT constrainttype [, ...] ]
QUOTES OFF
ESCAPES OFF
[ FORMAT { 'ascii' | 'binary' } ]
[ DELIMITED BY 'string' ]
[ STRIP { ON | OFF } ]
[ WITH CHECKPOINT { ON | OFF } ]
[ { BLOCK FACTOR number | BLOCK SIZE number } ]
[ BYTE ORDER { NATIVE | HIGH | LOW } ]
[ LIMIT number-of-rows ]
[ NOTIFY number-of-rows ]
[ ON FILE ERROR { ROLLBACK | FINISH | CONTINUE } ]
[ PREVIEW { ON | OFF } ]
[ ROW DELIMITED BY 'delimiter-string' ]
[ SKIP number-of-rows ]
[ START ROW ID number ]
[ UNLOAD FORMAT ]
[ IGNORE CONSTRAINT constrainttype [, ...] ]
[ MESSAGE LOG 'string' ROW LOG 'string' [ ONLY LOG logwhat [, ...] ]
[ LOG DELIMITED BY 'string' ]

load-specification = { column-name [ column-spec ] | FILLER ( filler-type ) }

column-spec = { ASCII ( input-width ) | BINARY [ WITH NULL BYTE ]
| PREFIX { 1 | 2 | 4 } | 'delimiter-string' | DATE ( input-date-format )
| DATETIME ( input-datetime-format ) }
[ NULL ( { BLANKS | ZEROS | 'literal', ... } ) ]

filler-type = { input-width | PREFIX { 1 | 2 | 4 } | 'delimiter-string' }

constrainttype = { CHECK integer | UNIQUE integer | NULL integer
| FOREIGN KEY integer | DATA VALUE integer | ALL integer }

logwhat = { CHECK | ALL | NULL | UNIQUE | DATA VALUE | FOREIGN KEY }

[ statement-label: ]
[ WHILE search-condition ] LOOP
statement-list
END LOOP [ statement-label ]

+MESSAGE expression, ...
[ TYPE { INFO | ACTION | WARNING | STATUS } ]
[ TO { CONSOLE | CLIENT [ FOR { CONNECTION conn_id | ALL } ] ] LOG ]
[ DEBUG ONLY ] ]

OPEN cursor-name
[ USING [ DESCRIPTOR { sqlda-name | host-variable [, ...] } ] ]
[ WITH HOLD ]

^OUTPUT TO filename [ APPEND ] [ VERBOSE ] [ FORMAT output-format ]
[ ESCAPE CHARACTER character ] [ DELIMITED BY string ]
[ QUOTE string [ ALL ] ] [ COLUMN WIDTHS (integer, ...) ]
[ HEXADEcimal { ON | OFF | ASIS } ] [ ENCODING encoding ]

output-format = ASCII | DBASEII | DBASEIII | EXCEL | FIXED | FOXPRO | HTML
| LOTUS | SQL | XML

encoding = string or identifier

PARAMETERS parameter1, parameter2, ...
PREPARE statement-name FROM statement
[ DESCRIBE describe-type INTO [ [ SQL ] DESCRIPTOR ] descriptor ]
[ WITH EXECUTE ]

PRINT format-string [, arg-list ]

^PUT cursor-name [ USING DESCRIPTOR sqlda-name | FROM hostvarlist ]
[ INTO { DESCRIPTOR into-sqlda-name | into-hostvar-list } ] [ ARRAY :nnn ]

RAISERROR error-number [ format-string ] [, arg-list ]

READ filename [ parameters ]

```

```

RELEASE SAVEPOINT [ savepoint-name ]

REMOVE JAVA classes_to_remove

RESIGNAL [ exception-name ]

+RESTORE DATABASE 'db_file' FROM 'archive_device' [ FROM 'archive_device' ] ...
  [ KEY key_spec ] [ RENAME dbspace_name TO 'new_dbspace_path' ] ...
  [ CATALOG ONLY ]

RESUME cursor-name

RESUME [ ALL ]

RETURN [ ( expression ) ]

REVOKE
  { CONNECT | DBA | INTEGRATED LOGIN | GROUP
  | MEMBERSHIP IN GROUP userid [, ...] | RESOURCE }
  FROM userid [, ...]

REVOKE
  { ALL [PRIVILEGES] | ALTER | DELETE | INSERT | REFERENCE
  | SELECT [ ( column-name [, ...] ) ] | UPDATE [ ( column-name [, ...] ) ] }
  ON [ owner.]table-name FROM userid [, ...]

REVOKE EXECUTE ON [ owner.]procedure-name FROM userid [, ...]

ROLLBACK [ WORK ]

ROLLBACK TO SAVEPOINT [ savepoint-name ]

SAVEPOINT [ savepoint-name ]

+SELECT [ ALL | DISTINCT ] [ FIRST | TOP number-of-rows ] select-list
  [ INTO { host-variable-list | variable-list | table-name } ]
  [ FROM table-list ]
  [ WHERE search-condition ]
  [ GROUP BY { expression [, ...] | ROLLUP ( expression [, ...] )
  | CUBE ( expression [, ...] ) } ]
  [ HAVING search-condition ]
  [ ORDER BY { expression | integer } [ ASC | DESC ] [, ...] ]

SET

SET identifier = expression

SET option-name option-value

SET CONNECTION [ connection-name ]

SET DESCRIPTOR descriptor-name
  { COUNT = { integer | hostvar } | VALUE n assignment [, ...] }

SET [ EXISTING ] [ TEMPORARY ] OPTION
  [ userid. | PUBLIC.]option-name = [ option-value ]

SET PERMANENT

SET SQLCA sqlca

SIGNAL exception-name

+START DATABASE database-file
  [ AS database-name ]
  [ ON engine-name ]
  [ AUTOSTOP { YES | NO } ]
  [ KEY key ]

START ENGINE AS engine-name [ STARTLINE command-string ]

START JAVA

STOP DATABASE database-name [ ON engine-name ] [ UNCONDITIONALLY ]

STOP ENGINE engine-name [ UNCONDITIONALLY ]

STOP JAVA

SYNCHRONIZE JOIN INDEX [ join-index-name [, join-index-name [, ... ] ] ]

TRIGGER EVENT event-name [ ( parm = value, ... ) ]

TRUNCATE TABLE [ owner.]table-name
    
```

```

select-without-order-by
  UNION [ ALL ] select-without-order-by
  [ UNION [ ALL ] select-without-order-by ]...
  [ ORDER BY integer [ ASC | DESC ] [, ...] ]

UPDATE table
  SET [ column-name = expression, ...
  | FROM table-expression [, ... ] ]
  [ WHERE search-condition ]
  [ ORDER BY expression [ ASC | DESC ] [, ... ] ]

table-expression = table-spec | table-expression join-type table-spec
  [ ON condition ] | tableexpression, ...

