





Overview

Visual Research Inc. is a specialized manufacturer of professional on-air graphics solutions for the broadcast industry. Established in 1995, VRi is famous for providing high-quality and cost-effective real-time broadcast graphics solutions with convenient production environments. From a basic character generation to full 3D real-time graphics production, VRi graphics solutions offer an outstanding quality to over hundreds of TV stations throughout the world where various VRi products are being used in many broadcasting television programs.

Why VRi?

- **Young and Innovative People**

Enthusiastic people in free and modern enterprise culture innovate technology to bring the utmost satisfaction to the customers.

- **Persistent Effort on Improvement**

VRi is continuously making creative efforts to improve broadcast workflows for operator's usability, using up-to-date technology to develop better quality products.

- **High Reliability**

VRi's products developed with a deep understanding of the broadcasting environment have proven performance and stability by broadcast specialists.

VRi Relations

Distributors

- **China** - DLP-Digital Tech Co., Ltd.
- **Greece** - Ariston BTS S.A
- **Hong Kong** - Panda Engineering International Ltd.
- **Indonesia** - Alfatech Broadcast Solutions
- **India** - Cinthamani Computer
- **Israel** - Maagal Sagour
- **Japan** - Japan Material Co., Ltd.
- **Malaysia** - UBC Technology Pte Ltd.
- **Poland** - Elsa-Komp
- **Portugal** - Pantalha
- **Russia** - Synchro-Pro
- **Singapore** - UBC Technology Pte Ltd.
- **Sri Lanka** - S&S Technologies (Pvt) Ltd.
- **Taiwan** - Voxel Vision Technology Corporation
- **Thailand** - Niva Technologies Ltd.
- **U.S.A** - Compix Media Inc.
- **Vietnam** - UBC Technology Pte Ltd.
- **Vietnam** - VTV Broadcast and Telecom Service Co., Ltd.

Hardware Partners



VRi will make a value for our customers and create a prosperous future of broadcasting



Overview

KarismaCG is an all-in-one creation and playout solution for real-time on-air graphics optimized to the needs of today's broadcasters. KarismaCG's enhanced functions and powerful graphic engine will be ideal for you moving to the next level of broadcast graphic quality and performance.

Product Strengths

Key Benefits

- Built-in 2D/3D, text, animation, effect creation
- Easy creation of 2D, 3D and animation effects
- Productive and time-saving user environment
- Proven performance and stability
- Creation and playout in one machine
- A wide range of hardware compatibility
- Providing SDK
- Various add-on solutions

Key Features

- Ease of use 2D/3D graphic creation tools
- Import of variety of video, and 3D model files
- Vast 2D styles
- Customizable 2D/3D effects
- Key-frame animation and timeline
- Supports SD, HD, 4K and stereoscopic 3D playout
- 16 layers of scene playout in real-time
- Supports Matrox®, AJA®, Blackmagic-Design®, Bluefish444® I/O boards



Boost your on-air graphics

Benefits



Real-Time Performance and Stability

KarismaCG equips a highly optimized graphic engine that is utilizing up-to-date hardware technology to playout 16 layers of scenes simultaneously and process millions of polygons in real-time without sacrificing stability.

Convenient and Easy Creation

KarismaCG provides a useful toolset and library, and has intuitive user interface to the designers so they can manage creation work in an easy and simple way. All users, even first-time users, can create better graphics output quickly with fun.

Rich and Sophisticated 3D Graphics

KarismaCG assists users in creating high quality on-air graphics in order to generate a remarkable expression with built-in 2D and 3D objects, realistic materials as well as imported 3D modeling files. KarismaCG is also equipped with key-frame based animation and a variety of sophisticated effects.

Extreme Efficiency and Productivity

KarismaCG has many useful functions on CG graphics creation with an extensive library of templates, time-saving editing tools, and shortcut keys that let designers focus creative work more. KarismaCG's easier batch process helps import of huge text from file, edit multiple scenes simultaneously.

Features

Built-in 2D/3D Composition

KarismaCG offers users built-in 2D and 3D composition features. It provides 2D text, shapes, and also path for custom object creation. 2D objects are decorated with the cool 2D style system or can be converted into 3D objects with bevel, lathe or loft. In 3D, there is built-in 3D text and parametric creation on box, sphere, cylinder, pyramid, donut, etc.



Import Various File Types

KarismaCG imports various image file types such as PNG, JPG, TGA, PSD, and AI files. Users can import and control PSD file by each layer, and can import AI file as vector outline to edit and convert it into a 3D object. For composing a more complex scene, KarismaCG can import 3D models from 3DS, DAE, FBX, OBJ file with meshes, lights and camera including materials and animation created by 3DS Max® or Maya®.

