AWS 900 AWSomation Setup

Introduction

AWSomation is a fully featured automation package, developed from SSL's renowned G and K Series Ultimation systems, but with an enhanced feature set designed specifically for the AWS 900. AWSomation utilizes the classic SSL look and feel, familiar to thousands of engineers worldwide, to add dynamic fader and cut automation to the console. MTC (MIDI Time Code) serves as the mix timeline reference together with support for MMC (MIDI Machine Control) locate commands to follow non-play speed positional changes from the DAW. Use of SysEx (System Exclusive) MIDI data transfer allows mixes to be saved to a workstation or SysEx librarian, retaining the integrity of the project data.

Key Features

. Frame-accurate fader and cut automation data
. Moving and non-moving fader modes
. Fader Links - group fader control
. Mix Pass history
. AutoTakeover
. Variable fader glide times
. Fader safe mode
. Fader update status lock
. Match and Play cut automation updates
. Mixes and Fader Links are saved as Sys-Ex MIDI data together with the Total Recall Data

In this tutorial we will go though the AWSomation system step by step, giving useful examples and quick guides to getting you started! We hope that you find them useful!

Pro Tools Setup

To set up timecode generation go to Windows>Show Session Setup, or press the Status key in the centre section of the console.

Figure 1 - Session Setup Window in Pro Tools

Select Time Code Settings at the bottom left-hand corner of the screen, tick the MTC To Port and select the port on the MIDI interface that is connected to AWS 900 port 4 in MIDI In (for further information about setting MIDI, please check out the MIDI tutorial here).

Note: It is expedient to make a note of the timecode standard that was used for a particular AWS 900 mixing project. AWSomation automatically detects the timecode standard from the incoming MTC messages. It will quite happily attempt to play out stored mix data to any incoming timecode used to originally reference the mix.

To set up the MMC locates go to Setups>Peripherals>Machine Control.

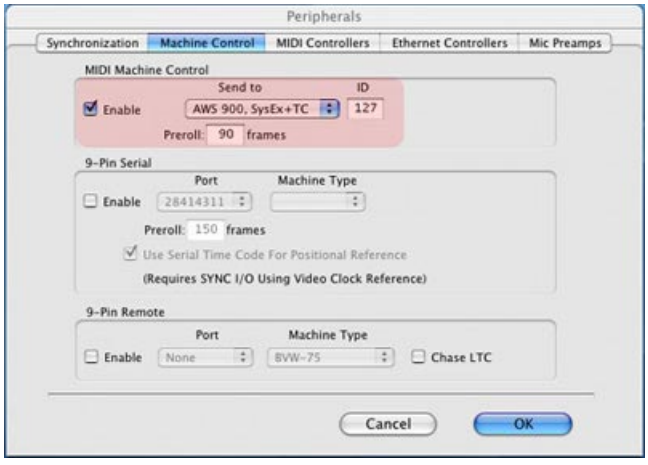

Figure 2 - Machine Control Window > Peripherals in Pro Tools

Enable MIDI Machine Control and select the Port on the MIDI Interface that is connected to AWS 900 port 4 MIDI In. Leave the ID as 127, as this sends to all connected devices.

To to ensure that MMC locate messages are transmitted correctly from Pro Tools, go to Setups>Preferences>Machine Control and tick Machine Chases Memory Location and Machine Follows Edit Insertion/Scrub.

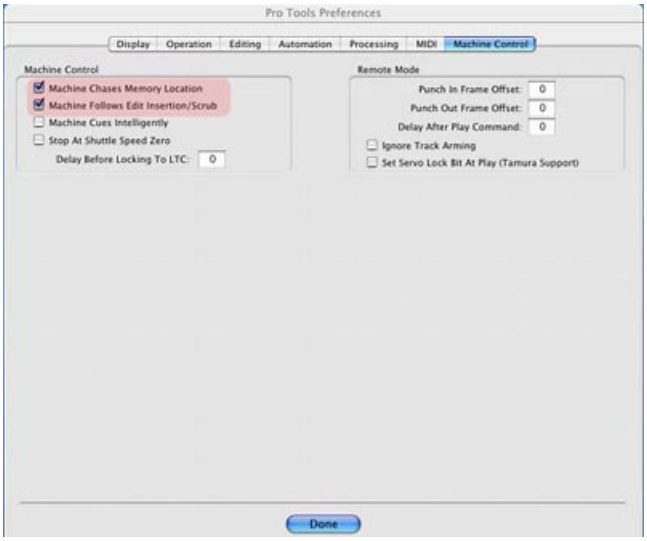

Figure 3 - Machine Control Window > Preferences in Pro Tools

When mixing with the AWS 900 it is advisable to enable Timeline Insertion Follows Playback and Edit Insertion Follows Scrub/Shuttle in the Setups>Preferences>Operation menu. This ensures that a rollback operation will occur following a locate or rewind operation in Pro Tools. If the first options are not enabled, then Pro Tools does not send a locate command following a Stop command even though the console counter will show the position that Play last occurred from, and where Play will resume from. The AWSomation rollback will then occur when the system is returnedto play which can be disconcerting. Enabling these options ensures that rollbacks occur prior to entering Play but at the expense of defeating the Pro Tools feature of automatically returning to the last play position following the Stop command.

