



### Making Video Recordings for use in Behavioral Research

#### INSTRUCTOR RESUME

Bill Budenberg took his first degree in Applied Biology, graduating in 1986 from Cambridge University. He then studied honeydew as a kairomone for cereal aphid parasitoids at Rothamsted, and gained his PhD from Imperial College, London. He then worked at ICIPE, Nairobi, Kenya for 3 years, establishing evidence for banana weevil pheromones and kairomones, and identifying (with others) some of the compounds. In 1993 he started Tracksys Ltd as the UK and Ireland distributor for Noldus Information Technology, and the company now represents other suppliers of behavioural research software as well. It is this experience working with a wide range of researchers over many years that forms the basis of his knowledge of video recording technology, from a practical user-focussed approach.



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#### BENEFITS OF THE TUTORIAL

In this tutorial you will learn about, and see examples of, how to make video recordings for use in research. We will discuss solutions using video cameras, network cameras, tape camcorders, hard disk camcorders, memory card camcorders, and computers. The different solutions will be discussed with reference as to how easy it is to collect the video recordings, how much storage capacity is required, their quality (both spatial resolution and time resolution), their power requirements, associated audio recordings, and their cost. Particular reference will be made to the ultimate use of the videos in both The Observer and EthoVision.

#### FEATURES

The tutorial will start with a discussion of what video is, and how it is now digitally based, rather than being an analogue signal. Topics covered will be around lighting, fields and frames, exposure times, frame rates, resolutions, recording rates, recording formats, codecs, and what to be wary of when assessing offerings.

There will then be a discussion of what is required for the research that is being carried out. This will work out whether video is appropriate, and allow an appropriate type of video to be chosen by the researcher – higher quality and higher cost may not be the sensible option!

A useful system needs to be able to make recordings that a researcher can actually use easily for his/her observations. Many systems may provide good recordings that can be viewed within the recording system, but cannot easily be used in third party applications such as Windows Media Player, The Observer or EthoVision. Solutions will be demonstrated and recommended for a variety of different circumstances – these will include high speed video, computer screen capture, portable capture, 4 camera high quality capture, and low frame rate recordings from up to 16 cameras at once.

#### AUDIENCE

This tutorial is intended for novice or experienced behavioral researchers who make, or intend to make, use of video in their research. No existing knowledge is assumed.