^UPDATE table-list
  SET set-item ...
  WHERE CURRENT OF cursor-name

^WAITFOR { DELAY time | TIME time }

WHENEVER
  { SQLERROR | SQLWARNING | NOTFOUND }
  { GOTO label | STOP | CONTINUE | C code; }

WHILE expression
  statement
    
```

**IQ 12.6 Datatypes**

Datatypes	Synonyms	Range
<b>Exact Numeric datatypes</b> (Can't have WD, DATE, TIME or DTTM indexes)		
bigint		-9223372036854775808 to 9223372036854775807
unsigned bigint		0 to 18446744073709551615
integer	int	-2147483648 to 2147483647
unsigned integer	unsigned int	0 to 4294967295
smallint		-32768 to 32767
tinyint		0 to 255
decimal [ ( p, s ) ]		-10 <sup>126</sup> to 10 <sup>126</sup> - 1
numeric [ ( p, s ) ]		-10 <sup>126</sup> to 10 <sup>126</sup> - 1

<b>Approximate numeric datatypes</b> (Can't have CMP, HNG, WD, DATE, TIME or DTTM indexes : HG not recommended)		
double		±2.2250738585072e <sup>-308</sup> to ±1.79769313486231e <sup>+308</sup>
float		As for real
float (precision)		As for real or double, depending upon precision
real		±1.175494351e <sup>-38</sup> to ±3.402823466e <sup>+38</sup>

<b>Money datatypes</b> (Can't have WD, DATE, TIME or DTTM indexes)		
smallmoney	numeric (10, 4)	-999,999.9999 to 999,999.9999
money	numeric (19, 4)	-999,999,999,999,999.9999 to 999,999,999,999,999.9999

<b>Date / time datatypes</b> (Can't have WD index. DATE index only on date. TIME index only on time. DTTM index only on datetime, smalldatetime and timestamp)		
date		0001 to 9999
datetime		As for timestamp
smalldatetime		As for timestamp
time		00:00:00.000000 to 23:59:59.999999
timestamp		0001-01-01 00:00:00.000000 to 9999-12-31 23:59:59.999999

**Character datatypes** (Can't have DATE, TIME or DTTM indexes if up to 255 bytes, only default, WD & CMP indexes possible if more than 255 bytes)

character	char	32,767 bytes or fewer
character varying	varchar	32,767 bytes or fewer
^uniqueidentifierstr		Implemented as char (36)
^long varchar		Character Large Object : Separately licensed option : allows data with a length up to 512 TB for 128 KB page size or 2 PB for 512 KB page size

**Binary datatypes** (Can't have HNG, WD, DATE, TIME or DTTM indexes)

binary		255 bytes or fewer
varbinary		32,767 bytes or fewer (only default & CMP indexes possible if more than 255 bytes)
^long binary		Binary Large Object : Separately licensed option : allows data with a length up to 512 TB for 128 KB page size or 2 PB for 512 KB page size
^image		As for long binary

**Bit datatype** (Can only have default index)

bit		0, 1 or NULL
-----	--	--------------

Java to SQL data type conversion

Java Type	SQL Type
String	CHAR
String	VARCHAR
String	TEXT
java.math.BigDecimal	NUMERIC
Java.math.BigDecimal	MONEY
Boolean	BIT
Byte	TINYINT
Short	SMALLINT
Int	INTEGER
Long	BIGINT
Float	REAL
Double	DOUBLE
java.sql.Date	DATE
java.sql.Time	TIME
java.sql.Timestamp	TIMESTAMP
java.lang.Double	DOUBLE
java.lang.Float	REAL
java.lang.Integer	INTEGER
java.lang.Long	INTEGER

SQL to Java data type conversion

SQL Type	Java Type
CHAR	String
VARCHAR	String
NUMERIC	java.math.BigDecimal
DECIMAL	java.math.BigDecimal
MONEY	java.math.BigDecimal
BIT	boolean
TINYINT	byte
SMALLINT	short
INTEGER	int
BIGINT	long
REAL	float
FLOAT	double
DOUBLE	double
DATE	java.sql.Date
TIME	java.sql.Time
TIMESTAMP	java.sql.Timestamp

**IQ 12.6 Functions**

- ABS ( numeric-expr )
- ACOS ( numeric-expr )
- ARGN ( integer-expr, expression [ , ... ] )
- ASCII ( string-expr )
- ASIN ( numeric-expr )
- ATAN ( numeric-expr )
- ATAN2 ( numeric-expr1, numeric-expr2 )
- AVG ( { DISTINCT column-name | numeric-expr } )
- ^BIT\_LENGTH ( column-name )
- BYTE\_LENGTH ( string-expr )
- CAST ( expression AS datatype )
- CEILING ( numeric-expr )
- CHAR ( integer-expr )
- CHAR\_LENGTH ( string-expr )
- CHARINDEX ( string-expr1, string-expr2 )
- COALESCE ( expression, expression [ , expression ... ] )
- COL\_LENGTH ( table-name, column-name )
- COL\_NAME ( table-id, column-id [ , database-id ] )
- CONNECTION\_PROPERTY ( { property-id | property-name } ... [ , connection-id ] )
- CONVERT ( datatype, expression [ , format-style ] )
- COS ( numeric-expr )
- COT ( numeric-expr )
- COUNT ( \* )
- COUNT ( { DISTINCT column-name | expression } )
- DATALength ( expression )
- DATE ( expression )
- DATEADD ( date-part, numeric-expression, date-expr )
- DATEDIFF ( date-part, date-expr1, date-expr2 )
- DATEFORMAT ( datetime-expr, string-expr )
- DATENAME ( date-part, date-expr )
- DATEPART ( date-part, date-expr )
- DATETIME ( expression )
- DAY ( date-expr )
- DAYNAME ( date-expr )
- DAYS ( date-expr )
- DAYS ( date-expr, date-expr )
- DAYS ( date-expr, integer-expr )
- DB\_ID ( [ database-name ] )
- DB\_NAME ( [ database-id ] )
- DB\_PROPERTY ( { property-id | property-name } ... [ , { database-id | database-name } ] )
- DEGREES ( numeric-expr )
- DENSE\_RANK ( )
- DIFFERENCE ( string-expr1, string-expr2 )
- DOW ( date-expr )
- EVENT\_CONDITION ( condition-name )
- EVENT\_CONDITION\_NAME ( integer )
- EVENT\_PARAMETER ( context-name )
- EXP ( numeric-expr )
- FLOOR ( numeric-expr )
- GETDATE ( )
- HEXTOINT ( hexadecimal-string )
- HOUR ( datetime-expr )
- HOURS ( datetime-expr )
- HOURS ( datetime-expr, datetime-expr )
- HOURS ( datetime-expr, integer-expr )
- ^HTTP\_DECODE ( string )
- ^HTTP\_ENCODE ( string )
- ^HTTP\_VARIABLE ( var-name [ [ , instance ] , header-field ] )
- IFNULL ( expression1, expression2 [ , expression3 ] )
- INDEX\_COL ( table-name, index-id, key\_# [ , user-id ] )
- INSERTSTR ( numeric-expr, string-expr1, string-expr2 )
- INTTOHEX ( integer-expr )
- ^ISDATE ( string )
- ISNULL ( expression, expression [ , expression ... ] )
- ^ISNUMERIC ( string )
- LCASE ( string-expr )
- LEFT ( string-expr, numeric-expr )
- LENGTH ( string-expr )
- LOCATE ( string-expr1, string-expr2 [ , numeric-expr ] )

LOG ( numeric-expr )  
 LOG10 ( numeric-expr )  
 LOWER ( string-expr )  
 LTRIM ( string-expr )  
 MAX ( { DISTINCT column-name | expression } )  
 MIN ( { DISTINCT column-name | expression } )  
 MINUTE ( datetime-expr )  
 MINUTES ( datetime-expr )  
 MINUTES ( datetime-expr, datetime-expr )  
 MINUTES ( datetime-expr, integer-expr )  
 MOD ( dividend, divisor )  
 MONTH ( date-expr )  
 MONTHNAME ( date-expr )  
 MONTHS ( date-expr )  
 MONTHS ( date-expr, date-expr )  
 MONTHS ( date-expr, integer-expr )  
 NEXT\_CONNECTION ( { NULL | connection-id } )  
 NEXT\_DATABASE ( { NULL | database-id } )  
 ^NEXT\_HTTP\_HEADER header-name  
 ^NEXT\_HTTP\_VARIABLE var-name  
 NOW ( \* )  
 NTILE ( integer )  
 NULLIF ( expression1, expression2 )  
 NUMBER ( \* )  
 OBJECT\_ID ( object-name )  
 OBJECT\_NAME ( object-id [ , database-id ] )  
 ^OCTET\_LENGTH ( column-name )  
 PATINDEX ( '%pattern%', string-expr )  
 PERCENT\_RANK ( )  
 PERCENTILE\_CONT ( numeric-expr )  
 PERCENTILE\_DISC ( numeric-expr )  
 PI ( \* )  
 POWER ( numeric-expr1, numeric-expr2 )  
 PROPERTY ( { property-number | property-name } )  
 PROPERTY\_DESCRIPTION ( { property-number | property-name } )  
 PROPERTY\_NAME ( property-number )  
 PROPERTY\_NUMBER ( property-name )  
 QUARTER ( date-expr )  
 RADIANS ( numeric-expr )  
 RAND ( [ integer-expr ] )  
 RANK ( )  
 REMAINDER ( numeric-expr, numeric-expr )  
 REPEAT ( string-expr, numeric-expr )  
 REPLACE ( original-string, search-string, replace-string )  
 REPLICATE ( string-expr, integer-expr )  
 RIGHT ( string-expr, numeric-expr )  
 ROUND ( numeric-expr, integer-expr )  
 ROWID ( table-name )  
 RTRIM ( string-expr )  
 SECOND ( datetime-expr )  
 SECONDS ( datetime-expr )  
 SECONDS ( datetime-expr, datetime-expr )  
 SECONDS ( datetime-expr, integer-expr )  
 SIGN ( numeric-expr )  
 SIMILAR ( string-expr1, string-expr2 )  
 SIN ( numeric-expr )  
 SORTKEY ( string-expr [ collation-name ] )  
 SOUNDEX ( string-expr )  
 SPACE ( integer-expr )  
 SQRT ( numeric-expr )  
 +STDDEV ( [ ALL ] expression )  
 STR ( numeric-expr [ , length [ , decimal ] ] )  
 STRING ( string1 [ , string2, ..., string99 ] )  
 STUFF ( string-expr1, start, length, string-expr2 )  
 SUBSTRING ( string-expr, integer-expr [ , integer-expr ] )  
 SUM ( { DISTINCT column-name | expression } )  
 SUSER\_ID ( [ user-name ] )  
 SUSER\_NAME ( [ user-id ] )  
 TAN ( numeric-expr )  
 TODAY ( \* )

TRIM ( string-expr )  
 "TRUNCATE" ( numeric-expr, integer-expr )  
 TRUNCNUM ( numeric-expression, integer-expression )  
 UCASE ( string-expr )  
 UPPER ( string-expr )  
 USER\_ID ( [ user-name ] )  
 USER\_NAME ( [ user-id ] )  
 +VARIANCE ( [ ALL ] expression )  
 WEEKS ( date-expr )  
 WEEKS ( date-expr, date-expr )  
 WEEKS ( date-expr, integer-expr )  
 YEAR ( date-expr )  
 YEARS ( date-expr )  
 YEARS ( date-expr, date-expr )  
 YEARS ( date-expr, integer-expr )  
 YMD ( year-num, month-num, day-num )

For all following procedures, parameters can be enclosed in ( and ) when 'call' used

## IQ 12.6 System Procedures

sp\_iqaddlogin *loginname*, *password* [ , *number\_of\_connections* ]  
 [ , *password\_expiration* ]  
 sp\_iqcheckdb '*mode target* [...] [resources *resource-percent*']  
 sp\_iqcheckoptions  
 sp\_iqcolumn [ *table\_name* ] [ , *table\_owner* ]  
 sp\_iqcolumn [ *table\_name*='*tablename*' ] [ , *table\_owner*='*tableowner*' ]  
 sp\_iqcommandstats [ *verbosity\_level* | *search\_string* ]  
 sp\_iqconnection [ *connhandle* ]  
 sp\_iqconstraint [ *table\_name* ] [ , *column\_name* ] [ , *table\_owner* ]  
 sp\_iqcontext [ *connhandle* ]  
 +sp\_iqdbsize [ *main* | *local* ]  
 ^sp\_iqdbspace [ *dbspace\_name* ]  
 ^sp\_iqdbspaceinfo [ '*dbspace\_name-pattern*' ] [ , '*local*' ]  
 sp\_iqdbstatistics  
 sp\_iqdroplogin *userid*  
 sp\_iqestdbspaces *db\_size\_in\_bytes*, *iq\_page\_size*,  
*min\_#\_of\_bytes*, *max\_#\_of\_bytes* ]  
 sp\_iqestjoin *table1\_name*, *table1\_row\_#*, *table2\_name*, *table2\_row\_#*,  
*relation*, *iq\_page\_size*  
 sp\_iqestspace *table\_name*, *#\_of\_rows*, *iq\_page\_size*  
 sp\_iqindex [ *table\_name* ] [ , *column\_name* ] [ , *table\_owner* ]  
 sp\_iqindex [ *table\_name*='*tablename*' ]  
 [ , *column\_name*='*columnname*' ] [ , *table\_owner*='*tableowner*' ]  
 sp\_iqindex\_alt [ *table\_name* ] [ , *column\_name* ] [ , *table\_owner* ]  
 sp\_iqindex\_alt [ *table\_name*='*tablename*' ]  
 [ , *column\_name*='*columnname*' ] [ , *table\_owner*='*tableowner*' ]  
 ^dbo.sp\_iqindexfragmentation '*target*'  
 ^sp\_iqindexinfo { *database* | *local* } [ *table table-name* | *index index-name* ] [...] }  
 [resources *resource-percent*']  
 sp\_iqindexsize [ [ *owner* ] *table.index\_name* ]  
 sp\_iqjoinindexsize *join\_index\_name*  
 sp\_iqlistexpiredpasswords  
 sp\_iqlistlockedusers  
 sp\_iqlistpasswordexpirations  
 sp\_iqlocklogin *loginname*, '{ lock | unlock }'  
 sp\_iqlocks [ *connection*, ] [ [ *owner* ] *table\_name*, ] [ *max\_locks*, ] [ *sort\_order* ]  
 sp\_iqmodifyadmin '{ [ enable | disable | user\_connections |  
*db\_connections* | *password\_expiration* | *password\_warning* ] }' [ , *value* ]  
 sp\_iqmodifylogin '{ *loginname* | all overrides }', '*option*', *value*  
 sp\_iqpassword *caller\_password*, *new\_password* [ , *loginname* ]  
 sp\_iq\_process\_login  
 ^sp\_iqrebuildindex *table\_name*, *index\_clause*  
 ^sp\_iqrelocate '*target* [ *maxsize nMB* ] [resources *resource-percent*']  
 ^sp\_iq\_reset\_identity *table\_name*, *table\_owner*, *value*  
 ^dbo.sp\_iqrowdensity '*target*'  
 +sp\_iqspaceinfo [ '*main* | *local* ] [ *table table-name* | *index index-name* ] [...] ]  
 sp\_iqspaceused out mainKB unsigned bigint, out mainKBUsed unsigned bigint,  
 out tempKB unsigned bigint, out tempKBUsed unsigned bigint  
 sp\_iqstatus  
 sp\_iqtable [ *table\_name* ] [ , *table\_owner* ] [ , *table\_type* ]

```

sp_iqtable [ table_name='tablename' ]
    [, ] [ table_owner='tableowner' ] [, ] [ table_type='tabletype' ]
sp_iqtablesizesize [ table_owner:]table_name
sp_iqtransaction
sp_iqview [ view_name ],[view_owner],[view_type ]
    sp_iqview [view_name='viewname' ] [, ]
    [ view_owner='viewowner' ] [, ] [view_type='viewtype' ]

```

### IQ 12.6 Catalogue Procedures

```

^sa_audit_string string
sa_checkpoint_execute 'shell_commands'
^sa_conn_activity
sa_conn_info [ connection-id ]
sa_conn_properties [ connection-id ]
sa_conn_properties_by_conn [ property-name ]
sa_conn_properties_by_name [ connection-id ]
sa_db_info [ database-id ]
sa_db_properties [ database-id ]
^sa_disable_auditing_type [ 'string' ]
^sa_enable_auditing_type [ 'string' ]
sa_eng_properties
sa_flush_cache
^sa_make_object objtype, objname [ , owner [ , tablename ]
sa_server_option option_name, option_value
^sa_set_http_header field-name, value
^sa_set_http_option option-name, value
^sa_validate [ tbl_name ] [, , owner_name [ , check_type ]
sp_login_environment
sp_remote_columns servername [ , tablename ] [, , owner ] [, , database ]
sp_remote_exported_keys server_name, sp_name [ , sp_owner ]
    [, , sp_qualifier ]
sp_remote_imported_keys server_name, sp_name [ , sp_owner ]
    [, , sp_qualifier ]
^sp_remote_primary_keys server_name [ , table_name ]
    [, , table_owner ] [, , table_qualifier ]
+sp_remote_tables servername [ , tablename ] [, , owner ] [, , table_qualifier ]
    [, , with_table_type ]
sp_servercaps servername
sp_tsq_environment

```

### IQ 12.6 Multiplex System Procedures (Read the Ref Guide before using)

```

dbo.sp_iq_mpx_init () (<Do not invoke this procedure>
sp_iqendmpx
dbo.sp_iqendmpx ()
"DBA".sp_iqevbegintxn ()
sp_iqmakempx ( IN I_host_name VARCHAR (40),
    IN I_server_name VARCHAR (30),
    IN I_db_path VARCHAR (1024),
    IN I_port_number VARCHAR (40) )
"DBA".sp_iqmpxaddremotesevers ( IN I_server_name VARCHAR (30) default NULL,
    IN qName VARCHAR (30) default NULL )
"DBA".sp_iqmpxaliasdbspace ( IN _dbspace_name VARCHAR (128),
    IN _server VARCHAR (30),
    IN _path VARCHAR (255) default NULL,
    IN _fromserver VARCHAR (30) default '',
    IN _offset UNSIGNED BIGINT default NULL )
dbo.sp_iqmpxcountdbremote ()
sp_iqmpxcreatepublication ( IN I_newserver VARCHAR (255) default NULL )
sp_iqmpxcreatequeryserver ( IN I_host_name VARCHAR (40),
    IN I_server_name VARCHAR (30),
    IN I_db_path VARCHAR (1024),
    IN I_port_number VARCHAR (40) )
sp_iqmpxdropdbspace ( IN I_dbspace_name varchar(128) )
sp_iqmpxdroppublication ()
sp_iqmpxdropqueryserver ( IN I_server_name VARCHAR(30) )
sp_iqmpxdropserverdbspaces ( IN I_server_name varchar(30) )
sp_iqmpxdumptvlog ()
sp_iqmpxexcludeserver ( IN _server VARCHAR(30), IN _reqStat VARCHAR(10) )
^sp_iqmpxgetconversion ()

```

