EQUIPMENT REVIEW

Kaleidescape Strato
Movie Player

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For those not familiar with Kaleidescape, since their inception, they have produced systems intended for high-end home theatres that make playing movies from a large library of selections as easy as possible. Their user interface remains the most sophisticated and user-friendly way to access movies from a large collection, making the process fun for those involved in picking a movie without necessarily knowing what they want to watch ahead of time. There are multiple ways to display the contents from the library from all titles of genres. Lists can be alphabetical or graphical with cover art. There are three core products in Kaleidescape's Encore product line that support all movie formats from DVD quality, to HD, to UHD, with or without HDR. The Strato reviewed here has 6 TB of on-board movie storage and retails for $4,495. A 10-TB Strato is available for $5,995. The Terra server increases movie storage and supports multi-room systems. It comes in 24-TB or 40-TB versions for $7,995 or $12,995. The Strato C is what you would use to expand access to your Kaleidescape system to other rooms. It has no onboard storage but can access movies stored elsewhere in the Kaleidescape system. The Strato C retails for $3,495. If you have a system with multiple Strato units and one or more Terra servers, all movies stored on all the devices are presented to users as a single movie library.

It has been a few years since the last Kaleidescape product review in *Widescreen Review*. Back then, the studios required Kaleidescape to confirm that the customer owned the Blu-ray Discs (DVD standard-definition disc imports could be played without the disc on systems sold before November 29, 2014). To achieve Blu-ray Disc imports, Kaleidescape had to provide a Disc Vault device that would hold hundreds of physical Blu-rays. These systems would import the discs to digital files stored on hard disks for fast multi-room playback. Playing the movie wouldn't happen if the disc wasn't present in the Disc Vault. With the new Encore series of Kaleidescape products, everyone involved—from Kaleidescape to dealers/installers/integrators and owners—are much happier now that studios have licensed

their content to Kaleidescape. This allowed Kaleidescape to do away with all requirements for physical discs and to sell movies as downloads from the Kaleidescape Movie Store.

For most movies, any special features you get with a disc purchase are included when you purchase and download movies from the Kaleidescape Movie Store. In each case, Kaleidescape gives you the same video and audio quality you get from physical discs. There are two things you get with Kaleidescape movies that you don't get with discs: 1) pre-selected "demo" scenes chosen because of their drama, action, sound, video, key plot points, or some combination of those, and 2) if there are any songs in the movie, these have their own playback menu so you can hear all the songs (and accompanying video) from movies like *La La Land* or *Snow White*. And while Kaleidescape has not formally announced an update to make Strato movie players fully and elegantly backward compatible with earlier Kaleidescape systems, they say they are fully committed to making this happen. The ultimate goal for this implementation of backward compatibility is to fully integrate the customer's existing Kaleidescape system with the Strato movie players and show all movies from both systems on the Strato movie library user interface.

Currently, you access the Kaleidescape Movie Store from a computer or tablet with an Internet browser. As part of the registration process for your system, you create a Movie Store account and provide payment information. Each title you purchase is automatically downloaded to your Strato system. When asked if the Kaleidescape Movie Store will be made available directly from the Kaleidescape user interface in the Strato, Kaleidescape said to watch for Kaleidescape's CEDIA announcements (September 2017). Movie prices are similar to what you would pay for movie discs in stores. Older titles tend to be priced a little lower, and standard-definition titles are priced even lower. For newer and popular releases, figure around $15 for standard definition, $25 for HD, and $35 for UHD or UHD+HDR. There are "specials" from time to time. If you sign up for Kaleidescape emails, you will get notifications of special prices. You can't play movies from the Kaleidescape Movie Store on other devices, and you can't download movies without having a

Kaleidescape device with storage. Many HD and UHD discs are sold with an UltraViolet code that allows you to download a digital version of the movie that can be played on an array of digital devices, Kaleidescape has a UV Locker to store UltraViolet codes for movies purchased from the Movie Store. Movies you download to a Strato or Terra can only be played from a Strato, but the UltraViolet downloads allow you to play the movie on other, non-Kaleidescape, devices.

Kaleidescape keeps all of your movie purchases in a database, so if something ever happens to one movie or if a hard disc fails, you can re-download any title you have already purchased with no additional fee. In addition, if you purchased a movie in standard definition or high-definition and decide you want it in UHD or UHD/HDR, you only pay for the "upgrade" rather than having to pay full price for the movie again. However, there are some studios that don't allow Kaleidescape the flexibility to offer this "upgrade" option, so check on a title-by-title basis when looking to upgrade.

