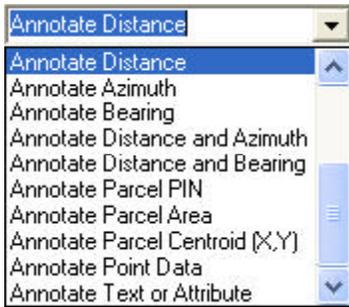
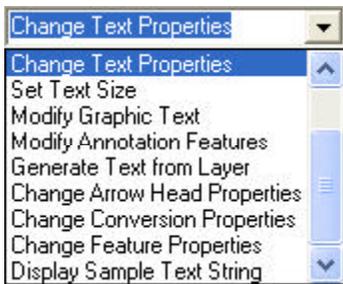


**CEDRA-AVcad-Menus Toolbar - Comprised of 4 Drop-down Lists**



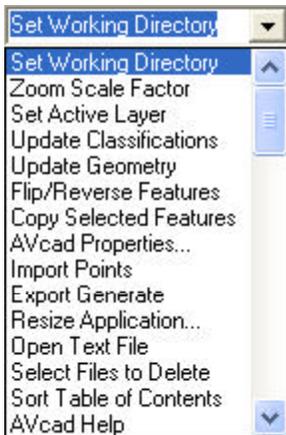
**AVcad Annotation Commands**

- Label a line with its length
- Label a line with its azimuth
- Label a line with its bearing
- Label a line with its length and azimuth
- Label a line with its length and bearing
- Label a polygon with its ID number
- Label a polygon with its area
- Label a polygon with its centroid point
- Label a point with its data
- Label a feature with User Text or Attribute



**Text Properties Commands**

- Change text properties
- Set text size to that of selected text
- Modify native ArcMap graphic text
- Modify annotation features
- Generate text from a table
- Set arrowhead parameters
- Change polygon conversion properties
- Change global feature properties
- Display a sample text label



**CEDRA Commands**

- Set the current working directory
- Zoom in/out of current view
- Set the active layer
- Update the layer classifications
- Update the geometric attributes
- Reverse the direction of polylines
- Copy selected features
- Set AVcad properties (see Figure 2-2)
- Import Points
- Create an ArcInfo Generate file
- Resize the application window
- Open a text file for viewing
- Select files to be deleted from the disk
- Sort or Rearrange layers in the TOC
- AVcad on-line help



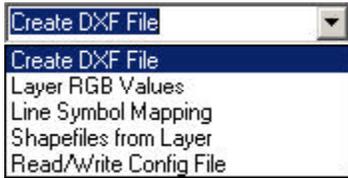
**CEDRA Geometry Toolbars**

- Display the:
- CEDRA-Point-Tools toolbar
- CEDRA-Line-Tools toolbar
- CEDRA-Curve-Tools toolbar
- CEDRA-TangentCurve-Tools toolbar
- CEDRA-Relocation-Tools toolbar
- CEDRA-Offset-Tools toolbar
- CEDRA-Intersection-Tools toolbar
- CEDRA-Dimensioning-Tools toolbar
- CEDRA-Echo-Tools toolbar
- CEDRA-Text-Tools toolbar
- CEDRA-Transformation-Tools toolbar
- CEDRA-EditFeature-Tools toolbar
- CEDRA-Point-Tools toolbar



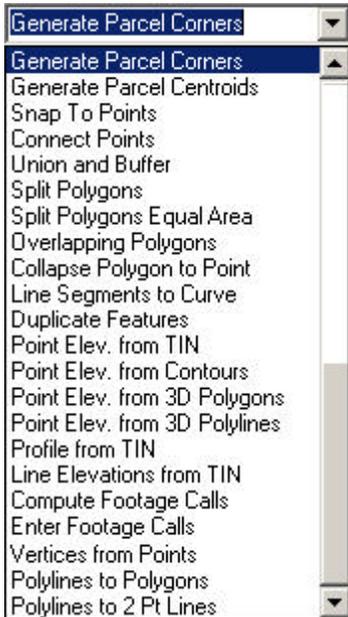
Activate a data frame  
Print the active data frame