```

dbo.sp_iqmpxmakeclean ()
^sp_iqmpxpassthrough ( IN sqlcmd VARCHAR(1024) )
sp_iqmpxpostsyncqueryserver ()
sp_iqmpxprotectexec ( IN _cmd VARCHAR(1024) )
sp_iqmpxreplacewriteserver ( IN I_new_server_name VARCHAR(30) )
sp_iqmpxresetquerysubscription ( IN I_server_name VARCHAR(30) )
sp_iqmpxretryexec ( IN _cmd VARCHAR(1024), IN _msg VARCHAR(1024) )
sp_iqmpxsetpublisher ( IN I_server_name VARCHAR(30) default NULL )
sp_iqmpxstopdbremote ()
sp_iqmpxsubscribeuser ( IN _user VARCHAR(30),
    IN _path LONG VARCHAR default NULL,
    IN _perm VARCHAR(15) default 'REMOTE' )
sp_iqmpxunsubscribeuser ( IN _user VARCHAR(30) )
dbo.sp_iqmpxvalidate ( IN _show_msgs CHAR(1) DEFAULT 'Y' )
sp_iqmpxversionfetch ( out CatalogID unsigned bigint, out VersionID unsigned bigint,
    out OAVID unsigned bigint, out ServerType char(1),
    out CatalogSync char(1), out WCatalogID unsigned bigint,
    out WVersionID unsigned bigint )
sp_iqmpxversioninfo ()

```

### IQ 12.6 ASE Compatibility System Procedures

```

sp_addgroup group-name
sp_addlogin userid, password [, defdb [, deflanguage [, fullname ] ] ]
sp_addmessage messagenum, message_text [, language ]
sp_addtype typename, datatype, [ "identity" ] nulltype ]
sp_adduser login_name [, name_in_db [, group-name ] ]
sp_changegroup new-group-name, userid
sp_dboption [ dbname, optionname, { true | false } ]
sp_dropgroup group-name
sp_droplogin userid
sp_dropmessage messagenumber [, language ]
sp_droptype typename
sp_dropuser userid
sp_getmessage message-num, @msg-var output [, language ]
sp_helptext 'owner.object-name' – Must supply owner
sp_password caller_passwd, new_passwd [, userid ]

```

### IQ 12.6 ASE Compatibility Catalogue Procedures

```

sp_columns [ table-name [, table-owner ] [, table-qualifier ] [, column-name ] ]
sp_fkeys [ phtable_name [, phtable-owner ] [, phtable-qualifier ] [, fhtable-name ]
    [, fhtable_owner ] [, fhtable-qualifier ] ]
sp_pkeys table-name [, table-owner ] [, table-qualifier ]
sp_special_columns table-name [, table-owner ] [, table-qualifier ] [, col-type ]
sp_sproc_columns proc-name [, proc-owner ] [, proc-qualifier ] [, column-name ]
sp_stored_procedures [ sp-name [, sp-owner ] [, sp-qualifier ] ]
sp_tables [ table-name [, table-owner ] [, table-qualifier ] [, table-type ] ]

```

### IQ 12.6 Extended Procedures

