

VideoClick™ 2.5



VideoClick provides an extensive solution for the concurrent streaming, distribution, viewing and management of a variety of standard video formats and associated data across business to business (B2B) networks and over emerging broadband networks for the home consumer market. Standards-based and fully scalable, VideoClick is the most comprehensive video distribution and management software suite available, covering the full spectrum of video applications from content creation to personal video services.

Standards-based architecture and cross platform compatibility -

VideoClick employs a software-only, scalable client-server architecture, which is based on open server and client operating systems, standard hardware, communication protocols, and video compression schemes. VideoClick can be easily integrated into existing network environments such as LAN, Intranet and the Internet and is flexible for changes in scale, configuration and functionality.

Scalability - VideoClick offers scalability for the number and types of viewers and servers, and for network bandwidth. From single remote viewing to thousands of concurrent networked viewers, VideoClick offers on-demand, scheduled and multi-cast viewing of high quality video data. Multiple viewers can simultaneously access a cluster of video servers sharing the same content and database to view and interact with full-screen, full-motion video. VideoClick provides bandwidth scalability and flexibility, spanning from RealNetworks' G2 compression format to MPEG and High Definition TV format, allowing viewers to access the same server, content and database using a wide spectrum of network speeds and capacities.

Comprehensive client - The VideoClick client application provides an intuitive graphical user interface that uses advanced Java technology, which enables the software to run on a variety of platforms, including Windows-based PC and Macintosh. VideoClick contains a browser interface, functional in both HTML and Java, which also operates on a variety of digital set-top boxes.

Full VCR functionality - The VideoClick player provides full VCR functionality including Play, Pause, Fast-Forward and Fast-Rewind, and advanced features such as Adjustable Play Speed, Slow Motion, Forward-Step, Back-Step and Immediate Seek (random access) to every frame in the video.

Frame accuracy - VideoClick supports full frame and time-code accuracy from the server, making every frame in a video easily accessible. This enables the Seek function to locate frames with pinpoint precision and is the basis for VideoClick's advanced bookmarking capabilities, step-by-step viewing, and editing capabilities.

Advanced bookmarking - Frame accuracy enables the indexing of

single frames and the attachment of multi-level bookmarks. Users can mark desired scenes or frames in the video and attach associated information in the form of text, graphic or voice annotations, as well as URLs and hyperlinks to the Internet. Bookmarks are saved in the database tables and can be used for immediate search and retrieval of video files and scenes. Multiple users can view the relevant video at the same time and share associated information.

Hyperlinks with other applications - VideoClick's bookmarks can be easily inserted as hyperlinks into any Microsoft OLE-compliant document or into HTML pages, allowing users to jump back and forth between the document or browser to a specific video frame or scene. Video data can be synchronized with slides and documents to enhance the video-rich presentation experience. VideoClick's bookmarks can also contain URLs so that frames or scenes within the video may be hyperlinked to other media, such as the Internet.

Real-time mode: view and edit during acquisition - VideoClick enables viewers to watch and edit videos as they are being acquired from analog and digital sources. Dozens of real-time incoming channels are supported through multiple encoding stations, each supporting multiple channel encoders. VideoClick supports full on-demand functionality for such "on-air" videos, and is ideal for real-time acquisition and transmission of live events. VideoClick also allows users to bookmark live video, thus saving time and human resources.

Advanced search and retrieval - VideoClick uses a standard ODBC-compliant database for the management of video content, bookmarks, associated data, users and viewing permissions. This enables the support of advanced search and retrieval capabilities that allow the user to reach and play a desired video scene or frame in an instant, using indexing parameters associated with data and keywords related to the video and to personal and shared bookmarks.

Thumbnails & matrix view - Thumbnails of films and bookmarks add ease of use and visual depth to the graphical user interface. Matrix View presents thumbnail images of frames in a forward and backward rolling matrix display, allowing users to have instant access to frames and scenes within the video by simply choosing a thumbnail. This significantly increases the ease and speed of finding specific frames and enables remote users connected with low bandwidth connections to quickly view synopses of long videos.

Rough editing functions - VideoClick provides several frame-accurate and time-code dependent editing functions such as Cut and Save, Create Playlist and Capture Frame. All editing functions can be performed while the content is being acquired. This feature allows VideoClick users to perform these editing functions without relying on external editing systems. By supporting time-code and a variety of Edit Decision List (EDL) formats, VideoClick can also be connected and its information shared with other editing legacy systems.