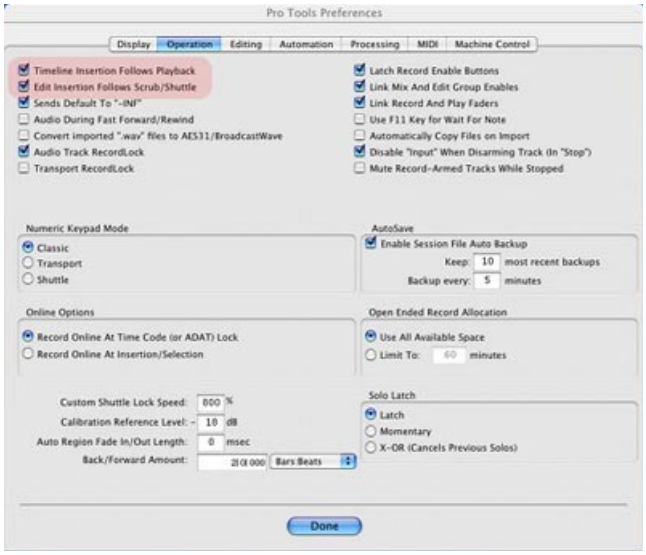

Figure 4 - Operation Window > Preferences in Pro Tools

Note:

The AWS 900 uses the same MIDI port for saving and loading mixes and reviewing MTC. Ensure that any MIDI tracks containing SysEx data are muted while mixing, as SysEx data will interfere with MTC transmissions.

The time taken to transmit each AWSomation Mix Pass varies depending on how much automation data each Mix Pass contains. An unlimited number of AWSomation Mixes can be stored in this way.

Large mixes can generate SysEx dumps of more than one minute, which some DAWs are incapable of recording. Please ensure your DAW can cope with large SysEx dumps.

Start Automating!

The AWSomation package has many functions and abilities, but here we will just show you how to quickly and easily do your first AWSomation mix!

On the TFT screen, press the SSL soft key.

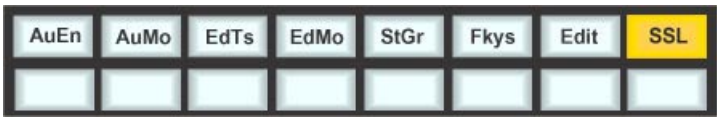

Figure 5 - Soft Key Menu - SSL

Now press the Auto soft key.

Figure 6 - Soft Key Menu - Auto (AWSomation)

To start a new Mix, press the List Mix soft key. Highlighted yellow will be New Mix. Press the left rotary encoder to select a New Mix.

Figure 7 - Mix Passes screen

Follow the onscreen directions, making sure you have located to the beginning of the track you want to automate. Then press Execute.

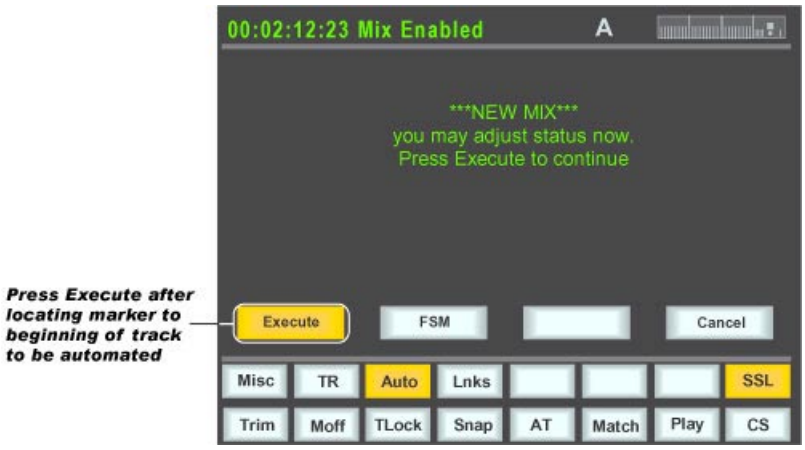

Figure 8 - Execute screen

Now its time to automate! Each of the Red LEDs will light up near the fader, and this means you are in absolute mode. The screen displayed will show MIX RUNNING and has all 24 faders and the stereo buss faders shown. Simply press Play and away you go, moving your faders throughout the track. When you have finished press Stop and locate the the beginning of the track. The screen will now display MIX REVIEW. To end the Mix Pass, effectively saving your automation, press the End soft key.

Figure 9 - Automation screen

Your screen will now show your new automation mix as Mix Pass 1. And that is it, one automated track!

