ShowMe TV™ 1.3

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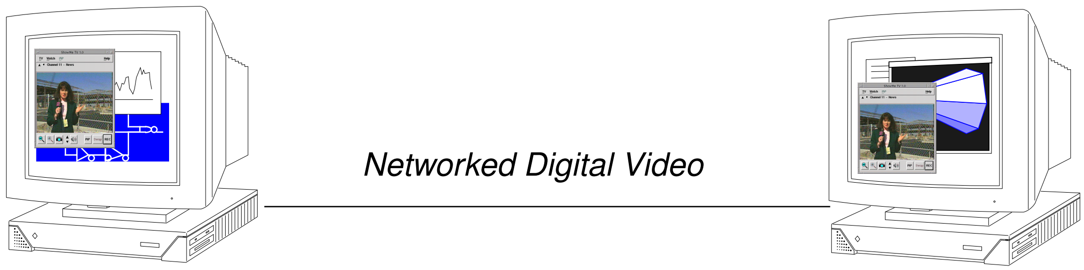
ShowMe TV Positioning



Introduction

Sun Microsystems announces the ShowMe TV™ 1.3 product, a powerful audio/video communications tool that delivers up-to-the-minute news, special reports, or internal communications directly to the workstation. Available for free on the Web, the ShowMe TV tool enables customers to broadcast audio and video programs over their existing local area network and receive them at their desktop. ShowMe TV consists of three primary components: the ShowMe TV Receiver, ShowMe TV Transmitter, and ShowMe TV Address Book.

- The ShowMe TV Receiver allows the user to display, control, and record program material broadcast over the LAN. With its unique “Digital VCR” capability, the user can record any broadcast onto a local or remote disk. ShowMe TV Receiver can be used to play back MPEG-1, MPEG-2, QuickTime, and AVI movie files and Sun.au, and Wave audio files.
- ShowMe TV Transmitter is like a television station. It broadcasts video and/or audio program material to any Sun™ workstation on the network. These broadcasts can be a commercial television channel coming in through a cable or antenna, a live talk to or from your desktop, a video tape in a VCR, a satellite feed, laser disk, or a broadcast of a ShowMe TV movie file.

  ShowMe TV alerts viewers to your broadcasts so that they know which programs are available for viewing and recording. ShowMe TV Transmitter sends out advertising of your broadcasts so that viewers know what programs will be available for watching and recording.

  The ShowMe TV Transmitter uses efficient real-time compression techniques to broadcast over the existing network without disrupting normal data flow or use of the network. The ShowMe TV Transmitter requires a standard SunVideo™ (SBus) board or SunVideo Plus™ (PCI) board in the workstation or server used for broadcast of live video feeds.
- ShowMe TV Address Book helps customers to keep track of individuals by storing their home and work address, telephone numbers, login name and host name, conference address, and more. Address Book contains the network addresses of people and groups customers usually work with or broadcast to. It enables closed broadcasts (broadcasts that go to only a specified list of people).

What's New in the ShowMe TV 1.3 Product

ShowMe TV 1.3 is Sun's baseline media player and transmitter. ShowMe TV 1.3 adds MPEG-2 support, which has several benefits:

- Increases the number of file types supported to nine
- Allows ShowMe TV to playback the most common digital video formats available
- Allows ShowMe TV to playback in a larger video window—720x480 (as opposed to MPEG-1 which was designed for CD-ROM playback at 320x240)
- Supports the playback MP3 audio files

The other difference between the two versions is that ShowMe TV 1.3 no longer supports the Sun MediaCenter™ product.

ShowMe TV 1.3 is available free of charge from the Web, or customers can order it on CD-ROM for US$25 (the cost of materials, shipping, and handling). This is a substantial savings compared to ShowMe TV 1.1, which had a single-user transmitter/receiver license list price of US$2,200. Note that prices are subject to change.

