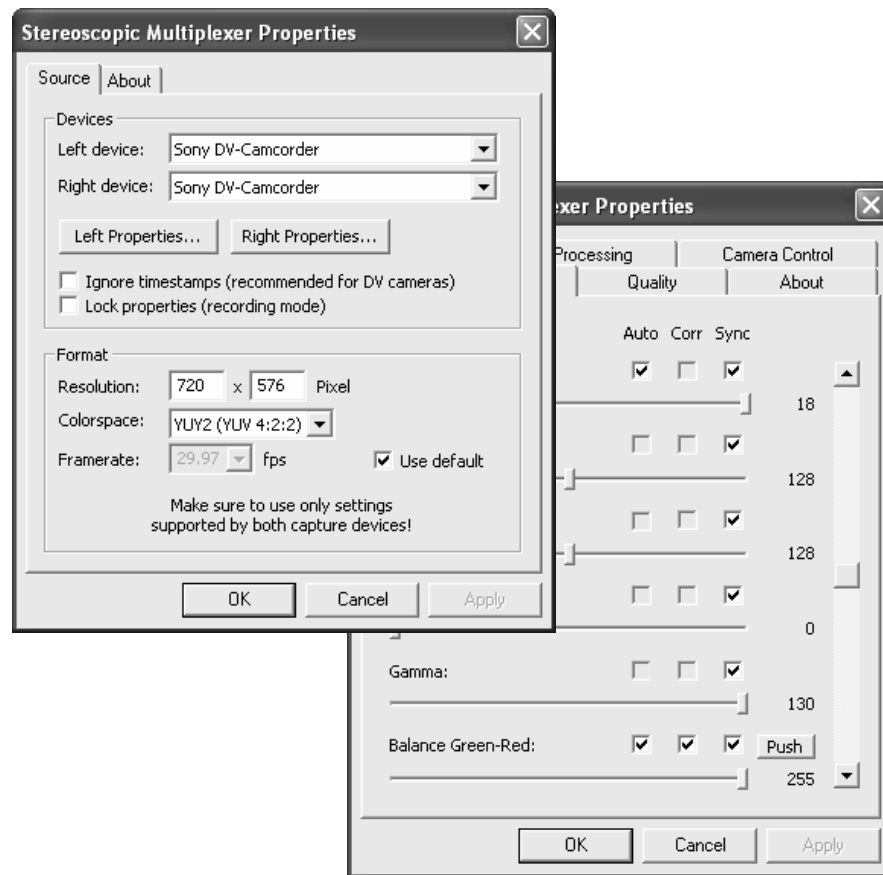


## Introduction

Stereoscopic Multiplexer is a solution to capture stereoscopic videos within applications compatible with WDM capture drivers. It takes frames from two 'real' capture devices, synchronizes them and passes the resulting stereo pairs to the application.



## Technical Features

- Acts like a WDM capture driver; from the application's point of view, there is no difference to monoscopic capturing.
- Compatible with any pair of capture devices supported by Windows, e.g. DV cameras, webcams, industrial Firewire/USB cameras, TV cards, ...

# Stereoscopic Multiplexer

## A Real-Time 3-D Multiplexing Software

Peter Wimmer  
Johannes Kepler University, Linz, Austria

- Implemented as DirectShow filter
- Temporal synchronization based on frame's timestamps
- Synchronizes camera parameters (zoom, focus, brightness, color balance, ...) when possible
- For each parameter, correction functions to compensate for manufacturing tolerances can be applied.
- Supports RGB and YUV colorspaces (RGB 32, RGB 24, YUY2, UYVY)
- Real-time image processing capabilities (gamma, sharpness, contrast, conversion to ITU-R BT.601)

## 3-D Live Transmission

- Recommended configuration: Windows Media Encoder running on the Server, using Stereoscopic Multiplexer as capture source

- Stereoscopic Player running on the client converts side-by-side stream to any supported viewing method
- Recommended cameras for live transmission: USB/Firewire industrial cameras or webcams

