AIM-Postprocessor

User Guide

Contents

Chapter 1. Introduction 1
1.1. Conventions Used in the Documentation 1
Chapter 2. A Tutorial on Postprocessing with AIM-Postprocessor 2
2.1. Loading AIM-Postprocessor 2
2.2. Opening an AIM-Spice Data File 3
2.3. Select Current Plot 3
2.4. Creating Graphical Plots 4
2.4.1. Trace Expression Editing (TEE) 5
2.5. Graph Editing 7
2.5.1. Formatting Axes 9
2.5.2. Formatting Labels 10
2.5.3. Formatting The Trace Area 11
2.5.4. Adding and Formatting Text 11
2.5.5. Formatting Legends 13
2.5.6. Changing the X-Axis Expression 15
2.6. Cursors 15
2.7. Printing 16
Chapter 3. Command Reference 18
3.1. The File Menu 18
3.2. The Graph Menu 21
3.3. The Format Menu 23
3.4. The View Menu 26
3.5. The Window Menu 27

Chapter 1

Introduction

The Aim-Postprocessor is an application containing routines for further processing of data obtained from the various analyses in AIM-Spice, and for graphical presentation. It works independently of the analysis part of AIM-Spice, but still within the Windows environment.

Although AIM-Spice has facilities to plot circuit variables graphically, AIM-Postprocessor has a much more powerful plotting engine including the following features:

- Plotting of sums and differences, derivatives, integrals, and mathematical functions of circuit variables.
- FFT (Fast Fourier Transform).
- Sophisticated graphical formatting capabilities.
- Cursors to select numerical values and to calculate differences between variables.
- Import of experimental data.
- Hardcopies.

This manual is divided into a tutorial on postprocessing with AIM-Postprocessor, and a complete command reference.

We assume that you have installed the postprocessor following the guidelines in section Installing the AIM-Spice Simulator Package in the AIM-Spice user guide.

1.1. Conventions Used in the Documentation

Before you start using this user guide, it's important to understand the terms and notational conventions used in the guide.

- The word "choose" is used for carrying out a menu command or a command button in a dialog box.
- The word "select" is used for highlighting text, legends or other objects in a graph that you want your next action to affect, and for selecting a specific dialog option.
- Commands you choose are given with the menu name preceding the command name. For example, the phrase "Choose Graph Add Plot" tells you to choose the Add Plot command from the Graph menu.
- The phrase "Choose OK" means that you either can click the OK button with the mouse or press the ENTER key on the keyboard to carry out the action you want.
- Underlined text in the tutorial chapter is actions you are encouraged to complete.

Chapter 2

A Tutorial on Postprocessing with AIM-Postprocessor

In this Chapter we give you a tutorial on how to use AIM-Postprocessor. You will be learning to use the basics of the postprocessor in a fast and convenient way by following the steps to produce plots for presentation. In the next Chapter we give a full documentation of the commands available in the postprocessor.

To get the most out of this tutorial, read it in front of you computer with Windows running, and follow the steps outlined below. Underlined text are your actions and we encourage you to try out these actions.

2.1. Loading AIM-Postprocessor

Double click the AIM-Postprocessor icon and the main window appears (see Fig. 1).

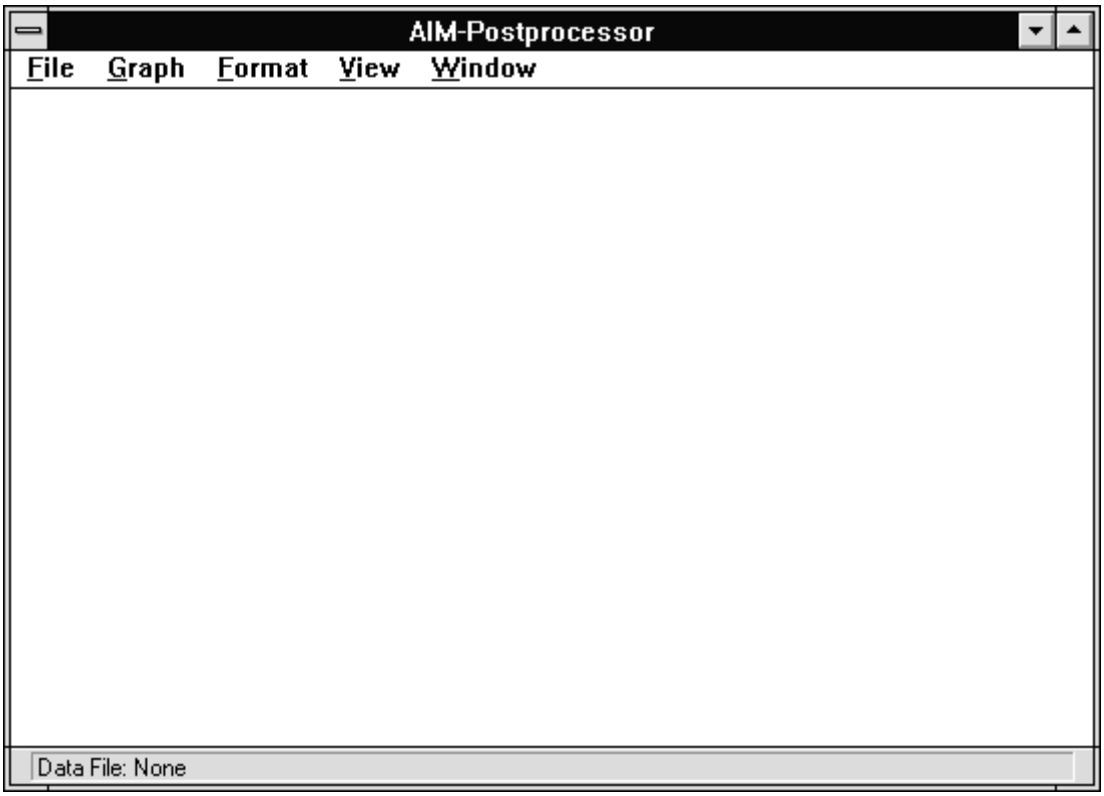


Fig. 1. The main window of AIM-Postprocessor.

The first thing to do after loading the postprocessor is to open a data file. The data file format is a special binary format used by AIM-Spice and AIM-Postprocessor.

2.2. Opening an AIM-Spice Data File

An AIM-Spice data file contains one or more plots. A plot consists of three main parts: plot information, a list of output variables, and a list of data vectors.

To open an AIM-Spice data file, follow the steps below.

- Choose File Open.
- A standard File Open dialog box is displayed. The default extension for data files is OUT. The list box to the left contains a list of files in the current directory with extension OUT.
- Select the file you want to open and choose OK. AIM-Postprocessor opens and reads the contents of the file.

Every plot that contains only one data vector is displayed in a table or a graph immediately after the file is loaded. Plots from the Operating Point Analysis, the Transfer Function Analysis, the Pole-Zero Analysis and the Noise Analysis are such one-vector plots.

Open the file "tutorial.out"

2.3. Select Current Plot

After the file is read, a dialog box appears containing a list of all plots saved in the file[1]. This dialog box is shown in Fig. 2.

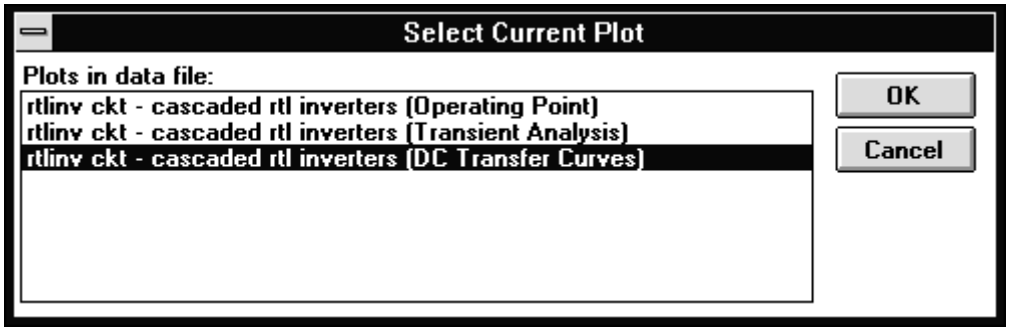


Fig. 2. The Select Current Plot dialog box.

You are asked to select one plot as the current plot. To select the current plot, select the corresponding list box item and then choose OK.

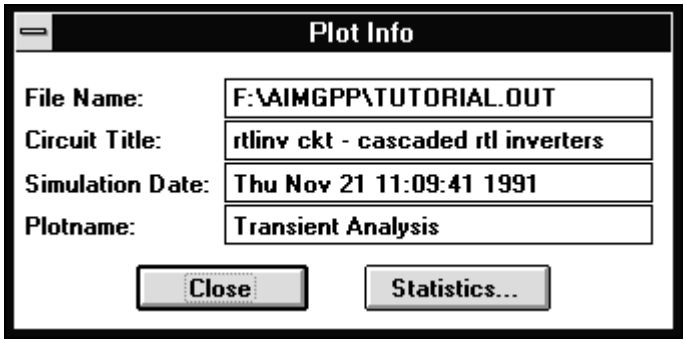
[1]This dialog box is not displayed if the file contains only one plot.

You can change the current plot at any time by choosing the File Change Current Plot command.

After a plot has been selected and the plot is not a one-vector plot, you are able to create line graphs of the variables contained in that plot. If you select a one-vector plot as the current plot, the graph or table window with the plot is made the active window. If the window does not exist, AIM-Postprocessor creates a new window and displays the plot.