Saving and Loading AWSomation Mixes

It is easy to Save and Load your AWSomation mixes. Below is how to save and load with Pro Tools, but the principleswill be the same for other DAWs. The tutorial is the similar for saving Total Recall data, as shown in the Pro Tools tutorial (click here to view)

MIDI Track in Pro Tools:

To create a MIDI track go to: File - New Track

Select a MIDI track as show in figure 10 below.

Figure 10 - Window to create a new MIDI track in Pro Tools.

Set the Input and Output to AWS 900 port 4 (this is the MIDI port that is routed to the Total Recall as well - see MIDI controller tutorial here to set ports).

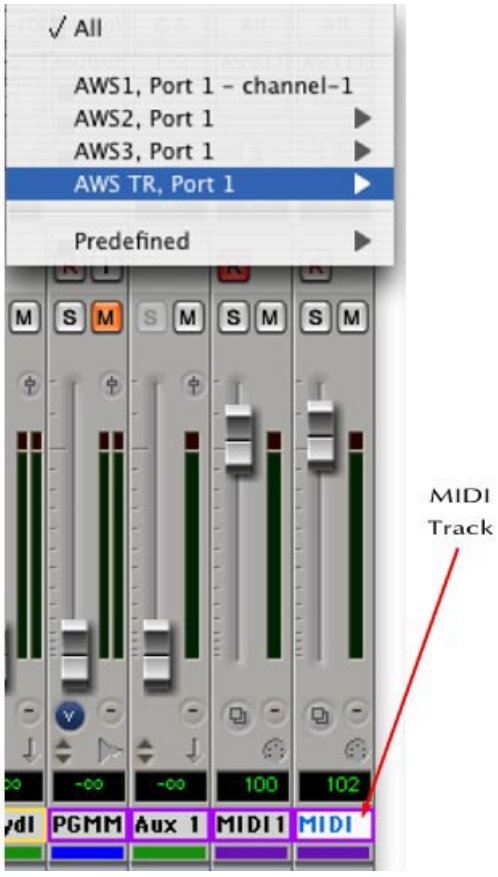

Figure 11 - MIDI channel with AWS 900 Total Recall Port Selected

Record arm the track by pressing the RDY button in the Master Control Panel of the AWS 900 and select the MIDI track using the SEL button on the appropriate channel strip. A red REC light will flash on the channel's meter on the console, and in Pro Tools.

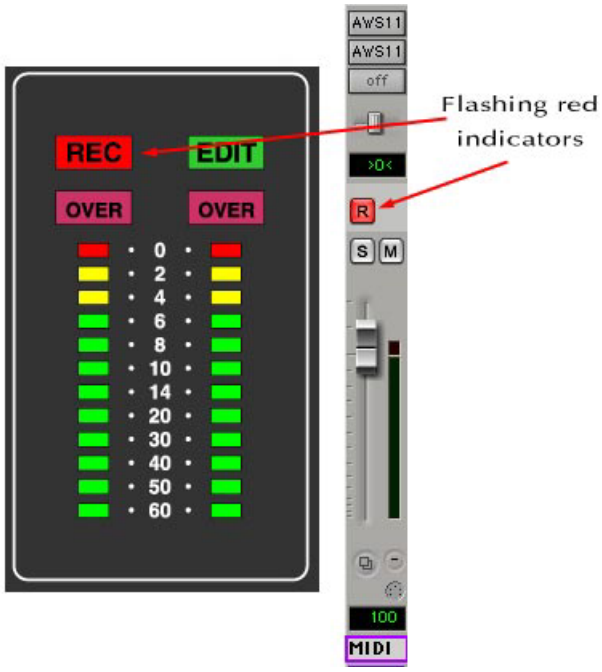

Figure 12 - Channel meter for record armed track on the AWS 900 (left) and the channel strip in Pro Tools (right)

Figure 13 - RDY - Record Ready button on the Master Control Panel of the AWS 900

Press the record button and the play button on the console transport controls to set the MIDI track to record.

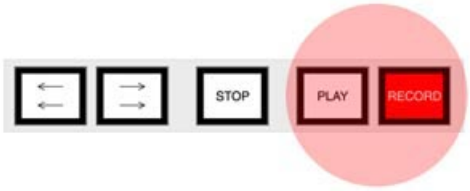

Figure 14 - Transport Controller on the AWS 900

In the List Mix menu, in AWSomation, on the console press the Save/Load button - then press the Save button which will light up yellow on the TFT screen. The save will have finished when the save display returns to grey and you can press the stop button on the transport controls.

Figure 15 - List Mix controls

To recall the AWSomation Mix Pass, disarm the record enable, then simply press the Load button in the List Mix menu and play back the MIDI track (by pressing the play button on the transport controls). As soon as the AWS 900 detects the start of valid data it will delete all of the current mix passes and replace them with the stored ones from the MIDI track.

