



LIGOS CORPORATION

# mosaic

Video-rich Navigation for a Variety of Platforms

## Next-Generation Navigation for Any Generation of Video Content or Platform

**Ligos Mosaic** is an extremely cost-effective, headend-based enhancement to the existing Interactive Program Guide that enables multichannel operators to provide video-rich, next-generation guide channels, even on an install-base of legacy STBs and more. Using a tiled “video montage” layout, Mosaic navigation displays up to a dozen or more thumbnails of high-quality live video streams on a single screen. The viewer uses the arrow buttons on their remote control to navigate and highlight individual tiles and hear the accompanying audio, and can directly tune to that channel if something captures their interest.



## Mosaic Highlights

- Create audience-specific video portals for News, Sports, Children’s, Movie and Local programming
- Ideal for key line-up differentiators such as weather and traffic cam channels and “event” television
- Attain new revenues by incorporating interactive advertising, promotions for services such as triple-play, VOD and PPV portals and more.
- Integrated Channel Map tool makes set-up a breeze
- Flexible templates and broad support for graphics enable unique look and feel, and custom branding
- XML-based architecture supports integration with other systems, and includes an external utility for scheduling and serving dynamic content, including scheduled ads – make *your* Mosaic do more!

A compact 1RU server equipped with Mosaic software replaces a rack full of headend equipment that might otherwise be required to generate a single video rich channel. Ligos’ Mosaic implementation is compatible with a wide variety of industry EPG middleware solutions including Rovi Corporation’s i-Guide™, Passport, Microsoft, SARA, MDN 3.0 and EBIF. As a result, Ligos Mosaic is the most widely-deployed solution worldwide for enhanced guides of this nature.

Mosaic is advanced video-processing software that utilizes Gigabit Ethernet interfaces for input, output, and management, and easily integrates into today’s multichannel architectures. The software consolidates

all of the required functions – input, decoding, re-scaling, compositing, navigation metadata generation, channel mapping, encoding, multiplexing, integrated carousel and output – into a single, compact platform that can be managed online in real-time, either locally or remotely. Also available is **Fail-Safe Supervisor**, a network-based failover monitoring and control system specifically for multiple Mosaic installations.

Mosaic is also a key to new revenue opportunities for operators. Subscribers spend up to 10% of their viewing time within the program guide, so there are few better opportunities for advertising and promotion than when the viewer is in discovery mode.

# Mosaic Software Standard Features

## Input

- Interface – IEEE 802.3ab Gigabit Ethernet and local file input
- Protocol – UDP Multicast
- Stream – SPTS or MPTS MPEG-2 Transport Streams via UDP
- Video – SD MPEG-2 (HD and H.264 options also available)
- Format – NTSC
- Audio – MPEG Layer II or Dolby Digital AC-3
- Data – Middleware specific data
- Background – Motion video or still image
- Graphic Formats – 24 or 32-bit bitmaps w/ alpha support

## Output

- Interface – IEEE 802.3ab Gigabit Ethernet and file output
- Protocol – UDP Multicast or Unicast IP
- Stream – MPEG-2 via UDP
- Video – SD MPEG-2 (HD and H.264 options also available)
- Format – NTSC
- Bit Rate – based on target network and platform
- Audio – MPEG Layer II or Dolby Digital pass-through or re-encode
- Data – Program tables, channel map and XML navigation metadata

## Control and Processing Features

- Real-time, visual user interface simplifies the creation of dynamic Mosaic layouts, which can be saved and recalled
- Direct configuration via keyboard and mouse on local system, or remote operation over Ethernet
- Protocol – Client/Server Operation Using RPC over TCP/IP
- XML API with documentation and sample , used to control and configure the Mosaic server and content
- Integrated Channel Map utility, with support for multiple Mosaic systems utilizing a single map over a network
- Multiple input channels (video and audio) converted to navigable tiles, composited with associated graphical assets over a motion video or still image background
- Integrated layout templates for i-Guide™ IPG “VRN” option (versions A.24x and beyond) available; also compatible with middleware based on Passport, Microsoft, SARA, MDN 3.0 and EBIF
- Also available: Mosaic Fail-Safe Supervisor, our network-based failover monitoring and control system specifically for multiple Mosaic installations; monitors the Mosaic network, and can be configured to rollover to a redundant system should a problem be detected

## System Requirements

Mosaic software is licensed on a per-seat basis, and is intended for a 1RU PC server system equipped with Windows OS as detailed below. Mosaic Support includes online installation and configuration. Other support options available. System requirements for Mosaic processing (one server = one output SD Mosaic channel with multiple video tiles and audio channels):

- Intel Quad Core Xeon X3440, 2.53 GHz, 8M Cache
- Windows Server 2008 R2, Foundation Edition (English)
- 2GB Memory (2x1GB), 1333MHz
- 250GB 7.2K RPM SATA 3.5" Cabled Hard Drive (No RAID - Onboard SATA)
- Gigabit Ethernet/NICs: three (3) on-board dual gigabit network adapters, for video input, video output and management; Broadcom BCM 5709 or 5716 (or better) required for video input processing
- For HD (input and output) or AVC/H.264 video options (including upgrades), please contact Ligos for details on platform requirements

The Mosaic client user interface provides the operator a straightforward way to produce engaging layouts that include video, still graphics, text and navigation elements as layered objects positioned over branded backgrounds (still or motion) of their own creation. Tile contents can be dynamically changed and keyed on/off as-needed and layouts and assets can be saved and recalled for future use. The integrated Channel Map utility and XML-based architecture makes mosaic configuration portable, easy to use and ideal for integration into external control systems.



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