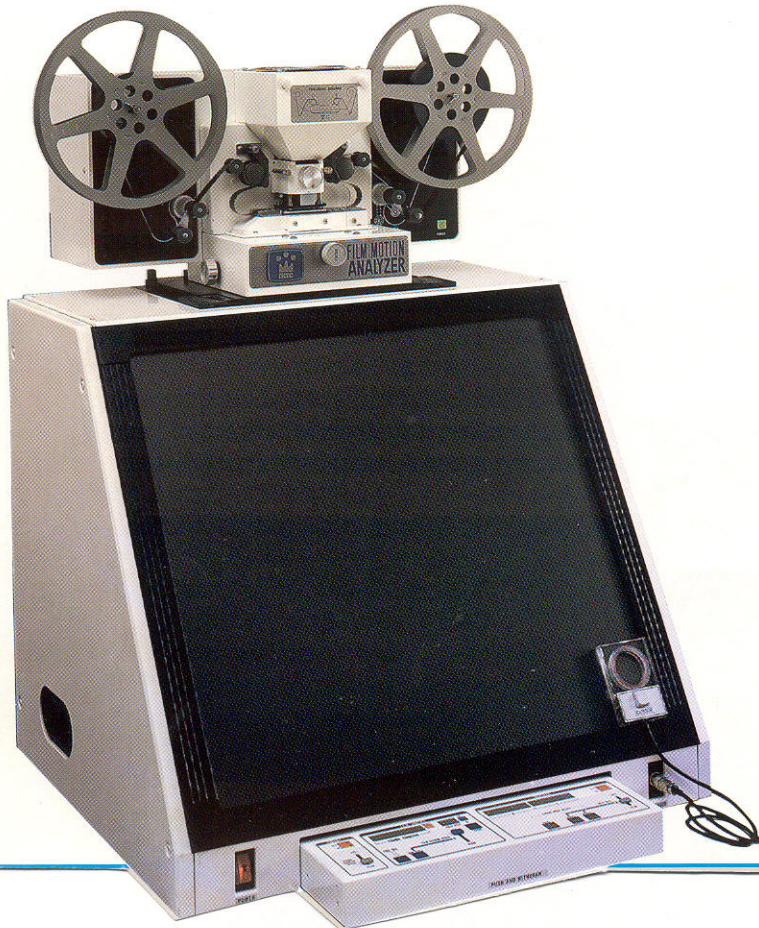
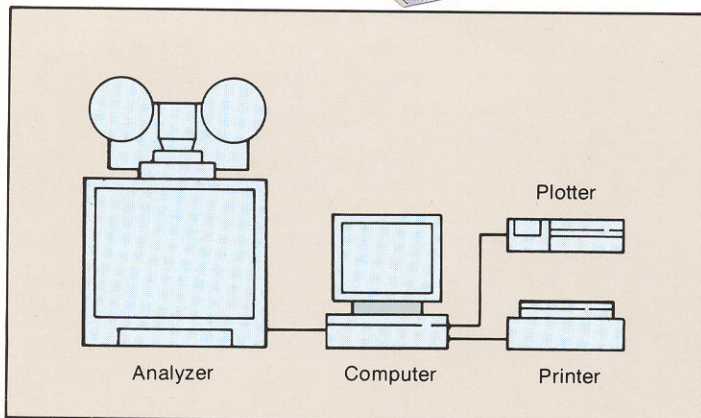
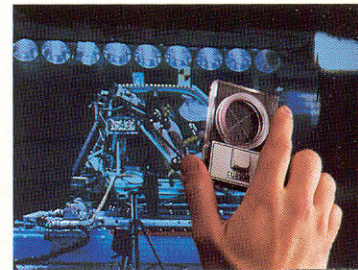


NAC Film Data Reduction Systems...



The NAC film analyzers' design is the culmination of thousands of hours of use producing accurate film data reduction. No other competitively priced film analyzer can compare with NAC's features and precision.

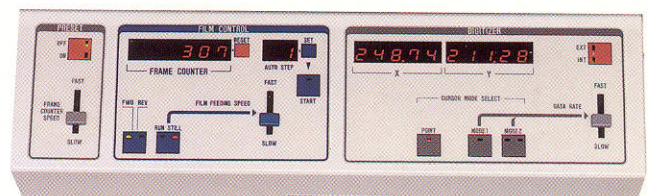
The system features pin registration movements, an easy-to-use automatic electro-magnetic digitizing table with a free-floating cursor on a precision X-Y grid. The absolute system accuracy is $\pm 0.003''$ repeatability to $\pm 0.001''$. The output of X-Y coordinates are RS-232C or GPIB in inches or millimeters (at the customer's option when ordered), thus allowing the customer to integrate this system with their own computer and software or combine the analyzer with the NAC MOVIAS data reduction software program, as described in this brochure.



A pull-out control panel centralizes operation functions and features LED displays for X-Y coordinates, frame counter and auto-step. The system also incorporates a sliding scale control for various viewing rates. An adjustment is even provided for changing the intensity of the halogen lamp to correct for various film exposures or conditions. Most importantly the system is completely flickerless at all speeds which greatly reduces operator eye fatigue, thus resulting in greater digitizing accuracy. The single cursor incorporates dual crosshairs designed for dark subject matter to be easily digitized while automatically switching to a shadow cursor on brighter objects depending on the ambient light conditions in the room versus the picture matter. A new dual cursor design is

Some of the applications include:

- Kinesiology
- Gait Analysis
- Ergonomics
- Eye Movement
- Industrial Robotics
- Medical Imaging
- Animal Behavior
- Auto Crash Tests
- Combustion Patterns
- Electrical Discharge
- Destructive Tests
- Rocket Trajectories
- X-Ray Cine Films
- Aircraft Flight Testing



also available to read angles directly from input, increasing speed and accuracy (not interactive with MOVIAS). When combining the NAC Film Analyzer with the NAC MOVIAS software, the two act as a system with software commands advancing the film sequences.

