



kaleidescape

## Integrating with the Kaleidescape App for iPad

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### Using this Document

This document corresponds to version 1.1 of the Kaleidescape App for iPad, and contains instructions for developers of controller apps for iPad on providing full integration for customers with Kaleidescape System.

A controller iPad app refers to an iPad app that provides control of audio/visual equipment within the home, and can include other automated systems such as security, lighting, and HVAC.

While a third-party controller iPad app can provide basic control of a Kaleidescape System using the Kaleidescape control protocol specification, that interface is limited to basic transport controls and music playback. For example, it is not possible to display and control playback of movies and scenes using Kaleidescape control protocol command messages.

For the best customer experience, Kaleidescape recommends using the specification in this document to allow the user to launch the Kaleidescape App for iPad. Once in the Kaleidescape app, the user can return to the controller app by tapping the Return button in the top toolbar. The Return button is only visible if the app is launched from an external controller app.

The following is a typical use case:

- The user is running a controller app on an iPad and wants to use their Kaleidescape System.
- The user taps a button represented by the Kaleidescape app icon within the controller app.
- The controller app configures the A/V equipment for use with the Kaleidescape System, and launches the Kaleidescape App for iPad by opening a specific URL.
- The user can browse movies and music, play any selection, and control the Kaleidescape System from within the Kaleidescape app.
- When the user is finished with the Kaleidescape app, they can tap the Return button and a popover appears containing an option to return to the controller app.

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- The user taps the popover option to return to the controller app.

## URL Specification

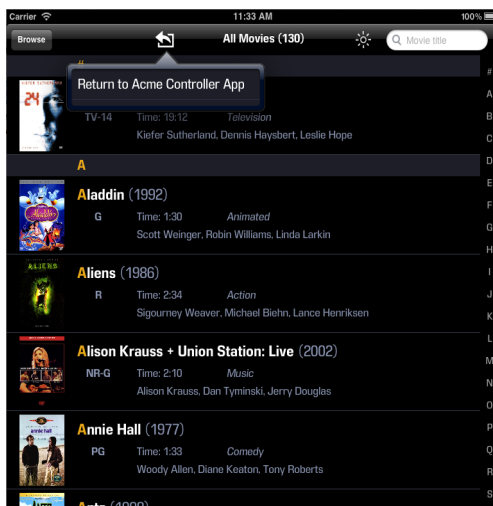
Use the URL specifications in the table below for a custom URL used to launch the Kaleidescape app.

scheme	<b>kscape</b>	Open the Kaleidescape App for iPad.
host	<b>launchApp</b>	Adds a Return button in the top toolbar.
query keys	<b>callerName</b>	The Controller app name to display in the return popover.
	<b>defaultZone</b>	Used optionally to provide the serial number of the Kaleidescape player or music zone to be selected when the app is launched.
	<b>returnURL</b>	The URL to launch or re-open the controller app.

The values of the callerName and returnURL query keys must be percent-encoded so that they can be used within a URL.

## Examples

The following figure provides an example of integration between the iPad app and a controller application.



To open the Kaleidescape app, use the URL `kscape://`. For example:

```
[UIApplication sharedApplication] openURL:[NSURL URLWithString:@"kscape://"]];
```

To open the Kaleidescape app and enable the user to return to the controller app from the Kaleidescape app, use the URL address with `launchApp` and a query. For example, if the app is called "Acme Controller App" and the URL scheme is "acme", use the following URL:

```
kscape://launchApp?callerName=Acme%20Controller%20App&returnURL=acme%3A%2F%2F
```

The Kaleidescape app can then be launched as shown:

```
NSString* launchUr1Str =
    @"kscape://launchApp?callerName=Acme%20Controller%20App&returnURL=acme%3A%2F%2F";
[[UIApplication sharedApplication] openURL:[NSURL URLWithString:launchUr1Str]];
```

Supply any URL for returnURL, so that state information can pass back to the controller app if iOS shuts the app down while suspended. For example:

```
acme://?view=MainScreen
```

A particular player can be specified when the app is launched, as follows:

```
kscape://launchApp?callerName=Acme%20Controller%20App&returnURL=acme%3A%2F%2F&defaultZone=050000001357
```

Music zones for the Cinema One and Music Player are given a zone specifier such as:

```
defaultZone=020600001234.02
```

020600001234 corresponds to the serial number of the player, and 02 corresponds to the music zone to be controlled when the app is launched.

