Microscope video recording

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Apr 10, 2019

Working

Ecology of Marine Plankton (ECOMAP) team - Roscoff   Roscoff Culture Collection

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ABSTRACT

Protocol to record videos on SBR Microscope

GUIDELINES

Equipment needed

Hardware

- Inverted microscope IX-70 or IX-71
- Connecting tube between Microscope and C-mount
- Infinity X Camera (acquired in 2016)
- Infinity 3-6 UR (acquired in 2018)

Softwares

- Image Capture software
- Video de Luxe sotware

BEFORE STARTING

- Connect camera to microscope using C-mount connector
- Install Image Capture software on PC
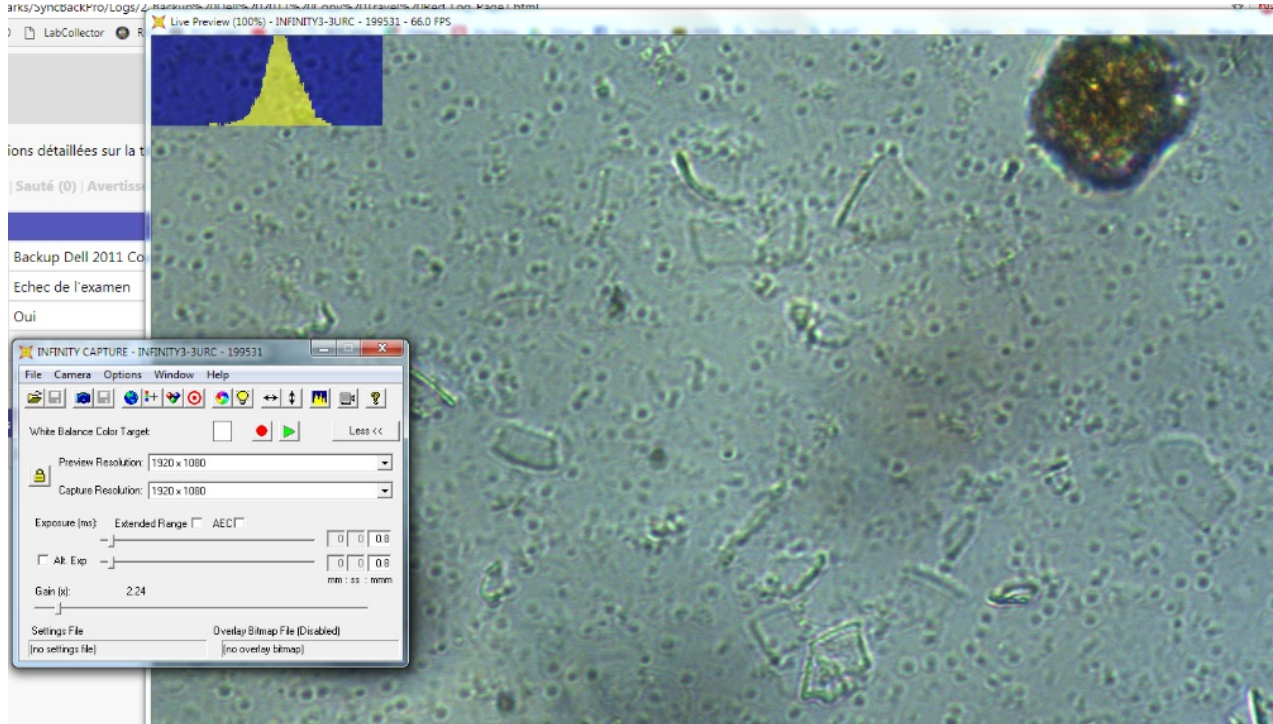- Connect USB cableto PC
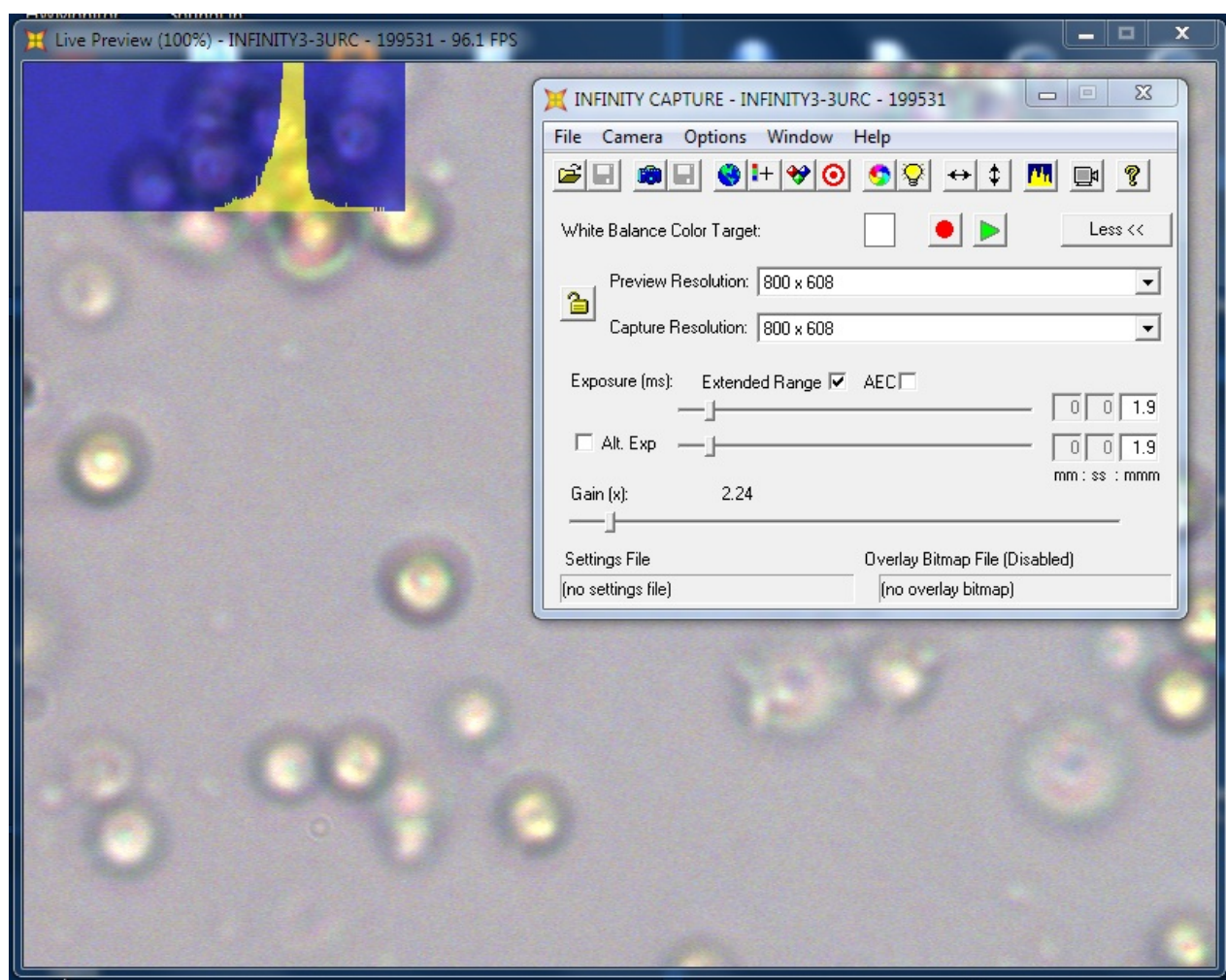

First steps

1.
   - Prepare your sample
     - Cultures flask
     - Drop between slide and coverslip and invert the slide so that the objective is on side of coverslip
   - Use x 40 objective for most cultures and x20 for dinoflagellates
   - Install and start Infinity Capture software