Join and Revise

At any time during Mix Review, the Join key can be used to switch all channels originally in write at the last rollback point back to write at the levels or state they were at the rollback point. This is useful, for example, when balancing a chorus level. When you have achieved this balance, you can rollback, hit Join and the levels will punch in at the balance set before rollback, and all channels immediately return to write. The Revise key has a similar action except that all channels in write at the Rollback point are returned to write at their current mix position. This is useful if you have been automating a section, but made a small mistake. Just rollback prior to the mistake, hit Revise and the channels will immediately go into write at the current fader level, allowing you to overwrite the mistake.

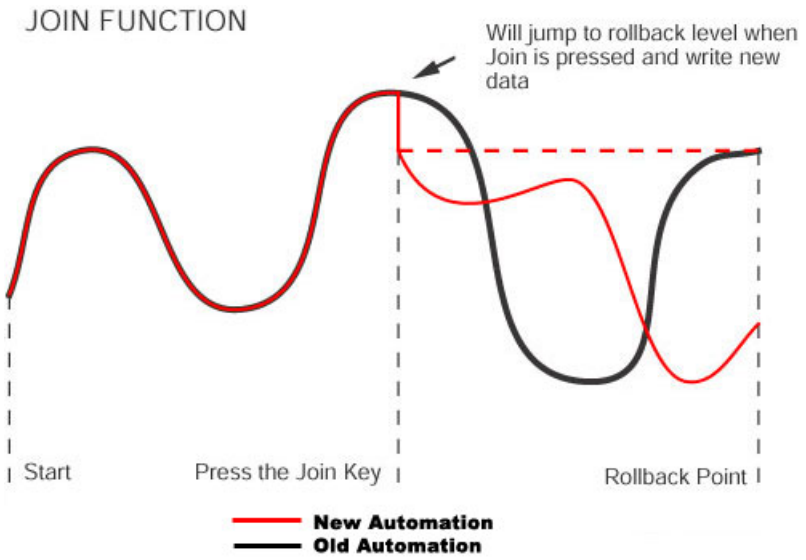

Figure 16 - Join Function

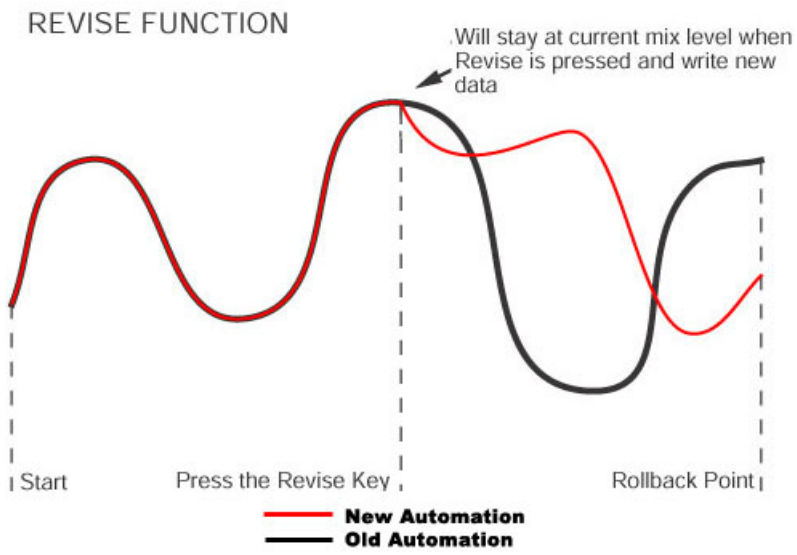

Figure 17 - Revise Function

Multiple Rollback memories are supported so that successive operations of Join or Revise return different sets of faders back to the write state, if multiple Rollback operations have taken place.

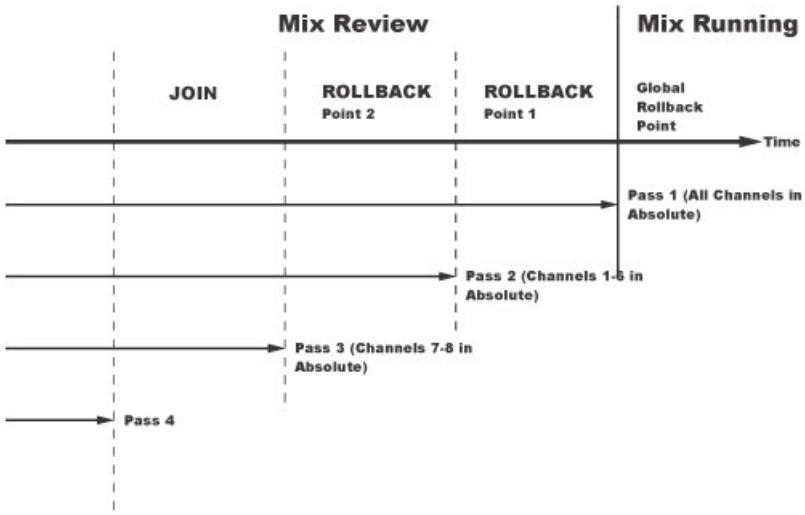

Figure 18 - Multiple Rollbacks

Here's an example to make it a little clearer!