```

xp_cmdshell ( command [, 'no_output' ] )
xp_msver ( option )
xp_read_file ( file-name )
xp_scanf ( input-string, format-string [, param1 ... [, param50 ] ] )
+xp_sendmail recipient, [ subject ] [, cc_recipient ] [, bcc_recipient ] [, "message" ]
    [, include_file ]
xp_sprintf ( output-string, format-string [, param1 ... [, param50 ] ] )
xp_startmail [ mail_user, mail_password ]
^xp_startsmtp smtp_sender, smtp_server [, smtp_port ] [, timeout ]
xp_stopmail ()
^xp_stopsmtp ()
xp_write_file ( file-name, file-contents )

```

**IQ 12.6 General Database Options** ( \* = change with care )

To view options from every section together, enter SET in DBISQL with nothing else

General Database Option	Values	Default
AGGREGATION_PREFERENCE	-3 to 3	0
APPEND_LOAD	ON, OFF	OFF
^AUDITING	ON, OFF	OFF
BACKUP_EXEC_CMD	n/a	n/a
BIT_VECTOR_PINNABLE_CACHE_PERCENT*	0 to 100	40
BLOCKING	OFF	OFF
^BT_PREFETCH_MAX_MISS	0 to 1,000	2
BT_PREFETCH_SIZE	0 to 100	10
CACHE_PARTITIONS	power of 2, 0 to 64	0
CHECKPOINT_TIME	number of minutes	60
CIS_ROWSET_SIZE	integer	50
COMMAND_STATS	ON, OFF	OFF
CONVERT_HG_TO_1242	ON, OFF	OFF
CONVERT_VARCHAR_TO_1242	ON, OFF	OFF
COOPERATIVE_COMMIT_TIMEOUT	integer	250
COOPERATIVE_COMMITS	ON, OFF	ON
CURSOR_WINDOW_ROWS	20 to 100,000	200
DATE_FIRST_DAY_OF_WEEK	0 to 6	0
DATE_FORMAT	string	'YYYY-MM-DD'
DATE_ORDER	'YMD', 'DMY', 'MDY'	'YMD'
^DBCC_LOG_PROGRESS	ON, OFF	OFF
DBCC_PINNABLE_CACHE_PERCENT	0 to 100	50
^DDL_OPTIONS2	0 to 3	0
^DEBUG_MESSAGES	ON, OFF	OFF
^DEDICATED_TASK	ON, OFF	OFF
^DEFAULT_LIKE_MATCH_SELECTIVITY	0 to 100	15
^DEFAULT_LIKE_RANGE_SELECTIVITY	0 to 100	15
DELAYED_COMMIT_TIMEOUT	integer	500
DELAYED_COMMITS	OFF	OFF
DISABLE_RI_CHECK	ON, OFF	OFF
DISK_STRIPING	ON, OFF	ON
^EARLY_PREDICATE_EXECUTION	ON, OFF	ON
EXTENDED_JOIN_SYNTAX	ON, OFF	ON
^FLATTEN_SUBQUERIES	ON, OFF	OFF
FORCE_DROP	ON, OFF	OFF
FORCE_NO_SCROLL_CURSORS	ON, OFF	OFF
^FORCE_UPDATABLE_CURSORS	ON, OFF	OFF
^FPL_EXPRESSION_MEMORY_KB	0 to 20000	1024
FP_PREDICATE_WORKUNIT_PAGES	integer	400
FP_PREFETCH_SIZE	0 to 100	10
GARRAY_FILL_FACTOR_PERCENT	0 to 1000	25
GARRAY_INSERT_PREFETCH_SIZE	0 to 100	3
GARRAY_RO_PREFETCH_SIZE	0 to 100	10
HASH_PINNABLE_CACHE_PERCENT*	0 to 100	20
HASH_THRASHING_PERCENT	0 to 100	10
HG_DELETE_METHOD	0, 1, or 2	0
HG_SEARCH_RANGE	integer	10
^IDENTITY_ENFORCE_UNIQUENESS	ON, OFF	OFF
^IDENTITY_INSERT	= 'tablename'	= ''
^INDEX_ADVISOR	ON, OFF	OFF
INDEX_PREFERENCE	-10 to 10	0
^INFER_SUBQUERY_PREDICATES	ON, OFF	OFF
^IN_SUBQUERY_PREFERENCE	-3 to 3	0
^IQGOVERN_MAX_PRIORITY	1 to 3	2
^IQGOVERN_PRIORITY	1 to 3	2
^IQGOVERN_PRIORITY_TIME	1 to 1,000,000 secs	0 (disabled)
+IQMSG_LENGTH_MB	0 to 2047	0 (no limit)
ISOLATION_LEVEL	0, 1, 2, 3	0

General Database Option	Values	Default
JAVA_HEAP_SIZE	integer	1,000,000
JAVA_NAMESPACE_SIZE	integer	4,000,000
JOIN_EXPANSION_FACTOR	0 to 100	30
JOIN_OPTIMIZATION	ON, OFF	ON
JOIN_PREFERENCE	-7 to 7	0
JOIN_SIMPLIFICATION_THRESHOLD	1 to 64	15
LARGE_DOUBLES_ACCUMULATOR	ON, OFF	OFF
LF_BITMAP_CACHE_KB	1 to 8	4
+LOAD_MEMORY_MB	0 to 2,000	0
^LOCAL_RESERVED_DBSPACE_MB	integer > 0 in MB	200
LOG_CONNECT	ON, OFF	ON
LOG_CURSOR_OPERATIONS	ON, OFF	OFF
LOGIN_MODE	STANDARD, MIXED, INTEGRATED	STANDARD
LOGIN_PROCEDURE	string	sp_iq_process_login
MAIN_CACHE_MEMORY_MB	1 to 4,194,303	16
^MAIN_KB_PER_STRIPE	integer > 0 in KB	1
MAIN_RESERVED_DBSPACE_MB	integer > 0 in MB	200
MAX_CARTESIAN_RESULT	integer	10,000,000
^MAX_CLIENT_NUMERIC_PRECISION	0 to 126	0
^MAX_CLIENT_NUMERIC_SCALE	0 to 126	0
MAX_CUBE_RESULT	0 to 250,000,000	10,000,000
MAX_CURSOR_COUNT	integer	50
MAX_HASH_ROWS	integer to 250,000,000	2,500,000
MAX_IQ_THREADS_PER_CONNECTION	2 to 1,000	72
^MAX_IQ_THREADS_PER_TEAM	1 to 1,000	48
MAX_JOIN_ENUMERATION	1 to 64	15
MAX_QUERY_PARALLELISM	integer <= # CPUs	24
^MAX_QUERY_TIME	0 to 2^32 - 1	0 (disabled)
+MAX_STATEMENT_COUNT	integer	100
MAX_WARNINGS	integer	2^64 - 1
^MIN_NLPDJ_TABLE_SIZE	1 to 4,294,967,295	10,000
MIN_PASSWORD_LENGTH	integer >= 0	0 characters
^MIN_SMPDJ_OR_HPDI_FILTERED_SIZE	1 to 4,294,967,295	25,000
^MIN_SMPDJ_OR_HPDI_INDIRECT_SIZE	1 to 4,294,967,295	500,000
^MIN_SMPDJ_OR_HPDI_TABLE_SIZE	1 to 4,294,967,295	100,000
MINIMIZE_STORAGE	ON, OFF	OFF
^MONITOR_OUTPUT_DIRECTORY	string	database directory
NOEXEC	ON, OFF	OFF
NON_ANSI_NULL_VARCHAR	ON, OFF	OFF
NOTIFY_MODULUS	integer	100,000
^ODBC_DISTINGUISH_CHAR_AND_VARCHAR	ON, OFF	OFF
^ON_CHARSET_CONVERSION_FAILURE	string	IGNORE
OS_FILE_CACHE_BUFFERING	ON, OFF	OFF
OUT_OF_DISK_MESSAGE_REPEAT	integer	120
OUT_OF_DISK_WAIT_TIME	integer	30
PARALLEL_GBH_ENABLED	ON, OFF	ON
^PARALLEL_GBH_MIN_ROWS_PER_UNIT	0 to 4,294,967,295	3,000,000
PARALLEL_GBH_UNITS	0 to 100	0
PRECISION	126	126
PREFETCH	ON, OFF	ON
PREFETCH_BUFFER_LIMIT	integer	0
PREFETCH_BUFFER_PERCENT	0 to 100	40
PREFETCH_FP_PERCENT	0 to 100	50
PREFETCH_GARRAY_PERCENT	0 to 100	60

General Database Option	Values	Default
PREFETCH_SORT_PERCENT	0 to 100	50
^PRESERVE_SOURCE_FORMAT	ON, OFF	ON
QUERY_DETAIL	ON, OFF	OFF
QUERY_NAME	string	empty string
QUERY_PLAN	ON, OFF	ON
QUERY_PLAN_AFTER_RUN	ON, OFF	OFF
QUERY_PLAN_AS_HTML	ON, OFF	OFF
QUERY_ROWS_RETURNED_LIMIT	integer	0
QUERY_TEMP_SPACE_LIMIT	integer	2,000
QUERY_TIMING	ON, OFF	OFF
RECOVERY_TIME	number of minutes	2
^RETURN_DATE_TIME_AS_STRING	ON, OFF	OFF
ROW_COUNT	integer	0
SCALE	0 to 126	38
^SIGNIFICANTDIGITSFORDOUBLE EQUALITY	0 to 15	0
SORT_PHASE1_HELPERS	integer	3
SORT_PINNABLE_CACHE_PERCENT*	0 to 100	20
^SUBQUERY_PLACEMENT_PREFERENCE	-1 to 1	0
^SUPPRESS_TDS_DEBUGGING	ON, OFF	OFF
SWEEPER_THREADS_PERCENT	1 to 40	10
^TDS_EMPTY_STRING_IS_NULL	ON, OFF	OFF
+TEMP_CACHE_MEMORY_MB	1 to 4,194,303	12
^TEMP_DISK_PER_STRIPE	integer > 0 in KB	1
TEMP_EXTRACT_APPEND	ON, OFF	OFF
TEMP_EXTRACT_BINARY	ON, OFF	OFF
TEMP_EXTRACT_COLUMN_DELIMITER	string	''
TEMP_EXTRACT_NAME1 - TEMP_EXTRACT_NAME8	string	'' (empty string)
^TEMP_EXTRACT_NULL_AS_EMPTY	ON, OFF	OFF
TEMP_EXTRACT_NULL_AS_ZERO	ON, OFF	OFF
TEMP_EXTRACT_QUOTE	string	'' (empty string)
TEMP_EXTRACT_QUOTES	ON, OFF	OFF
TEMP_EXTRACT_QUOTES_ALL	ON, OFF	OFF
TEMP_EXTRACT_ROW_DELIMITER	string	'' (empty string)
TEMP_EXTRACT_SIZE1 - TEMP_EXTRACT_SIZE8	AIX & HP-UX: 0 – 64 GB, Sun Solaris: 0 – 512 GB, Windows: 0 – 128 GB	0
TEMP_EXTRACT_SWAP	ON, OFF	OFF
TEMP_KB_PER_STRIPE	integer > 0 in KB	1
TEMP_RESERVED_DBSPACE_MB	integer > 0 in MB	200
^TEMP_SPACE_LIMIT_CHECK	ON, OFF	OFF
TIME_FORMAT	string	'HH:NN:ss.SSS'
TIMESTAMP_FORMAT	string	'YYYY-MM-DD HH:NN:ss.SSS'
TRIM_PARTIAL_MBC	ON, OFF	OFF
TRUNCATE_WITH_AUTO_COMMIT	ON, OFF	ON
USER_RESOURCE_RESERVATION	integer	1
VIRTUAL_BACKUP	ON, OFF	OFF
WASH_AREA_BUFFERS_PERCENT	1 to 100	20
WAIT_FOR_COMMIT	ON, OFF	OFF

**IQ 12.6 T-SQL Compatibility Options** (\* = not supported by IQ)

T-SQL Compatibility Option	Values	Default
ALLOW_NULLS_BY_DEFAULT	ON, OFF	ON
ANSI_BLANKS*		
ANSI_CLOSE_CURSORS_ON_ROLLBACK	ON	ON
ANSI_INTEGER_OVERFLOW*		
ANSI_PERMISSIONS	ON, OFF	ON
ANSI_NULL	ON, OFF	ON

ANSI_UPDATE_CONSTRAINTS	OFF, CURSORS, STRICT	CURSORS
^ASE_BINARY_DISPLAY	ON, OFF	ON
AUTOMATIC_TIMESTAMP	OFF	OFF
CHAINED	ON, OFF	ON
CLOSE_ON_ENDTRANS	ON	ON
+CONTINUE_AFTER_RAISEERROR	ON, OFF	ON
CONVERSION_ERROR	ON, OFF	ON
DIVIDE_BY_ZERO_ERROR	ON, OFF	ON
ESCAPE_CHARACTER*	ON	ON
FIRE_TRIGGERS*		
FLOAT_AS_DOUBLE	ON, OFF	OFF
NEAREST_CENTURY	0 to 100	50
NON_KEYWORDS	Comma separated keywords list	No keywords turned off
ON_TSQL_ERROR	STOP, CONTINUE, CONDITIONAL	CONDITIONAL
PERCENT_AS_COMMENT	ON, OFF	ON
QUERY_PLAN_ON_OPEN*		
QUOTED_IDENTIFIER	ON, OFF	ON
RI_TRIGGER_TIME*		
SQL_FLAGGER_ERROR_LEVEL	E, I, F, W	W
SQL_FLAGGER_WARNING_LEVEL	E, I, F, W	W
STRING_TRUNCATION	ON, OFF	OFF
TEXTSIZE*		
TSQL_HEX_CONSTANT	ON, OFF	OFF
TSQL_VARIABLES	ON, OFF	OFF

**IQ 12.6 DBISQL Options** (\* = not supported by IQ)

DBISQL Option	Values	Default
AUTO_COMMIT	ON, OFF	OFF
AUTO_REFETCH	ON, OFF	ON
BELL	ON, OFF	ON
COMMAND_DELIMITER	string	''
COMMIT_ON_EXIT	ON, OFF	ON
^DEFAULT_ISQL_ENCODING	identifier or string	empty string (use system code page)
ECHO	ON, OFF	ON
HEADINGS	ON, OFF	ON
INPUT_FORMAT*		
^ISQL_COMMAND_TIMING	ON, OFF	ON
^ISQL_ESCAPE_CHARACTER	single character	\ (backslash)
^ISQL_FIELD_SEPARATOR	string	, (comma)
ISQL_LOG	file name	''
^ISQL_QUOTE	string	' (single apostrophe)
NULLS	ON, OFF	NULL
ON_ERROR	STOP, CONTINUE, PROMPT, EXIT, NOTIFY_CONTINUE, NOTIFY_STOP, NOTIFY_EXIT	PROMPT
^OUTPUT_FORMAT	ASCII, DBASEII, DBASEIII, EXCEL, FIXED, FOXPRO, HTML, LOTUS, SQL, XML	ASCII
^OUTPUT_LENGTH	integer	0
^OUTPUT_NULLS	string	'NULL'
STATISTICS	0, 3, 4, 5, 6	3
+TRUNCATION_LENGTH	integer	256

**IQ 12.6 Server Properties** ( Use with the function “property” or use sa\_eng\_properties to view all properties )

Server Property	Description
ActiveReq	The number of server threads that are currently handling a request.
AvailIO	Reserved
BuildChange	Reserved
BuildClient	Reserved
BuildProduction	<i>Undocumented</i>
BuildReproducible	Reserved
BytesReceived	The number of bytes received during client/server communications.
^BytesReceivedUncomp	The number of bytes that would have been received during client/server communications if compression was disabled. (This value is the same as the value for BytesReceived if compression is disabled.)
BytesSent	The number of bytes sent during client/server communications.
^BytesSentUncomp	The number of bytes that would have been sent during client/server communications if compression was disabled. (This value is the same as the value for BytesSent if compression is disabled.)
C2	Returns YES if the -sc option was used when the server was started. Otherwise, returns NO.
CacheHitsEng	The number of database page lookups.
^CachePinned	<i>Undocumented</i>
CacheReadEng	<i>Undocumented</i>
CacheReplacements	The number of pages in the cache that have been replaced.
CharSet	The character set in use by the database server.
^CommandLine	The command line that was used to start the server. If the encryption key for a database was specified using the -ek option, the key is replaced with a constant string of asterisks in the value returned by this property. (If you need to specify the encryption key, you can start the database server with the -ep option to be prompted for the key, or use the START DATABASE statement. As well, if the database can be autostarted, the key can be provided in the DBKEY connection parameter.)
^CompactPlatformVer	A condensed version of the PlatformVer property.
CompanyName	The name of the company owning this software.
ConnsDisabled	The number of connections disabled.
^ConsoleLogFile	Returns the name of the file where messages from the database server window are logged if the -o option was specified, otherwise returns an empty string.
CurrentCacheSize	The current cache size, in kilobytes.
DefaultCollation	For IQ databases, a reasonable alternative to the default collation. ISO_BINENG is the default collation for all IQ databases created as of version 12.4.2. This behavior differs from Adaptive Server Anywhere, where the DefaultCollation server property shows the collation that would be used for new databases, if none is explicitly specified.
DiskReadEng	<i>Undocumented</i>
^FipsMode	Returns YES if the -fips option was specified when the database server was started, and NO otherwise. <i>Not output by sa_eng_properties.</i>
FreeBuffers	The number of available network buffers.
^FunctionName	<i>Undocumented</i>
^IdleTimeout	The default idle timeout.
^IsFipsAvailable	Returns YES if the FIPS DLL is installed, and NO otherwise. <i>Not output by sa_eng_properties.</i>
^IsIQ	Returns YES if the server is an IQ server.

Server Property	Description
^IsJavaAvailable	Returns YES if the JavaVM is installed, and NO if the JavaVM is not installed. This property only indicates if the Java VM is available, not whether it is currently being used.
IsNetworkServer	Returns YES if connected to a network database server, and NO if connected to a personal database server.
IsRuntimeServer	Returns YES if connected to the limited desktop runtime database server, and NO otherwise.
JavaGlobFix	Java VM global fixed size.
^JavaObjectsEnabled	<i>Undocumented</i>
Language	The locale language for the server.
LegalCopyright	The copyright string for the software.
LegalTrademarks	Trademark information for the software.
LicenseCount	The number of licensed seats or processors.
LicensedCompany	The name of the licensed company.
LicensedUser	The name of the licensed user.
^LicensesInUse	The number of concurrent users currently connected to the network server, as determined by the number of unique client network addresses connected to the server.
LicenseType	The license type. Can be networked seat (per-seat) or cpu-based.
LivenessTimeout	The client liveness timeout default.
LockedHeapPages	The number of heap pages locked in the cache.
^MachineName	The name or IP address of the computer running a database server.
MainHeapBytes	The number of bytes used for global server data structures.
MainHeapPages	The number of pages used for global server data structures.
^MapPhysicalMemoryEng	<i>Undocumented</i>
MaxCacheSize	The maximum allowed cache size, in kilobytes.
MaxMessage	The current maximum line number that can be retrieved from the server's message window. This represents the most recent message displayed in the server's message window.
+Message, <i>linenumber</i>	A line from the server's message window, prefixed by the date and time the message appeared. The second parameter specifies the line number. The value returned by PROPERTY ( "message" ) is the first line of output that was written to the Server Messages window. Calling PROPERTY ( "message", i ) returns the i-th line of server output (with zero being the first line). The buffer is finite, so as messages are generated, the first lines are dropped and may no longer be available in memory. In this case, NULL is returned.
