

**VIDEO STREAMING SYSTEM for LIVE, NVOD & ON-DEMAND
MPEG-2 & H.264 SD/HD for INTRANET IPTV**

iCue™ is your own inhouse TV station for streaming media with an integrated video archive.

The iCue™ Streaming System allows the digital distribution, management and recording of TV channels and camera signals: Any video at any time on any workplace.

iCue™ offers flexible video access: LIVE and ON-DEMAND, whether on PC's or TV's.

iCue™ is used in the following sectors for professional streaming and IPTV in LAN and intranet networks:

- Digital Business TV
- Medical and Campus TV: On-Demand training
- Editor TV and Journalist TV
- Documentation and training – Tele-medicine
- Video Monitoring: Control rooms and crisis centers
- Stadium and Event TV
- Compliance recording server
- Monitoring: Loop Recording

In-House Streaming

Network-based transmission of video signals. Video-over-IP technology is used as the distribution method for the video and audio signals. All signals are digitally transmitted on the standard data network. The network is used as a virtual AV-router: making additional cabling, amplification and video switching unnecessary.

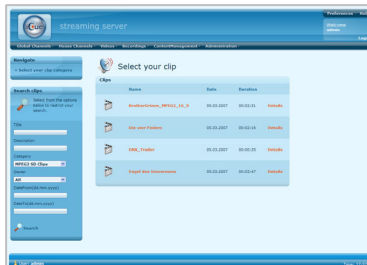
Professional Quality

The end-to-end iCue™ system with the integrated all digital signal processing enables professional DVD and DVB output. The open video standards MPEG-2 and MPEG-4/H.264 are supported in SD/HD resolutions by all four iCue™ Server models.

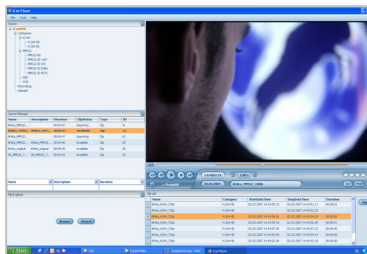
Features of the iCue™ Server

- Upload and import of existing video files, e.g. training clips, image movies and video archives
- Storing, export and re-import of videos
- Recording of live streams: TV/satellite stations, camera and monitoring signals
- Managing, archiving and indexing of content
- Broadcasting of streaming channels
- Scheduling of linear broadcasts, house channels (NVOD: near video on-demand)
- Access rights and permissions
- Graphical website for administration

iCue™ consists of the following three system components. The individual iCue™ components can be used modularly:



iCue™ Server—Recording and storing TV or camera signals, upload of video files, managing and indexing video content (metadata), provision of on-demand videos and publishing, broadcasting of own streaming channels as well as integrated management of users and rights.



iCue™ Player—All-in-One PC Stream Player: Replay of LIVE, NVOD, VOD streams, plug-in option Trim&Export for cutting and exporting recorded content, remote control of the basic functionality of the iCue™ Server.



iCueTV—Graphical interface for TV users with set top boxes, utilization of the iCue™ system on plasma displays, LCDs and projectors in seminar rooms, meeting rooms, auditoriums and lecture rooms.

Benefits and special features of iCue™

- Direct and quick display of videos
- High-definition DVD and DVB video quality
- Replay of LIVE signals directly on PC's and TV's
- Unlimited number of concurrent users for the LIVE replay
- Remote access to entire ON-DEMAND video archive by PC's and TV's
- Exact video analysis: Display and viewing of individual video frames
- No time-consuming fast forwarding/rewinding of removable media
- Automatic recording without changing the recording media
- Central server: No lost recordings
- One graphical interface for replay, search and recording options
- Protected video content: Login, permission and authorization requests
- End-to-end digital format for streaming and storage
- Using and leveraging the network as "virtual router"
- System scalability through IPTV building blocks
- Sustainable and future-proof: Support of the MPEG-2 SD/HD and MPEG-4 AVC H.264 SD/HD formats
- Optional: Editing and transcoding of video content
- Optional: Failsafe through redundant system architecture

iCue™ Server 4.0—Technical Data

iCue™ Server is a software application which offers the listed streaming services and features. The iCue™ Server is available in four different software versions. iCue-LIVE has been designed for live stream distribution including user/access management. iCue-100 allows recording and on-demand replay and is a starter model for only a few streams or low streaming data throughput. The iCue-1000 and iCue-2000 versions contain the entire scope and functionality of the iCue™ Streaming System and are thus appropriate for large and complex in-house IPTV installations.

	iCue-LIVE	iCue-100	iCue-1000	iCue-2000
User Management	Yes	Yes	Yes	Yes
Access Management	Yes	Yes	Yes	Yes
Max. data throughput	N/A	90 Mbit/s	200 Mbit/s	300 Mbit/s
Live Streaming (Multicast)	Yes	Yes	Yes	Yes
Recordings		Yes	Yes	Yes
Upload and Import		Yes	Yes	Yes
On-Demand VOD Streaming (Unicast)		Yes	Yes	Yes
Broadcasts, linear house channels, Nvod (Multicast)		Yes	Yes	Yes
Scheduling		Yes	Yes	Yes
External Archiving and Re-Import		Yes	Yes	Yes
Trim&Export: iCue Player plug-in		Yes	Yes	Yes
Support of external storage (SAN, NAS)		Yes	Yes	Yes
Storage on several drives, paths		Yes	Yes	Yes
Multi-Server: Loadbalancing and Clustering				Yes

All four versions support the following basic functionality:

Streaming formats	Support of MPEG-2 SD/HD and MPEG-4 H.264 SD/HD on the basis of transport streams
Output and Replay	PC: iCue™ Player, TV/Plasma/LCD/Projector via set top box: iCueTV
Trimming and Export	PC: Optional with Trim&Export plugin for the iCue™ Player
Management	Web browser and Configuration Manager
Interfaces and Integration	Operation of the server within a domain, LDAP/ADS connection SNMP traps as status messages, support of server hardware with several network cards (NIC's) Simple ASCII Remote Control Protocol as interface for server remote control (e.g. media controls AMX/Crestron) Web API for designing and adapting the graphical user interface, secure SSH website administration
Concurrent iCue Player Licensing	Control and limitation of concurrent system users
Reporting Manager	Display for the server status and user statistics
Configuration Manager	Software application for system and iCue server maintenance as well as content and user database maintenance

Additional features of the software versions iCue-100, iCue-1000 and iCue-2000

Sub-video categories	Management of video recordings in categories and sub-categories, multiple category levels
Metadata and free attributes	Storing of video names and descriptions as well as flexible and freely definable attributes for recordings and streaming channels

Minimum system requirements

Operating system	MS Windows® 2003 Server SP1, Internet Information Services v6.0 or higher, .NET Framework v2.0 or higher
Hardware	Pentium 4, 3.0 GHz, 2 MB, Hyperthreading, 1 GByte RAM Storage system: Recommended RAID1 or RAID5/RAID6 System partition: C:\ 20GB for Windows 2003 Server and iCue™ Server software Video partition: Storage volume depends on the number of videos to be stored and their bitrates: Example: Recording a live stream with 5 Mbit/s requires 2 GB in one hour and approx. 50 GB of storage in 24 hours

Teracue offers two tested, certified and pre-configured Windows® 2003 Server platforms for iCue™ Server:



ICUE-LIVE/100-HW
designed for iCue-LIVE/ iCue-100



ICUE-1000/2000-HW
designed for iCue-1000/ iCue-2000



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