Key Messages

- **The ShowMe TV Transmitter provides a wide variety of broadcast controls:**
  - Broadcasts can be transmitted 24 hours a day.
  - Open/closed broadcast option allows broadcaster to specify viewers for confidential or sensitive broadcast information.
  - Message teletext delivers messages directly to a viewing window, allowing the broadcaster to communicate directly to a select few or to all about upcoming programming, broadcast status, etc.
  - The ShowMe TV Address Book maintains viewer network IDs and group names so that broadcasters do not have to look up specific IP addresses and group names to arrange a closed broadcast.
  - Network bandwidth and broadcast range can be specified by the system manager. Customers can control broadcast or secure narrowcasting bandwidth, users, and usage as appropriate for their site's needs.
  - Broadcast live or from files. The transmitter can be programmed to provide news. The transmitter can be used with television feed or camera. Pre-captured digital data can be re-broadcast.
  - The broadcaster can set the maximum range of a broadcast at the subnet, site, region, continent, or unrestricted level.
- **ShowMe TV provides a number of video creation and editing support features:**
  - ShowMe TV allows users to delete segments of a file to open in ShowMe TV. This can be done to shorten the file length, remove unwanted content, or decrease the amount of disk space the file requires.
  - Broadcast from any of the video sources plugged into the SunVideo or SunVideo Plus card. Switch between the three input ports.
  - Record single frame/snapshots to capture images for inclusion in e-mail, presentations, reports, etc.
  - "Save movie as" commands allows editor to rename and copy the ShowMe TV file that is currently being edited.
  - Viewers or editors can record short segments of broadcasts allowing them to save only the most important portions of a broadcast.

- **The ShowMe TV Receiver has a number of advanced viewing features:**
  - Picture-in-Picture (PiP) display allows users to monitor two channels simultaneously—one in the main window and one in the PiP window.
  - Users can integrate the ShowMe TV Receiver with Netscape Navigator™ or Netscape Communicator so that the ShowMe TV Receiver becomes their default video player with Netscape.
  - The ShowMe TV supports multiple Receiver windows, allowing users to watch several files or programs simultaneously.
  - SunVideo (Plus) support allows the viewer to watch live video sources connected to their SunVideo or SunVideo Plus card.
  - Users can play back most of the most popular industry-standard movie formats including QuickTime, AVI, and MPEG files.
  - Users can play back most of the most popular industry-standard movie codecs including Cinepak, JPEG, RLE, CellB, MPEG-1, MPEG-2, and H.261.
  - Viewers can monitor live network broadcasts, in-house communications, training programs, or video files stored on any disk on the network allowing them to stay informed on up-to-the-minute news and information.
  - No special hardware is required to view quality, full-motion video, video/audio files, or transmissions, removing the need to invest in expensive decoder cards.
  - Viewers can control the brightness of the display or change the number of colors allocated to ShowMe TV to use the sharable color map resource more efficiently.
  - Full broadcast and user statistics are provided. Viewers can easily identify audio and video formats and the data rate of the program running.
  - A timer control allows viewers to automatically record or display a program at a viewer-specified time.
  - Schedules of current and upcoming programs, as well as detailed information about any program is available.
  - Viewer supports PAL resolutions including 192 x 144, 384 x 288, and 768 x 576 pixels.
- **The ShowMeTV Transmitter supports a wide range of video and audio formats, as well as quality settings:**
  - ShowMe TV allows broadcasters to select one of three video codecs (CellB, JPEG, and H.261) to transmit—choose between superior picture quality codecs (such as JPEG) and codecs that achieve better compression rates on video sequences with little movement on the image scene (such as H.261).
  - Broadcasters can adjust JPEG compression quality to fine-tune the compression image quality to lower bandwidth and CPU requirements.
  - Broadcasters can select a picture resolution to be transmitted that best meets network bandwidth constraints.
  - The Transmitter supports five audio quality settings, allowing broadcasters to select the audio setting that best meets audio and network bandwidth requirements.