^MessageText, <i>linenumber</i>	The text associated with the specified line number in the server's message window, without a date and time prefix. The second parameter specifies the line number.
^MessageTime, <i>linenumber</i>	The date and time associated with the specified line number in the server's message window. The second parameter specifies the line number.
^MessageWindowSize	The maximum number of lines that can be retrieved from the server's message window.
MinCacheSize	The minimum allowed cache size, in kilobytes.
MultiPacketsReceived	The number of multi-packet deliveries received during client/server communications.
MultiPacketsSent	The number of multi-packet deliveries sent during client/server communications.
Name	The name of the server.

Server Property	Description
^NativeProcessorArchitecture	On platforms where a processor can be emulated (such as X86 on Win64), returns a string that identifies the native processor type. In all other cases, it returns the same value as <b>PROPERTY ( 'ProcessorArchitecture' )</b> . Values can include : 32-bit Windows (not CE) - X86 ; NetWare - X86 ; Intel Solaris - X86 ; CE - SH3, SH4, MIPS or ARM ; 64-bit Windows - IA64 or AMD64 64-bit ; UNIX - IA64 or AMD64 ; Solaris - SPARC ; AIX - PPC ; MAC OS - PPC ; HP - PA_RISC ; DEC UNIX - ALPHA ; Linux - X86, SPARC, IA64
NumProcessorsAvail	The number of processors on the server.
NumProcessorsMax	The maximum number of processors used. Normally this should be 2 for dbeng.exe and 0 for dbsrv.exe.
^OmnidIdentifier	<i>Undocumented</i>
PacketsReceived	The number of client/server communication packets received.
^PacketsReceivedUncomp	The number of packets that would have been received during client/server communications if compression was disabled. (This value is the same as the value for PacketsReceived if compression is disabled.)
PacketsSent	The number of client/server communication packets sent.
^PacketsSentUncomp	The number of packets that would have been sent during client/server communications if compression was disabled. (This value is the same as the value for PacketsSent if compression is disabled.)
PageSize	The size of the database server cache pages. This can be set using the -gp option, otherwise, it is the maximum database page size of the databases specified on the command line.
PeakCacheSize	The largest value the cache has reached in the current session, in kilobytes.
Platform	The operating system on which the software is running. For example, if you are running on Windows 2000, this property returns Windows2000.
^PlatformVer	The operating system on which the software is running, including build numbers, service packs, etc. For example, it could return Windows 2000 Build 2195 Service Pack 3.
ProcessCPU	CPU usage statistics for the server process. Values are in seconds. This property is supported on Windows NT/2000/XP, Windows 95/98/Me, and UNIX. This property is not supported on Windows CE or NetWare.
ProcessCPUSystem	Process CPU system usage. Values are in seconds. This property is supported on Windows NT/2000/XP, Windows 95/98/Me, and UNIX. This property is not supported on Windows CE or Net-Ware.
ProcessCPUUser	Process CPU user usage. Values are in seconds. This property is supported on Windows NT/2000/XP, Windows 95/98/Me, and UNIX. This property is not supported on Windows CE or Net-Ware.
^ProcessorArchitecture	A string that identifies the processor type. Values can include : 32-bit Windows (not CE) - X86 ; NetWare - X86 ; Intel Solaris - X86 ; CE - SH3, SH4, or ARM ; 64-bit Windows - IA64 or AMD64 64-bit ; UNIX - IA64 or AMD64 ; Solaris - SPARC ; AIX - PPC ; MAC OS - PPC ; HP - PA_RISC ; DEC UNIX - ALPHA
ProductName	The name of the software.
ProductVersion	The version of the software being run.
^ProfileFilterConn	Returns the ID of the connection being monitored if procedure profiling for a specific connection is turned on. Otherwise, returns an empty string. You control procedure profiling by user with the sa_server_option procedure. <i>Not output by sa_eng_properties</i>

Server Property	Description
^ProfileFilterUser	Returns the name of the user being monitored if procedure profiling for a specific user is turned on. Otherwise, returns an empty string. You control procedure profiling by user with the sa_server_option procedure. <i>Not output by sa_eng_properties</i>
QuittingTime	Shutdown time for the server. If none is specified, the value is none.
RememberLastStatement	Returns ON if the server is recording the last statement prepared by each connection, and OFF otherwise.
RemoteputWait	The number of times the communication link has had to wait because it does not have buffers available to send information. This statistic is collected for NetBIOS and IPX protocols only.
Req	The number of times the server has been entered to allow it to handle a new request or continue processing an existing request.
^RequestFilterConn	<i>Undocumented</i>
^RequestFilterDB	<i>Undocumented</i>
RequestLogFile	The name of the request logging file. An empty string is returned if there is no level logging.
+RequestLogging	ALL, SQL, or NONE.
^RequestLogNumFiles	The number of request log files being kept. <i>Not output by sa_eng_properties</i>
^RequestLogMaxSize	<i>Undocumented</i>
SendFail	The number of times that the underlying communications protocols have failed to send a packet.
^StartTime	The date/time that the server started.
^Tempdir	The directory in which temporary files are stored by the server.
^Threads	<i>Undocumented</i>
^TimeZoneAdjustment	The number of minutes that must be added to the Coordinated Universal Time (UTC) to display time local to the server.
TotalBuffers	The total number of network buffers.
UnschReq	The number of requests that are currently queued up waiting for an available server thread.

**IQ 12.6 Database Properties** ( Use with the function “db\_property” or use sa\_db\_properties to view all database properties )

Database Property	Description
Alias	The database name.
^AuditingTypes	<i>Undocumented</i>
BlankPadding	The status of the blank padding feature. Returns ON if the database has blank padding enabled.
^BlobArenas	The status of the BlobArenas feature. Returns ON if the database stores extension (LOB) pages separately from table pages for the database.
CacheHits	The number of database page lookups satisfied by finding the page in the cache.
CacheRead	The number of database pages that have been looked up in the cache.
CacheReadIndInt	The number of index internal-node pages that have been read from the cache.
CacheReadIndLeaf	The number of index leaf pages that have been read from the cache.
CacheReadTable	The number of table pages that have been read from the cache.
^Capabilities	The capability bits enabled for the database. This property is primarily for use by technical support.
CaseSensitive	The status of the case sensitivity feature. Returns ON if the database is case sensitive.
^CaseSensitivePasswords	The status of password case sensitivity. In versions 9.0.0 and later, password case sensitivity is independent of database case sensitivity. Returns ON if database passwords are case sensitive.

Database Property	Description
CharSet	The character set of the database.
^CheckpointLogBitmapPagesWritten	<i>Undocumented</i>
^CheckpointLogBitmapSize	<i>Undocumented</i>
^CheckpointLogCommitToDisk	<i>Undocumented</i>
^CheckpointLogPageInUse	<i>Undocumented</i>
^CheckpointLogPagesRelocated	<i>Undocumented</i>
^CheckpointLogPagesWritten	<i>Undocumented</i>
^CheckpointLogSavePreimage	<i>Undocumented</i>
^CheckpointLogSize	<i>Undocumented</i>
^CheckpointLogWrites	<i>Undocumented</i>
CheckpointUrgency	The time that has elapsed since the last checkpoint, as a percentage of the checkpoint time setting of the database.
^Checksum	Returns ON if database page checksums are enabled for the database.
Chkpt	The number of checkpoints that have been performed.
ChkptFlush	The number of ranges of adjacent pages written out during a checkpoint.
ChkptPage	The number of transaction log checkpoints.
^ClusteredIndexes	<i>Undocumented</i>
Collation	<i>Undocumented</i>
CommitFile	The number of times the server has forced a flush of the disk cache. On Windows and NetWare platforms, the disk cache does not need to be flushed if unbuffered (direct) IO is used.
^CompressedBTrees	Returns ON if Compressed B-tree indexes are supported.
Compression	The compression status of the database. Returns either ON (meaning the database is compressed) or OFF. If a write file is created on a compressed database, the write file is NOT compressed. Starting a write file created on a compressed database and selecting <code>db_property ('compression')</code> , returns OFF.
ConnCount	The number of connections to the database.
^CurrentRedoPos	The current offset in the transaction log file where the next database operation is to be logged.
CurriO	The current number of file I/Os that were issued by the server but have not yet completed.
CurrRead	The current number of file reads that were issued by the server but have not yet completed.
CurrWrite	The current number of file writes that were issued by the server but have not yet completed.
^DBFileFragments	The number of database file fragments. This property is supported on Windows NT/2000/XP.
DiskRead	The number of pages that have been read from disk.
DiskReadIndInt	The number of index internal-node pages that have been read from disk.
DiskReadIndLeaf	The number of index leaf pages that have been read from disk.
DiskReadTable	The number of table pages that have been read from disk.
DiskWrite	The number of modified pages that have been written to disk.

Database Property	Description
^DriveType <i>dbspace</i>	The drive on which the database file is located. Returns CD, FIXED, RAMDISK, REMOTE, REMOVABLE, and UNKNOWN. On UNIX, depending on the version of UNIX and the type of drive, it may not be possible to determine the drive type. In these cases "UNKNOWN" is returned. When used with <code>db_extended_property</code> , you can specify which <i>dbspace</i> you want the size for. <i>dbspace</i> can be either the <i>name</i> of the <i>dbspace</i> or the <i>file_id</i> of the <i>dbspace</i> . Leaving <i>dbspace</i> unspecified or using <i>system</i> both refer to the system <i>dbspace</i> . If the specified <i>dbspace</i> does not exist, the property function returns NULL. If the name of a <i>dbspace</i> is specified and the ID of a database that is not the database of the current connection is also specified, the function also returns NULL.
Encryption	The type of encryption applied to the database. Returns None, Simple, or AES.
^ExprCacheAbandons	<i>Undocumented</i>
^ExprCacheDropsToReadOnly	<i>Undocumented</i>
^ExprCacheEvicts	<i>Undocumented</i>
^ExprCacheHits	<i>Undocumented</i>
^ExprCacheInserts	<i>Undocumented</i>
^ExprCacheLookups	<i>Undocumented</i>
^ExprCacheResumesOfReadWrite	<i>Undocumented</i>
^ExprCacheStarts	<i>Undocumented</i>
ExtendDB	The number of pages by which the database file has been extended.
ExtendTempWrite	The number of pages by which temporary files have been extended.
File	The file name of the database root file, including path.
^FileSize <i>dbspace</i>	When used with <code>db_property</code> , this property returns the file size of the system <i>dbspace</i> , in pages. When used with <code>db_extended_property</code> , you can specify which <i>dbspace</i> you want the size for. <i>dbspace</i> can be either the <i>name</i> of the <i>dbspace</i> , the <i>file_id</i> of the <i>dbspace</i> , or <i>temporary</i> to refer to the temporary <i>dbspace</i> . You can also specify <i>translog</i> to return the size of the log file. Finally, you can specify <i>writefile</i> to refer to the write file. When using a write file, FileSize on a <i>dbspace</i> returns the amount of space in the virtual <i>dbspace</i> , represented by the underlying <i>dbspace</i> plus the modifications to that <i>dbspace</i> that have been stored in the write file. Leaving the <i>dbspace</i> unspecified, or using <i>system</i> , both refer to the system <i>dbspace</i> . If the specified <i>dbspace</i> does not exist, the property function returns NULL. If the name of a <i>dbspace</i> is specified and an id or name of a database which is not the database of the current connection is also specified, the function also returns NULL.
FileVersion	The version of the database file. This does not correspond to a software release version.
^FreePageBitMaps	Returns ON if free database pages are managed via bitmaps.

Database Property	Description
^FreePages dbspace	FreePages is only supported on databases created with version 8.0.0 or later. When used with <b>db_property</b> , this property returns the number of free pages in the system dbspace. When used with <b>db_extended_property</b> , you can specify which dbspace you want the number of free pages for. <i>dbspace</i> can be either the name of the dbspace, the <i>file_id</i> of the dbspace, or <i>temporary</i> to refer to the temporary dbspace. You can also specify <i>translog</i> to return the number of free pages in the log file. Finally, you can specify <i>writefile</i> to refer to the write file. When using a write file, FreePages on a dbspace returns the number of free pages in the virtual dbspace, represented by the underlying dbspace plus the modifications to that dbspace that have been stored in the write file. Leaving the <i>dbspace</i> unspecified, or using <i>system</i> both refer to the system dbspace. If the specified dbspace does not exist, the property function returns null. If the name of a dbspace is specified and an id or name of a database which is not the database of the current connection is also specified, the function also returns null.
