M-Class Architecture

Technical Note

Overview

The Kaleidescape M-Class architecture lays the foundation for the most engaging and powerful movie server experience yet. Benefits of this new platform include performance improvements, enhancements to the user experience and support for content from more sources.

M-Class Technology

Kaleidescape movie servers are built as appliances. Purpose-built hardware and the Kaleidescape Entertainment Appliance Operating System (KEAOS) work together to provide exceptional performance and reliability. The new M-Class architecture serves as a platform for future movie server innovation from Kaleidescape. The first products to leverage the M-Class architecture are the M500 and M300 Players.

New and Improved User Interface

The graphics facilities of the M-Class architecture enable the onscreen user interface to be fully animated at 1080p. Cover art from the Kaleidescape Movie Guide is presented in high definition. Browsing the cover art and scrolling through lists is faster and more responsive than ever.

Blu-ray Support

M-Class technology provides cutting-edge video decoding and processing as well as the bitstream multichannel audio output necessary to play Blu-ray Discs and other high definition content. See Table 1.

M-Class players also use a Gigabit Ethernet connection for faster import and more responsive playback of high definition movies.

Table 1   Audio and Video Codec Support by Player Class

	M-Class Players	**Earlier Kaleidescape Players**
Video Codecs	MPEG-2 H.264/MPEG-4 AVC SMPTE VC-1	MPEG-2
Audio Codecs	Linear PCM (up to 7.1) MPEG Dolby* Digital Dolby TrueHD DTS Digital Surround™ DTS-HD Master Audio™	Linear PCM (up to 2.0) MPEG Dolby Digital DTS Digital Surround

Future Innovation

The same video codecs are also prevalent in movies downloaded from the Internet, which means that the M-Class architecture is ready to play an important role as this delivery method matures.

Benefits for Movie Lovers

M-Class players bring the Kaleidescape Experience to Blu-ray Discs. Blu-ray movies start instantly, without any need to navigate the disc menu or wait for advertisements and trailers. Blu-ray movies play with high definition video, lossless audio and crisp subtitles.

With the right display device, Blu-ray movies can be output at 1080p resolution at 24 frames per second to match the original frame rate of the film. Triggers for control systems are included so that the lights can rise as the credits roll. New screen masking settings accommodate all varieties of home theaters.

Video processing for DVDs is also improved, particularly for letterboxed 4:3 films.
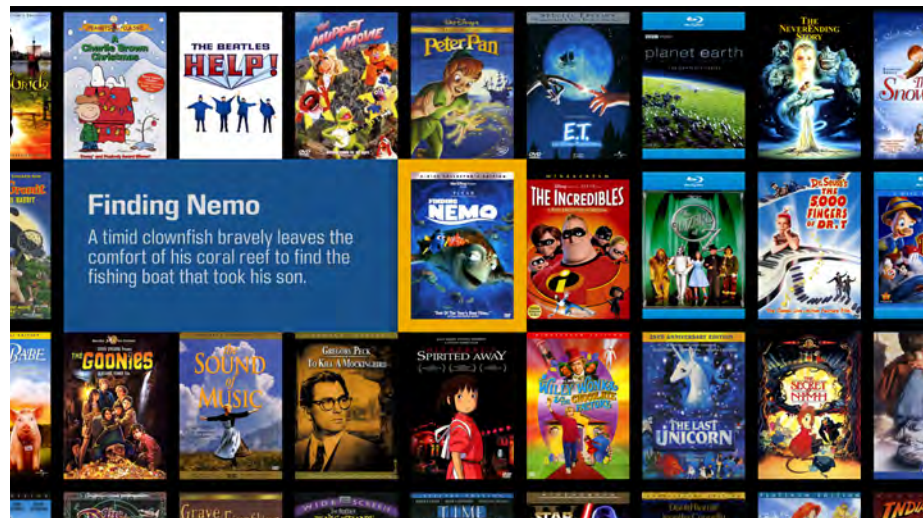
M-Class architecture enables a new high definition user interface. High resolution cover art from the Kaleidescape Movie Guide visually represents all the treasures in your movie library.

