Learning memory locations, track organization, and audio stems.

The first 3 pages of this guide will be using recording Foley as an example. Please refer to the guide about Loop Recording in Pro Tools for ADR and Foley if you have not already. The rest of this guide will be about advanced navigation and organization techniques for mixing in Pro Tools.

Let’s say you’re prepping a foley session. You have made a 3 Pop and created blank clips that mark areas that need foley. This is ideal to do before a recording session to save time. Note the three orange blank clips in the timeline and the yellow 3 Pop track.

Let’s get organized. Start by navigating to Window > Memory Locations. This can also be done with Cmd + Numeric 5. This keyboard shortcut can only be done with a keyboard that has a numpad. Numeric 5 is not to be confused with the number 5 that is normally at the top of a keyboard.

A Memory Location window will pop up on your screen. Currently nothing is in it because we have not marked anything in our session yet. To get started, either highlight your very first clip in your session or just click the first frame in your session with the selector tool. Now use Numeric Enter to create a memory location. If you’re not using a numpad, use Function (fn) + Enter instead.

Alternatively, you can click on the down arrow in the memory location window and then select New Memory Location.
A new dialogue box should pop up. For now, just focus on naming your new memory location. The other settings will come in handy later. In this case, I am marking the beginning of my session with a memory location that I’m naming **START**. This will create a shortcut that we can use to instantly transport to the beginning of our mix with a keystroke. Be sure to take mental note of the **Number** category next to the name of our memory location. It defaults to 1 and works upward with each new memory location.

Let’s set some advanced settings to make things easy. Go to **Preferences > Display > Color Coding** and select **Always Display Marker Colors**. This will make it so that each new memory location is a different color. This is very useful for visually dividing a mix by scene or even by sections of a song if you are ever working with music.

While still in Preferences, navigate to **Editing > Memory Locations** and select **Auto Name Memory Locations When Playing**. With this setting turned on you can create memory locations with your keyboard shortcuts during playback and you won’t be interrupted by a pop up window every time. This can also be useful for marking music because you can time your memory locations to the beat.

Now mark up the rest of your session. In my case, I’ve added memory locations for each blank clip that I intend to record footsteps in. I’ve named each marker **Footsteps 01, 02, 03**. You should now be able to transport to any of these memory locations by using the numpad. The formula for transporting is **Numeric Period + Memory Location Number + Numeric Period**. Try going back and forth between your **START** marker and the marker for **Footstpes 01** by using **Numeric Period + 1 + Numeric Period** and then **Numeric Period + 2 + Numeric Period**. If you don’t have a numpad, just click the memory location in the floating window or click the yellow marker on the timeline.
Let’s briefly talk about the custom settings in your memory location window before wrapping up this section about foley. Go ahead and zoom in until you can only see your 3 Pop and the first blank clip marked Footsteps 01. Update the track height by holding option and clicking the vertical ruler between your tracks and clips. A height selector window will appear. Select Fit to Window. This will enlarge all your tracks until they fill the full space of your timeline.

In your memory location window, click Footsteps 01 and then click the down arrow. Click Edit Footsteps 01.

Under General Properties, check the boxes for Zoom Settings, Pre/Post Roll Times, and Track Heights. This will ensure that whenever Footsteps 01 is selected, it will remember the pre/post roll times you set, where you were zoomed in, and how big the tracks were. These parameters can be changed any time.

Zoom out until you can see the full session. Now edit your START memory location and check the boxes for Zoom Settings and Track Heights. Save your changes. Now swap back and forth between your START marker and the footsteps 01 marker. Notice how it snaps to our saved zoom settings. This is a really convenient way to snap to specific sections of a mix you’re working on without having to manually resize, zoom in/out, or disable/enable tracks over and over again.

This concludes the preliminary section of this guide! You should now have a basic understanding of Memory Locations and how to transport between them! The rest of this guide will cover this topic more in depth along with new material while assuming that you are working on a full mix, meaning working with dialogue, SFX, and music all at once. Mixing can be a very dense and involved process where you can potentially have hundreds of tracks. You’ll have to micromanage several important groups of sounds that require their own color coding, names, zoom settings, and track heights. If you’d like to mix quickly and stress-free, please continue reading.
In order to tackle a full mix in Pro Tools, you will need to juggle multiple *stems* while staying organized. Stems are a post-production term that refer to the main food groups of audio that you handle as an editor. **Audio has 3 major stems: Dialogue, Music, and Effects.** By that logic, we should organize and color code our tracks to match these 3 stems. When you receive a mix in Pro Tools, a good start would be **re-naming your tracks appropriately and color coding them to a color you’ve assigned to a stem.** Be sure to keep all your dialogue, music, and effects tracks visually grouped appropriately. Note the colored squares and track grouping in the tracks list. In my case, I made my dialogue tracks yellow, so all of my yellow dialogue tracks are together.

Lastly, it would be good to view your track count. Make track numbers visible with **View > Track Number.** These track numbers should be visible in the tracks list as well as on each individual track.