FullCompare	The number of comparisons that have been performed beyond the hash value in an index.
GetData	<i>Undocumented</i>
GlobalDBId	The value of the GLOBAL_DATABASE_ID option used to generate unique primary key values in a replication environment.
^HashForcedPartitions	<i>Undocumented</i>
^HashRowsFiltered	<i>Undocumented</i>
^HashRowsPartitioned	<i>Undocumented</i>
^HashWorkTables	<i>Undocumented</i>
^HistogramHashFix	<i>Undocumented</i>
^Histograms	Returns ON if optimizer statistics are maintained as histograms.
IdleCheck	The number of times that the server's idle thread has become active to do idle writes, idle checkpoints, and so on.
IdleChkpt	The number of checkpoints completed by the server's idle thread. An idle checkpoint occurs whenever the idle thread writes out the last dirty page in the cache.
IdleChkTime	The number of 100ths of a second spent checkpointing during idle IO.
IdleWrite	The number of disk writes that have been issued by the server's idle thread.
IndAdd	The number of entries that have been added to indexes.
^IndexStatistics	<i>Undocumented</i>
IndLookup	The number of entries that have been looked up in indexes.
IOToRecover	The estimated number of I/O operations required to recover the database.
IQStore	ON for all IQ databases. <i>Reserved</i>
JavaHeapSize	Heap size per Java VM.
JavaNSSize	Java VM Namespace size.
^JDKVersion	The Java runtime library version used by this database.
Language	Returns a comma-separated list of languages known to be supported by the database collation. The languages are in two-letter ISO format. If the language is not known (usually a custom collation), the return value is NULL.
^LargeProcedureIDs	Returns ON if 32-bit stored procedure IDs are supported for the database.
LockTablePages	The number of pages used to store lock information.
^LogFileFragments	The number of log file fragments. This property is supported on Windows NT/2000/XP.

Database Property	Description
LogFreeCommit	The number of Redo Free Commits. A "Redo Free Commit" occurs when a commit of the transaction log is requested but the log has already been written (so the commit was done for "free").
LogName	The file name of the transaction log, including path.
LogWrite	The number of pages that have been written to the transaction log.
LTMGeneration	The generation number of the LTM or Replication Agent. This property is primarily for use by technical support.
LTMTrunc	The minimal confirmed log offset for the Replication Agent.
MapPages	The number of map pages used for accessing the lock table, frequency table, and table layout.
MaxIO	The maximum value that CurrIO has reached.
MaxRead	The maximum value that CurrRead has reached.
MaxWrite	The maximum value that CurrWrite has reached.
MultiByteCharSet	Returns ON if the database uses a multi-byte character set.
Name	The database name (identical to alias).
^NamedConstraints	<i>Undocumented</i>
PageRelocations	The number of relocatable heap pages that have been read from the temporary file.
PageSize	The page size of the Catalog Store, in bytes.
^PreserveSource	Returns ON if the database preserves the source for procedures and views.
ProcedurePages	The number of relocatable heap pages that have been used for procedures.
^ProcedureProfiling	Returns ON if procedure profiling is turned on for the database.
^QueryBypassed	The number of requests optimized by the optimizer bypass.
^QueryCachedPlans	The number of cached execution plans across all connections.
^QueryCachePages	The number of pages used to cache execution plans.
^QueryJHToJNLOpt Used	<i>Undocumented</i>
^QueryLowMemory Strategy	The number of times the server changed its execution plan during execution as a result of low memory conditions. The strategy can change because less memory is available than the optimizer estimated, or because the execution plan required more memory than the optimizer estimated.
^QueryOptimized	The number of requests fully optimized.
^QueryBypassed	The number of requests reused from the plan cache.
^QueryRowsBuffer Fetch	<i>Undocumented</i>
^QueryRows Materialized	<i>Undocumented</i>
ReadOnly	Returns ON if the database is being run in readonly mode.
RecoveryUrgency	An estimate of the amount of time required to recover the database.
^RecursiveIterations	<i>Undocumented</i>
^RecursiveIterations Hash	<i>Undocumented</i>
^RecursiveIterations Nested	<i>Undocumented</i>
^RecursiveJNLMisses	<i>Undocumented</i>
^RecursiveJNLProbes	<i>Undocumented</i>
RelocatableHeapPages	The number of pages used for relocatable heaps (cursors, statements, procedures, triggers, views, etc.).
RemoteTrunc	The minimal confirmed log offset for the SQL Remote Message Agent.
RollbackLogPages	The number of pages in the rollback log.
^SeparateCheckpoint Log	Returns ON if the checkpoint log for the database is maintained at the end of the SYSTEM dbspace.

Database Property	Description
^SeparateForeignKeys	Returns ON if primary and foreign keys are stored separately.
^SortMergePasses	<i>Undocumented</i>
^SortRowsMaterialized	<i>Undocumented</i>
^SortRunsWritten	<i>Undocumented</i>
^SortSortedRuns	<i>Undocumented</i>
^SortWorkTables	<i>Undocumented</i>
^StringHistogramsFix	<i>Undocumented</i>
SyncTrunc	The minimal confirmed log offset for the MobiLink client dbmlsync executable.
^TableBitMaps	Returns ON if the database supports table bitmaps.
^TablesQualTriggers	<i>Undocumented</i>
^TempFileName	The file name of the database temporary file, including path.
^TempTablePages	The number of pages in the temporary file used for temporary tables.
^TransactionsSpan Logs	Returns ON if transactions can span multiple log files.
TriggerPages	The number of relocatable heap pages used for triggers.
^VariableHashSize	Returns ON if the hash size can be specified for B-tree indexes.
ViewPages	The number of relocatable heap pages used for views.

**IQ 12.6 Connection Properties** ( Usewith the function “connection\_property” or use sa\_conn\_properties / sa\_conn\_properties\_by\_conn / sa\_conn\_properties\_by\_name to view all connection properties )

Connection Property	Description
Abort_On_Error_File	<i>Undocumented</i>
Abort_On_Error_Line	<i>Undocumented</i>
Abort_On_Error_Number	<i>Undocumented</i>
Aggregate_Index_Cutover	<i>Undocumented</i>
Aggregation_Preference	<i>Undocumented</i>
Allow_nulls_by_default	ALLOW_NULLS_BY_DEFAULT option [compatibility]
Ansi_blanks	ANSI_BLANKS option [compatibility]
Ansi_close_cursors_on_rollback	ANSI_CLOSE_CURSORS_ON_ROLLBACK option [compatibility]
Ansi_integer_overflow	ANSI_INTEGER_OVERFLOW option [compatibility]
Ansi_permissions	ANSI_PERMISSIONS option [compatibility]
Ansi_update_constraints	ANSI_UPDATE_CONSTRAINTS option [compatibility]
Ansinull	ANSINULL option [compatibility]
Append_Load	<i>Undocumented</i>
ApplInfo	Returns information about the client that made the connection. For HTTP connections, this includes information about the browser. For connections using older versions of jConnect or Open Client, the information may be incomplete. The API value can be DBLIB, ODBC, OLEDB, or ADO.NET.
Ase_Binary_Display	<i>Undocumented</i>
Attention_Limit	<i>Undocumented</i>
Auditing	AUDITING option [database]
^Auditing_options	<i>Undocumented</i>
^AuditingTypes	The types of auditing currently enabled. AUDITING option [database]
Automatic_timestamp	AUTOMATIC_TIMESTAMP option [compatibility]
Background_priority	BACKGROUND_PRIORITY option [database]
Backup_Exec_Cmd	<i>Undocumented</i>
Backup_Free_Space	<i>Undocumented</i>
Bit_Vector_Pinnable_Cache_Percent	<i>Undocumented</i>
BITMAP_Options1	<i>Undocumented</i>
Bitmap_Percent_Factor	<i>Undocumented</i>

Connection Property	Description
BlockedOn	If the current connection is not blocked, this is zero. If it is blocked, the connection number on which the connection is blocked due to a locking conflict.
Blocking	BLOCKING option [database]
^Blocking_timeout	BLOCKING_TIMEOUT option [database]
^Blockmap_Prefetch_Size	<i>Undocumented</i>
^BT_Prefetch_Max_Miss	<i>Undocumented</i>
BT_Prefetch_Size	<i>Undocumented</i>
Buffer_Cache_Wash_Intensity	<i>Undocumented</i>
^BytesReceived	The number of bytes received during client/server communications.
^BytesReceivedUncomp	The number of bytes that would have been received during client/server communications if compression was disabled. (This value is the same as the value for BytesReceived if compression is disabled.)
^BytesSent	The number of bytes sent during client/server communications.
^BytesSentUncomp	The number of bytes that would have been sent during client/server communications if compression was disabled. (This value is the same as the value for BytesSent if compression is disabled.)
Cache_Partitions	<i>Undocumented</i>
CacheHits	The number of successful reads of the cache.
CacheRead	The number of database pages that have been looked up in the cache.
CacheReadIndInt	The number of index internal-node pages that have been read from the cache.
CacheReadIndLeaf	The number of index leaf pages that have been read from the cache.
CacheReadTable	The number of table pages that have been read from the cache.
Chained	CHAINED option [compatibility]
CharSet	The character set used by the connection.
Check_Alias_Enabled	<i>Undocumented</i>
Checkpoint_time	CHECKPOINT_TIME option [database]
Cis_option	CIS_OPTION option [database]
Cis_rowset_size	Reserved
+ClientLibrary	Returns <b>jConnect</b> for jConnect connections; <b>CT_Library</b> for Open Client connections; <b>None</b> for HTTP connections, and <b>CmdSeq</b> for ODBC, embedded SQL, OLE DB, ADO.NET, and iAnywhere JDBC driver connections.
^ClientPort	Returns the client's TCP/IP port number or 0 if the connection is not a TCP/IP connection.
Close_on_endtrans	CLOSE_ON_ENDTRANS option [compatibility]
Command_Stats	<i>Undocumented</i>
Command_Stats_Verbosity	<i>Undocumented</i>
Commit	The number of Commit requests that have been handled.
CommLink	The communication link for the connection. This is one of the network protocols supported by IQ / ASA, or is "local" for a same-machine connection.
^CommNetworkLink	The communication link for the connection. This is one of the network protocols supported by Adaptive Server Anywhere. Values can include SharedMemory, TCPIP, SPX, or NamedPipes. The CommLinkNetwork property always returns the name of the link, regardless of whether it is same-machine or not.
+CommProtocol	Returns <b>TDS</b> for Open Client and jConnect connections, <b>HTTP</b> for HTTP connections, and <b>CmdSeq</b> for OLE DB, ADO.NET and iAnywhere JDBC driver connections.
^Compression	Returns ON or OFF to indicate whether communication compression is enabled on the connection.

Connection Property	Description
Connection_authentication	A string used to authenticate the client. Authentication is required before the database can be modified.
Continue_after_raiserror	CONTINUE_AFTER_RAISERROR option [compatibility]
Conversion_error	CONVERSION_ERROR option [compatibility]
Convert_HG_To_1242	Undocumented
Convert_Varchar_To_1242	Undocumented
Cooperative_commit_timeout	COOPERATIVE_COMMIT_TIMEOUT option [database]
Cooperative_commits	COOPERATIVE_COMMITS option [database]
CORE_Options1	Undocumented
+CORE_Options3 → 18	Undocumented
^CurrentProcedure	Undocumented
Cursor	The number of declared cursors that are currently being maintained by the server.
Cursor_Window_Rows	Undocumented
CursorOpen	The number of open cursors that are currently being maintained by the server.
Database_authentication	A string used to authenticate the database. Authentication is required before the database can be modified.
Date_First_Day_Of_Week	Undocumented
Date_format	DATE_FORMAT option [compatibility]
Date_order	DATE_FORMAT option [compatibility]
Dbcc_Log_Block_Numbers	Undocumented
^Dbcc_Log_Progress	Undocumented
DBCC_Pinnable_Cache_Percent	Undocumented
DBNumber	The ID number of the database.
DDL_Information	Undocumented
DDL_Options2	Undocumented
^Debug_messages	DEBUG_MESSAGES option [database]
^Dedicated_task	DEDICATED_TASK option [database]
^Default_Having_Selectivity	Undocumented
Default_Like_Match_Selectivity	Undocumented
Default_Like_Range_Selectivity	Undocumented
Default_timestamp_increment	DEFAULT_TIMESTAMP_INCREMENT option [database]
Delayed_commit_timeout	DELAYED_COMMIT_TIMEOUT option [database]
Delayed_commits	DELAYED_COMMITS option [database]
Disable_RI_Check	Undocumented
Disk_Striping	Undocumented
Disk_Striping_Packed	Undocumented
DiskRead	The number of pages that have been read from disk.
DiskReadIndInt	The number of index internal-node pages that have been read from disk.
DiskReadIndLeaf	The number of index leaf pages that have been read from disk.
DiskReadTable	The number of table pages that have been read from disk.
DiskWrite	The number of modified pages that have been written to disk.
Divide_by_zero_error	DIVIDE_BY_ZERO_ERROR option [compatibility]
DmContext_Display_Limit	Undocumented
DML_Options1 → 8	Undocumented
DML_Options10 → 31	Undocumented
+DML_Options 33 → 40	Undocumented
^Early_Predicate_Execution	Undocumented
Early_Resource_Release	Undocumented
^Encryption	Encryption connection parameter [ENC]

Connection Property	Description
Escape_character	ESCAPE_CHARACTER option [compatibility]
EventName	The name of the associated event if the connection is running an event handler. Otherwise, the result is NULL.