Select the plot named "rtlinv-cascaded rtl inverters (Transient Analysis)"

The information part of a plot can be viewed at any time by choosing the View Plot Info command. This command displays information about the current plot in two dialog boxes (see Fig. 3).



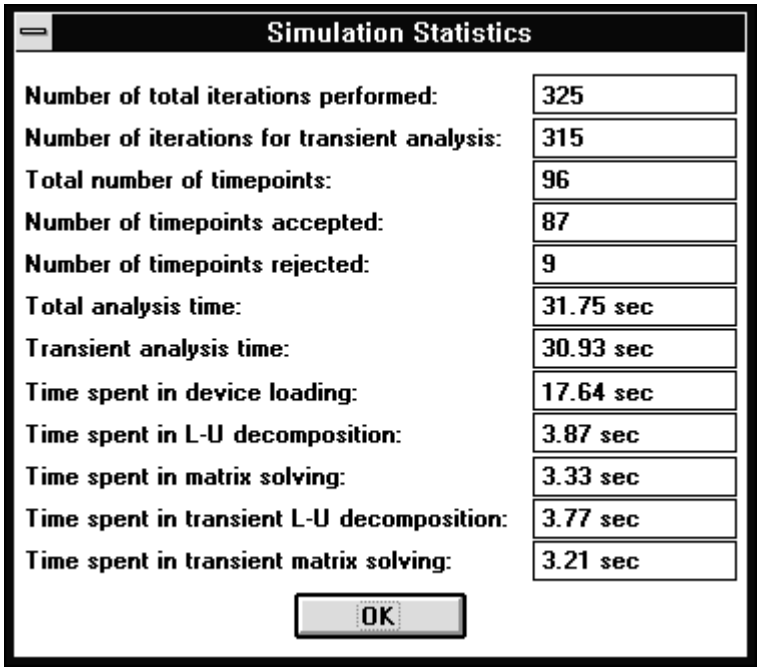


Fig. 3. Dialog boxes that display information about the current plot.

2.4. Creating Graphical Plots

A graphical plot is a document window that contains a graph with one or more traces.

You create graphical plots by choosing the Graph Add Plot command. When you choose this command the Add Plot dialog box is displayed (see Fig. 4).

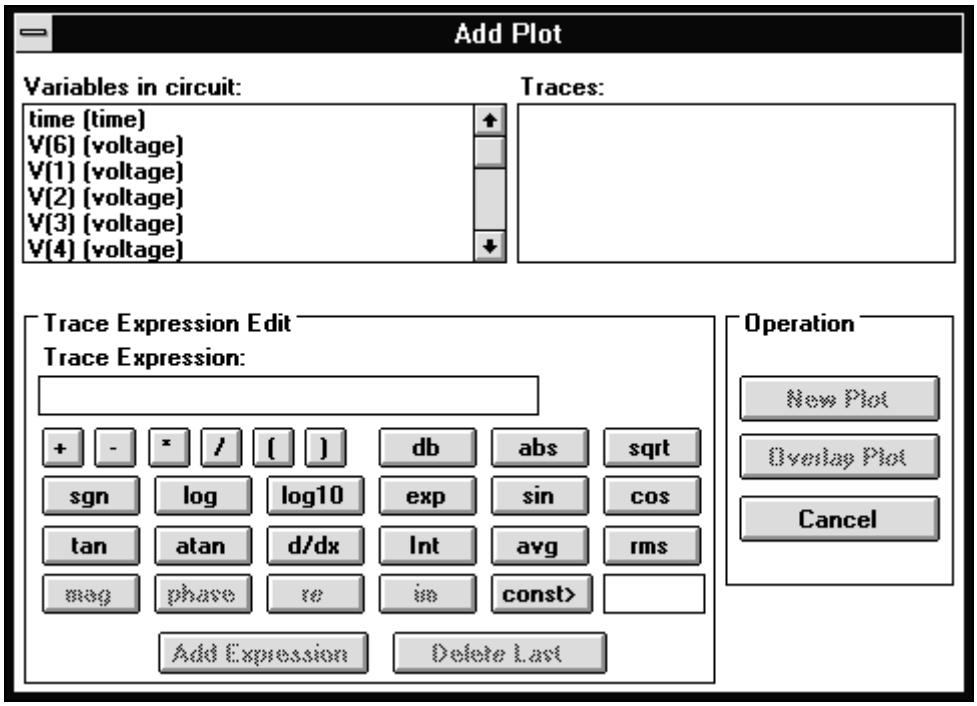


Fig. 4. The Add Plot dialog box.

The Add Plot dialog box is divided into four main fields:

- A list box with the variables in the current plot.
- A list box with the traces you want to add to the graphical plot. This list box is initially empty.
- A trace expression editor (TEE) that lets you edit the traces you want.
- Three command buttons.

A few words are now required on how to edit your traces and therefore the following section gives you a description of the trace expression editing facility.

2.4.1. Trace Expression Editing (TEE)

Trace expression editing gives you the possibilities to create complex expressions including mathematical functions, derivatives and integrals of the variables in a plot. These expressions are plotted graphically when you choose the New Plot or Overlay Plot command.

TEE works much like a calculator. With a calculator you add operands, operators, and functions of operands, and then you press '=' to calculate your expression. In the TEE the '=' symbol is replaced by the command Add Expression that saves the expression you have edited in the list of traces. The trace editor, as in a calculator, also has a display window that displays the current expression. You also have a backspace key that deletes the last operation in the trace editor. The editor is intelligent in the way that it excludes operations that are not allowed. For example, every expression starts with an operand or a function and therefore the editor doesn't allow you to start with an operator. Operator buttons are inactive when operators are not allowed, the variable list is grayed when operands are not allowed and so on.

We show you three example expressions and how to create and save them in the trace editor.

i) V(3)

ii) V(3)+V(5)

iii) The average value of V(3)

Follow these steps to create the three traces shown in Fig. 5:

Open the Add Plot dialog box

Select the variable V(3) from the list of circuit variables

The variable V(3) appears in the TEE display

Choose the command button Add Expression

The trace is added in the trace list and the TEE display is cleared and is ready to receive a new expression

Select the variable V(3) from the list of circuit variables

The variable V(3) appears in the TEE display

Choose the operator '+' from the operator buttons

The plus-operator appears in the TEE display

Select the variable V(5) from the list of circuit variables

The variable V(5) appears in the TEE display

Choose the command button Add Expression

The trace is added in the trace list and the TEE display is cleared and is ready to receive a new expression

Choose the function button labelled "avg"

The text "avg(" appears on the TEE display. Averages are always taken over the x-axis variables which in this case is the time (default x-axis variable in Transient Analysis).

Select the variable V(3) from the list of circuit variables

You have now added the argument of the function and the TEE display contains "avg(V(3)"

Choose the closing parenthesis button

You have now added the closing parenthesis of the average function

Choose the command button Add Expression

The trace is added in the trace list and the TEE display is cleared and is ready to receive a new expression

This completes our examples and the trace list now contains three traces.

Choose the command button New Plot

A new graph window is created and a graph with the three traces is displayed. Note that the Overlay Plot command was grayed in the dialog box. This command is available only when you have already created one or more graphs. You use it when you want to add new traces to an already existing graph.

On the screen these traces can be distinguished by different colors, symbols or line styles. It is also possible to drag the legends close to the different traces, which is especially useful when creating hard copies.

In this section we have learned how to create a graph. In the next section we will take a closer look at the operations that prepares the graph for presentation, i.e., graph editing.

2.5. Graph Editing

A graph consists of two axes, two axis labels, the trace area, text, and legends to identify the traces. Fig. 6 illustrates the different parts of a graph. It is possible to change the appearance of all these parts with the graph editing facilities in AIM-Postprocessor.

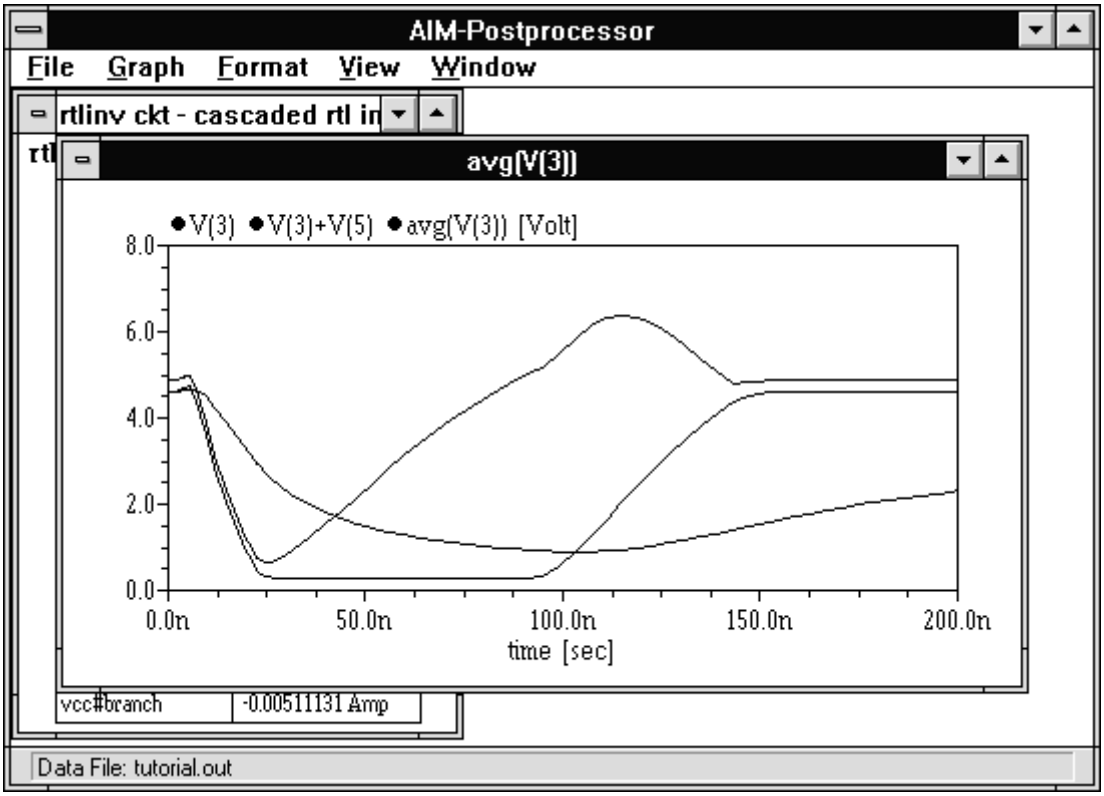


Fig. 5. The main window of AIM-Postprocessor with open graph and table windows.

