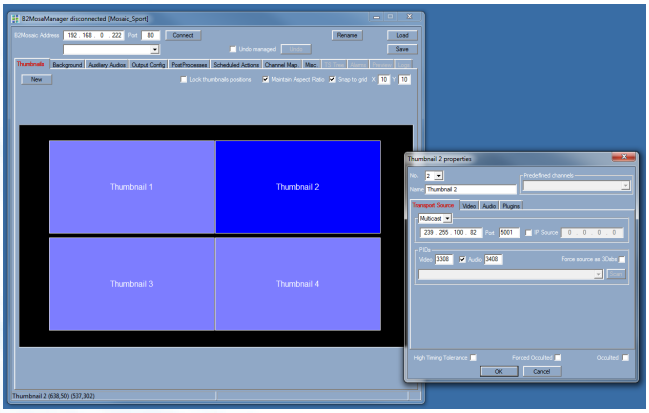
B2Mosaic

Digital mosaic generation system

B2Mosaic is a digital mosaic generation system, allowing to compose a navigation screen with multiple thumbnails created from video streams (SD or HD) or still pictures. As the system directly receives the input streams from its IP or ASI interfaces, the system is fully autonomous, and does not need any supplemental encoding or decoding devices.

Each device is a 1 RU PC-based plateform allowing the composition of a picture including up to 20 thumbnails. Each input service is scaled and repositioned in order to compose the final picture. This picture is then encoded and broadcasted in a MPEG2/TS stream, alongside audio channels, MPEG-2 tables, and meta-data. Finally, the mosaic allows to broadcast application based upon client middleware, in order to integrate easily in every set-top-box environment. If 20 thumbnails is not enough, it is also possible to link several devices for increased computing power, or to handle multiple "mosaic pages", each page being displayed in order for an amount of time configured by the user.

The mosaic composition is done using a WYSIWYG application, which connects to the B2Mosaic platform to seamlessly update its configuration. For each thumbnail, it is possible to define a size, the service it will contain, as well as cosmetic options (e.g. rounded corners, ...). It is also possible to copy/paste thumbnails in order to speed up the layout design.



CHARACTERISTICS

Video Inputs

- Up to 20 SD thumbnails or 6 HD thumbnails per unit
- MPEG-2 and H.264 encodings
- ASI or UDP/IP (Unicast, Multicast) inputs

Video Processings

- Dynamic resizing
- Positioning
- Output video pre-processing (soften/sharpen)
- Cropping
- Aspect ratio adaptation (Letterbox, Pan and Scan)

Audio Inputs

- MPEG1 layer 2,
- Dolby Digital (AC-3) passthrough
- AAC

Graphic Composition

- Still & animated backgrounds
- Alpha blending
- Thumbnails with rounded corners
- Thumbnail replacement with a logo on error

Plugins / Monitoring

- Scrolling text
- Audio VU-meters displaying
- Thumbnail customization with animated or still logos

Audio Processings

- Passthrough
- Transcoding
- Audio level control

Output stream

- Format NTSC or PAL
- H.264 (bitrate 600 Kpbs to 24 Mbps) and MPEG-2 (bitrate 1 Mbps to 45 Mbps)
- NTSC Resolutions 1920x1080, 1280x720, 720x480, 704x480, 640x480, 544x480, 480x480, 352x480, 240x480
- PAL Resolutions 1920x1080, 1440x1080, 1280x720, 720x576, 544x576, 480x576, 352x576, 352x288
- Aspect Ratios 4:3, 16:9
- 3D Side by side

Administration

- Remote configuration application
- Alarm journaling
- Dynamic modification of the graphic composition
- Offline configuration creation is allowed
- Thumbnail occultation (parental control)

TECHNICAL SPECIFICATIONS

Inputs

ASI: TS-188, EN 500830-9

IP: UDP/IP Unicast or Multicast (IGMPv3)

Physical characteristics

Dimensions (mm):	H: 42.6 (1RU) W: 480 D: 770
Weight:	17.69Kg
Power Supply:	Redundant hot-plug (1+1)

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