An Inexpensive Frame Grabber for the Microscopist

Richard S. Brown, MVA, Inc.

Having shopped for an inexpensive but powerful digital imaging system for the last four years, I have finally found a device that will satisfy even the most frugal budget. The Snappy Video Snapshot by Play, Incl, is a 24-bit true color frame grabber that plugs into your PC printer port. After plugging the Snappy device into your printer port (Figure 1) and spending approximately six minutes loading the Snappy software provided, you can connect a color or black and white camera, VCR, or television set and capture your first digital image. Because the device plugs into a printer port, it is completely portable. A switch box is needed if you will be changing between digital image acquisition and printing tasks frequently.

If all this sounds easy ... it is. If all this sounds expensive, it's not. The Snappy video frame grabber supports resolutions up to 1500 x 1125, has a preview mode (160 x 120) that allows you to focus your image prior to capturing it, and comes with additional software for special effects all for $189.00! At this price anyone with a camera, PC and a microscope can be collecting and archiving full color photomicrographs in a matter of minutes.

The easy to use setup screens (see Figures 2-4) allow the photomicrographer to preview an image prior to capture, adjust contrast and brightness, and even change and invert colors. Input sources are either NTSC or PAL (other options may be available). Resolutions of 1500 x 1125 and 640 x480 are available for still photomicrography. PC requirements include Windows 3.1, four megabytes of RAM, four megabytes of hard disk space, and a 486 processor or greater. Images can be stored as Windows Bitmap (*.bmp), JPEG (*.JPG), Zsoft PCX (*.pcx), TrueVision Targa (*.tga) and Aldus TIFF (*.tif). The manual is well written and loaded with information for the apprentice videographer and for the experienced user.

Unfortunately for instant film manufactures this device brings the cost of digital image acquisition to the bench level and beyond. Digital images will probably never replace film, they are not superior to film in resolution or in image rendering, but there is a place in the microscopist's lab for an inexpensive and fun frame grabber that can produce full color digital images in under a minute (highest resolution mode, eight frames sampled), that can be copied unlimited times and can be distributed for pennies. If I'm too late with this article and you have already purchased a video board for your PC, I apologize. If you haven't opened the box yet, send it back and buy a Snappy. You can spend the $2,000-$3,000 you'll save on a better color camera for the lab. The Snappy Video Snapshot is an affordable and long awaited interface between the computer and the microscope. For further information, the manufacturer can be reached at:

Play, Incorporated
2890 Kilgore Road
Rancho Cordova, CA 95670-6133
(800)306-PLAY

At $189.00 for the Snappy Video Snapshot and $14.95 for 2nd day Federal Express, I bought mine from:

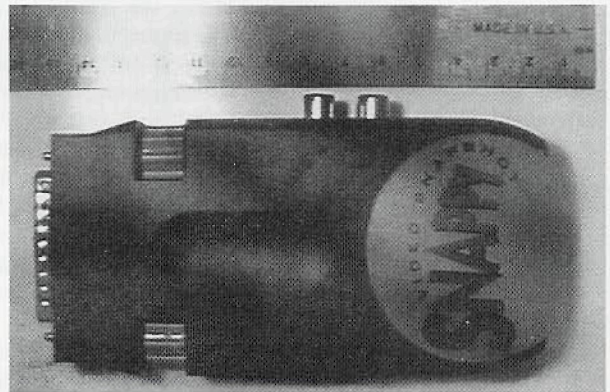LIBI Industries, LTD
63-53 252nd Street
Little Neck, NY 11362-2305

Figure 1. Snappy Video Snapshop hardware module. Module plugs into PC printer port. Nine volt battery is included. RCA jacks are for video source and video pass through to a TV monitor.

Figure 2. Snappy window in "preview" mode. Image will refresh on "TV" screen at about one frame per second for "live" focusing or other adjustments.
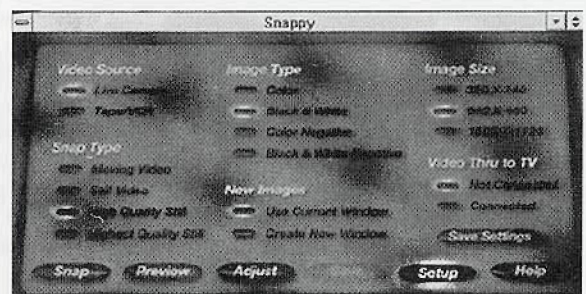

Figure 3. "SETUP" window allows selection of video source and image quality of image captured.
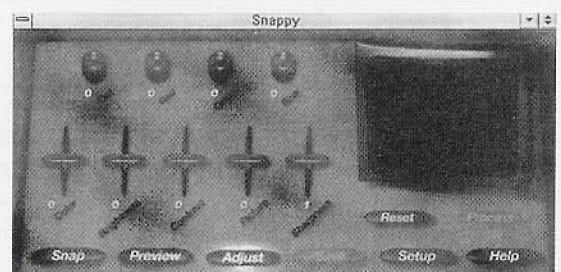

Figure 4. "ADJUST" window allows for software correction of captured image. No adjustments were necessary when I installed Snappy.

Reprinted from the MICROSCOPE Vol. 44:1 (1996)

The original, uncompromising, nondestructive
analytical tool from ElectroScan...