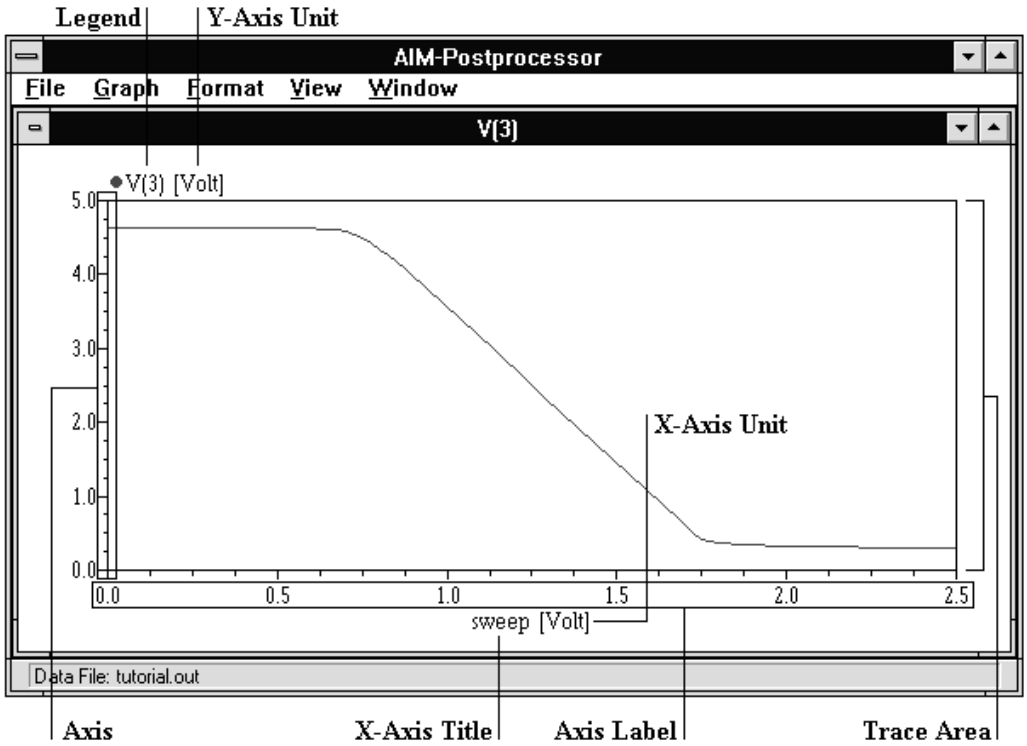


Fig. 6. Different parts of a graph.

Note that legends, x-axis title, x-axis unit and y-axis unit are linked to the graph and are moved whenever the trace area is moved or resized. This link is broken when you move or resize one of these objects (the link is broken only for the object moved or resized).

The graph edit facilities are:

- Formatting axes
- Formatting labels
- Formatting the trace area
- Adding and formatting text
- Formatting legends
- Changing x-axis expression

2.5.1. Formatting Axes

To format an axis first select a graph window as the active document window, then choose the appropriate command from the Format menu. Note that it is also possible to format an axis by double clicking the axis. If you choose to format the x-axis of a graph a dialog box as the one shown in Fig. 7 appears.

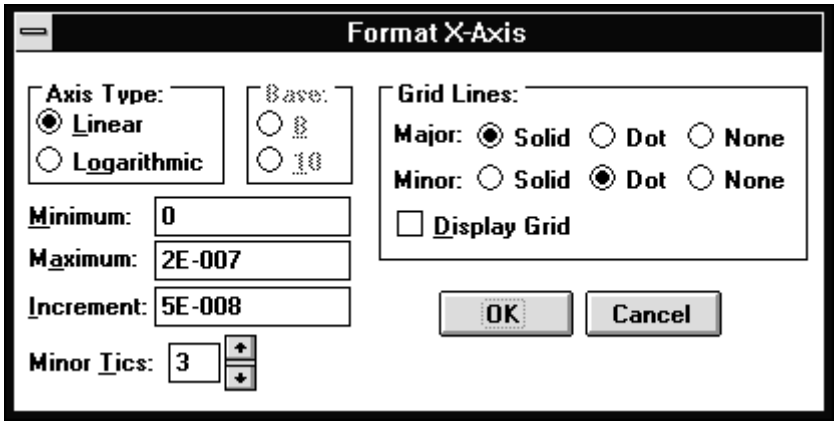


Fig. 7. The Format Axis dialog box.

The dialog box has the following fields:

Axis Type	Choose between linear or logarithmic axis
Base	If you choose logarithmic axis you can select the base number to be 8 or 10
Minimum	Specifies the minimum value for the axis
Maximum	Specifies the maximum value for the axis
Increment	Specifies the distance between axis labels
Minor tics	Specifies how many tic marks drawn between labels

Grid Lines — You can specify line styles for grid lines drawn on major tic marks and on grid lines drawn on minor tic marks. The check box Display Grid turns the grid *on* or *off*

There is another and faster way of changing the axis limits, namely zooming with the mouse. To zoom with the mouse follow the steps below.

- Turn zooming *on* by choosing the View Zoom command.
- Position the mouse cursor where you want the upper left corner of your view and press and hold the right mouse button.
- Drag the mouse cursor down to the lower right corner of your view and release the button.

  The graph is then redrawn with the new axis limits.

When you turn the zooming *off* by choosing the View Zoom command again you reset the axis limits to their values before the zoom operation.

2.5.2. Formatting Labels

To format a label first select a graph window as the active document window. Then choose the appropriate command from the Format menu. Note that it is also possible to format a label by double clicking the label. If you choose to format the x-axis label of a graph a dialog box as the one shown in Fig. 8 appears.

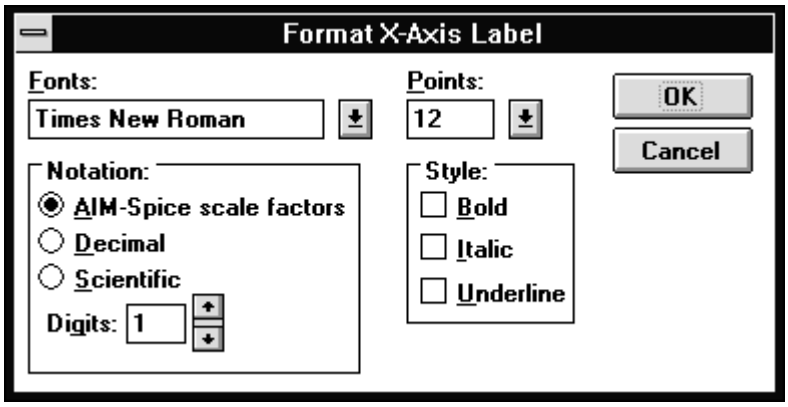


Fig. 8. The Format Axis Label dialog box.

The dialog box has the following fields:

Fonts — Contains a list off all fonts available on the printer currently selected. The font currently used for the label is displayed in the edit box. To select another font, type the name of the font in the edit box or open the list of fonts by clicking on the down arrow in the drop down list box, and then select a font from the list.

Points	Contains a list of point sizes. The point size currently used for label text is displayed in the edit box. To use another point size for label text, type a new point size in the edit field or open the list of point sizes by clicking on the down arrow in the drop down list box, and then select a point size from the list.
Style	Specifies the text style used for the label. You can specify bold, italic and/or underlined text.
Notation	Specifies the numeric format used in the label. The number 1 million is displayed as 1M if you specify AIM-Spice scale factors, 1000000 if you specify Decimal and 1E+006 if you specify Scientific. The Digits text box lets you specify how many digits to use in the numeric format.

2.5.3. Formatting The Trace Area

It is possible to move and resize the borders of the rectangular trace area. To move the rectangle click and hold the left mouse button anywhere inside it. Then drag the rectangle to the new position and release the mouse button. To resize the rectangle click the left mouse button anywhere inside it. This operation selects the rectangle. Then place the mouse cursor over one of the handles and click and hold the left mouse button. Then drag the rectangle borders to their new positions and release the mouse button. Which rectangle borders that move depends on the handle you selected to drag.

Double clicking anywhere inside the trace area restores the trace area to the default position and size. Legends, x-axis title, x-axis unit and y-axis unit are also restored to their default positions and links to the trace area are made active again.