You’ve probably got so many tracks that you have to scroll up and down quite a bit. Some sessions can average 50-150 tracks. Let’s make our Edit window easier to look at by resizing everything to fit to our window by using the vertical ruler between our tracks and clips with **Opt + click** and selecting **Fit To Window.**

Just like in the preliminary section, you’ll need to use your memory locations to break up your film or song into its major scenes/sections. As an example, I’ve broken up a short animation by scene. My color coding was random, but I did go out of my way to name each scene something descriptive and recognizable. I also added memory locations at the very beginning and end of my session for convenience that I labelled **Session Start** and **END.** After labelling each section, test that all your memory locations work by either clicking them or using the numpad.
Now that we have all of our tracks color coded and organized, track numbers visible, our track heights set to Fit To Window, and our major scenes labeled with memory locations, we’re ready to implement an advanced memory location technique. If you haven’t already, be sure to zoom out until you can see the full mix from beginning to end in your Edit window. Now create a new memory location. Name this marker Full Session. Next to Number, type 700. Underneath Time Properties, select None. Under General Properties, select Zoom Settings, Track Visibility, and Track Heights.

We’ve just created a 700-Level Marker that encapsulates our full mix. The reason for picking 700 is that realistically, you will probably never reach 700 memory locations ever, so 700 is a safe number to pick. Selecting None under Time Properties has made the yellow marker completely invisible on our timeline. This is because a 700-Level Marker does not denote a scene start, but a collection of settings. In this case, we are preserving our entire mix within one memory location, so setting it somewhere on our timeline is pointless. Lastly, we’ve added Track Visibility to our collection of General Properties. This means that if we had rendered any tracks invisible, then that would have been saved under Track Visibility. But in this case, we would like all tracks visible in our Full Session.

We’re now going to make 700-Level Markers for all of our stems. Start by navigating to the tracks list. Click a circle to the left of a track. This makes the track invisible.

Let’s begin by prepping a session that only contains our dialogue. Click and drag along the circles to make every track except for the dialogue tracks, the video track, and the audio guide track (if needed) invisible. Now update the track view by setting them to Fit To Window once again.

Create a new memory location. Name it VOX Session or DIA Session, or Voice Session. Assign it 701 as a number. Select None under Time Settings. Check the boxes for Zoom Settings, Track Visibility, and Track Heights. You now have a 700-Level Marker for only your dialogue. Try to swap between this marker and your Full Session to see if they work.
Repeat these steps until you have created 700-Level markers for your other stems. Remember to make irrelevant tracks invisible and update your track height with Fit To Window. Be sure to name your sessions and give them ascending numbers. In my case, I actually split my Effects session into **FLY** (foley), **BG** (background elements), and **FX** (sound effects). This was a personal preference because I like to see my foley and stereo effects separated from my normal sound effects, but you can choose to not do this. I also abbreviated my music session as **MX**.

The last thing we’re going to do is create special faders that let’s us control an entire stem’s volume. This is will be convenient for later when we’re playing back our mix and would either like to adjust the volume of an entire section or solo/mute an entire section. To do this, we’ll need to create **Groups**. Let’s start with our dialogue stem. **Shift + Click** the first and last dialogue track in your dialogue stem to select all of its tracks. With your tracks highlighted, use **Cmd + G** to group them. The **Create Group** window will show the tracks you highlighted as **Currently in Group**. You can remove or add tracks in here if you want. **Name** your group **DIA** or **VOX** or **VOICES**. I chose **VOX**. If all your dialogue tracks are accounted for, click **OK**. Pro Tools has now saved this group in the background.

Hit **Cmd + Shift + N** to create a **new track**. Click on the **Audio Track** category to open the dropdown menu. Select **VCA Master**. Name this track **VOX**. Now confirm by clicking **Create**.

The track we just created has very few options. It has no I/O control or effects controls. This is a **VCA** or a Voltage Controlled Amplifier. Think of this track as one giant fader that we can attach a group to. Any group attached to this fader will adjust in volume whenever the fader moves up and down, but all edits we made on the individual tracks within our group remain unharmed. Think of it like a dimmer on a set of multiple ceiling lights. We’re using a single dimmer to control many lights all at once.
Notice the fader icon to the right of the track info that is floating over a volume control. It is labeled as No Group. Select this to open a dropdown menu. This is where we select a group to attach to this VCA. We should see the VOX group we created earlier. Select it.

With our group attached to the VCA we created, we should be able to control our entire dialogue stem with a single fader. Test this out by playing back your mix and fading the volume of the VOX VCA up and down. Try soloing it and muting it.

Repeat these steps for your other stems, creating VCAs for your sound effects stem and music stem. Remember to highlight the tracks you want and then group them first. Give them a name, create a new VCA, and then attach that group to the VCA.

We’re almost done now. Let’s update our Full Session memory location so that we can include our VCAs. Open your memory location window and select your Full Session. If your VCAs suddenly dissapeared, just mouse over to the tracks list and click their circles to make them visible once again. Click the dropdown arrow in the memory location window and select Edit Full Session. It should already have our custom settings saved here, so simply click OK to update it.

One final note! If you click anywhere in your timeline and suddenly notice that your cursor/playhead is selecting every single track or possibly selecting every single track within a stem, take a moment to read this section to fix that. Notice in the lower left of Pro Tools below the Tracks List is another list called Groups. If one of your groups are selected, simply de-select it. Your cursor/playhead should return to normal.