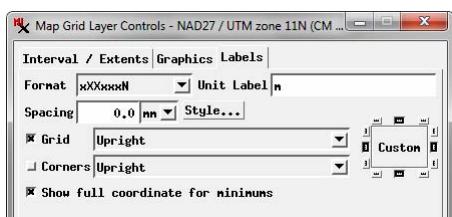


Map Grid Label Formats

The Labels tabbed panel on the Map Grid Layer Controls window lets you control the placement, orientation, coordinate format, and font style of map grid labels. You can create labels for all or some of the grid lines and/or grid corners. Label placement and orientation options are described and illustrated in the Technical Guide entitled *Map Grid Label Placement and Orientation*.

Use the Format menu to choose a coordinate format for the labels. The coordinate format choices and some other labeling options differ between map grids using a projected coordinate reference system (such as UTM or U.S. State Plane coordinates) and grids using geographic (longitude/latitude) coordinates, as described below. For either type of grid you can set the offset between the labels and the grid tick marks by entering a value in the Spacing numeric field and selecting a spacing unit (abbreviated as *mm, in, pt* for millimeters, inches, or points) from the adjacent menu. Press the Style pushbutton to open the Edit Styles window to choose a font, font color, and other text style options.

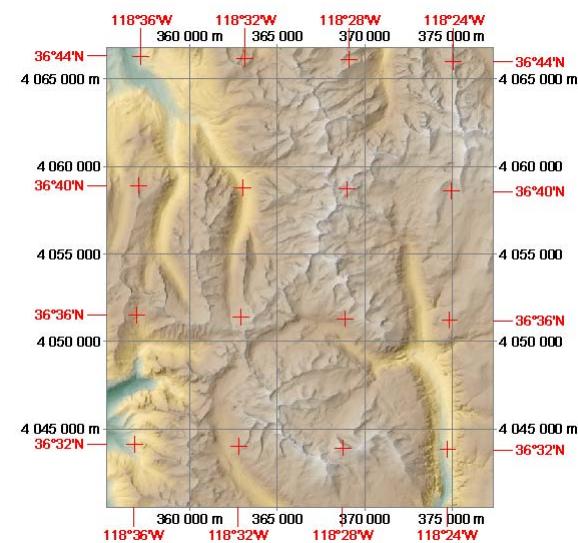
A number of the available format options abbreviate the coordinates used for grid labels, such as showing the value in integer thousands for projected coordinates. Turn on the *Show full coordinate for minimums* toggle button to use the complete coordinate value in the labels for the minimum value on each grid axis, as illustrated to the right.



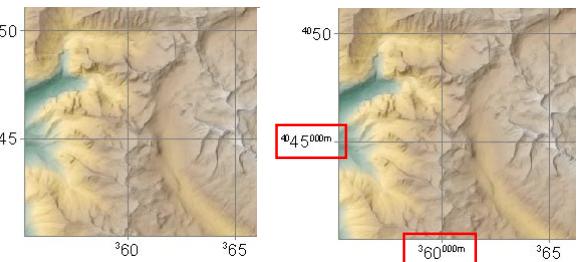
Projected Coordinate Formats (UTM Example)		
Format	Northing	Easting
XXX XXX	4 065 000	365 000
XXX,XXX	4,065,000	365,000
XXX.XXX	4.065.000	365.000
XXXXXX	4065000	365000
(unit labels for above formats shown only for the labels closest to the grid corners)		
xXXN	⁴⁰ 50 ^m N	³⁶ 5 ^m E
corners*	⁴⁰ 45 ^{000m} N	³⁶ 0 ^{000m} E
xxX	⁴⁰ 50	³⁶ 5
corners*	⁴⁰ 45 ^{000m}	³⁶ 0 ^{000m}
xXXXXxN	⁴⁰ 50 ^{000m} N	³⁶ 5 ^{000m} E
xXXXXx	⁴⁰ 50 ^{000m}	³⁶ 5 ^{000m}
xXXXXx / XX	55	65
divisible by 10	⁴⁰ 50	³⁷ 0
corners*	⁴⁰ 45 ^{000m}	³⁶ 0 ^{000m}
xXXXXxN / XX	55	65
divisible by 10	⁴⁰ 50	³⁷ 0
corners*	⁴⁰ 45 ^{000m} N	³⁶ 0 ^{000m} E
xXXXXxN. / XX	55	65
divisible by 10	⁴⁰ 50	³⁷ 0
corners*	⁴⁰ 45 ^{000m} N	³⁶ 0 ^{000m} E

* and grid minimums with *Show full coordinate for minimums* option

Labels panel for a map grid using a projected coordinate reference system (UTM in this example).