2.5.4. Adding and Formatting Text

To add text to your graphs choose the Graph Add Text command. Now when you place the cursor over a graph window the cursor will change to reflect that you have selected to add text. Position the cursor on the location where you want the upper left corner of your text and then click the left mouse button. The dialog box shown in Fig. 9 appears.

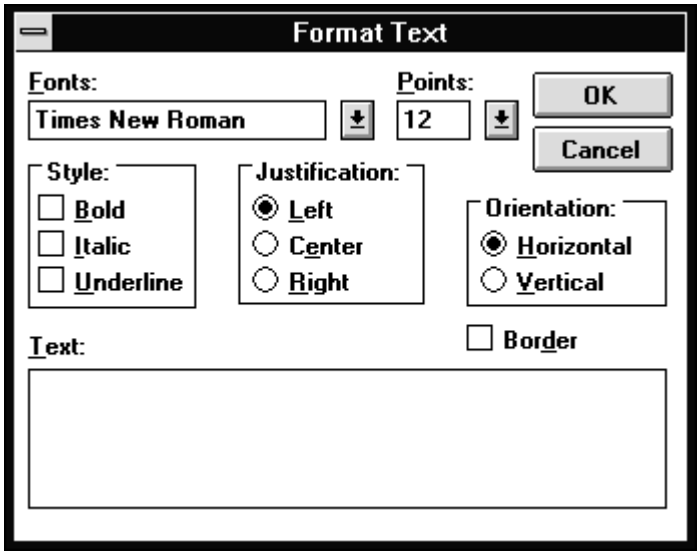


Fig. 9. The Format Text dialog box

The dialog box has the following fields:

Fonts	Contains a list off all fonts available on the printer currently selected. The font currently used for the text is displayed in the edit box. To select another font, type the name of the font in the edit box or open the list of fonts by clicking on the down arrow in the drop down list box, and then select a font from the list.
Points	Contains a list of point sizes. The point size currently used for the text is displayed in the edit box. To use another point size for the text, type a new point size in the edit field or open the list of point sizes by clicking on the down arrow in the drop down list box, and then select a point size from the list.
Style	Specifies the style used for the text, bold italic and/or underlined.
Justification	Specifies the horizontal justification of the text within the text rectangle.
Orientation	Specifies the orientation of the text.
Border	If selected, a rectangle is drawn around the text.
Text	Here you type the text you want to add to the graph.

Complete the dialog box and choose OK to add the text with the format you have selected. It is possible to cancel the Add Text command by choosing the command one more time before you click the mouse button.

You can format a text at any time you like by double clicking the text with the left mouse button. In response the Format Text dialog box (see Fig. 9) is displayed. You now have the possibilities to make changes to the text you double clicked. To make your changes visible choose OK. It is also possible to move and resize text. To move a text click and hold the left mouse button anywhere on the text. Then drag the text to the new position and release the mouse button. To resize a text click the left mouse button anywhere on the text. This operation selects the text. Then place the mouse cursor over one of the handles and click and hold the left mouse button. Then drag the rectangle borders to their new positions and release the mouse button. Which rectangle borders that move depends on which handle you selected to drag.

2.5.5. Formatting Legends

Legends are used to identify the different traces contained in a graph. The default appearance and position of legends is shown in Fig. 10.

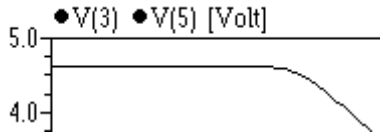


Fig. 10. Default appearance and position of graph legends.

The legends are positioned at the upper left corner of the trace area with a colored symbol identifying the trace by the color. You have both the possibilities to move and resize the legend and to change the format of the legend. To move or resize the legend follow the procedure described above to move or resize text.

To format a legend, double click on it and the dialog box in Fig. 11 appears.

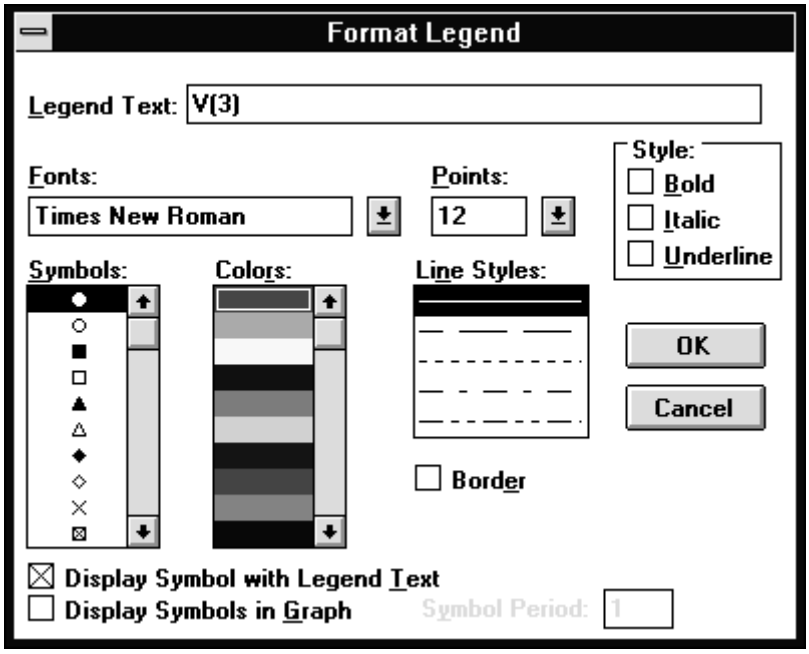


Fig. 11. The Format Legend dialog box.

The dialog box has the following fields:

Legend Text	Specifies the legend text
Fonts	Contains a list off all fonts available on the printer currently selected. The font currently used for the legend is displayed in the edit box. To select another font, type the name of the font in the edit box or open the list of fonts by clicking on the down arrow in the drop down list box, and then select a font from the list.
Points	Contains a list of point sizes. The point size currently used for the legend text is displayed in the edit box. To use another point size for the legend text, type a new point size in the edit field or open the list of point sizes by clicking on the down arrow in the drop down list box, and select a point size from the list.
Style	Specifies the text style used for the legend, bold italic and/or underlined.
Symbols	Contains a list of predefined symbols used to identify traces and data points generated by AIM-Spice.
Display Symbol with Legend Text	If selected, the currently selected symbol is drawn to the left of the legend text.
Display Symbols in Graph	If selected, the currently selected symbol is drawn on data points.
Symbol Period	Active only if Display Symbols in Graph is selected. The number you type in this field specifies the symbol frequency. If you specify 1, a symbol is drawn for every data point. If you specify 10, a symbol is drawn for every tenth data point.
Colors	Contains a list of predefined colors used to identify the traces. The color you select is used when drawing the trace and the currently selected symbol.
Line Styles	Contains a list of different line styles. AIM-Postprocessor uses the line style you have selected when it draws lines between data points to create a line graph.
Border	If selected, a rectangle is drawn around the legend.

The option Display Symbol with Legend Text has no immediately useful function. Therefore we give you an example of when to turn this option *off*:

When you use the screen as the output device the use of different colors is the best way to identify the different traces in a graph. However, when you want to print a graph, you will probably not be able to use colors. One way of identifying the different traces without using

colors is to drag the legend into the trace area and position it close to the trace. When you do so and you do not want to display a symbol next to the legend text, you turn the option Display Symbol with Legend Text *off*.

2.5.6. Changing the X-Axis Expression

You do not have to use the x-axis variable from the simulation. You are free to change the x-axis to a general expression like the ones we described in the section Creating Graphical Plots. To change the expression for the x-axis choose the Graph X-Axis Expression command and the dialog box in Fig. 12 appears.

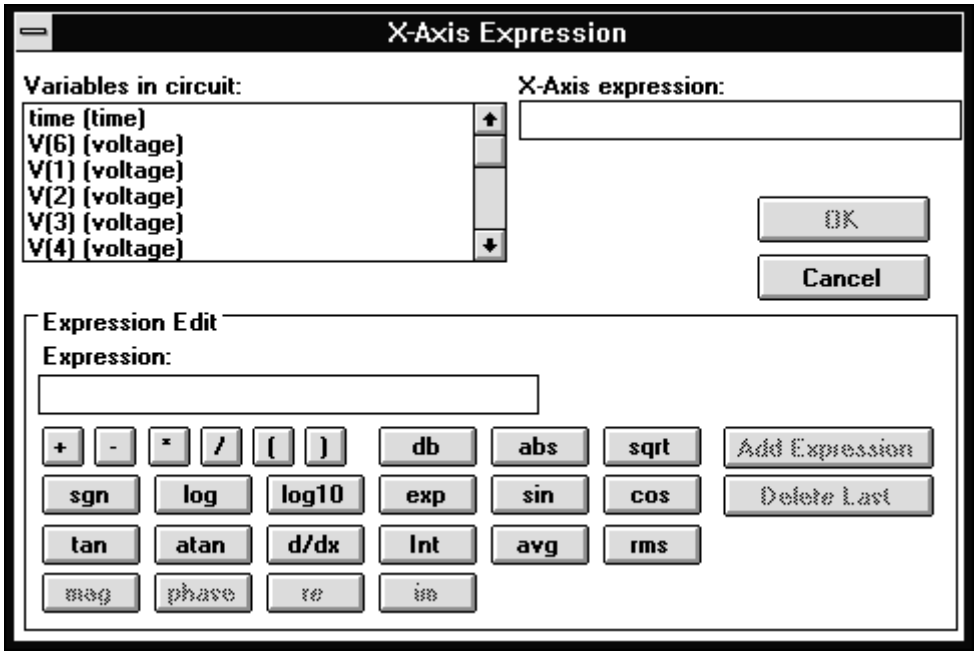


Fig. 12. The X-Axis Expression dialog box.

