

TARGA®2000 for Macintosh

TARGA 2000 transforms your desktop computer into a powerful non-linear digital video editing system.

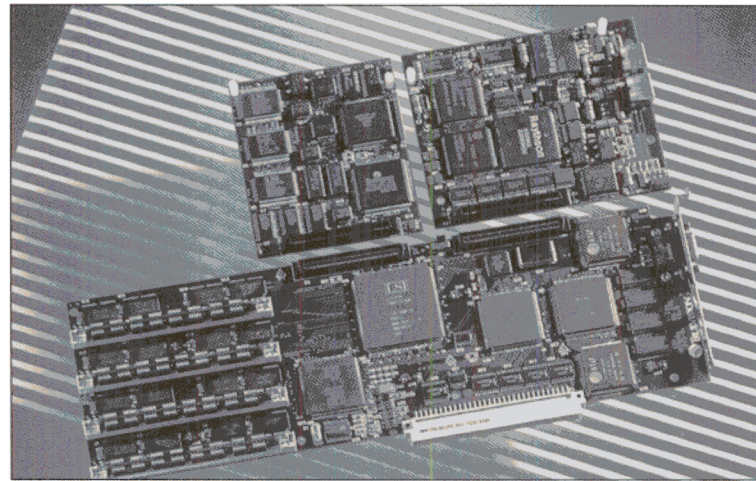
About Truevision

Truevision is the leader in desktop video for business and broadcast and offers a full range of videographics products for Apple Macintosh computers and Windows-based PCs. Truevision pioneered the videographics industry in 1984 and today is the market and technology leader.

TARGA 2000 Defined

The Truevision TARGA 2000 videographics line provides a cross-platform, open systems solution for professional desktop non-linear video editing and multimedia authoring applications. The TARGA 2000 digitally records high-quality video and audio to disk. The TARGA 2000 standard configuration supports NTSC and PAL video standards and Composite video or S-video input and output formats. In addition the TARGA 2000 supports stereo CD and DAT quality audio input and output. Standard desktop video software applications can be used to manipulate the digital footage captured with the TARGA 2000, and played back on the integrated desktop and output to tape.

The TARGA 2000 Pro will offer NTSC and PAL component video input and output for the demanding professional video user. A TARGA 2000 Pro module will be available for field-upgrading the standard TARGA 2000 to the Pro model.



Key Features

- *Full screen, full motion video capture and playback at 30 frames (60 fields per second) for NTSC, and 25 frames (50 fields per second) for PAL*
- *CCIR 601 resolution output (and input with the Pro upgrade)*
- *16-bit CD/DAT-quality stereo audio simultaneously captured and synchronized to video*
- *Real-time variable Motion JPEG compression with dynamic quantization factor (Q-factor)*
- *Support of independent Macintosh and video monitors to allow simultaneous preview of video output*
- *Truevision advanced hardware architecture for superior video quality and accelerated processing*
- *QuickTime 2.0 compatible*
- *Optional accelerated transitions for Adobe Premiere*
- *Video capture plug-in for Adobe PhotoShop*
- *Genlock via separate sync input or to video source*

TARGA®2000 for Windows PCI

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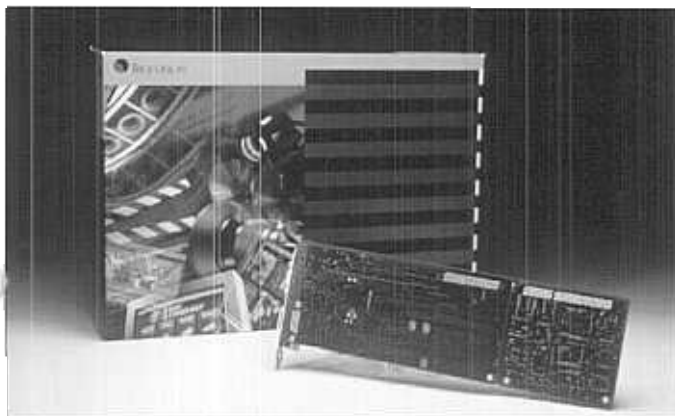
TARGA 2000 Defined

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The TARGA 2000 Pro offers NTSC and PAL component video input and output for the demanding professional video user. The TARGA 2000 Pro Module enables users to field-upgrade the standard TARGA 2000 to the Pro model.

