

## Tutorial 48

# Camera Shots and Time Discontinuity

## Introduction

This tutorial guides you through the process of creating and manipulating shot clips in the Story window. Shot clips let you schedule and edit camera shots.

The major steps of this tutorial are:

- Preparing the Scene (page 1)
- Creating and Scheduling Shot Clips (page 2)
- Overlapping Shots (page 4)



### Note:

*This tutorial does not explain how to perform basic functions such as switching cameras, translating models, and playing takes.*

## Step 1: Preparing the Scene

In this step, you will add a favorite path for the tutorial folder in the Asset browser window. As a result, you will be able to access the tutorial files directly from the interface.

1. From the menu bar, select **File>New**, then select **Layout>Story**.

MotionBuilder displays a new scene using the Story layout. This layout displays all the windows you need for your work in this tutorial.

2. Right-click in the Asset browser and select **Add favorite path** from the contextual menu (fig 48-1).

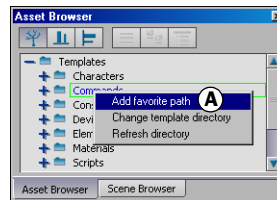


fig 48-1: A. Select Add favorite path from the contextual menu.

3. In the Open directory dialog box that appears, choose the **StoryTimeDisc** folder (created when unzipping the *T48\_Shot\_Discontinuity.zip* file) and click **OK**. The **StoryTimeDisc** folder is added as a favorite path in the Asset browser.

4. From the StoryTimeDisc folder in the Asset browser, drag the **JumpOverFire.fbx** file (fig 48-2, A) into the Viewer window, and select **FBX Open>Take 001** in the contextual menu that appears.

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### Creating and Scheduling Shot Clips

A camera, ghosts, and a fire Particle shader appear in the Viewer window (fig 48-2, B). The Surfer and three other cameras may not be within camera view.

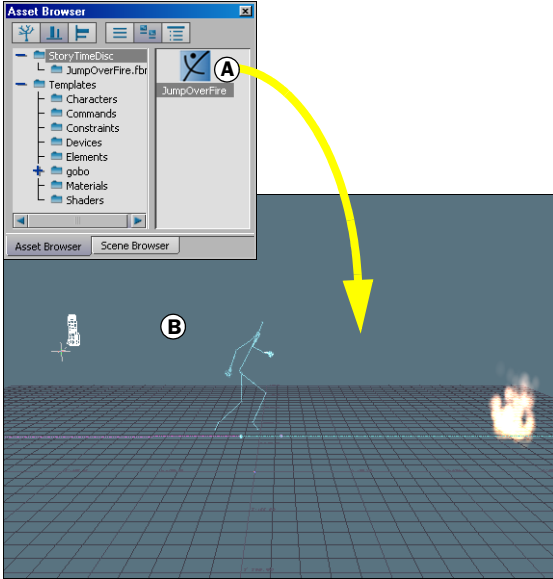


fig 48-2: **A.** Drag the file into the scene. **B.** A camera, ghosts, and a fire appear in the Viewer window.

5. In the Story window, drag the gray bar (fig 48-3, C) between the two track lists to resize the Edit Track list (fig 48-3, A). Dragging the bar down gives you a better view of the Shot track.

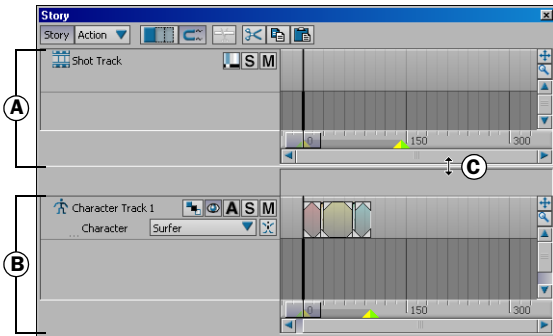


fig 48-3: Story window **A.** Edit Track list **B.** Action Track list **C.** Drag this bar down to resize the Edit Track list.

## Step 2: Creating and Scheduling Shot Clips

In this step, you will use the three cameras to create and place shot clips along a Shot track.

1. Click the Scene Browser tab in the top-left window of the Story layout to open the Scene browser.
2. In the Scene browser, expand the **Cameras** folder.
3. Drag the custom camera called **Camera** (fig 48-4, A) from the Scene browser into the Shot track (fig 48-4, B).

