

WHAT IS GLOBECASTER™?

globe'cast' (glôb-kast')

-n. -caster 1. a multifunctional digital video creation device that integrates an automated Switcher, real time Editor, CG, DVE, DDR, Still Store, Chroma Keyer, animator/paint box, and deck control in one



unit; **2.** multi-standards modular tool that grows with your needs and market demands. **v** -casting **1.** a smart and economical way to create professional video content; **2.** the strongest value proposition in the market **syn:** easy, versatile, inexpensive, fast

"The interface is incredibly easy to use, and the unit integrates beautifully with our equipment. I can do everything they do in the big studios." Tom Curley CBS
"With GlobeCaster, one person can do the work of four, which has enabled us to streamline our process saving time and money." Marc Belmont KLSR-TV
"The quality of the video that comes out of GlobeCaster is as good as any I have seen." John Griffith Dillard's
"GlobeCaster is so easy to use — our students are limited only by their own creativity." Paul Saxton Eagan HS
"GlobalStreams' Technical Support is the best I have used. They do not assign blame. They fix the problem."

Mike Baker | Sacramento Police

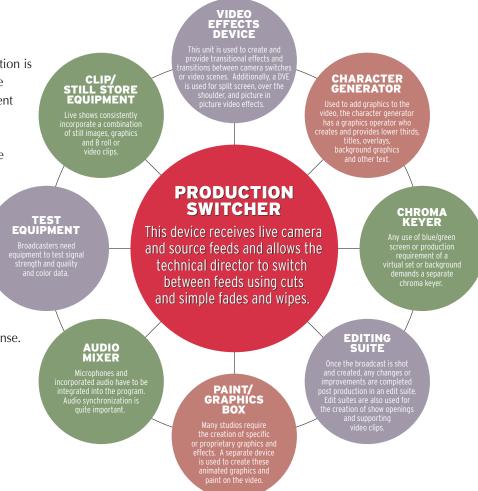
The Problem

Traditionally, television quality video production is a complex and costly undertaking. To do the job right requires multiple pieces of equipment and numerous operators.

A different manufacturer makes each of these various pieces of broadcast equipment and each requires significant capital investment — from \$200k to more than \$1M. Also, each piece of equipment requires an experienced operator.

Each device and manufacturer has its own training requirement, support organization, and warranty program.

Operating and managing this collection of equipment requires significant monthly expense.



The Solution

GlobeCaster is the digital convergence of all of this functionality into one versatile video production device. GlobeCaster performs all of the tasks that traditionally require several pieces of expensive production equipment.

One piece of equipment is a multi-format digital video production switcher with a fully integrated premium quality character generator, a powerful animation creation workstation, a dual channel digital video effects processor, a hybrid linear/non-linear real time video editor, and a real time direct to network streaming solution. GlobeCaster is feature rich at a fraction of the investment.

For many professional broadcasters, GlobeCaster is reducing the cost of video production while maintaining the production quality. Not only is GlobeCaster significantly less capital investment, the ongoing operating costs are lower as well. Fewer operators, fewer points of failure, less space required and simpler equipment management spell less monthly spending.



GLOBECASTER SWITCHER



The powerful GlobeCaster Switcher Application is the heart of the GlobeCaster live production and broadcast capabilities. This application includes the traditional features you expect on a high-end production switcher, such as dissolves, fades, real-time DVE, and color correction.

However, the features that really excite video professionals the most are GlobeCaster's real time capabilities, including soft-edged organic wipes, animating graphics, color remapping, real-time warping and video tracing. They also appreciate the way Switcher integrates the other GlobeCaster applications, putting many broadcast tools onto one workstation.



Though GlobeCaster is many tools in one device, video professionals can spread the workload using the optional switcher control surfaces, CS-1000 (*left*) and CS-100 (*right*). These separate components allow one person to control the video switching while another prepares and loads graphics. However, even with this panel GlobeCaster remains one complete tool.



