Make Your Own Machinima

You just had the greatest game of Battlefield 2 in your life—too bad none of your friends will believe you. “But, but, but…,” you’ll say, as you try to convince your buddies that you made a headshot with a .50 caliber M95 sniper rifle from across the map, or that you killed a pair of rampaging armored personnel carriers with mines. By making your own trophy video, you can impress your friends, and maybe even score a sweet development deal with Jerry Bruckheimer—if your homegrown action flick is entertaining enough!

BY GORDON MAHUNG

MATERIALS

- **BATTLEFIELD 2**
  A game that lets you record in-game demos with a movable camera

- **FRAPS**
  A utility to capture video from the game engine
  $37, www.fraps.com

- **PREMIERE ELEMENTS 2.0**
  A video editor
  $80, www.adobe.com

See the BF2 movie we made on this month's disc, or at MaximumPC.com.

1. **Play the Game**

   It doesn’t get any easier than this. Fire up Battlefield 2 and look for a server that supports the game’s BattleRecorder feature. BattleRecorder lets the server record everything that happens in the game on the server side, so you have a record of all the events that transpired during the entire game. You can tell which servers support BattleRecorder by using the BattleRecorder filter in the in-game server browser, or by looking for the BattleRecorder icon by the server name (it looks like a TV screen). Once you’ve found your server, just jump in and play.

2. **Download Your Demo**

   When the round is over, hit Escape and go to the Community tab of the main BF2 interface. On the left side, under BattleRecorder Bookmarks, you’ll see the files available for download. Simply click one, and hit download. If you get an error, the server you were on probably doesn’t have the recorder mode properly configured. In that case, you’ll have to look for a properly configured server, using trial and error. We find that most of the properly configured servers will let you download the file after the match is over. (Note: If you wait too long, most servers will have purged the file, even though BF2 will still indicate that it’s available for download.) Once you’ve downloaded the file, it should appear on the right-hand side of the screen under BattleRecorder Library. Select the demo and click Play File. BF2 will load normally, but instead of the usual spawn point screen, you’ll find yourself in an observer mode, sometimes off the map. If the demo works, you’re good to go. Add the server to your Favorites and consider it your own little Hollywood back lot.
3 Fraps It

OK, you’ve downloaded your video and verified that it works. Now exit BF2 and fire up Fraps. You’ll use Fraps to convert your onscreen play to an AVI file that can be edited by any video editing program. Fraps is a fantastic tool that everyone who is into computing performance and gaming should own. It lets you capture screenshots and videos from any application, and it can even display an overlay of the frame rate of a DirectX or OpenGL game. Its usefulness extends beyond this how-to, so it’s definitely worth $37. Fraps’ default video capture key is F9. Fraps should default to capturing video in full frame mode at 29.97 fps, perfect for our project. Keep Fraps running, then start BF2 again and load up your demo file.

4 Be a Cinematographer

When the demo’s playing, hitting the Q key gives you the ability to pause, play, speed up, or slow down the playback of the demo. The demo starts in freestyle mode, allowing you to fly around the map using the normal WASD keys and the mouse to change directions. The mouse’s right-side button switches between freestyle and locked-on-an-individual modes. Hitting the space key toggles through all the players in the game. Once the camera locks onto a player, the mouse will let you orbit the camera around the player while the mouse’s scroll wheel zooms the camera in and out. You can fly around the map looking for the particular “scene” you want, or if you want to capture your own acts of valor, simply follow yourself.

5 Action!

You’re ready to record yourself smoking five OPFORs with the M9 Beretta. You should shoot the first take as a “tracking shot” just over your shoulder. Cue up the scene to just before it’s about to start and hit Q to pause playback. Hit F9 to start Fraps’ capture mode, then press Q to restart playback. When the scene is over, hit F9 to stop Fraps. Hit Q, select Restart, and cue up the scene again. Repeat the sequence by shooting the same scene from different angles so you’ll have lots of options to get the best action when you’re editing your footage. You should also “film” some B-roll footage—a close-up of the muzzle or a long shot down an empty street—which you can cut into the main scene for spice.

6 Performance Problems?

Running Fraps in recording mode at the same time as Battlefield 2 can put a strain on older machines. Running 2GB of memory in your rig will likely alleviate performance issue—BF2 loves RAM. If you have a dual-core processor, you might want to set the affinity of BF2 to run on a single core. Fraps seems intelligent enough to confine itself to one core, so by setting it to the other core you
can help ease the strain on your system. To do this, you need to open Task Manager and click the Process tab. Right-click BF2.exe and select Set Affinity. Uncheck one of the processor cores, and close Task Manager.