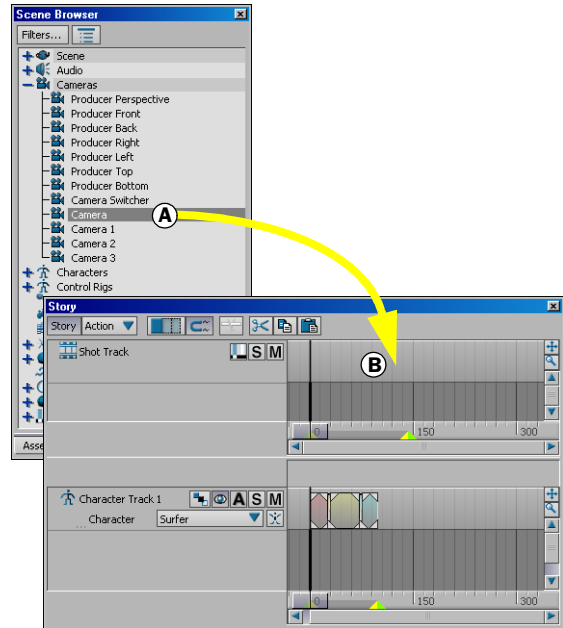


fig 48-4: **A.** Drag Camera from the Scene browser. **B.** Drop Camera into the Shot track.

A shot clip labelled “Clip 1” appears in the Edit Track list (fig 48-5, A). Also, the shot clip’s shot appears in the Action Track list beneath it (fig 48-5, B).

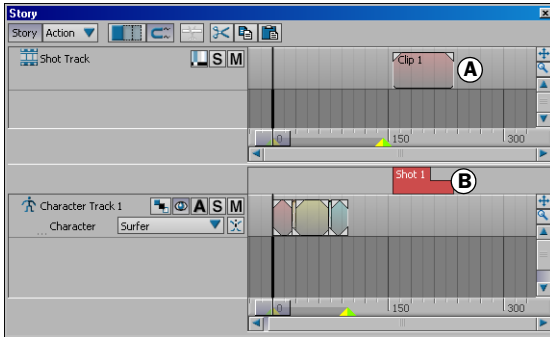


fig 48-5: Story window A. Shot clip called “Clip 1” B. Shot called “Shot 1”

4. Drag the shot clip until it starts at **frame 0** (fig 48-6).



fig 48-6: The clip starts at frame 0.

5. Press **A** to center the shot clip (fig 48-7), zooming in on the timeline.

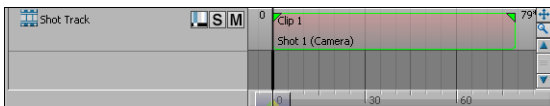


fig 48-7: The clip is centered in the Clip area.

6. Drag the end of the shot clip to **frame 20** (fig 48-8).



fig 48-8: The clip ends at frame 20.

7. Drag **Camera 1** from the Scene browser into the Shot track. The shot clip that appears is labelled “Clip 2”.

8. Drag and stretch Clip 2 so that it starts at **frame 20** and ends at **frame 43** (fig 48-9).



fig 48-9: The second clip starts at frame 20 and ends at frame 43.

9. Drag **Camera 2** into the Shot track to create a third shot clip. A shot clip labelled “Clip 3” appears.

10. Drag and stretch Clip 3 so that it begins at **frame 43** and ends at **frame 70** (fig 48-10).

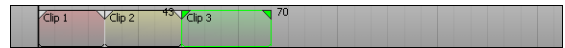


fig 48-10: The third shot clip starts at frame 43 and ends at frame 70.

11. Drag **Camera 3** into the Shot track to create a fourth shot clip. A shot clip labelled “Clip 4” appears.

12. Drag and stretch the Clip 4 so that it begins at **frame 70** and ends at **frame 133** (fig 48-11).

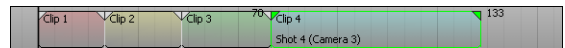


fig 48-11: The fourth shot clip starts at frame 70 and ends at frame 133.

13. Right-click the Shot track and select **Frame/Start End** from the contextual menu (fig 48-12). The time range changes to the total length of the shot clips.

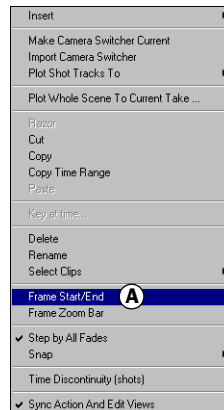


fig 48-12: Contextual menu A. Select Frame Start/End.

14. Click on the Shot track and press **A** to frame the clips.

15. Select **Edit** from the Story Mode menu (fig 48-13, A).

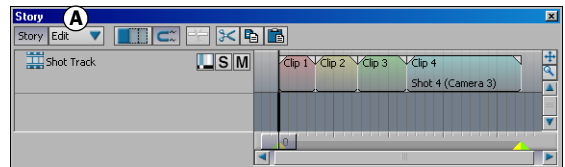


fig 48-13: Story window A. Select Edit in the Story Mode menu.

16. Right-click an empty space in the Shot track and select **Make Camera Switcher Current** from the contextual menu.

17. Play (**Ctrl-Spacebar**) the results of the shot clips.

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### Overlapping Shots

As the Timeline indicator passes over each shot clip in the Edit track list, the current camera switches in the Viewer window.

