MMPLAYER Documentation

MMPLAYER(OBJ) creates a new media player object and opens a new media player GUI playing the frames of a given mmreader object OBJ.

The player can either be controlled using its GUI or remotely by method calls. It also features various events and properties allowing the user to keep track of the player state and playback process.

Note: MMPLAYER is **NOT** designed for fast and smooth video playback. Depending on your machine it will play low resolution videos without any problems though.
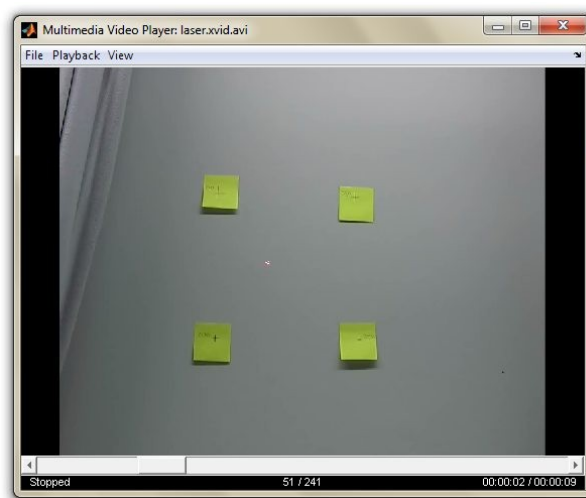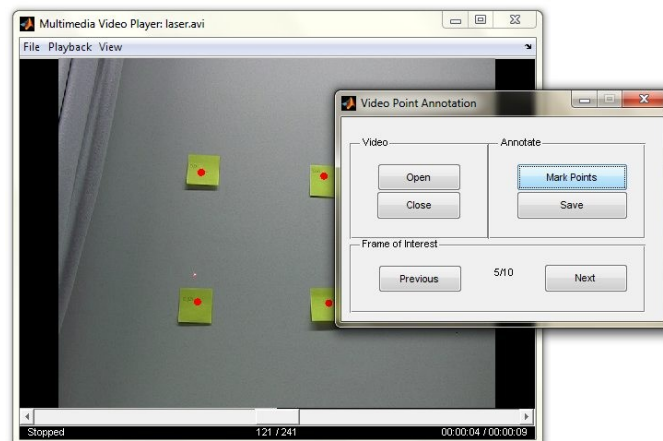

Abbildung 1: Main Window

Figure 1: Main Window plus secondary GUI and some annotated points whose coordinates are stored in a MATLAB cell

METHODS

play()
  starts playback mode. In playback mode you will not be able
  to use the GUI navigation features, especially the slider.

pause()
  pauses playback mode at current position.

stop()
  stops playback mode and jumps back to the beginning of the
  video.

toggle()
  toggles between playing- and pause mode.

stepForward()
  steps 1 frame forward.

stepBack()
  steps 1 frame back.

jump(*INDEX*)
  jumps to frame *INDEX*.

axesClear()
  clears all objects from the output axes except the actual
  video frame. (see: axesHandle-property)
  note: this will NOT happen automatically after a new frame
  is shown.

delete()
  object deconstructor. will also close the GUI.

PROPERTIES

fps (read-only)
  frames per second (specified by mmreader object)

width (read-only)
  video width in pixels (specified by mmreader object)

height (read-only)
  video height in pixels (specified by mmreader object)

numberOfFrames;
  total number of video frames (specified by mmreader object)

duration (read-only)
  video duration in seconds (specified by mmreader object)

currentFrame (read-only)
  current video frame as RGB image matrix

axesHandle (read-only)
  handle to axes the image is drawn on. can be used to add
  custom drawings to video frames in the player.
  (see: axesClear-method)

repeat (logical)
  gets / sets repeat mode. if set to TRUE, the player will
  continue playback from the beginning after reaching the end
  of the video.

Scaling (string)
  gets / sets scaling mode:
    'stretch'   stretches the video to fit the window size.

    'ratio'   scales video to fit window size but always
    (default)   keeps the original aspect ratio.

    'off'   turns off scaling (1:1 mode).

playing (logical)
  gets / sets playback mode. if changed, playback will be
  started / stopped automatically.

currentFrameIndex (numeric)
  gets / sets current frame index. If changed, player jumps
  to the new frame automatically.

verbose (logical)
  gets / sets text output behavior. If set, the player will
  print out additional information.

EVENTS

refreshed
   notifies that a frame was rendered. (exmaple below)

started
   notifies that playback mode was started (after calling
   start-method or starting using the GUI).

stopped
   notifies that playback mode was stopped. (after calling
   stop-method or stopping using the GUI).

paused
   notifies that playback mode was paused. (after calling
   pause-method or pausing using the GUI).

GUI

- control playback using the menu / keyboard shortcuts / slider
- slider navigation: step frame-wise by clicking the
  arrow-buttons and second-wise by clicking the slider bar
- status bar shows playback status / frame index / time
- note: control features of the GUI are limited in playback
  mode

EXAMPLES

See small video annotation tool *vidpointan.m* for a more complex example of use.

basic usage:
```
obj = mmreader('video.mpg');
player = mmplayer(obj);
```

event listener:
```
addlistener(player,'refreshed',@(src,event)disp(src.currentFrameIndex));
player.play;
```