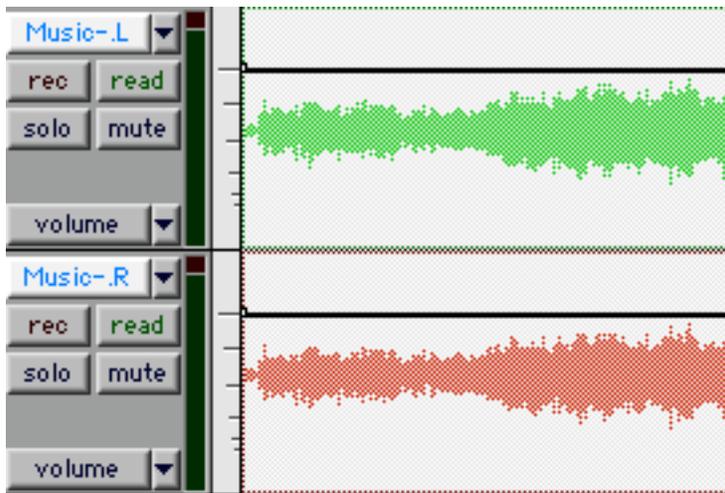
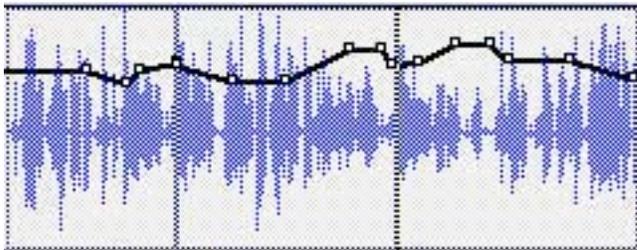


## ProTools 4: Basic Mixing

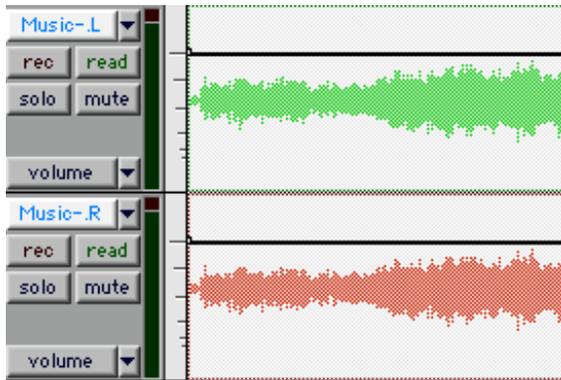
The bar at the bottom of each track display in the edit window can be switched from “waveform” to “volume” and other modes, to control the track in different ways. Selecting “volume” will display a horizontal line indicating “unity gain”.



You can then adjust the volume of a track’s playback by making “breakpoints” by clicking with the **grabber tool**. Dragging a breakpoint up or down will adjust the level of the track output, the same way moving a volume fader would. Option-clicking with the grabber will delete points. Drawing with the pencil tool will create a dense stream of points. Selecting a range of points with the selector tool allows you to delete or copy that volume automation. While a range of points is selected, the trimmer tool can be used to raise or lower all points in proportion to one another.



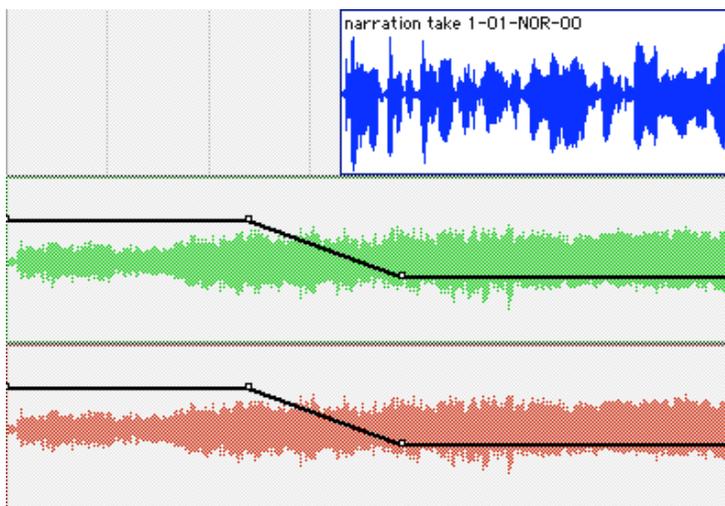
If any of your soundfiles is drastically low in volume, you may want to get it up to its maximum level by selecting the region or regions, then going to the AudioSuite menu and choosing "normalize." Run this process, and it will write a new soundfile, with the volume up to the maximum level (you can control the maximum volume of the highest peak in the normalize dialog.) Remember that this process simply brings the peaks up to the level you indicate, so the overall level of the track may need to be manipulated more.



