

### **WORKING DOCUMENT**

# **Technical Standards for Digital Stories in DeTALES**

# 1) Video Output

Standard HDV 720-25p format:

- Resolution 1280 x 720 pixel in square format
- Framerate 25 fps (PAL) progressive scan
- Audio 16bit 44,1 kHz or 48kHz (depending on the used codec)

# Possible output-formats are:

.AVI

.MKV(H.264)

.FLV

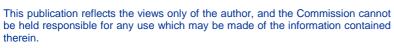
.MOV

.MP4

.MPEG

.WMV









### 2) Notebook:

A notebook with at least an amd or intel multi-core processor (minimum 2 cores) from 2.0 GHz upwards and a minimum of 2GB ram. The display should have a minimum diameter of 15 inch and a possible (native) resolution of 1366x768 Pixel.

The harddisk should be at least 250GB in size and all common ports and slots like USB 2.0, Ethernet / RJ45, Microphone Jack, Headphone Jack and a Memory Card Reader for cards such as SD should be built-in. An optical DVD drive and Wi-Fi 802.11b/g is also required.

The Operating System should be Windows 7 Home Premium (64bit, if more than 4GB ram are built in) and should be preinstalled.

If an open source system (we prefer Ubuntu Linux) is wanted, it can be installed parallelly, as a virtual machine or as the main OS.

Because of the fact that Mac OS X is only available in combination with Apple hardware and these combination is not within our budget, we refer to this only marginally.

An example for such a notebook is the Dell "New Inspiron 15" for £399 which is round about 450€ including tax and shipping.

http://www.dell.com/uk/p/inspiron-15-intel-n5040/pd?oc=n00n5414&model\_id=inspiron-15-intel-n5040

Because the price for notebooks differs very much from country to country it is possible to get an equal or even a better one from a local distributor. We would suggest to buy a notebook from a known distributor like Acer, Asus, Compaq, Dell, HP, MSI or Toshiba.





### 3) Camera:

We suggest a compact digital camera with optical and digital zoom, a minimum of 12 megapixels and the ability to record HD movies with a minimum resolution of 1280x720 pixel and 30 fps. The camera should use a standard storage medium like an SD-card.

Examples for those cameras at a price beetween 90 and 100 Euros are:

## **Canon PowerShot A1200 (used in the Train-the-Trainer-Workshop)**

http://www.canon.co.uk/For\_Home/Product\_Finder/Cameras/Digital\_Camera/PowerShot/PowerShot\_A1200/

Olympus VG-130

http://www.olympus.co.uk/consumer/29\_digital-camera\_vg-130\_24173.htm

Pentax Optio I-10

http://www.pentax.co.uk/en/digital-compact/optio-i-10.html

With these cameras it is possible to shoot high quality pictures and record video clips in 720p HD format.





## 4) Audio recorder:

With the cameras suggested above the audio part can be recorded, but the quality of audio recording is not the best. To record higher audio quality a mobile recorder is recommended.

The audio device should record wave and mp3 files with a minimum of 16bit and 44,1 kHz in stereo. It should have built-in stereo condenser microphones, the ability to plug external microphones and should be equipped with a line-, a headphone output and a USB port. The audio data should be stored on a standard storage medium like an SD-card.

A nearly perfect example for an affordable mobile recorder is the **Zoom H-1** for 90-100 Euro, (used in the Train-the-Trainer-Workshop)
 (http://www.zoom.co.jp/english/products/h1/). It is available all over Europe.

A cheaper reproduction (60-70 euro) would be:

http://www.thomann.de/gb/swissonic\_mdr\_2\_bag\_bundle.htm

or

http://www.musicstore.de/en\_EN/GBP/Fame-HR-2-Handheld-Recorder-/art-REC0006028-000

An option to a mobile audio recorder is the use of a USB microphone which is directly pluggable to the computer. It has not the flexibility of a mobile recorder because it's only usable in combination with a computer, but is at a lower price. We put together 3 different USB microphones:

- Blue Microphones Snowball (85-90 euro) http://www.bluemic.com/snowball/
- Behringer C1U (around 50 euro) http://www.behringer.com/EN/Products/C-1U.aspx
- T.BONE SC440 USB (around 60 euro)
   http://www.thomann.de/gb/the\_tbone\_sc440\_usb.htm

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### 5) Software:

The Software for digital storytelling should be a typical non-linear video editor (NLE). The professional versions of the most common NLEs are much too expensive but the light or semiprofessional versions are sufficient for ds.

#### Windows:

**Sony Vegas Movie Studio HD 11 Platinum (60-70 euro)** (used in the Train-the-Trainer-Workshop) http://www.sonycreativesoftware.com/moviestudiope

Magix Movie Edit Pro (60-70 euro)
http://www.magix.com/gb/movie-edit-pro/

Lightworks (Open Source)
http://www.lightworksbeta.com/

Support for Linux and OSX is scheduled for late 2011

Lightworks is a professional editing software with a high learning curve. It may not be a perfect solution for beginners.

#### Linux:

Kdenlive (Open Source) may also work with Mac OSX http://kdenlive.org/index.php

#### Mac OS X:

Apple's iLife suite can be purchased from Apple.com as discrete applications, including iPhoto, Garage Band and iMovie. These software programs are good enough to make excellent digital stories, although at times the software can be a little awkward to use for this purpose.

http://store.apple.com/uk/product/MC623Z/A/iLife-11

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For detailed picture and graphics manipulation GIMP, the GNU Image Manipulation Program, is an open source solution which is available on Linux, Windows and MAC OS X.

http://www.gimp.org/

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