Fastrack—Time Tailor Tutorial

This tutorial has been designed to help you to become familiar with Fastrack control of the Prime Image Time Tailor and to do basic performance testing. In most cases, the tutorial will present one of several different ways to accomplish the same task. There are many shortcuts to accomplish frequently-used tasks that are not necessarily presented in this tutorial. Complete information on Fastrack operation is in the Operators Guide and Help files.

Conventions used in this Tutorial

- Keystrokes are shown enclosed in brackets. Upper/Lower case will be the same as it is on the key. E.g.: [Enter].
- Commands specific to the Windows 2000 menu structure are shown in mixed Upper and Lower Case and in parentheses. For example, to open a new file you would click on the Windows File menu, then click on Open: This would be shown as "[Click] on (File / Open)."
- The [Shift] key, the [Alt] key, or the [Control] key are to be held down while a second key is pressed. Keys pressed simultaneously are shown close together. E.g.: [Shift][B].
- When keys are to be pressed in sequence they are separated by a comma. E.g.: [F1], [Enter]
- When describing mouse actions, [Click] means pressing the left button, [Right Click] means to press the right button and [Double Click] means to press the left button twice, quickly.

- The word "Event" starting with a capital E always refers to an editing Event—the graphic representation of a clip or other source that has been placed on the Timeline.
- The word "Track" starting with a capital T always refers to a Fastrack source Track.
- The word "Timeline" starting with a capital T always refers to the Fastrack Timeline, which includes all active Tracks. When the Timeline plays out, all Events on all Tracks play out synchronously.

Before you begin the tutorial
- Ideally, have two video monitors available, one for the Source VTR and one for the Recorder. If not, then have a switch located conveniently to switch the input to your monitor between the two VTRs.
- Set up a record and source machine in Remote, Capstan Lock switch set to 2-Field, and TC Generator switches on the Recorder set to INT and REGEN.
- For accuracy testing, start with a source tape with burnt-in time code. Make sure the video code matches the LTC and VITC on the tape. It is useful to have at least 10 minutes of source material with time code. If you usually work with DF timecode, use DF.
- Use a record tape with at least 10 seconds of time code prior to and including the time frame at which you plan to start recording.
- Check that your initial settings are similar to those shown on the last two pages of this tutorial.

Before you start: Try controlling your source and record VTRs. Here are some Basic VTR control functions to locate beginning frames of Record and Source tapes. These are also very useful for locating points of reference on the Record and Source tapes and for checking the results of a Time Tailor process.

There are 8 tracks on a Fastrack page, each represents a source or other device. The active or "selected" track is highlighted in light gray. Control functions operate on the device associated with the selected track.

If you have the Fastrack Editing keyboard, the function names are on the keycaps. Some Time Tailor control systems, use a generic QWERTY keyboard. The most commonly used VTR control function keys are:

- [C] is PLAY
- [Z] is REW
- [X] is FFWD
- [V] is STOP
- [spacebar] is "ALLSTOP" which stops all devices.
- [CTL][Right Arrow] is Jog forward one frame
- [CTL][Left Arrow] is Jog back one frame
- [M] Marks the beginning of an Event
- [N] Searches to the beginning of the Event on the selected Track
- [Shift][N] Searches to the end of the Event on the selected Track
- [Up Arrow] and [Down Arrow] change the selected Track

Important

The Fastrack User Interface has two modes: Timeline mode and non-Timeline mode. You can tell when Timeline mode is On by the vertical blue line through all the tracks.

To toggle from one mode to the other press:

- [A] toggles Timeline mode On/Off
- [spacebar] always turns Timeline mode Off

Most of the function keys described on this page have different results depending on whether Timeline mode is On or Off. Unless otherwise indicated, you always want Timeline mode Off. Whenever you notice that the vertical blue line is present, press [A] or [spacebar]. Note that [spacebar] also stops all VTRs, so if you are in the middle of playout or Record, use [A] to turn off Timeline mode.

A basic Time Tailor process: "Easy as F1, F2, F3" All the information needed to use the Time Tailor to frame-accurately create a shortened version of a piece of video is in the Time Tailor control dialog window.

Press **[F1]** to start the Fastrack's Time Tailor application. The Time Tailor dialog opens at the lower right of the screen.

"Hold Times" and "Edits" checkboxes should be unchecked.

"Insert Time" and "Source In" checkboxes should be checked.
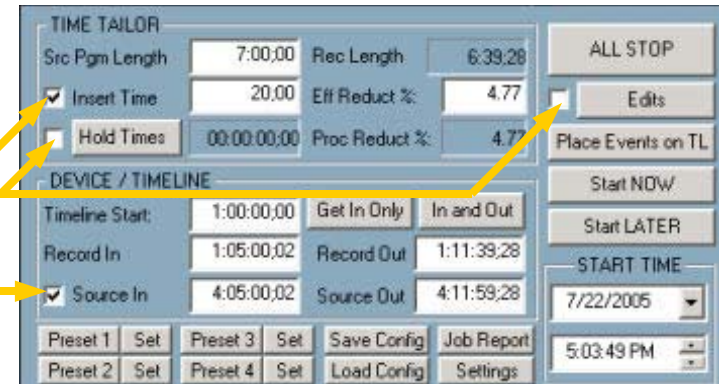
The "Src Pgm Length" field will be highlighted, with the contents ready to be replaced by whatever you type in. Type the length of the source material that is to be processed through the TimeTailor. Note that the " : " are entered automatically. Then press [Enter] (or enter a Source Out time after the Source In.)

The "Insert Time" field will now be highlighted. Type the amount of time to be removed by the TimeTailor; press [Enter]. (Or enter a Record Out time after entering the Record In.)

