



**star** automation

VIDEO AUDIO SYSTÉMY  
**VAS**

STAR is a set of applications designed to automate ingest and playout of programmes, self promotion and commercials in a TV station.

Star is a frame accurate system supporting various types of TV technology equipment, including video servers, VTRs, cart machines, routers, logo generators, switchers/DVEs, teletext generators etc.

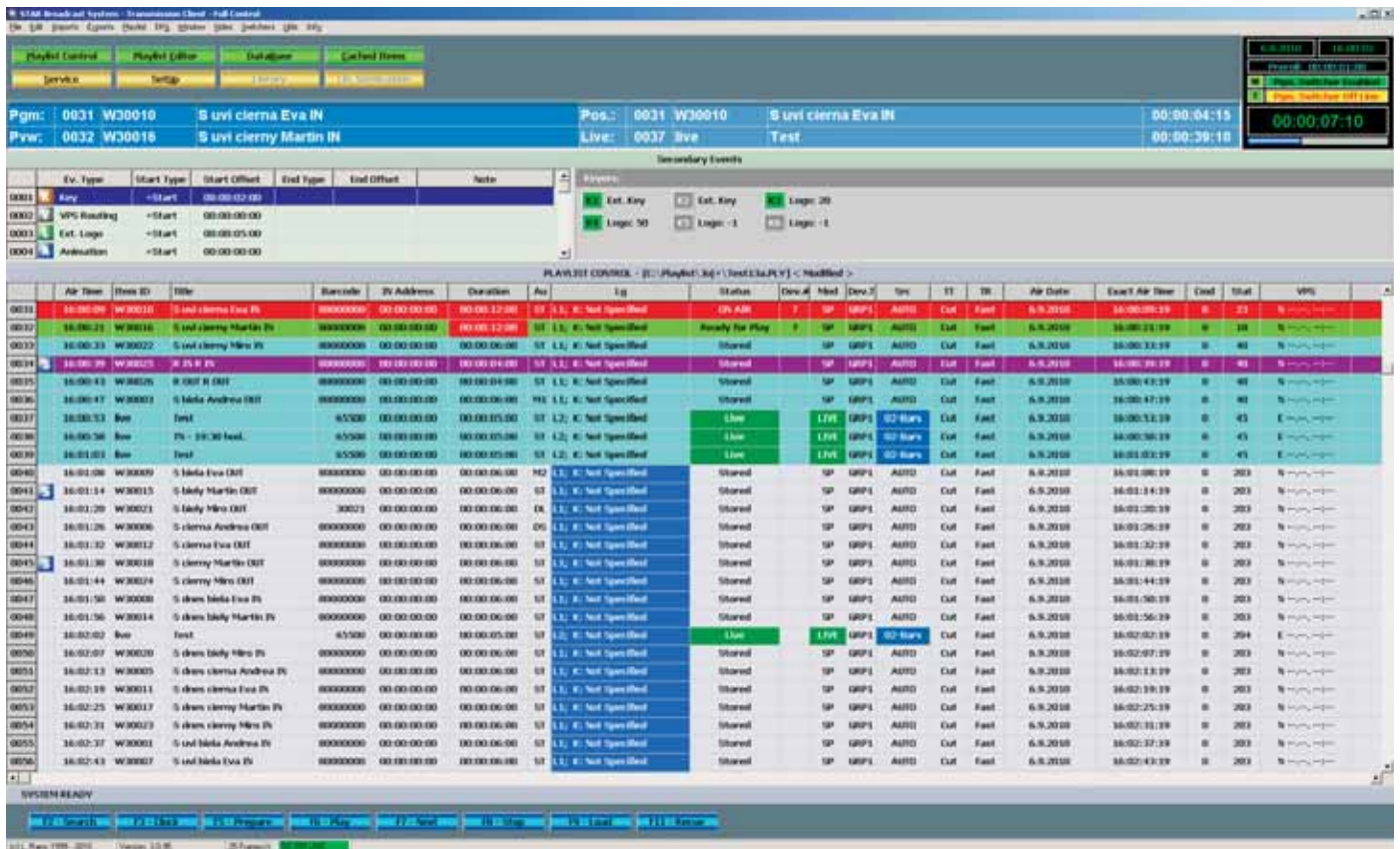
### AIR STAR FEATURES

- Designed for Windows XP / Windows Server 2003 or 2008 / Windows Vista / Windows 7 operating system
- Transmission Client cooperates with the Device Controller
- Contains playout management, playlist editor, video server content management and cart machine library management modes
- Video overlay capability - user can check the current On Air program on the computer monitor as well (very useful during making changes in the current playlist or manual starting playback after live event)
- Playlist check mode - includes a list of errors or warnings (zero durations etc.) and is able to check the limits of commercials in accordance with a law - necessary for every commercial TV
- Every playlist item contains a reconciliation key (up to 64 characters long string) which can be used by the traffic system for additional data processing
- Creates As Run Log and a detailed technical log including the communication events and user operations.

