

Roku Channel Manifest

Table of Contents

- Root Level
 - Manifest Guidelines
 - Example Manifest
 - Required Attributes
 - Optional Attributes
 - Splash Screen Attributes
 - Graphics Scaling Attributes
 - Launch Requirement Attributes
 - DRM Attributes
 - Special Purpose Attributes
 - Screensaver Attributes
 - Required Screensaver Attributes
 - Optional Screensaver Attributes
 - Legacy Attributes (Deprecated)
-

Root Level

The root level of all Roku Channels must contain a `manifest` file (`pkg:/manifest`) containing important attributes for the application. The manifest file must be UTF-8 encoded.

The attributes in the manifest file include, but are not limited to, the following:

- name and version number of the application
- channel icon
- splash screen image

Manifest Guidelines

- Each attribute is on a separate line, and has the form `name=value`
- Each `name=value` pair must end with a newline character, or it may not be parsed by the firmware
- The last line must end with a newline character
- Empty lines are ignored
- Lines beginning with a '#' (number sign) are comment lines and are ignored
- All graphics files specified in the manifest file should be included in the `images` directory.
- The URI to set the path to the files should use the `pkg:` resource prefix, such as `pkg:/images/splash-screen.png`.

Example Manifest

```
# Channel Details
title=HeroGridChannel
subtitle=Roku Sample Channel App
major_version=1
minor_version=1
build_version=1

# Channel Assets
mm_icon_focus_hd=pkg:/images/channel-poster_hd.png
mm_icon_focus_sd=pkg:/images/channel-poster_sd.png

# Splash Screen + Loading Screen Artwork
splash_screen_sd=pkg:/images/splash-screen_sd.jpg
splash_screen_hd=pkg:/images/splash-screen_hd.jpg
splash_screen_fhd=pkg:/images/splash-screen_fhd.jpg
splash_color=#808080
splash_min_time=0
# Resolution
ui_resolutions=fhd

confirm_partner_button=1
```

Required Attributes

These are the minimum attributes required for every Roku channel:

Attribute	Type	Description	Sample manifest entry	Specification
title	string	name of the channel	title=Roku Media Player	
major_version	integer	major portion of the channel version	major_version=1	
minor_version	integer	minor portion of the channel version	minor_version=2	
build_version	integer	build number	build_version=00150	
mm_icon_focus_hd	string	local URI for the HD channel icon. NOTE: The channel will not appear on devices or be accessible after publication without this attribute pointing to a valid image. The image's file name and file type must also match.	mm_icon_focus_hd=pkg:/images/channel-icon_HD.png	336x210

mm_icon_focus_sd	string	local URI for the SD channel icon. NOTE: The channel will not appear on devices or be accessible after publication without this attribute pointing to a valid image. The image's file name and file type must also match.	mm_icon_focus_sd=pkg:/images/channel-icon_SD.png	246x140
splash_screen_hd	string	local URI for the HD splash screen displayed when the channel is launched	splash_screen_hd=pkg:/images/splash-screen_HD.png	1280x720
splash_screen_sd	string	local URI for the SD splash screen displayed when the channel is launched	splash_screen_hd=pkg:/images/splash-screen_SD.png	720x480

Optional Attributes

The following categories of attributes are optional:

Splash Screen Attributes

Attribute	Type	Description	Sample manifest entry	Specification
splash_color	hex value	background color to use if the splash screen image is not full screen	splash_color=#121212	
splash_min_time ¹	integer	minimum amount of time (in milliseconds) to display the splash screen	splash_min_time=1500	
splash_screen_fhd ²	string	local URI for the FHD splash screen	splash_screen_fhd=pkg:/images/splash-screen_FHD.png	1920x1080
splash_rsg_optimization	integer	NOTE: Roku recommends that you do not use this attribute at this time as it may deplete your channel's available memory resources. Set this attribute to remove the black screen flash in SceneGraph channels. This is only applicable for SceneGraph channels and only if the first screen is a SceneGraph component. <i>Available since firmware version 7.6</i>	splash_rsg_optimization=1	

¹ If no value is specified, then 1600 (1.6 seconds) is used. If 0 is specified, then there is no default time, so the splash screen disappears as soon as the application displays its first screen. (This may result in the appearance of flashing, if your application shows its first screen quickly).

² The FHD splash screen image is scaled down for HD display mode but this attribute can be used to specify a resolution-specific splash screen image.