Acquisition with Infinity Capture

2   Advantage : Very easy to do
    Disadvantage : Files are store as avi and are very very large...

3   - Infinity X - Full resolution **1920x1080** (16:9) - Note : very large AVI files ! 30 sec = 700 Mo
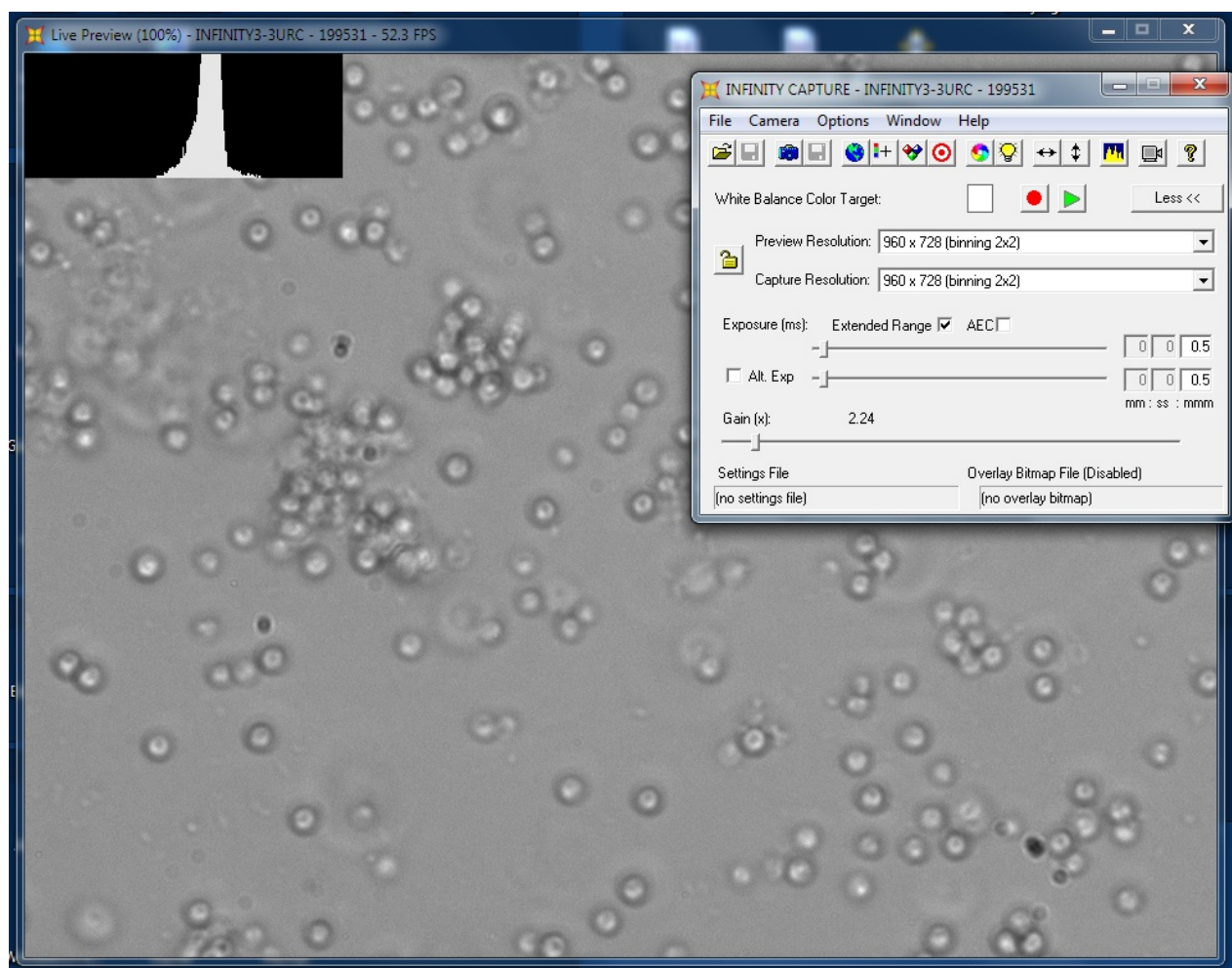   - Infinity 3UR-6 - Full resolution **2752 x 2192**

