

# tableBASE

## Quick Reference Guide

Release 6.0.3 / 6.1.0





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### Technical Support Hotline: (613) 523-5588

DataKinetics Ltd.

202 - 2460 Lancaster Road

Ottawa, ON

Canada K1B 4S5

Telephone: (613) 523-5500

1-800-267-0730 (toll-free in the US and Canada)

Facsimile: (613) 523-5533

Email: [tableBASE@dki.com](mailto:tableBASE@dki.com)

<http://www.dki.com>

## **About this document**

This document is intended as a general reference. If you are new to tableBASE, you will need to use the full documentation set in order to have access to all the information you need to install and run tableBASE. In addition to this Guide, the full document set for Release 6.0.3 / 6.1.0 includes:

*tableBASE Concepts and Facilities Guide*

*tableBASE Administration Guide*

*tableBASE Installation Guide*

*tableBASE Programming Guide*

*tableBASE Batch Utilities Guide*

*tablesONLINE/CICS User's Guide*

*tablesONLINE/ISPF User's Guide*

*tableBASE Release Notes*

## TBLBASE Error Codes and Explanations

The following tableBASE error codes and subcodes are returned by tableBASE as a result of events detected in the processing of commands. The error code is returned in the ERROR field of the TB-PARM area, and the subcode is returned in the ERROR-SUB-CODE field (see “TBLBASE Parameter Descriptions” on page 23). In CICS these codes are prefixed by U to indicate a user application error. Additional errors generated by VTS-TSR (prefixed by TBV1) and tablesONLINE (prefixed by TB-) may also be encountered. If the *Abend on Errors* switch is set to 'N' the return code and subcode are returned to caller in the command area. If the the *Abend on Errors* switch is set to 'Y' the thread will abend, and a message will be written to the JES log with prefixes, etc. Below is an example:

```
THE SPECIFIED LIBRARY IS NOT SUITABLE          RC = 0060 SC = 0006
```

In this example, you would reference 60-06 in the following table. Depending upon the error condition, there may or may not be a subcode.

In the event the application thread abends, the tableBASE error code is used as the user abend value, and any associated error subcode is used as the abend reason code.

Codes	Text	Meaning / Instructions
00-00	tableBASE command executed successfully	No action is indicated.
00-01	Hash Low and/or High Density values adjusted based on limits	tableBASE command executed successfully. Table hash density limit(s) were substituted. High density was greater than HASH_HI_DEN-LIM or Low Density was less than HASH_LOW_DEN_LIMI. Low density value may not be greater than 2/3 of the high density value.
00-03	The table specified on the open command was already open.	tableBASE command executed successfully. Table specified was already open in the designated TSR.
01-00	The specified command is invalid.	The two-character Command code specified is not a valid tableBASE command.
02-00	The specified table must be open for this command.	Open the table before processing this command.
02-01	The table is in the process of being opened by another process.	This table is being opened and this command cannot wait for the open to complete. Retry the request.
02-98	Invalid parameter(s) were specified for the CL command.	Correct the parameters and resubmit the command (the CL command does not take any parameters).
03-00	The table is not closed.	The table must not be open in the TSR for this command.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
03-01	The command requires that the table be closed	Close the table in the TSR and resubmit the command.
03-02	The table specified by the LD command has an incorrect row size.	Correct the row size for the LD table and resubmit the command. The row size depends on the DIRTYPE specified; see the <i>Programming Guide</i> .
03-03	The table specified by the LD command has an incorrect key size.	Correct the key size for the LD table and resubmit the command. The key size depends on the DIRTYPE specified; see the <i>Programming Guide</i> .
03-04	The table specified by the LD command has an incorrect key location.	The key location for the table created by the LD command is always 1. Correct the table definition and resubmit the command.
03-05	The table specified by the LD command is an alternate index.	The table used by an LD command must be defined as a data-table. Correct the table type and resubmit the command.
03-06	The table specified by the LD command is a linked VTS table	The table used by an LD command cannot be a linked VTS table.
03-07	The library specified by the LD command cannot be a VTSNAME	The LD command only works with tableBASE libraries on DASD. LD command usage with a VTS-TSR in the library list is not supported. Use the LT command to list tables in a VTS-TSR.
03-08	The table is already open from a library with a different DSN	The table cannot be opened from the specified DSN. It is already opened in the TSR from a different DSN.
03-09	The table is in the process of being opened by another process.	This table is being opened. Retry the request after closing the table.
04-00	The FG command is not allowed; the table is not sequential (S or D)	Change the table organization to sequential (S or D) and resubmit the command.
05-00	The indirect open search criterion was not found in the primary table	The indirect open search criterion set by the SI command did not match any keys in the primary table specified on this command. See the <i>Programming Guide</i> for details on using INDIRECT-OPEN.
06-00	The count specified is invalid	Correct the COUNT value in the COMMAND AREA and resubmit the command.
06-01	The COUNT must be a positive number.	The COUNT value in the COMMAND AREA cannot be negative. Correct and resubmit the command.
06-02	The COUNT exceeds the number of rows	The COUNT value in the COMMAND AREA cannot exceed the number of rows in the table (except for hash tables). Correct and resubmit the command.
06-03	The COUNT points to an empty row in a hash table.	The COUNT value in the COMMAND AREA for RC and DC commands for a hash table must point to a valid row.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
07-00	The library DSN or DDNAME has been changed. Use DV or DW before SStore.	If the library DSN or DDNAME for an open table has changed, the DV or DW command must be issued for the table before the table can be SStored.
08-00	The generation number specified for this table is invalid.	Correct the generation number specified and resubmit the command. Generation numbers can be specified as absolute numbers from 1 to 255 or as negative numbers relative to current generation. The current generation is 0. (See the <i>Programming Guide</i> for details on specific commands)
09-00	The table is not found.	The table is not open in the TSR and cannot be found in the current library list (ML-list).
09-01	The table could not be found in any of the libraries in the ML list.	Ensure the ML-list includes the library where the table can be found and resubmit the command.
09-02	The table specified could not be found in the linked VTS-TSR	The table search is linked to a table in a VTS-TSR and the table is not open there.
09-03	The table specified could not be found in the designated library.	Either ensure the ML-list includes the library where the table resides or ensure the table is resident in the currently designated library. If the command specifies a specific library DDNAME, ensure the table exists on that library.
10-00	The STATUS-SWITCHES parameter provided for the CS command is invalid	Correct the STATUS-SWITCHES parameter and resubmit the command. (See the <i>Programming Guide</i> for details on specific switches)
11-00	The Number of Generations to Keep in the DT parameter must be 1 to 9.	tableBASE supports up to 9 generations of a table on a library. The number of generations to keep in the DT parameter must be 1 to 9. Correct the value and resubmit the command.
12-00	The table name specified is invalid.	A valid table name is a string of 8 bytes that are not all blanks, all low values, all high values, or :TMPNAME. Please refer to the <i>Programming Guide</i> for more details. In some applications, such as TBOL/CICS, more restrictive rules may be implemented.
13-00	The command is invalid in this environment	The two-letter command code is valid, and is not supported in this environment.
13-01	This command is only supported for a VTS Agent.	The strobe-request internal command is only supported in the VTS Agent.
13-02	The DL (Define Library) command is not supported in CICS.	The DL command is only supported in the Batch interface.
13-03	Library expansion process may not be initiated from CICS.	The library expansion process is only supported by the TBEXEC (DK1TEXEC) Batch utility running in a non-multitasking environment.
13-05	Updates not permitted on a linked VTS table.	Only READ access is permitted on a table linked to a table in a VTS-TSR. (See the <i>Programming Guide</i> for more details on linked tables)

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
13-06	Update commands are not permitted when a TSR is read only.	Update commands are not permitted when TSRACCESS=RO (TSR is read only). This option is supported only with the TPM product.
14-00	The ROW-SIZE specified is invalid. Must be from 1 to 32767.	The row size specified must be from 1 to 32767. Correct it and resubmit the command.
15-00	The KEY-SIZE specified is invalid. Must be from 1 to 256 and fit in row.	The key size specified must be from 1 to 256, and must fit in the row based on key location. Correct the key-size and resubmit the command. Note that date-sensitive processing can affect this.
16-00	The KEY-LOCATION specified is invalid. Must be from 1 to row-size.	Correct the key-location specified and resubmit the command. Note that the key location must allow the key size to fit within the row size.
17-00	The key will not fit within the row.	The key will not fit within the row because either the key's location in the row or its length is beyond the bounds of the row. Correct the key-size/key-location and resubmit the command. Note that date-sensitive processing can affect this.
18-00	Insufficient space is available on the tableBASE library.	The library must be enlarged. A table cannot be stored on the library because there is insufficient free space available. Note that during the processing of a Store command there must be room in the library to hold 2 copies of the table on the library. There are 2 options: 1) create a new larger library and copy the existing library into it, or 2) expand the library. Both options are supported by the Batch Utility DK1TEXEC (TBEXEC). (See the <i>Batch Utilities Guide</i> for details.)
19-00	This table already exists on the target library.	A new table cannot be STored on a library when it already exists on that library. Preceding the STore with a DW command will allow the table to overlay the previous table.
20-00	The maximum number of open tables has been exceeded. Check MAXNMTAB.	The MAXNMTAB option for the region must be increased to allow more tables into the TSR. Temporarily, tables can be CLosed. To change this value permanently, override the value in a TBOPT DD or update DK1Txx34. (See the Installation Guide for the latter option.)
21-00	The Organization specified is invalid, must be blank, R, U, S, D, H.	Correct the organization specified and resubmit the command.
28-00	Paged tables are not supported in V6.	Paged tables are not supported in Version 6. All paged tables were converted to resident during the upgrade to V6. Storage Mode Code (SMC) of "P" (for Paged) is no longer allowed on the DT or CD command.
29-00	The secondary table is not located on same library as primary table	When the Open Indirect option is invoked for an Open command, the tables to be opened must reside in the same library as the primary table. (See the <i>Programming Guide</i> for details on Open Indirect, or the SI command for more details.)

