



CEDRA-DxfExport™

DXF File Exporting
Using ESRI's ArcGIS® or ArcView® GIS Software



A Productivity Tool For:

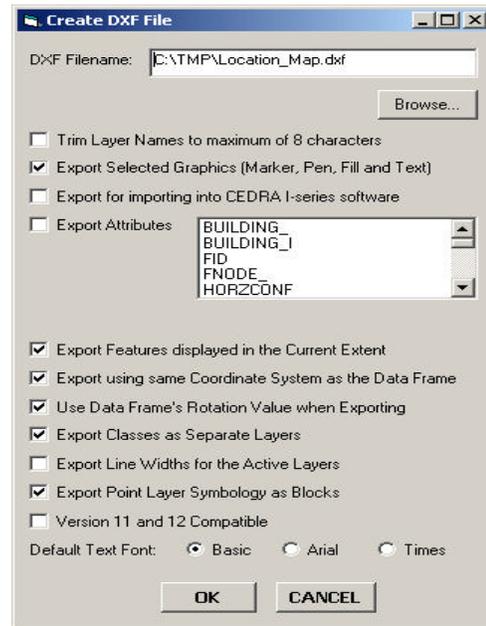
Creating a DXF File within ArcView or ArcMap

- Unlike other DXF export utilities, which process only one theme at a time, the CEDRA DxfExport™ extension processes all visible themes (shapefiles, personal geodatabases, enterprise geodatabases and coverages) in the current map. If you can see it, it can be exported.
- For ArcView GIS users, the export can be performed from within a View document or a Layout document.
- For ArcGIS users, the export can be performed from within a Data Frame or the Layout view.
- The CEDRA DxfExport extension can process point, polyline, polygon and annotation features, as well as, graphic text elements all at the same time. As such, a DXF file created by this software can include features and text.

Feature Processing Methodology

- If a theme (layer) has selected features then only the selected features will be processed, if there are no selected features then all features in the theme will be processed, this includes point, polyline and polygon features. If the option Export Features displayed in the Current Extent is selected then all visible features in the current view will be exported regardless of the feature's selection state.
- If there are selected MARKER, PEN, FILL and/or TEXT graphic elements, these graphic elements can be processed, if the user desires. If the view does not contain any selected graphic elements then no graphic elements will be processed. In exporting graphic elements, note that:
 - Marker elements are placed in a layer called GrapMrkr,
 - Pen elements are placed in a layer called GrapPen,
 - Fill elements are placed in a layer called GrapFill, and
 - Graphic Text elements are placed in a layer called GrapText.
- The name of the theme (layer) serves as the name of a layer in the DXF file.
- Non-alphanumeric characters in a theme name are converted to the underscore character (_).
- The user has the ability to select one or more attributes, from a choice box that appears in the Create DXF File dialog

The Create DXF File Dialog Box



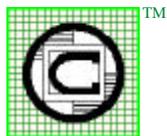
box, for inclusion in the DXF file, if so desired. When exporting attributes, the selected attributes appear as "blocks" in the DXF file. These blocks will appear at the midpoint of the feature and the name of the block will be B_xxxx, where xxxx denotes the name of the layer the feature resides in. All of the attributes associated with the block are listed vertically, one under the other. The ability to export attributes is important because:

- it enables the user to transfer non-graphic information (attributes) into the DXF file, maintaining the association of the non-graphic information with the feature and
- provides a mechanism for the user to maintain symbology and line styles.

Regarding the latter, symbology and line styles, in the GIS classifications are based upon attributes, by exporting

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Printed in U.S.A. Design: TGD

the attributes which the classifications are based upon, the user has the ability to regenerate the classifications in the system in which the DXF file is being read into. This, of course, is dependent upon the software which is reading the DXF file, that it has the ability to change symbology and line style using information which is stored in a "block".

