## Izdelava video vodiča (v Windowsih)

Kako z brezplačnimi programi izdelamo video vodič



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Gornja Radgona, 2012

Igor Prša

# Snemanje namizja

To je kratek vodič, kako z brezplačnimi orodji posnamemo namizje, da naredimo na primer video vodiča, ki ga lahko prenesemo na splet v YouTube ali kaj podobnega.



Slika 1: Okno programa.

Za snemanje namizja lahko uporabimo brezplačen program <u>CamStudio</u>, ki ga lahko prenesemo s spletnega mesta <u>http://camstudio.org/</u>.

## Področje snemanja (Region)

Pod zavihkom *Region* izbiramo:

- *Region* (območje, ki ga želimo zajemati, to območje se lahko premika, ko premikamo miško, če pod *Options* izberemo *Enable autopan*)
- Fixed region (fiksno območje)
- *Window* (okno izbranega programa)
- Full Screen (celoten zaslon)



Slika 2: Nastavitve območja zajemanja slike.

Če izberemo *Region* pazimo na to, da se čim bolj približamo razmerju, ki ga želimo imeti na koncu (4:3 ali 16:9). V pomoč so nam vrednosti na okvirčku, ko ga izbiramo, vendar se pri meni te vrednosti žal ne prikazujejo.

### Nastavitve (Options)



Slika 3: Opcije.

Pod *Options* lahko nastavimo npr. da se nam okno premika za kazalcem, snemanje zvoka, mapo za shranjevanje, nastavitev prikaza miške...

#### Nastavitve za video (Video options)

Pod *Video options* izberemo napravo za zajem, ker snemamo zaslon pustimo prazno ter *V redu*.

Video Source		? ×
Capture Source		
Select a Video Device:		
	V redu Prekl	iči Uporabi

Slika 4: Video opcije.

Video Options 8 23	Encoding Options
	Algorithm for compression
CamStudio Lossless Codec v1.5   About	<ul> <li>LZO (Fast encoding, use for screen capture)</li> </ul>
Quality 100 Configure	GZIP     Scleet this clearithm if an AVU skeedu quiste and
Set Key Frames Every 20 frames	you are converting the AVI or recompressing it with the CamStudio codec. This algorithm is slower but produces a better compression ratio.
Framerates	When encoding with a third party application
Capture Frames Every 50 milliseconds	remember to enable/force keyframes to take advantage of this codec's temporal compression, otherwise each fame will be stored as a key
Playback Rate 20 frames/second	frame and the resulting file size will be very large.
	Level 🛛 💌 1 - Fastest S - Best Compression
Auto Adjust	
Max Framerate 1 Frame/Minute	OK Cancel
Time Lapse	1
OK Cancel	

Slika 5: Nastavitve kodeka.

Izberemo kodiranje. Priporočam uporabo lossless kodekov torej kodekov brez izgub s čim višjimi nastavitvami kvalitete. Če nastavljamo *Framerates* mora biti produkt *Capture Frames Every* in *Playback Rate* enak 1000 (1 sekunda) npr 20×50=1000. To omogoča, da ne pride do zamika med zvokom in videom. Pomagamo si lahko z abecednim testom tako, da pa govorimo črke ali številke in jih hkrati tipkamo. Če se slika in zvok ujemata, je vredu. *Set Key Frame Every* pa običajno nastavimo kot *Playback Rate*.

Cursor Options	×
Cursor Display	
Show Cursor	3
<ul> <li>Use Actual Cursor</li> </ul>	
🔿 Use Custom Cursor	
🔘 Use Cursor From File	1
Cursor Highlight	
Size	
Shape Circle -	Color
Enable Visual Click Feedback	Halfsize
Left Button Color Right B	utton Color
ОК	Cancel

Slika 6: Nastavitve prikaza miškinega kazalca.

Pri *Cursor Options* lahko nastavimo, kako bo prikazan kazalec miške *Highlight Cursor* doda kazalcu obroček ali pravokotnik, *Enable Visual Click Feedback* pa omogoča prikaz klikov miške z desno ali levo tipko (izbiramo barvo).



Slika 7: Izbiranje barve za miškin klik.



*Slika 8: Dodatne nastavitve.* 

Pod *Directory for recording* izberemo, kam naj se posnetek shrani, pod *Keyboard Shortcuts...* pa nastavimo bližnjične tipke za začetek, konec ter premor med snemanjem. Nastavite lahko tudi, da snemate v Flash (.swf) datoteko vender tega ne priporočam, ker v vsakem primeru najprej posname .avi datoteko in jo nato predela.

Ko smo posneli namizje, se nam zelo pogosto zgodi, da je prikazana slika deformirana oziroma se deformira takrat, ko jo prenesemo v YouTube. Težava se pojavi zaradi prekodiranja v mpeg4, ki zahteva, da sta višina in širina deljivi s 4 (priporoča se celo deljivost s 16) ter v razmerju 4:3 ali 16:9. Zasloni so običajno že v takem razmerju torej, če zajemamo celoten zaslon do takih deformacij ne bi smelo priti. Če pa zajemamo le območje, kar je pogosto boljše saj je slika tam, kjer jo želimo prikazati večja in ker tako razmerje težko prostoročno izberemo, pride do deformacij.



