Latest Advances through Color Technology

OPTIc

ALGE OPTIc is a computerized color photofinish system with integrated evaluation software.
The Color Line Scan Camera scans every movement at the finish line in true color (24 bit, 16.8 million colors) and stores the data on the hard disk of the computer.

The stored picture can be shown at any time on the monitor or printed.

The Main Features of the ALGE OPTIc are:

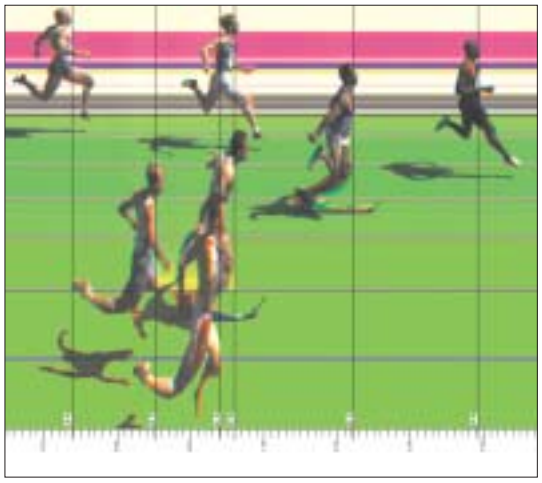
- Best picture quality in all light conditions through modern line scan sensor.
- Highest precision through Temperature Compensated Crystal Oscillator TCXO.
- Easy handling with Windows 2000.
- Unlimited recording time with suitable PC hardware.
- High resolution, 2000 lines per second with up to 1356 pixel.
- Evaluation is possible even before all competitors reach the finish line.
- You can evaluate a finished race while another race is started.
- It is possible to start different races simultaneously.
- The time of each evaluated competitor is recorded automatically into the result list.
- Possibility to use a Desktop-PC or Notebook with IEEE 1394A-OHCI compatible interface.