Now, for a quick and dirty mix, we'll use volume automation on the music tracks. At the bottom left of the track display in the edit window, click on "waveform" and from the drop-down menu, change this from "waveform" to "volume." You will still be able to see the waveform, but layered in front is a line indicating the volume of the track. The graphics here show two grouped mono tracks, if you use a stereo track you'll just see one line for the volume of both left and right.

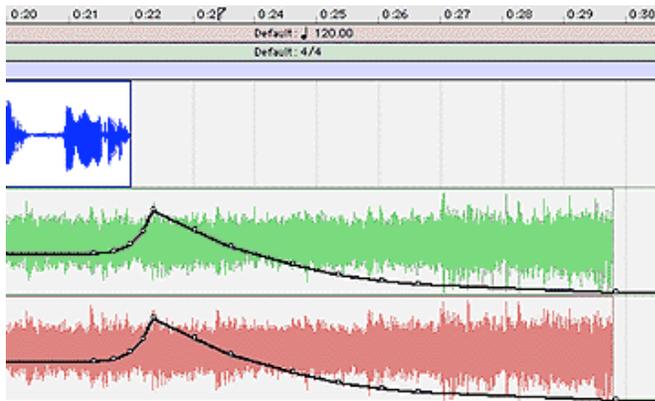
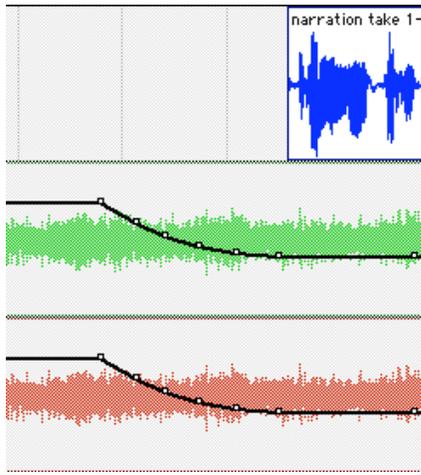


Click with the grabber tool to create "breakpoints" which are pivot points for the volume to be raised or lowered. Dragging a point up or down will create a change in the mix volume of that track. Option-clicking will delete the breakpoint.



In this example, we “duck” the music down under the voice. Make a breakpoint in the music tracks' volume automation slightly before the voice starts, then another a little later. Pull the second point down until it's at a good level to voice-over. Do the same at the end of the narration, raising the audio back up at the end of the voice. Then make one final point, dragging the audio down to 0 by :29 elapsed.

This volume automation may be too coarse, and so you can add additional breakpoints to more closely resemble a smooth fade curve.

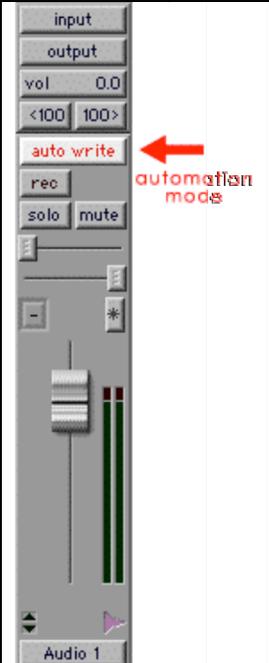


Listen to it, and make adjustments to the breakpoints to make for an optimum mix. And watch your overall levels.

It's always a good idea to have a Master Fader: choose "new track" or Command-shift-N, then choose **1, stereo, master fader** in the dialog that opens. That master fader will show the final level from all mixed tracks. If the audio on the master fader's meters goes up in to the red, you need to reduce the level on one or more of your tracks.

### Real-Time Automation:

Once some (or all) of your elements (narration, actualities, ambience, music, etc.) are in place, the most obvious way to start a mix is to play your session, and adjust the volume slider up and down with your mouse or an external controller.

	<p><b>Auto Write</b> writes continuous automation information for all your moves.</p> <p><b>Auto Latch</b> only writes automation data when you change a parameter, and then leaves the setting where you last touched it.</p> <p><b>Auto Touch</b> writes automation data much like auto latch, but instead of leaving the levels at your last adjustment, it returns the level to the previous setting. This mode is useful for momentary ducks or boosts in a mix whose levels are otherwise consistent.</p> <p><b>Auto Read</b> will play back any automation you have written, and <b>Auto Off</b> predictably will ignore all automation data.</p> <p>Got it?</p> <p>Good, now forget it.</p> <p>Really.</p>
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Riding levels with a mouse on a graphic of a fader is a very inaccurate way of controlling the mix, and will usually generate much more automation data than is needed. I will even go so far as to say that using a hardware fader is not much better. A physical control surface, providing an array of faders and knobs is undoubtedly quicker and more intuitive, at least for those of us who learned mixing on an analog mixer, but it's still a less-precise way to control your mix than other tools provide.