Special Requirements

For special requirements, Truevision also supports advanced applications of TARGA 2000 for VARs, OEMs, and ISVs through its Developer Services and OEM Engineering groups.



Key Features

PCI plug and play, hassle free installation, with superior PCI performance.

Full-screen, full-motion video capture, record-to-disk, and playback at NTSC (30 frames/60 fields per second) and PAL (25 frames/50 fields per second)

Real-time, variable motion JPEG compression with adjustable dynamic Q factor

Accelerated Windows™ 3.1 (soon Windows 95™) drivers offering integrated, true-color, non-interlaced desktop up to 1152 x 870

Video-in-a-window on Windows desktop and Video-out-a-window for printing full-screen video to tape

Simultaneous output of Composite Video and Y/C (S-video)

Synchronized stereo audio input and output up to 44.1 KHz (CD quality) or 48 KHz

Genlock via separate sync input

Compatible with all Microsoft® Video for Windows™ (VFW) applications

Includes all audio and video input/output cables

Option: Snap-off Composite Analog Module and snap-on TARGA 2000 Pro Upgrade to convert to TARGA 2000 Pro PCI-PC model

TARGA 2000 Pro PCI-PC

All above plus following to meet the demanding needs of video professionals:

Adds support for analog component video (GBRS and Y,R-Y,B-Y) in addition to standard Composite and Y/C (S-video) video and audio input/output

CCIR 601 video input/output resolutions: 720 x 486 (NTSC) and 720 x 576 (PAL)

TARGA 2000 Pro Upgrade PCI-PC

Snap-on module designed to upgrade a standard TARGA 2000 PCI-PC to a Pro model. Includes Component Pro audio-video I/O cables

System Requirements

TARGA 2000 PCI-PC supports true PCI-compliant systems. Compressed data throughput will vary with system hardware and software configurations. Minimum recommended system configuration includes: PCI fully-compliant motherboard with Pentium 66MHz or greater CPU, 16 MB system RAM, 500 MB system disk drive, high-performance SCSI controller, hard disk with desired capacity, and Windows 3.1 or Windows for Workgroups 3.11 plus DOS 6.2.

System Specifications

General

Card Size	12.3" x 4.2"
Bus Interface	1 PCI slot (non-shared PCI interrupt)
Power Consumption	27 Watts
Regulatory Compliance	FCC Class A
Warranty	1 year

Memory

Frame Buffer Memory	4 MB VRAM
Offscreen Memory	16 MB DRAM

Desktop Display

Desktop Resolutions	1152 x 870, 1024 x 768, 800 x 600, 640 x 480
Vertical Refresh Rate	Max 75 Hz (non-interlaced)
Output Signals	R,G,B, Hsync, VSync
Connector	HD 15-pin VGA Female Receptacle
VGA Loopthrough	Analog
DAC Resolution	10 bits for each primary
Gamma Correction Tables	256 x 10 bits for each primary
Pixel Size	24-bits

Video Window Manager

Video Resizer	2D filter
Video Blender	256 levels
Video Ports	3 (Video In, Video Out, Compression)
Video Port Bandwidth	640 x 480 x 30 fps (37 MB/sec) 780 x 576 x 25 fps (44 MB/sec)
Hardware BLIT	100 MB/sec

On-Board DSP (Digital Signal Processor)

Processor	AT&T 3210 Floating Point DSP
Processor Clock Speed	50 MHz maximum
Local Processor Memory	128 KB SRAM
Memory Bandwidth	237 MB/sec