Enter the Timeline Start (usually 1:00:00:00). This is an arbitrary value and does not have any effect on Source or Record times. Then press [Enter].

Type the Record In timecode, the point that you want to start your show recording   Press [Enter].

Type the Source In timecode, the point that your show begins on the source tape   Press [Enter].
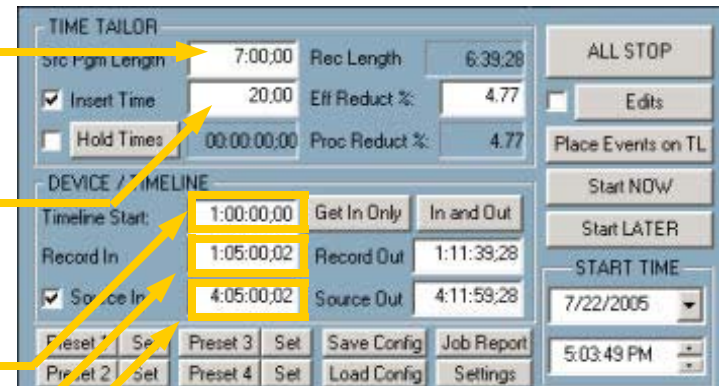
Running the Time Tailor process. This section will complete the basic "F1, F2, F3" Time Tailor task. We have completed the [F1] step, now for [F2] and [F3].

Press **[F2]** to "Place Events on Timeline". The Record, Source and Time Tailor Events are represented graphically on Tracks 1,2 and 3.


Press **[F3]** to start the Time Tailor process. You will see the Record and Source VTRs cue to their preroll positions, and the Current Position Indicator, "CPI", (a red triangle on each track) move to the graphic representation of those positions. The machines roll (and the CPIs travel on the Timeline) toward the start of the Events on the Timeline.

The Source VTR continues to roll, and as the Timeline reaches the Record In point, the Record starts recording.   At the completion of the Events, a condensed copy of the source material is now on the Record tape.

Validating the accuracy of In and Out Frames after Time Tailor processing. First, search to the last frame of the source material, and align it with the Timeline.

Select the Source Track (Track 2) with the up or down arrow keys or by clicking on that Track.
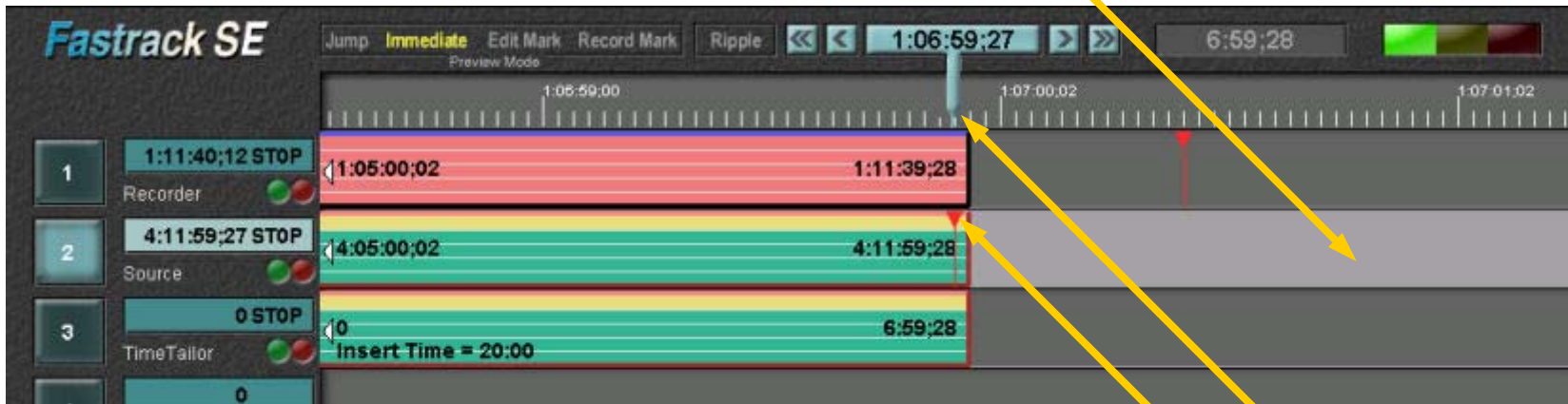
Press [Shift][N] (Search to Out Point). Notice the CPI on that Track moves to the end of the Event. And you see that frame on the monitor.

Press [Shift][B] (Go to CPI). You will see the Timeline shift to align the red CPI on the source track with the blue Current Time Indicator, "CTI".

The above example shows the Timeline scale expanded to show the most detail. At this scale, each tick mark on the Timeline corresponds to 1 video frame. To expand and contract the Timeline scale, Hold the [CTRL] key down while you [Click and Drag] on the Timeline scale. Remember to then press [A] to turn Timeline Mode Off.

Validating the Out point of the recorded show. The last frame of the recorded segment should match the last frame of the source material.

Select the Record Track (Track 1) with the [Up-arrow] key or [Click] on the Track.

