

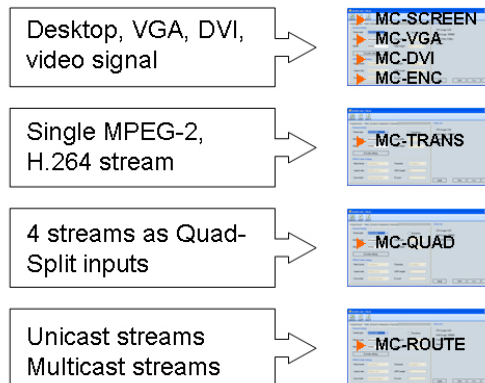
## MULTIFORMAT ENCODING, TRANSCODING and TRANSRATING SOFTWARE APPLICATION for IPTV LIVE STREAMS

**MultiCoder™ is an advanced software engine for the generation and processing of live streams.**

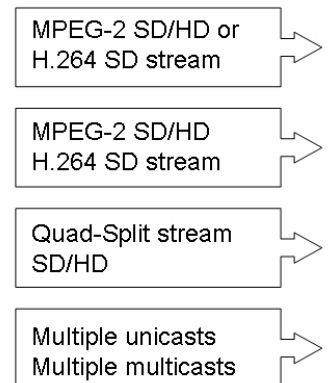
**The MultiCoder™ series includes a number of software applications for the creation and conversion of IPTV streams. The professional output streaming formats MPEG-2 SD/HD and MPEG-4 H.264 SD are supported.**

**The different MultiCoder™ software modules enable a variety of live stream encoding and transcoding tasks.**

### ▶ INPUTS:



### ▶ OUTPUTS:



<b>MC-SCREEN</b>	Encodes any local desktop- and screen-applications such as PowerPoint, Excel/Word, etc. Supports HD-resolution for detailed reproduction of text, figures and fine picture textures. Exclusive software encoding for PC's and laptops, without grabber card.	Package MC-1
<b>MC-VGA/DVI</b>	Encodes desktop- and screen-applications such as PowerPoint, Excel/Word etc. with VGA/DVI input. Supports HD-resolution for detailed reproduction of text, figures and fine picture textures. Requires additional VGA/DVI grabber card.	
<b>MC-ENC</b>	Multiformat software encoder and live stream transmitter with video and audio input. Support of CVBS, Composite signals via video grabber card. Support of Y/C, S-Video signals via video grabber card. Support of YUV, Component signals via video grabber card. Support of SDI signals with embedded audio via video grabber card.	
<b>MC-TRANS</b>	Enables transcoding and transrating of existing IPTV live streams. Allows stream modification and on-the-fly conversion of stream parameters: such as MPEG format, bitrate, bitrate type (CBR/VBR), resolution, GOP structure and much more. Exclusive software transcoder for servers and workstations.	Package MC-2
<b>MC-QUAD</b>	Software quad-split encoder, which creates one output stream from up to four live IPTV input streams. The output stream contains the video content of all the input streams. For multi-video monitoring of live-signals, back channels or different camera perspectives. Output formats: MPEG-2 SD/HD and MPEG-4 AVC H.264 SD. SD output enables reduction of up to 75% of the network bandwidth. HD output allows maintaining the original video resolutions and preserving image details. Exclusive software encoder for workstations.	
<b>MC-ROUTE</b>	Software application for converting, routing and bridging different streaming types. Designed for streaming to external locations, for WAN transmissions or for the adaption and alignment of live streams within an IPTV system. Multiple live input streams can be modified to unicast, multicast or multiple unicast/multicast streams.	MC-3

**All MC modules** Support unicast and multicast output streams. Support MPEG-2 SD, MPEG-2 HD and H.264 SD as output stream, all output-streams are ISO-standard compliant transport streams.

**Grabber cards** Some MC modules require an external grabber card in addition to the software. For a description of the recommended external grabber cards please see the separate Teracue IPTV Product Overview.

#### Minimum system requirements

The MultiCoder™ has been tested on a 'DELL Precision 490' Workstation. We recommend using the following software, hardware and network requirements. Please also see the Teracue Server Hardware Overview PDF, for individual hardware specifications.

**Operating system** MS Windows® XP Professional SP2, .NET Framework v2.0 or higher

**Hardware** 2 Dual Core Intel Xeon 5130 Processor, 2.0 GHz, 4 MB L2 Cache, Hyperthreading  
2048 MB DDR2-DSRAM (2x1024 MB), 533 MHz, Quad Channel Architecture, 25 MB free hard disk

**Processor load** Module: MC-ENC, encoding of video (Composite) and analog audio:  
MPEG-2 SD (720x576) needs 13 – 18 % of the CPU  
MPEG-2 HD (1920x1088) needs 32 – 57 % of the CPU  
H.264 SD (720x576) needs 43 – 60 % of the CPU