Like earlier Kaleidescape systems, the Strato is intended for maximum ease of use. These are not products that require fiddling or weeks of practice to master. Nothing is hidden, everything is simple, and storage can be expanded to satisfy even the most well-heeled movie lovers. Strato movie players have dual HDMI outputs to support systems where the audio system may not support the newest video formats. Setup is likely to be performed by the dealer/installer/integrator. Networking the Kaleidescape system requires Gigabit (1000BaseT) Ethernet or faster due to the high bandwidth required for UHD movies. The Strato does have built-in Wi-Fi, but it is only useful if the Strato is used in a standalone system with no other Kaleidescape components. Note that if Wi-Fi is used, movie downloads could be much slower than using Ethernet.

Kaleidescape provides support for every control system I've ever heard of, 13 different systems plus infrared, RS-232, IP control, and iPad control with an app (iPad app is not for movie playback, only for control of the Kaleidescape system). The Strato even supports automation features like lighting control, control for window or projection screen curtains, anamorphic lens control, etc. A system can be as simple as a single Strato or as complex as multiple Terra servers with a dozen or more Strato C players.

The playback experience with the Strato movie player is easier and quicker than playing discs. Because the files you download cannot be played on other devices, there are no copyright warnings or other pre-movie content like trailers or "commercials" for discs. Playing a movie on the Kaleidescape system is exactly like viewing a movie in a theatre, minus the trailers for other movies before the feature. The quality of every movie I viewed in HD or UHD/HDR matches the disc version exactly. The sound is the same, the video is the same. There is a small issue that sometimes prevents Kaleidescape from presenting Atmos or DTS:X soundtracks initially on some UHD and HDR titles, but they will get that limitation resolved as quickly as possible so that you get the same audio features and quality as are present on discs.

Downloading movies isn't quite the instant gratification experience of streaming content, but the audio and video quality is so much better than streamed content from any source so far that it's worth the wait. How much of a wait? That depends entirely on the speed of your Internet connection. An average movie on an average Internet connection speed takes around 90 minutes to download. I downloaded a two-hour movie in about 90 minutes, with a maximum Internet speed of about 80 Mbps/10 MBps. Kaleidescape is still working on optimizing download and disc write speeds. They expect to achieve download speeds of about 30 minutes for a two-hour UHD movie or 15 to 20 minutes for a two-hour HD movie, but your Internet connection speed would have to be fast enough to support those speeds. There is a progress bar, and each download is logged, including the amount of time it took to complete the download.

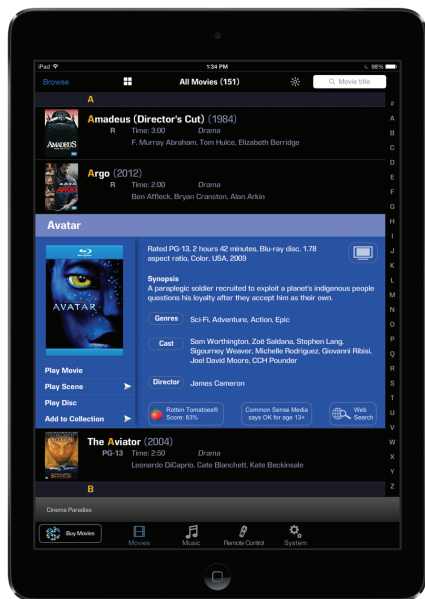The two main user interfaces are an alphabetical text list and the

graphic interface with cover art. In the cover art view, if you pause on any cover, a brief text plot summary appears. Wait a few more seconds, and the covers re-arrange themselves to move similar titles close to the title you have highlighted. Things that can bring a movie closer include actor(s), director, genre, etc. You can scroll horizontally and vertically through your endless wall of cover art. If you have 50 movies stored, once you scroll through all the titles they start scrolling all over again, so it appears that there's an endless supply of movie titles until you realize you are seeing the same titles again.

Capacity-wise, a 6-TB Strato player will hold about 100 UHD/HDR movies, 200 HD titles, or around 900 SD titles. A 10-TB Strato will hold 180/330/1,500 movies in their respective formats, with a 24-TB Terra server holding more than double the counts of the 10-TB Strato, while the 40-TB server will store about four times the movies of the 10 TB Strato, or around 720 UHD/HDR movies. Video-wise, these new 4K/UHD/HDR components support the highest-quality video and audio supported in the HDMI 2.0a specification… up to 60-Hz refresh rate at 3840p, though, UHD/HDR movies are typically 24 fps/Hz.