FEATURES

- Interchangeable Projection Heads, 16mm, 35mm and 70mm, all pin registered
- Flickerless Operation, 16mm and 35mm only
- Variable Speed Forward & Reverse
- Auto-step 1-10 Frames
- LED Displays
- RS232C or GPIB Outputs
- Preselectable Frame Number
- Various Modes and Rate of Digitizing

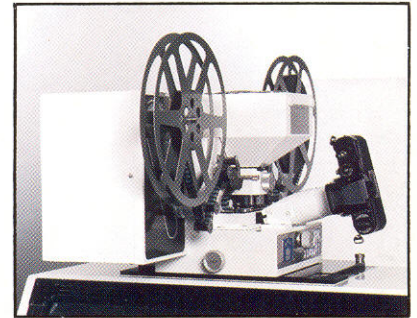
Features such as these are the reasons the NAC Film Analyzers are relied upon by the leading Military, Aerospace and Government agencies. Automobile manufacturers also realize the advantages of the NAC analyzers and have

utilized them for years in car crash test studies and performance analysis. It is truly the clear choice for data reduction.

OPTION

A valuable accessory to the NAC Film Analyzer is the exclusive NAC 35mm camera attachment capability. With this attachment, a still, clear picture can be recorded

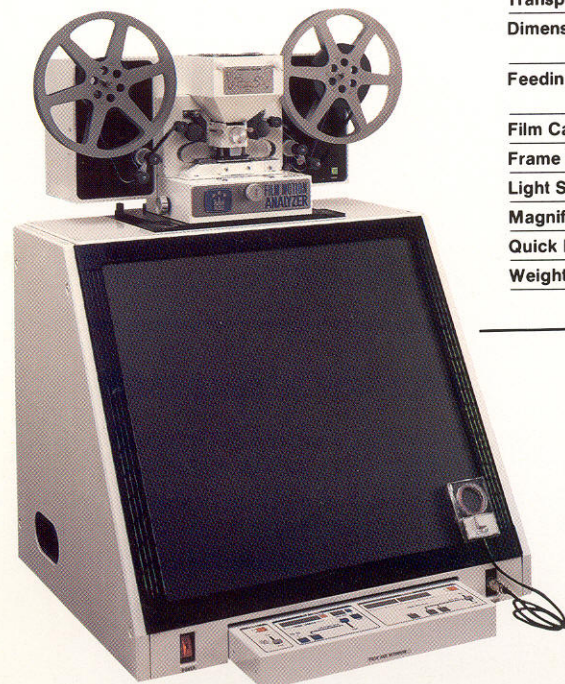
directly from the film on the screen. This device is mounted into the light path of the film analyzer to capture and reproduce single frames of film, without disturbing the normal operation of the analyzer. There is no need for wire frames or other cumbersome hardware mounted on the analyzer to take pictures from the screen.



Specifications

Film Analyzers... projection heads

Film: Monochrome and color, with perforations on either one or both sides. Shrinkage of film must be less than 0.2% after development to maintain accuracies.



	16mm	35mm	70mm
Registration Accuracy:	Less than ± 0.03 mm Less than ± 0.001 "	Less than ± 0.03 mm Less than ± 0.001 "	Less than ± 0.05 mm Less than ± 0.002 "
Aperture Size:	14.2mm X 8.2mm	31.7mm X 20mm	56.7mm X 58mm
Transport Speed:	Variable 1 to 24 fps	Variable 1 to 22 fps	Variable 1 to 5 fps
Dimensions:	510 (W) X 310 (L) X 280 (H) mm	510 (W) X 330 (L) X 320 (H) mm	580 (W) X 360 (L) X 540 (H) mm
Feeding:	Forward/Reverse. Flicker-free projection	Forward/Reverse Flicker-free projection	Forward/Reverse
Film Capacity:	16mm X 240mm (800 Ft.)	35mm X 120mm (400 Ft.)	70mm X 300mm (1000 Ft.)
Frame Counter:	5 digits, zero reset	5 digits, zero reset	5 digits, zero reset
Light Source:	Halogen Lamp 250W	Halogen Lamp 250W	Halogen Lamp 250W
Magnification:	28X	13X	4.4X
Quick Rewind Mode:	Built-in	Built-in	None
Weight:	17kg. / 37.4 Lbs.	22kg. / 48.4 Lbs.	45kg / 99 Lbs.

Projector Case / Control Panel

Dimensions: 650 (W) mm X 560 (L) mm X 590 (H) mm
25.6 (W) in. X 22.0 (L) in. X 23.2 (H) in.

Input Voltage: AC 115V, 60 Hz Standard;
AC 220-240V 50 Hz Optional

Measuring: Minimum Readout Scale 0.02mm (0.001") Accuracy
 ± 0.08 mm (± 0.003 ")

Image Rotation: 180 Degree by Rotating Projection Head

Screen: Rear Projection, Front Surface Polycoat

Weight: 38 Kgs / 83.6 Lbs.

X-Y Coordinate: Effective Area 300mm Both X and Y Axes