Press B (Go to CTI). The Record CPI aligns to the CTI, and the VTR searches to that point. The Source (Track 2) CPI was already aligned with the CTI, so the two machines are now aligned.
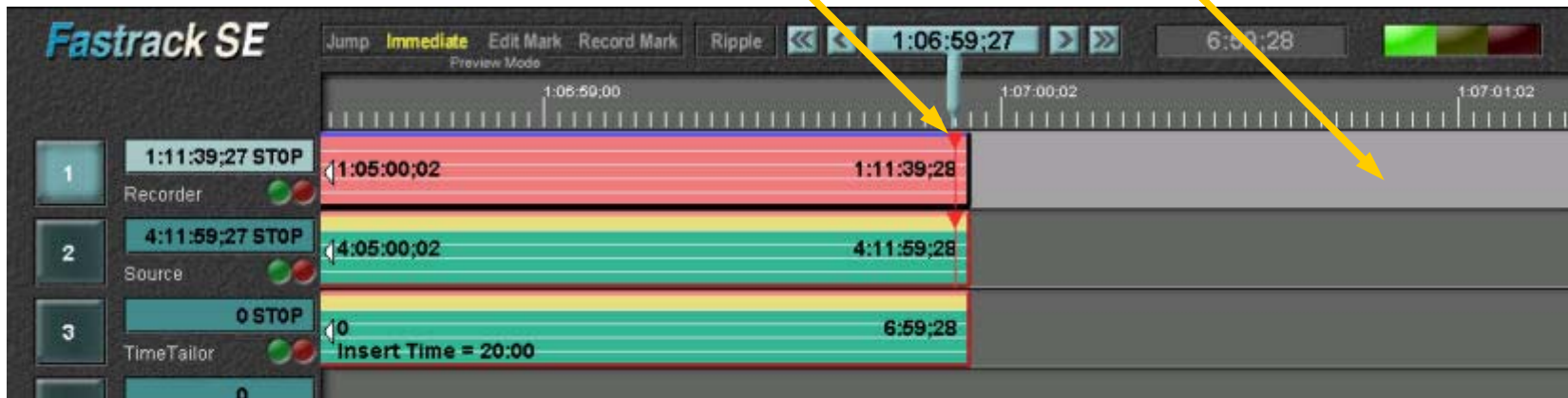
 You now have the corresponding Out points on the Source and Record. When you view these frames on your video monitors, they should be the same.

Note that the CPI's for both VTRs are one tick mark away from the end of the graphic display of those Events. By all conventions used in video editing, the out time of an Event is the first frame following the end of that Event.

Checking the IN frames of the Source and Record segments. These should be the same.

Press [N] (Search to In point) to view the first frame of the Record Event. The CPI moves to the beginning of the Event, and the monitor shows the first frame.

If the Events is shifted off the screen, you can make them visible by pressing [Left arrow] or [Right arrow] to align the earlier Event boundary with the CTI.

Select the Source Track with the [Down-arrow] key, or [Click] on the Track 2.

Press [N] to view the first frame of the Source Event. The CPI moves to the beginning of the Event on Track 2, and the monitor shows the first frame of the Source.

The frames you are viewing should be identical. If not, See page 20 for information on adjustments.

When the Time Tailor is used in the video path to condense material, the Record Event starts later than the Source Event. This offset is equal to the amount of time being removed from this segment.

This completes the basic Time Tailor process.

Edits: T he Time Tailor application allows cut edits to be performed in the same pass. These edits include cuts to other material including bars, slate and black. They also allow sections of the source tape to be deleted (skipped over during recording).

With the Time Tailor dialog open, Press [F1] to open the Edits dialog or [Click] on the "Edits" button.
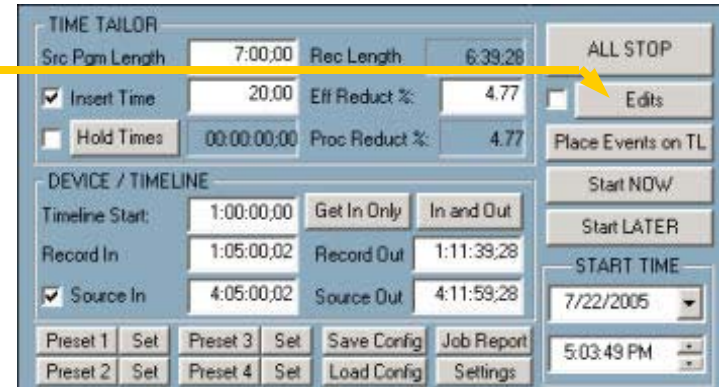
The last page of Edits provides for "Beginning and Ending" edits. These are typically short segments preceding and following the main show, not intended to be reduced by the Time Tailor. These are on the last page, as they are not used as often as the

Click (3 times) on the button labeled "Next Page", to reach the "BEG-END EDITS PAGE".

Enter a name, duration and track for each edit, e.g., "Black". If an additional source VTR is used, enter the starting Time code number of the material from that VTR.

The Track controls the source device and switcher crosspoint selected when each edit is recorded. Each Track has its corresponding crosspoint. See page 19 for more information on assigning devices and crosspoints.

The edits with the "Beg" button selected are recorded before the Record IN point in the order they are listed on this dialog. The edits with the "End" button selected will be recorded at the end of the Recorded material in the order they are listed.

Click on the button labeled "Next Page" to get to the Insert/Delete Edits pages.
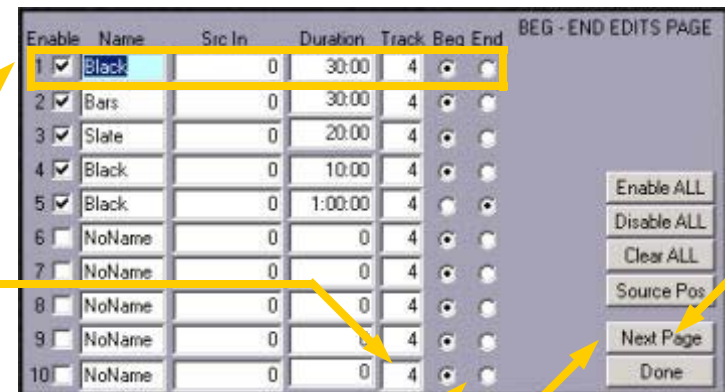
The next page of Edits provides for "Insert and Delete" edits. These are typically short segments of black to be added into the recording, or short segments of black or other source material to be eliminated. Each edit line creates a new Source and Record Event on the Timeline.