## CEDRA-DataFrame-Tools



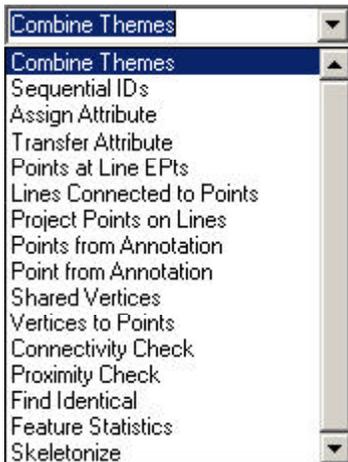
Create a DXF file of all visible layers  
Get the RGB values for features from active layer  
Define, Export, Import Line Symbol Mappings  
Decompose a layer into layers  
Read/Write the Create a DXF file Configuration File

## CEDRA-ArcMap2DXF-Tools



Create points at polygon vertices  
Create points at the centroids of polygons  
Snap line and polygon vertices to points  
Connect certain points with lines  
Union and buffer selected points  
Split Polygons using features in another layer  
Split Polygons into Equal Area Parts  
Find the polygons that overlap a polygon  
Create point at center or inside a polygon  
Convert line segments in a polygon/polyline to a curve  
Find duplicate features in one or two layers  
Interpolate an elevation from a TIN  
Interpolate an elevation from contour lines  
Interpolate an elevation from 3D polygon features  
Interpolate an elevation from 3D polyline features  
Extract a profile from a TIN along a polyline  
Convert 2D Polylines to 3D using a TIN  
Compute Footage Values for point features  
Create points given footage values and polyline/polygon  
Create polyline/polygon vertices from selected points  
Convert polyline features into polygon features  
Convert polyline features into 2 Point Line features

## CEDRA-Polygon-Tools



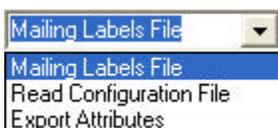
Combine similar type layers into one layer  
Generate Sequential Identification Strings  
Assign an attribute value to many features  
Transfer an attribute from one layer to another  
Find points at line ends and assign attributes to the line  
Find lines close to point features and assign an attribute  
Project selected points on lines and assign an attribute  
Create point features from Annotation features  
Create point feature from selected Annotation features  
Force vertices of connected lines to be identical  
Create points at polyline/polygon vertices  
Check connectivity of point and line features  
Find features which are within a distance of features  
Find Identical Features based upon 1 or 2 common attributes  
Display Feature Data (Parts, Vertices, Segment Length)  
Skeletonize a network

## CEDRA-Skeletonization-Tools



Select section(s) by attribute  
Create aliquot parts reading a coded file  
Create an aliquot by entering a code  
Divide a quadrilateral into aliquots  
Create aliquot parts reading a dBase table  
Extract Section-Township-Range values from a string

## CEDRA-Aliquot-Tools



Create a DXF file of all visible layers  
Get the RGB values for a DXF file  
Export layer/table attributes to a comma delineated text file

## CEDRA-MailingLabels-Menus

**CEDRA-Point-Tools**

-  PICK  
Points by picking
-  0-9 IN  
Points by entering coordinates
-   $\nearrow$   
Points with direction and distance from a base point
-   $\nearrow$   $\times$   
Points with plus & offset from (a) a point with 2-pick direction, or (b) line/curve endpoint (direction towards other endpoint)
-   $\nearrow$   $\rightarrow$   
Points by picking a point and projecting it on a line or curve
-   $\dots$   
Equidistant points or lines between two picks
-   $\curvearrowright$   
Equidistant points along a group of lines and/or curves
-   $\odot$   
The center of a circle or arc
- 


  
Create Points using Data in a Table

**CEDRA-Line-Tools**

-   $\times$   $\times$   
Lines between two picks
-   $\square$   
Discrete lines, polylines or polygons by making successive picks
-   $\nearrow$   
Lines with direction and distance from a base point
-   $\nearrow$   $\perp$   
Normal/radial lines at uniform spacing along a group of lines/curves
-   $|$   
Vertical line between two picks
-   $—$   
Horizontal line between two picks
-   $\curvearrowright$   $\rightarrow$   
Lines tangent to a curve at a pick projected on the curve
-   $\nearrow$   $\theta$   
Line with point pick and slope

