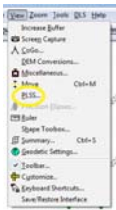


Public Land Survey System (PLSS) Utility

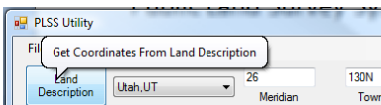


The PLSS typically divides land into 6-mile-square townships. Townships are subdivided into 36 one-mile-square sections. Sections can be further subdivided into quarter sections, quarter-quarter sections, or irregular government lots.

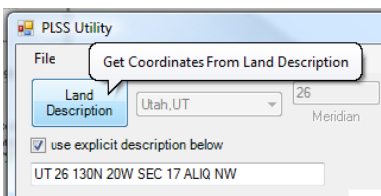
Each township is identified with a township and range designation. Township designations indicate the location north or south of the baseline, and range designations indicate the location east or west of the Principal Meridian. For example, a township might be identified as Township 7 North, Range 2 West, which would mean that it was in the 7th tier of townships north of a baseline, and in the 2nd column of townships west of a baseline. A legal land description of a section includes the State, Principal Meridian name, Township and Range designations with directions, and the section number. For example CO 06 120S 680W SEC 16 stands for Colorado Meridian 6 Township 120S Range 680W Section 16.



A Public Land Survey System (PLSS) utility is included in the QuikMap and GPArC applications. You can display the utility by selecting 'PLSS...' in the View menu. The utility relies on an internet connection to retrieve PLSS information.



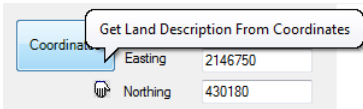
On this dialog, you can enter a land description and obtain the coordinates of the polygon defining the user defined section. One method of defining the section is to select the state from a dropdown list, then enter into separate text boxes the meridian, township, range, section and optionally a further subdivision called an aliquot. If the aliquot is missing, then the full section boundary is retrieved.



The second method is to enter the complete explicit description in the appropriate textbox. The general format is 'state/meridian/township/range/section' and the optional aliquot.

```
PLSS Description: CO 06 120S 680W SEC 16 ALIQ NWNE S6x
PolygonPt 1 2143348.86 429092.18
PolygonPt 2 21411994.90 429089.31
PolygonPt 3 21411990.46 430420.16
PolygonPt 4 2143346.55 430473.84
PolygonPt 5 2143348.86 429092.18
```

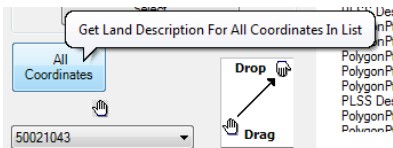
When requests are made, the land description is returned followed by the bounding polygon of the section retrieved.



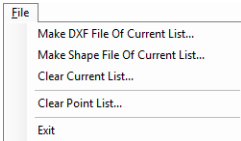
You can also enter coordinates and obtain the land description for the section the point is in and polygon coordinates of this section.



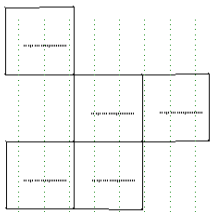
The coordinates you enter are typically in the local grid coordinate system you are working in. This information is used to convert the coordinates to WGS84/NAD83 geographic coordinates before sending them to the government web service via the internet. Requests for land descriptions and the bounding polygons are typically carried out in about one second after the first request has been made.



Similar to COGO, if you right clicked on any points in QuikMap, these points are available in a drop down list at the bottom left side of the dialog when it is first displayed. It is possible to select a point and drag it to fill in the coordinates text boxes. It's also possible to obtain all land section descriptions and polygon coordinates for all points in the list by pressing the 'All Coordinates' button. Again, on average, you should see a retrieval rate of about one point per second.



It is possible to create DXF and SHP files from all sections retrieved and currently being displayed in the large textbox on the dialog.



In the case of DXF files, the land description is sized and placed in the section. For shape files, the underlying database has the land description for each polygon.