Edit (1) with no "Del Dur", "Insert Dur" or "Reduct" value creates a new segment. This is useful for very long jobs.

Edit (2) with an Insert Duration creates a cut to black at the source "IN Time".

Edit (3) with a Delete Duration causes the source material between the "IN Time" and "Delete Out" to be eliminated.

Edit (4) Deletes the 5 seconds of Source between the IN Time and the Delete Out, and inserts 10 seconds of black at the same point.

Edit (5) with a 5-second "Reduct" value forces the Time Tailor process to remove 5 seconds from the segment ending at the IN Time on that line. Normally the total "Insert Time" from the main Time Tailor dialog is distributed among all the segments according to the ratio of the segment length to the total length. The "Reduct" Edit is a mechanism to override the distribution of time to be removed, and allows the operator to specify how much is to be removed from each segment.

Edit (6) on the last frame of the source material creates a cut to black at the end of the show. (The same thing can be done with the BEG-END edits, with and "End" Edit.)

Enable	IN Time	Delete Out	Del Dur	Insert Dur	Reduct	Track	EDITS PG 1
1 ☑	4:07:00;02	4:07:00;02	0	0	0	4	
2 ☑	4:08:00;02	4:08:00;02	0	10;00	0	4	Enable 1-10
3 ☑	4:09:00;02	4:09:15;02	15;00	0	0	4	Disable 1-10
4 ☑	4:10:00;02	4:10:05;02	5;00	10;00	0	4	Enable ALL
5 ☑	4:11:00;02	4:11:00;02	0	0	5;00	4	Disable ALL
6 ☑	4:11:59;28	4:11:59;28	0	10;00	0	4	Clear 1-10
7 ☐	0	0	0	0	0	4	Clear ALL
8 ☐	0	0	0	0	0	4	Source Pos
9 ☐	0	0	0	0	0	4	Next Page
10 ☐	0	0	0	0	0	4	Done

When finished programming edits, Press [Esc] or [Click] on the button labeled "Done" to return to the main Time Tailor dialog..

Holds: Sometimes, sections of the source material be left uncondensed. Typically these will be sections of black, promos and credits. We specify these sections to be "Holds". The Time Tailor must know in advance how much time is being allowed for holds in order to uniformly distribute the removal of material throughout the "non-held" source.

If necessary, [Click] to check the checkbox next to the button labeled "Hold Times".

Then, press [F5] or [Click] on the button labeled "Hold Times".

The Holds dialog opens.

Enter the Timecode number of the beginning of a section of source material where you want to be left uncondensed.
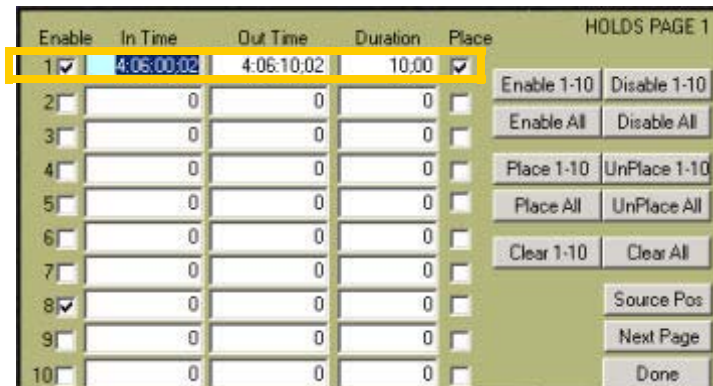
Then enter the duration of that material. You can either enter the Out Time of that section or or the Duration, and the corresponding value will be calculated automatically.

[Click] to check the checkboxes "Enable" and "Place".

Press [Esc] or [Click] on the "Done" button to return to the main Time Tailor dialog.

*After completing the information that defines the Time Tailor process, the Events are placed on the Timeline. The Timeline scale can be easily adjusted to display a convenient number of Events*

[Click] on the "Edits" checkbox unless it is already checked. All edits are ignored if this is unchecked.