This dialog box is almost identical to the Add Plot dialog box. The only difference is that you edit only one expression now.

This section does not contain any concrete exercises for you, but you are encouraged to try out some of the facilities we have discussed.

This completes the section on graph editing.

2.6. Cursors

Cursors is a tool for extracting numerical values from your graphs. With two cursors, you are given the opportunity to calculate differences between traces. To turn cursors *on*, choose the View Show Cursors command. The cursor info window appears in the upper right corner of the main window (see Fig. 13).

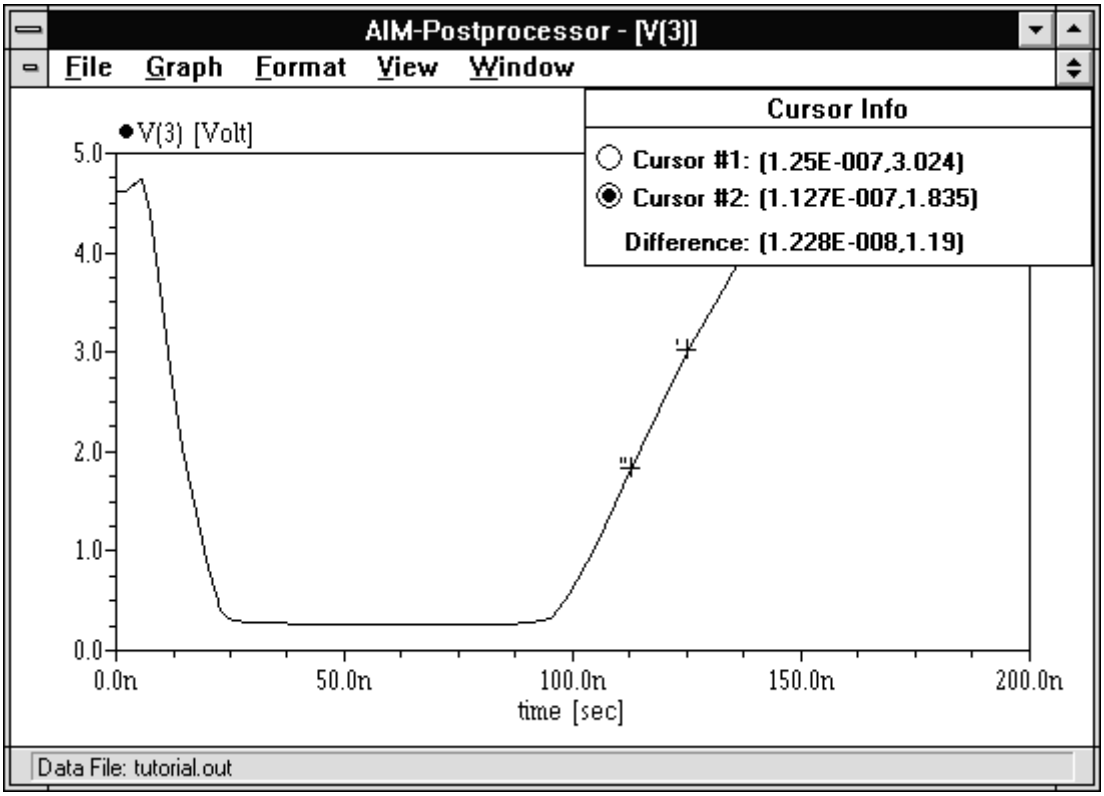


Fig. 13. The main window of AIM-Postprocessor with cursors active.

To remove the cursors, select the View Hide Cursors command.

2.7. Printing

To print a graph or a table, follow the steps below.

- Format the graph or table you want to print.
- Choose File Printer Setup.

  This command lets you select a printer from a list of installed printers. See the dialog box in Fig. 14.

  Choose the Setup command to change parameters for the printer you have selected. The dialog box displayed in response to the Setup command differs for different printers. The dialog box for an Apple Laserwriter is shown in Fig. 15.
- Activate the document window (if not already done) that contains the graph or table that you want to print.
- Choose File Print to print the graph or table.

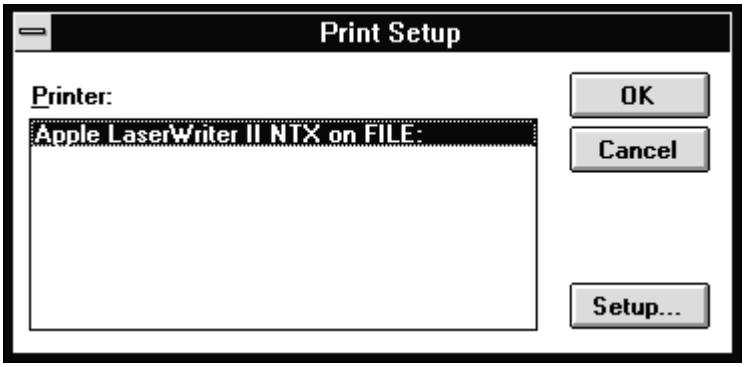


Fig. 14. The Print Setup dialog box.

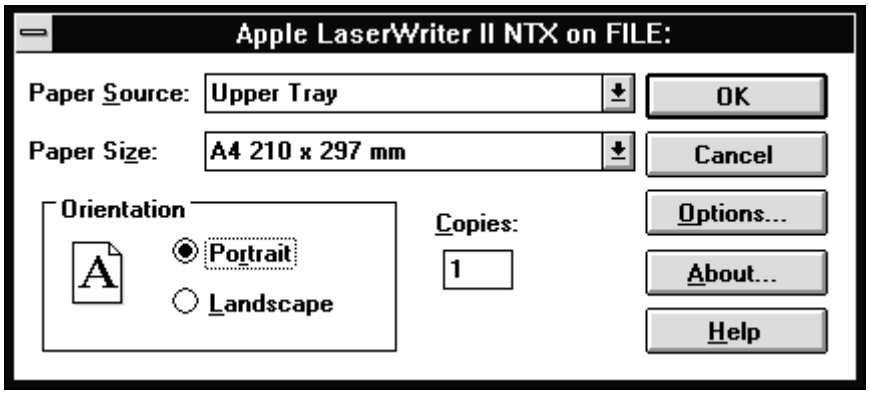


Fig. 15. The Print Setup dialog box for an Apple Laserwriter.

Chapter 3

Command Reference

This chapter gives you a description on every command and dialog box in AIM-Postprocessor. Each menu has its own section starting with the File menu.

3.1. The File Menu

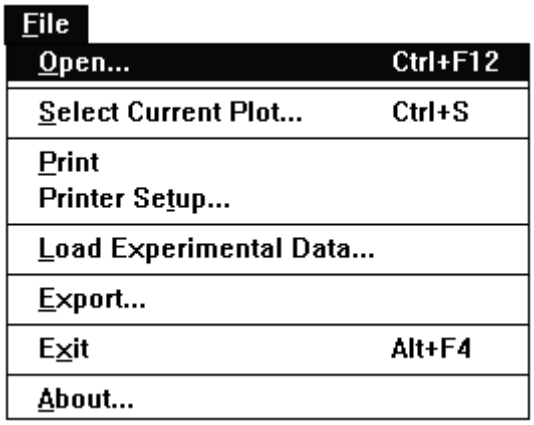


Fig. 16. The File menu.

- **Open:** Displays the dialog box in Fig. 17. This command lets you specify the AIM-Spice data file to open. This is a standard Windows File Open dialog box and the Section Working with AIM-Spice Circuit Files in the AIM-Spice User Guide gives a full description on how to open files.
- **Select Current Plot:** In general, an AIM-Spice data file contains more than one plot. This command lets you select the current plot. When you create graphs, the circuit variables and data vectors are taken from the current plot. This command displays the dialog box shown in Fig. 18. The list box in the dialog box contains a list of all plots in the data file. You select the current plot by selecting the corresponding list box item and then choose OK.
- **Print:** Prints the active graph or table window.
- **Printer Setup:** Lets you specify printer and printer parameters. Refer to the section Printing for a complete description of the printing process.

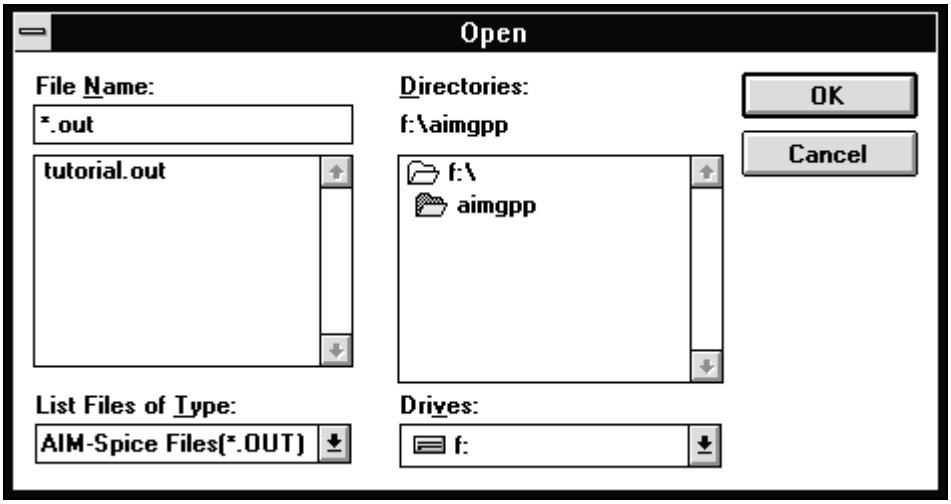


Fig. 17. The File Open dialog box.

