CEDRA-AVcad™

CAD, COGO & Feature Editing Tools

Using ESRI's ArcGIS® or ArcView® GIS Software

CEDRA 2017™

A Productivity Tool For:

Creating and Editing Geometric Data

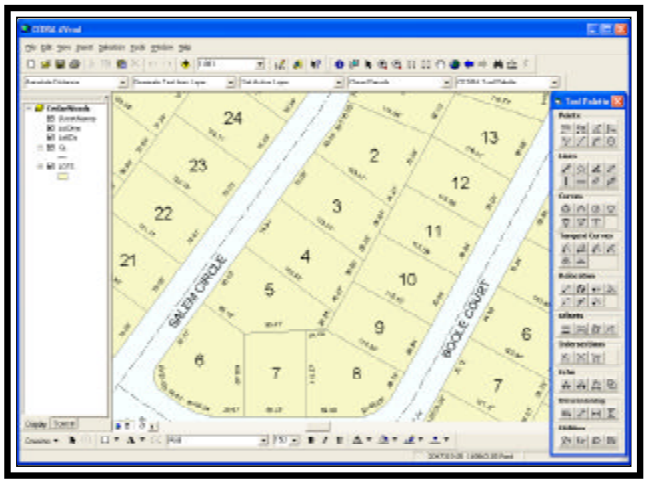
The **CEDRA-*AVcad*** software offers ***ArcView GIS*** and **ArcGIS** users over 60 Cogo commands and a complete on-line help system for: *geometry creation / editing, deed transcription, least squares, crandall, compass rule and transit adjustments with a formal adjustment report, data import and capture, annotation, point snapping across all visible themes, tracing, mapping, surveying operations, sector polygon creation, buffer creation, and more, all in feet, meters, chains, rods, varas and/or latitudes-longitudes*. Some of **CEDRA-*AVcad's*** functionality includes:

Point and Polygon Importing

- ❑ Mass import points in a variety of formats from an ASCII file that may or may not include point numbers, elevations, codes and descriptions.
- ❑ Mass import lines that are defined by node numbers and/or coordinates from an ASCII file.
- ❑ Mass import polylines defined by vertex coordinates in an ASCII file.
- ❑ Mass import polygons with or without curved sides in an ASCII file.

Point Creation

- ❑ Via keyboard entry of coordinates.
- ❑ From a point with a direction and distance.
- ❑ From a point and direction, turning an angle, and specifying a distance.
- ❑ Along a line or curve with plus and offsets.
- ❑ Projecting points on lines, polylines and/or curves.
- ❑ Division of a group of lines and/or curves into equal parts creating points.
- ❑ Location of the center of a curve.
- ❑ Ability to convert text elements representing an elevation in a CAD drawing into point features preserving the elevation as an attribute of the point.
- ❑ At the endpoints of line and/or curve features.
- ❑ At the vertices of a polyline or a group of polylines.



Line Creation

- ❑ Two-point lines, polylines and polygons with point snapping across all visible themes in all datasets.
- ❑ From a point with a direction and distance.
- ❑ From a point turning an angle and with a specified distance.
- ❑ Two-point lines representing the individual segments of a polyline feature.
- ❑ A polyline that represents the perimeter or boundary of a polygon feature.
- ❑ Horizontal and vertical lines.
- ❑ Line tangent to a curve.
- ❑ Ticks at a user-specified length and spacing.

Contact **The CEDRA Corporation** on how to order:

CEDRA-AVcad™ for general feature editing, annotation and CAD tools, **CEDRA-AVcogo™** for comprehensive COGO tools, **CEDRA-AVland™** for roadway and site engineering, **CEDRA-AVparcel™** for parcel mapping and maintenance, **CEDRA-AVsand™** for sanitary, storm and combined sewer modeling, **CEDRA-AVwater™** for water distribution and quality modeling, **CEDRA-DataEditor™** for data entry and maintenance, **CEDRA-DxfExport™** for DXF file exporting.