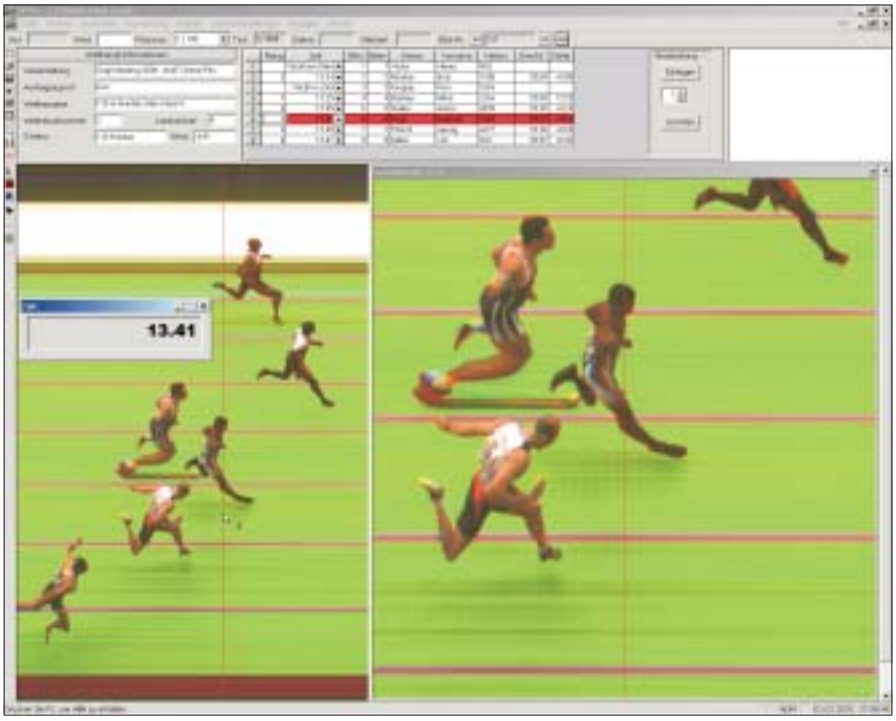
ALGE
TIMING

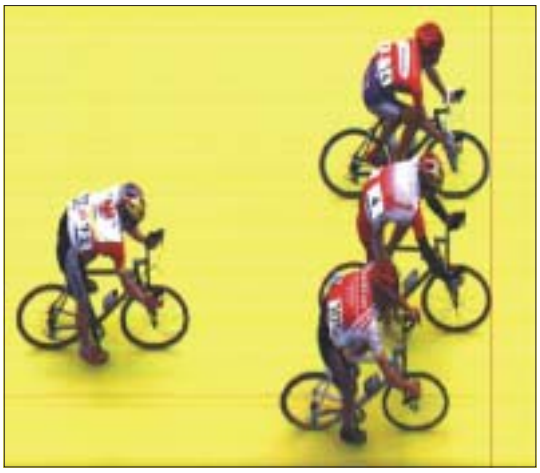
Use the OPTIc whenever an Exact and Accurate Finish is Necessary

Where do you use the OPTIc:

- Track and Field
- Cycling
- Horse Races
- Greyhound Races
- Rowing
- Canoeing
- Motor Sport
- Cross Country

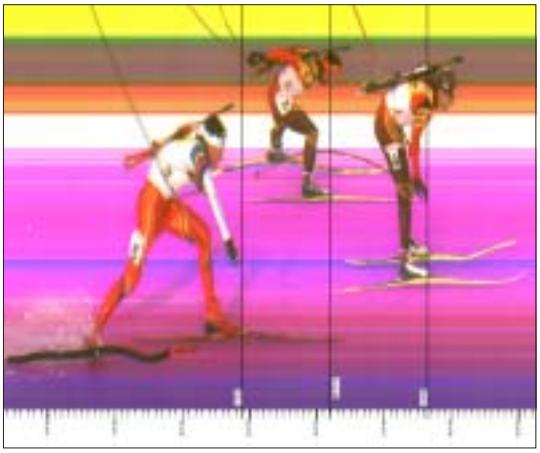






Facts about the ALGE OPTIc System

- no additional costs for film or film development
- simple operation (PC with Windows)
- unlimited recording time
- adjustable recording speed between 100 and 2000 lines per second
- adjustable precision (1/10 sec, 1/100 sec, 1/1000 sec, or 1/10.000 sec)
- evaluation is possible before all competitors reach the finish line
- more than one race can be timed simultaneously
- during the evaluation you can start another race
- automatic, electronical brightness correction, if you have changes of the light condition during the race
- zoom function
- integrated evaluation software, providing direct transmission of exact times into the result list
- evaluation by lane, start number or manual control
- prints start list, ranking list, and evaluated picture
- flexible headers for the result list
- speech connection for the start
- automatic recording through photocell
- up to 100 m (325 ft) cable length between PC and camera (the camera´s power supply comes through the same cable)
- connection for a display board
- direct connection to evaluation software possible (e.g. DLV software from COSA and Rieping)
- RS232 interface to connect a graphic generator for video
- remote control through the OPTIc software for the ALGE anemometer Windspeed WS1 in track and field



Integrated Evaluation

The OPTIc includes three ways of transfering the time from the picture to the result list:

Manual Identification:
Mark the competitor in the result list. Move the time line with the mouse to the point where you want to read the time, and press the right mouse button. The time moves automatically to the selected competitor in the result list.

Lane Identification:
Mark all lanes before the race. For the results of an individual competitor, move the time line to the correct lane. Press the right mouse button, and the time for that competitor is automatically rec-orded in the result list.

Start Number Identifiction:
Move the time line to where you want to time an individual competitor. Press the right mouse button. It opens a small window where you have to input the ID number of the competitor. That time moves automatically into the result list.