Press [F2] to Place Events on the Fastrack Timeline or [Click] on the "Place Events on Timeline" button.
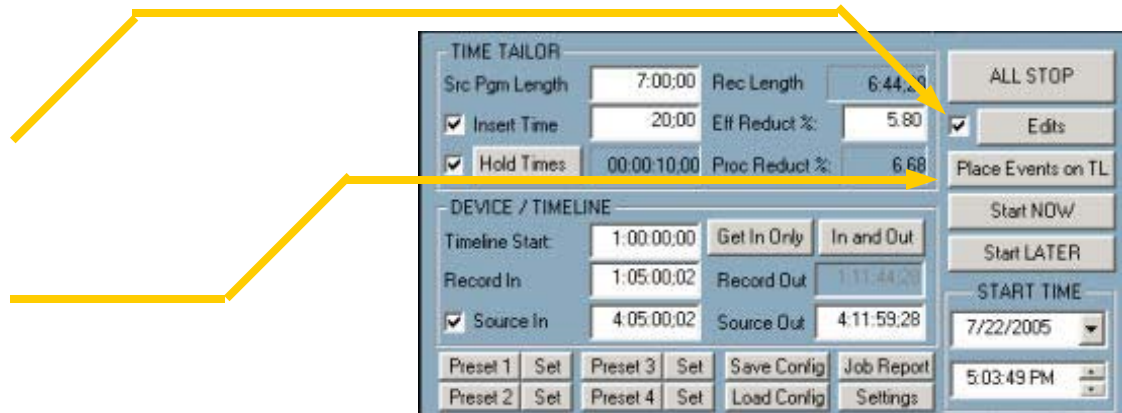
The programmed Events are placed on the Fastrack's graphical Timeline. An expanded view of the Timeline shows just the shorter beginning Events, as defined in the "BEG-END Edits Page."
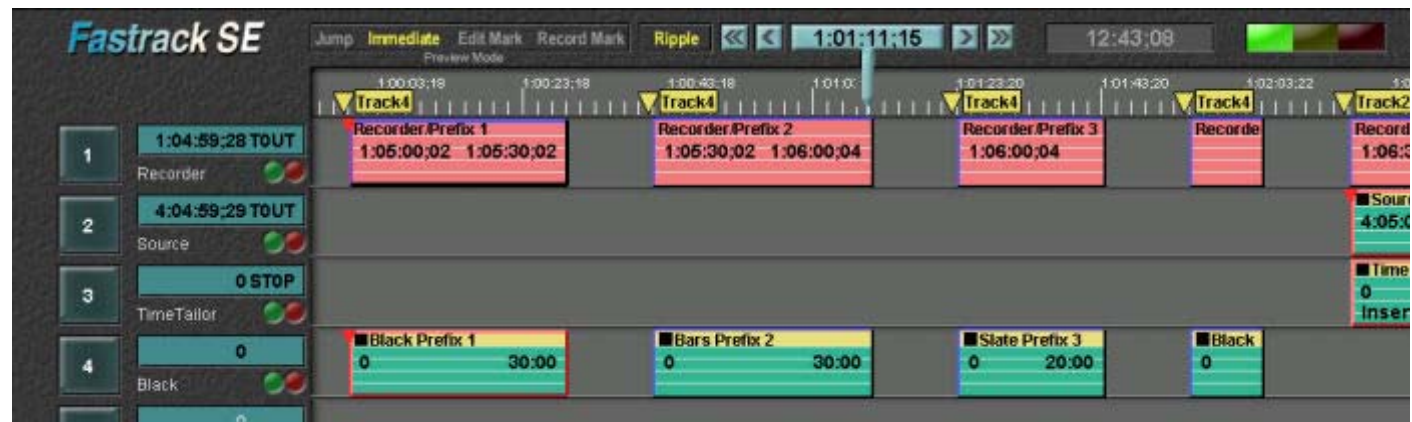
To adjust the Timeline scale, [Ctrl][Click] and drag the Timeline scale to the left to expand and to the right to contract.

Note that when you [Click] on the Timeline scale, the Timeline mode is turned On. Remember to press [A] or All Stop to turn Timeline mode Off before continuing.

Adjusting the Timeline scale provides a complete picture of the programmed Time Tailor job.

Contracting the Timeline scale allows you to see all the Events even if the show is hours long. Examining the Graphic Timeline can prevent some errors before taking the time to run the whole job.
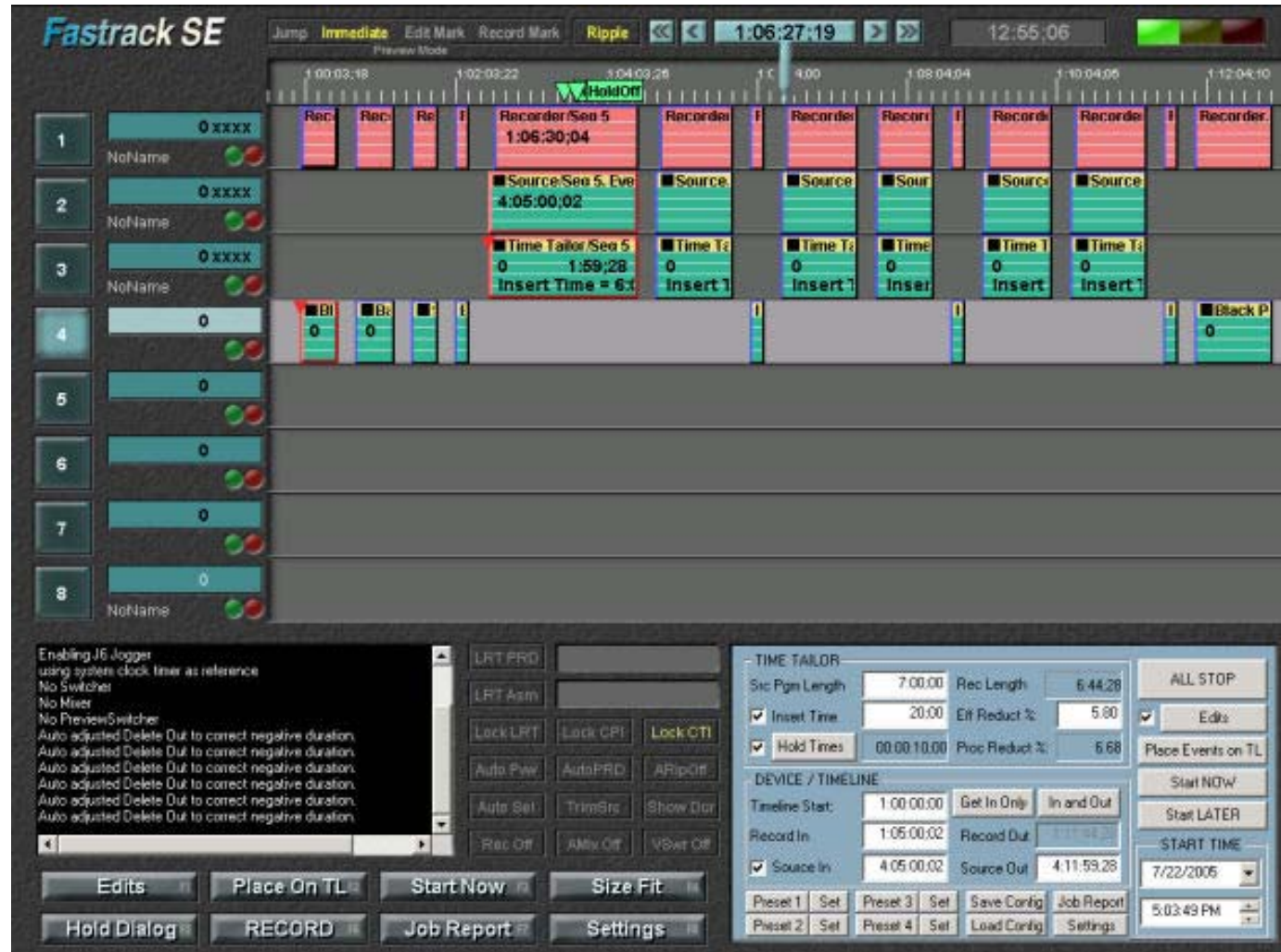
Press [F3] to start the Time Tailor process. The Events will be recorded in order of their position on the Timeline.