The ESEM® vs. The Wannabes
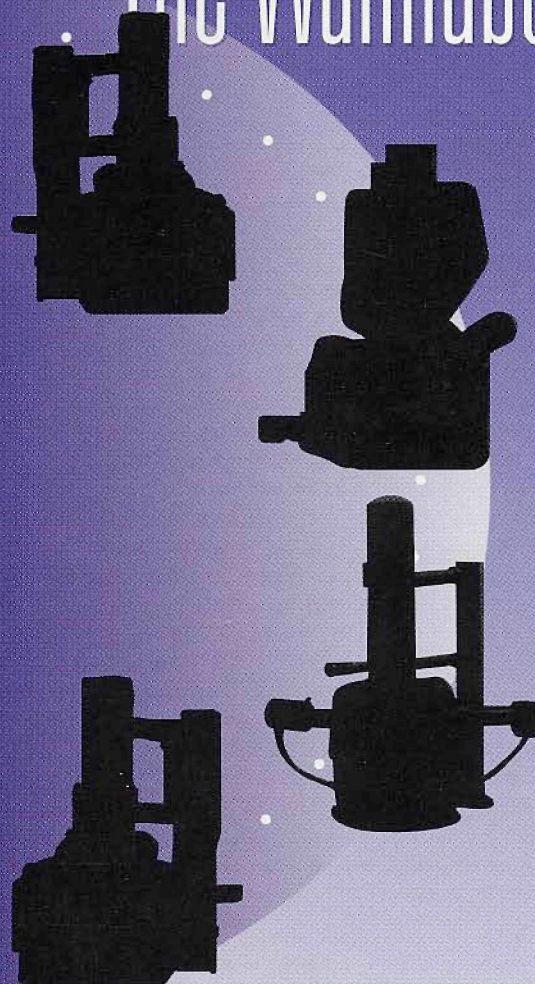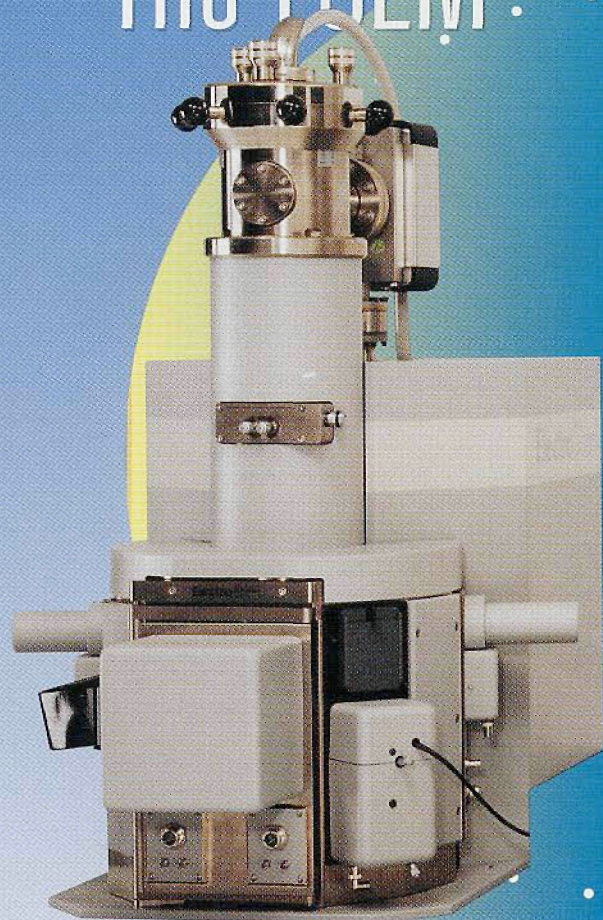
What do authors of over 98% of the scientific papers published on "environmental scanning electron microscopy" use to generate their data? You guessed it! The ESEM from ElectroScan.

That comes as no surprise to those who know about ElectroScan. Did you know ElectroScan was the first company to commercially introduce an Environmental Scanning Electron Microscope (ESEM) and the first to coin the now well-known acronym, ESEM? Did you know that ElectroScan is the only company that offers secondary imaging in a gas? Why? Because of our eight proprietary patents.

The next time you're in the market for a wet SEM, natural SEM, eco SEM, lv SEM, or vp SEM, make sure you check out the difference the ElectroScan ESEM can make in your analysis:

Feature	ElectroScan's ESEM	The Wannabes
Secondary Imaging at High Pressure	Yes	No
Variable Gas Pressure up to 50 Torr	Yes	No
Controlled Real Time Hydration/ Dehydration Experiments	Yes	No
Best EDS Results in Gas Mode	Yes	No
Backscattered Detection Only	No	Yes
Maximum Gas Pressure of 4 Torr	No	Yes
Wet Samples Dry Out in Seconds	No	Yes

The more you know about the original, uncompromising, non-destructive ElectroScan's ESEM®, the easier it will be to make this most important technical decision.

Seeing Things You've Never Seen Before®

ElectroScan® Corporation

66 Concord Street, Wilmington, MA 01887   Tel (508)988-0055   Fax (508) 988-0062

Visit us on the World Wide Web—http://www.electroscan.com

Circle Reader Inquiry #8