
Command Reference: WriteTimeSeriesToExcel()

Write one or more time series to a Microsoft Excel workbook file

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The `WriteTimeSeriesToExcel()` command writes one or more time series to an Excel workbook. The following functionality is provided:

- Time series are written in columns (see `WriteTimeSeriesToExcelFormatted()` for alternate formatting options).
- The worksheet and position in worksheet can be specified.
- The output can be created or appended.
- Separate columns can be written for date/time, date, and/or time. Currently date/time values are written as strings but Excel date objects will be enabled in the future.
- Cell comments can be formatted using data flags and other time series properties.

TSTool uses the Apache POI software, version 3.9 (<http://poi.apache.org>) to read/write the Excel file and consequently functionality is constrained by the features of that software package.

The following figures illustrate the dialog used to edit the command and the syntax for the command.

WriteTimeSeriesToExcel()

WriteTimeSeriesToExcel() Command Editor

WriteTimeSeriesToExcel

Time Series to Write | Excel Output | Cell Comments

Time series will be output in a block of cells with the upper left indicated by the address information.
The worksheet will be created if it does not exist.

Output (workbook) file:

Append?: Optional - whether to append to Excel file (default=False or True if open).

Worksheet: Optional - worksheet name (default=first sheet if appending to existing).

Specify the address for the upper-left corner of a block of cells in the Excel worksheet

by Excel Address | by Named Range | by Table Name

Excel address: Excel cell block address in format A1, A1:B2, etc.

Keep file open?:

Date/time column: Optional - name for date/time column (default=Date or DateTime).

Date/time format: => Optional - format string for data date/time formatter (default=ISO).

Date column: Optional - name for date column (default=use date/time column only).

Date format: => Optional - format string for date formatter (default=ISO).

Time column: Optional - name for time column (default=use date/time column only).

Time format: => Optional - format string for time formatter (default=ISO).

Value column(s): => Optional - %L for location, \${ts:property} for property (default=%L_%T).

WriteTimeSeriesToExcel_ExcelOutput

WriteTimeSeriesToExcel() Command Editor for Excel Output Parameters

Time Series to Write | Excel Output | Cell Comments

Comments can be added to column headings and data cells.
Warning: Using many comments can significantly increase the size of the Excel file.
For column headings, format the comment using the following specifiers:
%L for location, %T for data type, %I for interval, etc. (using the format choices)
\${ts:property} for time series property
\${property} for processor property
For data cells, format the comment using the specifiers indicated above and additionally:
\${tsdata:datetime}, \${tsdata:value}, or \${tsdata:flag}

Author: Optional - author for comments (default=none).

Column comment: => Optional - %L for location, \${ts:property} for property, etc.

Value comment: => Optional - %L for location, \${ts:property} for property, etc.

Skip value comment if no flag?: Optional - skip comment if no flag? (default=True).

WriteTimeSeriesToExcel_CellComments

WriteTimeSeriesToExcel() Command Editor for Cell Comments Parameters

The command syntax is as follows:

```
WriteTimeSeriesToExcel (Parameter=Value, ...)
```

Command Parameters

Parameter	Description	Default
TSList	Indicates the list of time series to be processed, one of: <ul style="list-style-type: none"> AllMatchingTSID – all time series that match the TSID (single TSID or TSID with wildcards) will be processed. AllTS – all time series before the command. EnsembleID – all time series in the ensemble will be processed. FirstMatchingTSID – the first time series that matches the TSID (single TSID or TSID with wildcards) will be processed. 	AllTS

Parameter	Description	Default
	<ul style="list-style-type: none"> LastMatchingTSID – the last time series that matches the TSID (single TSID or TSID with wildcards) will be processed. SelectedTS – the time series are those selected with the SelectTimeSeries() command. 	
TSID	The time series identifier or alias for the time series to be processed, using the * wildcard character to match multiple time series.	Required if TSList=*TSID.
EnsembleID	The ensemble to be processed, if processing an ensemble.	Required if TSList=EnsembleID.
MissingValue	Value to write to Excel for missing data values.	Original missing value.
Precision	The number of digits after the decimal for data values.	Determine from units.
OutputStart	The date/time for the start of the output.	Use the global output period.
OutputEnd	The date/time for the end of the output.	Use the global output period.
OutputFile	The name of the Excel workbook file (*.xls or *.xlsx) to write, as an absolute path or relative to the command file location. If the Excel file does not exist it will be created.	None – must be specified.
Append	Indicate whether the sheet being written should be appended to an existing workbook.	False – create a new workbook.
Worksheet	The name of the worksheet in the workbook to write. If the worksheet does not exist it will be created.	Write to the first worksheet.
ExcelAddress	Indicates the block of cells to write, using Excel address notation (e.g., A1:D10).	Must specify address using one of available address parameters.
ExcelNamedRange	Indicates the block of cells to write, using an Excel named range.	Must specify address using one of available address parameters.
ExcelTableName	Indicates the block of cells to write, using an Excel named range.	Must specify address using one of available address parameters.
KeepOpen	Indicate whether to keep the Excel file open (True) or close after creating (False). Keeping the file open will increase performance because later commands will not need to reread the workbook. Make sure to close the file in the last Excel command.	False
DateTime Column	The name of the column for the date/time.	Date if day, month, or year interval,

Parameter	Description	Default
		DateTime otherwise.
DateTime FormatterType	Specify the date/time formatter type, which indicates the syntax for DateTimeFormat. Currently, only C is supported, corresponding to the C programming language strftime() function, which is also used by other software (see Linux date command).	C
DateTime Format	The format used to expand the date/time corresponding to each time series data value. The format string can contain literal strings and specifiers supported by the DateTimeFormatterType.	
DateColumn	The name of the column for the date, if date and time need to be in separate columns.	Date
Date FormatterType	Specify the date/time formatter type, which indicates the syntax for DateFormat. Currently, only C is supported, corresponding to the C programming language strftime() function, which is also used by other software (see Linux date command).	C
DateFormat	The format used to expand the date/time corresponding to each time series data value. The format string can contain literal strings and specifiers supported by the DateFormatterType.	
TimeColumn	The name of the column for the time, if date and time need to be in separate columns.	Time
Time FormatterType	Specify the date/time formatter type, which indicates the syntax for TimeFormat. Currently, only C is supported, corresponding to the C programming language strftime() function, which is also used by other software (see Linux date command).	C
TimeFormat	The format used to expand the date/time corresponding to each time series data value. The format string can contain literal strings and specifiers supported by the TimeFormatterType.	
ValueColumns	The name(s) of the column(s) corresponding to each time series, to use for the values. Specify with % formatters, \${ts:property} and \${property}. In the future a parameter may be added to more specifically define the column names.	%L_%T
Author	Name to use in comments for author.	No author
ColumnComment	A string to format for column heading comments for each time series. See ValueColumns for formatting options.	No comments.
ValueComment	See ValueColumns for formatting options. The string \${tsdata:flag} can also be specified to include the data flag for the cell.	No comments.
SkipValueComment IfNoFlag	Indicate whether the ValueComment should be skipped if the data flag for a cell is blank.	True