Target Users

The ShowMe TV 1.3 product is targeted at companies whose users need to constantly monitor news or other live broadcasts for information that might affect their business decisions. Financial analysts and investors at Wall Street firms, government agency personnel, and researchers at national laboratories are excellent candidates for ShowMe TV. Other companies that need the capability to broadcast information on a company-wide basis for training or other corporate communications will find ShowMe TV a very cost-effective solution.

ShowMe TV is free, easy to maintain, easy to use, and does not require any special hardware to display video. Without ShowMe TV customers would not be able to do the following without paying for the capability:

- View quality QuickTime video files downloaded from the Web
- Cost effectively broadcast video across the LAN
- Play back audio/video files
- Manage their network video broadcast load
- Provide closed broadcasts
- View live network broadcasts or in-house communications
- Record single frame, short segments, or an entire broadcast

Target Markets

Although ShowMe TV offers features and capabilities that would interest just about everyone in Sun's core markets, the major target markets are:

- Financial services
- Government agencies
- National laboratories

Availability

- First order date: May 4, 1999
- General Availability (web release): May 14, 1999

ShowMe TV 1.2 is currently bundled with Solaris™ 7 operating environment. Version 1.3 is expected to be bundled with future releases.

Market Value Proposition

The ShowMe TV™ 1.3 product enables Sun's customers to view and/or transmit high quality audio/video across their LAN for free.

Compatibility

Compatibility with Previous ShowMe TV Versions

ShowMe TV 1.3 is backwards compatible with ShowMe TV 1.1. In particular, the ShowMe TV 1.3 Receiver can view broadcasts and play movies originating from ShowMe TV 1.1. The following exceptions may apply:

- The ShowMe TV 1.1 Receiver may not be able to play movies recorded by the 1.3 Receiver.
- The ShowMe TV 1.1 Receiver may not be able to view broadcasts originating from the 1.3 Transmitter

Compatibility with PC and Macintosh Created Files

ShowMe TV can play back files created on PC and Macintosh systems that are in supported formats.

If you want to generate a file targeted for a PC or Macintosh you should restrict yourself to the JPEG codec and low-, medium-, or high-quality audio (avoid voice quality).

System Architecture

Overview

The ShowMe TV™ package consists of two primary components: the ShowMe TV Receiver and the ShowMe TV Transmitter.

The ShowMe TV Receiver is a client-side application run by the user to decode and display audio and video on their workstation. It performs software decode to view content from a number of sources:

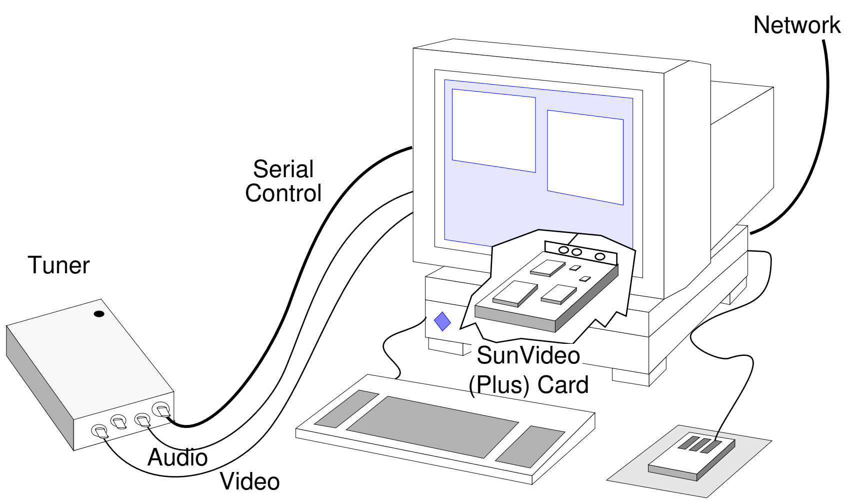
- Broadcasts from ShowMe TV Transmitter
- Movie playback from web pages or disk files
- Direct viewing from a SunVideo™ or SunVideo Plus™ video capture card

ShowMe TV Transmitter broadcasts audio and video from:

- A device connected to a SunVideo or SunVideo Plus card (such as a tuner, camera, or VCR)
- Any file (with a supported audio/video format)

ShowMe TV Transmitter uses efficient compression techniques to broadcast over the existing network without disrupting normal data flow.