- As Run Log can be converted to open standard file format (HTML etc.) for additional processing
- All channels use the common shared database. If necessary, every channel can be configured to use its own local database.
- Wide support for secondary events - animations, squeezebacks, ...
- Automatic selection of 65500 logo types including animated logos
- GPI inputs / outputs
- Audio mode, VPS and WSS control
- Audio processor control - automatic selection of appropriate audio profile (up to 255 pre-defined profiles)
- Teletext and in-vision subtitling
- Playback from VTRs, video server channels and external signal sources (live events) as well.
- Automatic tape handling and the library management of the cart machine if connected

### DEVICE CONTROLLER

- Performs all time critical (frame accurate) tasks, directly controls VTRs, video server channels, switchers, etc. via RS422, RS232C or Ethernet
- Device Controller is locked to the TV reference
- Device types and settings are stored in the files - this feature brings high flexibility during the system configuration
- Device Controller has no graphical user interface, user actions are performed on the Transmission Client



• Transmission Client Series3

PLAYLIST CONTROL - Playlist: 36 (1) - Item 144 (AV)

Item ID	Item Title	Barcode	IN Address	Duration	Ac	LG	Status	Desal	Head	Dev 1	Dev 2	Trc	TT	TR	AP Date	Quat AP Time	End	Start	VPS
0001	02:39:33 W30017 Testovací příspěvek 01	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	ON AIR	7	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:39:33:19	0	20	N	
0002	02:39:53 W30004 Testovací příspěvek 02	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Ready for Play	7	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:39:53:19	0	18	N	
0003	02:40:53 W30038 Testovací příspěvek 03	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:40:53:19	0	40	N		
0004	02:41:53 W30036 Testovací příspěvek 04	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:41:53:19	0	40	N		
0005	02:42:53 W30032 Testovací příspěvek 05	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:42:53:19	0	40	N		
0006	02:43:53 W30017 Testovací příspěvek 06	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Live	SP	GRP1	GI-Mix	Cut	Fast	11.3.2011	02:43:53:19	0	45	N		
0007	02:44:13 W30017 Testovací příspěvek 07	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:44:13:19	0	40	N		
0008	02:44:33 W30017 Testovací příspěvek 08	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:44:33:19	0	40	N		
0009	02:44:53 W30004 Testovací příspěvek 09	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:44:53:19	0	40	N		
0010	02:45:53 W30038 Testovací příspěvek 10	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:45:53:19	0	203	N		
0011	02:46:53 W30017 Testovací příspěvek 06	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Live	SP	GRP1	GI-Mix	Cut	Fast	11.3.2011	02:46:53:19	0	204	N		
0012	02:47:13 W30036 Testovací příspěvek 11	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:47:13:19	0	203	N		
0013	02:48:13 W30032 Testovací příspěvek 05	80000000	00:00:00:00	00:01:00:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:48:13:19	0	203	N		
0014	02:49:13 W30017 Testovací příspěvek 13	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:49:13:19	0	203	N		
0015	02:49:33 W30017 Testovací příspěvek 14	80000000	00:00:00:00	00:00:20:00	ST	L1; K: Not Specified	Stored	SP	GRP1	AUTO	Cut	Fast	11.3.2011	02:49:33:19	0	203	N		

• Transmission Client Series4

Playlist Check Form

**List of Errors or Warnings**

- [0462] - Warning: Commercials Hour Limit Overflow (19:00) !!!
- [0463] - Warning: Commercials Hour Limit Overflow (19:00) !!!
- [0533] - Warning: Commercials Hour Limit Overflow (21:00) !!!
- [0534] - Warning: Commercials Hour Limit Overflow (21:00) !!!
- [0143] - Warning: Interval = "00:04:49:15" Rows: 143 - 147
- [0208] - Warning: Interval = "00:01:36:17" Rows: 208 - 213
- [0394] - Warning: Interval = "00:04:47:14" Rows: 394 - 398
- [0435] - Warning: Interval = "00:16:48:07" Rows: 435 - 438
- [0441] - Warning: Interval = "00:00:13:04" Rows: 441 - 442
- [0451] - Warning: Interval = "00:07:14:08" Rows: 451 - 457
- [0572] - Warning: Interval = "00:01:49:00" Rows: 572 - 573
- [0578] - Warning: Interval = "00:01:21:00" Rows: 578 - 582