Remote access mode - VideoClick can be extended to support remote users without loss of functionality. Remote users can import both video and associated database information from the server. They can then play the video locally from a hard disk or a CD, while associated meta-data is shared via a low bit-rate connection and is fully synchronized and up-to-date with the central database.

Comprehensive distribution in the workflow - VideoClick provides a comprehensive method for distribution of digital video in the workflow. It enables the management of myriad activities

associated with the video workflow: content acquisition, assignment of viewing permissions, interfacing with other applications, and simultaneous viewing and information sharing by multiple users.

SDK (Software Development Kit) - VideoClick has an SDK that contains a rich set of documented API (Application Program Interface) functions. Using the SDK, a third party software developer can customize VideoClick according to desired specifications, or seamlessly integrate it with other applications.

System Requirements

Hardware

Minimal Server

- NT: Pentium 200MHz MMX, 128 MB RAM, network controller: Fast Ethernet, SCSI disk
- Unix: Sun Ultra 5/10, 1 CPU - 400 MHz UltraSPARC II, 256 MB RAM, network controller: Fast Ethernet, SCSI disk

Minimal Viewer Workstation

- PC with MPEG hardware decoder:
 - Pentium 166Mhz, 32 MB RAM, Ethernet or Fast Ethernet controller MPEG decoder according to decoder board table
 - PC with software decoder:
 - Pentium II 300Mhz, 64 MB RAM, Ethernet or Fast Ethernet controller
 - Macintosh
 - G3, 64 MB RAM, Ethernet or Fast Ethernet controller

Minimal Acquisition Workstation

- Pentium 266MHz, 64 MB RAM, Ethernet or Fast Ethernet controller
- MPEG encoder according to encoder board table

Storage

- RAID - Ultra SCSI, fiber channel or network controllers
- Hierarchical storage - optional using Legato system

Network

- Standard IP-based networks -Fast/Gigabit Ethernet and ATM
- HFC Cable networks - DVB

Software

Server

- Microsoft Windows Server NT 4.0 (Service Pack 5) or Sun Solaris 2.7

Database (supplied)

- Microsoft SQL 7.0 for NT or Oracle 8 Database for Unix or NT

Viewer Workstation

- Windows 9x, Microsoft Windows NT 4.0 Workstation (Service Pack 5), Microsoft Windows 2000, Macintosh OS-9

Acquisition Workstation

- Windows 9x or Windows NT Workstation (Service Pack 5)

Supported MPEG encoder boards

Board	Remarks
Optibase Movie Maker	MPEG-1 only
Optibase Movie Maker 200	MPEG-1 and MPEG-2 (full D1)
Optibase Forge / Fusion	MPEG-1 and MPEG-2 (half / full D1)
FutureTel PrimeView NS 320 / 325	MPEG-1 and MPEG-2 (half /full D1)
VisionTec MVCAST	MPEG-2 (full D1)
DreamCom MPEG Rich 2000	MPEG-1 and MPEG-2 (half /full D1)

Supported MPEG decoder boards

Board	Remarks
Optibase VideoPlex	MPEG-1 and MPEG-2 Display to TV only Need ATI all-in-wonder board for PC display
Optibase VideoPlex XPress	MPEG-1 and MPEG-2
Sigma Designs NetStream 2000	MPEG-1 and MPEG-2
Sigma Designs Hollywood Plus	MPEG-1 and MPEG-2

Supported software decoders

Decoder	Remarks
Microsoft DirectShow	MPEG-1 only
Java Media Framework (JMF)	MPEG-1 only
RealNetworks	Real G2 only

Other Specifications

Video format	PAL, NTSC
Bit rate	384Kbps to 20Mbps - MPEG format 28Kbps to 1Mbps (RealNetworks' G2 format)
Communication protocol	IP- Unicast: TCP-IP and UDP/RTP, Multicast: UDP/RTP DVB - For HFC cable networks
Communication protocol stack	For IP: Windows: Winsock-2, Unix - BSD sockets For DVB: DVB-ASI
SDK	Visual C++, JAVA
Graphical User Interface (GUI)	Windows-based client or Web browser Interface and JAVA client
Remote server administration	Via any VideoClick client



Corporate Headquarters

Vsoft Ltd.
Hi-Tech Park, Zone 7, Bldg. 1A
P.O.Box 244, Yoqneam 20692, Israel
Tel: 972-4-959-9555 Fax: 972-4-959-0717

Vsoft Inc.
100 Apollo Drive, Suite 104
Chelmsford, MA 01824, USA
Tel: 978-250-9492 Fax: 978-250-9485

www.vsoft.com