* Set up a new mix.
* Press play and automate all channels for about 20 seconds.
* Press stop.
* Rollback to the beginning of the track.
* Press play and automate channels 1-6 for about 15 seconds.
* Press stop.
* Rollback to the beginning of the track.
* Press play and automate channels 7-8 for about 10 seconds.
* Press stop.

* Now play through the track and watch the fader status switches light up. After 10 seconds channels 7-8 will light red, going back into write, after 15 seconds channels 1-6 will light red , going back into write, and after 20 seconds all faders will light red, returning all remaining faders to write. See diagram below.

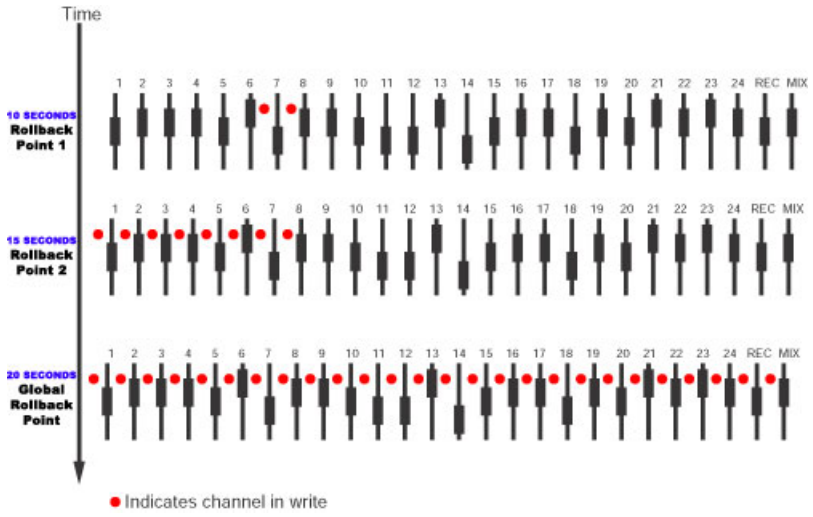

Figure 19 - Rollback sequence

* Rollback to the beginning of the track.

* Press Join (See diagram below) and all faders will light red and go into write from their individual last positions before each rollback sequence, or press Revise (see diagram below) and all faders will start writing from current position.

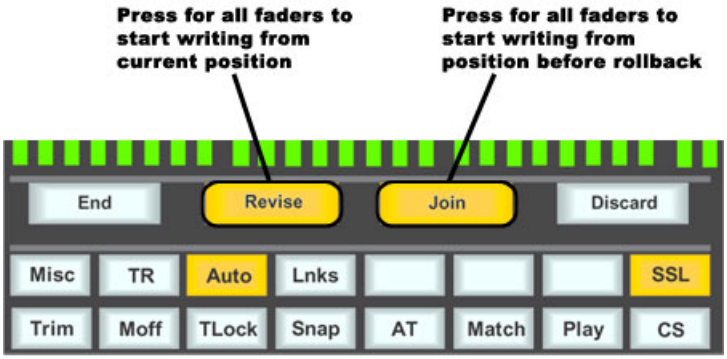

Figure 20 - Join and Revise on console.

Trim

Trim is a great method for updating fader data from the previous Mix Pass. Trim mode originates from VCA (non-moving fader) automation systems and uses the fader to add or subtract from the existing moves. It achieves this by setting up a 'null' fader position and then any subsequent moves trim the existing data by the amount of positive or negative change from the null point. Trim is useful, for example, when you have a complex automated vocal line which needs raising by 2dB. Rather than trying to re-write the complex moves, here's how you can do it with Trim!

* You have just completed a great mix, but it is just that little bit too low! Before you panic and think you have to redo it all, try this out!
* Rollback.
* Press the Trim soft key (see picture below).

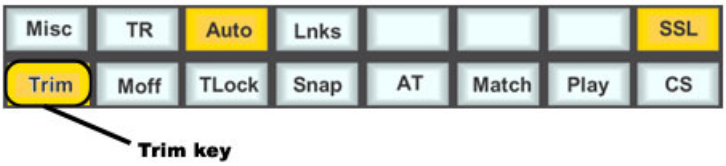

Figure 21 - Trim key

* Set the value up by 2dB, indicated in the scribble strip above the fader.
* Press Play.
* Locate to the end of the Mix Pass.
* Press Stop.
* Press the End soft key to write over the original automation level - this will add the original automation and the trim level, i.e. original +2dB.

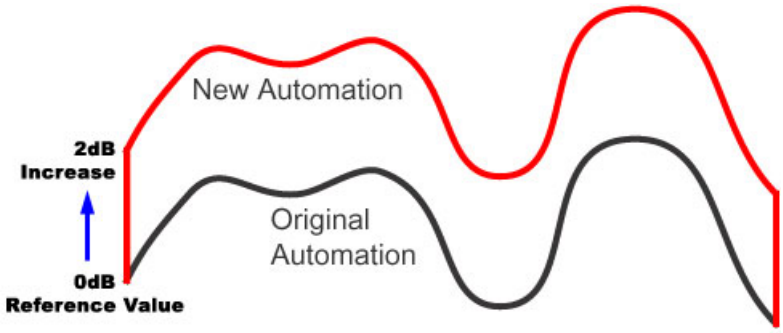

Figure 22 - Trim data.

