

How to make videos in the Half-life / Source engine.

So basically there are four steps to this technique, you can use single parts of this technique to make good quality videos but the whole thing will give you the best quality video.

## First off, demo recording:

A demo in half-life 2/source is a file that captures in game footage of a player in a game. You might ask: why not just use the demo as a video file. The problem is that demos are parts of the game; they actually have no video in them, just data. I'm not really good at explaining this but put it this way, demo file's are small in size and contain the data the engine needs to display. Instead of capturing video it captures things like what the player sees in relation to the game, it is the engines job to 'replay' that information as if it were actually happening. The demo file just contains data in which the game uses to render.

First off you'll need to enable the developer console in options. For the following commands you will need to open up the console (default `).

The syntax for recording a demo is:

**record** *filename*

**example:** record portaldemo1

To stop recording a demo

**Stop**

The console should output some information about the demo

**Example:** Completed demo, recording time 7.5, game frames 561.

Now to play back that demo for recording purposes

**Playdemo** *filename*

**example:** playdemo portaldemo1

The screen should load up the demo and begin to playback what you recorded.

To stop the demo playback

**Stopdemo**

Instead of using the playdemo command I like to use **timedemo**, it uses the same syntax as playdemo but outputs the maximum FPS (frames per second) and looks really nice. To stop playing this demo type **timedemostop**.

If you have a long demo, you might want to use the command **demoui** or **demoui2** this brings up a little GUI that lets you control the playback of your demo so you can pick out where you want to start playing and where you want to stop.

So now you've got the demo part on lockdown you have two options from here.

You can either choose the red pill A.

- A. Use a third party program such as Fraps to Screen Recorder to captures your video for a quick and dirty recording session. It doesn't look too bad and is really fast.
- B. See the puttputt movie maker method.

## Startmovie

So now you want to make a movie like a pro! Well welcome to the club!

WARNING: As far as I know this does not record sound – I think it has the capabilities to do so but I'm not 100% sure – I think the source engine saves a .wav file and the avi format might record sound but I do not know.

WARNING2: This uses a LOT OF DISK SPACE

There are two commands you need to know

**startmovie** *filename framerate format*  
**endmovie**

The two file formats are avi and raw. I have not been able to get avi to work and raw outputs each frame as a TGA file, so expect a hell of a lot of files in your steamapps/user/game/game/ folder.

Start your demo using timedemo, go to where you want to record then use the startmovie commands example:

```
startmovie portalmovie 30 raw.
```

30 frames per second is the standard amount you want playing. I like to use 60 – 120 to get a good quality video then compress it to 30 frames per second, but when you do that you have to speed up the video and it's really complicated so I'll let you play with that.

## Patching those TGA's

This section is for those who are using the RAW format.

Download VirtualDub. It's an open source video application (very small in size) yet very powerful, you should be able to find a link at SourceForge.com

Open it up and go File -> Open video file

Navigate to your steam directory/steamapps/yourname/game/game/ and click on the FIRST file It should be something like name001.tga. It should import all of them for you.

Once you're in virtual dub you can do some editing/cropping/whatever but I'm going to continue on.

To get a video file go to File -> Save AVI as AVI

Select where you want to save it. And viola a video file.

## Compression and Editing

There is nothing much for me to say here except that DO NOT UPLOAD YOUR AVI FILE TO THE INTERNET. That file is going to be ridiculously huge and you're going to want to compress it before uploading. If you have NEVER edited a video before I suggest opening up Windows Movie Maker and importing it to there, adding some background music or w/e and then export it in a nice small format (.wmv, divx, h264).