KEY FEATURES

Switcher has many important features that make GlobeCaster a key component of any live production such as newscasts, religious services, concerts, sporting events, corporate presentations and internet broadcasts. These features include:

- The ability to input eight (8) uncompressed video sources of the same or mixed broadcast standards including SDI, Component, Y/C, and Firewire inputs
- Simultaneous control of up to four (4) RS-422 outboard playback decks and other devices
- Integration into an existing studio environment as GlobeCaster supports multiple input and output standards including Ethernet output for network distribution
- Access to still stores, graphics, animations, and video clips stored in the system
- Real-time one- or two-channel DVE capability (one channel standard)
- On-screen Program, Preview, input, Vector-scope and Waveform monitors
- Real-time chromakeying and color suppression for virtual set application
- Control of up to four (4) simultaneous downstream key sources (one layer standard), allowing use of lower thirds, animated overlays, bugs, rolls and crawls
- Time line support allowing preproduction scripting of a live show and creation of a timeline of a live switch, dramatically reducing time of production

Virtual Set



An important feature of the GlobeCaster Switcher is the broadcast quality keyer. A separate application panel allows for the independent management of chroma and luma. The chroma keyer application is an important tool used for the creation of virtual sets. GlobeCaster enables virtual camera switching — applying different virtual backgrounds to different keyed inputs to switch camera and background simultaneously.

Integrated Audio

GlobeCaster also allows you to mix up to 16 channels of audio including eight (8) channels of balanced XLR production audio and eight (8) virtual channels of audio used for DV and DDR playback inside GlobeCaster.

This mixer application provides the ability to adjust high, mid and low bands with a powerful three-band parametric equalizer.





Camera Control

Remote camera operations including pan, tilt, zoom and focus are at your fingertips. You can also store up to eight (8) presets of camera shots.

Initially, GlobeCaster Camera Control was designed for seamless integration with the Sony BRC-300 camera — support for additional models is currently in development.

GLOBECASTER ACE

ALC:

Animator / Compositor

An object-oriented paint, animation and compositing system,
Animator / Compositor allows the
GlobeCaster user to produce highend, animated and moving graphics and overlays. Originally designed for advanced special effects, Animator /
Compositor paints in real time directly onto the live video to be saved as real-

time video effects. Users can easily create over the shoulder graphics, corner bugs, motion backgrounds, openings and other graphic effects, transitions and overlays.

The combination of GlobeCaster's real time compositing hardware and Animator/Compositor's advanced software, lets the user turn full motion graphic sequences into video effects. This work is easily integrated into the GlobeCaster Switcher application or dropped onto a GlobeCaster Editor timeline, where the effect animates over live video in real time with alpha channel transparency, anti-aliasing, shading and highlights.

FEATURES

- Vector drawing tools including geometry, freehand and soft airbrushes
- Extensive control over stroke properties such as transparency, edges and shadows
- Unlimited undo and redo of any stroke, color or other setting
- Ability to animate all strokes over time with on-screen and timeline control
- Ability to save layers and strokes to make animation templates

Character Generator

One of GlobeCasters greatest features is the production and use of quality graphics. The advanced Character Generator Application creates, animates and composites high-resolution graphics onto live video.

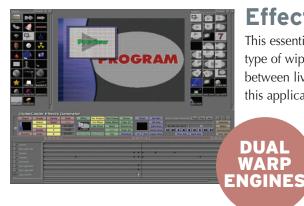
More and more the definition of production quality includes the incorporation of graphics and motion with video quality. With the Character Generator and high quality Serial 601 Digital Video processing, GlobeCaster enables both. Vector based graphics provide anti-

aliased (sharp edge) text, and supports thousands of TrueType fonts, color gradients, 24-bit textures, and common graphics features. The hardware and software solution provides subnanosecond refresh rate, and enables compositing of highend content in very little time.



FEATURES

- On-screen user-interface for text layout and font typestyle editing
- Ability to import most common graphic formats for textures, images, backgrounds and logos
- Free form layering and positioning of text and graphics
- Allows creation of smooth, sub-pixel variable-speed rolls and crawls
- Independent application of image and transparency maps for face, border, sides and shadows
- Complete integration with GlobeCaster Animator / Compositor application so that project and work files can be easily moved



Effects Generator

This essential tool makes it easy to create any type of wipe or 3D warp effect, for transitioning between live sources and/or video clips. With this application, the program can include effects

that are proprietary and meaningful.

Existing graphic elements in almost every file format can be imported and incorporated into unique transitions and wipes and other warp effects.