ShowMe TV Transmitter Configuration



A typical ShowMe TV Transmitter configuration consists of a ShowMe TV Transmitter running on a Sun workstation with a SunVideo or SunVideo Plus card installed. The SunVideo (Plus) card supports three input ports: 2 composite video (RCA jacks) and one S-Video. Any common video input device (NTSC or PAL) may be connected to the board. Audio connections are made directly to the workstation's microphone and/or audio line-in jacks.

The figure above illustrates a common configuration using a tuner as the video source. The tuner plugs directly into the SunVideo (Plus) card. The SunVideo (Plus) card handles all video compression. ShowMe TV Transmitter simply grabs the compressed video from SunVideo (Plus), puts the information into packets, and then broadcasts it onto the network. Similarly it reads the audio data from the audio input device, optionally compresses it using IMA ADPCM, puts the information into packets, and broadcasts it. Since SunVideo (Plus) does the compression work, and the audio compression and packaging of data is very lightweight, ShowMe TV Transmitter generates very little load on the host system.

Supported Codecs and File Formats

The ShowMe TV Transmitter supports many codecs and file formats. Many of the solutions provided by the competition only support bits and pieces of the ShowMe TV solution. Those that match ShowMe TV in functionality support only a limited number of video formats/codecs, or support proprietary formats/codecs. The table below summarizes the audio, video, and file formats supported by ShowMe TV 1.3 and how they are supported.

ShowMe TV 1.3 Movie File Formats

File Format	Video Codec	File Playback	Record to File	Broadcast from Transmitter
QuickTime, AVI	Cell B	Yes	Yes	Yes
QuickTime, AVI	JPEG	Yes	Yes	Yes
QuickTime, AVI	H.261	Yes	Yes	Yes
QuickTime	Cinepak	Yes	No	No
QuickTime	RLE	Yes	No	No
MPEG-1	MPEG-1	Yes	No	No
MPEG-2	MPEG-2	Yes	No	No
Sun.au	N/A	Yes	Yes	Yes
Wave	N/A	Yes	Yes	Yes

ShowMe TV 1.3 Audio Formats

Feature	Format Supported
File Playback	• 8-bit u-law mono, 8000 kHz • 8-bit linear (signed) mono/stereo, 11127, 22254 kHz • 8-bit linear (unsigned) mono/stereo, all other sample rates • 16-bit linear (signed) mono/stereo, all sample rates • 16-bit IMA ADPCM mono, 8000, 111025, 22050, 44100-kHz MPEG-1 Layer-1, Layer-2, and Layer-3
Direct Capture/Record	• 8-bit u-law mono, 8000 kHz • 16-bit linear (signed) mono, 11025, 22050, 44100 kHz
Broadcast	• 8-bit u-law mono, 8000-kHz GSM, 8000 Hz, mono • 16-bit IMA ADPCM mono, 8000, 111025, 22050, 44100 kHz

System Requirements

Component	Requirements
ShowMe TV Transmitter	• Solaris 2.5, 2.5.1, 2.6, or 7 operating environments • SunVideo (SBus) or SunVideo Plus (PCI) board required for live broadcast from analog (PAL or NTSC) video source—not included • Tuner, VCR, Camera or other video source—not included ***Note:*** ShowMe TV Transmitter can be used without these video sources. They are not a necessary condition. • Workstation host not included
ShowMe TV Receiver	• Solaris 2.5, 2.5.1, 2.6, or 7 operating environments • Workstation host with color or grayscale framebuffer
ShowMe TV Network	• TCP/IP network protocol