Result Lists

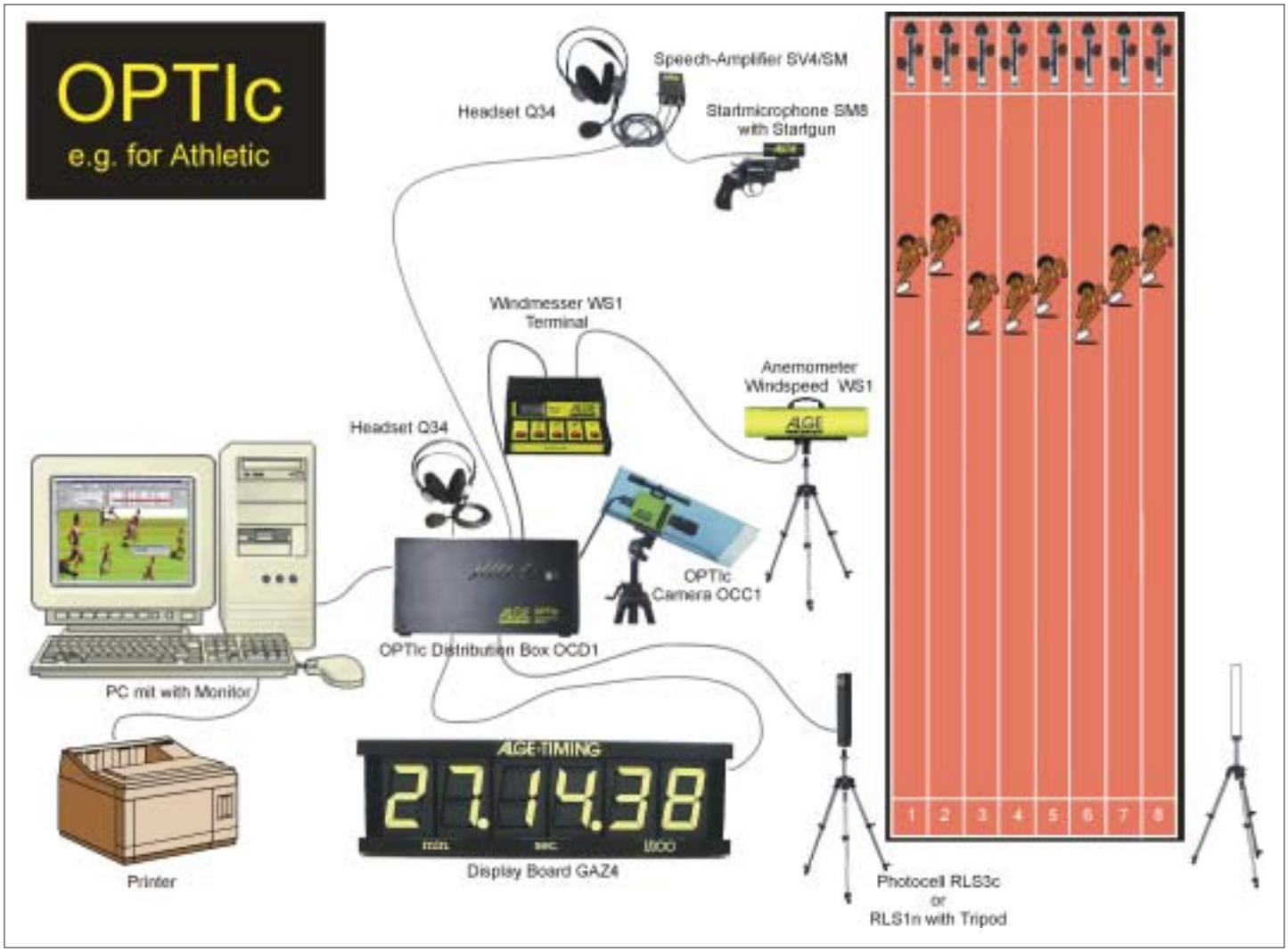
- Start List
- Result List sorted by Rank
- Result List sorted by Lane
- Result List sorted by Start Number

Flexible Result Lists:
- it is possible to select, name and sort headers, and to selct the length of the text field for the header.
- the software can calculate the following headers: average speed, delta time, horse distance
- if a competitor has no time it is possible to select the reason for this in a pull down menu
- if you input the time into the result list with the keyboard and not from the picture, it is indicated

Certificates

To proof the precision of the timer we had the OPTIc tested by an independent laboratory in Switzerland (Observatoire Astronomique et Chronometrique de Neuchâtel).