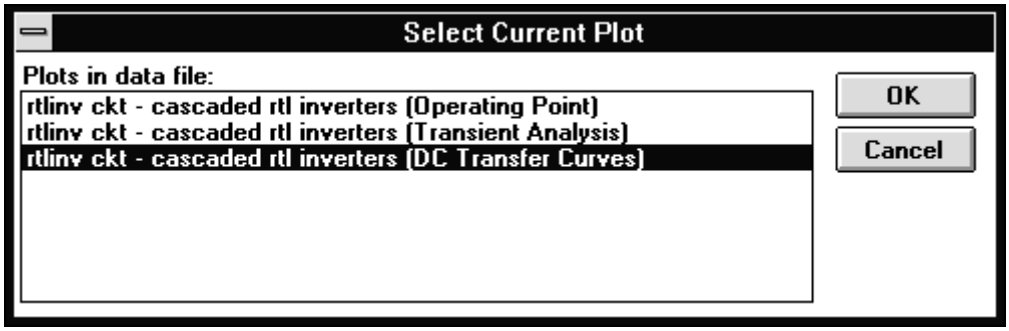


Fig. 18. The Select Current Plot dialog box.

- **Load Experimental Data:** Loads a text file with experimental data. Displays a standard file open dialog box to let you specify the file that contains the experimental data. The data is presented in the active graph window as centered symbols. The text file has the following format:

```
Number of data rows (nrows)
Number of data columns (ncol)
Legend text for column #1
Legend text for column #2
.
.
.
Legend text for column #ncol
[Experimental data formatted in nrows and ncol with one or more
spaces between columns]
```

  Note that the number ncol is the actual number of columns with y-values. The first column of values is taken as x-values and is not included. In the example file below, the value of ncol is 3 even though the number of columns is four.

  Note also that legend text must contain one text string without spaces.

  An example file is displayed below.

```
21
3
V(3)
V(5)
V(1)
0.000E+00   4.622E+00   2.665E-01   0.000E+00
1.000E-08   3.463E+00   2.674E-01   5.000E+00
2.000E-08   8.559E-01   2.879E-01   5.000E+00
3.000E-08   2.847E-01   5.395E-01   5.000E+00
4.000E-08   2.715E-01   1.277E+00   5.000E+00
5.000E-08   2.679E-01   2.085E+00   5.000E+00
6.000E-08   2.667E-01   2.866E+00   5.000E+00
7.000E-08   2.662E-01   3.576E+00   5.000E+00
8.000E-08   2.660E-01   4.185E+00   5.000E+00
9.000E-08   2.852E-01   4.671E+00   0.000E+00
1.000E-07   6.477E-01   4.922E+00   0.000E+00
1.100E-07   1.558E+00   4.729E+00   0.000E+00
1.200E-07   2.522E+00   3.773E+00   0.000E+00
1.300E-07   3.419E+00   2.318E+00   0.000E+00
1.400E-07   4.172E+00   8.201E-01   0.000E+00
1.500E-07   4.572E+00   2.887E-01   0.000E+00
1.600E-07   4.606E+00   2.728E-01   0.000E+00
1.700E-07   4.612E+00   2.686E-01   0.000E+00
1.800E-07   4.616E+00   2.673E-01   0.000E+00
1.900E-07   4.618E+00   2.668E-01   0.000E+00
2.000E-07   4.620E+00   2.666E-01   0.000E+00
```

After the file is read the dialog box in Fig.19 is displayed.

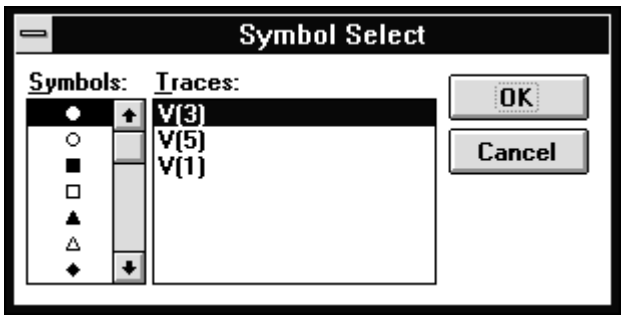


Fig. 19. The Symbol Select dialog box.

This dialog box lets you select which symbols to use with the different traces in the data file. The traces have default symbols, but you are free to use other symbols from the symbol list. To change symbol for a given trace follow the steps below.

1) Select the trace for which you want to select a symbol.

2) Select a symbol from the list of symbols.

- **Export:** Lets you export data from an AIM-Spice data file to a text file. Displays the dialog box in Fig. 20.

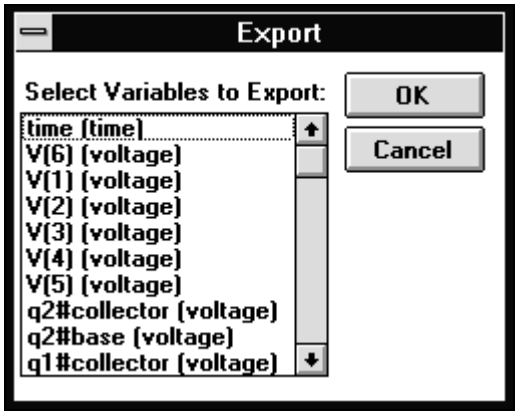


Fig. 20. The Export dialog box.

The list contains all variables in the current plot. Select the variables you want to export and choose OK. A save as dialog box is displayed that lets you specify a filename to export to.

- **Exit:** Terminates AIM-Postprocessor.
- **About:** Displays the About dialog box.

3.2. The Graph Menu

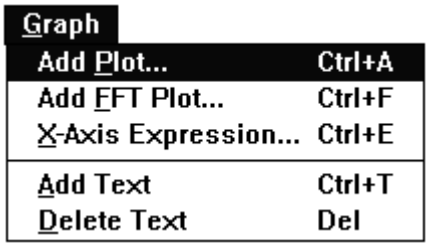


Fig. 21. The Graph menu.

- **Add Plot:** Lets you create graphs. The command is described in detail in the tutorial chapter in Section 2.4.
- **Add FFT Plot:** This command lets you create FFT (Fast Fourier Transform) graphs from the graph that was active when you chose the command. The command is useful for examining the spectrum of the output on non-linear circuits. The dialog box in Fig. 22 is displayed in response of this command.

  The drop down list box contains a list of all traces contained in the active graph. One of the traces is selected (for the dialog box above the trace named V(2) is selected). The other two fields in the dialog box displays the number of data points in V(2) and the suggested number of samples to use when transforming V(2). AIM-Postprocessor transforms each trace individually and creates two new graphs for each trace. One contains the amplitude of the original trace as a function of frequency, and the other contains the phase.

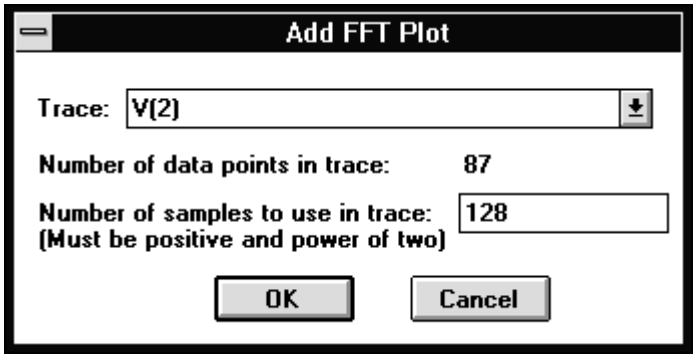


Fig. 22. The Add FFT Plot dialog box.

When AIM-Postprocessor transforms a trace it creates a new set of datapoints where the number of points is equal to the number of samples you specified in the dialog box. The datapoints is equally spaced in the time interval. This is done with linear interpolation on the original datapoints. The new set of datapoints are then transformed.

The resolution in frequency is the reciprocal of extent in time, and extent in frequency is proportional to the number of samples used. So, if you want higher resolution in the frequency domain you have to run the transient analysis for a longer time in AIM-Spice. Run the circuit for many cycles if necessary.

One thing to mention at last is that AIM-Postprocessor transforms all traces, not only those that is a function of time. It's your responsibility to create meaningful transforms.

- **X-Axis Expression:** This command lets you change the x-axis expression. A dialog box similar to the Add Plot dialog box is displayed. Again the command is described in detail in Section 2.5.6.
- **Add Text:** This command lets you add text to your graphs. The command is described in detail in Section 2.5.4.
- **Delete Text:** Deletes the selected text. This command can also be invoked with the accelerator key Del.

3.3. The Format Menu

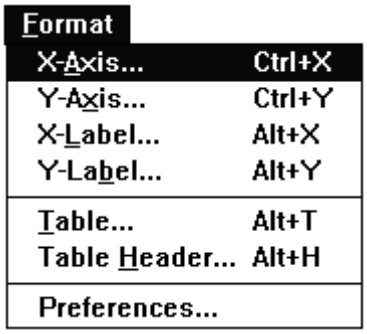


Fig. 23. The Format menu.

- **X-Axis:** Lets you change the x-axis format of the graph in the active graph window. This command is described in detail in Section 2.5.1.
- **Y-Axis:** Lets you change the y-axis format of the graph in the active graph window. This command is described in detail in Section 2.5.1.
- **X-Label:** Lets you change the label format for the x-axis of the graph in the active graph window. This command is described in detail in Section 2.5.2.
- **Y-Label:** Lets you change the label format for the y-axis of the graph in the active graph window. This command is described in detail in Section 2.5.2.
- **Table:** Lets you change the format of the table in the active table window. This command displays the dialog box in Fig. 24.

