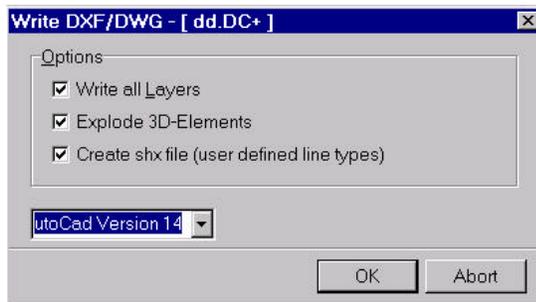# DATACAD LLC

## DXF and DWG Files

You can export and import both DXF and DWG files compatible with AutoCAD releases 12, 13, and 14.

See DXF/DWG Translator in the Appendix of the *DataCAD Plus Reference Manual* for more information about entity translation.

### Exporting a DataCAD Plus (.DC+) File to DXF or DWG

1. Choose Export from the File pull-down menu and select to DXF/DWG file… The Save As screen appears.

2. Type a name in the File name input box. Select the destination folder or drive by using the drop-down list, the Up One Level icon, or the Create New Folder icon.

3. Select a file type (DWG or DXF) from the Save as type drop-down list.

4. Press [Enter] or click on Save. The Write DXF/DWG dialog box appears.



5. Check the appropriate Options.

   - Write all Layers – Check this box to export all layers in the current file. If this box is unchecked, only the layers that are on will be exported.

   - Explode 3D-Elements - This box is unchecked (off) by default. Any 3D entity in a DataCAD PLUS (.DC+) file will be translated as a polyface mesh when exported to a DXF or DWG file; this polyface mesh is a single entity. If you check this box, each facet of a 3D entity will be turned into an individual polyface. Therefore, a single sphere in DataCAD can be translated into many separate entities arranged in a sphere shape in a DWG file. Checking this option can speed up translation and allow the translated entities to look the same after a shade or hidden line removal. If you check this box, editing may be more difficult since these translated 3D entities are made up of many smaller, separate entities.

   - Create shx file (user defined line types) - During export, the line definitions and shape codes for DataCAD Plus linetypes are stored in a .SHX file. Check this box to create the SHX file.
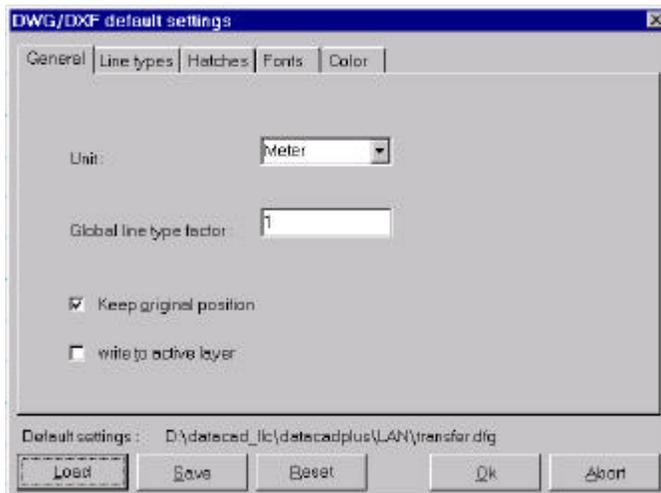
If you export a DataCAD Plus drawing named MYDRAWING.DC+, the translator will create two files: MYDRAWING.DWG and MYDRAWING.SHX. To display the linetypes in the DWG file properly, you must place the .SHX file in the \SUPPORT subdirectory in the AutoCAD directory.

6. Select the appropriate version from the drop-down list. You can export your DXF/DWG file to AutoCad versions 12, 13, or 14.

If the filename you entered in step 2 already exists, a dialog box will appear. This will let you overwrite (replace) the existing file. Also, if the DWG/DXF file you're attempting to overwrite is open, a message tells you that the file is currently in use. To cancel the translation, select End.

## Importing a DXF or DWG File

7. Select Import from the File pull-down menu. Choose from DXF/DWG file… The Open dialog box appears.

8. Indicate which folder or drive contains the file you want to import by using the drop-down Look in box or the Up One Level icon..

9. Select the AutoCad file extension (DWG or DXF) you wish to import in the Files of Type drop-down box. A list of files with that extension appears.

10. Select a file from the list or type the name of the file to import in the File name input field. Select Open or press [Enter]. The DWG/DXF default settings dialog box appears.



- This dialog box allows you to set the unit and global line type factor. The other tabs determine how DataCAD Plus will translate linetypes, hatch patterns, fonts, and colors. Use the Save button to save the settings in this dialog to the .DFG file. If you select Load, you can use previous .DFG file settings. The Default settings file currently loaded is displayed above the Save and Load buttons.

11. Make decisions about linetypes, hatches, fonts, and colors on the other tabs in this dialog box:

- Line types - lists each AutoCAD linetype used in the file and suggests a DataCAD equivalent. Select the linetype you want to change. Immediately below the Assignment list box, your selection is reproduced, with the translation linetype in a drop-down box. Choose a new linetype from the drop-down box. Your selection appears in the list box.

- Hatches – includes a hatch factor setting in the lower right corner of this tab. This setting is the scale of the DataCAD Plus hatch as compared to the AutoCad one. For instance, the translator maps AutoCad's Brick hatch pattern to the DataCAD Plus Brick pattern at 0.75 scale. So the DataCAD Plus Brick pattern must be scaled to 75% of its full size to match AutoCad's hatch

size. To change this scale, press [Tab] until you reach the Factor input field or click in that box. Type a new value.

- Fonts – displays fonts that will apply to text in the imported file. Highlight the selection you want to change in the list box. Select the new font designation from the drop-down list. The new font appears in the list box.

- Color - allows you to assign a DataCAD Plus color to an equivalent AutoCAD one. This way, you can properly translate DataCAD Plus colors when you import or export from a DWG ⁄ DXF file.

The DataCAD Plus color definition list is different from AutoCad's. For instance, in DataCAD Plus, Color 1 = White, Color 2 = Red, Color 3 = Green, etc. While we see white, red, and green colors on screen, DataCAD Plus recognizes these only as Color 1, Color 2, and Color 3, respectively. AutoCAD works similarly, except it displays Colors 1, 2, and 3 as red, yellow, and green, respectively. So if you don't use the Color Translation table when you export a DataCAD Plus file, the resulting DWG/DXF file will only associate "Color 1", "Color 2", etc., with each entity. When the file is displayed in AutoCAD, the program recognizes "Color 1" and displays the entity as red, instead of white as it was drawn in DataCAD Plus. The Color Translation table corrects for this, allowing white entities in DataCAD Plus to display as white when exported to a DXG/DXF file and vice versa.

12. Click on OK to begin importing the file. The Confirm dialog box appear.

13. Select Yes. Supply a file name in the Save As dialog box and select Save or press [Enter]. A progress report appears in the Message Window. Or click Cancel to stop the import and close the dialog box. The Translator can also be minimized during translation.