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
30-00	The password supplied is invalid.	Accessing this table on a tableBASE library requires a valid password. Supply the correct password and resubmit the command.
31-00	The write password is either missing or incorrect.	Opening this table for write access from this tableBASE library or updating it on this tableBASE library requires the Write Password. Correct the password and resubmit the command.
32-00	The ST command requires that the table be opened for write.	A table can be STored on a tableBASE library only if it is Open for Write in the TSR. Execute the OW command before attempting to STore the table.
33-00	A different generation of the table is already open.	Two generations of the same table cannot be open in a TSR at the same time. Close the table and open it again in the region in order to access the latest generation on the library.
39-00	The RN command failed. The new name already exists in the library.	The table rename (RN) command failed because a table with the new name already exists in the library.
40-00	The library DDNAME does not exist.	A library name specified in the library list (ML-list) or a command parameter does not correspond with an allocated DDNAME.
40-01	The specified library DDNAME is not allocated.	Correct the library names in the library list (ML-list) or the command parameter and/or allocate the DDNAME in the region (add a DD statement to the JCL) and rerun the job.
40-02	The ST command failed because an ML entry is required	When a new table is defined in the TSR without any library DDNAMEs in the library list, the library on which the table is to be stored must be provided either by a DV or DW command before the STore command is issued, or by specifying a valid library DDNAME in the ML-list in effect when the STore command is issued.
40-03	A blank or null DDNAME was used as a library list entry	A library DDNAME must be specified in the library list (ML-list) in effect when the command is being invoked.
40-04	The CA command failed because an ML entry is required	A CA command stores the alternate index definition on the first library in the library list (ML-list). A null or blank library list is not valid for this command.
40-05	The library list DDNAME entry is not allocated.	The current library list (ML-list) contains an entry that does not correspond to an allocated DDNAME. Correct the library list or add the DDNAME to the JCL and rerun.
41-00	The STORAGE-MODE-CODE (SMC) specified must be R or blank	Change the SMC value to "R" and resubmit the command. "P" for Page Tables is not supported in V6.
42-00	The TBPARM sub parameter TB-FORMAT must be either 0 or A	Correct the value in the TB-FORMAT sub-parameter and resubmit the command. (See the <i>Programming Guide</i> for details on TBPARM sub-parameters.)
43-00	The estimated NUMBER-OF-ROWS value in the DT block is out of range	When a table is defined, the estimated number of rows times the row size cannot exceed 2G. It also cannot be negative.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
44-00	The EXPANSION-FACTOR specified in the DT block must be from 1 to 999	Correct the value in this field and resubmit the command. Consult the <i>Programming Guide</i> for the usage of this parameter.
49-00	This command requires more parameters than were supplied.	Supply the minimum number of parameters required for this command. Consult the <i>Programming Guide</i> and resubmit the command.
50-00	The DIRTYTYPE specified for the LD command must be V, D, T, L, or blank.	Correct the DIRTYTYPE used by the LD command and resubmit the command. (Consult the <i>Programming Guide</i> for the usage of the DIRTYTYPE parameter)
51-00	HIGH/LOW DENSITY specified in DT block must be from 1 to 999.	Correct the DENSITY value being used and resubmit the command. Consult the <i>Programming Guide</i> for the usage of these parameters. Note that the specified HIGH-DENSITY and LOW-DENSITY parameters can be adjusted dynamically by the HASH-HI-DEN-LIM and HASH_LOW_DEN_LIM run-time options.
55-00	The SEARCH-METHOD must be either S, Q, B, C, or H	Correct the SEARCH-METHOD value being used and resubmit the command. Consult the <i>Programming Guide</i> for the usage of this parameter.
56-00	The SEARCH-METHOD is incompatible with ORGANIZATION specified	Correct the SEARCH-METHOD and/or the ORGANIZATION field ensuring they are compatible and resubmit the command. (Consult the <i>Programming Guide</i> for the relationship of these two parameters).
58-00	The requested module cannot be found in the load libraries searched.	Add the missing module to the load libraries accessed through STEPLIB, LPA or linklist.
60-00	The specified library is not suitable.	The dataset specified is not a valid tableBASE library.
60-01	The specified library's data definition must be DASD	Ensure that the library DDName is allocated to DASD, and resubmit the command.
60-02	The specified library's BLKSIZE must be at least 600.	Increase the library BLKSIZE to at least 600 and resubmit the job.
60-03	The specified library must contain at least 10 blocks.	Increase the number of blocks in the library:10 is the minimum. Correct the allocation and resubmit the command.
60-04	TableBASE libraries are limited to 8,388,607 blocks.	Reduce the number of blocks in the library. The maximum for a BDAM library dataset is the number of blocks that can be contained in 65,535 tracks (approximately 4369 cyl). The maximum for a un-extended VSAM RRDS library dataset is the number of blocks that does not exceed 4G bytes of data (approx 6145 cyl). Correct the allocation and resubmit the command.
60-05	The BLKSIZES of the source and target libraries differ.	The process being invoked requires that the source and target libraries have the same blocksize. Correct the blocksizes and resubmit the command.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
60-06	The size of the designated library is smaller than that of the source.	Reallocate the target library dataset to contain the same as or more blocks than the source dataset and rerun the job.
60-07	The specified library's BLKSIZE is not known	The library is not a valid tableBASE library. Ensure that the library has been successfully DEFINED with either the DL command or the DK1TEXEC (TBEXEC) Batch Utility. Rerun this job after the library is successfully defined.
60-08	The library expansion is not complete. Recreate the library.	An I/O error was experienced performing the library expansion. Recreate the library and resubmit the job.
60-09	The target library cannot be a V5 Bridge library.	Library Expand failed. Ensure the target library is a V6 format library and resubmit the job.
61-00	The library status is invalid.	The tableBASE library DD is not allocated appropriately
61-01	The library DDNAME may not be concatenated with another dataset.	tableBASE Library DDNAME concatenation is not supported. Ensure each library has a separate DDNAME and resubmit the command.
61-02	The DSNNAME is open with another DDNAME	Only 1 DDNAME is allowed per library DSNNAME. Correct the JCL and resubmit the job.
61-03	The DL command or library expansion failed, the library was open	The library was already in use. Ensure the process has exclusive use of the library and resubmit the job.
61-04	The DL command or library expansion failed, DISP must be NEW or OLD	Correct the library disposition in the JCL and resubmit the job.
61-05	The DL command failed; a VSAM library was not defined as reusable.	Redefine the VSAM library as reusable and resubmit the job.
61-06	The designated library access method must be BDAM or VSAM.	Correct the DSORG of the library and resubmit the job.
61-07	The library DISP must be OLD or SHR for this command.	Correct the library disposition in the JCL and resubmit the job.
61-08	OPTCD=C and Z mutually exclusive on tableBASE library DD statement.	Correct the OPTCD DD statement and resubmit the job. See the Administration Guide for documentation on tableBASE use of the OPTCD subparameters C and Z.
61-09	The BDAM library must be RECFM=F or FB	Correct the BDAM library record format and resubmit the job.
61-10	The VSAM library definition must be RRDS (Relative Record dataset).	Correct the VSAM library definition and resubmit the job.

Codes	Text	Meaning / Instructions
61-11	A write operation to the library was terminated, library read-only.	No updates are allowed to this library because it is defined with read-only access. In Batch jobs, LABEL=(,,IN) on the DD statement defines a library dataset as read-only; in CICS, the library file definition is read-only. If updates to the library are to be allowed, change the JCL or CICS file definition. If no updates are allowed, inform the owners of the application to change their practices.
61-12	The specified library is RACF protected for this type of access.	The RACF/AUTHORITY does not allow the specified access to the library dataset. Determine whether to request RACF changes or inform the owners of the application to change their practices.
61-13	The specified file is either disabled or being closed	Access to this library is no longer possible under CICS because the file was disabled or closed. Determine whether the change in CICS file status should be reversed and resubmit the request.
62-00	Format of the specified library is not compatible with Version 6.	TableBASE V6 does not support tableBASE libraries that have not been converted from V5 or defined under V6. To determine library format run job DK1TLCHK. Ensure the library is in a compatible format and resubmit the job.
64-00	The INDEX parameter specified must be P, T or blank	Correct the index parameter and resubmit the command. (Consult the <i>Programming Guide</i> for the usage of the INDEX parameter)
68-00	The COUNT value is too small for the DU command to dump all rows	This Error Code may be OK if only a portion of the rows were to be dumped. If all the rows in the table were to be dumped, Increase the COUNT value to the total number of rows and resubmit the command. (Consult the <i>Programming Guide</i> for the parameters of the DUmp command).
70-00	TableBASE cleanup unable to complete due to CICS shutdown processing.	tableBASE's attempts to clean up control blocks in the CICS region at termination cannot complete due to CICS termination processing.
71-00	Lock is unavailable after waiting LOCKTIMERC seconds.	A tableBASE lock was not available for use after waiting LOCKTIMERC seconds. Resubmit the command. If a longer wait time for the resource is desired, update the TBOPT LOCKTIMERC value and resubmit the command.
72-00	The table is unavailable at this time; WAIT switch is off.	The table was in use at the time of the command. Retry the command.
72-01	The table is unavailable after waiting TABLEWAITRC seconds.	With the WAIT switch on, the table enqueue was unavailable after waiting TABLEWAITRC seconds. If the wait time is to be increased, update the TBOPT TABLEWAITRC value and resubmit the command. The table enqueue is an MVS enqueue with a major name of TBLBASE and a minor name starting with T followed by the table name and the library DSN. It is held while a table is open for write in a TSR.

