

Prompt

The actual transformation uses Eqs. (22-4) and (22-5) with k' given by (22-3). Here we specify the height H is units of sphere radius. The tilt of the plane is specified by ω and γ following the notation of Snyder page 175.

The parameters actually specified by the command are:

$/P=\{H, \omega, \gamma, \text{deltax}, \text{deltay}\}$

H is the height (in radii) above the surface of the earth, γ is the azimuth east of north of the Y axis, and ω is the tilt angle or the angle between the projection plane and the tangent plane. The x output will be limited to $\pm \text{deltax}$ and the y output will be limited to the range $\pm \text{deltay}$.

Mercator

This projection requires the following parameters:

$/P=\{\text{minLong}, \text{maxLong}, \text{minLat}, \text{maxLat}\}$

If $/P$ is not specified, the default is $\{0, 360, -90, 90\}$

Note that this projection flips the sign of y when $\cos(\text{longitude}-\text{long}_0)$ changes sign. If you are plotting a continuous path in which consecutive points exhibit the sign change, you should add a NaN entry in the wave so that the path does not wrap.

Albers Equal Area Conic

This projection requires:

$/P=\{\text{minLong}, \text{maxLong}, \text{minLat}, \text{maxLat}, \text{Phi1}, \text{Phi2}\}$

Phi1 and Phi2 are the specification of the two standard parallels, the other four parameters determine the boundary of the map area for display.

References

Snyder, John P., *Map Projections—A Working Manual*, U.S.G.S. Professional Paper 1395, U.S. Government Printing Office, Washington D.C., 1987, reprinted 1989, 1994, 1997 with corrections.

See Also

“Transforming Data into a Common Spatial Reference” in the “IgorGIS Help” file.

Prompt

Prompt *variableName*, *titleStr* [, *popup*, *menuListStr*]

The Prompt command is used in functions for the simple input dialog and in macros for the missing parameter dialog. Prompt supplies text to describe *variableName* to the user, and optionally provides a pop-up menu of choices for the value of *variableName*.

Parameters

variableName is the name of a macro input parameter or function variable.

titleStr is a string or string expression containing the text to present in the dialog to describe what *variableName* is. *titleStr* is limited to 255 bytes.

The optional keyword *popup* is used to provide a pop-up list of choices for the values of *variableName*. If *popup* is used, then *menuListStr* is required.

menuListStr is a string or string expression that contains a semicolon-separated list of choices for the value of *variableName*. If *variableName* is a string, choosing from this list will set the string to the selection. If it is a numeric variable, then it is set to the item number of the selection (if the first item is selected, the numeric variable is set to 1, etc.).

Details

In macros, there must be a blank line after the set of input parameter declarations and prompt statements and there must not be any blank lines within the set.

In user-defined functions, Prompt may be used anywhere within the body of the function, but must precede any DoPrompt that uses the Prompt variable.

menuListStr may be continued on succeeding lines only in macros, as long as no comment is appended to the Prompt line. The additional lines should start with a semicolon, and are appended to the *menuListStrs* on preceding lines.