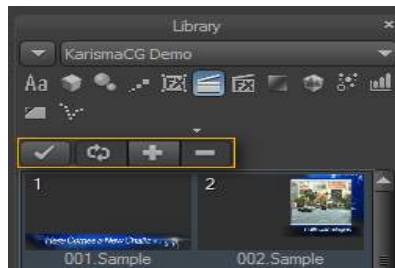


Realistic Material Use

KarismaCG provides the users to set the materials and texture for the 3D elements by diffuse, specular, transparency, reflection, refraction, etc. to give a realistic look to the objects, for example, plastic, metal, wood, and glass. Image and video files and also live input video texture mapping are possible to each side of objects.



Features



Variety of Libraries

KarismaCG provides many kinds of libraries in style, object, particles, chart, bevel, material, animation, effect, scene, texture, gradation, etc. These abundant library resources make users have more efficient time management and enjoy the built-in templates. Moreover, users can build their own library set to greatly improve work efficiency.



Various Effects

KarismaCG has customizable transition effects to scene and object (wipe, particles, paper curl, distortion, blur, etc.) and various effect objects such as particle system, lens-flare, and reflection plane. Those are considered as an object and can be controlled and animated. Especially, particle system is a great feature to express like a real flame, water, explosion, fireworks, snow, and rain.

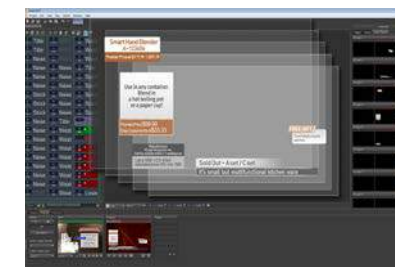


Convenient Key-Frame Animation

KarismaCG provides a high level customizable key-frame based animation to deliver a powerful motion graphics. Including position, rotation, and scaling, most of object attributes can be key-framed and controlled on the track-based timeline and spline editor that these offer full control over every aspect of animation.

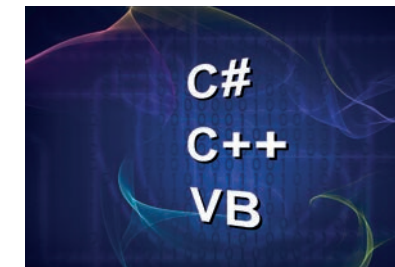
Multi-Layer Playout

KarismaCG not only supports HD formats but also 4K 60p and 3D stereoscopic real-time playout with various video I/O board types (Matrox®, AJA®, Blackmagic-Design®, Bluefish444®). Up to 16 multi-layer simultaneous playout is possible, and these layers can be controlled independently and conditionally.



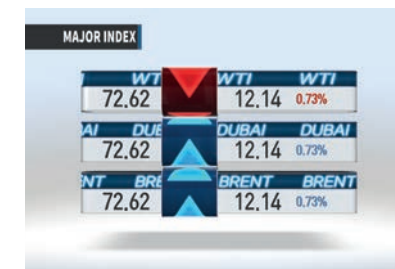
Automation SDK

KarismaCG can be automated by remote controlling via serial cable or TCP/IP network without operator. And its graphics engine provides as component so that developers use it to develop their own customized application utilizing C#, C++, and VB programming languages.



External Real-Time Data Link

Connectivity to other external data source is important in real-time on-air broadcasting environment. KarismaCG utilizes external data source via ODBC, TXT, RTF to update required data field of designed CG templates in real-time. It also updates text, color, font and size in the scenes from the linked RTF file and the data can be updated with transition effects or scrolled on the screen.