**Total Duration per Hour - List**

05 - 00:00:00:00  
 06 - 00:01:59:14  
 07 - 00:09:02:09  
 08 - 00:11:22:09  
 09 - 00:06:06:23  
 10 - 00:08:41:07  
 11 - 00:10:28:04  
 12 - 00:03:11:13  
 13 - 00:08:10:17  
 14 - 00:01:19:14  
 15 - 00:03:44:06  
 16 - 00:04:23:05

Check Status: Checking Completed      Select Day: 4.11.2000

Date: 4.11.2000 - Total Duration is: 02:16:22:17; Hour Limit = 00:12:00:00 (18000 Frames)

Percent. Limit (Comms + Tish) - T: 20%  
 Percent. Limit of Commercials - C: 15%  
 Begin: 00:00:00:00  
 End: 23:59:59:24

Assigned T-C / Playlist T-C

Close

• Playlist check

IngestStar is a standalone application for dubbing the material from tapes to video servers. Live recordings are also supported. Ingest Manager has an access to the main database, dub list data (Item ID, IN Address and Duration) can be loaded from the playlists avoiding users having to retype them manually.

One IngestStar can control up to four VTR → video server channel ingest pairs simultaneously. Every Ingest Panel holds one ingest pair and can be configured at runtime without necessity to restart the IngestStar. Various configurations are supported including channels on different video servers. Multiple IngestStar can be used to obtain more ingest pairs.

### DATA PREPARATION

Star Data Workstation (Playlist and Database Editor) software is used for the transmission data preparation works.

The broadcast schedules can be imported from the traffic system and converted to the playlists. All necessary checks can be performed using this software before transferring the playlists to the Master Control Rooms.

One or more data workstations can be used. Every data workstation accesses the common shared database.

### FAULT TOLERANCE

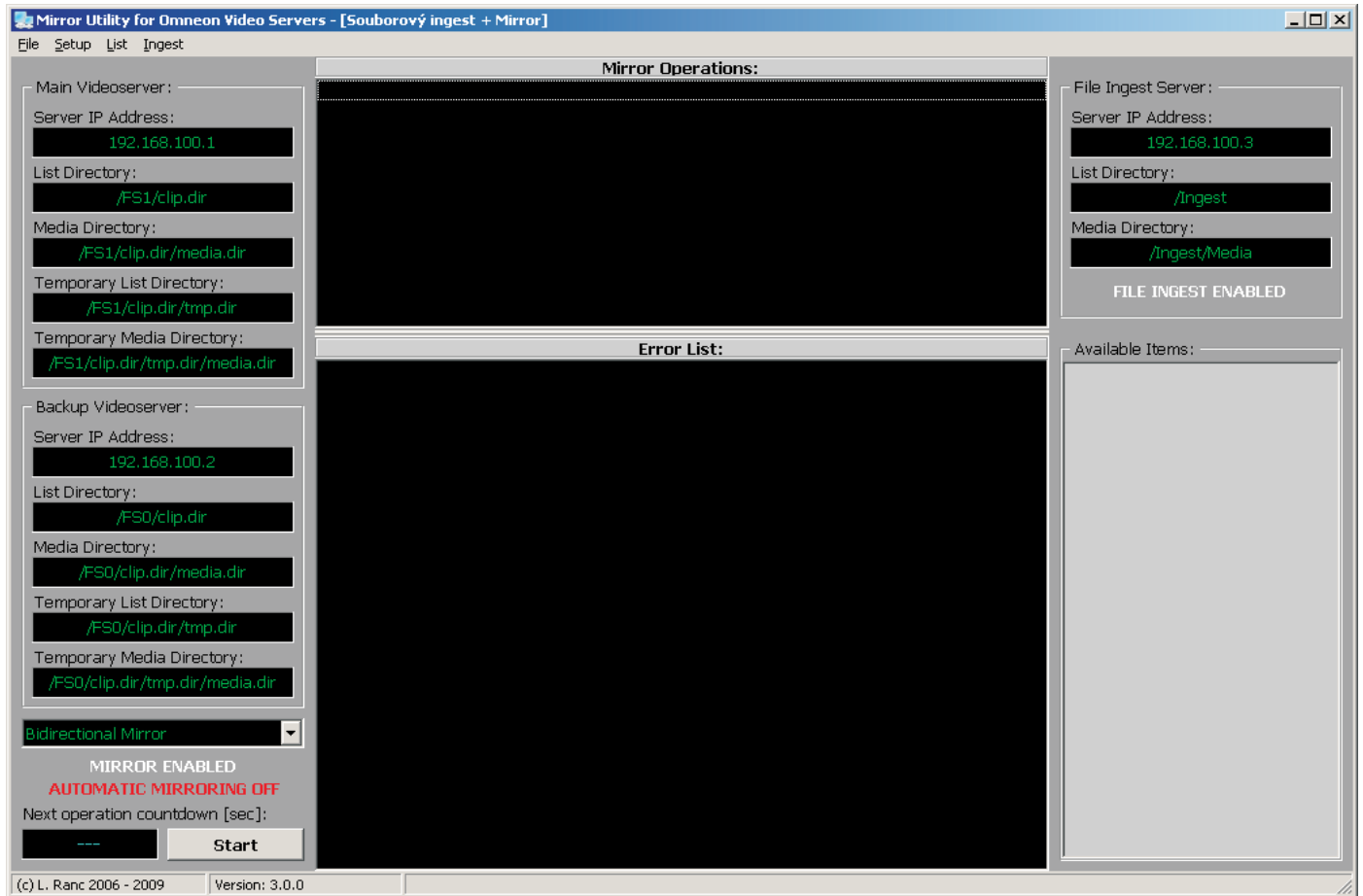
The system can be configured to keep the station on air even in the case of the device failure. This protection includes:

- Possibility of parallel playout of material from the second independent channel and switching over in the case of failure
- Availability of at least one redundant playout channel (mode N+1 or N+n)
- Using RAID disk storages in the Device Controllers and the System Managers
- Video server mirroring software which protects the material against the video server storage failure

The screenshot displays the Ingest Manager software interface. At the top, there are menu options: File, Window, Playlist, Panels. Below the menu, there are four tabs for ingest panels: T5 - AR Pan 1, T6 - AR Pan 2, T7 - AR Pan 3, and T8 - AR Pan 4. The main area is divided into four quadrants, each representing an ingest panel (Panel VTR1 to Panel VTR4). Each panel has a 'PLAYER' section with controls for LTC (00:00:00:00), REC (00:00:00:00), and CURRENT ITEM (ID: 00:00:00:00, IN: 00:00:00:00, DUR: 00:00:00:00). There are also buttons for 'STOP AUTO REC' and 'AUTO RECORD'. At the bottom, a playlist table is visible with the following data:

Item ID	Title	IN Address	Duration	Status
0001	000315c	00:04:00:00	00:00:25:02	Not Stored
0002	000340a	00:03:44:23	00:00:05:23	Not Stored
0003	000545b	00:03:00:00	00:00:29:23	Not Stored
0004	000545c	00:04:00:00	00:00:29:23	Not Stored
0005	000605a	00:02:00:00	00:00:19:24	Not Stored
0006	001063a	00:02:00:00	00:00:53:10	Not Stored
0007	100316e	00:06:00:00	00:00:19:24	Not Stored
0008	100316f	00:07:00:00	00:00:19:24	Not Stored
0009	100555a	00:02:00:00	00:00:20:15	Not Stored
0010	100555d	00:07:00:00	00:00:20:14	Not Stored
0011	100851a	00:02:00:00	00:01:11:22	Not Stored
0012	100851d	00:08:00:00	00:00:34:12	Not Stored
0013	101043a	00:02:00:00	00:00:19:24	Not Stored
0014	101045a	00:02:00:00	00:00:24:20	Not Stored
0015	101045c	00:04:00:00	00:00:15:04	Not Stored
0016	101045f	00:07:00:00	00:00:13:22	Not Stored
0017	101045g	00:08:00:00	00:00:16:05	Not Stored
0018	101045i	00:10:00:00	00:00:15:09	Not Stored

At the bottom left, it says '(C) J. Ranc 2006' and 'Version: 1.0.24'. At the bottom right, it says 'Router: NETWORK' and 'Off Line'.