The sample below is an iOS method to launch the Kaleidescape app. The method is passed ordinary strings containing the caller name and the return URL, and properly escapes and embeds them into the URL used for launching the Kaleidescape app.

The URL format uses UTF-8 encoded characters, and the URL specification as defined in RFC 3986 (<http://tools.ietf.org/html/rfc3986>).

### Sample Method

```
- (void)launchKaleidescapeAppWithCallerName:(NSString*)callerName
    returnURL:(NSString*)returnURL
{
    NSString* rfc3986EscapeChars = @":/?#[ ]@!$&'()*+,-;=";
    NSString* escapedName = (NSString *)CFURLCreateStringByAddingPercentEscapes(
        NULL,
        (CFStringRef)callerName,
        NULL,
        (CFStringRef)rfc3986EscapeChars,
        kCFStringEncodingUTF8);
    NSString* escapedURL = (NSString *)CFURLCreateStringByAddingPercentEscapes(
        NULL,
        (CFStringRef)returnURL,
        NULL,
        (CFStringRef)rfc3986EscapeChars,
        kCFStringEncodingUTF8);
    NSString* urlString = [NSString stringWithFormat:
        @"kscape://launchApp?callerName=%@&returnURL=%@",
        escapedName, escapedURL];
    [escapedName release];
    [escapedURL release];
    // Open URL to launch the app
    NSURL* kscapeURL = [NSURL URLWithString:urlString];
    [[UIApplication sharedApplication] openURL:kscapeURL];
}
```

For the Acme Controller App example, the Kaleidescape app could launch with a method that uses:

```
[self launchKaleidescapeAppWithCallerName:@"Acme Controller App"  
      returnUrl:@"acme://?view=MainScreen"];
```

## Launch Button

Kaleidescape provides PNG artwork for the Kaleidescape app icon in a ZIP file at [www.kaleidescape.com/go/app-icon](http://www.kaleidescape.com/go/app-icon).



Apply the guidelines in this section to the button in the controller app that launches the Kaleidescape app.

Kaleidescape strongly recommends that developers:

1. use the (small) Kaleidescape app icon as the artwork for the button in the controller app, and
2. use the caption "Kaleidescape" centered underneath the Kaleidescape app icon.

This is how the Kaleidescape app icon appears in the iPad home screen.

Do not misspell the word Kaleidescape in the button, its caption, or anywhere else in the controller app interface. Kscape and kaleidescape are incorrect.

Do not apply any image processing to the Kaleidescape app icon. If the Kaleidescape app icon is used in the controller app, then the image file must be used exactly as provided by Kaleidescape.

Do not create button artwork that resembles the Kaleidescape logo. If the Kaleidescape app icon artwork is unsuitable for the controller app, and the developer wants to use artwork based on the Kaleidescape logo, then contact Kaleidescape.

If the controller app uses the Kaleidescape app icon ("the Kaleidescape logo") or the trademark word Kaleidescape, and if the controller app already includes some legal notice with copyright or trademark notices, then include one of the following trademark acknowledgements in the controller app legal notices as appropriate to acknowledge the Kaleidescape trademarks used:

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## Volume Control

To provide volume control without switching between apps, the Kaleidescape App for iPad can display volume control buttons. These buttons are shown only

when a connected controller reports volume control is available. When these buttons are tapped, volume events are sent by the Kaleidescape player to all connected controllers. The control system can then adjust the volume and send the volume level and mute state for display on the iPad. For more information, see the Kaleidescape System Control Protocol Reference Manual at [www.kaleidescape.com/go/control-protocol](http://www.kaleidescape.com/go/control-protocol).

Modules and drivers including volume control hooks are provided for AMX, Crestron, and Control4.