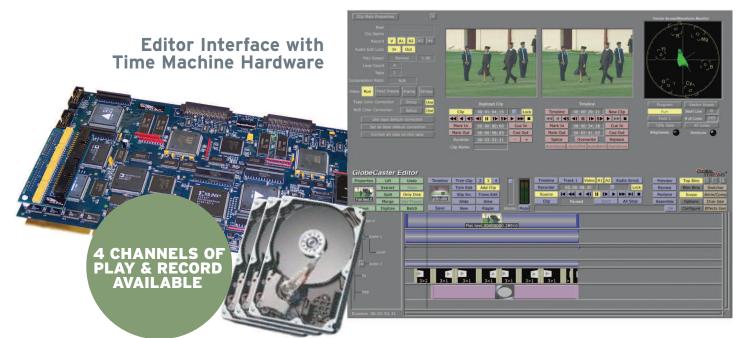
FEATURES

- Creation of real-time 3D effects with unique animated logos and text
- Mapping of live sources or clips to 3D objects
- Application of live distortions including waves and ripples
- Integration and importing of common 3D file formats

GLOBECASTER EDITOR

This multi-generational edit tool designed for speed and ease of use. The combination of the Editor software (standard) and the powerful GlobeCaster hardware card Time Machine (optional) results in a unique video production aid that is both an editing solution and a digital disk recorder. While most editors are used in post production, GlobeCaster Editor can be both a post production and live production tool.

The optional Time Machine component is aptly named as it helps you to manufacture time. All of the operations are performed in real-time, no rendering required. The user creates it and sees it - every dissolve, wipe video effect, graphic and still store - all in full D1 resolution.



It's a DDR

In Live production, Editor with Time Machine becomes an onboard DDR for your GlobeCaster with simultaneous record and playback capability.

- Two (2) channels of video available at all times one dedicated playback and one playback / record
- Queue and play stored clips and B-Roll to be mixed with live sources (Possible to store up to one (1) terabyte of video and audio data)
- Capture Program Out to a digitized file and non-linear project that can be immediately edited (Creates Time.)
- Allows for enhanced scripting of show openings and lead-ins.
- Supports automatic live video source switching and preproduction timeline development (Creates Time.)
- Provides audio-linked video effects and transitions
- Supports TMX portable clip storage devices

It's an NLE

In Post Production, Editor with Time Machine is a full-feature, real-time, hybrid Linear/Non-Linear Editor.

- No Render Time. All of the digitizing is done in hardware in real time (Creates Time.)
- Supports simultaneous editing of new digital media, DDRs, tape based, live sources and digital clips in the same timeline edit before you digitize (Creates Time.)
- Supports RS422 deck control (up to four decks)
- Allows flattening for unlimited graphics, framestores and effects
- Three (3) video tracks, eight (8) audio tracks, transition track and up to four (4) tracks of animated or graphic content
- Wavelet compression produces crystal clear digital pictures
- Import digital files and export AVI

GLOBECASTER COMMUNITY

Over 1,500 various organizations in more than 30 countries utilize GlobeCaster for video production needs. From sophisticated media companies to middle schools, GlobeCaster's versatile nature suits a wide spectrum of selective users. Professional broadcasters who

Baptist Church of Leesburg, Inc • 37 Cs/SCSF / Lackland AFB • Access Monterey Peninsula, CA • Access Phoenix, AZ









trict 625 • CenturyTel Center • Chabot Space & Science Center • Champion Forest Baptist Church • Chang Gung M ttanooga State Technical Community College • Chesapeake Board of Education • Chicago Bears • Chicopee Public Scho prist - Christian Fellowship Church • Church For All Nations • CIESC • Christian Fellowship Church • Church For All Nations • CIESC • Christian Fellowship Church • Church For All Nations • CIESC • Christian Fellowship Church • Ch

Local & State Government

Requires less space

Is easy to transport

Supports output to tape, cable, satellite and Internet Provides upgrade opportunities

NY • Dunbar High School • Eagan High School • Eagle High Scho

rickson Retirement Communities • eVENT STREAMS • Explosive Entertainment, Australia • Expression Center for Ne owship Church • Fellowship Missionary Church • FEMA - Federal Emergency Management Agency • Ferris State Universi









ana School for the Deaf • Indianapolis Motor Speedway • Inner Mongolia TV, Mongolia • Institute to Technical Education versity, Taiwan • J. J. Pearce High School • JACC / Jackson, MI • Jackson Rancheria • Jade Pig • James City County, VA rch • Kanal D, Turkey • KECY-TV • KEET-TV • Kentucky Community (* Total County)