Creation Interface

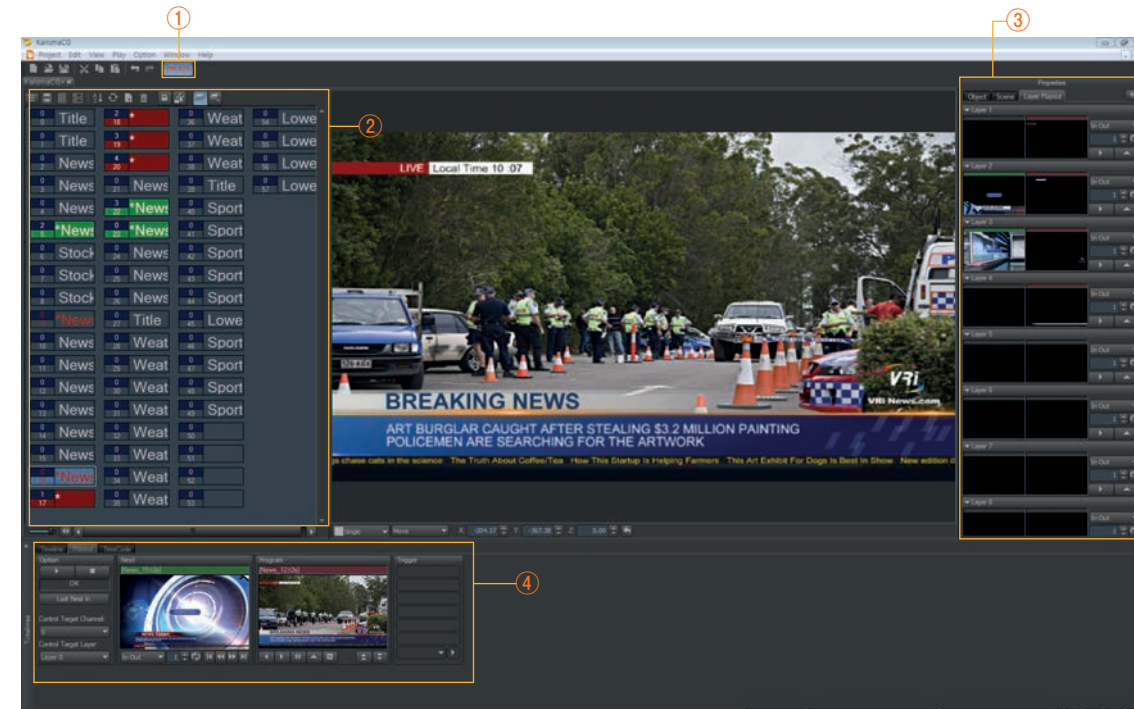
Intuitive and highly productive user interface



- ① Rich Editing Tools
- ② Versatile Scene List
- ③ WYSIWYG Edit Screen
- ④ Detailed Attributes
- ⑤ Organizable Preset Libraries
- ⑥ Convenient Timeline

Playout Interface

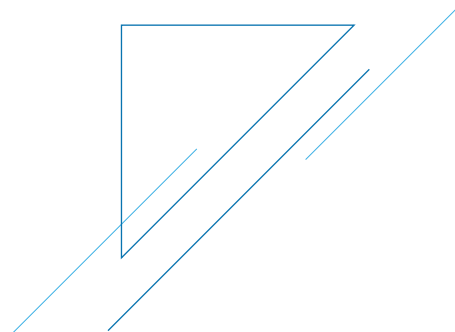
Optimized user interface for easy and quick control



- ① Quick Tools
- ② Unified Multi-Layer Play List
- ③ Multi-Layer Control Window
- ④ Practical Playout Control Window

Non-Linear Editing Workflow

KarismaCG's NLE integration is suitable to non-linear editing system as it is based on file and time-code use to support CG sequence production workflow. In/out timecode and sequence information can be created within an NLE system such as FCP or Edius™, and it can be imported into KarismaCG with XML or EDL file format. On KarismaCG, users can design easily while watching the original video that is set as a background. The designed CG can superimpose on background video, then either it can be rendered to a final video file or can be taped out by VCR where KarismaCG controls.



VISUAL TODAY NEWS



16:39

THE YELLOW CROSS

The greatest bridge builders
of antiquity were
the ancient Romans

Overview

VisualCG is an all-in-one creation and playout real-time character generator. It can be utilized not only in a simple character generator, but also highly advanced real-time graphic and animation creation without rendering time. VisualCG helps users create stunning graphics in a fast and easy way. Moreover, it provides a stable and high-performance graphic playout. Experience high productivity and time-saving production environment with VisualCG.

Key Features

- Intuitive, easy-to-use interface
- Vast 2D styles (emboss, blur, glow, shadow, frame, etc)
- Support a variety of graphic file formats (PNG, TGA, JPG, TIFF, BMP, GIF, PSD, AI)
- Customizable 2D/3D effects (wipe, push, transform, page curl, particle, distortion, and ripple)
- External Data Link (ODBC, TXT, RTF)
- Key-frame animation and timeline
- 4 layers of scene playout
- Providing SDK



Simple, Fast, Stunning

Features



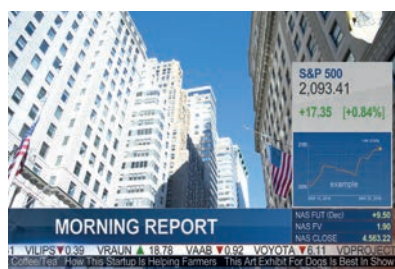
Intuitive User Interface

The interface of VisualCG is developed in a user-friendly and intuitive style. Even first-time users are able to operate and create 2D graphics. VisualCG provides users a wide range of editing tools to help users easily create excellent graphic.



Various Objects and 2D Styles

Graphic editor for text, rectangle, circle, polygon, pie, and path drawing tools are built in VisualCG. Users can apply up to 16 different styles to each object, such as gradation, texture fill, edge, emboss, glow, extrude, and shadow. Also, re-using the created styles and objects in the library are available as well.