Codes	Text	Meaning / Instructions
73-00	An update command was issued for a table that was not open for write	An update command was issued for a table that was not open for write. This message will be returned in the following cases: 1) if the table is open for read in a local TSR, and this is not single-task batch (allows for backward compatibility) 2) if the table is open for read in a VTS-TSR 3) if the table is not open, implicit open is ON, and this is not single-task batch. In case 3, the table will not be left open after the command completes. The command being issued requires that the table be OPEN for WRITE (OW). For correct operation, issue an OW command for the table and retry the command.
74-00	The LOCK-LATCH specified is invalid	If a lock latch is set on a table in a TSR, any update command must match the lock latch value. Correct the LOCK-LATCH value and resubmit the command. If the lock-latch is not known, the tableBASE Administrator can perform the required command overriding the lock-latch with the Master Password.
75-00	Dynamic allocation (AL) or un-allocation (UL) failed	tableBASE command AL (Allocate library) or UL (Un-allocate library) was not successful.
75-01	TBTSLIB not allowed as parameter in AL command.	TBTSLIB is obsolete in V6. It cannot be dynamically allocated with the AL command.
75-02	DDNAME specified in AL command already in use.	Ensure the DDNAME is not already allocated and resubmit the command.
75-03	DSNAME specified in AL command not catalogued.	Ensure the DSNAME for the DDNAME is cataloged and resubmit the command. The AL command only supports catalogued library datasets
75-04	DSN enqueue conflict with another region for AL command.	Determine which region has the SYSDSN enqueue for this table and resolve the conflict. Then reissue the AL command with the appropriate SHR parameter. (Consult the <i>Programming Guide</i> for the usage of the AL command)
75-05	Error in DDNAME specified in AL command.	Correct the DDNAME syntax and resubmit the command
75-06	Syntax error in DSNAME specified in AL command.	Correct the DSNAME syntax and resubmit the command
75-07	SVC99 failure during execution of AL command.	An MVS error was generated. Contact your MVS systems programmer to determine why the AL command failed.
75-08	DDNAME specified by UL command must be allocated by an AL command.	The UL (Un-allocate) command failed because tableBASE was not used to allocate the DDNAME. Deallocate the DDNAME (TSO FREE) and use the tableBASE AL command to allocate the library dataset.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
75-09	DDNAME specified by UL command not known or library not open.	Ensure the DDNAME is allocated.
75-10	SVC99 failure during execution of UL command.	An MVS error was generated. Contact your MVS systems programmer to determine why the UL command failed.
76-00	OI (Open Indirect) failed: primary table not sequential or KLOC not 9.	Ensure the Open Indirect primary table has sequential organization and the key location is 9. Resubmit the command. (See the <i>Programming Guide</i> for details on Open Indirect, or the SI command for more details.)
77-00	An alternate index is defined for a table that is not TYPE=P.	Ensure the data table is defined as a pointer table (TYPE=P) and resubmit the command
78-00	The AL command failed, the SHARE-STATUS parameter must be S or O	Correct the SHARE-STATUS sub-parameter of the LIBRARY-ALLOC parameter. (See the <i>Programming Guide</i> for the usage of the AL command).
80-00	Data table is not open; the use of an alternate index not allowed.	The IA command requires the data table be opened first. The OR command will dynamically open a data table.
80-01	Data table must be opened before IA (Invoke Alternate) is issued.	Open the data table before issuing the IA command.
80-02	IA (Invoke Alternate Index) may not reference a linked VTS table.	Both the alternate and the data table must be opened in the VTS-TSR or opened in the local TSR for IA to succeed. The base table cannot be a linked VTS table.
80-03	Open/Invoke Alternate Index must reference a data table.	Ensure the IA command includes the BASE-TABLE-NAME parameter and resubmit the command.
80-04	Alternate Index cannot be opened as a linked VTS table.	The IA command specified an alternate index name which was found in a VTS-TSR. This is not supported. Either specify the complete alternate index definition in the IA command parameters, remove the VTS-TSR from the library list (ML-list), or close the alternate index table in the VTS-TSR and resubmit the command.
81-00	The specified Alternate Index definition is not found	If the complete alternate index definition is not specified in the IA command parameters, the alternate index definition must be found in a library in the current library list (ML-list). Correct this error and resubmit the command.
83-00	Data table INDEX sub-parameter of the DT block must be defined as P	If the base table is specified in the IA command, it must be defined as a pointer table (TYPE=P). Redefine the base table or save the definition of the alternate using a CA command and resubmit the command.
85-00	The command is invalid for an Alternate Index	The command being invoked is not supported for use with an alternate-index. Correct the error and resubmit the command.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
85-01	An alternate index may not have the same name as the data table.	Correct the alternate-index parameters ensuring that the alternate index and base table names are different and resubmit the command.
85-02	DV and DW commands are not supported for Alternate index tables	The DV and DW commands are only supported for base tables since they apply to ensuing STORE commands. An alternate index is never stored, only the base table is.
86-00	Data table of an Alternate Index may not be a linked VTS table.	The table failed to open because the alternate-index is in the local TSR, and the data-table is linked to a table in a VTS-TSR. The alternate index must be opened in the same TSR as the data-table.
87-00	The KEY-COUNT must be 1 for the definition of the Alternate Index.	Only a value of 1 for the key-count is supported when defining an alternate-index. Correct the key-count value and resubmit the command.
89-00	An invalid parameter was encountered in the TBOPT file.	During initialization of tableBASE in the region, an error was discovered in the tableBASE runtime options in the TBOPT dataset. Correct the TBOPT parameter(s) and resubmit the job.
90-00	Insufficient storage available in region: increase region size.	There is insufficient main storage available for tableBASE control blocks. Increase the executing region size and resubmit the job (modify the 'REGION=' parameter for the jobstep).
91-00	I/O Error	Determine the reason for the I/O error from the JESMSGLG. Correct the problem and resubmit the command.
91-01	I/O Error while attempting to read/write to a tableBASE library	Determine the reason for the I/O access error to the tableBASE library. Correct the problem and resubmit the command.
91-02	I/O Error while attempting to read from the TBOPT file	Determine the reason for the error trying to read from the TBOPT file. Once resolved, resubmit the job.
91-03	Error in I/O subtask in multitasking environment.	The subtask was unable to complete due to an I/O error when TBOPT MULTITASKING=Y. Correct the problem and resubmit the process.
92-00	Insufficient Table Space Region (TSR) size	The TSR is too small for the tables being opened. Either enlarge the TSR or close unnecessary tables in the TSR to free up the required TSR space.
92-01	The space request is bigger than the TSR	The table to be opened in the TSR is too large for the existing TSR. The TSR size will need to be increased to accommodate the table to be opened and the JOB restarted (or the region recycled).
92-02	Insufficient free space in the TSR: close tables or enlarge TSR.	The TSR is full and no longer has enough free space available to allow the table to be opened, defined, expanded or changed. Either enlarge the TSR appropriately or close unnecessary tables to free up the required TSR space.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
92-03	There is insufficient free contiguous space in the TSR	The TSR is full. There is no longer any contiguous memory left to accommodate the index for the table being opened, defined, expanded or changed. Either enlarge the TSR or close unnecessary tables to free up required TSR space.
92-04	There is insufficient space in the TSR to initiate the TCE	The TSR is full. There is no room to accommodate the tableBASE control block created when opening a table into the TSR. Either enlarge the TSR or close unnecessary tables to free up the required TSR space.
93-00	The RF command did not complete	Correct the error and resubmit the command.
93-01	The table must be open for read in order to be refreshed	Open the table for read (OR) or ReLease the table before submitting the RF command.
93-02	The data table or alternates were closed since the table was opened	There is a change in either the alternate or the data-table that is preventing successful completion of the RF command. CL the table and re-open it from the desired library to get the most recent version of the table into the TSR.
93-03	The ROWSIZE changed since the table was opened	RF failed because the row size for the table on the library was different compared to the table opened in the TSR. CL and reopen the table to get the most recent version of the table into the TSR.
93-04	The KEYSIZE changed since the table was opened	RF failed because the key size for the table on the library was different compared to the table opened in the TSR. CL and reopen the table to get the most recent version of the table into the TSR.
93-05	The KEYLOC changed since the table was opened	RF failed because the key-location for the table on the library was different compared to the table opened in the TSR. CL and reopen the table to get the most recent version of the table into the TSR.
93-06	The ORGANIZATION changed since the table was opened	RF failed because the organization for the table on the library was different compared to the table opened in the TSR. CL and reopen the table to get the most recent version of the table into the TSR.
93-07	The SEARCH METHOD changed since the table was opened	RF failed because the Search-Method for the table on the library was different compared to the table opened in the TSR. CL and reopen the table to get the most recent version of the table into the TSR.
95-00	The transaction was terminated during tableBASE processing.	tableBASE cleanup was invoked because a transaction was terminated while tableBASE was processing. The subcodes document what tableBASE process was executing when the transaction was terminated. This is usually related to a transaction timeout or cancellation.
95-01	The transaction thread abnormally terminated	See 95-00 description. Send the documentation (JESMSG LG, TBDUMP, any other dumps) to tableBASE support.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
95-02	tableBASE found an invalid row (item) area address	See 95-00 description. This can be caused by an error in the input parameters provided.
95-03	tableBASE found an invalid row address in the Table Space Region (TSR)	See 95-00 description. Send the documentation (JESMSG LG, TBDUMP, any other dumps) to tableBASE support.
95-04	tableBASE abended during an index resorting process.	See 95-00 description.
95-05	tableBASE abended during an index expansion process.	See 95-00 description.
95-06	tableBASE abended during an index entry insertion process.	See 95-00 description.
95-07	tableBASE abended during an index entry deletion process.	See 95-00 description.
95-08	tableBASE abended during an open command.	See 95-00 description
95-09	tableBASE abended during a close command.	See 95-00 description.
97-00	The ML or LL parameter list is invalid	Correct the ML or LL parameter list and resubmit the command.
97-05	An ML list must not contain a reference to TBTS LIB.	Remove the reference to TBTS LIB in the ML-list and resubmit the command.
97-08	An ML list for a VTS agent must not contain a reference to a VTS-TSR.	Only tableBASE libraries can be used in an ML-list in VTS. Remove the VTSname from the ML-list and resubmit the command.
98-00	An internal error occurred in tableBASE Shutdown processing.	tableBASE termination (XX command) problems.
98-01	The XX command is being processed on a subordinate task.	When multi-tasking is ON, the XX command must be performed by the persistent (mother) task. This command will fail if it is submitted by sub-tasks invoked by the persistent (mother) task. Send the documentation (JESMSG LG, TBDUMP, any other dumps) to tableBASE support.
98-02	tableBASE shutdown process did not complete.	If multi-tasking and a sub-task submitted the XX command, other tasks will first issue a warning, then they will abend. This is the warning. Send the documentation (JESMSG LG, TBDUMP, any other dumps) to tableBASE support.