Group with a UTM map grid (black grid and labels) and a geographic (longitude/latitude) map grid (red tick marks and labels).



Lower left corner of a group with a UTM map grid with label coordinates using the xXX format, which shows coordinate values in thousands and uses superscripts for digits higher than the ten thousand place. In the example above right, the *Show full coordinate for minimums* toggle is turned on, and the resulting labels include all of the digits for the minimum northing and easting coordinates (outlined in red).

Projected Coordinates

Coordinate format options for projected coordinates are listed with examples in the table to the left. They include options for labels with full coordinates with choices for the thousands separator (space, comma, period, or none); options to include or exclude a direction label; options to abbreviate coordinates by omitting the digits for ones, tens, and hundreds; and/or options to use superscripts for certain digit places. Several choices that create abbreviated coordinate labels automatically provide expanded labels for coordinates divisible by 10. Full coordinates are automatically used for labels at the grid corners, as shown in the table entries labeled "corners".

A Unit Label text field is provided next to the Format menu for map grids with projected coordinates; the text you enter in this field (*e.g., m or meters*) is used for unit labels. Coordinate unit labels are automatically included with corner coordinate labels and with minimum grid coordinate labels when the *Show full coordinate for minimums* option is turned on.

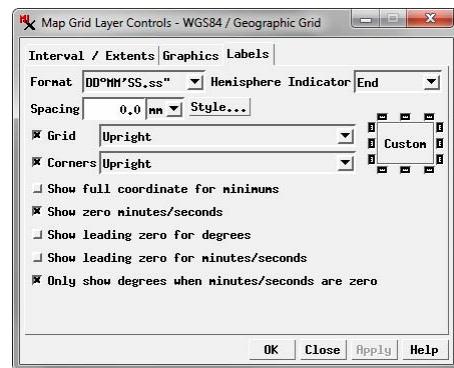
(continued)

Geographic Coordinates

Coordinate format options for geographic coordinate labels are listed with examples in the table below. These options let you format labels using degrees, minutes, and seconds (with or without decimal seconds and with or without unit symbols); integer or decimal minutes with or without unit symbology; and decimal degrees.

Toggle buttons in the lower part of the Labels panel let you set additional label format options that depend upon the coordinate value. Minutes and seconds are omitted by default from grid (not corner) labels if both values are 0 unless you turn on the *Show zero minutes/seconds* toggle. Labels for longitude coordinate values less than 100 degrees and latitude values less than 10 degrees are provided with leading zero digits for degrees if you turn on the *Show leading zero for degrees* toggle. Likewise, minute values less than 10 are provided with a leading zero digit if you turn on the *Show leading 0 for minutes/seconds* toggle. You can choose to omit the degree values in labels for grid lines that are not integer multiples of a degree by turning on the *Only show degrees when minutes/seconds are zero* toggle. These toggle options can be used separately or together to provide the exact formatting you require.

A Hemisphere Indicator menu is provided to the right of the Format menu for geographic map grids. You can choose to place the hemisphere label at the beginning or end of the geographic coordinate label, or choose None to omit the hemisphere labels.



Labels panel for a map grid using geographic coordinates.

Geographic Coordinate Formats

DD°MM'SS"	36°30'2"	DD°MM'	36°30'
DD°MM'SS.s"	36°30'2.2"	DD°MM.mmm'	36°30.033'
DD°MM'SS.ss"	36°30'2.18"	DD MM	36 30
DD MM SS	36 30 2	DD MM.mmm	36 30.033
DD MM SS.s	36 30 2.2	DD° MM'	36° 30'
DD MM SS.ss	36 30 2.18	DD° MM.mmm'	36° 30.033'
DD° MM' SS"	36° 30' 2"	DD.dddd°	36.5006°
DD° MM' SS.s"	36° 30' 2.2"	DD.dddd	36.5006
DD° MM' SS.ss"	36° 30' 2.18"		

Additional Format Option	Off	On
Show zero minutes/seconds *	75°41'W	75°41'0.00"W
Show leading zero for degrees	75°41'W	075°41'W
Show leading zero for minutes/seconds	36°32'1.23"N	36°32'01.23"N
Only show degrees when minutes/seconds are zero *	36°32'N 36°00'N	32'N 36°00'N

* applies only to grid labels, not to corner labels