External Data Link

VisualCG utilizes external data source via ODBC, TXT, RTF to update required data field of designed CG templates in real-time. It also updates text, color, font and size in the scenes from the linked RTF file and the data can be updated with transition effects or scrolled on the screen. It makes possible to visualize the contents with data updated simply without developing specific application.

Key-Frame Animation

VisualCG provides a high level customizable key-frame based animation to deliver a powerful motion graphics. Including position, rotation, and scaling, most of object attributes can be key-framed and controlled on the track-based timeline and spline editor that offer full control over every aspect of animation.



Multi-Layer Playback

Playing out up to 4 layers allows user to playout scenes simultaneously logo, time, and scroll etc. VisualCG playback is compatible with Matrox®, AJA®, Blackmagic-Design®, Bluefish444® I/O boards and also NewTek™ Tricaster® with fill and key.



Automation SDK

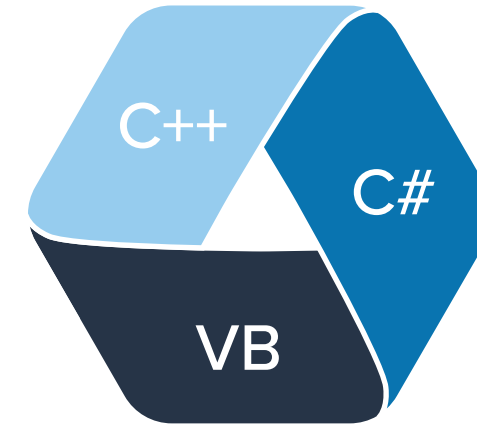
VisualCG can be controlled by programming interface via TCP/IP network. This SDK includes rich API, sample codes, and documentations that 3rd party developers make for their own purposes in C#, C++ and VB programming languages.





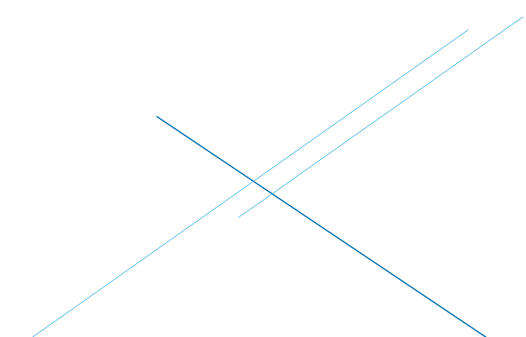
Overview

KarismaCG SDK is a development toolkit for creating customized broadcast graphics applications for events such as news, live sport, election graphics, and so on. This SDK enables users to build their own and unique graphics display for their needs. KarismaCG graphics engine can be used to control playout as well as creating real-time data driven multi-layers of 2D/3D text, graphics objects, key-frame animations, and 2D/3D transition effects with COM programming interface. With KarismaCG, users can create graphics layouts and tag data fields for later data updates by application.



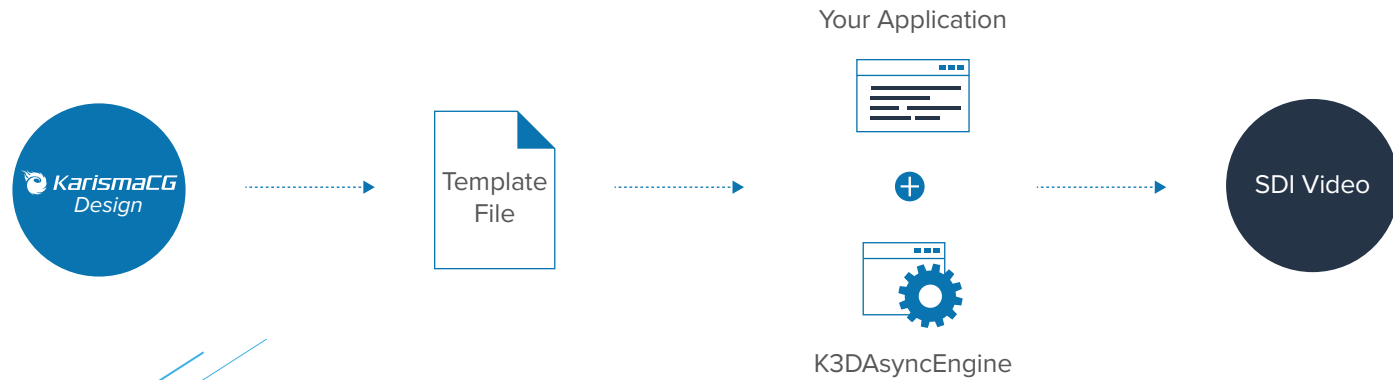
Features

- Two types of SDK remote control for KarismaCG API and stand-alone 3D engine module
- COM based programming interface
- Supports C#, C++ and VB programming language
- Practical example code and materials
- KarismaCG designed CG template based workflow
- Fully control KarismaCG features
- Change 2D/3D text's content font and style
- Modify shape and geometry attributes
- Control key-frame animation and effect
- Update on-air object in real-time