Each custom camera has been placed to show a different camera shot. At this point in the tutorial, the first camera shot is of the Surfer running, the second camera shot is of the fire, the third camera shot is of Surfer jumping over the fire, and the fourth camera shot is a final glimpse of Surfer.

Note that the Timeline indicator in the bottom timeline follows the Timeline indicator in the top timeline. Both Timeline indicators move together because time is set to be continuous.

## Step 3: Overlapping Shots

In this step, you will edit shots to show Surfer jumping three times from three different angles.

1. Right-click in the Story window and select **Time Discontinuity** (fig 48-14, A) from the contextual menu.

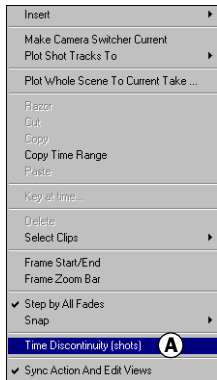


fig 48-14: Contextual menu A. Time Discontinuity option

When the Time Discontinuity option is active, manipulating the shot clips in the Edit Track list alters the scheduling of the camera switches while manipulating the shots in the Action Track list alters the content of the shot clip.

Shots appear as red bars (fig 48-15, B), which become green when you select them. Each shot corresponds to a shot clip. When the Time Discontinuity option is active, you can manipulate a shot without moving its shot clip to edit the content of the shot clip.

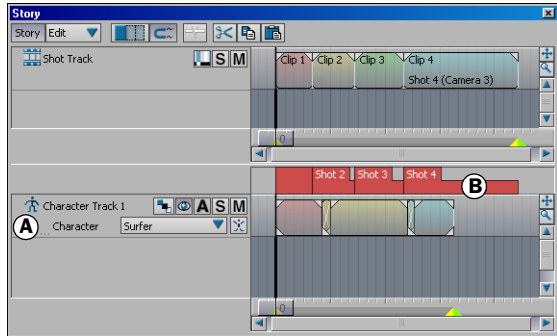


fig 48-15: Story window A. Character track B. Shot

2. Double-click **Shot 2** (fig 48-18, A).



fig 48-16: Story window A. Shot 2

Shot 2's settings display in the Asset Settings window (fig 48-17)

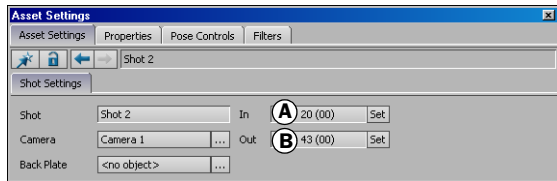


fig 48-17: Asset Settings window A. In field B. Out field

3. Double-click the **In** field (fig 48-17, A), type **40**, and press **Enter** to change the shot's In point to frame 40.

4. In the Asset Settings window, double-click the **Out** field (fig 48-17, B), type **63**, and press **Enter**.

Shot 2 overlaps and hides part of Shot 3. Your edit should resemble fig 48-18.

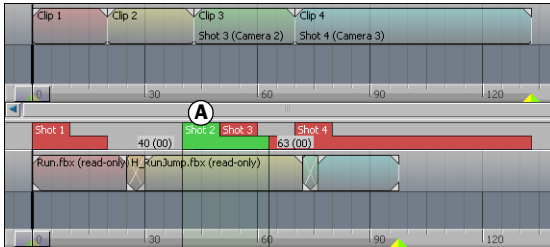


fig 48-18: Story window **A**. Shot 2 at frame 40.

5. Play the result of your edit. Surfer runs, jumps twice from two different angles, then runs out of view.

Notice that when you play the result, the Timeline indicator in the top timeline follows the shot clips smoothly one after the other.

However, in the bottom timeline, the Timeline indicator jumps from shot to shot. Specifically, the Timeline indicator plays Shot 1, jumps the gap to play Shot 2, then jumps back to play Shot 3 before moving on to play Shot 4. This time discontinuity happens because the Edit mode is active and you manipulated a shot independently of its shot clip.

6. Drag **Shot 4** to the left so that it starts at **frame 40** and ends at frame **103**. Your edit should resemble fig 48-19.

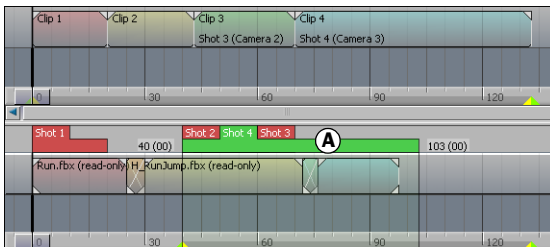


fig 48-19: Story window **A**. Shot 4 at frame 40.

7. Right-click on the Character track and select **Frame Start/End** from the contextual menu.

8. Play the result of your edit. In the Viewer window, Surfer runs, jumps, jumps again, then jumps and runs out of sight.

## Conclusion

During this tutorial, you created and scheduled shot clips. You activated the Time Discontinuity option and manipulated shots independently of their shot clips to edit their content.