ShowMe TV™ Download Information

The ShowMe TV™ 1.3 product is available, for free download on the external Sun web page:
`http://www.sun.com/products-n-solutions/sw/ShowMe/products/ShowMeTV_Overview.html`

ShowMe TV Ordering Information

Order Number	Title and Description
STVM9-130-9999	ShowMe TV 1.3 Media Kit: includes Receiver, Transmitter, and Address Book on CD-ROM

Note: *ShowMe TV is bundled with the Solaris™ 7 operating environment.*

Options

The following options are those Sun™ products which are often used with ShowMe TV. They are not required for the operation of the product.

Order number	Option Description	Comments
SunVideo and Multimedia		
X1085A	SunVideo™ real-time video board, and documentation	SBus version
X1087A	SunVideo Plus™ real-time video board, and documentation	PCI version
X488A	SBus Multimedia kit, SunVideo, camera, and documentation (U.S.)	
X488A-EU	SBus Multimedia kit, SunVideo, camera, and documentation (Continental Europe)	
X488A-UK	SBus Multimedia kit, SunVideo, camera, and documentation (U.K.)	
X490A-EU	PCI Multimedia kit, SunVideo Plus, SunCamera™ II, microphone (Continental Europe)	
X490A-UK	PCI Multimedia kit, SunVideo Plus, SunCamera II, microphone (U.K.)	
X490A-US	PCI Multimedia kit, SunVideo Plus, SunCamera II, microphone (U.S.)	

Service and Support

The SunSpectrum℠ program is an innovative and flexible service offering that allows customers to choose the level of service best suited to their needs, ranging from mission-critical support for maximum solution availability to backup assistance for self-support customers. The SunSpectrum program provides a simple pricing structure in which a single fee covers support for an entire system, including related hardware and peripherals, the Solaris™ operating environment software, and telephone support for Sun™ software packages. The majority of Sun's customers today take advantage of the SunSpectrum program, underscoring the value that it represents. Customers should check with their local Sun Enterprise™ Services representatives for program and feature availability in their areas.

FEATURE	SUNSPECTRUM PLATINUM℠ Mission-critical Support	SUNSPECTRUM GOLD℠ Business-critical Support	SUNSPECTRUM SILVER℠ Systems Support	SUNSPECTRUM BRONZE℠ Self Support
Systems Features				
Systems approach coverage	Yes	Yes	Yes	Yes
System availability guarantee	Customized	No	No	No
Account Support Features				
Service account management team	Yes	No	No	No
Personal technical account support	Yes	Yes	No	No
Account support plan	Yes	Yes	No	No
Software release planning	Yes	No	No	No
On-site account reviews	Monthly	Semiannual	No	No
Site activity log	Yes	Yes	No	No
Coverage / Response Time				
Standard telephone coverage hours	7 day/24 hour	7 day/24 hour	8 a.m.–8 p.m., Monday–Friday	8 a.m.–5 p.m., Monday–Friday
Standard on-site coverage hours	7 day/24 hour	8 a.m.–8 p.m., Monday–Friday	8 a.m.–5 p.m., Monday–Friday	N/A
7-day/24-hour telephone coverage	Yes	Yes	Option	No
7-day/24-hour on-site coverage	Yes	Option	Option	N/A
Customer-defined priority setting	Yes	Yes	Yes	No
• Urgent (phone/on-site)	Live transfer/ 2 hour	Live transfer/ 4 hour	Live transfer/ 4 hour	4 hour / N/A
• Serious (phone/on-site)	Live transfer/ 4 hour	2 hour/next day	2 hour/next day	4 hour / N/A
• Not critical (phone/on-site)	Live transfer/ customer convenience	4 hour/ customer convenience	4 hour/ customer convenience	4 hour / N/A
Additional contacts	Option	Option	Option	Option