<b>Codes</b>	<b>Text</b>	<b>Meaning / Instructions</b>
98-03	The subtask that shutdown tableBASE has tried to invoke tableBASE.	If multi-tasking and a sub-task submitted the XX command, no tasks are allowed to issue tableBASE commands. Send the documentation (JESMSG LG, TBDUMP, any other dumps) to tableBASE support.
1072-00	VTS access failed because the specified VTS-TSR is not available.	VTS access failed because the specified VTS-TSR is not available. Ensure that the VTS Agent job which creates the specified VTS-TSR name is running.
1072-01	VTS access failed because the specified PC Server was not running.	Access to VTS-TSRs depends on a PC Server at the same or higher level than the application is running on the same LPAR.

## tableBASE Command Summary

The following is a summary of the commands available to the programmer using the tableBASE Application Programming Interface. The parameters mentioned in this table are in addition to the TB-PARM and COMMAND AREA.

Parameters within parentheses “(…)” are optional and may be omitted, but if a programmer needs to use a parameter that is preceded in this table by an optional parameter, the preceding parameter must be present, even if it is a dummy placeholder. If an optional KEY AREA parameter is omitted (commands FK, FG, FN, DK), the table key is extracted from the ROW-AREA. If other parameters are omitted, the defaults are used. The use and meaning of the “Open Status” column is as follows:

- Implicit Open 1:** An OR command is performed implicitly with these commands.
- Implicit Open 2:** In batch, an OR command is performed implicitly for these commands. With online interfaces, an OW command must be issued before these commands.
- Open:** The table must be open when issuing these commands.
- Open for Read:** The table can be open for read when issuing the OW command. The RF command is performed on a table that is open for read.
- Open for Write:** The table must be open for write to perform these commands.
- Closed:** The table must be closed when issuing these commands.
- Any Time:** These commands may be performed at any time.
- Note 1:** CA command defines an alternate index on a tableBASE library.
- Note 2:** For backward compatibility with earlier releases, the base table must be open and the alternate index must be closed, unless the system alternate open option MULTIPLE-OPEN-INDEXES is set at installation time or in TBOPT to remove this restriction.

### Retrieval Commands:

Commands	Parameters		Open Status
<b>SK</b> - Search by Key	KEY AREA	—	Implicit Open 1
<b>FK</b> - Fetch by Key	ROW-AREA	(KEY-AREA)	Implicit Open 1
<b>FC</b> - Fetch by Count	ROW-AREA	—	Implicit Open 1
<b>FG</b> - Fetch Generic	ROW-AREA	(KEY-AREA)	Implicit Open 1
<b>FN</b> - Fetch Next by Key	ROW-AREA	(KEY-AREA)	Implicit Open 1
<b>GF</b> - Get First	ROW-AREA	—	Implicit Open 1
<b>GL</b> - Get Last	ROW-AREA	—	Implicit Open 1
<b>GN</b> - Get Next	ROW-AREA	—	Implicit Open 1
<b>GP</b> - Get Previous	ROW-AREA	—	Implicit Open 1

## Update Commands:

Commands	Parameters		Open Status
<b>DK</b> - Delete by Key	ROW-AREA	(KEY-AREA)	Implicit Open 2
<b>IK</b> - Insert by Key	ROW-AREA	(KEY-AREA) <sup>1</sup>	Implicit Open 2
<b>RK</b> - Replace by Key	ROW-AREA	(KEY-AREA) <sup>1</sup>	Implicit Open 2
<b>DC</b> - Delete by Count	ROW-AREA	—	Implicit Open 2
<b>IC</b> - Insert by Count	ROW-AREA	—	Implicit Open 2
<b>RC</b> - Replace by Count	ROW-AREA	—	Implicit Open 2
<b>MT</b> - Empty the Table	—	—	Implicit Open 2

Note1. The KEY-AREA parameter is included for backward compatibility. The table key is extracted from the ROW-AREA. If KEY-AREA is supplied, it is ignored.

## Table Control Commands:

Commands	Parameters		Open Status
<b>OR</b> - Open for Read	(PASSWORD)	(GENERATION)	Any Time
<b>OW</b> - Open for Write	(PASSWORD)	(GENERATION)	Closed, Open for Read
<b>CL</b> - Close Table	—	—	Open
<b>RL</b> - Release Table	—	—	Open for Write
<b>RF</b> - Refresh Table	—	—	Open for Read
<b>ST</b> - Store Table	—	—	Open for Write
<b>GD</b> - Get Table Definition	DEFINITION-BLOCK	(GENERATION)	Any Time
<b>DD</b> - Dump Definition	DEFINITION-BLOCK	—	Any Time
<b>DT</b> - Define Table	DEFINITION-BLOCK	—	Closed
<b>CD</b> - Change Table Definition	DEFINITION-BLOCK	—	Implicit Open 2
<b>DV</b> - Divert Table to a library where it doesn't exist	DDNAME	—	Open
<b>DW</b> - Divert Table to a library where it does exist	DDNAME	—	Open

**Table Control Commands:**

Commands	Parameters		Open Status
<b>CN</b> - Change Name (in region)	NEW-TABLE-NAME	—	Implicit Open 1
<b>DU</b> - Dump Table Contents	TBACC-DEF	TABLE-AREA	Implicit Open 1
<b>CA</b> - Create Alternate Index Definition	DATA-TABLE-NAME	ALT-DEFINITION	Note 1
<b>IA</b> - Invoke Alternate Index	(DATA-TABLE-NAME)	(ALT-DEFINITION)	Note 2

**Library Maintenance Commands:**

Commands	Parameters		Open Status
<b>DG</b> - Delete Generation	(PASSWORD)	(GENERATION)	Closed
<b>XT</b> - Eliminate Table (on library)	(PASSWORD)	—	Closed
<b>CG</b> - Change Generations to be kept	(PASSWORD)	NEW-GEN-NO	Closed
<b>RN</b> - Rename Table (on library)	NEW-TABLE-NAME	(PASSWORD)	Closed
<b>NX</b> - Get Next Table Name	(DDNAME)	(LIB-SPACE)	Any Time
<b>LD</b> - List Directory	(DDNAME)	(DIR-SPEC)	Any Time
<b>DL</b> - Define New tableBASE Library	DDNAME	(LIB-SPACE)	Any Time

**System Control Commands:**

Commands	Parameters		Open Status
<b>ML</b> - Modify Library Search Order	LIB-LIST	—	Any Time
<b>LL</b> - List Library	LIB-LIST	—	Any Time
<b>CS</b> - Change Status	STATUS-SWITCHES	—	Any Time
<b>LS</b> - List Status	STATUS-SWITCHES	—	Any Time
<b>LT</b> - List Open Tables	LIST-BLOCK	(TABLE-STATS)	Any Time
<b>LV</b> - List VTS Settings	VTS-DATA	—	Any Time
<b>BN</b> - Banner Retrieval	NAME-AREA	(RELEASE-LEVEL)	Any Time
<b>DE</b> - Disengage Libraries	—	—	Any Time

**System Control Commands:**

<b>Commands</b>	<b>Parameters</b>		<b>Open Status</b>
<b>AL</b> - Allocate	DDNAME	(LIBRARY-ALLOC	Any Time
<b>UL</b> - Un-allocate	DDNAME	—	Any Time
<b>SI</b> - Set Indirect	INDIRECT-OPEN-CRITERION	—	Any Time
<b>VS</b> - Virtual Subsystem	VTS-NAME	—	Any Time

## TBLBASE Parameter Descriptions

Parameter	Size	Description
<b>ALT DEFINITION</b>	(12 bytes)	Used to create an Alternate Index Definition of a table.
1. ORG	(1 byte)	Organization: may be R, U, S, D or H. Default = R.
2. METHOD	(1 byte)	Search method: S, Q, B, C or H. Default depends on ORG.
3. KEY-COUNT	(halfword binary)	Must be set to 1. Default = 1.
4. KEY-LOCATION	(fullword binary)	Default = 1.
5. KEY-SIZE	(fullword binary)	Default = 1.
<b>COMMAND-AREA</b>	(72 bytes)	Required by all commands.
1. COMMAND	(2 bytes)	Set by program.
2. TABLE	(8 bytes)	Set by program.
3. FOUND	(1 byte)	Set by tableBASE. Only valid if ERROR=0. Check after calling tableBASE for retrieval (SK, FK, FC, FG, FN, GF, GL, GN, and GP); for update (DK, RK, IK, DC, and RC); and commands GD and NX.
4. INDIRECT-OPEN	(1 byte)	Set by program to I for Indirect access or initialized to HEX zeroes.
5. RESERVED	(1 byte)	Set by program. Initialized to HEX zeroes.
6. ABEND-OVERRIDE	(1 byte)	Set by programmer for temporarily overriding abend status.
7. ERROR	(halfword binary)	Set by tableBASE.
8. COUNT	(fullword binary)	Set by program for FC, DC, RC, & IC commands. Set by tableBASE after Key Retrieval, Update, and Get commands (G*).
9. LOCK-LATCH	(8 bytes)	Required to control update processing in a multi-user / shared environment.
10. ROW-OVERRIDE-LENGTH	(fullword binary)	This field denotes the relevant portion of the application's row area to be used for retrieval and update requests. If this field is zero then the actual row length is used, as specified in the table definition.
11. ROW-ACTUAL-LENGTH	(fullword binary)	tableBASE returns the actual length of a fetched row, as specified in the table definition block, in this field.
12. FG-KEY-LENGTH	(halfword binary)	A non-zero value in this field denotes the relevant length of a generic key parameter in a Fetch Generic request.
13. FUNCTION-ID	(halfword binary)	Used to distinguish between normal tableBASE processing and other specialized types of processing.
14. DATE	(8 bytes)	This field is used for date-sensitive processing.
15. RESERVED	(20 bytes)	

