Title: Sub Drawing

Product: OrCAD/Allegro PCB Editor

Summary: How to work with Sub Drawing

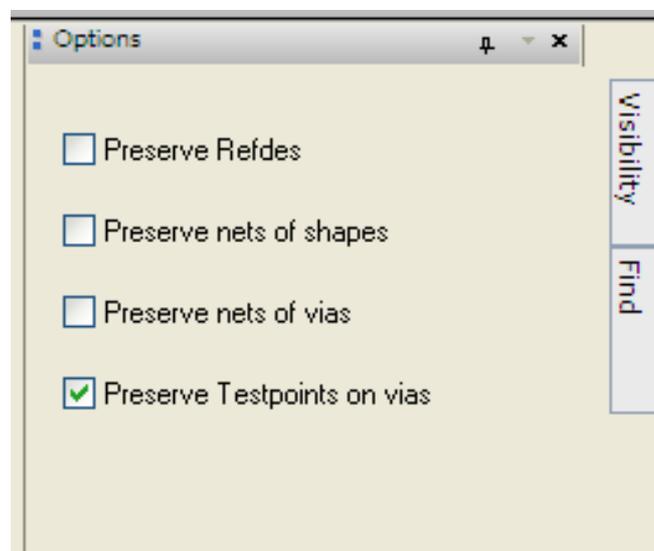Author/Date: Beate Wilke / 24.03.2009

Table of Contents

1 Export Sub-drawing

Copies design elements from designs or symbol drawings to a clipboard (.clp) file for pasting into designs and drawings. You can also create a library of clipboard files.

Menu Path:

File – Export – Sub-Drawing

Options Tab for Export Sub-drawing Command

Preserve Refdes	Choose to preserve the reference designator information in the clipboard file. Preserve Nets on Shapes Choose to allow shapes to retain their net associations when a .clp file is read in. Only databases with nets support this capability as symbols do not support the preservation of nets.
Preserve Nets of Vias	Choose to allow vias to retain their net associations when a .clp file is read in. Only databases with nets support this capability as symbols do not support the preservation of nets.
Preserve Testpoints on Vias	Choose to allow vias to retain their testpoint associations when a .clp file is read in.

1.1 Procedure

Copying Elements to a Clipboard File

1. Run File -> Export -> Sub-drawing.

2. Choose elements for the clipboard file in the Find Filter. Typically, you can only choose visible elements. The exceptions are:

- Pins or vias. If any part of a pin or via is visible, all applicable information for the pin or via is selected.

- Symbols. All applicable elements of symbols are selected.

3. Specify in the Options tab whether you want to preserve the reference designator information (*Preserve Refdes*) in the clipboard file.

4. Specify in the Options tab whether you want to allow shapes to retain their net associations in the clipboard file in the *Preserve Nets on Shapes* field.

5. To copy multiple elements to the clipboard file, do one of the following, otherwise proceed to step 6.

Note: The clipboard copy command does not consider pin escapes (clines and vias) as part of the package/part symbol. To copy a package/part symbol with its pin escapes to a clipboard file use the select by group or window options to include the clines and vias.

To choose all elements within a specific area:

a. Drag the cursor over the elements you want to select.

b. Choose a coordinate in the work area as the origin point for the elements.

c. Proceed to step 6.

To choose only specific elements:

a. From the pop-up menu, choose *Group*.

b. Choose each element you want to copy.

c. When you have selected all the specified elements, choose *Complete* from the pop-up menu.

d. Choose a coordinate in the work area as the origin point for the elements. The tool displays the coordinates of the last pick and displays the Clipboard Filename dialog box.

e. Proceed to step 6.

6. In the Clipboard Filename dialog box, enter the file's name and click *OK*.

If you do not enter a filename, the tool uses the default standard.clp. If you enter a filename without an extension, the tool adds the default extension .clp.

If you enter the name of an existing clipboard file, the tool displays a confirmation window and asks if you want to overwrite the existing file.