Video Input

Video Inputs	Composite or Y/C (S-video) Pro Model: Adds GBRS, G, BR and Y, R-Y, B-Y (NTSC Betacam, PAL SMPTE/EBU)
Video Standards	NTSC or PAL
Video Resolution	640 x 480, 648 x 486 (NTSC) - with Setup or without 768x576 (PAL) Pro Model: 720 x 486 (NTSC), 720 x 576 (PAL)
ADC Resolution	8 bits
Sampling Structure	4:2:2
Color Space Conversion	YUV to 24-bit RGB
Gamma Correction Tables	256 x 8 bits for each primary

Video Output

Video Outputs	Composite and Y/C (S-video) Pro Model: Adds GBRS, G, BR and Y, R-Y, B-Y (NTSC Betacam, PAL SMPTE/EBU)
Composite (RCA)	1 Volt p-p, 75 Ohm
S-Video (4 Pin DIN)	Y Signal: 1 Volt p-p, 75 Ohm C Signal: +/- 350mv p-p, 75 Ohm
Component (Pro Model)	Y Signal: 1V, p-p 75 Ohm R-Y Signal: 714mv/700mV p-p 75 Ohm B-Y Signal: 714mv/700mV p-p 75 Ohm
Genlock Input	Genlock to video input or via external genlock input (Black Burst or Composite)
Video Standards	NTSC or PAL
Video Resolution	640 x 480, 648 x 486 (NTSC) - with Setup or without 768 x 576 (PAL) Pro Model: 720 x 486 (NTSC), 720 x 576 (PAL)
Gamma Correction Tables	256 x 8 bits for each primary
Color Space Conversion	24-bit RGB to YUV
DAC Resolution	10 bits (Pro model: 8 bits/channel)

Audio Input/Output

Audio Inputs (RCA)	Two unbalanced input channels configured as L&R stereo channels with 20 K Ohm input impedance.
Audio Outputs (RCA)	Two unbalanced input channels configured as L&R stereo channels with 600 K Ohm input impedance.

ADC/DAC Resolution	16 bits
Sampling Rate	Up to 48 kHz, 64X oversampling
Input Gain	0 to 20 in 1.5 dB steps
Output Attenuation	0 to -45 dB in 1.5 dB steps
Frequency Response	20Hz to 20kHz at a sample rate of 48kHz

Video Performance

Bandwidth	Greater than 6MHz @ -3db with sinx/x compensation filter, greater than 7MHz @ -1dbB without filter.
Noise Floor	Greater than -65dB pk to rms captured single frame, greater than -55dB pk to rms throughput.
Differential Gain	<2%
Differential Phase	<1.5 degrees
K-Factor	(2T pulse) <1%
Component Delay	< 20 nsec

Compression/Decompression

Standard	Motion JPEG
Processor	LSI
Processor Clock Speed	30 MHz
Fields per Second	60 NTSC, 50 PAL
Pixel Data Rate	15 MPixel/sec

Software

Supplied	Windows 3.1 GDI Driver AutoDesk 3D Studio ADI Rendering Driver and Animation Recorder IXP IPAS program VFW Support (Video Capture Driver, Playback Driver and WAVE Audio Driver) Mini-Applications & Control Panels for real-time capture and display of video
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Optional	• DVR Developer Toolkit (PC Version) Protected Mode using Phar Lap or DOS4GW Extender. • DVR Windows/NT Developer Toolkit
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Future	Support for Windows/NT and Windows 95 - est. 2H '95
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Accessories

Supplied	CA 204 Composite/S-video I/O cable CA 206 VGA Loop-through Y cable Pro & Pro Upgrade: CA-207 Component Pro I/O cable (includes two CA-203 adapter cables for S-video I/O)
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Optional	TARGA 2000 Pro Upgrade PCI-PC converts standard TARGA 2000 to Pro model.
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Contacting Truevision

Truevision Customer Satisfaction Center

Our Customer Satisfaction Center is available Monday through Friday 9:00 A.M. to 6:00 P.M. EST.

Telephone Contact

Sales Information, Technical Support, FaxBack System
U.S. and Canada (800) SAY-COLOR (729-2656)
Worldwide (317) 577-8788

The FaxBack System is an automated system that allows you to obtain immediate information on products, price lists, bulletins, and upgrades.