DXF Exporting Operation

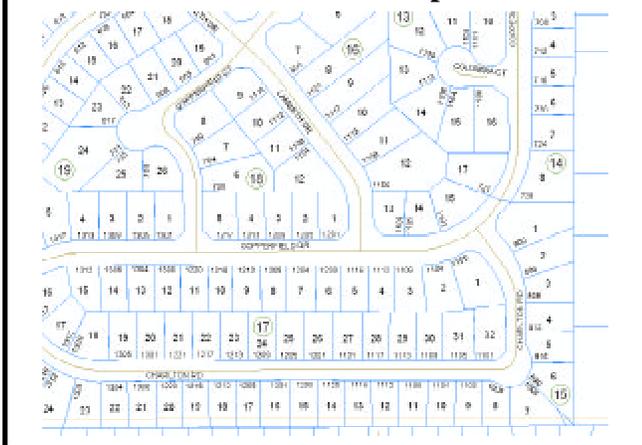
By examining the Create DXF File Dialog Box, it can be seen that the user is able to:

- Control the name of the DXF file that is created. The Browse... button enables the user to use a standard file navigation dialog box to control the folder where the DXF file will be written to, as well as the name of the DXF file.
- Specify whether the theme names are to be trimmed to 8 characters or not. If a check appears in the square to the left of this parameter, the names of the visible themes that are processed will be trimmed to a maximum of 8 characters. The first 8 characters of the theme name will be used.
- Specify whether selected graphic elements are to be included in the DXF file creation. If a check appears in the square to the left of this parameter any graphic elements that are selected will be included in the DXF file.
- Specify whether a DXF file for importing into the CEDRA I-series software is to be created or not.
- Specify which attributes if any are to be included in the DXF file as "blocks". If a check appears in the square to the left of this parameter all attributes which are selected in the choice box will be included in the DXF file as "blocks". There is no limit to the number of attributes that can be selected, and
- Specify whether the visible features in the current extent (view) are to be processed. If a check appears in the square to the left of this parameter then the only features that will be exported will be the visible features in the current extent, regardless of their selection state. In addition, if the Export Selected Graphics (Marker, Pen, Fill and Text) option is selected, all Marker, Pen, Fill and Graphic Text elements in the visible annotation group layers which are within the current extent will be exported, regardless of their selection state. The name of the annotation group layer will serve as the name of the layer these graphic elements are placed in.

Special Notes

- Users who are working with SDE databases typically use labels as the mechanism for creating annotation. In order for these labels to appear in the DXF file, the user must convert the labels into annotation using the Convert Labels to Annotation... command. This command is available in a pop-up menu list by "right-clicking" on the name of the layer in the Table of Contents. The annotation which is created by this command can either be stored in the document or in a feature class within a database depending upon the user. If the annotation is stored in the document, an Annotation Group layer will be created containing the annotation. The name of the Annotation Group layer will be used as the name of the layer in the DXF file.
- In dealing with colors, the CEDRA-DxfExport software tries to find the closest AutoCAD color that matches the ArcView or ArcMap color. This is done by finding the colors which have the closest Red, Green, Blue color values. In so doing when the DXF file is imported it will resemble as close as possible its appearance in ArcView or ArcMap.
- When processing features, which have Z information associated with their geometry, that is, 3D features, the Z value will appear in the DXF file.
- ArcView GIS users are able to create a DXF file from within a Layout document thereby enabling the user to export layouts to a DXF file.
- When exporting Arc/Info coverage annotation, the degree symbol will appear as the typical degree symbol and not as the ^ character in the DXF file.
- When exporting multi-line graphic text elements, (text comprised of more than 1 line), CEDRA-DxfExport will honor the alignment and leading of the text. That is, if the graphic text is right justified, centered, left justified or fully justified, the text in the DXF file will reflect this justification, as well as, the spacing between the lines of text.
- ArcView GIS users when performing an export from a Layout document can activate the option Convert all non View Frames to Graphics (Layout mode) to have the software include all of the scale bar and north arrow frames in the DXF file. If this option is not activated, these types of frames will not be included in the DXF file.

ArcView GIS / ArcMap Data



CEDRA-DXF File Contents