The CEDRA Corporation™

Total CADD for Engineers ™
Bridging Engineering and GIS ™

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SOME OF THE FUNCTIONALITY FOUND IN CEDRA-AVcad™ for ArcGIS® and ArcView® GIS

Curve and Non-Tangent Curve Creation

- ❑ Circle with center and radius which can be explicitly defined or specified by a pick.
- ❑ Circle or Arc through 3 points.
- ❑ Arc given center, start point, and *(a) arc length*, *(b) endpoint*, or *(c) central angle*.
- ❑ Arc tangent to two lines and with a radius.
- ❑ Arc tangent to two lines passing through a point.
- ❑ Arc tangent to a line or curve given its PC, radius and *(a) arc length*, *(b) central angle*, *(c) chord length*, or *(d) chord direction and length*.

Buffers, Offset Elements and Polygon Creation

- ❑ Lines or curves offset to a line or curve element.
- ❑ Line/curve elements offset to a string of features.
- ❑ Buffer polygon about a string of features.
- ❑ Create polygons within a quadrilateral by specifying the number of rows and columns.
- ❑ Create polygons that represent sectors of concentric circles by specifying (a) the number of sectors that a circle is to be decomposed into, (b) the number of concentric circles and (c) the radius for each of the circles.
- ❑ Create polygons by transcribing deed data with the ability to perform a Compass, Crandall, Least Squares or Transit rule adjustment to force closure.

Transformations

- ❑ Translate, rotate and/or scale selected features with ability to specify individual x and y scale factors.
- ❑ Stretch or "rubber-sheet" selected features using six control points.

Intersections

- ❑ Intersect lines with lines, lines with curves, lines with polylines and/or lines with polygons.
- ❑ Intersect curves with curves.
- ❑ Intersect polylines with polygons.
- ❑ Intersect polygons with polygons.

Dimensioning

- ❑ Leader dimensions with or without annotation.
- ❑ Vertical, Horizontal and Inclined dimensions with computed or user specified annotation.

Editing / Relocation

- ❑ Move a line/curve endpoint to a new location.
- ❑ Move a line/curve vertex to a new location .
- ❑ Extend a line to its intersection with another line.
- ❑ Extend a line by specifying a distance.
- ❑ Extend a line by specifying its total line length.
- ❑ Break a line or curve at a specific point.
- ❑ Cutout a line or curve keeping the inside or outside portion of the cutout.
- ❑ Flip or reverse the direction of a line or polyline or a group of lines and/or polylines.
- ❑ Ability to change the shape of a feature to be identical to that of another feature.

Deed Transcription

- ❑ Transcribe deeds using an interactive table format.
- ❑ Ability to adjust open and closed traverses using Least Squares, Crandall, Compass and/or Transit methods.

Generic Functionality

- ❑ Ability to customize the default Property values such as the units of measure (US / SI), direction mode, point snapping mode and so forth.
- ❑ Ability to specify distances in varas, chains or rods.
- ❑ Button selection for specifying *(a) Azimuths, (b) Bearings, or (c) Cartesian directions.*
- ❑ Display distance, angle and/or area of *(a) a feature* or *(b) from snapped point picks*.
- ❑ Undo or Oops an operation even though the features may reside in multiple themes.
- ❑ Copy features, with or without including their attributes, into other themes.
- ❑ Auto-search or trace to *(a) select features*, *(b) create polygons*, or *(c) create offset elements*.
- ❑ Delete in mass a group of selected features even though the features may reside in multiple themes.
- ❑ Mass annotation of a group of features' length, direction, or length and direction in azimuth or bearing form.
- ❑ Ability to zoom in or out of a view using a user-specified scale factor.
- ❑ Ability to view or display ASCII files without having to leave ArcView.
- ❑ Ability to delete files without having to leave ArcView.

Used by Local, State and Federal Agencies, as well as Private companies worldwide, **CEDRA-*AVcad*** is a comprehensive software package designed to expand the use and applicability of ***ArcView GIS*** and **ArcGIS** in addition to increasing the productivity of its Users.