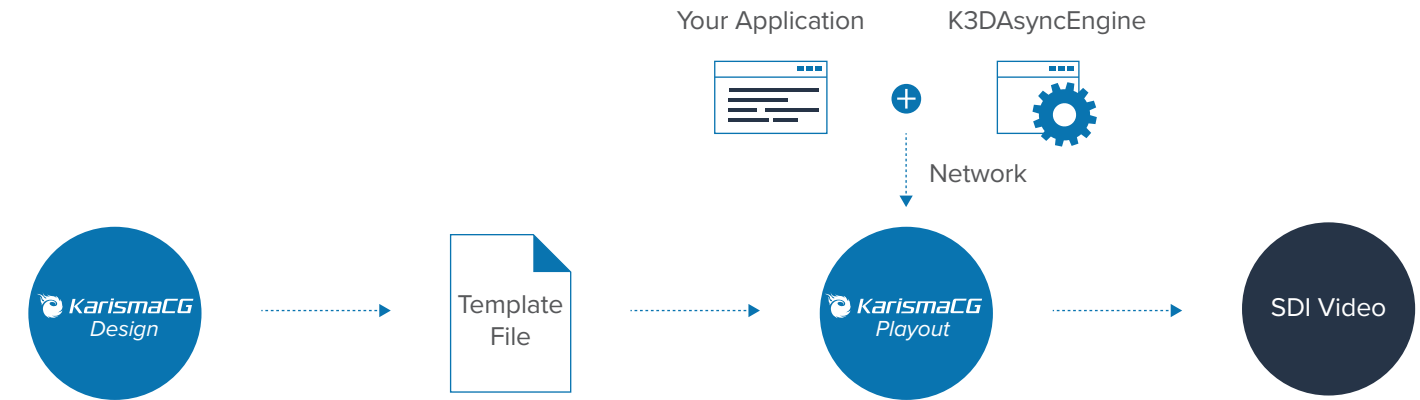
K3DEngine

K3DEngine is a development tool for creating stand-alone customized broadcast graphic applications. K3DEngine will enable you to build your own and unique video and graphics display in order to fit your needs. K3DEngine can be used to create real-time data driven multi-layers of 2D/3D texts, graphics, key-frame animations and 2D/3D transition effects using COM programming interface.



K3DAsyncEngine

K3DAsyncEngine is a simple interface to control KarismaCG via TCP/IP network. It can conduct KarismaCG to load CG templates and change the contents and animation. Developers can use this API to develop custom broadcast graphic applications. KarismaCG is used to design CG templates and used as a playout server.

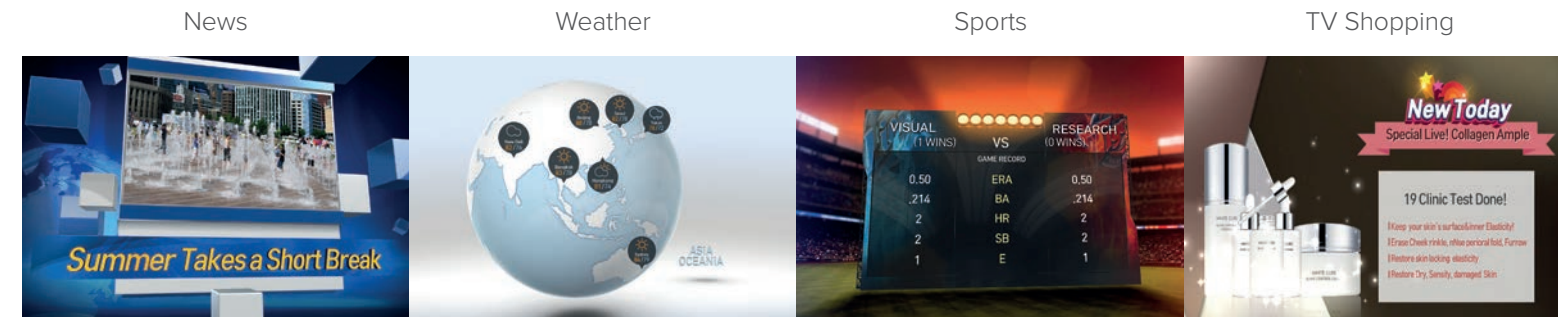
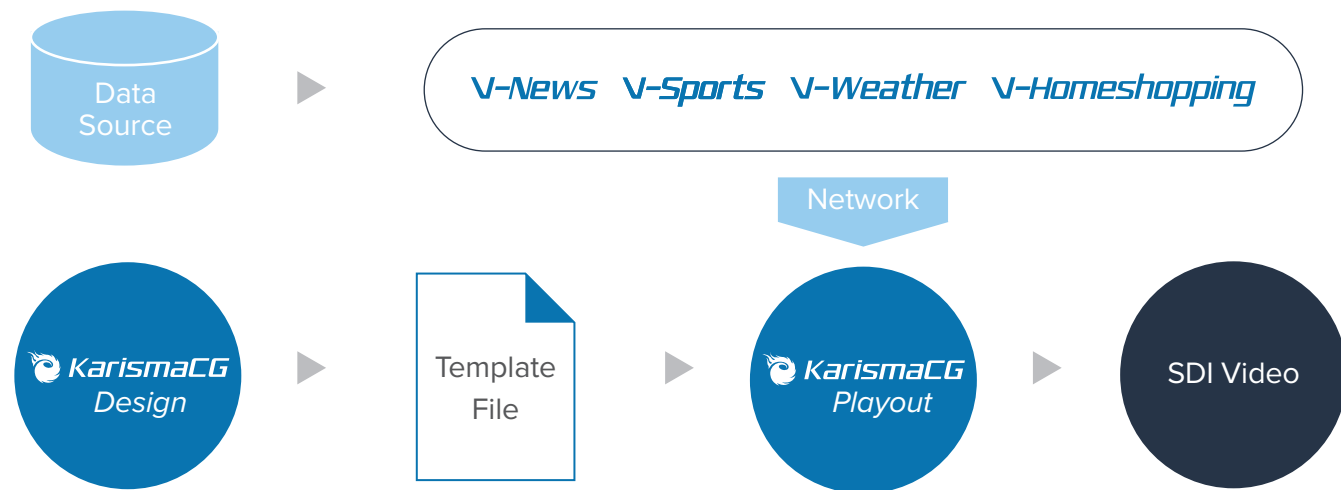


