

An open source play-out automation
used in TVP's regional channels

CASPAR-CG BASED PLAYOUT

Design

- Two outputs: main (aka PGM) and backup/preview (PRV)
- One or two PCs with CasparCG as player
- Multi-channel, with one scheduling engine and one media manager per each channel
- Ingest: file based, incl. Sony XDCAM, using FFmpeg
- „Shallow” archive
- MySQL as database

Features - engine

- Rundown nesting, grouping (containers)
- Clips, live, graphics
- Attached GPI events
- Rundown manipulation, instant timing
- Clip preview and trim
- Aspect ratio control

Rundown view

The screenshot displays the TVPlay software interface. At the top, the title bar reads "TVPlay - Open Source Playout Automation". Below it is a menu bar with "Show", "Rundown", "Edit", and "Tools". The main interface is divided into several sections:

- Channel time:** Shows "13:47:18" and playback controls (play, stop, previous, next, home).
- Now playing:** Displays "04:35:10:12 BRC55992.mxf" with a volume indicator at "0,0 dB".
- Container:** A list of scheduled events. The selected event is "BRC64711.mxf" (BRC64711.mov) starting at 13:47:27:20 and ending at 00:00:08:00. Other events include BRC40802.mov, BRC55992.mxf, BRC64711.mxf, BRC31433.mxf, and 300913AU.lxf.
- Properties Panel:** A detailed view of the selected clip "BRC64711.mxf". It shows settings for Type (Clip), Name (BRC64711.mxf), Starting (After finish), Hold (BRC55992.mxf), Scheduled (2015-06-21 13:47:27:20), Duration (00:00:08:00), TC Start (00:00:00:00), Clip (BRC64711.mov), Transition (Cut), length (0), Volume (0,0 dB), GPI Logo (Normal), Crawl (No crawl), and Parental (12).
- Preview panel:** A section for previewing the selected clip, including playback controls and TC (Time Code) information.
- Bottom Status Bar:** Shows "ON AIR", "PGM", "PRV", "PST", "GPI", "Active", "4:3", "Crawl: No crawl", "Logo: No logo", "Parental: None", and "Selected 1, total 00:00:08:00".

Rundown tree

Selected event properties

Preview panel

Play-out control

Servers and GPI status

Features - media

- File ingest, including XDCAM subclips via FTP
- File conversion to server-friendly formats (FFmpeg)
- Media clipping after ingest, named fragments
- Clip archiving, export to XDCAM
- Audio **loudness** measuring and correction

Media manager view

TVPlay - Open Source Playout Automation

Find: PGM (\\10.191.100.16\Playout\PGI) All Search

Ingest Archive (delete after) Archive Volume Export Delete

Clip name	Ingest date	Start TC	Duration	File name
✓ BRC77701.mxf	5/26/2015 12:01 PM	00:00:00:00	00:00:08:00	BRC77701.mov
✓ BRC77706.mxf	5/14/2015 4:26 PM	00:00:00:00	00:00:15:00	BRC77706.mov
✓ BRX56767.mxf	5/11/2015 3:58 PM	00:00:00:00	00:00:30:00	BRX56767.mov
✓ BRX77706.mxf	5/12/2015 10:11 AM	00:00:00:00	00:00:15:00	BRX77706.mov
✓ BRX77706A	5/12/2015 2:31 PM	00:00:00:00	00:00:15:00	BRX77706A.mov
✓ BRX79412.mxf	5/12/2015 10:05 AM	00:00:00:00	00:00:15:00	BRX79412.mov
✓ C0001	9/1/2015 5:15 PM	00:00:00:00	00:00:30:00	C0001.mov
✓ C0001ZA	6/1/2015 5:24 PM	09:59:09:00	00:00:00:04	C0001ZA.mov
✓ C0002	5/29/2015 4:06 PM	10:23:54:06	00:00:06:16	C0002.mov
✓ C0002.MXF	10/7/2014 9:24 AM	00:00:00:00	00:05:06:17	C0002.MXF
✓ C0003	5/27/2015 2:14 PM	10:24:00:22	00:00:42:11	C0003.mov
✓ C0004	5/29/2015 4:25 PM	10:24:43:08	00:00:42:24	C0004.mov
✓ C0004A	6/1/2015 5:23 PM	10:24:43:08	00:00:00:04	C0004A.mov
✓ C0004ZA	6/1/2015 5:34 PM	10:24:43:08	00:00:42:24	C0004ZA.mov
✓ c001_org.mov	9/4/2014 9:06 AM	00:00:00:00	00:42:22:22	c001_org.mov
✓ c001_pdx.mov	9/4/2014 8:33 AM	00:00:00:00	00:45:37:12	c001_pdx.mov
✓ C0011	5/29/2015 12:35 PM	01:00:37:21	00:00:07:05	C0011.mov
✓ C0012	5/27/2015 1:52 PM	01:00:45:01	00:00:14:23	C0012.mov
✓ C00121	5/29/2015 3:50 PM	01:00:45:01	00:00:14:23	C00121.mov
✓ C0012S	6/1/2015 5:23 PM	01:00:45:01	00:00:00:04	C0012S.mov
✓ C0012ZA	6/2/2015 8:56 AM	01:00:45:01	00:00:14:23	C0012ZA.mov
✓ C0013a	5/29/2015 4:02 PM	01:00:59:24	00:00:28:12	C0013a.mov
✓ C0016A	5/29/2015 4:02 PM	01:01:40:12	00:00:02:18	C0016A.mov
✓ C0017	6/1/2015 5:23 PM	01:01:43:05	00:00:00:04	C0017.mov

Clip properties (C0001):

Clip name: C0001
File: C0001.mov
Ingest date/time: 9/1/2015 5:15 PM

Times	Clip	Playout
Start TC	00:00:00:00	00:00:00:00
Duration	00:00:30:00	00:00:30:00

Video format: PAL (16:9)
Category: Uncategorized
Emphasis: According to category
Parental control: None
Play volume: 0.1 dB
External ID:
File status: Available
File type: Clip

File operation list:

Progress	Operation	Order time	Start time	Finished	Trials left
✓	Delete PGM:C0001A.mov	3:28:24 PM	3:28:24 PM	3:28:24 PM	15
✓	Delete PRV:C0001A.mov	3:28:24 PM	3:28:24 PM	3:28:24 PM	15
✓	C0001 -> XDCAM	3:30:27 PM	3:30:27 PM		1

Preview panel:

300913AU.lxf
300913AU.mov

Start TC: 10:00:00:01 | Current TC: 10:00:00:01 | Duration: 00:08:45:00

10:00:00:01 In Out 10:08:45:00

Name	TC In	TC Out
Stadion	10:03:00:00	10:03:30:04

Files: 224 Size: 1862.92 GB Free: 1064.46 GB(57.1 %)

TVP Szczecin TVP Szczecin - Media

Directory content

Selected clip properties

File operation list

Preview panel

Project status

- Operating in 3 regional TVP branches
- Mainly written in C# using WPF
- Source code released on GPL license
- Contribution welcomed
- Project home page: <http://playoutautomation.tvp.pl>
- Contact: jurek@tvp.pl