4   - Infinity X - **800x608** (4:3) resolution for color videos - Note that only part of the field is visible but files are smaller than with full resolution
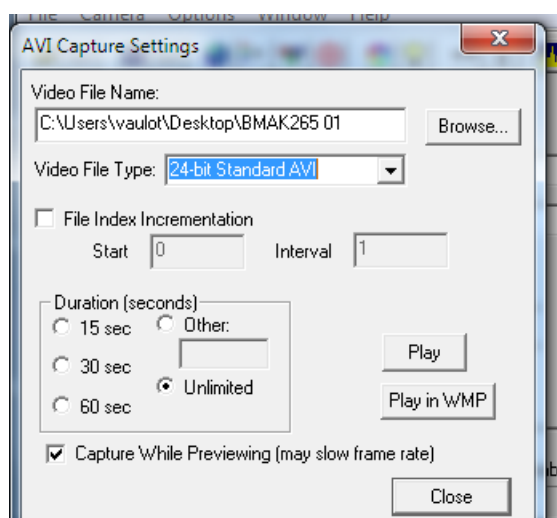   - Infinity 3-6 UR **1024x768** ou **1600x1200**

5 ▪ Use 960x728 (**4:3**) resolution (binning) for BW videos - Note that the full field is visible
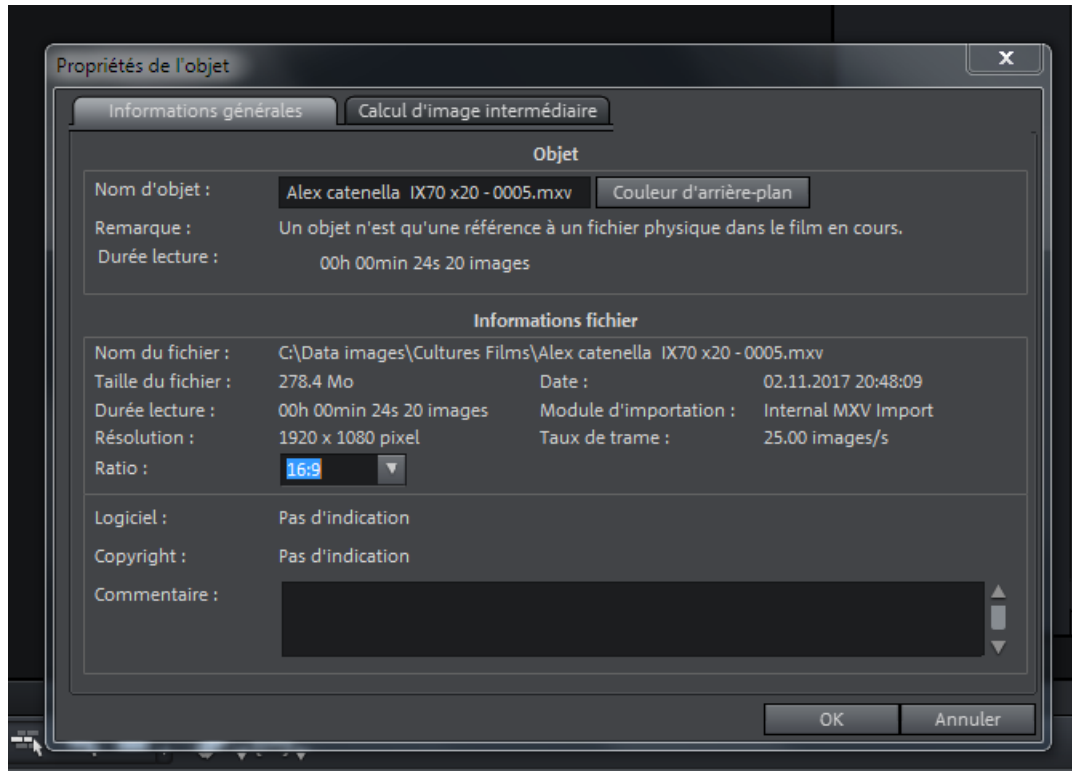
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6 ■ Modify the AVI setups
   ■ Launch acquisition (usually only 10-20 sec at a time)