Parameter	Size	Description
16. RETURNED-ABS-GEN-NO	(halfword binary)	Returns absolute generation number of the open table. Returns a zero for all non table commands.
17. ERROR-SUB-CODE	(halfword binary)	Set by tableBASE.
<b>DATA-TABLE-NAME</b>	(8 bytes)	Table for which an alternate index is created.
<b>DDNAME</b>	(8 bytes)	The DDNAME of a tableBASE Library.
<b>DEFINITION-BLOCK</b>	(256 bytes)	Used with DT, CD, GD and DD commands. 1-14 and 31 used by DT and CD commands; 1-33 returned by the GD command; 1-17 returned by DD command.
1. ORG	(1 byte)	May be R,U,S,D, or H, Default =R.
2. METHOD	(1 byte)	Search Method; S,Q, B, C or H. Default depends on ORG.
3. INDEX	(1 byte)	T = True table, P = Pointer table. Default = P.
4. SMC	(1 byte)	Storage Mode Code. R = Resident. Default = R.
5. RPSWD	(8 bytes)	READ-PASSWORD. Default=null password.
6. WPSWD	(8 bytes)	WRITE-PASSWORD. Default = Read Password.
7. RSZ	(fullword binary)	ROW-SIZE. Default = 1.
8. KSZ	(fullword binary)	KEY-SIZE. Default = ROW SIZE or 256, whichever is less.
9. KLOC	(fullword binary)	KEY-LOCATION. Default = 1.
10. ROWS	(fullword binary)	NUMBER-OF-ROWS. Default will vary according to row size and table organization.
11. GENERATIONS	(halfword binary)	The maximum number of generations to be kept. Default = 1.
12. EXP-FACT	(halfword binary)	EXPANSION FACTOR Default = 200 (20%). (1 to 999 expressed in thousandths.)
13. LO-DEN	(halfword binary)	LOW DENSITY - used for Hash tables Default = 500 (50%). (1 to 999 expressed in thousandths.)
14. HI-DEN	(halfword binary)	HIGH DENSITY - used for Hash tables Default = 800 (80%). (1 to 999 expressed in thousandths.)
15. RESERVED	(6 bytes)	
16. DATE	(12 bytes)	YYYYMMDDHHMM - date created or last stored
17. ABS-GEN-NO	(halfword binary)	Absolute Generation number, returned by GD Command.
18. DATASET-NAME	(44 bytes)	Dataset name of the library the table resides on.
19. REL-GEN-NO	(halfword binary)	Relative Generation number.
20. GENS-PRESENT	(halfword binary)	Number of Generations.
21. ROWS-AT-EXPAND	(fullword binary)	Maximum number of rows that an open table can hold before it must be expanded.
22. DDNAME	(8 bytes)	Of the tableBASE library.

Parameter	Size	Description
23. DATA-TABLE	(8 bytes)	Table name when GD command is for an open Alternate Index.
24. OPEN-STATUS	(1 byte)	Indicates if table is not open X, open for Read R, open for Write, W.
25. ALTS-INVOKED	(1 byte)	ALTERNATES-INVOKED Indicates if there are Alternate Indexes for table (Y or N).
26. VIEW-VERSION	(1 byte)	Format of the View table (FDT).
27. RESERVED	(1 byte)	
28. USERID	(8 bytes)	Userid of last user to update the table.
29. VIEW-NAME	(8 bytes)	Name of the View table normally used to display the table in an online environment.
30. VIEW-DATE	(12 bytes)	Creation date of View used to display table in tablesONLINE/CICS environment.
31. USER-COMMENTS	(16 bytes)	Comments entered by the user.
32. VTSNAME	(8 bytes)	The name of the VTS-TSR in which the table resides (if applicable).
33. RESERVED	(68 bytes)	
<b>DIR-SPEC</b>	(9 bytes)	Specifies tables included in a Directory List.
1. TABLE-NAME-MASK	(8 bytes)	Identifies a table name or partial table name.
2. DIRTYPE	(1 byte)	Specifies a category of tables (View tables, Data tables, all tables).
<b>GENERATION</b>	(fullword binary)	The number of the generation to be used.
<b>INDIRECT-OPEN-CRITERION</b>	(50 bytes)	The value to activate a secondary (indirect) table. See <i>tableBASE Programming Guide</i> .
<b>KEY-AREA</b>	(Key length)	An area to contain the key.
<b>LIB-LIST</b>	(80 bytes)	The DDNAMES (8 bytes each) of up to 10 tableBASE Libraries (LIB-1 through LIB-10). Can include VTSs by including VTS prefix: VTS:xxxx.
<b>LIB-SPACE</b>	(2 fullwords binary)	Counters: BLOCKS-ALLOCATED and BLOCKS-REMAINING.
<b>LIBRARY-ALLOC</b>	(45 bytes)	S for share, O for old, followed by DATASET name (44 bytes).
<b>LIST-BLOCK</b>	(88 bytes)	Provides dynamic tableSPACE report. See <i>Programming Guide</i> for more details.
<b>NAME-AREA</b>	(256 bytes)	A work area for the client name and banner information.
<b>NEW-GEN-NO</b>	(fullword binary)	The new number of generations to be kept.
<b>NEW-TABLE-NAME</b>	(8 bytes)	The name to which this table is being changed.
<b>PASSWORD</b>	(8 bytes)	The read or write password for this table.
<b>RELEASE-LEVEL</b>	(16 bytes)	tableBASE release information.
<b>ROW-AREA</b>	(Row length)	Area to contain one row of the table.
<b>STATUS-SWITCHES</b>	(8 bytes)	Used for listing (LS) or altering (CS) the operational characteristics of tableBASE; may be Y, N or blank (handling is to remain as previously set).

Parameter	Size	Description
1. ABEND	(1 byte)	Abend processing occurs for errors 0001-0099, 1000-1099.
2. WAIT	(1 byte)	tableBASE should wait for tables which are enqueued.
3. HASH-EMPTIES-RETURNED	(1 byte)	tableBASE should return empty rows from hash tables.
4. DEFAULT-OPEN	(1 byte)	tableBASE should automatically open tables for read.
5. TRACE	(1 byte)	tableBASE should maintain a Trace of the last ten commands per thread.
6. RESERVED	(3 bytes)	
<b>TABLE-AREA</b>		Area to receive the contents of the table being dumped. See <i>Programming Guide</i> .
<b>TABLE-STATS</b>		An array used to receive the table statistics from the LT command.
1. TABLE-NAME	(8 bytes)	The name of the open table.
2. TABLE-OPEN-STATUS	(1 byte)	Open status of the table: W or R.
3. TABLE-LOCAL-VTS	(1 byte)	Indicates if table is in the current TSR (L), or is a "linked-table" in a VTS-TSR (V).
4. TABLE-ALT-INVOKED	(1 byte)	Indicates if there are Alternate Indexes invoked Y or N.
5. RESERVED	(1 byte)	
6. TABLE-CALLS	(fullword)	Number of calls made against the table since it was opened (truncated to a fullword).
7. TABLE-SIZE	(fullword)	Size of the table in bytes.
8. TABLE-ROWS	(fullword)	The number of rows currently in the table.
9. TABLE-RWS-BF-EXP	(fullword)	Number of rows that the table can contain before expansion.
10. TABLE-DATATBL-VTSNAME	(8 bytes)	The name in the form VTS:xxxx (Linked table).
11. TABLE-UPDATE-CALLS-TRUNC	(fullword)	Number of updates to this table (truncated to a fullword).
12. TABLE-DATE-TIME	(12 bytes)	Date, time the table was last stored to a library - format = YYYYMMDDHHMM
13. RESERVED	(4 bytes)	
14. TABLE-TOTAL-CALLS	(double word binary)	Number of calls made to table since opened.
15. TABLE-UPDATE-CALLS	(double word binary)	Number of updates to the table since opened.
16. TABLE-VTSNAME	(8 bytes)	Name of the VTS-TSR, if a Linked table.
<b>TBACC-DEF</b>	(29 bytes)	A TBACC Table Definition area. See <i>Programming Guide</i> .
<b>TBINDX-DEF</b>	(32 bytes)	A TBINDX Table Definition area. See <i>Programming Guide</i> .
<b>TB-PARM</b>	(64 bytes)	General communications area (enables high performance).
1. TB-PARM-ID	(2 bytes)	The literal TB identifies this parameter as the TB-PARM communications area.
2. RESERVED	(2 bytes)	

<b>Parameter</b>	<b>Size</b>	<b>Description</b>
3. TB-VERSION	(1 byte)	The major tableBASE release level. It must be set to 5 for Release 5 or higher TBLBASE interface.
4. TB-FORMAT	(1 byte)	The value A identifies the format of the COMMAND-AREA as a 28 byte Release 4.x format or the value 0 identifies the format as a 72 byte Release 5/6 format.
5. RESERVED	(10 bytes)	
6. TB-TPVM	(8 bytes)	Specifies which VTS Manager (TPVM) to use for VTS access. tPM only.
7. TB-SUBSYSTEM	(8 bytes)	The VTS-TSR sub-system for tableBASE operations. If left blank or HEX zeroes, tableBASE operates on the local TSR.
8. RESERVED	(8 bytes)	
9. TB-TURBO-ANCHOR	(8 bytes)	This field is used to anchor threads for multitasking. It must be set to HEX zeroes (LOW-VALUES) or blanks at the beginning of each thread and is subsequently managed by tableBASE. In batch, a thread is an MVS task; in CICS it is a transaction.
10. RESERVED	(20 bytes)	
<b>VTS-DATA</b>	(60 bytes)	Provides VTS name information with the LV command.
1. RESERVED	(8 bytes)	
2. VTS-VTSFIRST	(8 bytes)	Returns the VTSFIRST parameter from TBOPT.
3. VTS-VTSLAST	(8 bytes)	Returns the VTSLAST parameter from TBOPT.
4. VTS-VTSNAME	(8 bytes)	Returns the VTSNAME parameter from TBOPT or the VTS-NAME parameter from the VS command; the value from a VS command overrides the TBOPT value.
5. RESERVED	(16 bytes)	
6. VTS-TPVM	(8 bytes)	Returns the TPVM name from TBOPT. For use when the tableBASE Process Manager option is used.
7. VTS-PREFIX	(4 bytes)	Returns the VTSPREFIX from TBOPT. Used in the ML library search list.
<b>VTS-NAME</b>	(8 bytes)	Used to pass the name of the VTS-TSR to the VS command.