Fax Inquires

U.S. and Canada (317) 576-7770
Worldwide (317) 594-2900

On-Line Services

America On-line Keyword: Truevision
CompuServe GO TRUEVISION
Internet support@truevision.com

FTP Site ftp.truevision.com
AppleLink E-Mail: RASTERHELP

DirectAccess BBS Third Party: RasterOps
(317) 577-8777
Settings: 8 bits, no parity, 1 stop bit
WWW Site www.truevision.com



TRUEVISION®

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Santa Clara, California 95051
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TARGA 2000 Nubus Specifications

Video Input

Video Inputs	Composite or Y/C (S-video) Pro Upgrade: adds GBRS, GsBR and YPbPr
Video Standards	NTSC or PAL
Video Resolution	648x486(NTSC) 768x576(PAL) Pro Upgrade: 720x486(NTSC), 720x576(PAL)
ADC Resolution	8 bits
Sampling Structure	4:2:2
Color Space Conversion	YUV to 24-bit RGB
Gamma Correction Tables	256 x 8 bits for each primary

Video Output

Video Outputs	Composite or Y/C (S-video) Pro Upgrade: adds GBRS, GsBR and YPbPr
Genlock Input	Black Burst or Composite
Video Standards	NTSC or PAL
Video Resolution	648x486, 720x486(NTSC) 768x576, 720x576(PAL)
Gamma Correction Tables	256 x 8 bits for each primary
Color Space Conversion	24-bit RGB to YUV
DAC Resolution	9 bits

Video Compression

Compression	Motion JPEG
Processor	LSI
Processor Clock Speed	55 MHz
Fields per Second	60 (NTSC), 50 (Pal)
Pixel Data Rate	44 MB/sec (sustained)
Quantization	24 bits/pixel

Audio Processor

Crystal Semiconductor	(CS4216) 64x Oversampling, Delta-Sigma ADC&DAC
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Audio Input

Audio Input	Stereo Line level
ADC Resolution	16 bits
Sampling Rate	Up to 48 KHz
Software Gain Control	1.5dB per step

Audio Output

Audio Outputs	Stereo Line Level
DAC Resolution	16 bits
Software Attenuation	1.5dB per step

Desktop Display

Desktop Resolutions	1152x870, 1024x768, 832x624, 640x870, 640x480
Hardware Pan/Zoom	2x to 16x
Vertical Refresh Rate	Max 75Hz (non-interlaced)
Output Signals	R,G,B,Hsync,Vsync, MID 0-2, Sync on Green, or external sync
Connector	HD 15 male plug
DAC Resolution	10 bits for each primary
Gamma Correction Tables	256 x 10 bits for each primary
Pixel Depth	24 bits

Video Window Manager

Video Resizer	2D filter
Video Blender	256 levels
Video Ports	3 (Vid In,Vid Out, Compression)
Video Port Bandwidth	640x480x30fps (37MB/sec) 768x576x25fps (44MB/sec)
Hardware BLIT	100MB/sec

On-Board DSP (Digital Signal Processor)

Processor	AT&T 3210 Floating Point DSP
Processor Clock Speed	55MHz
Local Processor Memory	128KB SRAM
Memory Bandwidth	237MB/sec

Memory

Frame Buffer Memory	4 MB VRAM
Offscreen Memory	16 MB DRAM

General

Card Size	12.75" x 4"
Bus Interface	NuBus slot
Power Consumption	27 Watts

System Requirements

Quadra 650, 700, 800, 950, and 840AV, or PowerMac 7100/80, 8100/80, 8100/100 and 8100/110, 1-2 GIG Hard Drive with sustainable throughput of 4 MB/sec or better, 16MB RAM, and System 7.5 or later.

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On-Line Services

America On-line	Keyword: Truevision
Compuserve	GO TRUEVISION
Internet	support@truevision.com info@truevision.com

FTP Site	ftp.truevision.com
AppleLink	E-Mail: RASTERHELP

Third Party: RasterOps	(317) 577-8777
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Settings: 8 bits, no parity, 1 stop bit	www.truevision.com
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WWWSite



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