

double-click each clip to close the layer above it. Note that when you work in this mode, you'll be monitoring the entire effect in the record monitor. If you need to see the layers separately, use the Step In and Step Out functions, instead.

You can also view and manipulate all nested effects on a clip simultaneously, as a single, unified effect stack, as long as they all employ advanced keyframes. See “Nesting Effects with Advanced Keyframes” on page 145.

## Collapse/Submaster

Another way to simplify your timeline is to take a stack of effects in separate video layers and collapse them into a single clip. Select the clips you want to collapse, or select tracks and mark in at the beginning of the effect and out at the end. Then click the Collapse button. The stack turns into a single clip with the Submaster effect applied.



Select appropriate clips, then click the Collapse button.



The clips are merged into a single object, with the Submaster effect applied.

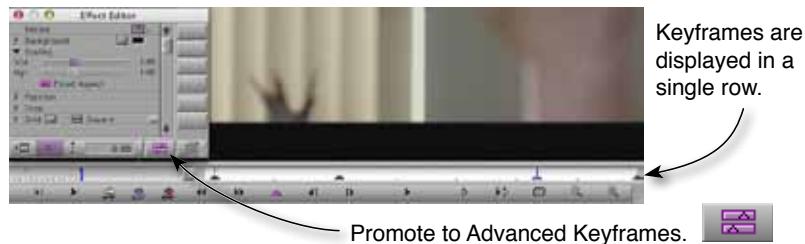
To reveal the contents of the Submaster, simply double-click it with a Segment tool, or use the Step In button. But note well: Submaster effects can't be parsed by FilmScribe, and you'll get an error message if you try to make lists for sequences containing them. If you need to make film lists, don't collapse your effects.

## Advanced Keyframes

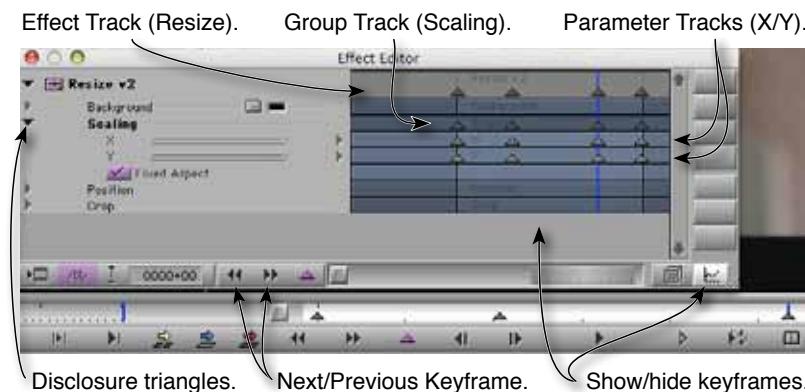
Because Avid's traditional effects model displays all keyframes in a single row, there's no way to isolate keyframes for individual parameters. Advanced keyframes work differently, displaying every parameter separately. This provides more control, and it allows you to do things that were once impossible. For example, it lets you to change the way the system interpolates values between keyframes. The old model simply drew a straight line—if a value moved from 0 to 100 and back to 0, it seemed to bounce harshly at the center keyframe. The new model allows you to create and manipulate curves between

keyframes, and thus it helps you make effects that feel smoother and more organic.

A standard resize effect in Version 4 might look something like this:



But in Version 5, the same effect contains a separate row of keyframes for each parameter. (If you don't see them, click the Show Keyframe icon at the bottom right of the window.)



You can still move keyframes around in the position bar under the record monitor or with the unified Effect Track at the top of the Effect Editor. But you can now control each parameter individually. Disclosure triangles are used to cluster parameters into Groups, such as Scaling, Position or Crop. This allows you to manipulate all keyframes in the group, or to set values for individual parameters. For example, in the illustration above, clicking on a keyframe in the Scaling group will select keyframes in the X and Y tracks simultaneously.

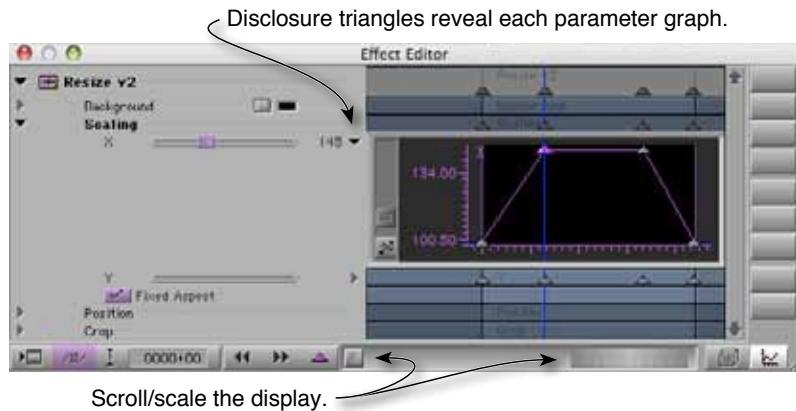
## Moving Multiple Keyframes in Time

One nice feature of the new model is that you can move adjacent keyframes together in time (left/right). Click the first keyframe you want to move and Shift-click the others. Then hold down the Option key and drag any selected keyframe to move all of them at once.