**CEDRA-Curve-Tools**

-   $\odot$   
A circle passing through three picks
-   $\frown$   
An arc passing through three picks
-   $\odot$   
Circle by picking its center, & entering radius or picking radius endpoint
-   $\frown$   $\theta$   
An arc with center, radius and angle
-   $\frown$   $l$   
An arc with center, radius and arc length
-   $\frown$   $\rightarrow$   
An arc with center, radius and endpoint
-   $\odot$   $\nearrow$   
A circle of given radius and passing through 2 picks

**CEDRA-TangentCurve-Tools**

-   $\frown$   $r$   $l$   
Tangent arc given it's PC, radius and arc length
-   $\frown$   $r$   $\theta$   
Tangent arc given it's PC, radius and central angle
-   $\frown$   $r$   $l_c$   
Tangent arc given it's PC, radius and chord length
-   $\frown$   $r$   $l_c$   $\theta$   
Non-Tangent arc given it's PC, radius, chord direction and length
-   $\frown$   $r$   
An arc of known radius tangent to two lines
-   $\frown$   $\rightarrow$   
An arc tangent to two lines and passing through a pick
-   $\frown$   $\rightarrow$   
Arc tangent to a line with a given end point

**CEDRA-Relocation-Tools**

-   $\rightarrow$   
Move a point or line/curve endpoint to a new pick location
-   $\curvearrowright$   
Move a curve's control point to new pick location (center moves the entire curve)
-   $\rightarrow$   
Move the endpoint of a line/curve a distance along the course of the line/curve
-   $\rightarrow$   $\rightarrow$   
Move the endpoints of group of lines to each one's intersection with another line/curve
-   $\diagup$   $\diagdown$   
Cutout a portion of a line or curve
-   $\times$   
Break a line or curve
-   $\rightarrow$   
Move features to a point of projection
-   $\curvearrowright$   
De-weed and/or Smooth polylines

**CEDRA-Offset-Tools**

-   $\equiv$   
Lines parallel to an existing line at a uniform offset
-   $\frown$   
Curves offset from exist. curve; (+) offset increases, (-) decreases radius.
-   $\frown$   $\rightarrow$   
Offset element strings at a given offset (create polyline/polygon w/ auto-trace algorithm)
-   $\nearrow$   $\rightarrow$   
Point offset from two lines
-   $\diagup$   $\diagdown$   
**Line offset from two existing line features**

**CEDRA-EditFeature-Tools**

-  E F  
Edit the database attributes of a Feature
-  Q A  
**Quick Attribute Assignment**
-  T A  
**Transfer Feature Attributes**
-  C F  
**Copy Selected Features**

The tools in red are not included in the CEDRA Tool Palette

**CEDRA-Intersection-Tools**

-  Two lines by picking each one
-  A curve with a line picking each one (get both intersections)
-  A curve with a curve picking each one (get both intersections)
-  Trim or Extend two features to their intersection with option of introducing a fillet

**CEDRA-Dimension-Tools**

-  A leader dimension with optional text
-  A normal dimension with optional text
-  A vertical dimension with optional text
-  A horizontal dimension with optional text
-  Generate metes and bounds type of dimensions

**CEDRA-Text-Tools**

-  Create a text string (annotation)
-  Center a text string (annotation) about 2 picks
-  Center a text string (annotation) about a line feature
-  Explicitly set the angle for a text string (annotation)
-  Edit an existing text string (annotation)
-  Convert a text string (annotation) into a curved text string
-  Align existing annotation text strings
-  Annotate a Polyline's Length
-  Equally Space Annotation Features
-  Create Annotation at Polyline Vertices
-  Combine Annotations into 1 Annotation
-  Translate Annotation Features

**CEDRA-Polygon-Tools-2 Toolbar**

-  Change Feature's Shape
-  Change Feature's Course
-  Change Selected Feature(s)
-  Change Coordinates
-  Grid a Quadrilateral
-  Create polygons from the sectors of concentric circles
-  Perform a Topological Operation

**CEDRA-Echo-Tools**

-  The direction and distance between 2 picks
-  The geometric data of an element
-  The angle formed by 3 picks and the direction & distance of each leg
-  The area and perimeter of a string of contiguous elements
-  The Plus and Offset of a Point feature from a Line feature

