Command Reference: ReadUsgsNwisDaily()

Read 1+ time series from the USGS NWIS Daily Value web service

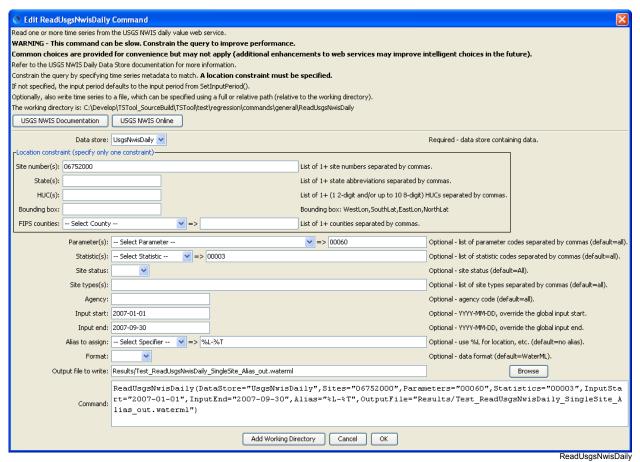
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The ReadUsgsNwisDaily() command reads one or more time series from the United States Geological Survey (USGS) National Water Information System (NWIS) Daily Value web service (see the UsgsNwisDaily Data Store Appendix). The command provides parameters to constrain the web service query and also allows the result to be saved as an output file. For example, if WaterML is chosen as the time series format, a WaterML file can be saved and can be read later using the ReadWaterML() command. See also the WebGet() command, which also can be used to retrieve data files from the USGS website.

The USGS NWIS web service allows station and time series data type information to be filtered, both as a convenience and to maintain reasonable web service performance. Many of the choices that are available for limiting queries allow 0+ values to be provided. For example, specifying no requested parameter will return all available parameters for a location. Specifying a list of parameters (separated by commas) will return only the requested parameters.

USGS codes are used in order to generate a unique time series identifier (TSID). For example, the TSID data type is formed from the parameter code, a dash, and the statistic code. The numerical codes currently are used to ensure uniqueness but in the future the string name may be allowed as an option. In order to have more human-friendly identifiers for time series, one strategy is to request only a specific parameter and statistic and then use the alias to specify a text equivalent to the numeric codes. For example, specify Parameters=00060 (for streamflow discharge) and Statistics=00003 and assign the alias with Alias=%L.Streamflow-Mean.

The following dialog is used to edit the command and illustrates the syntax. Note that some choices are provided as a convenience. However, full listing of choices (such as all the thousands of streamflow stations that are available) is not provided due to performance issues. Additional query features will be enabled as web service integration is enhanced.



ReadUsgsNwisDaily() Command Editor

The command syntax is as follows:

ReadUsgsNwisDaily(Parameter=Value,...)

Command Parameters

Parameter	Description	Default
Sites	A list of site numbers to read, separated	None – one of the locational
	by commas.	parameters must be provided to
		constrain the query.
States	A list of state codes (e.g., AL), separated	None – see above.
	by commas.	
HUCs	A list of hydrologic unit codes, separated	None – see above.
	by commas. See the limitations on the	
	NWIS site for more information.	
BoundingBox	A bounding box consisting of west	None – see above.
	longitude, south latitude, east longitude,	
	and north latitude, separated by spaces.	
	Longitudes in the western hemisphere	
0	are negative.	Name and the second
Counties	A list of Federal Information Processing	None – see above.
	Standards (FIPS) county codes, separated	
Parameters	by commas. Data parameter codes for the stations	All available peremeters are
rarameters	(e.g., 00060 for stream discharge),	All available parameters are returned.
	separated by commas.	returned.
Statistics	Statistic codes (e.g., 00003 for mean),	All available statistics are
Statistics		returned.
SiteStatus	separated by commas. Filter for stations, one of:	All
Silestatus	-	AII
	• All – all stations are returned	
	Active – only active stations are	
	returned	
	• Inactive – only inactive stations	
C	are returned	A11 11 14 4
SiteTypes	Site types to return, separated by	All available site types are
7 ~~~~~	commas.	returned.
Agency	Agency code to return (e.g., USGS).	All available agencies are
InputStart	The start of the period to read data –	returned.
Inputstart	specify if the period should be different	Use the global query period.
	from the global query period.	
InputEnd	The end of the period to read data –	Use the global query period.
TIPACHIA	specify if the period should be different	ose the global query period.
	from the global query period.	
Alias	The alias to assign to the time series, as a	None – must be specified.
	literal string or using the special	a contract of specifical
	formatting characters listed by the	
	command editor. The alias is a short	
	identifier used by other commands to	
	locate time series for processing, as an	

Parameter	Description	Default
	alternative to the time series identifier	
	(TSID).	
Format	The data format for output, one of:	WaterML
	• JSON – JavaScript Object Notation	
	(currently used only for downloads	
	but will not result in time series in	
	TSTool)	
	• RDB – tab-delimited format (also see	
	ReadUsgsNwisRDB() command;	
	currently used only for downloads	
	but will not result in time series in	
	TSTool).	
	• WaterML - XML format (also see	
	the ReadWaterML() command).	
OutputFile	The name of the output file to create.	No output file will be created.
	The path to the file can be absolute or	
	relative to the working directory.	