## Keyframe Graphs

The advanced keyframe interface also allows you to display each keyframe parameter as

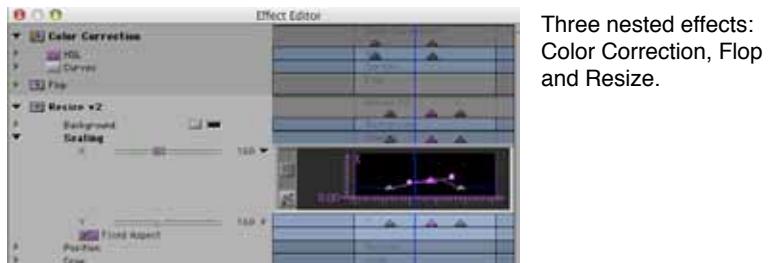
a graph. You can then manipulate one or more keyframes simply by dragging them.



In the graph, keyframe movement is normally constrained to the vertical dimension, changing the keyframe value. If you want to move the keyframe position in time (horizontally) hold down the Option key while dragging. To move a keyframe horizontally without moving it vertically, hold down Option and Shift simultaneously.

## Nesting Effects with Advanced Keyframes

If all the effects in a nest employ advanced keyframes, you can view and adjust them as a single stack in the Effect Editor. In the illustration below, three effects have been nested and are visible simultaneously.

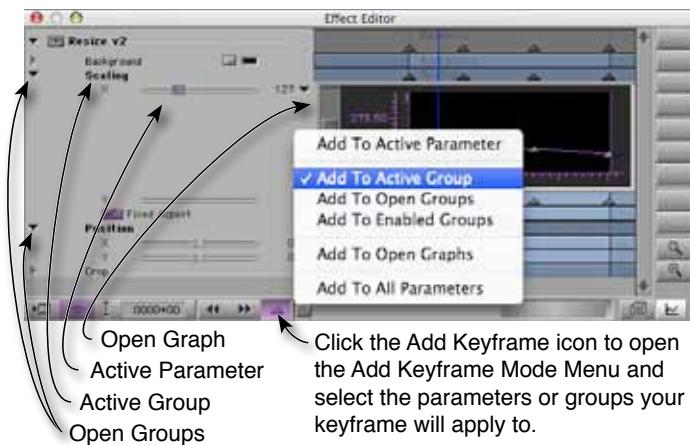


## Adding Keyframes

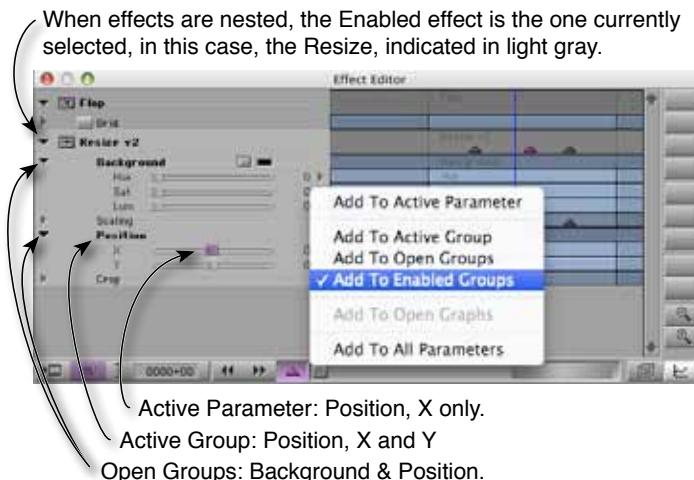
You'll typically add keyframes using the purple Add Keyframe button. If you click it under the record monitor you'll add keyframes to all the parameters in the effect. But if you click it in the Effect Editor, it behaves differently, opening the Add Keyframe Mode Menu and allowing you to choose tracks for your keyframes.

The menu makes a distinction between Active, Open and Enabled groups and parameters. The Active parameter is the one you're working on, identified by a slider handle highlighted in purple. The Active Group is the group containing that parameter. An Open group is any group in which the disclosure triangle is facing downwards, revealing

its individual parameters.



An Enabled effect is the one you're working on, indicated with light gray shading behind its sliders. When two or more effects have been nested, clicking anywhere on an effect's controls will enable it, and selecting Add to Enabled Groups will put a keyframe in all the parameters of that effect. When you're working on a single, un-nested effect, Add to Enabled Groups simply puts keyframes in all parameters.



The menu will only allow you to do things that make sense. If no groups are open, for example, Add to Open Groups will be greyed out. If you add a keyframe from the keyboard, it will be applied it as if you'd used your most recent selection from the menu.

If these choices seem confusing, you may find it easier to add keyframes directly, by simply right-clicking in a track or graph. Park the position indicator on the frame where you want the keyframe to appear. Then right-click to open a contextual menu, and select Add Keyframe. If you right-click in a parameter track or graph, you'll create a keyframe in that track; if you do it in a group track, you'll create keyframes in all parameters in