Graphics Solutions Powered by KarismaCG SDK

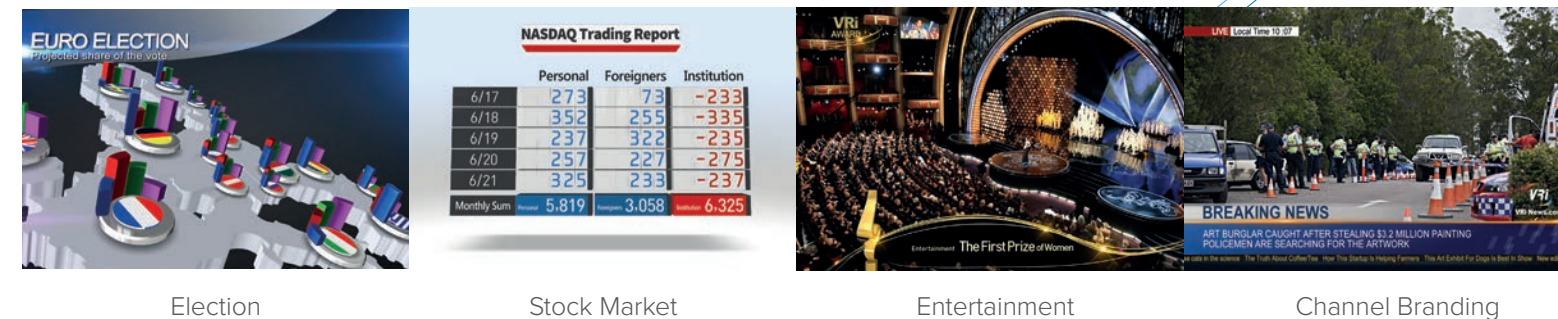
Overview

Most of broadcasting environments require not only every-day-based product, but also event based solutions such as news, weather, election, sports and TV shopping. Various template based solutions are provided as KarismaCG add-ons to give users more variety. With KarismaCG's great performance and graphics with easy-to-use user interface, it attracts the users who are looking for a specific solution for their needs.

Workflow



The one solution for all about broadcasting graphics



Purchaseable products can be different depending on the area

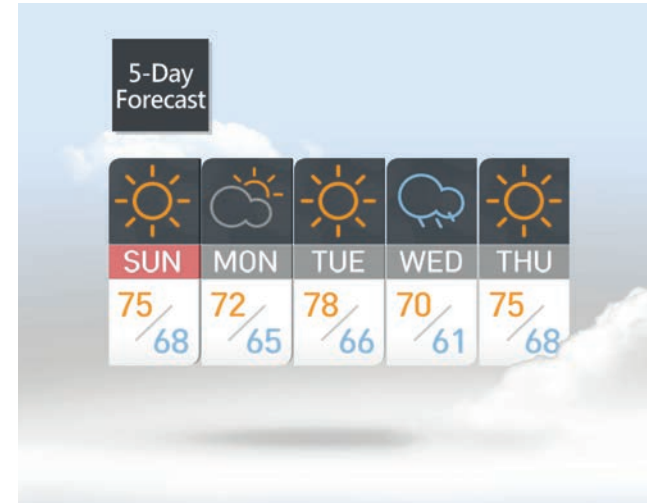


Overview

V-News is an add-on live news graphic solution, optimized to news graphics that is everyday live broadcast. This solution can display up to three news headlines and other multiple contents that are individually controlled. It also intelligently gathers information from a web page, or RSS feed for a continuous retrieval of news headlines. V-News is a solution with the ability to playout breaking news instantly during live news broadcasting.