Trim with Motors Off

Trim can be used with fader motors On or Off. The previous example was with Motors On, where the null point will be the fader position prior to selecting the trim auto switch or touching the fader. When in Motors Off (Moff), the fader can be positioned at a suitable reference point on the scale before entering the Trim update status by pressing the fader status switch. This can be useful, for example, if you want to set all faders to the mid position of the fader track so when trimming, it is easy to visualise which have been trimmed up or down. Here's how!

* After a first mix, the faders will probably be at different levels, so it can be tricky to see whether you are trimming up or down!
* So simply Rollback, and press Trim and Moff (see figure below).

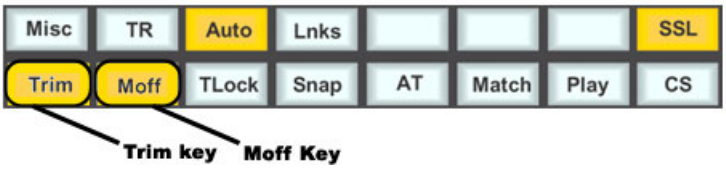

Figure 23 - Trim and Moff

* Set all the faders to their centre position along the fader track (see figure below).

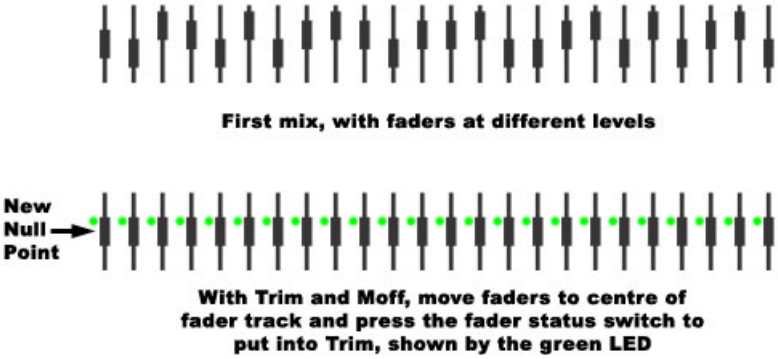

Figure 24 - Set fader positions

* Press all the fader status keys next to the fader so that the LED lights green.
* Now you can press play and move the faders to desired Trim level, and the values will be displayed on the scribble strip above the fader.
* When you have finished trimming, press the End soft key to overwrite the original automation, adding the value of the trim and original levels together.

Trim with TLock

AWSomation features SSL's 'auto-nulling' feature so that each time Trim is re-enabled a new null point is set. TLock - Trim Lock - defeats the auto-nulling feature of the standard Trim function and 'locks' the null point to the position that the fader was in when Trim was first enabled in the current Mix Pass. This enables a defined trim offset to be repeatedly punched in and out throughout the subsequent Mix Pass. Deselecting TLock clears an stored null points.

An example of TLock would be bringing up the levels of guitar licks in a track. If for example Trim is used in Snap Mode (see later in the AWSomation tutorials), the fader can be raised and let go repeatedly, returning to the previous level. However it is difficult to have an identical increase in level each time when using manually (see diagram below).

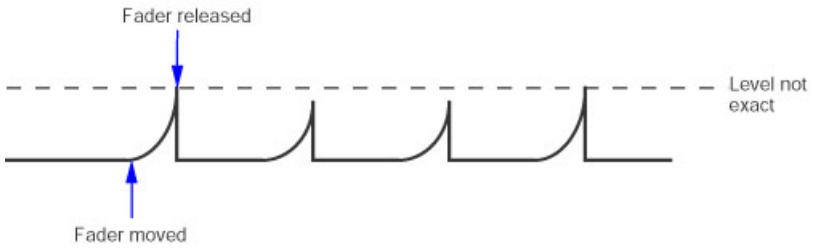

Figure 25 - Trim in Snap mode

Here is how we can use TLock to achieve better results:

* Rollback to the beginning.

* Press the Trim, Moff and TLock soft keys (see diagram below).

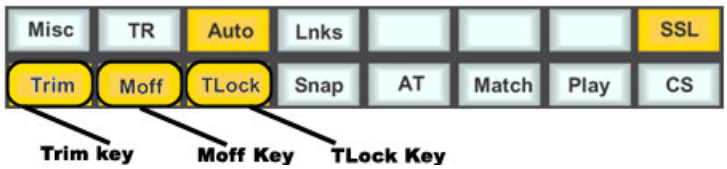

Figure 26 - Trim, Moff and TLock soft keys

* Set the null point to a convenient level.

* Press the fader status switch and move the fader to the trim level you want the track to jump to, it will light green when pressed.