In the box with the Strato, you'll find an approximately 5-foot HDMI cable that supports the 18-GHz data rate of the highest-quality video we have available today. There's also a Kaleidescape infrared remote control that will likely be used for setup and once the system

is integrated into a control system, that remote will likely be put in a drawer or on a storage shelf somewhere "just in case." An Ethernet cable is also included in the box. The Strato is so simple and obvious to use, few people should need more than a minute or two of being shown around by their installer. No need to pore over a 50- or 100-page manual. The front panel of the Strato has a single button for on/off/standby, but this is not used unless you are going to be away for an extended period and wish to turn components completely off while you are gone. The front panel does have four error indicators for network problems, high operating temperature, hard disc problems, and an additional indicator that comes on with the others but may indicate some sort of error if it is illuminated by itself. The browser interface may reveal the reason for this indicator to illuminate alone. The Strato's power supply is part of the power cord. For installation in systems without HDMI audio support, there are digital coax and optical audio connections, but those can limit audio quality compared to HDMI, so they should be used as a last resort only. A rack mount kit is an optional accessory, as is a remote for children that has minimal controls for finding and playing movies.

The experience of actually using a Kaleidescape movie player to watch a movie is very seductive. The first time you explore the interface you find yourself thinking, "Why are other systems so annoying when this one is so inviting?" Movies play seamlessly, and it's wonderful to not have to sit through copyright warnings, commercials, and unwanted trailers every time you start a movie. Video and audio quality both matched what I get from disc players. Once you get through your first movie, you keep getting urges to watch another movie, and those pop up at almost any random time, including when you don't really have time to watch a movie. My typical means of finding a movie to watch was to thumb through movie disc boxes filed in alphabetical order. Kaleidescape's user interface with the cover art view is a lot like that, only there's no physical disc boxes to flip through. That made the cover-art view my go-to choice for pick-

ing movies. There are options to limit the movies displayed to specific groups Kaleidescape has pre-configured, as well as adding titles to your own Favorites list. The categories Kaleidescape has set up for you already are in the Collections menu and include: movies you paused in the middle of without finishing the movie; movies that have scenes pre-selected (you can add your own scenes to the scene list Kaleidescape provided); movies that have Songs pre-selected; movies to Watch Soon (you pick those also); 4K UltraHD movies; movies with Extras (special features); and New movies added in the last 10 days. The Strato will even bring UltraViolet downloads into your Kaleidescape library so you can browse those titles just like all the other titles in your Kaleidescape library. New releases in the Kaleidescape Movie Store often appear at the same time as they become available from other digital sources (iTunes, Vudu, UltraViolet, etc.), which means you can often view uncompromised full HD or UHD versions of movies a week or more before the disc versions of the movie are released. Occasionally, titles become available even earlier. For example, *Kong: Skull Island* became available in the Movie Store about a month before the discs went on sale.

Conveying the Kaleidescape experience in words doesn't really do it justice. It's something you need to use to realize how impressive they have made the home theatre experience. It would be even better if your experience included lighting control and other automation capabilities the system can deliver. The only way you'll get that experience is from someone who owns a Kaleidescape system or from a Kaleidescape dealer/installer/integrator with a proper demo system. It's worth the effort to see one of these systems in action for yourself if you think this is something you want in your system. One of the best demos would be if you got no instruction in advance. Just pick up the remote and start exploring.

Conclusion

As the centerpiece source for a high-end custom home theatre system, it's difficult to imagine anything better than a Kaleidescape system. The Strato Movie Player is the first building block on the way to an impressive multi-room system capable of playing multiple movies to multiple displays simultaneously. Ease of use and the ultimate in audio and video quality are the hallmarks of Kaleidescape systems. Movies are presented without annoying trailers, copyright notices, "commercials," or disc menus that have to be navigated. The wide array of control options makes the Strato compatible with most any automation system. In addition, the Strato can control lighting, screen masking, screen curtains, anamorphic lens position, and more to make the movie-watching experience even more magical. Highly recommended for those looking for a source that provides the best video and sound quality available for home theatre in a system so easy to use that anybody in the family will enjoy it. **WSR**