Features

- Remote control KarismaCG via TCP/IP network
- Template based graphics
- Multiple lines of crawl
- Reversed crawl and scrolling speed adjustment
- Logo inserter and scheduler
- Analog and digital clock inserter
- Font style and color adjustment
- Position adjustment
- Graphic and animation file import
- Text file import
- RSS feeds

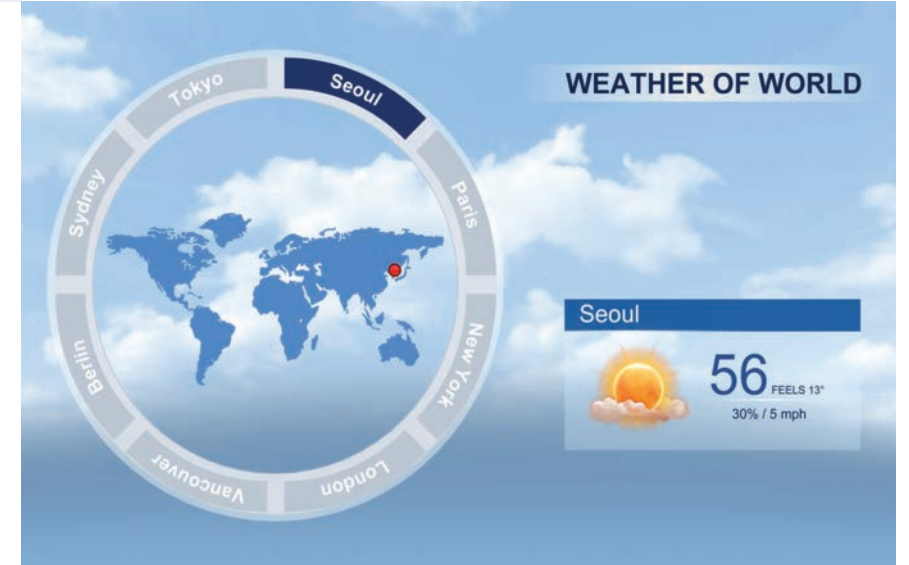


Overview

V-Weather is an add-on live weather graphic solution for live weather broadcast and controls KarismaCG via network. It can retrieve weather data automatically from external data sources (Microsoft® Excel®, or text file) and allow the operator to make changes to data. An operator can apply those data to the designed templates in KarismaCG. The user interface of V-Weather is intuitive that operators can playout the complex weather graphics with a simple operation.

Features

- Remote control KarismaCG via TCP/IP network
- Regional/nation-wide weather
- 5 and 7 day weather
- Marine weather
- Satellite images
- Variety of weather icons
- Retrieves weather data from Microsoft® Excel®, TXT, XML file
- Independent multi-layer playout control
- Sequenced image and video clip playback
- Real-time 2D/3D transition effects



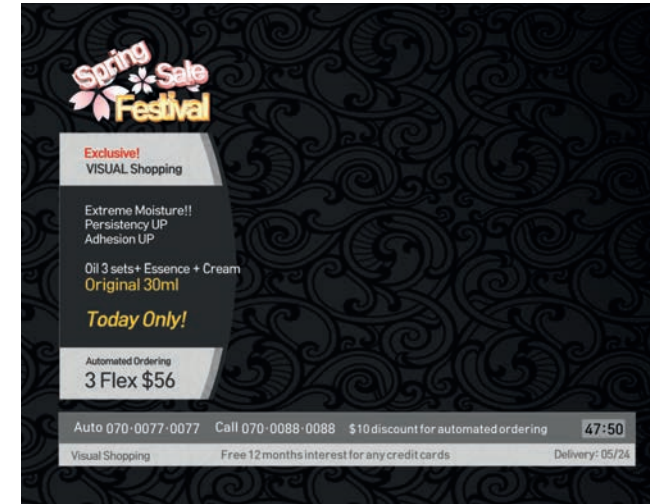


Overview

V-Soccer is a live soccer broadcast application that simply corresponds to the various situations during soccer match. V-Soccer automatically retrieves the data or manually put the information of game progress and player profile from TXT file or web, and the operator can apply those data to the templates designed in KarismaCG. V-Soccer's easy user interface is suitable for various situations during soccer match such as change in ball possession percentage and giving yellow card, so a sole operator is enough to manage graphic playout during whole soccer game.