The Movie List view (see Figure 1) helps you find a movie, as movies can be sorted by title, genre, director, or a cast member.
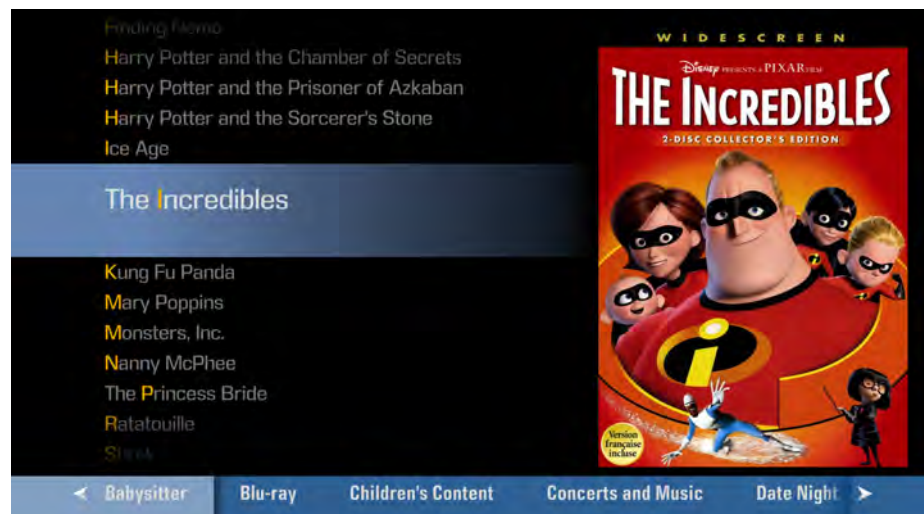

Figure 1   Movie List View

The Movie Covers view provides a panoramic view of a movie library, suggesting similar movies as you linger on a selection. See Figure 2.
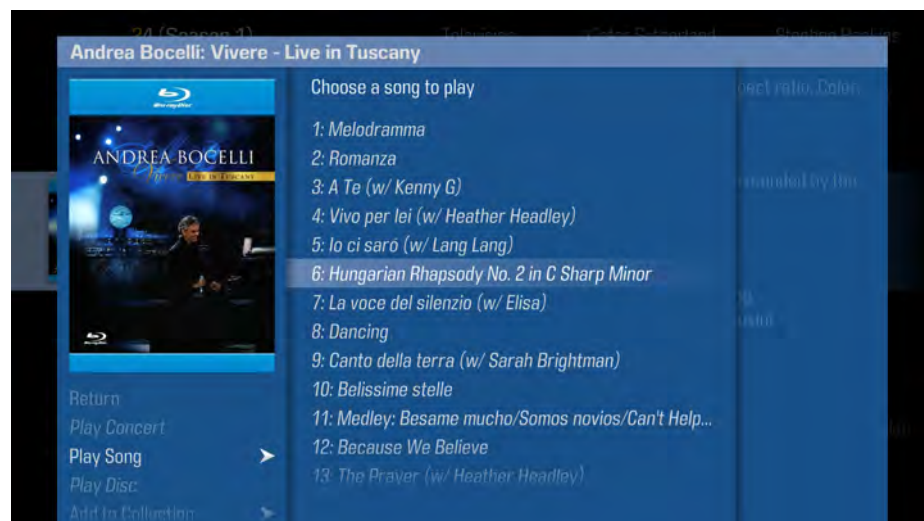

Figure 2   Movies Covers View

You can also create collections and organize any way you want. See Figure 3.

Figure 3   Movies Collections View

Benefits for Music Lovers

Music lovers will appreciate the lossless, high sample rate multichannel audio found on Blu-ray concert discs. M-Class players use bookmarks from the Kaleidescape Movie Guide to jump directly to the start of any song in a concert without navigating menus. See Figure 4.

Figure 4   Selecting Concert Songs Directly

Your compact disc collection is presented with the same elegant user interface used for movies. See Figure 5.

Figure 5   Music List View

Reconnect with the artwork of your favorite albums presented with eye-popping detail with the Music Covers view. See Figure 6.