FEATURE	SUNSPECTRUM PLATINUM℠ Mission-critical Support	SUNSPECTRUM GOLD℠ Business-critical Support	SUNSPECTRUM SILVER℠ Systems Support	SUNSPECTRUM BRONZE℠ Self Support
Enhanced Support Features				
Mission-critical support team	Yes	Yes	No	No
Sun Vendor Integration Program (SunVIP℠)	Yes	Yes	No	No
Software patch management assistance	Yes	No	No	No
Field change order (FCO) management assistance	Yes	No	No	No
Remote Systems Diagnostics				
Remote dial-in analysis	Yes	Yes	Yes	Yes
Remote systems monitoring	Yes	Yes	No	No
Remote predictive failure reporting	Yes	Yes	No	No
Software Enhancements and Maintenance Releases				
Solaris enhancement releases	Yes	Yes	Yes	Yes
Patches and maintenance releases	Yes	Yes	Yes	Yes
Sun unbundled software enhancements	Option	Option	Option	Option
Internet and CD-ROM Support Tools				
SunSolve™ license	Yes	Yes	Yes	Yes
SunSolve EarlyNotifier℠ Service	Yes	Yes	Yes	Yes

Glossary

AVI	Audio visual interleave. A multimedia file format developed by Microsoft that supports synchronized audio and video. ShowMe TV™ supports only three of its compression schemes: CellB, JPEG, and Apple RLE.
CellB	A version of Cell compression developed at Sun that trades some image quality for extremely fast decompression.
H.261	H.261 encoding. A video compression standard developed by CCITT to work with the ISDN. In this compression method, data is compressed at the rate of p 64K bits per second, where p can range from 1 to 30 depending on the number of ISDN channels used.
IMA ADPCM	Interactive Multimedia Association Adaptive Delta Pulse Code Modulation.
JPEG	Joint Photographic Experts Group. A standard format consisting of a collection of algorithms developed for compressing still, photo-realistic images.
MPEG-1	Moving Picture Experts Group. A standard for delivering content from CD-ROM at a constant bit rate of about 1.5 Mb. MPEG-1 provides quality similar to JPEG but with greater compression ratios.
MPEG-2	An extension to the MPEG-1 specification designed to support broadcast quality video. MPEG-2 removed the 1.5 Mb maximum bit-rate constraint and added support for an interlaced picture.
QuickTime	A multimedia file format developed by Apple, which supports synchronized audio and video. Video is compressed by one of many compression schemes.
RLE	Run length encoding. A simple video codec that is used primarily for animated or graphic content. It is a lossless codec that replaces identical adjacent pixels with a more compact representation. It does not compress photo-realistic images well since those typically contain gradual color changes.
u-law	Defined by CCITT G.711, u-law is the standard for voice data used by phone companies in the United States, Canada, and Japan. Sample size is 8 bits.
Wave	An audio file format particularly popular on PCs.

Materials Abstract

All materials are available on SunWIN except where noted otherwise.

Collateral	Description	Purpose	Distribution	Token # or COMAC Order #
Powerpack				
– *ShowMe TV™ 1.3 Just the Facts*	Introduction to the ShowMe TV Product	Sales Tool Training	SunWIN, Reseller Web	84763
– *ShowMe TV 1.3 Customer presentation*		Sales Tool	SunWIN, Reseller Web	38314
References				
– *Sun Intro*	Introduction E-mail	Sales Tool	SunWIN, Reseller Web, E-mail	85310
– *ShowMe TV 1.3 Technical White Paper*	A Technical Discussion of the Product	Sales Tool	SunWIN, Reseller Web, First Resort	84745
Product Literature				
– *ShowMe TV*	Product Data Sheet	Sales Tool	SunWIN, Reseller Web	87134 DE848-0
External Web Sites				
– *ShowMe TV Web Site*	`http://www.sun.com/products-n-solutions/sw/ShowMe/products/ShowMeTV_Overview.html`			

Materials Abstract