

View Windows

A *view window* displays a part of or an entire signal document. The sole *view type* available in Release 0.9 is a *time-domain* display, which shows the waveform contained in the file as a graph of amplitude (vertical axis) versus time (horizontal axis). The units on the amplitude line show the sample value, between + and - 32767 for the 16-bit integer signal documents handled by SE. All units on the time line are in seconds or decimal fractions of seconds.

Resizing and Hiding the View Window

You can resize and hide a view window using the standard NeXT window resizing protocols. See *NeXT User's Reference*.

Moving Forward, Backward, Up, and Down

View Window scrolling is very flexible in SE. The main tools are the *scroll bars* at the bottom and left side of the screen, and the *scroll arrow buttons* (horizontal and vertical) in the left bottom corner.

Scrolling Via Scroll Bars

Scroll bar scrolling works in two modes of resolution: *regular* and *fine*. In regular resolution, you can move forward or backward in a view window by dragging the horizontal scroll bar at the bottom of the view window. To move up or down the display, use the vertical scroll bar at the left of the view window.

Pressing the Alternate key as you move the scroll bar makes the scroll bar work in fine resolution mode. The speed at which you move the scroll bar determines how far and how fast the scroll occurs. Hence this is a *velocity-based* scrolling mode.

Scrolling Via Scroll Arrow Buttons

The scroll arrow buttons at the left bottom of the view window work in a precise manner. Every time you click on one of them, the screen scrolls by a tenth of a screenful. If you press Alternate and click on a scroll arrow button, the screen scrolls 90%, leaving 10% of the previous screen displayed.

Zooming In and Out

SE view windows let you look at waveforms at various levels of resolution by means of *zooming* in and out. SE supports two types of zooming ranges:

1. Zoom in/out by a fixed factor of two
2. Zoom to fit a selection to the size of the view window

Both *horizontal zooms* (zooming in/out on the time axis) and *vertical zooms* (zooming in/out on the amplitude axis) are supported. Vertical zooms let you look a piece of a waveform, such as a low-amplitude signal, in more detail than you would normally see.

The zoom applies to the center of the display. That is, whatever was in the middle of the screen remains in the middle as you zoom in and out.

Here is the complete list of zoom commands:

Horizontal in (fixed factor)	Command-[Horizontal out (fixed factor)
Command-]	Vertical in (fixed factor)	Command-{
Vertical out (fixed factor)	Command-}	Vertical center (scrolls
Command-		
display back to center)		
Vertical all (full zoom out)	Command-_	To selection (zooms
Command-=		to fit selection to window)
Show all (full zoom out	Command--	horizontally and vertically)

Continuous Zooming

A convenient feature in SE is continuous zooming. Shift-mouse click on either the horizontal or vertical scroll bar causes the scroll bar to grow or shrink in a continuous manner as you move the mouse. The window zooms to follow your mouse movement.

*Note: this feature is not mature in Release 0.9, meaning that you should not be surprised by anomalies in its behavior.

Partitioning a View Window

A single view window can be partitioned into a multiple viewer. You can either look at several different parts of a single document or look at multiple documents.

To partition a view window, click on the thin borderline around the document viewer and drag to position while also pressing the specified modifier keys:

Create a new partition	Alternate-mouse drag
Move an existing partition	Mouse and drag
Delete a partition	Alternate-mouse and dragbeyond partition end
Alternate-shift-mouse and a complete side	Create a partition along drag Delete partitions along Alternate-shift-mouse
and a complete side	drag beyond partition end

Clicking on a partition with the mouse selects it as the current view.

Printing a View Window

The Print menu (Command-p) prints the current viewer in high-resolution PostScript format.