## tableBASE run-time options

This table lists the tableBASE run-time option parameters. Most occur in all interfaces. Options can be customized for your site at installation time, using the TBOPTGEN macro in DK1Txx34 modules. Applications can further override options on an individual basis, using the TBOPT dataset (DDNAME=TBOPT).

Parameter	Description	Default †
CICSJRNL	CICS Journal File ID (CICS only) - Specifies the CICS journal file number if strobe records are written.	99
DATERTNX	Date-Sensitive Processing Found Code - Specifies whether X is to be returned as a Found Code.	N
FGDELIM	Fetch Generic Delimiter - Specifies the wildcard value used for the Fetch Generic command.	*
HASH_HI_DEN_LIM	Upper density limit for hash tables opened in Version 6.	900
HASH_LOW_DEN_LIM	Lower density limit for hash tables opened in Version 6.	600
LDS	Specifies whether the VTS-TSR defined in this jobstep will be mapped to a LDS. tPM only.	N
LIBnn	Default library names for a tableBASE Library List (LIB-LIST).	LIB00=MAINLIB
LISTOPTIONS	List Parameter Options - Specifies whether to list execution time parameters.	N
LOCKTIMERC	Specifies the number of seconds that tableBASE should wait for a lock (0= wait indefinitely).	0
LOCKTIMEWTO	Number of seconds between messages indicating that the transaction is waiting for an internal lock (0=no message).	30
MAXNMTAB	Maximum Number of Tables - Specifies the maximum number of open tables allowed in the TSR. VTSMAXTB is maintained for backwards compatibility.	depends on TSR size - see <i>Programming Guide</i> for details
MTRETAIN	Determines whether the allocated row and index areas are to be retained when an MT command is issued.	N
MULTITASKING	Multitasking Option(Batch only) - Specifies whether this region will allow multiple subtasks to access tableBASE.	N
MULTOPNX	Multiple Alternate Index - This option is maintained for compatibility with previous releases, and is not used in tableBASE Version 6.	Y
OVERRIDES	Allow Changes To Status Switches - Specifies whether the user can change specific Status Switches at run time. Positional (see below) Y or N settings.	YYYYY batch, IMS, DB2 YNNYY CICS

Parameter	Description	Default †
SWITCHES	Status Switches - Specifies status switch defaults (Y or N): 1. whether to abend on tableBASE user errors (1-99;1001-1099) 2. whether to wait for tables that are opened for write 3. whether to return empty rows from hash tables 4. whether to automatically open tables on read accesses 5. whether to trace last 10 tableBASE commands	YNNYYN for batch/CICS  NNYYN for DB2/IMS
STROBE	Strobe Interval - Specifies the frequency of strobe records (in number of tableBASE calls).	0
TABLEWAITRC	Number of seconds tableBASE should wait for exclusive table enqueue (applies only if WAIT switch is on).	0
TABLEWAITWTO	Number of seconds between messages indicating that the transaction is waiting for an enqueue.	0
TPVM	Specifies a VTS Manager (TPVM) name to use for all accesses to VTS-TSRs. tPM only.	<i>compat</i>
TSR_ALGORITHM	Determines whether the Performance (P), or Default (D) attributes are predominant when allocating space in a TSR.	D
TSR_WARNING_PCT	Indicates the percentage of TSR allocation allowed before a message will be generated.	85%
TSR_WARNING_FREQ	Number of seconds between messages indicating the TSR is more than TSR_WARNING_PCT allocated.	0000
TSRACCESS	Specifies whether a VTS-TSR is Read-Only or Read/Write. tPM only.	RW
TSRSIZE	Table Space Region Size - Specifies the size of Data Space to be allocated for open tables for a region. TSREGION and TSR are maintained for backwards compatibility.	10M
USEREXITS	Specifies whether User Exits are used (Y N ).	N
VTSFIRST	VTS-TSR to search before LIB-LIST (VTS only).	(null strings)
VTSLAST	VTS-TSR to search after LIB-LIST (VTS only).	(null strings)
VTSNAME	1. Specifies the name of a Shared TSR (VTS Agent). 2. Specifies the VTS-TSR name used by TBASE/TBCALLV interfaces.	1. DKL1 2. —
VTSPREFIX	Specifies a prefix that will be used by tableBASE to denote a VTS name within the ML list. There can be 0-3 characters before the colon; the colon is mandatory.	VTS:
ZEROROWS	Determines whether the data rows area should be zeroed when table space in a TSR is deallocated.	Y

† The default settings listed here are delivered defaults of tableBASE from DataKinetics. Your site may have set the installation defaults differently.

## Valid Combinations of Organization and Search Methods

<b>ORGANIZATIONS:</b>	R = Random, U = User Controlled, S = Sequential, D = Descending Sequential, H = Hash	
<b>SEARCH METHODS:</b>	S = Serial, Q = Queued Sequential, B = Binary, C = Address Tree Binary, H = Hash	
<b>VALID COMBINATIONS:</b>	Organization: R,U S,D H	Search Method: S Q,B,C H

## JCL statements for accessing tableBASE data in an application

```

/*
/* If *your.tableBASE.load* is in LINKLST, no STEPLIB DD is required for it
/* SYSOUT=* when using TBDRIVER
/* TBDUMP is for a mini-dump if tableBASE forces an ABEND
/* TBTSRPT is for STROBE output, if desired
/* TBOPT is optional - required only to override installed defaults
/* Arrows indicate where to customize dataset names for your installation      <=====
/*
//STEPLIB DD DISP=SHR,DSN=*your.application.program.library*                <=====
// DD DISP=SHR,DSN=*your.tableBASE.load*                                   <=====
//TESTLIB DD DISP=SHR,DSN=*your.tableBASE.testing.library*                <=====
//MAINLIB DD DISP=SHR,DSN=*your.tableBASE.tables.library*                 <=====
//SYSOUT DD SYSOUT=*
//TBDUMP DD SYSOUT=*
//TBTSRPT DD SYSOUT=*
//TBOPT DD *
* A leading asterisk denotes a comment
LISTOPTIONS=Y (handy for diagnostic purposes)
TSREGION = 12M
MAXNM TAB = 500
LIB01 = TESTLIB (TESTLIB first for batch testing)
LIB02 = MAINLIB
/*

```

## TBEXEC Command Summary

TBEXEC (DK1TEXEC) is the primary tableBASE batch utility. It is used to define and manage libraries, and to populate tables using sequential files. The following tables describe the available commands and their parameters used with TBEXEC, and then display the command-parameter relationships. For more details about TBEXEC see the *tableBASE Batch Utilities Guide*.

### TBEXEC commands

Command	Description
SET	Establishes default values for keywords.
PRINT	Prints information about a directory, table generation, and/or table contents. Option 1: List Directory. Option 2: Print Table Information. Option 3: Print Table Contents.
DEFINE	Option 1: Initialize a new tableBASE Library. Option 2: Define a new table. Option 3: Create an Alternate Index definition.
CHANGE	Change table characteristics. Option 1: Change the definition of a table. Option 2: Change an Alternate Index definition.
CLEAR	Clear or empty a table.
DELETE	Option 1: Delete one generation of a table. Option 2: Delete all generations of a table.
COPY	Option 1: Copy a table generation. Option 2: Copy all generations of a table. Option 3: Copy a tableBASE Library.
LOAD	Load a table generation from a sequential dataset.
UNLOAD	Write a specified table generation to a sequential dataset.
UPDATE	Update a table from an input dataset.
RENAME	Rename a table.
EXPAND	Expand a tableBASE library.
IMPORT	Copy an exported sequential dataset into a tableBASE library.
EXPORT	Convert a tableBASE library or table to a sequential dataset.

