

8. Horizontal Positions



Surveyors have developed distinct methods, based on separate control networks, for measuring horizontal and vertical positions. In this context, a horizontal position is the location of a point relative to two axes: the equator and the prime meridian on the globe, or x and y axes in a plane coordinate system. Control points tie coordinate systems to actual locations on the ground; they are the physical manifestations of **horizontal datums**. In the following pages, we review two techniques that surveyors use to create and extend **control networks** (triangulation and trilateration) and two other techniques used to measure positions relative to control points (open and closed traverses).

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Author: David DiBiase, Senior Lecturer, John A. Dutton e-Education Institute, and Director of Education, Industry Solutions, Esri. Instructors and contributors: Jim Sloan, Senior Lecturer, John A. Dutton e-Education Institute; Ryan Baxter, Senior Research Assistant, John A. Dutton e-Education Institute, Beth King, Senior Lecturer, John A. Dutton e-Education Institute and Assistant Program Manager for Online Geospatial Education, and Adrienne Goldsberry, Senior Lecturer, John A. Dutton e-Education Institute; College of Earth and Mineral Sciences, The Pennsylvania State University.

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