7 Time to Edit

By default, your captures will be saved to the C:\fraps\ folder. If your PC has enough horsepower, you can just leave BF2 running in the background while you alt-tab out. This makes it easy if you decide you’re not happy with a certain scene and want to reshoot it, but you should probably shut down the game when you open your editor. We used Adobe’s Premiere Pro 2.0 because we had it installed on our test bed, but Pro is overkill for this project. Adobe’s $80 Premiere Elements will handle the job just as well, and because both apps share many features, all of our editing tricks will work in either app (except where noted).

To get started, import your AVI files from the Fraps directory into Premiere by right-clicking the Program pane and clicking Import. Point it at the C:\fraps\ directory and grab the appropriate files. Pick your scene and drag it from the Project tab into the timeline. Now trim the footage until it’s just what you want. You can do this by selecting the clip on the timeline and grabbing the end until a red bracket shows up, slide it left or right to make your cuts.

8 Add Some Fast Cuts

Any student of Michael Bay can tell you that following the action from only one angle gets boring fast. Because all of your scenes are of the same subject but shot from different angles, all you need to do is splice them together in a visually stimulating way. In our video, we follow our Marine engineer over his shoulder as he drops mines in front of the two
ramping APCs. Then, as the Marine reaches the top of his arc, we switch angles so the camera is in front of him. Finally, we switch to a third shot with the camera in freepoint mode that shows our Marine running past the APC as he drops another mine. When all three scenes are edited together, it’s an exciting montage.

But we need the soundtrack to be continuous. If you don’t sync the audio perfectly, there will be distracting pops and clicks as the video clips change. The easiest way to make the audio perfect is to use the soundtrack from a single clip, then sync the video with that. We took our audio from our unedited over-the-shoulder shot by right-clicking the clip and selecting Unlink. Premiere only displays video from the topmost timeline, so if you place the unedited video track below the edited video in your timeline, you’ll see only the edited video. Get your edited clip synchronized with the audio track, then right-click the edited clip and select Delete Audio to remove the excess audio.

Then, switch back to the selection tool by hitting "V" and go through the same process for all of your clips. Remember, don’t always keep the camera on your virtual actor. You can cut between the action of the object firing and object being fired upon for more drama.

9 Slow It Down

What would a modern war movie be without slow motion? When the APCs open up on two hapless Marines running down a hill in our movie, we splice several scenes together and add a slo-mo effect. To do this in your movie, select the scene you want to slow down and use the razor tool to cut it on the timeline. In Premiere Pro, you right-click the selected scene and select Speed/Duration. In Premiere Elements, select the scene and choose Time Stretch. You can also apply the fast-cut technique to change camera angles. In our example, we follow the Marine in slow-motion from the front, and then from over his shoulder, and then back to the front, in slow motion, when he takes a hit. We close with a shot as he and his buddy lie crumpled on the ground with the firing APC in the background. That’s powerful stuff.

10 Add Titles and Transitions

Titles will help explain your story so add them where they’re needed. In Premiere Elements, create a title by selecting the Title button on the upper right-hand side of the screen. The title will show up as an asset in the Project tab on the left side of the screen. To add it, drag it from the Project tab to video track 2 in the timeline. You can change the opacity of the title by right-clicking the title in the timeline and choosing fade-in and fade-out. A thin line in the timeline’s video track will also let you manually change the opacity or transparency. The method is similar in Premiere Pro 2.0. Select Title, then New Title, and pick your style. Like Elements, once you’ve entered the title, it shows up in the Project tab as an asset. Drag this over to the timeline into video track 2 or 3, over the spot where you want it to appear. You can change how long the title is on the screen in either application by grabbing the end and dragging it to change its length. The easiest way to set opacity in Premiere Pro 2.0 is to set it under Title Properties when you create the title. Otherwise, you can adjust opacity by clicking the Title after it’s been placed in the timeline and bringing up the Effects window.

Add a Soundtrack or Voice-Over

We didn’t add a soundtrack to our small video for copyright reasons, but it’s easy to do. Go to the Project tab on the left side of the screen in either version of Premiere and click Import. Point it to your favorite MP3, such as Samuel Barber’s Adagio for Strings. Once it’s in the asset list, you can drag and drop it onto the audio 2 or audio 3 track.

If you’re really ambitious, and want to record a voice-over or dialogue to go with your movie, simply record them as WAV or MP3 files, add them as assets, and drag them into the part of the timeline where your soldiers are "speaking."