- Mirror Utility

**STUDIOSTAR** is a playout system primarily designed for the studio and newsroom purposes. StudioStar controls up to two videosever channels at a time. First channel is dedicated as a record channel, the second one as a playout channel.

The material can be ingested to the videosever using the record channel from the attached VTR or copied directly as a file.

More StudioStar instances can be run simultaneously to realize the multichannel playout.

The database and playlist resources can be shared between Star applications allowing the seamless operation.

StudioStar uses MOS gateway to interface to various newsroom systems.

Clipbank K2 - Channel 1 Test Configuration

File Playlist Caching Window Help

Playlist Editor Database Cached Items Devices

11.3.2008 1:40:54

Pgm: 0001 BA British Airways 00:00:01:00 00:01:00:00

Pvw: 0002 BA British Airways 00:00:01:00 00:01:00:00

00:00:51:23

PLAYLIST CONTROL - Playlist: C:\Playlist\test\_k2.cp

	Air Time	Item ID	Title	Barcode	IN Address	Duration	Au.	Lg.	Status	Air Date	Ex. Air Time	Item	Special Identifier
0001	04:40:46	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	ON AIR	10.3.2008	04:40:46:00	60	
0002	04:41:46	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Ready for Play	10.3.2008	04:41:46:00	340	
0003	04:42:46	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:42:46:00	3	
0004	04:42:50	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:42:50:00	3	
0005	04:43:50			0	00:00:00:00	00:00:00:00	M1	No	--- Break ---	10.3.2008	04:43:50:00	4	
0006	04:43:50	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:43:50:00	3	
0007	04:44:50	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:44:50:00	3	
0008	04:45:50	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:45:50:00	3	
0009	04:46:50	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:46:50:00	3	
0010	04:46:54	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:46:54:00	3	
0011	04:47:54			0	00:00:00:00	00:00:00:00	M1	No	--- Break ---	10.3.2008	04:47:54:00	4	
0012	04:47:54	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:47:54:00	3	
0013	04:48:54	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:48:54:00	3	
0014	04:49:54	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:49:54:00	3	
0015	04:50:54	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:50:54:00	3	
0016	04:50:58	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:50:58:00	3	
0017	04:51:02	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:51:02:00	3	
0018	04:52:02	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:52:02:00	3	
0019	04:53:02			0	00:00:00:00	00:00:00:00	M1	No	--- Break ---	10.3.2008	04:53:02:00	4	
0020	04:53:02	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:53:02:00	3	
0021	04:54:02	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:54:02:00	3	
0022	04:54:06	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:54:06:00	3	
0023	04:54:10	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:54:10:00	3	
0024	04:55:10	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:55:10:00	3	
0025	04:55:14	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:55:14:00	3	
0026	04:55:18	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:55:18:00	3	
0027	04:56:18	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:56:18:00	3	
0028	04:57:18	BA	British Airways	65500	00:00:01:00	00:01:00:00	M1	L1	Stored	10.3.2008	04:57:18:00	3	
0029	04:58:18	D000009q	Jingle	65500	00:00:00:00	00:00:04:00	M1	L1	Stored	10.3.2008	04:58:18:00	3	
0030	04:58:22			0	00:00:00:00	00:00:00:00	M1	No	--- Break ---	10.3.2008	04:58:22:00	4	

Version 2.4.1 Reading Profile Content Done

• StudioStar payout

Clipbank K2 - Nova News 1

File Playlist Caching Window Help

Playlist Editor Database Cached Items Devices

11.3.2008 1:43:30

Pgm: 0004 BA British Airways 00:00:01:00 00:00:10:00

Pvw: 0005 otn-z-copy08 Test dlouhého názvu 00:00:00:00 00:00:04:00

00:00:05:06

PLAYLIST CONTROL - Playlist: C:\RancSoftware\Clipbank\_K2\Playlist\Nova\_News.cp

	Air Time	Item ID	Title	Barcode	IN Address	Duration	Au.	Lg.	Status
0004	01:43:25	BA	British Airways	65500	00:00:01:00	00:00:10:00	ST	L2	ON AIR
0005	01:43:35	otn-z-copy08	Test dlouhého názvu	65500	00:00:00:00	00:00:04:00	M1	L1	Ready for Play
0006	01:43:39	BA	British Airways	65500	00:00:01:00	00:00:10:00	ST	L3	Stored