## TBEXEC Parameters

Parameter	Description
ALLGEN	Denotes all generations, and when used, the value must be YES.
ALT	The name of the Alternate Index.
BASENAME	The name of the data table for which this is an Alternate Index.
BYTCOUNT	The number of bytes to be used from the table row. The default is the row size.
DEF	The name of the table which is to be used for this command.
DETAIL	Whether additional data should be printing. DETAIL=Y N
DUP	Whether duplicate keys should be allowed in table being loaded. DUP=Y N
EST	An estimate of the number of rows that will be loaded into the table the first time it is used.
EXPFACR	An integer between 1-999 representing the number of tenths of a percent in the expansion factor.
FROM	The DDNAME of the data set from which data is to be taken.
GEN	A number from -8 to +255 identifying the generation of a table.
INDEX	A character 'T' or 'P' indicates whether data table is a True or Pointer table.
ISZ / RSZ	A number from 1 to 32,767 denoting the length of the row. RSZ is a synonym of ISZ.
KSZ	A number from 1 to 256 denoting the length of the key.
KLOC	The starting position of the key within the row.
LIB	The DDNAME of the tableBASE Library. Unless changed by the SET command, the default is MAINLIB.
LINSIZ	A number between 1 and 100 that denotes the number of bytes of table data to be printed per line.
LOWERDEN	An integer between 1-999 representing, in the thousands, the lowest density a Hash table may have.
MAXGEN	The number of generations to be kept (1-9).
MTHD	A one-character code indicating the table search method to be used: S (Serial), Q (Queued Sequential), B (Binary), C (Address Tree Binary), and H (Hash).
NEWID	This COPY command parameter indicates whether the update history of the table should change when a table is copied. Value may be N, No, Y or Yes.
NEWLIB	The DDNAME of a new tableBASE library, or the target of an EXPAND command.
NEWNAME	A new table name for a copied or renamed table.
ORG	A one-character code indicating how the data in a table is to be organized: R (Random), U (User-Controlled), S (Sequential), D (Descending Sequential), or H (Hash). Default is R.
PRNT	One character code for the print option, Character, Hexadecimal or Both (C/H/B).
PSWD	A READ or WRITE password for a protected table.

<b>Parameter</b>	<b>Description</b>
RECCOUNT	A count of the number of table entries to be used.
REMOVE	The DDNAME of the dataset which contains the keys of table entries to be removed.
REPLACE	Replace existing table(s). Value may be N, No, Y or Yes.
RPSWD	The READ password.
RSZ	See ISZ above.
STARTBYT	The position of the byte from which the input data is to be retrieved.
STARTREC	The record number at which printing, loading and unloading is to start.
SMC	One character, the STORAGE MODE CODE, Resident or Paged (R/P). Version 6 supports R only.
TBL	The table name used for this command.
TO	The DDNAME of the data set into which data is to be copied.
TTYPER	A V converts the first byte of the table name (uppercase) a to view name (lowercase). If TTYPER is blank, the table name refers to a Data Table.
UPPERDEN	An integer between 1-999 representing, in the thousands, the highest density a Hash table may have.
WITH	The DDNAME of a data set from which data is to be retrieved for updating.
WPSWD	The WRITE password.

## TBEXEC Command-Parameter Relationship

	ALLGEN	ALT	BASENAME	BYTCOUNT	DEF	DETAIL	DUP	EST	EXPFACTR	FROM	GEN	ISZRSZ	KSZ	KLOC	LIB	LINSIZ	LOWERDEN	MAXGEN	MTHD	NEWID	NEWLIB	NEWNAME	ORG	INDEX	PRNT	PSWD	RECCOUNT	REMOVE	REPLACE	RPSWD	STARTBYT	STARTREC	SMC	TBL	TO	TTYPE	UPPERDEN	WITH	WPSWD	
SET						X									X	X								X	X															
PRINT OPTION 1						X									X																									
PRINT OPTION 2					#										X																						X			
PRINT OPTION 3			X								X				X	X								X	X	X								#		X				
DEFINE OPTION 1																					#																			
DEFINE OPTION 2								X	X			X	X	X	X		X	X	X				X	X					X				#		X	X		X		
DEFINE OPTION 3	#	#											X	X	X				X			X	X																	
CHANGE OPTION 1								X			X	X	X	X	X		X	X	X				X	X					X				#		X	X		X		
CHANGE OPTION 2	#	X											X	X	X				X				X																	
CLEAR											X				X										X									#		X				
DELETE OPTION 1											X				X										X									#		X				
DELETE OPTION 2	#														X										X								#		X					
COPY OPTION 1											X				X					X		X											#	#	X			X		
COPY OPTION 2	#														X					X		X											#	#	X			X		
COPY OPTION 3																				X														#						
LOAD							X				#	X			X									X	X									#		X				
UNLOAD											X				X									X	X									#	#	X				
UPDATE											X				X									X			*							#		X		*		
RENAME															X							#			X								#		X					
EXPAND															X						#																			
IMPORT											#				#																									
EXPORT OPTION 1															#									X											#					
EXPORT OPTION 2															#									X										#	#	X				

Commands to the left - Parameters on top

# = required; X = optional; \* = at least one of

## TBEXEC Sample JCL

The following JCL can be used to run TBEXEC:

```
//*   Execute TBEXEC program with sample commands
//*   Arrows indicate where dataset names should be customized      <=====
//*
//STEP1   EXEC PGM=TBEXEC
//STEPLIB DD DISP=SHR,DSN=*YOUR.PREFIX*.TBASE.LOAD                 <=====
//TBMSG   DD SYSOUT=*
//TBRPT   DD SYSOUT=*
//TBDUMP  DD SYSOUT=*
//MAINLIB DD DSN=*YOUR.PREFIX*.TBASE.LIBRARY,DISP=SHR             <=====
//ABCXYZ  DD DISP=SHR,DSN=*YOUR.PREFIX*.TBASE.ABCXYZ              <=====
//CNTLCARD DD *
* sample command copying a table to another library and changing the table name:
COPY  TBL=CUSTDATA TO=ABCXYZ
      NEWNAME=CUSTUPDT;
/*
```

## DK1TLCHK Utility JCL

The Library Version Identification Utility, DK1TLCHK, is a diagnostic tool used to identify the version number of, and any structural problems with, a tableBASE library. It may be used if a tableBASE application encounters an error or abend 0062 (version incompatibility error), or an S001 abend (non-compatible versions of tableBASE attempting to access a Version 6 or Bridge Library). Here is some sample JCL for running it:

```
//*****  
//* TABLEBASE LIBRARY IDENTIFICATION  
//* IDENTIFIES THE FORMAT OF THE TABLEBASE LIBRARY  
//* CHANGE LINES TO YOUR DATASET NAMES <=====  
//*****  
//LIBCHECK EXEC PGM=DK1TLCHK, PARM=CHECKLIB  
//STEPLIB DD DISP=SHR, DSN=*your.prefix*.TBASE.LOAD <=====  
//TBREPORT DD SYSOUT=*  
//CHECKLIB DD DISP=SHR, DSN=*your.prefix*.MAINLIB <=====
```

## JCL to bring up a VTS

Here is some sample JCL for starting up a VTS Agent named DK1A:

```
//* INSERT YOUR JOB CARD HERE  
//*  
//* Arrows indicate where dataset names must be customized <=====  
//*  
//VTS EXEC PGM=DK1VAGNT, TIME=1440  
//STEPLIB DD DISP=SHR, DSN=*your.prefix*.AUTHLIB <=====  
//TBDUMP DD SYSOUT=*  
//TBTSRPT DD SYSOUT=*  
//TBOPT DD *  
LISTOPTIONS=Y  
VTSNAME=DK1A  
TSREGION=50M  
STROBE=0  
/*
```

## CICS TBDR (DK1TDRVC) Transaction Command Descriptions

DK1TDRVC is the tableBASE driver command processor for CICS. DK1TDRVC can be invoked in any CICS environment as a separate transaction. The transaction identifier **TBDR** is used in CICS.

CICS TBDR allows interactive access to most tableBASE operations. For a list of tableBASE commands, see “tableBASE Command Summary” on page 19.

### CICS TBDR (DK1TDRVC) Additional Command Summary

Command	Description
AB	ABEND with 0C7 (used to force dump)
DR	list tables in library (uses NX and GD)
GH	Fetch by Count & Translate Row into Hex on Lines 1-3
LG	List Generic (uses repeated FG)
PR	List Rows in table (default command for no command)
QR	Open View for Read
QW	Open View for Write
RH	Translate Hex into Row, Replace Row, Get Next into Hex
SP	Special Processing
SS	Select Subsystem
VE	Show version of DK1TDRVC
>D	Translate row Data into lines 1-3
>F	Move current View row into Driver Translate Control
>H	Translate tablename & lock key into hex on line 1
>I	Translate lines 1-3 into row
>L	Translate hex into Lock key
>N	Translate lines 1-3 into row and Get Next row
>S	Allows transfer of a hex-character table name from the LT command output to the table name field so another command can be invoked against it.
>T	Translate hex into Tablename

**NOTE:** To obtain Help on any of the above commands, use the PF1 key on the TBDR screen.

## Batch/TSO TBDRIVER (DK1TDRV) Command Descriptions

TBDRIVER (DK1TDRV) is the tableBASE driver command processor for Batch/TSO. DK1TDRV can be invoked in a batch job (see “JCL for DK1TDRV” on page 45), or interactively through the TSO CLIST **TBDR**, or the tablesONLINE/ISPF menu. The TBDRIVER (DK1TDRV) program accepts tableBASE-like commands from a terminal or a file and invokes tableBASE to execute them. TBDRIVER also has additional commands (referred to as macros) created to make long tasks easier such as PRINT TABLE (PR).