That's about all, if you feel I missed something send me a should at my website <http://www.puttputt.ca/> or email me puttputt at gmail.com

Other Commands that may be useful to you.

jpeg	Screenshot	Takes a jpeg screenshot: jpeg <filename> <quality 1-100>
jpeg_quality	Screenshot	Sets jpeg screenshot quality (1 is lowest quality, 100 is highest quality) Default = 90
screenshot	Screenshot	Take a screenshot
+voicerecord	Sounds/Voice	Records input from voice input device (microphone)
bgmvolume	Sounds/Voice	CD sound playback volume
cd	Sounds/Voice	Play or stop a cd track
cl_customsounds	Sounds/Voice	Enable customized player sound playback
play	Sounds/Voice	Play a sound
soundscape_fadetime	Sounds/Voice	Time to crossfade sound effects between soundscapes
soundscape_flush	Sounds/Voice	Flushes the server & client side soundscapes
stopsoundscape	Sounds/Voice	Stops all soundscape processing and fades current looping sounds
voice_enable	Sounds/Voice	Turns Voice on / off
voice_overdrive	Sounds/Voice	Voice Chat to Game volume ratio

voice_scale	Sounds/Voice	Voice Chat volume
volume	Sounds/Voice	Sound volume
cl_smooth	Video	Turns Smooth view/eye origin after prediction errors on and off (0 and 1)
cl_smoothtime	Video	Smooth client's view after prediction error over this many seconds (0.01 - 2.0)
fog_enable	Video	Can turn fog on or off.
fps_max	Video	Frame rate limiter (Best to use the max Hz of your monitor)
mat_antialias	Video	Antialias setting
mat_bumpmap	Video	Bumpmap Setting
mp_decals	Video	Sets the maximum number of decals
mat_dxlevel	Video	The DirectX Level. Default is optimal, but you can adjust manually here
mat_fastspecular	Video	Enable/Disable specularity for visual testing. Will not reload materials and will not affect perf.
mat_forceansio	Video	Ansio Setting
mat_monitorgamma	Video	Adjusts monitor gamma (typically 2.2 for CRT and 1.7 for LCD). Try 2.0 for a CRT
mat_specular	Video	Enable/Disable specularity for perf testing. Will cause a material reload upon change.
mat_vsync	Video	Force sync to vertical retrace / V-sync
r_decals	Video	Sets the maximum number of decals

r_propsmaxdist	Video	Maximum visible distance of props (boxes, etc)
r_rainalpha	Video	Changes rain alpha values (0=Off, higher number makes darker rain)
r_RainSimulate	Video	Enable/disable rain simulation (0=Off, 1=On)
r_shadows	Video	Enable shadows
r_WaterDrawReflection	Video	Enable water reflection
r_WaterDrawRefraction	Video	Enable water refraction
benchframe	Demo	Takes a snapshot of a particular frame in a time demo
cl_demoviewoverride	Demo	Override view during demo playback
demo_debug	Demo	Demo debug info
demo_fastforwardfinalspeed	Demo	Go this fast when starting to hold FF button
demo_fastforwardramptime	Demo	How many seconds it takes to get to full FF speed
demo_fastforwardstartspeed	Demo	Go this fast when starting to hold FF button.
demo_interpolateview	Demo	Do view interpolation during dem playback
demo_pauseatsvertick	Demo	Pauses demo playback at server tick
demo_quitafterplayback	Demo	Quits game after demo playback
demo_recordcommands	Demo	Record commands typed at console into .dem files
demogototick	Demo	Skips to a tick in demo

demolist	Demo	Print demo sequence list
demopause	Demo	Pauses demo playback
demoresume	Demo	Resumes demo playback
demos	Demo	Demo demo file sequence
demotimescale	Demo	Sets demo replay speed
demotogglepause	Demo	Toggles demo playback
demoui	Demo	Show/hide the demo player UI
listdemo	Demo	List demo file contents
nextdemo	Demo	Play next demo in sequence
playdemo	Demo	Play a recorded demo file (.dem )
record	Demo	begins to record a demo and saves it as a .dem file
startdemos	Demo	Play demos in demo sequence
stop	Demo	Finish recording demo
stopdemo	Demo	Stop playing back a demo
timedemo	Demo	Play a demo at max fps and report performance info and average fps
timedemoquit	Demo	Play a demo, report performance info, and then exit
endmovie	Movie	Stop recording movie frames
startmovie	Movie	Start recording movie frames