Finishing up and producing a report.

After the job with edits and holds has completed recording, follow the steps on pages 5-7 to check accuracy for each segment.

You can also examine the report produced for each job, to check the overall length and edit points on the record tape. The final section of this tutorial covers how to create and interpret the Time Tailor Report.

**Summary: These are the steps to set up and produce
a Time Tailor job:**

1. **Enter Source material duration***
2. **Enter length of time to be removed****
3. **Enter Source and Record In Times**
4. **Enter Edits**
5. **Enter Holds**
6. **Start the Process**
7. **Produce Report/Check Accuracy**

*** Or enter Source Out time after step 3
** Or enter Record Out time after step 3**

Printing the Report

[Click] on the button labeled "Job Report"
to open the Job Report dialog.
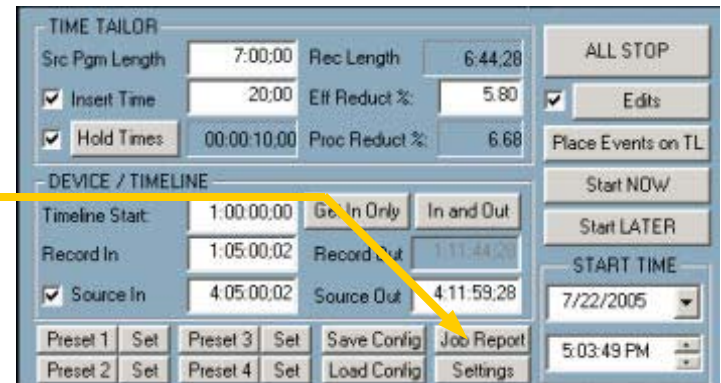
A report can be generated for each set of data. It can be produced either before or after the Time Tailor process has been performed. Viewing the summarized report in the dialog window provides some key information that can be helpful in verifying the accuracy of the job parameters. To generate the report, [Click] on the "Generate" button.

Facility, Recorded By, Notes: These are text fields filled in by the operator which are printed on the report.

Source Program Length: Same as the value entered in the main dialog. For DF tapes, this will be valid DF Timecode.

Recorded Show Length: The length of the finished show after processing. It does not include "Beg" and "End" edits, which are assumed to be bars, slate, and black outside the show. It is based on the original show length, the amount of material removed by the Time Tailor and the amount added and removed by Insert and Delete Edits.

Insert Time: This is the "Insert Time" from the main Time Tailor dialog. It does not include fixed reductions (the "Reduct" values from the Edits dialog). The Insert Time is proportionately distributed among all the job segments, except those segments with "Reduct" times. The "Insert Time" is unrelated to Insert edits.

Effective Reduction: This is exactly how much shorter the new show is due to the "Insert Time", expressed as percentage of original show length. For this calculation, the segments with fixed "Reduct" values are ignored.

Processed Reduction: This percentage indicates what percentage of "available to process" material (excluding "Reduct" segments) was removed. This percentage reflects only the "Insert Time" value for data removed, and takes into account hold times and rounding of Time Tailor parameters in determining how much material was available to process.

Total Fixed Reductions: The total of the values in the "Reduct" column of the Edits dialog. The total amount of time removed by the Time Tailor equals the "Insert Time" plus the "Total Fixed Reductions"

nn **Insert Edits totaling** m:ss:ff - This shows the total count and duration of Insert Edits from the Edits dialog.

nn **Delete Edits totaling** m:ss:ff - This shows the total count and duration of Delete Edits from the Edits dialog.

Source Reel, Source In Time, Record Reel, Record In Time: These are fields entered here or on the Main Time Tailor dialog by the user.

Net Length Change: This is the net change between the old show and the new show, not counting the "Beg" and "End" edits. It is the sum of all lnsert edits minus the sum of all delete edits, minus the sum of all "Reduct" times, minus the "Insert Time".

Time Tailor Report Detailed Description

```
-----------------------------------------------------------------
Time Tailor / Fastrack Job Report
-----------------------------------------------------------------


Fastrack TM  V3.7.X46
-----------------------------------------------------------------
-----------------------------------------------------------------
Editware World Hdqtrs, Fastrack Tower

VJC

Jan 31, X46 multi segments


-----------------------------------------------------------------
-----------------------------------------------------------------


Recorded on January 31, 2005

Source Program Length  = 7:00;00
Record Program Length  = 6:49;28
Insert Time            = 20;00
Total Fixed Reductions = 5;00
Hold Time              = 0
Effective Reduction    = 5.80 percent (Due to Insert Time)
Processed Reduction    = 6.07 percent
Effective Reduction    = 5.96 percent (Including Fixed Reduct)

Record Reel = DVW2K(Record)
Record In Time = 1:05:00;02

Source Reel = DVW2K(Source)
Source In Time = 4:05:00;02

Number of Ins/Del Entries = 6
4 Insert Edits totaling 35;00
2 Delete Edits totaling 20;00
Net Length Change = -10;00

Record Mode = Insert
Manual Insert Time Enabled
Edit Function Enabled
Rec In Rounding Disabled
Manual Holds Disabled
Using Source Machine
Preload Enabled
Separate insert segments enabled
```

This information is entered by the user in the Report dialog.