### TBDRIVER (DK1TDRV) Commands [NOTE: Parameters in lower-case are optional.]

Command	Format and Description
AB <sup>1</sup>	AB
	Abend with 0C7 (Used to force a TBDRIVER dump)
AL	AL, ddname, DSNAME, disp
	Allocate an existing library <ul style="list-style-type: none"> <li>• <b>disp</b> is S for Shared (default) or O for exclusive</li> </ul>
AR <sup>1</sup>	AR, tablename
	Open base table and invoke all associated alternate indexes.
BN	BN
	Display installation's banner
CA	CA, alttablename, datatable, org, method, keycount, keyloc, keysize
	Create Alternate Index definition <ul style="list-style-type: none"> <li>• <b>keycount</b> must be set to 1 if <b>keyloc</b> or <b>keysize</b> is specified</li> </ul>
CD	CD, tablename, org, method, type, smc, rpwsd, wpswd, rowsize, keysize, keyloc, rowestimate, numgens, expandfactor, lowdensity, hidensity, viewversion, viewname, comment, locklatch
	Change table definition
CG	CG, tablename, wpswd, gennumber
	Change number of table generations retained in library
CL <sup>2</sup>	CL, tablename, locklatch
	Close table

Command	Format and Description
CN	CN, tablename, newtablename Change table name in TSR <ul style="list-style-type: none"> <li>• <b>CN</b> changes current tablename to <b>newtablename</b></li> </ul>
CS	CS, aweot Change status switches See <i>tableBASE Programming Guide</i>
DC	DC, tablename, count, locklatch Delete row by count
DE	DE Disengage libraries (Close all library files)
DG	DG, tablename, wpswd, gennumber Delete a table generation <ul style="list-style-type: none"> <li>• <b>gennumber</b> defaults to zero</li> </ul>
DK	DK, tablename, key, rowlengthoverride, locklatch Delete row by key <ul style="list-style-type: none"> <li>• <b>key</b> defaults to spaces</li> </ul>
DL	DL, ddname Define library
DR <sup>1</sup>	DR, ddname List next 10 library entries (uses NX and GD) (For interactive, hit <RETURN>; for batch, enter a blank line.)
DT	DT, tablename, org, method, type, smc, rpswd, wpswd, rowsize, keysize, keyloc, rowestimate, numgens, expandfactor, lowdensity, highdensity, viewversion, viewname, comment, locklatch Define table
DV <sup>2</sup>	DV, tablename, DDNAME, locklatch Divert table to a library where table does not exist

Command	Format and Description
DW <sup>2</sup>	DW, tablename, DDNAME, locklatch Divert table to a library where table exists
FC	FC, tablename, count, rowlengthoverride Fetch row by count
FG	FG, tablename, KEY, rowlengthoverride, partialkeylength FG, tablename, PARTIALKEY*, rowlengthoverride FG, tablename, *, rowlengthoverride Fetch row using generic key <ul style="list-style-type: none"> <li>• <b>KEY</b> and <b>PARTIALKEY</b> default to spaces</li> </ul>
FK	FK, tablename, key, rowlengthoverride Fetch row by key <ul style="list-style-type: none"> <li>• <b>key</b> defaults to spaces</li> </ul>
FN	FN, tablename, key, rowlengthoverride Fetch row or next highest (lowest) by key <ul style="list-style-type: none"> <li>• <b>key</b> defaults to spaces</li> </ul>
GD <sup>3</sup>	GD, tablename, gennumber Get table definition
GF	GF, tablename, rowlengthoverride Get first table row
GL	GL, tablename, rowlengthoverride Get last table row
GN	GN, tablename, rowlengthoverride Get next table row
GP	GP, tablename, rowlengthoverride Get previous table row

Command	Format and Description
HP <sup>1</sup>	HP - General Help info HP,HP - Get list of commands HP,xx - Get help on command xx Help about command(s)
IA <sup>4</sup>	IA, alttablename, datatable, org, method, keycount, keyloc, keysize, locklatch Invoke Alternate Index <ul style="list-style-type: none"> <li>Keycount must set to 1 if keyloc or keysize specified</li> </ul>
IC	IA, tablename, count, rowdata, rowlengthoverride, locklatch Insert row by count <ul style="list-style-type: none"> <li>rowdata defaults to spaces</li> </ul>
IK	IK, tablename, rowdata, rowlengthoverride, locklatch Insert row by key <ul style="list-style-type: none"> <li>rowdata defaults to spaces</li> </ul>
LD <sup>5</sup>	LD, tablename, ddname, tablenamemask, dirtytype List directory (Create a table from directory contents) <ul style="list-style-type: none"> <li>dirtytype is V for Views, D for Data tables, T (default) for all generations of all tables</li> </ul>
LG <sup>1</sup>	LG, tablename, key, rowlengthoverride, partialkeylength LG, tablename, partialkey*, rowlengthoverride LG, tablename, *, rowlengthoverride List rows using generic key <ul style="list-style-type: none"> <li><b>key, partialkey</b> default to spaces</li> </ul>
LL	LL List library search order
LS	LS List status switches See <i>tableBASE Programming Guide</i>

Command	Format and Description
LT	LT,howmany,startfrom
	List tables currently open in the TSR <ul style="list-style-type: none"> <li>• <b>howmany</b> defaults to 10</li> <li>• <b>startfrom</b> defaults to 1</li> </ul>
LV	LV
	List VTS settings
ML	ML,LIB1,LIB2,...,LIB10
	Modify library search order <ul style="list-style-type: none"> <li>• Up to 10 DDnames and VTS:xxxx</li> <li>• Set empty search list</li> <li>• Blank characters between library names are ignored</li> </ul>
MT	MT,tablename,locklatch
	Empty table (erase contents in TSR)
NX	NX,tablename,ddname,s
	Return next tablename in library <ul style="list-style-type: none"> <li>• <b>s</b> is S for library space stats (tablename is ignored)</li> <li>• <b>NX</b> changes the current table name unless S is given</li> </ul>
OA <sup>1</sup>	OA,tablename
	Open Any. If table is a base table, open table for read. If table is an alternate, open base table and invoke the alternate. Supports initial loading of tables in VTS-TSRs.
OR <sup>4</sup>	OR,tablename,password,gennumber,indiropen
	Open table for read <ul style="list-style-type: none"> <li>• <b>indiropen</b> is I for indirect open</li> </ul>
OW <sup>4</sup>	OW,tablename,wpswd,gennumber,indiropen,locklatch
	Open table for write <ul style="list-style-type: none"> <li>• <b>indiropen</b> is I for indirect open</li> </ul>

Command	Format and Description
PR <sup>1, 2</sup>	PR, tablename, startrow, endrow, rowlengthoverride PR, tablename, *, , rowlengthoverride PR, tablename, startrow, *, rowlengthoverride
	List next 10 table rows (default command) • <b>PR</b> defaults to printing of 10 rows after current row
QR <sup>1</sup>	QR, tablename, password, gennumber, indiropen
	Open View for read • <b>indiropen</b> is I for indirect open
QW <sup>1</sup>	QW, tablename, wpswd, gennumber, indiropen, locklatch
	Open View for write • <b>indiropen</b> is I for indirect open
RC	RC, tablename, count, rowdata, rowlengthoverride, locklatch
	Replace row by count • <b>rowdata</b> defaults to spaces
RF <sup>2</sup>	RF, tablename
	Refresh a table that is opened for read in TSR (or VTS-TSR) • This command will cause all opened Alternate indexes to be refreshed as well
RK	RK, tablename, rowdata, rowlengthoverride, locklatch
	Replace row by key • <b>rowdata</b> defaults to spaces
RL <sup>2</sup>	RL, tablename, locklatch
	Release table (Change open status from write to read)
RN	RN, tablename, newtablename, wpswd
	Rename table in library • <b>RN</b> changes current tablename to <b>newtablename</b>
SI	SI, criterion
	Set indirect table search criterion

Command	Format and Description
SK	SK, tablename, key
	Search row by Key <ul style="list-style-type: none"> <li>• <b>key</b> defaults to spaces</li> </ul>
SP <sup>1</sup>	SP, 1, , , yyyymmdd (for date-sensitive processing)
	SP, 0 (for regular processing)
	Set special function processing controls <ul style="list-style-type: none"> <li>• <b>yyymmdd</b> defaults to current date</li> </ul>
SS <sup>1</sup>	SS, VTSSERVERNAME
	SS (Unset server name)
	Set VTS name (TB-SUBSYSTEM) in TB-PARM
ST <sup>2</sup>	ST, tablename, locklatch
	Store table
UL	UL, DDNAME
	Unallocate a library
VE <sup>1</sup>	VE
	Show version of DK1TDRV.
VS <sup>1</sup>	SS, VTSSERVERNAME
	Synonym for SS <sup>1</sup> - Note that this is a different command from the tableBASE VS command.
VX <sup>1</sup>	VX, pgmname, text
	Execution of a program in VTS <ul style="list-style-type: none"> <li>• <b>pgmname</b> is the name of a user-written program</li> <li>• <b>text</b> is data to be passed to the program</li> </ul>
XT	XT, tablename, wpswd
	Eliminate all generations of a table from library

Note1. This is a special TBDRIVER (DK1TDRV) command.

Note2. Asterisks may be used as wildcard characters in the table name. An asterisk (\*) at the end of a string denotes zero or more characters. If the asterisk is elsewhere in the string, the asterisk denotes a single character. The list of tables to be matched is the TSR.

Note3. The GD command display of the DDNAME field is increased from eight bytes to 12 bytes. This allows display of VTS:xxxxxxx for tables accessed by a linked VTS-TSR. This may affect applications which post-process the output from TBDRIVER steps.

Note4. Same as footnote 2., but list of tables to be matched is all tables in the current library search list (LIB-LIST).

Note5. TABLENAMEMASK is a wildcard form as above, or contains no asterisks, for example, CAT, in which case it is assumed to be equivalent to CAT\*. The list to be matched is all tables in the current library search list (LIB-LIST).

## JCL for DK1TDRV

Here is an example of JCL that can be used to run TBDRIVER in batch:

```
/*
/* Arrows indicate where dataset names must be customized          <=====
/* The TBTSRPT DD is included when a strobe report is desired
/*
//STEP1 EXEC PGM=TBDRIVER
//STEPLIB DD DISP=SHR,DSN=*your.prefix*.TBASE.LOAD                <=====
//SYSOUT DD SYSOUT=*
//MAINLIB DD DISP=SHR,DSN=*your.prefix*.TBASE.LIBRARY           <=====
//TBSYSLB DD DISP=SHR,DSN=*your.prefix*.TBSYSLB                 <=====
//TBDUMP DD SYSOUT=*
//TBTSRPT DD SYSOUT=*
//CMD DD *
* Enter TBDRIVER command sequences here:
/*
//TBOPT DD *
* If needed, enter TBOPT overrides for default settings here:
/*
```







202-2460 Lancaster Rd., Ottawa, ON K1B 4S5

[www.dki.com](http://www.dki.com)

613-523-5500