Education

Streamlines production workflow Costs less to operate Requires less investment Is versatile and flexible

cation Center • National Musical Television MUZ-TV, Russia • Natio<mark>nal Talwan University of Art, Talwan • Network Ap</mark> hnology • New England Satellite • New Mexico Tech • New Psalmist Baptist Church • New St. Paul Tabernacle • NFL F through the content of the co

Religion

Works reliably and consistently Simplifies ongoing maintenance Eliminates production complexity Eliminates compatibility conflicts



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ool • Sutton Public Access, MA • SuZhou TV, China • Sverdrup Technology / Air Force • Swan Christian College, Austra tar Clear, New Zealand • Temple Baptist Church • Texas Health Research Institute • The City Of Life • The City of West









rch • Victory World Church • Viking Television, Lake Tahoe Schools • Village Church TV Ministries • Vocational Training ren Community Church • Warren Consolidated Schools • Washington International School • Watermark Community Ch nentary • Westinghouse • Westlake High School • Westminster Presbyterian Church • Wheaton Community TV, IL • W lic Access • Word of Deliverance Incorporated • World Ministries International • World Overcomers Outreach Ministries use GlobeCaster appreciate the very high signal quality, while many of our other customers enjoy the flexibility and low cost. No other piece of video production equipment does so much.

Media Companies

Processes in Serial 601 Digital, high signal quality Provides broadcast quality output Enables video for internet distribution Integrates easily into any studio dallas community television

Broadcast • Air Force • Air Force Institute of Technology • Air Force



emorial Hospital, Talwan • Chamier 41/PCPS • Charter Communications • Charter Media • Charter Township Meridia ols • Children's Health System • ChinLee Institute of Commerce, Taiwan • Christ United Methodist Church • Christal Fi CINergy • Cisco Systems, Inc. • City of Bakersfield, CA • City of Bremerton, WA • City of Cedar Falls, IA • City of Clevel









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Corporate

Is easy to learn Is easy to operate Incorporates multiple video standards Eliminates production complexity



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oliance • New Albany High School • New Covenant Fellowship • New Direction Christian Church • New England Institut Ilms • NJM Insurance Group • Norristown, PA High School • Northern Telephone • Northland Community & Tech Colle Ina State • Omaha Public Schools • Oracle • Orthodox Christian Network. Inc. • Oxnard College • Palm Springs High Sc









surance • State Street Corporation • Steelcase • Stevie B Entertainment • Sugar Creek Baptist Church • Sussex Tech. H Ilia • Sylvan Middle School • Tabernacle ag • Taiwan Hospitality and Tourism College, Taiwan • Television Suisse Roman Allis, Wisconsin • The Southern Baptist Theological Seminary • The University of Tulsa • The Villages News Network •





Arena/Stadiums

Allows pre-production and program automation Allows multiple input and outputs standards Eliminates need for much test equipment Requires fewer operators

Council, Hong Kong • Volvo • VW • Wallace Memorial Baptist Charail Mannan Schular Construct Mannan Brothe Jurch • Waubonsee Community College • Wausau High School • WBRW, Channel 6 • Webster City Schools • West Bradt Illamette Falls Television. OR • Williams College, MA • Winners Church Int'l Inc. • Worcester Polytechnic • Worchester, Church • World Wrestling Entertainment, Inc. • WPEC News 12 • Wright State University - Center for Teaching & Learnin

GLOBECASTER ACCESSORIES

GlobalStreams provides accessories to enhance the power of GlobeCaster. From professional hard surface controllers to just the right effect, the purpose is to improve the quality of your video production.

AP-100 Audio Panel

Get more power out of the on-board audio mixer in your GlobeCaster by controlling it with this compact and powerful tactile interface.

Audio connections are made directly to GlobeCaster, yet controlled via the AP-100. Your desktop will be cleaner; your audio mixes more fluid — and your workflow streamlined.



ACE Seat License

Adding to the significant value of GlobeCaster, GlobalStreams produces the ACE Seat License. This important software package takes the three key creative applications, Animator / Compositor, Character Generator and Effects Generator and ports them to a

separate workstation for additional graphics and effects creation.



HD Output Card

The GlobeCaster High Definition Output Card offers HD quality output for broadcast transmission and to projectors and monitors in a live event environment. Resolution options include 1080i, 1080p, 720i, 720p and other VESA compatible graphic display formats.





GlobalStreams offers a variety of content packs that demonstrate the impressive graphical and effects capabilities of GlobeCaster.