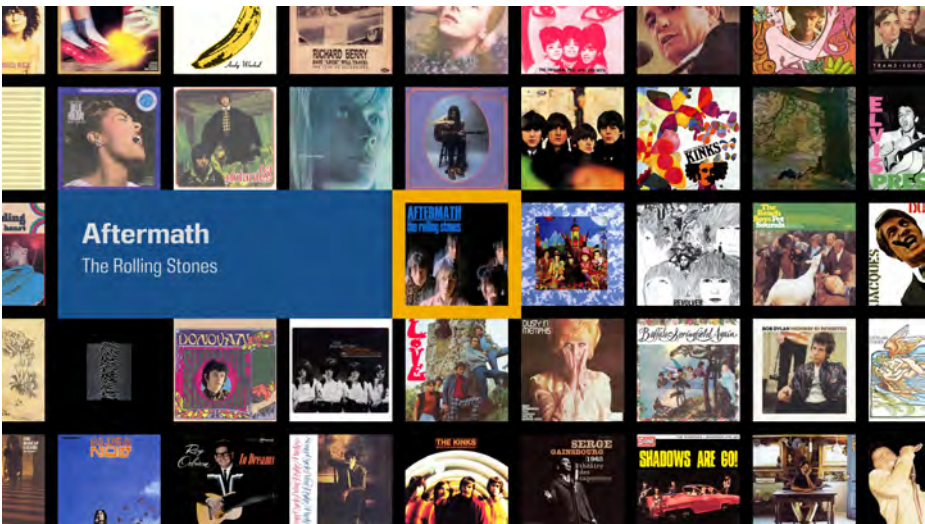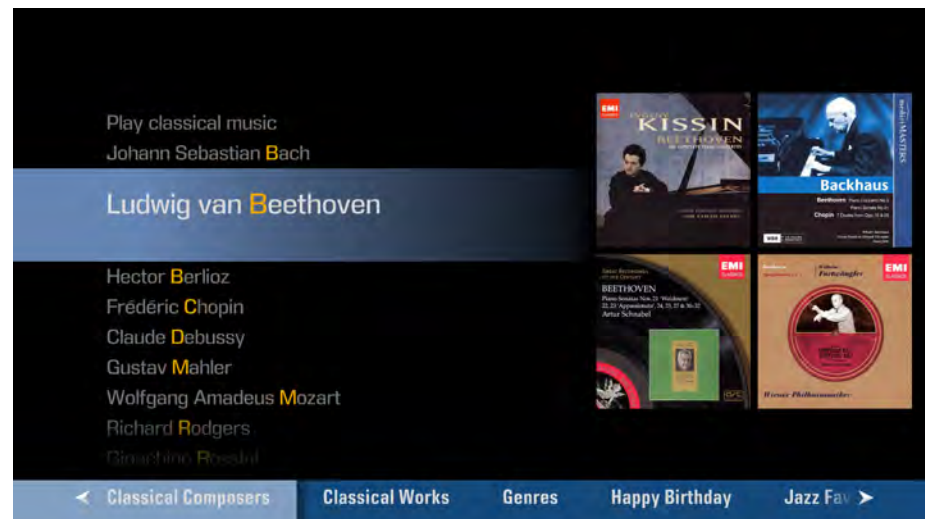**Figure 6   Music Covers View**

Select classical music by composer or work as part of the Music Collections view. See Figure 7.

Figure 7   Finding Classical Music

Read about albums and performances in your library and the people behind them on a details page. See Figure 8.

Figure 8   Artist Biography

Compatibility

M-Class components can be used in any Kaleidescape System. A system can contain a mixture of M-Class and non-M-Class players. M-Class players can be used with any Kaleidescape server.

Non-M-Class players are not capable of displaying the high definition M-Class user interface, and continue to display the original user interface.

Conclusion

The Kaleidescape M-Class player architecture improves and enhances the movie server experience. Enjoying the high fidelity of Blu-ray Discs is fast and easy.

Whether your passion is movies, music, or both, the M-Class architecture provides convenient access and unmatched elegance in the presentation, protection and distribution of your movies and music.