Exchange_Enabled	Undocumented
Exchange_Unit_Size	Undocumented
^Exclude_operators	EXCLUDE_OPERATORS option [database]
^ExprCacheAbandons	Undocumented
^ExprCacheDropsToReadOnly	Undocumented
^ExprCacheEvicts	Undocumented
^ExprCacheHits	Undocumented
^ExprCacheInserts	Undocumented
^ExprCacheLookups	Undocumented
^ExprCacheResumesOfReadWrite	Undocumented
^ExprCacheStarts	Undocumented
Extended_join_syntax	EXTENDED_JOIN_SYNTAX option [database]
Fire_triggers	FIRE_TRIGGERS option [compatibility]
First_day_of_week	FIRST_DAY_OF_WEEK option [database]
Flatten_Subqueries	Undocumented
Float_as_double	FLOAT_AS_DOUBLE option [compatibility]
^For_xml_null_treatment	FOR_XML_NULL_TREATMENT option [database]
Force_Drop	Undocumented
Force_Fixed_Width_Numerics	Undocumented
Force_No_Scroll_Cursors	Undocumented
^Force_Updatable_Cursors	Undocumented
^Force_view_creation	FORCE_VIEW_CREATION option [database]
^FP_LOB_Workunit_MBSize	Undocumented
FP_Lookup_Distinct_Check	Undocumented
FP_Lookup_Distinct_Ratio	Undocumented
FP_Lookup_Size	Undocumented
FP_Predicate_Workunit_Pages	Undocumented
FP_Prefetch_Size	Undocumented
^FPL_Expression_Memory_KB	Undocumented
FullCompare	The number of comparisons that have been performed beyond the hash value in an index.
Garray_Fill_Factor_Percent	Undocumented
Garray_Insert_Prefetch_Size	Undocumented
Garray_Page_Split_Pad_Percent	Undocumented
Garray_RO_Prefetch_Size	Undocumented
GetData	Undocumented
Give_Error_On_Control_C	Undocumented
Global_database_id	GLOBAL_DATABASE_ID option [database]
Hash_Pinnable_Cache_Percent	Undocumented
Hash_Thrashing_Percent	Undocumented
^HashForcedPartitions	Undocumented
^HashRowsFiltered	Undocumented
^HashRowsPartitioned	Undocumented
^HashWorkTables	Undocumented
HG_Delete_Method	Undocumented
HG_Search_Range	Undocumented
Hos_MemCheck	Undocumented
Hpux_PBO_Shutdown	Undocumented
^identity_enforce_uniqueness	Undocumented
^identity_insert	Undocumented

Connection Property	Description
^IdleTimeout	The idle timeout value of the connection.
IN_Subquery_Preference	<i>Undocumented</i>
IndAdd	The number of entries that have been added to indexes.
^Index_Advisor	<i>Undocumented</i>
Index_Preference	<i>Undocumented</i>
IndLookup	The number of entries that have been looked up in indexes.
Infer_Subquery_Predicates	<i>Undocumented</i>
Initialize_Memory_To_Ones_On_Allocation	<i>Undocumented</i>
IQ_Exerciser_param_file	<i>Undocumented</i>
^IQ_Utility_Prefetch_Size	<i>Undocumented</i>
^IQgovern_Max_priority	<i>Undocumented</i>
^IQgovern_priority	<i>Undocumented</i>
^IQgovern_priority_time	<i>Undocumented</i>
IQMSG_Length_MB	<i>Undocumented</i>
Isolation_level	ISOLATION_LEVEL option [compatibility]
Java_heap_size	JAVA_HEAP_SIZE option [database]
Java_input_output	JAVA_INPUT_OUTPUT option [database]
Java_namespace_size	JAVA_NAMESPACE_SIZE option [database]
Java_page_buffer_size	The page buffer size used by the Java VM
JavaHeapSize	The heap size per Java VM.
Join_Expansion_Factor	<i>Undocumented</i>
Join_Optimization	<i>Undocumented</i>
Join_Preference	<i>Undocumented</i>
Join_Simplification_Threshold	<i>Undocumented</i>
Language	The locale language
Large_Doubles_Accumulator	<i>Undocumented</i>
LastIdle	The number of ticks between requests.
LastReqTime	The time at which the last request for the specified connection started.
LastStatement	The most recently prepared SQL statement for the current connection.
LF_Bitmap_Cache_KB	<i>Undocumented</i>
^LivenessTimeout	The liveness timeout period for the current connection.
Load_Memory_MB	<i>Undocumented</i>
^LOB_Prefetch_Size	<i>Undocumented</i>
^Local_KB_Per_Stripe	<i>Undocumented</i>
^Local_Reserved_DBSpace_MB	<i>Undocumented</i>
^Lock_rejected_rows	<i>Undocumented</i>
Lock_rejected_rows	Reserved
LockName	A 64-bit unsigned integer value representing the lock for which a connection is waiting.
Log_Connect	<i>Undocumented</i>
Log_Cursor_Operations	<i>Undocumented</i>
^Log_detailed_plans	<i>Undocumented</i>
^Log_max_requests	<i>Undocumented</i>
^Log_deadlocks	LOG_DEADLOCKS option [database]. <i>Not output by sa_conn_properties</i>
LogFreeCommit	The number of Redo Free Commits. A "Redo Free Commit" occurs when a commit of the transaction log is requested but the log has already been written (so the commit was done for "free").
Login_mode	LOGIN_MODE option [database]
Login_procedure	LOGIN_PROCEDURE option [database]
^LoginTime	The date and time the connection was established. <i>Not output by sa_conn_properties</i>
LogWrite	The number of pages that have been written to the transaction log.
Main_Cache_Memory_MB	<i>Undocumented</i>
^Main_KB_Per_Stripe	<i>Undocumented</i>

Connection Property	Description
Main_Reserved_DBSpace_MB	<i>Undocumented</i>
Max_Cartesian_Result	<i>Undocumented</i>
^Max_Client_Numeric_Precision	<i>Undocumented</i>
^Max_Client_Numeric_Scale	<i>Undocumented</i>
Max_Cube_Result	<i>Undocumented</i>
Max_cursor_count	MAX_CURSOR_COUNT option [database]
Max_Hash_Rows	<i>Undocumented</i>
Max_hash_size	<i>Undocumented</i>
Max_IQ_Threads_Per_Connection	<i>Undocumented</i>
Max_IQ_Threads_Per_Team	<i>Undocumented</i>
Max_Join_Enumeration	<i>Undocumented</i>
Max_plans_cached	MAX_PLANS_CACHED option [database]
Max_Query_Parallelism	<i>Undocumented</i>
^Max_Query_Time	<i>Undocumented</i>
^Max_recursive_iterations	MAX_RECURSIVE_ITERATIONS option [database]
Max_Spinlock_Loop	<i>Undocumented</i>
Max_statement_count	MAX_STATEMENT_COUNT option [database]
Max_Threads	<i>Undocumented</i>
Max_Warnings	<i>Undocumented</i>
Max_work_table_hash_size	<i>Undocumented</i>
Memory_Leaks_Visible	<i>Undocumented</i>
Memory_Snapshot_First	<i>Undocumented</i>
Memory_Snapshot_Increment	<i>Undocumented</i>
^MessageReceived	The string that was generated by the MESSAGE statement that caused the WAITFOR statement to be interrupted. Otherwise, an empty string is returned. <i>Not output by sa_conn_properties</i>
Min_NLPDJ_Table_Size	<i>Undocumented</i>
Min_password_length	MIN_PASSWORD_LENGTH option [option]
Min_SMPDJ_or_HPDI_Filtered_Size	<i>Undocumented</i>
Min_SMPDJ_or_HPDI_Indirect_Size	<i>Undocumented</i>
Min_SMPDJ_or_HPDI_Table_Size	<i>Undocumented</i>
^Min_table_size_for_histogram	<i>Undocumented</i>
Minimize_Storage	<i>Undocumented</i>
^Monitor_Output_Directory	<i>Undocumented</i>
Mutex_Trigger_Percent	<i>Undocumented</i>
Mutex_Trigger_Threshold	<i>Undocumented</i>
Mutex_Trigger_Try_Ratio_Threshold	<i>Undocumented</i>
N_Emerg_Buffers	<i>Undocumented</i>
Name	The name of the server.
Nearest_century	NEAREST_CENTURY option [compatibility]
No_Row_Reject	<i>Undocumented</i>
NodeAddress	The node for the client in a client/server connection. When the client and server are both on the same machine, an empty string is returned.
NoExec	<i>Undocumented</i>
Non_Ansi_Null_varchar	NON_ANSI_NULL_VARCHAR option
Non_keywords	NON_KEYWORDS option [compatibility]
Notify_Modulus	<i>Undocumented</i>
Number	The ID number of the connection.
Numeric_Overflow_Error	<i>Undocumented</i>

Connection Property	Description
^ODBC_describe_binary_as_varbinary	ODBC_DESCRIBE_BINARY_AS_VARBINARY option [database]. <i>Not output by sa_conn_properties</i>
^ODBC_distinguish_char_and_varchar	ODBC_DISTINGUISH_CHAR_AND_VARCHAR option [database]
^On_charset_conversion_failure	ON_CHARSET_CONVERSION_FAILURE option [database]
On_tsq_error	ON_TSQL_ERROR option [compatibility]
^Optimistic_wait_for_commit	OPTIMISTIC_WAIT_FOR_COMMIT option [compatibility]
Optimization_goal	OPTIMIZATION_GOAL option [database]
Optimization_level	Reserved
^Optimization_logging	<i>Undocumented</i>
^Optimization_workload	OPTIMIZATION_WORKLOAD option [database]
OS_File_Cache_Buffering	<i>Undocumented</i>
OS_Option_Crash	<i>Undocumented</i>
OS_Options2	<i>Undocumented</i>
Out_Of_Disk_Message_Repeat	<i>Undocumented</i>
Out_Of_Disk_Wait_Time	<i>Undocumented</i>
^PacketSize	The packet size used by the connection, in bytes.
^PacketsReceived	The number of client/server communication packets received.
^PacketsReceivedUncomp	The number of packets that would have been received during client/server communications if compression was disabled. (This value is the same as the value for PacketsReceived if compression is disabled.)
^PacketsSent	The number of client/server communication packets sent.
^PacketsSentUncomp	The number of packets that would have been sent during client/server communications if compression was disabled. (This value is the same as the value for PacketsSent if compression is disabled.)
Parallel_GBH_Enabled	<i>Undocumented</i>
^Parallel_GBH_Min_Rows_Per_Unit	<i>Undocumented</i>
Parallel_GBH_Units	<i>Undocumented</i>
Percent_as_comment	PERCENT_AS_COMMENT option [compatibility]
^Pinned_cursor_percent_of_cache	PINNED_CURSOR_PERCENT_OF_CACHE option [database]
Precision	PRECISION option [database]
Prefetch	PREFETCH option [database]
Prefetch_Buffer_Limit	<i>Undocumented</i>
Prefetch_Buffer_Percent	<i>Undocumented</i>
Prefetch_FP_Percent	<i>Undocumented</i>
Prefetch_Garray_Percent	<i>Undocumented</i>
^Prefetch_LOB_Percent	<i>Undocumented</i>
Prefetch_Sort_Percent	<i>Undocumented</i>
Prefetch_Threads_Percent	<i>Undocumented</i>
Prepares	The number of statement preparations carried out.
PrepStmt	The number of prepared statements currently being maintained by the server.
^Preserve_source_format	PRESERVE_SOURCE_FORMAT option [database]
^Prevent_article_pkey_update	PREVENT_ARTICLE_PKEY_UPDATE option [database]
Query_Detail	<i>Undocumented</i>
Query_Name	<i>Undocumented</i>
Query_Plan	<i>Undocumented</i>
Query_Plan_After_Run	<i>Undocumented</i>
Query_Plan_As_HTML	<i>Undocumented</i>
^Query_Plan_As_HTML_Directory	<i>Undocumented</i>
Query_plan_on_open	QUERY_PLAN_ON_OPEN option [compatibility]

Connection Property	Description
Query_Rows_Returned_Limit	<i>Undocumented</i>
Query_Temp_Space_Limit	<i>Undocumented</i>
Query_Timing	<i>Undocumented</i>
^QueryBypassed	The number of requests optimized by the optimizer bypass.
^QueryCachedPlans	The number of query execution plans currently cached for the connection.
^QueryCachePages	The number of pages used to cache execution plans.
^QueryJHToJNLOptUsed	<i>Undocumented</i>
^QueryLowMemoryStrategy	The number of times the server changed its execution plan during execution as a result of low memory conditions. The strategy can change because less memory is available than the optimizer estimated, or because the execution plan required more memory than the optimizer estimated.
^QueryOptimized	The number of requests that have been fully optimized.
^QueryReused	The number of requests that have been reused from the plan cache.
^QueryRowsBufferFetch	<i>Undocumented</i>
^QueryRowsMaterialized	<i>Undocumented</i>
Quoted_identifier	QUOTED_IDENTIFIER option [compatibility]
^Read_past_deleted	READ_PAST_DELETED option [database]
Recovery_time	RECOVERY_TIME option [database]
^RecursiveIterations	<i>Undocumented</i>
^RecursiveIterationsHash	<i>Undocumented</i>
^RecursiveIterationsNested	<i>Undocumented</i>
^RecursiveJNLMisses	<i>Undocumented</i>
^RecursiveJNLProbes	<i>Undocumented</i>
^Remote_idle_timeout	REMOTE_IDLE_TIMEOUT option [database]. <i>Not output by sa_conn_properties</i>
Replicate_all	REPLICATE_ALL option [replication]
ReqType	A string for the type of the last request.
Return_date_time_as_string	RETURN_DATE_TIME_AS_STRING option [database]
Return_java_as_string	<i>Undocumented</i>
RI_Trigger_time	RI_TRIGGER_TIME option [compatibility]
Rlbk	The number of Rollback requests that have been handled.
RollbackLogPages	The number of pages in the rollback log.
Row_Count	<i>Undocumented</i>
Row_counts	ROW_COUNTS option [database]
ROW_Prefetch_Size	<i>Undocumented</i>
Scale	SCALE option [database]
^Secondary_File_Error	<i>Undocumented</i>
^ServerPort	Returns the server's TCP/IP port number or 0.
SignificantDigitsForDoubleEquality	<i>Undocumented</i>
^Sort_collation	SORT_COLLATION option [database]
Sort_Phase1_Helpers	<i>Undocumented</i>
Sort_Pinnable_Cache_Percent	<i>Undocumented</i>
^SortMergePasses	<i>Undocumented</i>
^SortRowsMaterialized	<i>Undocumented</i>
^SortRunsWritten	<i>Undocumented</i>
^SortSortedRuns	<i>Undocumented</i>
^SortWorkTables	<i>Undocumented</i>
SQL_flagger_error_level	SQL_FLAGGER_ERROR_LEVEL option [compatibility]
SQL_flagger_warning_level	SQL_FLAGGER_WARNING_LEVEL option [compatibility]
Stats_Condition_Variables	<i>Undocumented</i>
Stats_Mutexes	<i>Undocumented</i>

Connection Property	Description
Stats_Recursive_Mutexes	<i>Undocumented</i>
Stats_Recursive_RW_Locks	<i>Undocumented</i>
Stats_RW_Locks	<i>Undocumented</i>
Stats_Semaphores	<i>Undocumented</i>
Stats_Spinlocks	<i>Undocumented</i>
Stats_Threads	<i>Undocumented</i>
String_rtruncation	STRING_RTRUNCATION option [compatibility]
^Subquery_Placement_Preference	<i>Undocumented</i>
^Subsume_row_locks	SUBSUME_ROW_LOCKS option [database]
^Suppress_TDS_debugging	SUPPRESS_TDS_DEBUGGING option [database]
Sweeper_Threads_Percent	<i>Undocumented</i>
TDS_Empty_string_is_null	TDS_EMPTY_STRING_IS_NULL option [database]
Temp_Cache_Memory_MB	<i>Undocumented</i>
Temp_Extract_Append	<i>Undocumented</i>
Temp_Extract_Binary	<i>Undocumented</i>
Temp_Extract_Column_Delimiter	<i>Undocumented</i>
^Temp_Extract_Directory	<i>Undocumented</i>
Temp_Extract_Name1 → 8	<i>Undocumented</i>
Temp_Extract_Null_As_Empty	<i>Undocumented</i>
Temp_Extract_Null_As_Zero	<i>Undocumented</i>
Temp_Extract_Quote	<i>Undocumented</i>
Temp_Extract_Quotes	<i>Undocumented</i>
Temp_Extract_Quotes_All	<i>Undocumented</i>
Temp_Extract_Row_Delimiter	<i>Undocumented</i>
Temp_Extract_Size1 → 8	<i>Undocumented</i>
Temp_Extract_Swap	<i>Undocumented</i>
^Temp_KB_Per_Stripe	<i>Undocumented</i>