Slika 9: Deformiran posnetek.

#### Priporočene vrednosti so torej sledeče:

širina:	840	640	640	720	960	1280
višina:	360	360	480	540	720	720
razmerje:	4:3	16:9	4:3	4:3	4:3	16:9

## Nadaljnja obdelava

Če je prišlo do deformacije, kar se zgodi, če nismo dobro izbrali pravokotnega področja za zajem, moramo posnetek predelati.

### Rešitev

Ko posnamemo npr. video vodič, ga shranimo in nato odpremo s programom <u>VirtualDub</u> (povlečemo datoteko v program), ki je prav tako brezplačen program in si ga lahko prenesemo s spletnega mesta <u>http://www.virtualdub.org/</u>. Najprej nastavimo <u>Video --> Full processing mode</u>.

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				Filters	Ctrl+F				
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s Corge	BETA	Broadcast You		Color Depth					
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		_		Select Range					
				Direct stream copy					
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		huje j		Full processing mode					
		· ·		Smart rendering					
				Preserve empty frames					
				Copy source frame to clipboard	Ctrl+1				
				Copy output frame to clipboard	Ctrl+2				
				Copy source frame number to clipbo	ard				
				Copy output frame number to clipbo	ard				
				Scan video stream for errors					
				Error mode					

Slika 10: Polna pretvorba (Full processing mode).

Nato dodamo resize filter *Video --> Filters -->Add...* poiščemo *resize*.

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Slika 11: Sprememba velikosti (resize).

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Slika 12: Nastavitve za spremembo velikosti.

Pod *New size* izberemo novo velikost (eno izmed zgoraj naštetih), dovolj je, da izberemo le širino in pod *Aspect ratio* (razmerje stranic) vnesemo želeno razmerje (4:3 ali 16:9). Uporabimo filter, glede na izkušnje je *Lanczos3* dobra izbira, preostalo lahko pustimo.

Nato nastavimo še stiskanje pod *Video --> Compression...* je najbolje da izberemo *CamStudio* ali *Lagarith* lossless codec (kodek brez izgub).

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File Edit View Go Video Audio Options T	ools Help	
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Select video compression         (Uncompressed RGB/YCbCr)         CamStudio Lossless Codec v1.5         Cinepak Codec by Radius         Intel IYUV codec         Logitech Video (1420)         Lossless RGBA compression         Microsoft RLE         Microsoft Video 1         TechSmith Screen Capture Codec         Xvid MPEG-4 Codec         V Show all codecs, even if they may not work         Quality       10         Use target data rate of       kilobytes/sec         Force keyframes every       frames	Video codec information Delta Yes FOURCC code 'cscd' Driver name camcodec.dll Format No known restrictions.	Algorithm for compression LZO (Fast encoding, use for screen capture) GZIP Select this algorithm if an AVI already exists and you are converting the AVI or recompressing it with the CamStudio codec. This algorithm is slower but produces a better compression ratio. When encoding with a third party application, remember to enable/force keyframes to take advantage of this codec's temporal compression, otherwise each frame will be stored as a key frame and the resulting file size will be very large. Level 9 1 · Fastest 9 · Best Compression

Slika 13: Kodiranje.

Kot pri programu <u>CamStudio</u> tudi tukaj uporabljamo najvišje možne nastavitve kakovosti.

Ostale nastavitve lahko zanemarimo. Nato moramo datoteko le še shraniti. File --> Save as Avi...

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File	Edit View	Go	Video	Audio	Options	Tools	Help		
	Open video file Ctrl+O								
	Reopen video	o file						F2	
	Append AVI segment								
	Preview input Space								
	Preview filtered Enter								
	Preview output from start F5								
	Run video analysis pass								
	Save as AVI								
	Save old format AVI Shift+F7								

Slika 14: Sharanjevanje.

Počakamo, da se proces zaključi.

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Main	Video	Perf	Log					
Currer Currer Video Audio Projec Video Time e Total t	nt video nt audio data: data: ted file s renderin elapsed: time (esti	frame: sample: ize: g rate: mated):	11	488/9025 186290/19900125 4308KB (586KB/s) 4634KB 334.32MB 38.39 fps 0:12 3:45				
Progress: Processing thread priority: Normal Speed limit: Show input video Show gutput video Show gecompressed video Abort								

Slika 15: Končna pretvorba.

Datoteka je sedaj pripravljena za nalaganje na splet. Program <u>VirtualDub</u> je zelo dober program in ne omogoča le tega, kar sem opisal temveč še mnogo več npr. rezanje, lepljenje... vendar o tem kdaj drugič.