Acquisition with Video de Luxe

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- Need to buy the software (40 euros only)
- Advantage : Much smaller files and the software allow to finalize the films

8
- Setup the resolution in Image Capture
- Shut donw Image Capture
- Launch Video de Luxe
- Select in menu : Video Recording (Enregistrement video)
- Slect the USB Camera - DShow (see next step)
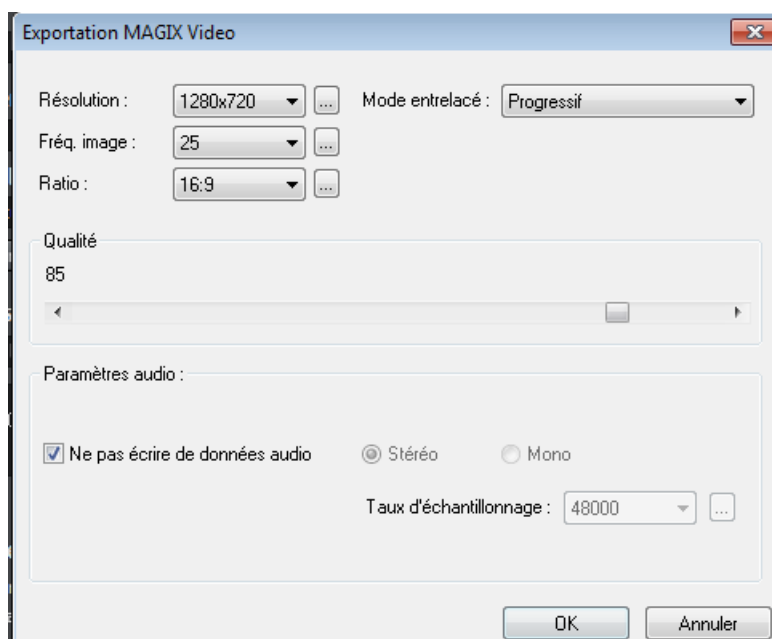
9
- Infinity X - Full resolution **1920x1080** (16:9)