**CEDRA-Transform-Tools**

-  Move, rotate and/or scale selected features and/or graphic elements
-  Move, rotate and/or scale selected features about the X and Y axes
-  Pick Baseline Point 1
-  Pick Baseline Point 2
-  Pick Baseline Point 3
-  Pick New Baseline Point 1
-  Pick New Baseline Point 2
-  Pick New Baseline Point 3
-  Rotate, Translate and Scale
-  Translate Selected Features

**CEDRA-Transform2-Tools**

-  Define Base Points
-  Define Control Points
-  Define Base and Control Points
-  Perform T4 Transformation
-  Delete Points

The tools in red are not included in the CEDRA Tool Palette

**CEDRA-DataEditor-Tools Toolbar**



- The Edit Feature Attributes Tool
- The Reload the Theme Attribute Data File Tool
- The Delete Selected Features Tool
- The Set Working Directory Tool
- The Map Tips Tool
- The Break and Add Line Tool
- The Break and Add Point Tool
- The Edit Feature Tables Tool
- The Assign Fixed Attributes Tool
- The Check Attributes Tool

**CEDRA-Call-out-Tools Bar**



- Create text with a balloon (bubble) and a leader
- Create text with a balloon (bubble) and no leader
- Place a balloon (bubble) about an ArcMap graphic

**CEDRA-DataFrame-Tools-4 Toolbar**



- Save Layout
- Recall Layout
- Delete layout

**CEDRA-Deed-Tools Toolbar**



- The Create Parcel tool to introduce and adjust a parcel or traverse
- The Edit Parcel tool to edit a previously created parcel or traverse
- The Split Parcel tool to split a polygon into two polygons
- The Unite Parcel tool to unite polygons into one polygon with one or many parts
- The Combine Parcel tool to combine polygons into one polygon with one or many parts
- Perform a Topological Clean

**CEDRA-DataFrame-Tools-2 Toolbar**



- Find features from active layer
- Find features within a distance
- Create a hyperlink
- Delete a hyperlink
- Process a feature's hyperlink

**CEDRA-DataFrame-Tools-3 Toolbar**

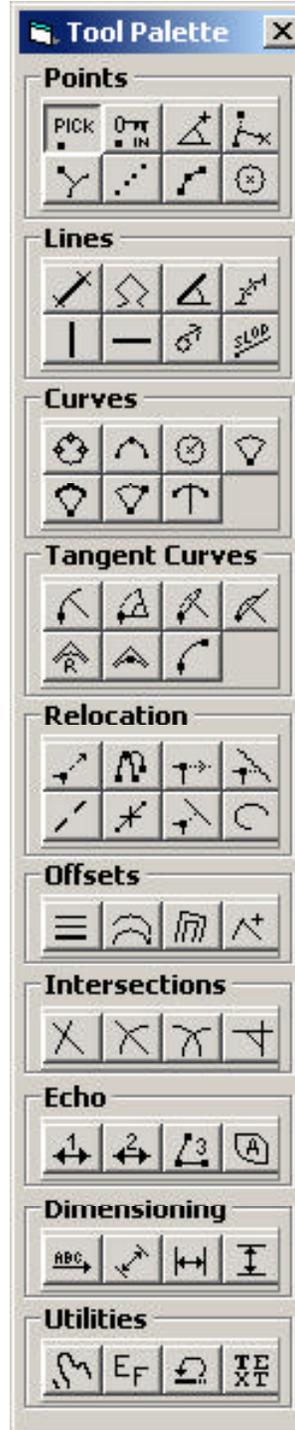


- Define Point
- Hide/Show Mini Tool Palette

**CEDRA-ArcView3-Tools Toolbar**



- Identify feature from active layers
- Select feature(s) from active layers
- Clear selected set for active layers
- Zoom to Extent of all layers
- Zoom to Extent of all active layers
- Zoom to Selected in active layers
- Make all layers visible
- Make all layers invisible
- Delete Selected Features
- Delete vertices in a Polyline or Polygon
- Open Attribute for active layer(s)
- Switch Selection for active layer(s)
- Set the active layer



**CEDRA  
Tool Palette**