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
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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 (GBR5 and Y,R-Y,R,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 4.7"
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: 75 Hz (non-interlaced)
Output Signals: R,G,B, Hync, Vsync
Connector: HD 15-pin VGA Female Receptacle
DAC Resolution: 10 bits for each primary
Gamma Correction Tables: 256 x 8 bits for each primary
Color Space Conversion: YUV to 24-bit RGB
Sampling Structure: 4:2:2

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.

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 Blt: 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
768 x 576 (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)
Pro Model: Adds GBRS, G BR and Y, R-Y, B-Y (NTSC Betacam, PAL SMPTE/EBU)
S-Video (4 Pin DIN)
Pro Model: 714mv/700mv p-p, 75 Ohm
Component (Pro Model)
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
780 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 @ -1db without filter.
Noise Floor
Greater than -65dB pk to rms captured single frame, greater than -55dB pk to rms throughput.
Differential Gain
<1.5 degrees
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 Audio ADI Rendering Driver and Animation Recorder DXP, IAS program
VPFW Support (Video Capture Driver, Playback Driver and WAVE Audio Driver)
Mini-Applications & Control Panels for real-time capture and display of video

Optional
• DVR Developer Toolkit (PC Version)
• Protected Mode using Phar Lap or DOS4GW Extender
• DVR Windows/NT Developer Toolkit

Future Support
Support for Windows/NT and Windows 95 - est. 2H '95

Accessories
Supplied
CA 204 Composite/S-video I/O cable
CA 206 VGA Loop-through Y cable
Prod & Pro Upgrade:
CA-207 Component Pro I/O cable (includes two CA-203 adapter cables for S-video I/O)

Optional
TARGA 2000 Pro Upgrade PCI-PC converts standard TARGA 2000 to Pro model.

Contacting Truevision
Truevision Customer Satisfaction Center
Our Customer Satisfaction Center is available Monday through Friday 7:00 a.m. to 6:00 p.m. EST.
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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
- **64x** OverSampling.
- **648x486**(NTSC)
- **768x576**(PAL)
- **Pro Upgrade**: **720x486**(NTSC), **720x576**(PAL)

### ADC Resolution
- **8** bits

### Sampling Structure
- **4:2:2**

### Color Space Conversion Tables
- **YUV** to 24-bit RGB

### Video Output
- **256 x 8** bits for each primary

### Video Outputs
- **Composite** or **Y/C (S-video)**
- **Pro Upgrade**: adds GBRS, GSbR, and YPbPr

### Geolock 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**: (C542/6) 64x Oversampling, Delta-Sigma ADC&DAC

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

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- **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** (**72 MB/sec**)
- **Processor Clock Speed**: **55 MHz**
- **Local Processor Memory**: **128 KB RAM**
- **Memory Bandwidth**: **237 MB/sec**
- **Memory**: **4 MB VRAM**
- **Off-screen Memory**: **16 MB DRAM**

### 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.**

### Contacting Truevision
**Tru oversei Customer Satisfaction Center**
Our customer satisfaction Center is available Monday through Friday 9:00 A.M. to 6:00 P.M. Eastern Standard Time.

**Telephone Contact**
- Sales Information, Technical Support, FaxBack System
- U.S. and Canada: (800) SAY-COLOR (729-2656)
- Worldwide: (317) 577-8777
- 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
- Compuserve
- Internet
- FTP Site
- AppleLink
- DirectAccess BBS
- WWWSite

**Video Blender**
- **Memory**: **4 MB VRAM**
- **Off-screen Memory**: **16 MB DRAM**

**General**
- **Card Size**: **12.75" x 4"**
- **Bus Interface**: NuBus slot
- **Power Consumption**: **27 Watts**

**System Requirements**
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