These items are the same as the corresponding items on the Reports dialog, described on the preceding page. One new item here is the "Effective Reduction = nn.nn percent (Including Fixed Reductions)". This item takes into account all "Reduct" values and the segments to which they apply. Therefore this is an overall percentage reduction due to Time Tailor processing. Insert and Delete Edits are not considered in this calculation.

This information is initial status. These are normal default values.

Time Tailor Report Detailed Description

```
-------------------------------------------------------------------------
Hold Times
-------------------------------------------------------------------------

#     In Time      Out Time      Duration    Place

 1  04:06:00;02  04:06:10;02  00:00:10;00  Yes


-------------------------------------------------------------------------
Insert, Delete and Fixed Reduction Edits
-------------------------------------------------------------------------

#      In Time     Delete Out    Delete Dur    Insert Dur    Reduct Dur   Trk

 1  04:07:00;02  04:07:00;02  00:00:00;00  00:00:05;00  00:00:00;00   4
 2  04:08:00;02  04:08:00;02  00:00:00;00  00:00:10;00  00:00:00;00   4
 3  04:09:00;02  04:09:15;02  00:00:15;00  00:00:00;00  00:00:00;00   4

 4  04:10:00;02  04:10:05;02  00:00:05;00  00:00:10;00  00:00:00;00   4
 5  04:11:00;02  04:11:00;02  00:00:00;00  00:00:00;00  00:00:05;00   4
 6  04:11:59;28  04:11:59;28  00:00:00;00  00:00:10;00  00:00:00;00   4


-------------------------------------------------------------------------
Prefix Inserts
-------------------------------------------------------------------------

#    Reel Name                 Src In       Duration    Trk

 1  Black                   00:00:00;00  00:00:30;00   4
 2  Bars                    00:00:00;00  00:00:30;00   4
 3  Slate                   00:00:00;00  00:00:20;00   4

 4  Black                   00:00:00;00  00:00:10;00   4

                 Total Prefix Dur = 00:01:30;02


-------------------------------------------------------------------------
Postfix Inserts
-------------------------------------------------------------------------

#    Reel Name                 Src In       Duration    Trk

 5  Black                   00:00:00;00  00:01:00;00   4

                 Total Postfix Dur = 00:01:00;00
```

Entered in the Holds dialog.

Entered in the Insert/Deletes Edits dialog.

Entered in the BEG-END Edits dialog.

Time Tailor Report Detailed Description

```
--------------------------------------------------------------------------

Record Reel Points of interest
------------------------------------------------------------------------------------

seg    Rec In        Src In     Trk   Src Name          Segment Dur   Reduct Dur     Eff %   Proc %

 1    01:05:00;02   00:00:00;00   4   Black             00:00:30;00   00:00:00;00    0.00    0.00
 2    01:05:30;02   00:00:00;00   4   Bars              00:00:30;00   00:00:00;00    0.00    0.00
 3    01:06:00;04   00:00:00;00   4   Slate             00:00:20;00   00:00:00;00    0.00    0.00

 4    01:06:20;04   00:00:00;00   4   Black             00:00:10;00   00:00:00;00    0.00    0.00
 5    01:06:30;04   04:05:00;02   2   Source            00:01:52;19   00:00:07;09    6.09    6.09
 6    01:08:22;25   00:00:00;00   4   Black             00:00:05;00   00:00:00;00    0.00    0.00

 7    01:08:27;25   04:07:00;02   2   Source            00:00:56;09   00:00:03;19    6.06    6.06
 8    01:09:24;06   00:00:00;00   4   Black             00:00:10;00   00:00:00;00    0.00    0.00
 9    01:09:34;06   04:08:00;02   2   Source            00:00:56;09   00:00:03;19    6.06    6.06

10    01:10:30;15   04:09:15;02   2   Source            00:00:43;06   00:00:01;24    4.00    6.01
11    01:11:13;23   00:00:00;00   4   Black             00:00:10;00   00:00:00;00    0.00    0.00
12    01:11:23;23   04:10:05;02   2   Source            00:00:49;28   00:00:05;00 F  9.10   16.70
```

Detailed information about each segment. For quality control, searching directly to each of the "Rec In" points should confirm frame accuracy of all boundary points.

```
------------------------------------------------------------------------
Data Sent To Time Tailor
------------------------------------------------------------------------

Seg   Src Seg Dur   Pgm Hold Dur      Pgm           Hold          Insert

  5   00:01:59:26   00:00:00:00   00:02:00:00   00:00:00:00   00:00:07:09
  7   00:00:59:28   00:00:00:00   00:01:00:00   00:00:00:00   00:00:03:19
  9   00:00:59:28   00:00:00:00   00:01:00:00   00:00:00:00   00:00:03:19

 10   00:00:45:00   00:00:00:00   00:01:00:00   00:00:30:00   00:00:01:24
 12   00:00:54:28   00:00:00:00   00:01:00:00   00:00:30:00   00:00:05:00 F
 13   00:00:59:26   00:00:00:00   00:01:00:00   00:00:00:00   00:00:03:19
```

This is the data sent to the Time Tailor at each step for which there is Time Compression. Note that Program times are always rounded to the next lower minute and Hold times are rounded to the nearest 30 seconds that optimizes "available to process" time for source material, while still ensuring that the Time Tailor can complete the removal during the segment playout.

