

TkcVideo User Guide

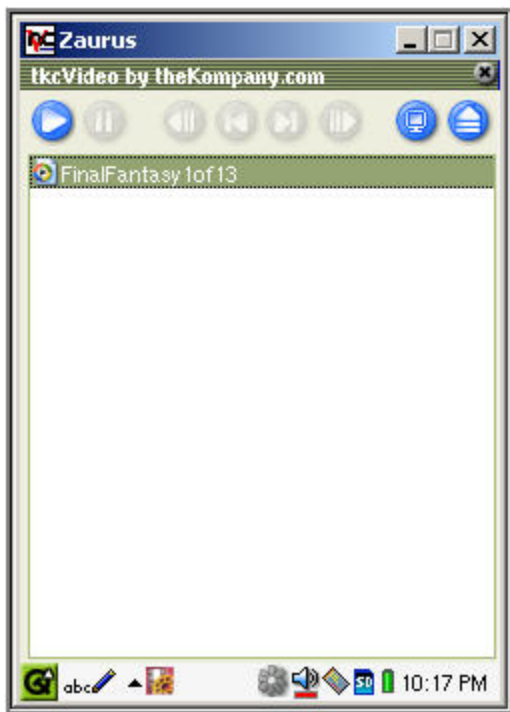
Media player that supports the following formats:

MPEG1
MPEG2
MPEG4 (aka divX 4/5)
MSPEG4 (aka divX 3)
H263(+) (aka RealVideo 1.0)
Raw Video
AVI
MJPEG

Supported encoded audio:









MP1
MP2
MP3

When you open tkcVideo, you see this main screen:



The file shown in the list resides on CF card. This was detected automatically by tkcVideo. If you have video files on your network, you can access them with tkcVideo. I used smbmount and mounted a Win2K share and ran a video from there. (Use Open File dialog box to find files that don't appear in the list). I found playback to be a bit slow and jerky though, using wireless. Performance might be acceptable over 100MB Ethernet connection.

Button Explanations:

1.  Play: Play selected file.
2.  Pause
3.  Play previous video in list
4.  Seek back
5.  Seek forward
6.  Play next video in list
7.  Full Screen (rotates screen)
8.  Open File: Brings up the Open File dialog box

Keyboard Controls:

Spacebar: Play/Pause

Up/Down: Change Volume

Left/Right: Seek +/- 10 seconds

Cancel: In full screen – Stop

Menu button: Rotate

To start video in Full Screen:

Select video on list or from Open File dialog box.

Tap Full Screen Icon (#7)

Tap Play (#1)

Resizing divx:

The Zaurus screen is capable of 320x240 resolution, so you'll want the resolution of your video files to be 320 wide, or for smaller files, 240 wide. From the .avi files I saw, they width and depth varies quite a bit. Below are some instructions for resizing your AVI files. This is not a definitive guide, but it will get you started.

Resizing .avi files in Windows:

Download and install the following (all free):

Virtual Dub from:

<http://www.virtualdub.org/>

Divx Codec 5.02 from:

<http://www.divx.com/divx/index.php>

Mpeg 3 Codecs from:

<http://www.microsoft.com/windows/windowsmedia/download/default.asp>

(Download "Codecs Download Package")

(I also updated my Windows Media Player to 7.1 at the same time, but I'm not sure if this was necessary for this to work)..

1. Start VirtualDub

Open your Divx file. You should see 2 blank grey boxes.

2. Under Video make sure Full Processing mode is selected.

3. Under Video/Compression pick DivX 5.0.2. Codec

To find out the current height/width of the .avi file

Right click on the file, choose Properties.

Go to Summary tab. Under Video you will see Frame width and Frame height. In test .avi it was 576x320

For Z screen, lower quality, I chose new width of 240:

$576 \text{ (current width)} \div 240 \text{ (new width)} = 2.4$

Then to get height:

$320 \div 2.4 = 133.33333$ (I used 132 for height because height has to be a multiple of 2. Width must be a multiple of 4).

4. Under Video/Filters click on Add

5. Select resize, then OK

6. For new Width, select 240

7. For new Height select 132

8 .Filter Mode: Bicubic

Height will vary according to original height as illustrated above. If you don't use the same divisor, your video will be elongated horizontally or vertically.

9. Under Audio select Full Processing Mode

10. Under Audio/Compression select MPEG Layer-3 on the left and select 24 kbit/s, 22,050 Hz, Mono on the right. Click OK

11. Next go to File/Save as AVI and chose name for the file.

It takes quite a while to do the conversion.

This method yielded an avi of equal quality to the original (near as I can figure). It ended up being about 333 MB in size, which would fit quite nicely on a 512 mb CF card. Frame rate was 24 fps. Dropping to 20 fps actually increased the size of the file by 11 mb.

If you want to have 340 x ? size, you use the same method to figure out the height. The file will be bigger than the 333MB, so it depends on your CF card size what size you use.

If you want to fit it on 256 mb CF card, you'll have decrease the quality of the video.

Here's the method for doing that. It's a bit more complicated.

Do steps 1-10 above.

Then go to Audio/Compression
DivX 5.0.2 Code should be selected.
Click on Configure on the right.

Change Variable bitrate mode to 2-pass, first pass.
Enter 250 kbps in the box to the left of Encoding bitrate.
Click OK.

Go to File, Save as AVI and give the file a name (this is a dummy file).

Once this is done, go back to Audio/Compression, Configure
Change Variable bitrate mode to 2-pass, second pass.
Use same value (250 kbps) in the Encoding bitrate.
Click Ok

Go to File, Save as AVI and give the file a name (this is final file).

(Don't change anything else except the Variable bitrate. The first file you saved is not used. You do NOT open another file, just change to 2-pass, second pass and save with final name)

When I used this method, the 716 mb original was reduced to about 210 mb, which will fit just fine on 256mb CF card. The quality was noticeable lower than the above file, but still viewable.

I didn't have my 256 mb CF card while I tested this, as I had to return it due to the card failing. I tried to view the file on SMB share over wireless and it was quite choppy. I wanted to test the videoout on CF. I split the 333mb file into a 28mb piece (1/11 of original). The choppiness wasn't an issue running from CF card. I didn't split the 210 mb file to test that.

There are too many options for reducing the size of the .avi files to list here. The above will get you started and you may have to experiment a bit with filters, etc.

Here's a link I found very helpful:

www.moosegate.com/betaboy/dcdivx/Encode_DivX_video_for_the_PocketPC.zip

It's for the Pocket PC but I used it as a guide.

Also this one:

<http://www.pocketmatrix.com/guides/dvd2divx/>

(this link shows how to split an avi file.)

Watch thekompany.com website for more information. I'll be doing instructions for resizing .avi using Linux and will post updates and instructions as soon as possible.