* Press the fader status switch again to deactivate the trim level.

* Press play and then whenever you want to increase the level, press the fader status switch. Press again to deactivate. If you want to change the level of the trim, simply move the fader and repeat the process.

* Now you will have no glide times, and the values will be identical (see diagram below).

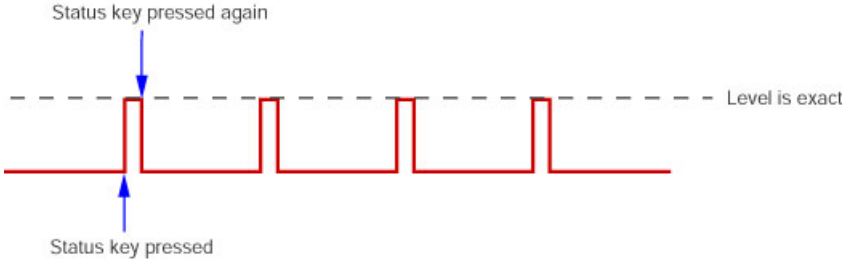

Figure 27 - Trim and TLock

Snap Mode

Snap mode uses the fader touch sensor to control both the start and end of a fader update for fast hands on changes to mix levels. When the fader is released it ramps back to the previous mix level at a user determined rate, then returns to replay.

* To activate, simply press the Snap soft key (see diagram below).

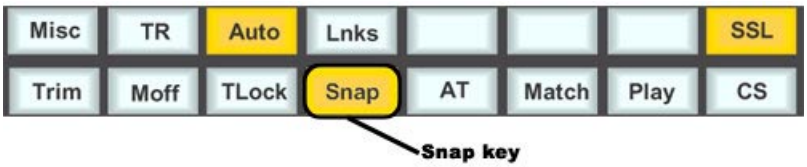

Figure 28 - Snap key

* Play through the track and when ever you want to change a level, touch the fader and move it to the desired levels.

* When you let go it will jump to back to the original automation level, at a glide time dependant on what you set up in the setup menu - to change the glide time value, end your Mix Pass, deselect the List Mix Key and press the Setup key. Scroll to the Glide frames option and select using the D-Pot push switch. The values range from 0 (no glide) to 255 (10 second glide), selected by turning the D-Pot to the correct value and pressing the push switch again. (see diagram of Setup Menu below)

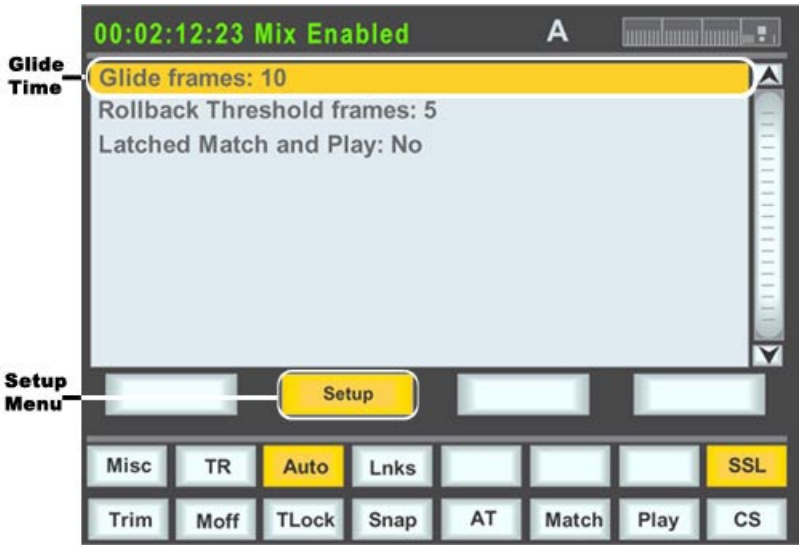

Figure 29 - Setup menu

* This process can be repeated throughout the track. Press the End key to finish the Mix Pass.

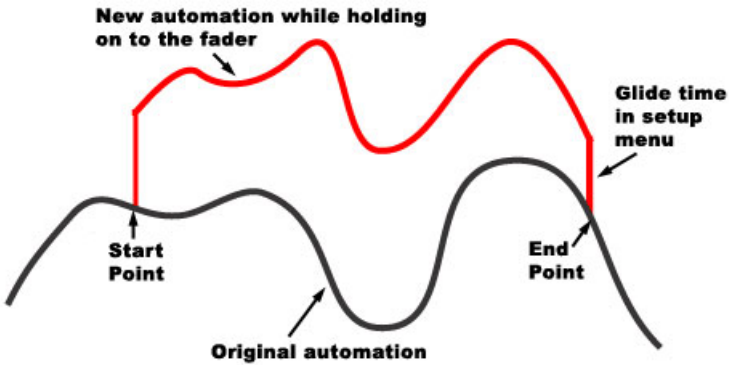

Figure 30 - Snap automation

AutoTakeover Mode

To avoid a level jump when dropping out of write, AutoTakeover introduces nulling indicators in the scribble strip to display the direction to move the fader to match the underlying mix level. When the fader crosses the current mix level, it is automatically returned to replay and disconnected from the audio gain element. The fader returns to following the mix data as soon as it is physically released.