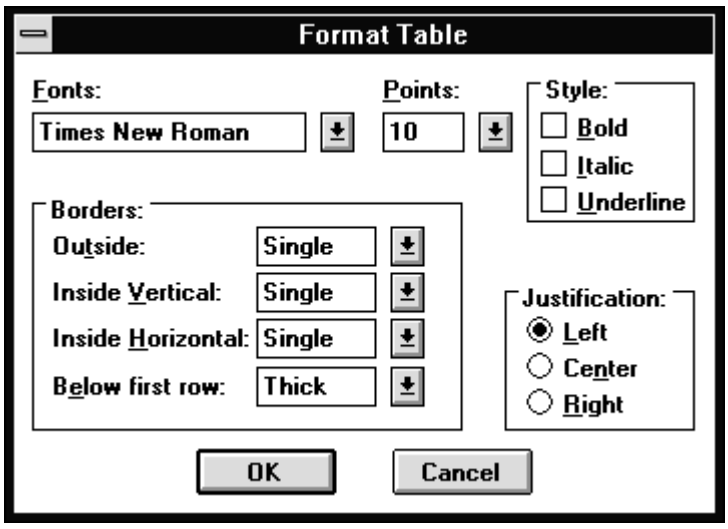


Fig. 24. The Format Table dialog box.

The dialog box has the following fields:

Fonts	Contains a list off all fonts available on the printer currently selected. The font currently used for table cells is displayed in the edit box. To select another font, type the name of the font in the edit box or open the list of fonts by clicking on the down arrow in the drop down list box, and then select a font from the list.
Points	Contains a list of point sizes. The point size currently used for table cells is displayed in the edit box. To use another point size for table cells, type a new point size in the edit box or open the list of point sizes by clicking on the down arrow in the drop down list box, and select a point size from the list.
Style	Specifies the text style used for table cells, bold italic and/or underlined.
Justification	Specifies the horizontal justification of the cell text within the cell.
Borders	You can specify four types of border styles for different parts of the table; None, Single, Double and Thick.

- **Table Header:** Lets you change the table header format of the table in the active table window. This command displays the dialog box in Fig. 25.

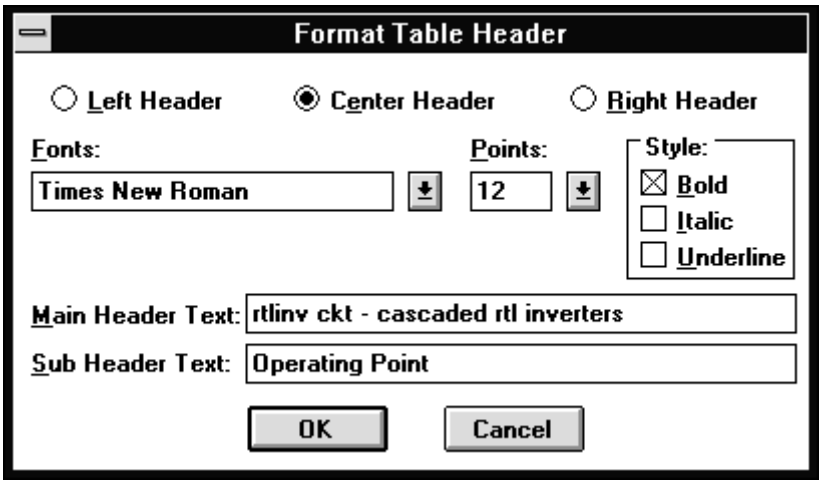


Fig. 25. The Format Table Header dialog box.

A table has three headers, one for each type of justification. AIM-Postprocessor uses only the center header as default when creating tables. You can also choose to use headers with left or right justification. With one selected header the dialog box have the following fields.

Fonts	Contains a list off all fonts available on the printer currently selected. The font currently used for the table header is displayed in the edit box. To select another font, type the name of the font in the edit box or open the list of fonts by clicking on the down arrow in the drop down list box, and then select a font from the list.
Points	Contains a list of point sizes. The point size currently used for the table header is displayed in the edit box. To use another point size for the table header, type a new point size in the edit box or open the list of point sizes by clicking on the down arrow in the drop down list box, and select a point size from the list.
Style	Specifies the text style used for the table header, bold italic and/or underlined.
Main Header Text	This edit field contains the text displayed as the first line of the header.
Sub Header Text	This edit field contains the text displayed as the second line of the header.

- **Preferences:** Lets you change preference values. This command displays the dialog box in Fig. 26.

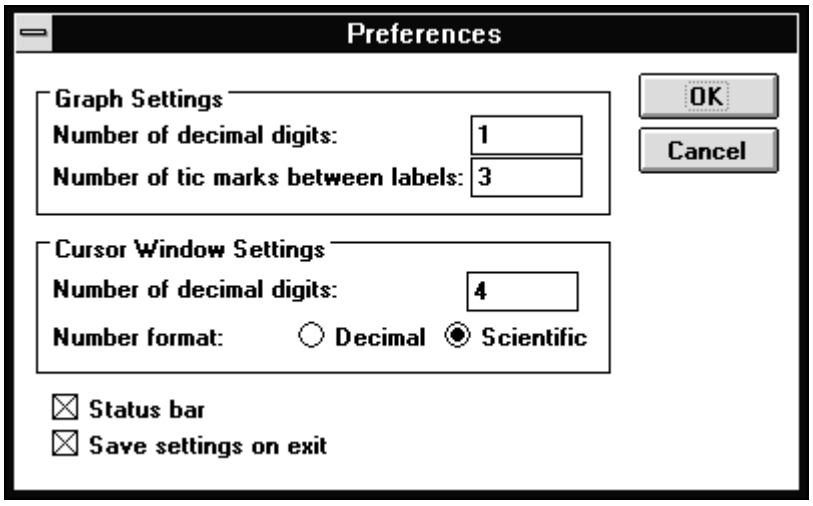


Fig. 26. The Preferences dialog box.

Your preferences will be saved in AIMGPP.INI on exit if "Save settings on exit" is active. The values are restored the next time you load AIM-Postprocessor.

3.4. The View Menu

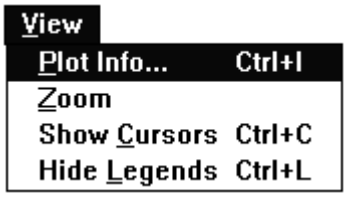
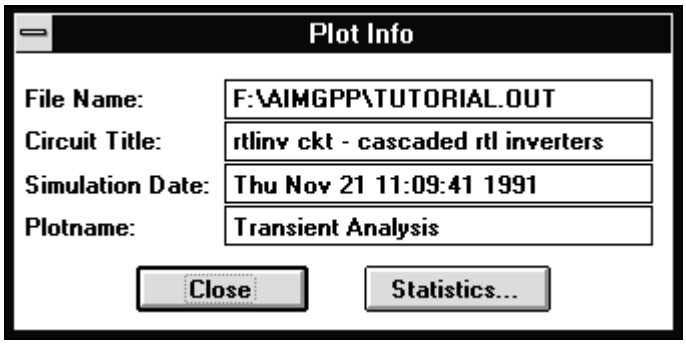


Fig. 27. The View menu.

- **Plot Info:** Displays info on the current plot. The info is presented in two dialog boxes. The second one is displayed when you select the Statistics command from the first dialog box. The dialog boxes are shown in Fig. 28.



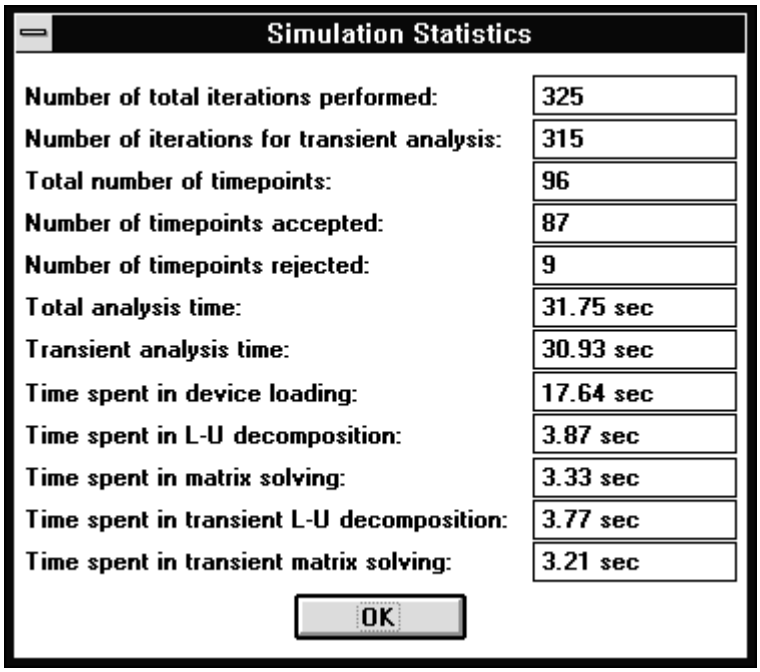


Fig. 28. The Plot Info dialog boxes.

The Simulation Statistics dialog box differs from analysis to analysis. The one shown above is for transient analysis.

- **Cursors:** Refer to Section 2.6. for a complete description of this command.