Of course, the OPTIc is approved by the IAAF (International Amateur Athletic Federation) for all meets held under IAAF rules.



Technical Data

Camera OCC1

Sensor:	• 3 x 1500 pixel (RGB)
Pixel Resolution:	• adjustable pixel rates are 625, 768, 1024 or 1356 pixel per lane
Number of Colors:	• 16.7 million colors, also convertible to black/white
Scan Rate:	• 100 to 2000 lines per second
Recording Time:	• unlimited; depends on PC configuration
Triggering:	• from Distribution Box OCD1
Connections:	• Connetion to Distribution Box (including power supply) • external supply (24 VDC) • connection for remote objective
Standard-Zoom Objective:	• C-Mount 12,5 – 75 mm, F = 1,2
Objective:	• all C-Mount 2/3" objective • Nikon objective (option) • remote control objective (option) • Through the Lens Viewer (option)
Telescopic Sight:	• built in for pre-adjustment
Temperature Range:	• 0 to 50 ° C

Necessities for IEEE 1394 interface:

Compatibility:	• IEEE 1394A-OHCI
Transfer Rate:	• up to 400 MBit per second

Distribution Box OCD1

Crystal Frequency:	• TCXO 10.000 MHz (temperature compensated quartz oscillator)
Measuring Range:	• 23 hours, 59 min., 59.999 sec.
Frequency Deviation:	• Temperature: +/- 2.5 ppm at -30 to + 75°C (+/- 0.009 seconds per hour) • Aging: +/- 1 ppm per year • Frequency Adjustment : +/- 0.1 ppm at 25°C
Power Supply:	• Built in power supply for OCD1 and OCC1, 105 - 230 V/50 - 60 Hz
Meter:	• Meter for photocell and power supply
Connections:	• Start input (banana socket) • Photocell (DIN-socket, 3 x) • Headset (DIN-socket) • Display Board (RS 232 out, 2 x) • Anemometer (RS 232) • RS 485 (DIN socket) • IEEE 1394 (connection to PC, 3 x) • Camera (option for 2 cameras) • Mains
Temperature Range:	• 0 to 50°C

Accessories for the OPTIc

- Photocell RLS1n-T or RLS3c
- Startmicrophone SM8
- Speech Amplifier SV4/SM
- Headset Q34
- Display Board GAZ4
- Weather Protection Case for Camera WSC
- Tripod with Gear Head
- Anemometer Windspeed WS1
- False Start System - Start Judge SJ
- IEEE 1394A-OHCI compatible PCI card
- IEEE 1394 cables
- PC or Notebook for OPTIc
- Printer for OPTIc
- Case for OPTIc-System
- Camera Objective (Nikon and C-Mount)
- Through the Lens Viewer
- Adapter for Nikon Objective
- Tripod for Photocells
- Startgun (9 mm or 6 mm)
- Radio TED to controll the display boards
- Display Board for Anemometer
- Cable Reel with 150 m cable
- Cable Connection Box for permanently installed cables

PC Requirements

- Pentium III, Athlon or faster
- 128 MB RAM
- Graphic Card X-VGA (min. 16 MB RAM)
- Monitor with min. 1024 x 768 resolution and true color
- Hard disk with min. 20 GB (greater speed increases recording time)
- full IEEE 1394A-OHCI copatible interface, 400 Mbps
- Windows 2000, or Windows XP

The Optimal OPTIc PC

- Pentium 4 with 2,66 GHz
- 512 MB RAM
- Graphic Card X-VGA (128 MB RAM)
- Monitor with 1600 x 1200 resolution and true color
- two hard disks with min. 60 GB and RAID
- full IEEE 1394A-OHCI copatible interface, 400 Mbps
- Windows 2000

ALGE TIMING

ALGE-TIMING GmbH &Co
Rotkreuzstrasse 39
6890 Lustenau / AUSTRIA
Tel: +43-5577-85966
Fax: +43-5577-85969
e-mail: office@alge-timing.com
homepage: www.alge-timing.com