* To activate, simply press the AT (AutoTakeover) soft key (see diagram below).

Figure 31 - AutoTakeover key

* Play through the track and when ever you want to change a level, touch the fader and move it to the desired levels.
* When you have finished, let go of the fader, press the fader status key next to the fader, and the scribble strip will show arrows indicating which way to move the fader. Move the fader in the correct direction, and when you reach the original level, it will drop out of write (see diagram below).
* This process can be repeated throughout the track. Press the End key to finish the Mix Pass.

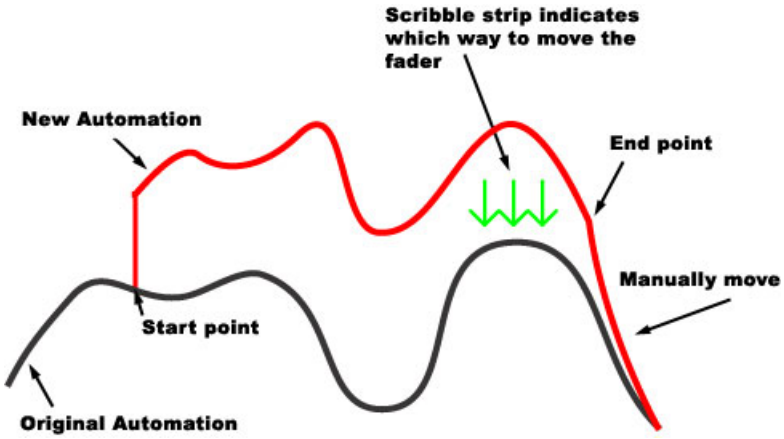

Figure 32 - AutoTakeover automation

Cut Automation

Pressing a cut switch will toggle it's state and automatically start writing data. It can be returned to replay either by rolling back or by selecting the soft Play key, then pressing the cut switch.

The state of the channel Cut switch is stored separately from the fader data. Cut data is stored regardless of the current fader status unless channel Safe mode is selected. Whenever the Cut switch is in write, a '*' symbol is displayed in the scribble strip above the fader.

Editing Cuts

* If you have made a mistake with a cut, and don't want to have to redo it all, then don't panic, here is the solution with Match and Play!

*For example, you want to get rid of the first cut in the diagram below:

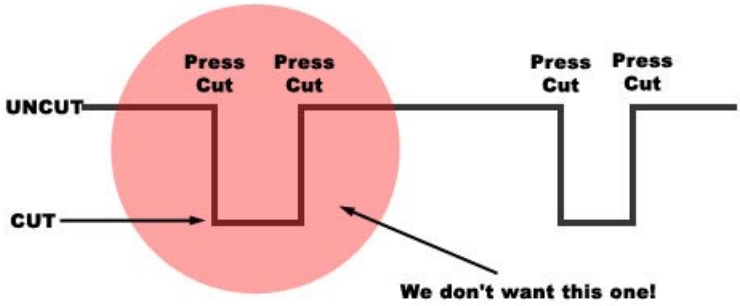

Figure 33 -Cut Error

* Before the first cut press the Match soft key (see figure 34) followed by the cut key. This will put it into write, deleting the cut.

*When the cut is over, press the Play soft key (see figure 34) followed by the cut key. This will put it into replay and will carry on as it was (see figure 35).

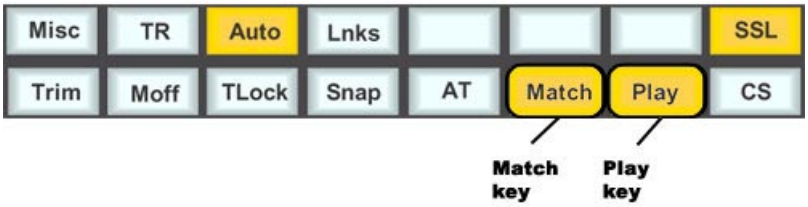

Figure 34 -Match and Play

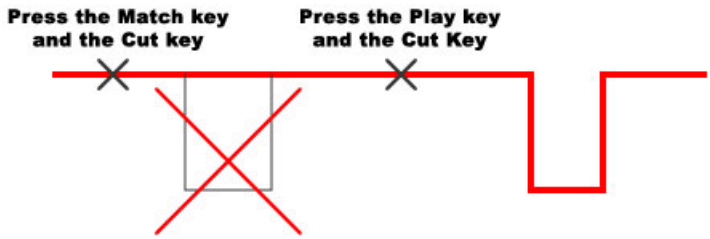

Figure 35 -Match and Play changes

* Match and Play are automatically deselected after each operation, unless the Latching option is enabled in the Setup Menu (see Snap tutorial for location of Setup menu).