- **Zoom:** This command lets you change axis limits with the mouse by drawing a rectangle which defines the limits of the axis. To perform zooming follow the steps below.
    - Turn zooming *on* by selecting the View Zoom command
    - Position the mouse cursor where you want the upper left corner of your view and press and hold the right mouse button
    - Drag the mouse cursor down to the lower right corner of your view and release the button.

  The graph is then redrawn with the new axis limits.

  When you turn zooming *off* by selecting the View Zoom command once more, you reset the axis limits to their pervious values.

3.5. The Window Menu

Commands in the Window menu act on document windows and their icons only.

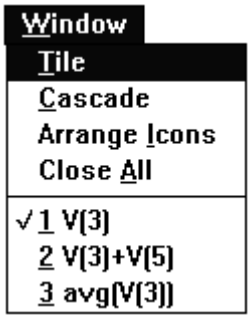


Fig. 29. The Window menu.

- **Tile:** Tiles document windows side by side as shown in Fig. 30.
- **Cascade:** Cascades document windows as shown in Fig. 31.
- **Arrange Icons:** Arranges the document icons at the bottom row of the main window as shown in Fig. 32.
- **Close All:** Closes all graph and table windows.

  The menu items below the separator are the window titles of all the graph and table windows. When you choose one of these titles, you make the corresponding graph or table window the active window. The window is placed in the front of all the other windows.

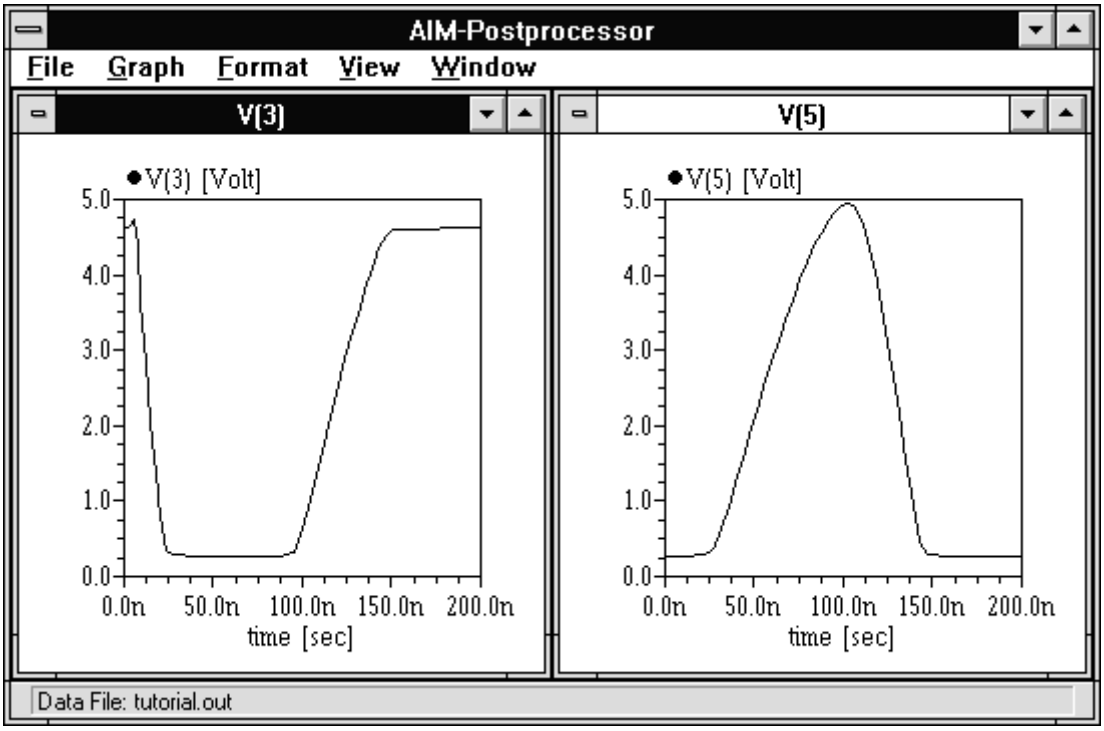


Fig. 30. The graph window positions after a Tile command.

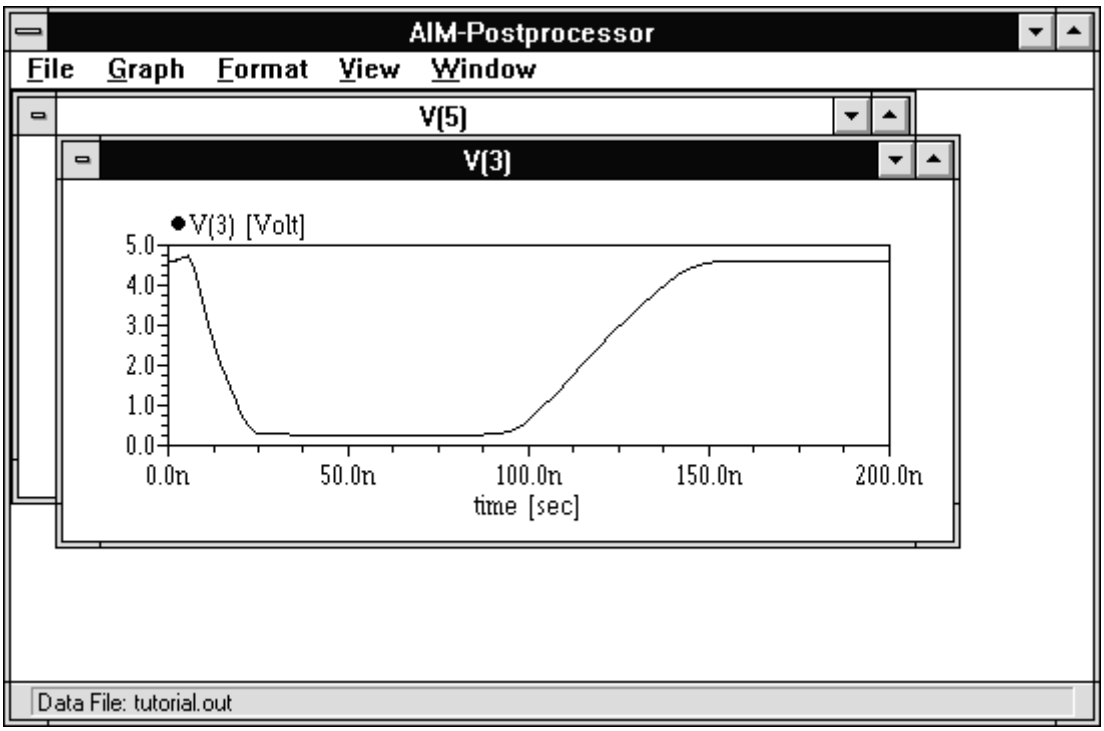


Fig. 31. The graph window positions after a Cascade command.

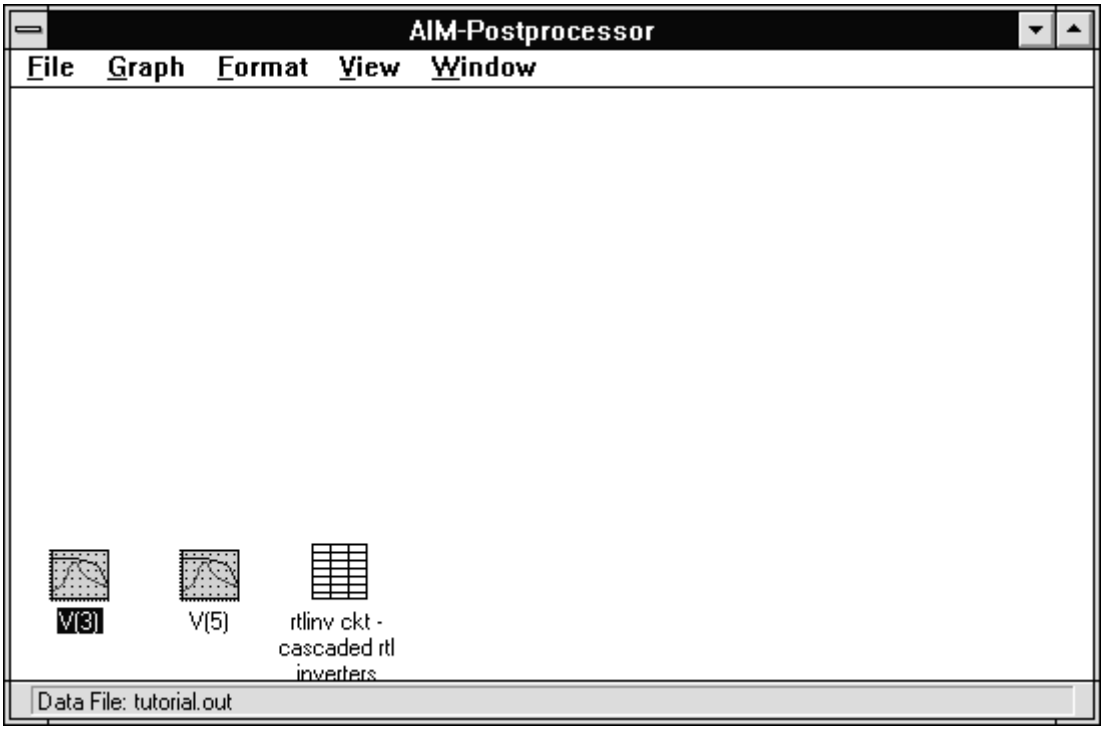


Fig. 32. Icon positions after an Arrange Icons command.