10
- **1280x720** (16:9) for selecting only center of camera field

11 Set up configuration as follows (item 3 in previous step)
- **Infinity X** - Resolution 1280 x720
- **Infinity 3-6UR** - Resolution 1024x768 (4:3)
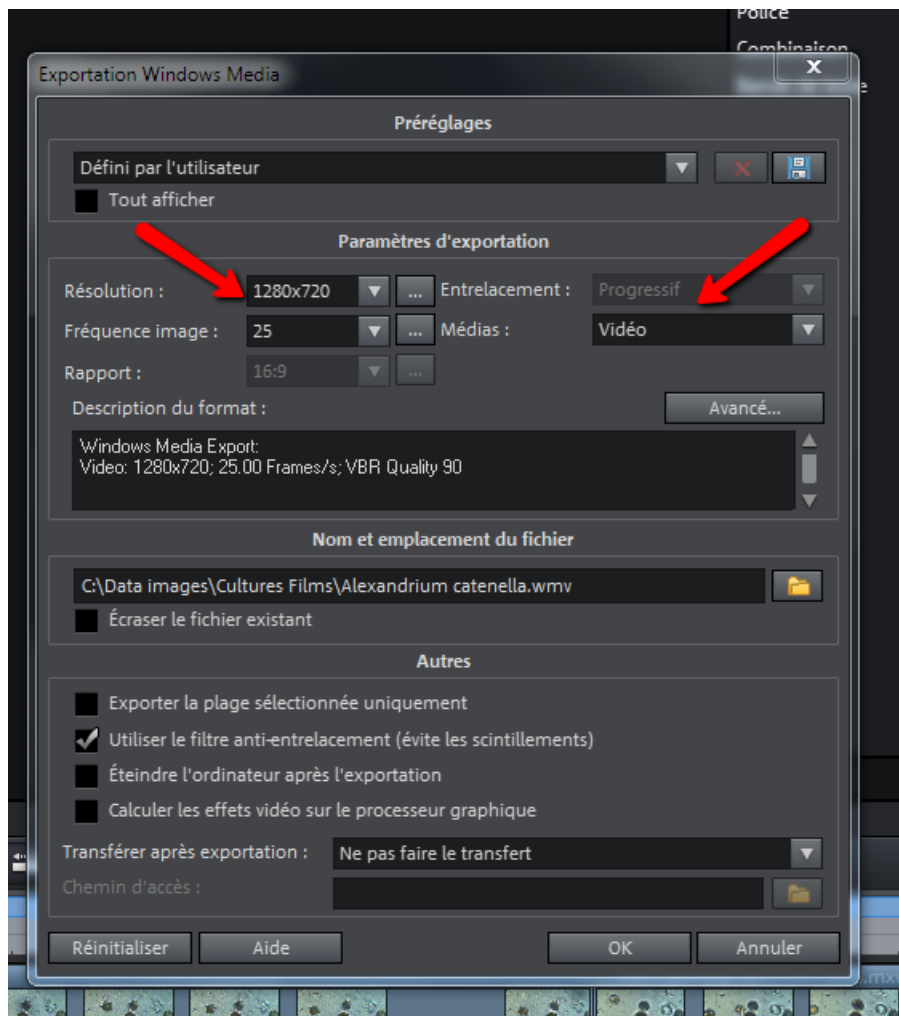- Ratio 16:9

12
- Create a new movie
- Select the parts you want to add
- Cut the scenes
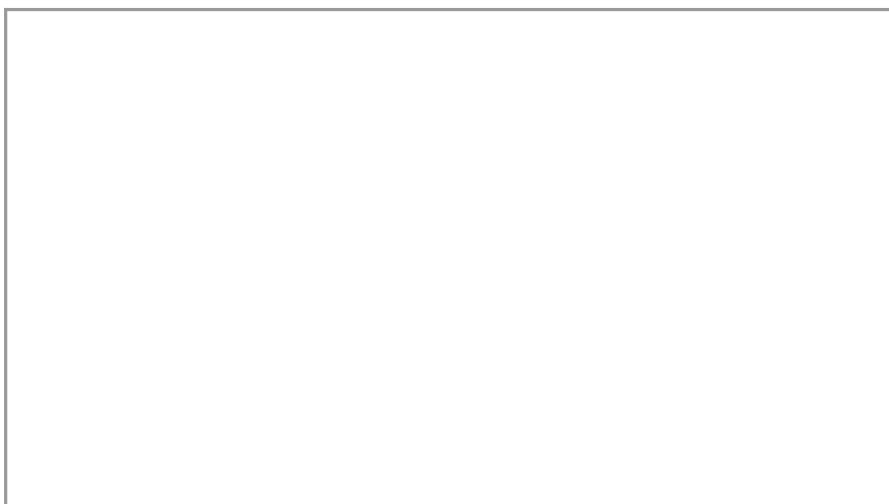- Optimum duration is 20-30 sec max

13
- Add titles and logos

14
- Export to wmv format (Windows Movie - this is the most compact format without loss of resolution)
- Choose a format with same aspect ratio than original
- Do not add sound unless you want to add music
- For 16:9 : 640 x 360 or 1280 x 720
- For 4:3 : 640 x480

Upload to YouTube

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