End of Report

Setup Information: Assignment Page.   Each track on Fastrack represents a source, recorder or other controlled device. Sometimes it may be necessary to change from the default settings.

Press [Shift][ASGN] to open the Assignment Page. Default settings are shown here. They can be edited if necessary. The devices in the device name column may be different at your facility.
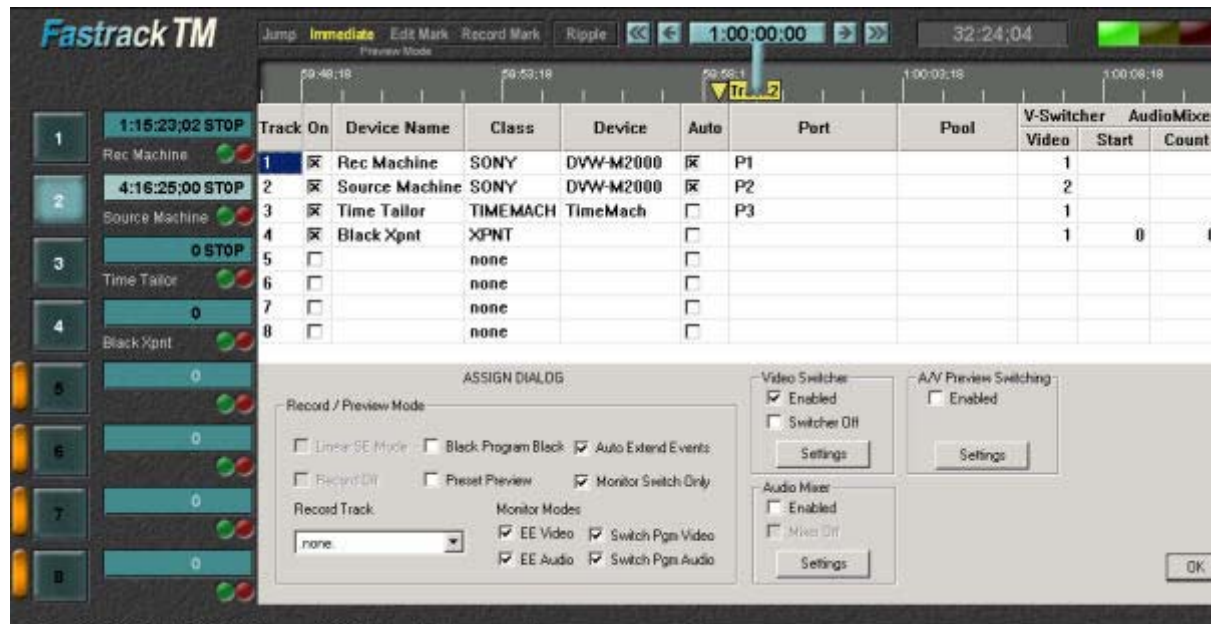
Setup Information: Time Tailor Settings Dialog. This dialog allows you to adjust the timing constants and other settings in a convenient window. These values are set at the factory for most applications, but occasionally need to be adjusted.

Press [F8] when the main Time Tailor dialog is open, or click on the Settings button to open the Settings dialog.
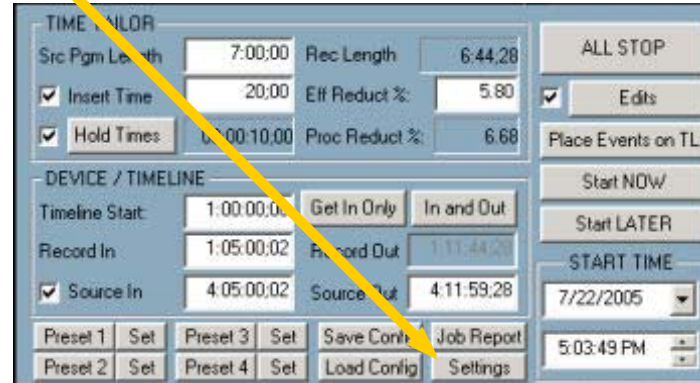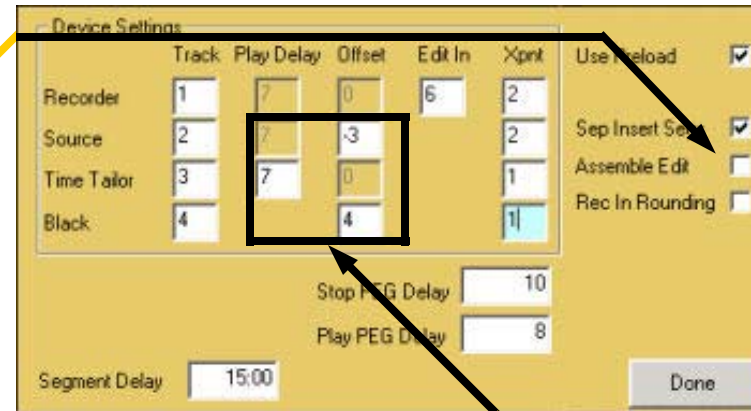
The Settings dialog opens. These are factory defaults which are accurate for most digital VTRs.

If the Record tape is only striped to the record In point, you will need to make this an Assemble recording. Check the Assemble checkbox. If the record tape is pre-striped for the entire length of the recording, the Assemble check-box should be unchecked.

If there is additional delay in the path from the source VTR to the Record VTR, the settings need to be adjusted to compensate.

For each frame of delay the magnitude of these 3 values (Source Offset, Time Tailor Play Delay and Black Offset), needs to be increased by 1. For example, if there is 3 frames of delay in the path the Source Offset should be changed to –6, the Time Tailor Play Delay to 7 and the Black Offset to 8.

End of Time Tailor Tutorial