Laptop Link

This patented Expansion System turns a laptop computer into a GlobeCaster Host PC. It is



extremely lightweight (under 3 lbs.) and very portable. Includes 12-volt power cord, 1 meter cable for connection to laptop and an enclosed heat management system.



Switcher Panels

GlobalStreams has developed two traditional hard surface control switchers to spread the workload. The CS-1000 is a true broadcast



quality device designed for high-end production studios. The smaller and less expensive CS-100 mirrors the software interface and offers time saving features.

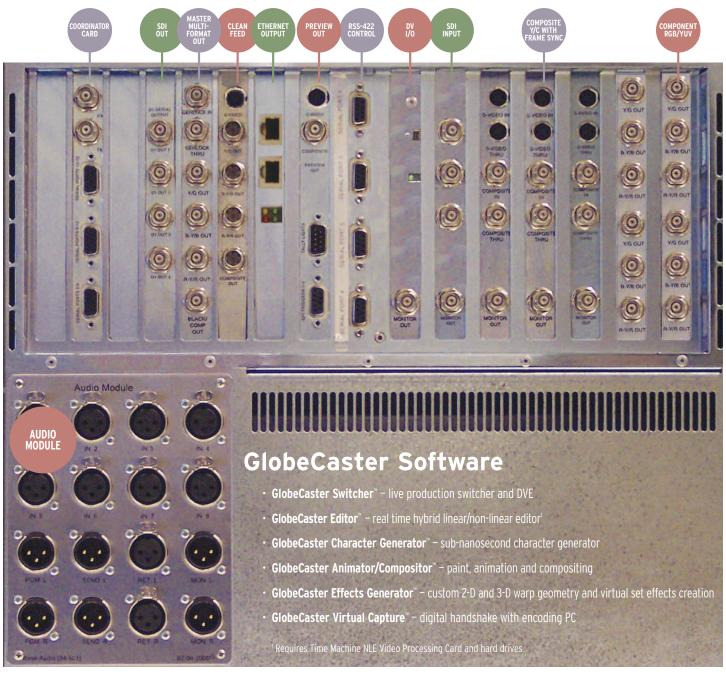
CS-1000

CS-100

GLOBECASTER SPECIFICATIONS

Because of GlobeCaster's modular architecture, every system is built with the inputs and outputs our customers specify.

Changing formats? Just change cards.



Supported Composite Video Standards

NTSC Version: NTSC In / Out PAL Version: PAL, PAL-N and SECAM In / PAL Out

Video Input Formats

DV/IO, Composite, Y/C, Component YUV/RGB, SDICSMTPE 259M/DI) Each input requires a format adapter. Up to eight input modules are supported inside the GlobeCaster 8000. Up to five input modules are supported inside the GlobeCaster 4000.

Sampling Format

CCIR-601, 4:2:2:4 (D1)

Video Timing Requirement

Most input modules require sources to be synchronous (within + / - 8 lines). Some input modules feature full-frame synchronizers.

Input to Output Delay

Up to 2 Frames (66.6mS NTSC, 80mS PAL)

Software Genlock Timing Adjustments Horizontal SC Phase Horizontal Position

Horizontal SC Phase, Horizontal Position, Vertical Position

Pixel Resolution

720 x 486 (525 line standards) 720 x 576 (625 line standards)

Reference Video Input

Composite video or black burst

Power requirements

200 Watts typical, 300 Watts max., fully loaded

Reference Video Output

Black burst

Environmenta

15°-40° deg. C operating, non-condensing 59°-90° deg. F operating, non-condensing

Rack Mount Unit Dimensions

GC Studio 8000 - 17"W x 17"H x 24"D, 10 rack units GC Studio 4000 - 17"W x 10.5"H x 24"D 6 rack units

Weight

GC Studio 8000 - 85 lbs typical, fully loaded GC Studio 4000 - 45 lbs typical, fully loaded

Hard Drive Storage

Internal bays for non-linear audio and video storage

OPTIMAL HOST PC SYSTEM REQUIREMENTS

Windows® 2000 Professional or Windows® XP Professional

1.5 GHz Pentium IV CPU or faster

One free 32-bit PCI bus mastering slot

256MB or higher PC100 or faster SDRAM

20GB or higher Ultra66 7200RPM or faster hard disk

AGP 24-bit graphics board with OpenGL support and 32MB RAM

32x CD-ROM drive or higher recommended