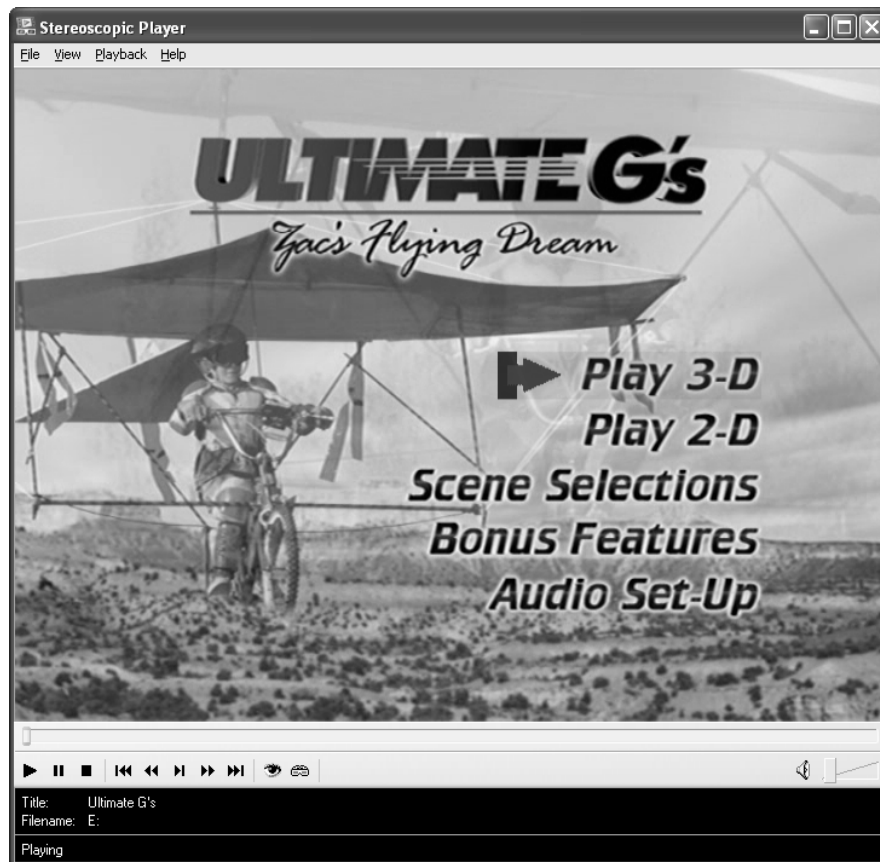


## Real-Time Preview

Stereoscopic Multiplexer and Stereoscopic Player are well suited to achieve a stereoscopic real-time preview when shooting with a dual camcorder setup (e.g. DV camcorders).



## Introduction



Stereoscopic Player converts 3-D movies on-the-fly to any of the supported output formats, which cover all popular 3-D viewing techniques, including shutterglasses, polarized projection, autostereoscopic displays and anaglyphs.

## Supported Video Sources

- Files
- DVDs
- Web streams
- Capture devices
- Stereoscopic Multiplexer

# Stereoscopic Player

## A Versatile 3-D Video Playback Software

Peter Wimmer  
Johannes Kepler University, Linz, Austria

## Supported Input layouts

- Interlaced
- Over/under
- Side-by-side

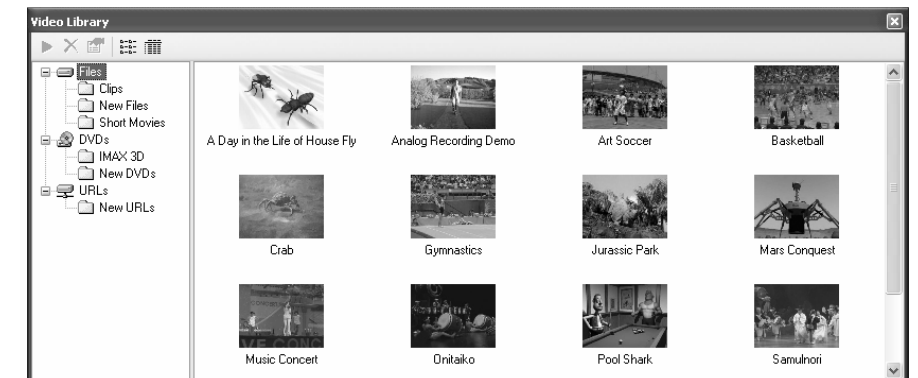
## Supported Output formats

- Monoscopic
- Dual screen output
- StereoBright output for LCD projectors
- NVIDIA stereo driver
- Quad-buffered OpenGL
- Side-by-side
- Over/under
- Row and column interlaced
- Several anaglyph formats
- Novel optimized anaglyph format

## Technical Features

- Compatible with Windows family of operating systems (9x/ME/2000/XP/2003)
- Support for industry's leading video formats and codecs, including MPEG, Video for Windows and Windows Media
- Based on widely used DirectShow architecture
- Resolution and frame rate limited by hardware capabilities only
- Horizontal and vertical parallax adjustment
- Image cropping

## Usability Features



- Easy installation
- Easy to use graphical user interface
- Integrated video library remembers settings for each video
- Built-in Internet service automatically retrieves settings for a file or DVD from a webserver