Clipbank K2 - Nova News 2

File Playlist Caching Window Help

Playlist Editor Database Cached Items Devices

11.3.2008 1:43:30

Pgm: 0003 otn-z-copy08 Test dlouhého názvu 00:00:00:00 00:00:04:00

Pvw: 0004 BA British Airways 00:00:01:00 00:00:10:00

00:00:02:17

PLAYLIST CONTROL - Playlist: C:\RancSoftware\Clipbank\_K2\Playlist\Nova\_News2.cp

	Air Time	Item ID	Title	Barcode	IN Address	Duration	Au.	Lg.	Status
0003	01:43:28	otn-z-copy08	Test dlouhého názvu	65500	00:00:00:00	00:00:04:00	M1	L1	ON AIR
0004	01:43:32	BA	British Airways	65500	00:00:01:00	00:00:10:00	ST	L2	Stored
0005	01:43:42	otn-z-copy08	Test dlouhého názvu	65500	00:00:00:00	00:00:04:00	M1	L1	Stored
0006	01:43:46	BA	British Airways	65500	00:00:01:00	00:00:10:00	ST	L3	Stored
0007	01:43:56	otn-z-copy08	Test dlouhého názvu	65500	00:00:00:00	00:00:04:00	M1	L1	Stored
0008	01:44:00	BA	British Airways	65500	00:00:00:20	00:00:10:00	ST	L4	Stored
0009	01:44:10	BA	British Airways	65500	00:00:01:00	00:00:11:00	ST	L5	Stored
0010	01:44:21			0	00:00:00:00	00:00:00:00	M1	No	--- Break ---
0011	01:44:21	625-ST	--- 625-ST	65500	00:00:00:00	00:00:31:13	ST	L1	Stored
0012	01:44:52	BA	British Airways	65500	00:00:00:00	00:01:01:07	ST	L1	Stored
0013	01:45:53	otn-z-copy08	Test dlouhého názvu	65500	00:00:00:00	00:00:04:00	M1	L1	Stored

Version 2.0.4 SYSTEM READY

• StudioStar multichannel operation

**TV Nova – Prague, Czech Republic**

Star series broadcast system since 1999. The first broadcast system for TV Nova was realized in 1996.

**TV Joj – Bratislava, Slovak Republic**

since 2002

**TV Óčko – Prague, Czech Republic**

since 2007

**TV Prima – Prague, Czech Republic**

since 2008

**TV Barrandov – Prague, Czech Republic**

since 2008

**MTV Czech – Prague, Czech Republic**

since 2009

**Cart Machines**

Odetics TCS 45, Odetics TCS 90

**Character Generators**

Animations Player (Video Audio Systémy),  
Miranda Intuition, Pinnacle TypeDeko,  
Harris IconStation, VizRT Trio,  
VizRT Multichannel,  
Hego AKI graphics station,  
Titlebox, MagicSoft CG

**Audio Procesors**

Orban, Phobos Trans-Digi 2009,  
Jünger Audio

**Newsroom Systems – MOS**

Octopus 6

**Clock Generators**

Eliclock, Miranda Imagestore

**GPI control**

Control by level, control by pulse

**Logo Generators**

Leitch LogoMotion, Miranda Imagestore,  
Evertz 9725LG

**Master Switchers / DVEs**

Elvia EMS 100, GVM2100,  
Miranda Imagestore,  
Miranda Prescontrol, Harris IconMaster,  
Quartz QMC-2

**Traffic System**

Provys, MIS

**Routers**

GV Encore, GV Ten-XL,  
GV Performer, Network Electronics,  
ProBel, Quartz Q-series, GV Jupiter

**Teletext Generators, VBI inserters**

Saturn-Toya Phoebe Neo  
Utilia Teletext Generator

**Video Servers**

GV K2, GV K2 Summit, GV M-Series,  
GV K2 Solo,  
GV Profile PDR and XP series,  
GV Turbo iDDR, Leitch, Omneon,  
Harris Nexio, SeaChange  
*+ any other video server using VDCP, Odetics /  
AMP communications protocol*

**VTRs**

*Any device using SONY RS422 protocol*

*New devices will be added in accordance with  
the customer's requirements.*



**Ing. Zdeněk Huml – Video audio systémy**

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ISO9001:2009 Reg. No.: C-80713