

Glossary of Civil 3D Terms

Adapted from AutoCAD Civil 3D 2008 Help Files

alignment

A series of 2D coordinates (northings and eastings), connected by lines, curves, or spirals, used to represent features such as the road centerlines, edges of pavement, sidewalks, or rights-of-way.

assembly

An AutoCAD Civil 3D drawing object (AECCAssembly) that manages a collection of subassembly components, such as travel lanes, curbs, shoulders, and ditches, to form the structural elements of a roadway or other corridor-type structure.

breaklines

A line used to connect the data representing a distinct surface feature, like a ridge line, edge of pavement, toe of a slope, centerline of a road, or flowline of a ditch or stream. When a breakline is defined, the surface triangulation must first follow the breaklines, by placing triangle edges coincident with the breakline segments. This ensures the feature in the model is accurately depicted. Then, the rest of the interpolation is performed based on proximity. Breaklines are typically critical to creating an accurate surface model. It is the interpolation of the data, not just the data itself, that determines the shape of the model.

COGO

Short for Coordinate Geometry.

contour

A line that connects points of the same elevation or value relative to a specified reference datum.

corridor

Any path, the length and location of which is typically governed by one or more horizontal and vertical alignments. Examples are roadways, railways, traveled ways, channels, ditches, utility runs, and airport runways.

daylight line

A line showing the line of zero cut or fill within the job area. For grading objects, it represents the target line produced by grading to a specified surface, distance, or elevation.

grading criteria

Tools used when creating grading that defines how the proposed surface is to be built. For example, a grading criterion can contain a slope value and a distance to extend the slope.

grading group

A collection of grading actions that define a finished graded area.

grip

A moveable point on an object that you can drag to edit the object dynamically.

object

In AutoCAD Civil 3D, an element in a drawing, for example, a surface, that can maintain a relationship with other objects.

object model

The underlying system of links and dependencies between objects. In the object model, changes in one object can be passed on automatically to all the objects associated with it.

Panorama

A window that displays data in table form for the objects in a collection that is selected in Toolspace. For example, if you select a point group, the Panorama table displays a row for each point.

pipe network

A pipe network object manages a collection of pipe objects and structure objects that are used to represent a pipe network in a drawing.

profile

An object that contains elevation data along a horizontal alignment or other line. There are two main types of profiles: surface and layout. Profile data objects can be viewed within a profile view object.

Prospector tab

The part of Toolspace where you access drawing and project objects. Objects are arranged in a tree or hierarchy with folders and subfolders that you navigate in standard, Windows-Explorer fashion. *See also* Settings tab.

sample line

A line that typically cuts across an alignment, and that can be used for creating cross sections.

section

An object that contains elevation data along a sample line.

settings

A collection of properties and styles that apply to an object.

Settings tab

The part of Toolspace where you access the styles for the different types of objects, including object labels and tables. *See also* Prospector tab.

style

A logical collection of settings that applies to a class of objects. Styles simplify the process of apply settings by simply referencing a style. Modifying a style affects all the objects referencing that style.

subassembly

An AutoCAD drawing object (AECSubassembly) that defines the geometry of a component used in a corridor section. The AutoCAD Civil 3D tool palette and tool catalogs provide a variety of preconfigured subassemblies, such as travel lanes, curbs, shoulders, and ditches.

surface

A network of elevation data (either TIN or Grid). The points of a surface are connected into either triangles or a grid, which are then used to interpolate contours, and to generate profiles and cross-sections. A surface represents the ground condition at a particular time or event.

transparent command

A command that can be run while another command is in progress. Transparent commands begin with an apostrophe (').

vault

A database that is managed by Autodesk Vault. The database is used as a backup, versioning and data sharing tool for Civil 3D – usually over a network.