Temp_Reserved_DBSpace_MB	<i>Undocumented</i>
^Temp_space_limit_check	TEMP_SPACE_LIMIT_CHECK option [database]
^TempFilePages	<i>Undocumented</i>
^TempTablePages	The number of pages in the temporary file used for temporary tables.
Test_Attention_Location	<i>Undocumented</i>
Thread_count	THREAD_COUNT option
Thread_stack	Thread stack size
Thread_Stacksize_KB	<i>Undocumented</i>
Thread_swaps	Reserved
ThreadMgr_Silence	<i>Undocumented</i>
ThreadMgr_SpecialPool	<i>Undocumented</i>
Time_format	TIME_FORMAT option [compatibility]
^Time_zone_adjustment	<i>Undocumented</i>
Timestamp_format	TIMESTAMP_FORMAT option [compatibility]
^TimeZoneAdjustment	The number of minutes that must be added to the Coordinated Universal Time (UTC) to display time local to the connection. By default, the value is set according to the client's time zone.
^TransactionStartTime	A string containing the time the database was first modified after a COMMIT or ROLLBACK, or an empty string if no modifications have been made to the database since the last COMMIT or ROLLBACK.
Trim_Partial_MBC	<i>Undocumented</i>
Truncate_date_values	TRUNCATE_DATE_VALUES option [database] (deprecated)
Truncate_timestamp_values	TRUNCATE_TIMESTAMP_VALUES option [database]
Truncate_with_auto_commit	TRUNCATE_WITH_AUTO_COMMIT option [database]

Connection Property	Description
Tsql_hex_constant	TSQL_HEX_CONSTANT option [compatibility]
Tsql_variables	TSQL_VARIABLES option [compatibility]
UncommitOp	The number of uncommitted operations
Unicode_Collation_Name	<i>Undocumented</i>
^Update_statistics	<i>Undocumented</i>
Upgrade_database_capability	<i>Undocumented</i>
^User_estimates	USER_ESTIMATES option [database]
User_Resource_Reservation	<i>Undocumented</i>
^UserAppInfo	The string specified by the AppInfo connection parameter in a connection string.
Userid	The user ID for the connection.
UtilCmdsPermitted	Returns ON or OFF to indicate whether utility commands such as CREATE DATABASE, DROP DATABASE, and RESTORE DATABASE are permitted for the connection.
Virtual_Backup	<i>Undocumented</i>
Wait_for_commit	WAIT_FOR_COMMIT option [database]
Wash_Area_Buffers_Percent	<i>Undocumented</i>

**Starting IQ 12.6**

start\_asiq -n server-name [ server-options ] [ database-file [ database-options ] ]

**IQ 12.6 Start Server Options**

Server Option	Description
@filename	Read in options from configuration file
@envvar	Read in options from environment variable
-c cache-size	Set initial Catalog Store cache size.
-ca 0	Disable dynamic Catalog Store cache sizing
-ch cache-size	Set Catalog Store cache size upper limit (not recommended)
-cl cache-size	Set the cache size lower limit (not recommended)
+ -ct { +   - }	Enable character-set translation (enabled by default)
^ -cw	Enable use of Address Windowing Extensions on Windows 2000, Windows XP, and Windows Server 2003 for setting the size of the database server cache.
^ -ec encryption-options	Enable packet encryption [network server].
^ -ek key-spec	Starts an encrypted database, when key value is provided as an argument.
^ -ep	(Windows) Displays a dialog box that prompts you for an encryption key to start an encrypted database. Provides extra security by never allowing the encryption key to be seen in clear text.
-ga	Automatically unload database after last connection closed
-gb level	Set database process priority class to level [Windows]
-gc num	Set checkpoint timeout period to num minutes
-gd level	Set the permission required to start and stop databases
-ge size	Sets the stack size for threads that run external functions [Windows]
-gk level	Set the permission required to stop the server
-gl level	Set the permission required to load data
-gm num	Limit the number of connections to the server that can be active at one time. If this number is greater than the number that is allowed under licensing constraints, it has no effect. The value should approximate the number of users expected to connect to the server. The default is 10 connections.
-gn num	Set the number of execution threads that will be used for the Catalog Store and connectivity while running with multiple users.
-gp size	Set maximum page size to size bytes
-gr num	Set maximum recovery time to num minutes
-gu level	Utility commands permission level: <b>utility_db, all, none, dba</b>
-h or ?	Display usage information
-iqgovern num	Specify the number of concurrent queries

Server Option	Description
-iqlocalreplay { all   none   [ grants   procedures   views ] ... }	Specify what gets recreated during TLV log replay from the local store after IQ server synchronization. The default is <b>-iqlocalreplay all</b> .
-iqmc size	Specify the main cache size in MB. (Overrides default.)
+ -iqmpx_ov 1	For use starting multiplex databases only. Starts the server with override to acknowledge that the write server is starting (1) on a different host, (2) with a different server name, or (3) using a different path to its catalog (.db) file. Do not start two write servers against the same database.
-iqmpx_sn 1	For use starting multiplex databases only. Starts the write server in single-node operating mode, for certain types of recovery.
-iqmt num	Specify the number of threads that IQ can use on a multi-threaded system. The default is 60*numCPU+2*num_conn+1. The minimum value is 2*num_conn+1.
^ -iqnumbercpus num	Override the number of physical CPUs with the number available to IQ
-iqpartition num	Specify number of partitions in main and temp buffer caches (power of 2)
-iqtc size	Specify temporary cache size in MB. (Overrides default.)
-iqtss size	Specify the thread stack size in KB.
-iqwmem size	Specify the size in MB of a special memory pool that cannot be paged for HP and Sun UNIX platforms
-m	Truncate transaction log after checkpoint
-n name	Use name as the name of the database server. Note : There are two -n options. The -n option is positional. If it appears after a database file name, it has a different meaning.
-o filename	Output server messages to the specified file
-os size	Specify maximum size of file for server messages
-p packet-size	Set maximum network packet size
^ -qi	Control whether database server tray icon and window appear [Windows]
^ -qp	Do not display messages about performance in the database server window
^ -qs	Suppress startup error dialogs [Windows]
^ -qw	Do not display database server screen
-s	Set the syslog facility ID (none, user, daemon, local0, ..., local7) [UNIX]
^ -sb { 0   1 }	Specify how the server reacts to broadcasts on TCP/IP
+ -ti min	Client idle time before shutdown : default 4400 minutes
-tl sec	Default liveness timeout for clients in seconds : default is 120 seconds
-tq time	Set quitting time
-ud	Run as a daemon [UNIX] (not recommended for IQ)
-ut min	Touch temporary files every min minutes [UNIX]
+ -v or -v2	Display database server version and stop
-x list	Comma separated list of communication links to try
^ -xs comm-protocol	Specify server side web services communications protocols.
-z	Provide diagnostic information on communication links
^ -zl	Capture most recently-prepared SQL statement for each connection to a database on the server
-zo	Specify file for logging server requests
-zr level	Enable server request-level logging
-zs { integer   integerG   integerK   integerM }	Specify maximum size of file for server request logging

**IQ 12.6 Start Database Options**

Database Option	Description
-m	Truncate transaction log after checkpoint
-n name	Name the database. Note : There are two -n options. The -n option is positional. If it appears after a database file name, it is a database option. Otherwise, it is a server option.

**IQ 12.6 Start Multiplex Options**

Multiplex Option	Description
-iqmpx_ov 1	For use starting multiplex databases only. Starts the server with override to acknowledge that the write server is starting (1) on a different host, (2) with a different server name, or (3) using a different path to its catalog (.db) file. Do not start two write servers against the same database.
-iqmpx_sn 1	For use starting multiplex databases only. Starts the write server in single-node operating mode, for certain types of recovery. Query server(s) cannot run while the write server is in single-node mode.

**IQ 12.6 Recommended dbremote Options for Multiplex Servers**

Option	Description
-iqmpx_ov 1	Closes window when finished
-o output_filename	Specifies an output file
-q	Runs minimized
-v	Specifies verbose output

**IQ 12.6 Start Options for Recovery**

Recovery Option	Description
-iqdropiks dbname	Allow the sp_iqcheckdb stored procedure to recover leaked storage within the specified database.
-iqfrec dbname	Mark the specified database as in use and restore database to its last known consistent state.

**IQ 12.6 Database Administration Utilities**

- CP874toUTF8 [ CP874InputFile ]
- dbcollat [ options ] output-file
- dbinfo [ options ]
- dbisql [ options ] [ dbisql-command | command-file ]
- dbisqlc [ options ] [ dbisqlc-command | command-file ]
- dblocate [ options ]
- dblog [ options ] database-file
- dbping [ options ]
- dbstop [ options ] server-name
- ^ dbtran [ options ] transaction-log [ SQL file ]
- dbvalid [ options ] [ object-name, ... ]
- ^ iqdsn [ modifier-options ]
  - { -i [ u ] [ s ] [ qq ]
  - | -d [ u ] [ s ] dsn
  - | -g [ u ] [ s ] dsn
  - | -w [ u ] [ s ] dsn [ details-options; ... ]
  - | -cl [ qq ] }
- sqlpp [ options ] sql-filename [ output-filename ]

**IQ 12.6 Connection Parameters**

Connection Parameter	Code	Usage	Default
AppInfo	App	Anywhere	Empty string
AutoPreCommit	AutoPreCommit	ODBC	NO
AutoStart	Astart	Anywhere	YES
AutoStop	Astop	Embedded databases	YES
CharSet	CS	Anywhere	Locale character set
+CommBufferSize	CBSize	Anywhere	1460 bytes
CommLinks	Links	Anywhere	Use only the shared memory communications link to connect
ConnectionName	CON	Not available for ODBC	No connection name
DatabaseFile	DBF	Embedded databases	None
DatabaseName	DBN	Running network servers	None
DatabaseSwitches	DBS	Connecting to a server when the database is not loaded.	No switches
DataSourceName	DSN	Anywhere	None
^DBKEY	DBKEY	On database startup	Databases are not encrypted
DisableMultiRowFetch	DMRF	Anywhere	NO
EngineName	ENG	Network servers	The default local database server
EncryptedPassword	ENP	Anywhere	None
Encryption	ENC	Varies	No encryption
FileDataSourceName	FileDSN	Anywhere	None
^Idle	IDLE	Varies	Value of -ti
Integrated	INT	Anywhere	NO
^Language	LANG	Anywhere	As specified in ASLANG variable or the installer
^LazyClose	LCLOSE	Anywhere	NO
LivenessTimeout	LTO	Network server on TCP/IP	120 seconds
LogFile	LOG	Anywhere	No log file
Password	PWD	Anywhere	No password provided
+PrefetchBuffer	PBUF	Anywhere	64 (KB)
PrefetchRows	PROWS	Anywhere	10
ServerName	ENG	Network servers	The default local database server
StartLine	START	Embedded databases	No StartLine parameter
Unconditional	UNC	Anywhere	NO
Userid	UID	Anywhere	None

**IQ 12.6 Network Communications Parameters**

N/W Parameter	Code	Usage	Default
^Broadcast	BCAST	TCP/IP	All address on the same subnet
^Broadcast Listener	BLISTENER	TCP/IP (Server side)	YES
^Certificate		HTTP, HTTPS	None
^Certificate_Password		HTTP, HTTPS	None
ClientPort	CPort	TCP/IP (Client side only)	Assigned dynamically
^DatabaseName	DBN	HTTP, HTTPS	AUTO
DoBroadcast	DBROAD	TCP/IP (all platforms)	ALL
DLL		TCP/IP (Windows)	ws2_32.dll
Host	IP	TCP/IP	No additional machines.
^LDAP	LDAP	TCP/IP (Server side only)	NO
^LocalOnly	LOCAL	TCP/IP, HTTP, HTTPS	NO
^LogFile	LOG	HTTP, HTTPS	None
^LogFormat	LF	HTTP, HTTPS	@T - @W - @I - @P - @M @U @V" - @R - @L - @E
^LogMaxSize	LSIZE	HTTP, HTTPS	0
^LogOptions	LOPT	HTTP, HTTPS	ALL
^MaxConnections	MAXCONN	HTTP, HTTPS	Number of licensed connections
MaxRequestSize	MAXSIZE	HTTP, HTTPS	100 KB
MyIP	ME	TCP/IP, HTTP, HTTPS	None
PreFetchOnOpen		ODBC	NO
^ReceiveBufferSize	RCVBUFSZ	TCP/IP	Machine dependent
^SendBufferSize	SNDBUFSZ	TCP/IP	Machine dependent
+ServerPort	PORT	TCP/IP (all platforms), HTTP, HTTPS	2638
Sessions		NetBIOS (Server side only)	Operating system specific. On Windows NT, the default is 16.
TDS		TCP/IP, NamedPipes (Server side only)	YES
+Timeout	TO	TCP/IP (all platforms), HTTP, HTTPS	5 seconds
VerifyServerName	Verify	TCP/IP (Client only)	YES

## Disclaimer

The information contained in this quick reference guide has been copied verbatim from the IQ 12.6 Technical Library's Reference Manual. The only changes made were for formatting and correcting obvious mistakes; and validating the procedures and server, database and connection properties information. The information above could still contain errors, so please do not hold the information as gospel.

Version 1.0 : Raymond Mardle, 6<sup>th</sup> June 2005

## Sources

The template for this quick reference guide was the Replication Server quick reference guide created by Rob Verschoor (see <http://www.sypron.nl/>).

The information came from the Sybase IQ 12.6 Technical Library

## How to assemble the pages into a booklet:

1. Print the file (paper size should be A4). You may need to adjust the page margins or the space between the columns if it doesn't print correctly; there should be about 7 millimetres (~ 5/12 inch) free space at the left and right margins (if you can't get it printed correctly, you can always change the layout to 1 column/page, and so some manual cut-and-pasting).
2. Cut off the blank bottom part of the pages
3. Fold the printed pages, so that there is one column on each folded side.
4. Stack the folded pages
5. Staple the folded pages together at the left-hand margin
6. If you don't like the sight of those staples, cover them with a bit of sticky tape.