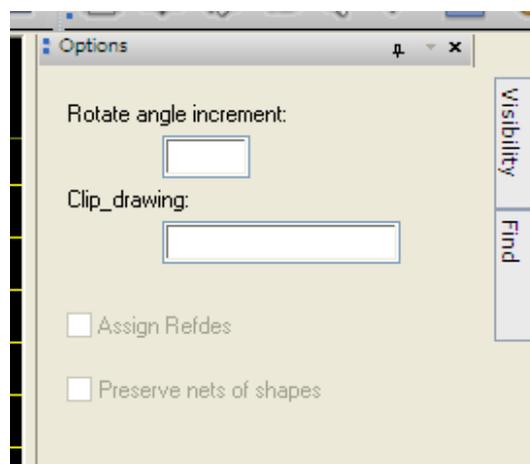Click *Done* from the pop-up menu to store the element in the clipboard file.

2 Import Sub-drawing

Pastes design elements from a clipboard (.clp) file into designs or drawings.

Menu Path

File – Import – Sub-Drawing

Options Tab for the clppaste Command

Rotate angle increment	Defines the angle of rotation for placing the clipfile's elements in the design when you choose Rotate from the pop-up menu before pasting the elements.
Clip_drawing	Defines a CLIP_DRAWING name to identify the element or group of elements that make up the clipfile.
	When you paste elements from a clipboard, the tool attaches a CLIP_DRAWING Property to each item (except text). The default property value is CLIP_n, where n represents the number of times the paste operation has been performed on the drawing. You can override the default value by entering a name here.
	The value can have no more than 32 characters. The exclamation point (!) and single quotation marks (') are not allowed.
	Note: The tool maintains the current CLIP_DRAWING property value after you save, exit, and re-opens the drawing.
Assign Refdes	Specifies whether you want to include reference designator information from the clipfile.

This option appears only if the Preserve Refdes option was selected when the clipfile was created. (See Preserve Refdes on page 161.)

Notes:
If a reference designator pasted into the design causes a duplicate, the tool does not assign the reference designator. Instead, it places a message in the clipboard.log file indicating the reference designator in conflict and the X, Y location of the pasted symbol.

If the reference designator pasted into the drawing is not in the logical data, a message appears in the clipboard.log file indicating the reference designator could not be assigned and the X, Y location of the pasted symbol.
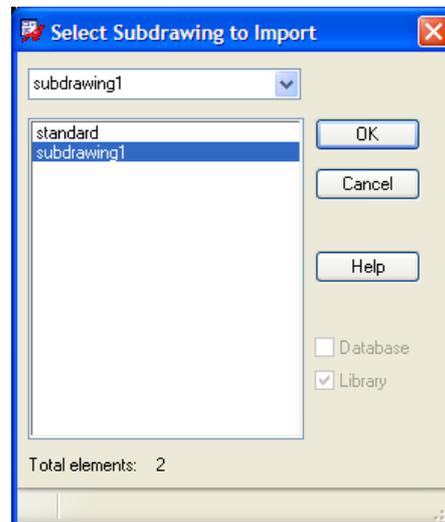
Preserve Nets on Shapes   Choose to allow shapes to retain their net associations when a .clp file is read in. Only databases with nets support this capability as symbols do not support the preservation of nets. This option appears only if the Preserve Refdes option was selected when the clipfile was created.

2.1 Procedure

Pasting Elements from a Clipboard File

1. Run the File -> Import Sub-drawing command.

2. In the Select Subd-rawing to import dialog box, enter or choose the name of the clipboard file whose contents you want to paste, and click OK.

A rectangle representing the boundaries of the elements in the clipboard file appears attached to the cursor, and the Options tab displays the clippaste controls.

3. Enter settings in the Options tab.

4. Position the cross-hair cursor where you want the origin point of the pasted element(s) to be, and then click to paste.

The tool:

- Performs a DRC check on the new elements.
- Writes the clipboard.log file to the current directory.
- Displays the Clipboard Log File window if any warning or error messages resulted from the paste operation.