

Hints, Tips and Solutions

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Q: I want to draw several long wires, with precise positioning of both ends. I am used to doing this as follows:

- zoom to the start position and start drawing;
- zoom to the whole view;
- zoom to the end position and finish drawing.

Can *Expert* do something similar: opening two windows, starting drawing in one window and finishing in another one?

A: Any object creation must be performed within one window. However the Multiview feature in *Expert* may help you with this operation. You can do as follows:

- Run View>>Multiview command
- zoom to the start position with sufficient resolution and start drawing a wire. You will see something similar to Figure 1.
- In the Map View window, grab the frame corresponding to the current window... (Figure 2.)
- ...and move it to the end position.
- You can finish drawing the wire with good resolution for precise positioning (Figure 3).

In the same way you may use the built-in ruler to measure long distances on the chip.

Q: I would like to save a definable window while editing a cell. Once you have clicked the command button, you can then define a window by using the mouse and cursor. After the window is defined it asks for a name for the new window. After you have assigned a name the function is completed and the window is saved for recall. To recall use a new command such as "Window Restore", and that saved window would immediately be viewed.

A: *Expert* does not need any new buttons to do this. In fact, *Expert* allows you to do much more using xi-scripts and command-line input, as shown below. First, the sequence to save and restore "windows" is defined as follows:

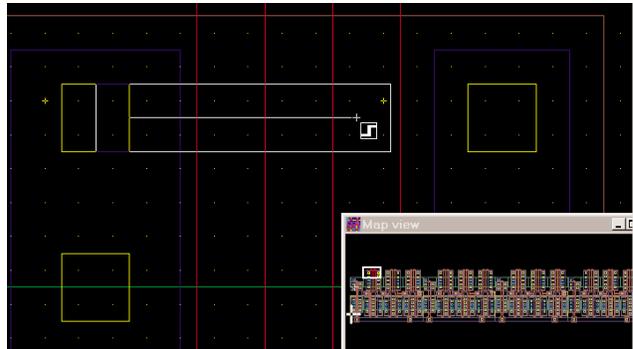


Figure 1. Drawing the start of a long line in *Expert*.

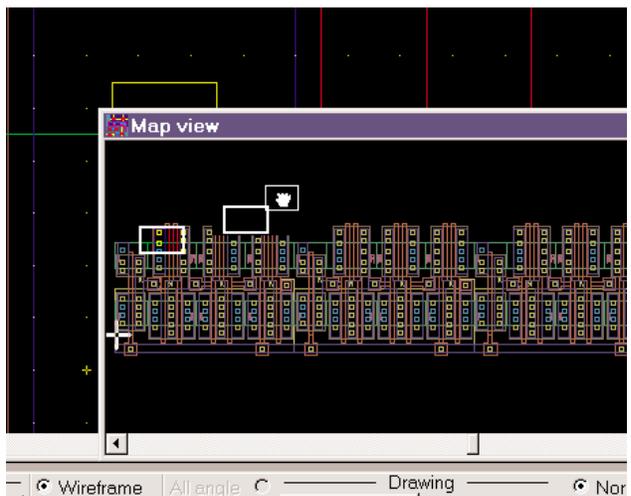


Figure 2. Moving the window frame in the middle of drawing a long line.

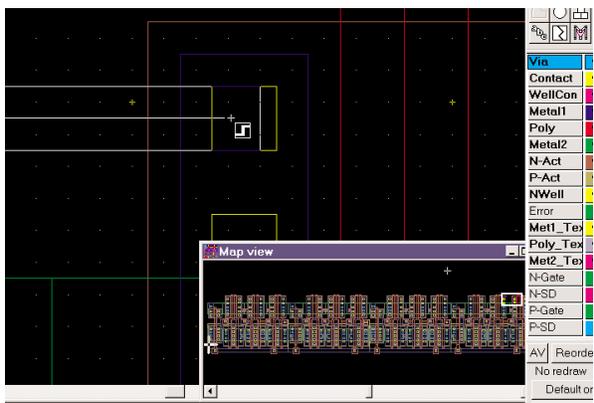


Figure 3. Completing the edit of a long line in *Expert*.

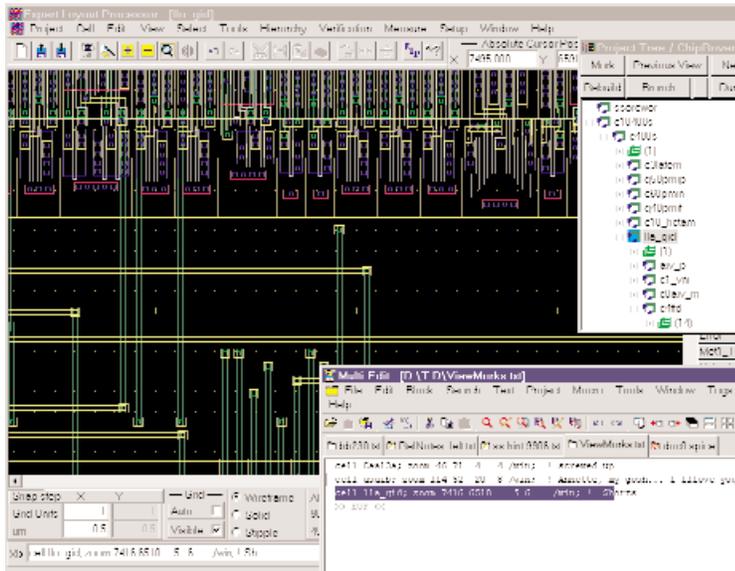


Figure 4. Using a script to define a particular window view.

Step 1.

- Turn on the option "Activity log" in Setup>>General. Now all your actions will be stored in the log file.
- Open the required cell and zoom to a window using the command View>>Zoom to Window.
- Zoom to several other windows;
- Open another cell and zoom to still other windows, and so on.

Now your "bookmarks" are stored in the activity log. This name is also specified in the Setup>>General.

Step 2.

- Open the activity log in your favorite text editor, cut and paste, add comments, so that your file can look like the one visible in Figure 4.

Step 3

- Select the required line in the text editor and press Ctrl-C to copy it into WinNT clipboard.
- Go to the Xi-command line of Expert and press Ctrl-V to paste the command into the command line.
- Look at Figure 4 once more. If you hit "Enter" key, Expert will execute two commands shown in the command line:
- The cell "lla_gid" will be opened
- its layout will zoom to box with position (7416 6510)

and sizes (5 6).

You may even go further. You may save the following xi-script as an activity log:

```
proj "bigchip.eld";
cell lla_gid;
zoom /win 7416 6510 5 6;
layer "comments";
box 7418.5 6511.8 0.2 0.2;
```

The activity log can be emailed to your colleagues with appropriate comments. He can start Expert, run your script, and zoom into the place in question marked by a box in the layer "comments". This can replace the manual process of plotting pieces of the layout and mark it with red marker to pass your corrections or questions.

Certainly, no number of new menu buttons will give you such flexibility.

Q: When you are in Single Mode of Selection if you use "select Instances" twice, the first instances selected stay selected.

A: The Single mode acts only for selection of objects one by one (menu command Select>>Object). It is not applicable to other types of selection, like Select by box, Select Layer, or Select instances.

Q: What does the syntax

```
s= &L&"->"&a;
```

from one of the Expert script examples mean?

A: This command computes a string to be displayed or output into a file as follows:

&L, &a mean conversion of the values of variables 'L', 'a' into strings.

```
&L & "->"
```

means concatenation of string values '&L' and '->' into one string.

So, if L = 28.3, a= 47.1, you will obtain the string "28.3->47.1".

Call for Questions

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