Features

- Remote control KarismaCG via TCP/IP network
- Player roster (imported through TXT file)
- Player records (imported through TXT file)
- Player on/off
- Yellow/red cards
- Ball possession calculation in percentage
- Timer (90 minutes display)
- Penalty kick score record/display
- Independent multi-layer playout control
- Sequenced image and video clip playback



Overview

V-Homeshopping is a TV shopping application for KarismaCG to present the products in effective ways with a good handling of the live TV shopping graphics. It controls up to 16 different layers of graphic contents that can be controlled independently in either manual or automatic. Moreover, KarismaCG assists users to react in simple operation to changing conditions during TV shopping broadcasting with convenient functions, such as automatic mode to display the changing information of products.

Features

- Remote control KarismaCG via TCP/IP network
- Easy control user interface
- Logo, clock, timer, countdown
- Multiple scroll
- Template based graphic
- Various layout and conditional playout
- Independent playout control of up to 16 different layers
- Manual/Automatic playout control of each layer
- Sequenced image and video clip playback



Product Line Comparison

Features	VisualCG	VisualCG Plus	KarismaCG Deluxe	KarismaCG Premium	KarismaCG Supreme
Built-in Text, Shapes, Clock, Path Creation	●	●	●	●	●
Import Images (TGA, JPG, BMP, PNG, AI, PSD)	●	●	●	●	●
VRV and Sequence Image Video	●	●	●	●	●
2D Styles (Edge, Shadow, Glow, Gradation, Texture)	●	●	●	●	●
Still, Roll and Crawl Scenes	●	●	●	●	●
External Real-Time Data Link (ODBC, TXT, RTF)	●	●	●	●	●
Lights (Point, Directional, Spot) and Phong Shading	-	-	●	●	●
Built-in 3D Geometry and Text creation	-	-	●	●	●
Realistic Material Shader including Reflection and Refraction	-	-	●	●	●
Key-Frame Animation and Motion Graph Editor	-	●	●	●	●
Object and Scene 3D Transition Effects (Wipe, Fade, Ripple, Particle, Distortion, etc)	●	●	●	●	●
Table based 3D Chart Drawing	-	-	-	●	●
Import 3D Model File (DAE, OBJ, 3DS, FBX)	-	-	-	●	●
Particle System and Lens Flare Effects	-	-	-	●	●
Camera Animation	-	-	-	-	●
Multi-Animation for Object and Scene	-	-	-	-	●
HD Video File Record and Playback (AVI, MXF, MOV, MP4, WMV)	-	-	-	-	●
Audio Playback (Background, Event)	●	●	●	●	●
Multi-Layer Playout	1	4	6	8	16
Live-In Image Grab	●	●	●	●	●
Live-In Video Capture & Mapping	-	-	-	-	●
Network Automation Server	-	●	●	●	●
Timecode based CG Edit and NLE Integration	-	-	-	-	Option
UHD 4K Playout	-	-	-	-	Option
Remote Controller Box	-	-	-	-	Option

Technical Specification

System Requirements

	VisualCG	KarismaCG	
	HD	HD	4K
CPU	Intel® Core™ i5, i7	Intel® Xeon® Quadcore 2.4GHz or higher	Dual Intel® Xeon® 2.4GHz or higher
RAM	4GB or higher	4GB or higher	16GB or higher
VGA	nVidia® GeForce® 1050	nVidia® GeForce® 1060	nVidia® GeForce® 1080
Monitor	1280x1024, 1920x1080 or higher		
OS	Windows® 7, 10 (x32, x64)		
Video Boards	Matrox® X.mio2™, X.mio3™, DSX LE3™, DSX LE4™ AJA® Kona® LHe+, IoXT Blackmagic-Design® Decklink 4K Extreme™ Bluefish444® Epoch SuperNova CG™, Neutron™		Matrox® X.mio3™ 8/X2, X.mio3™ 12G DSX LE4™ 8/X2 Blackmagic-Design® Decklink 4K Pro™

Video I/O Specification

	HD	4K
Input/Output	SDI fill, key output - 4:2:2 SMPTE 259M/292M SDI input - 4:2:2 SMPTE 259M/292M	12G SDI or 3G quad-link fill, key output SMPTE 425-5 12G SDI or 3G quad-link input SMPTE 425-5
Video Format	1920x1080i@25, 29.97, 30fps 1920x1080p/PsF@23.98, 24, 25, 29.97, 30fps 720p@50, 59.94, 60fps, 576i@25fps, 486i@29.97fps	3840x2160p@23.98, 24, 25, 29.97, 50, 59.94, 60fps
GenLock Format	HD/SD input or black burst/tri-level sync	HD/SD input or black burst/tri-level sync
Audio Format	8 stereo embedded audio I/O Sampling rate@48khz	8 stereo embedded audio I/O Sampling rate@48khz