Command Reference: ReadTableFromDataStore()

Read a table from a datastore

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The ReadTableFromDataStore () command executes a database query for a datastore that is associated with a database, and places the result in a TSTool table, which can subsequently be processed with other TSTool commands. This command cannot be used with web service datastores because the underlying software relies on a database to perform the query. If database datastore support is not specifically provided by TSTool, a generic datastore can be used (see the **Generic Database DataStore** appendix). This command is useful when the database can provide results with a simple query and tight integration with TSTool is not required or has not been implemented. The query can be specified in three ways:

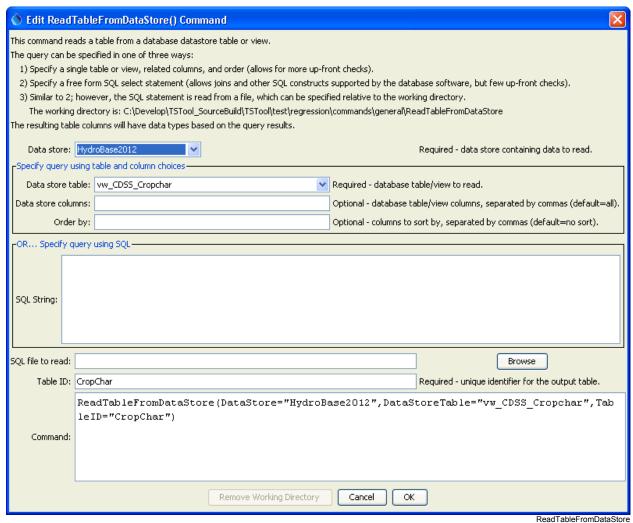
- Specify a single table/view to query:
 - o the list of tables is filtered to remove internal database tables; however, this capability varies by database product and in some cases internal tables will be listed
 - o the query is constructed from the provided database table/view name and column names
 - o the output can be sorted by specifying column names
 - o "where" clauses currently are not supported but may be added in the future
- Specify a SQL select statement:
 - o SQL must be valid for the database (syntax may vary based on database software)
 - SQL syntax is not checked for validity and therefore error messages from the database may be more difficult to interpret
- Specify an SQL select statement in a file
 - o Similar to the above option; however, the SQL statement is read from a file
 - o Useful if the SQL statement is also used by other tools

General constraints on the query are as follows:

- the table or views being queried must be readable (some databases restrict direct access to data and require using stored procedures)
- the resulting table in TSTool will have columns with names that match the database
- data types for columns will closely match the database:
 - o data will be treated as strings if unable to match the database column type
 - o the precision of floating point numbers for displays is defaulted to 6 digits
 - o null values in the database will transfer to null values in the TSTool table and will display as blank table cells
 - o date/time columns in the database will be represented as such in the TSTool table; however, it may not be possible to limit the precision of the date/time (i.e., hours, minutes, and seconds may be shown with default zero values in output)

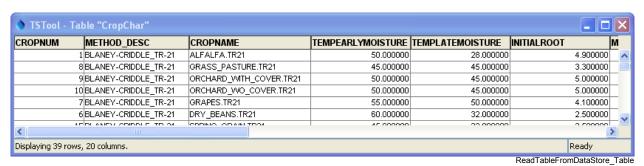
Future enhancements will add additional features to intelligently map database results to TSTool tables.

The following dialog is used to edit the command and illustrates the syntax for the command, in this case reading a small table from the State of Colorado's HydroBase.



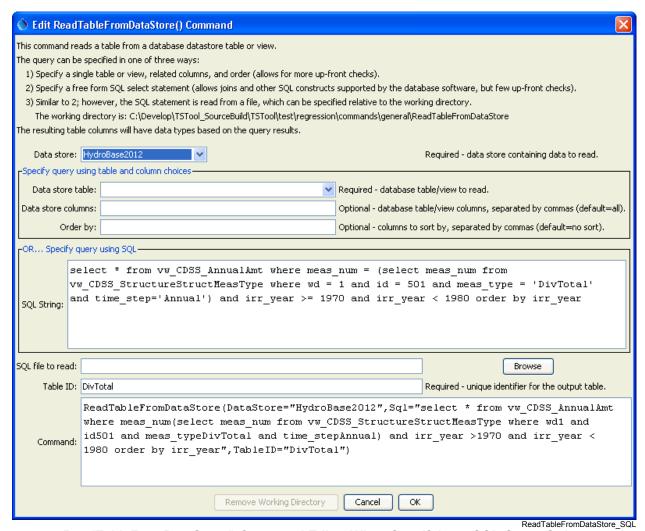
ReadTableFromDataStore() Command Editor When Querying a Single Table

The corresponding table is as shown below:



Example ReadTableFromDataStore() Output Table

The following example illustrates using an SQL query string, in this case to read diversion records for a specific structure in HydroBase:



ReadTableFromDataStore() Command Editor When Specifying a SQL Query String

The command syntax is as follows:

ReadTableFromDataStore(Parameter=Value,...)

Command Parameters

Parameter	Description	Default
DataStore	The name of a database datastore to read.	None – must be specified.
DataStoreTable	The name of the database table or view to	None – must be specified
	read when querying a single table or view.	unless Sql is specified.
DataStoreColumns	When reading a single table/view, the names	All columns from
	of the columns to read, separated by	DataStoreTable are
	commas.	read.
OrderBy	When reading a single table/view, a list of	Default database sort order
	column names separated by commas to	will be used.
	control the order of output.	
Sql	The SQL string that will be used to query the	None.
	database. If specified, do not specify	
	DataStoreTable or SqlFile.	
SqlFile	The name of the file containing an SQL	None.
	string to execute. If specified, do not specify	
	DataStoreTable or Sql.	
TableID	Identifier to assign to the output table in	None – must be specified.
	TSTool, which allows the table data to be	
	used with other commands. A new table will	
	be created.	