Graphics Scaling Attributes

Attribute	Type	Description	Sample manifest entry
ui_resolutions ¹	comma separated values	A comma-separated list of up to three strings that identify the UI resolutions the application has been designed to support.	ui_resolutions=sd,hd,fhd

uri_resolution_autosub ²	comma separated values	Provides a flexible way to specify graphical image URIs that are automatically modified to replace a specified string with a string that gets a resolution-specific graphical image.	uri_resolution_autosub=\$RES\$,SD,720p,1080p
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¹ The default setting is `ui_resolutions=sd,hd`
`sd` Applications designed for standard definition 720x480
`hd` Applications designed for high definition 1280x720
`fhd` Applications designed for full high definition 1920x1080

² The attribute value is a comma-separated list of four strings that specify the string to be replaced along with the replacement strings for SD, HD and FHD resolutions.
 For example, suppose the manifest includes this line: `uriresolutionautosub=RES,SD,720p,1080p` And the Roku player supports full high-definition resolution.
 Then if the application specifies a URI of: [http://www.roku.com/testChannel/assets/\\$RES\\$/rokuTV.jpg](http://www.roku.com/testChannel/assets/RES/rokuTV.jpg). At runtime that URI will be modified to: <http://www.roku.com/testChannel/assets/1080p/rokuTV.jpg> and the application will get the full-high definition version of the graphical image in the specified directory.

Launch Requirement Attributes

Attribute	Type	Description	Sample manifest entry
supports_input_launch	integer	8.0 release: The Roku mobile app (previously using <code>rolnputEvent</code>) was changed recently to always use 'launch' events rather than 'input' events. That means that Deep Link launches should always work, and with this attribute, the launch will no longer force exiting and restarting the app if it was already running.	<code>supports_input_launch=1</code>
requires_audiometadata	integer	The <code>roAudioMetadata</code> component requires the use of a dynamically loaded library that is not part of the initially booted image. Therefore, an entry must be added to the manifest of any applications that use the <code>roAudioMetadata</code> component so that it can be loaded when the channel is launched.	<code>requires_audiometadata=1</code>
requires_gaming_remote	integer	Specifies that a gaming remote must be linked to the Roku Player to launch the application. If not, a dialog box is presented to the user.	<code>requires_gaming_remote=1</code>
requires_mkv	integer	Playing MKV files requires the use of a dynamically loaded library that is not part of the initially booted image. Therefore, an entry must be added to the manifest of any applications that require MKV support so that support is enabled when the channel is launched.	<code>requires_mkv=1</code>
network_not_required	integer	Set to 1 to specify the application does not require the network (such as the USB Media Player). This lets the user launch an application even if there is no network connection.	<code>network_not_required=1</code>
bs_libs_required	string	Specifies the BrightScript libraries required for the application.	<code>bs_libs_required=roku_ads_lib</code>
usb_media_handler	integer	Set to 1 to specify if the channel can be auto-launched when a USB device is inserted.	<code>usb_media_handler=1</code>

DRM Attributes


Attribute	Type	Description	Sample manifest entry
requires_aaxs_drm	integer	Downloads the required library to use Adobe Access DRM.	<code>requires_aaxs_drm=1</code>
requires_aaxs_version	value	Specifies the version of Adobe Access to use. Roku currently supports version 1.0.	<code>requires_aaxs_version=1.0</code>

requires_verimatrix_drm	integer	Downloads the required library to use Verimatrix DRM.	requires_verimatrix_drm=1
requires_verimatrix_version	value	Specifies the version of Verimatrix DRM to use. Roku currently supports version 1.0.	requires_verimatrix_version=1.0

See [Content Protection](#) for implementation details.

Special Purpose Attributes

Attribute	Type	Description	Sample manifest entry
hidden	integer	The hidden property tells the firmware to not display the app on the home screen. Hidden apps can still be launched over the network via the External Control API .	hidden=1
playonly_aware	integer	Attribute to specify the application responds to the Play Only remote control button event. If not set, the application will receive the Play event instead when the user selects the button.	playonly_aware=1
rsg_version	value	<p>Sets the SceneGraph observer callback model.</p> <p>If using firmware v9 or above, please use rsg_version=1.2. This enables a new internal mechanism for processing component <script> tags that optimizes the resulting compiled script code resulting in a reduced initial startup time and lesser memory usage while preserving compatibility.</p> <p>Note that Eval() is deprecated. Eval() cannot be used with rsg_version.</p> <p>The manifest entry defaults to 1.1 as of firmware v7.5 if it's not specified in the manifest.</p> <div style="border: 1px solid #f0e68c; padding: 10px; margin-top: 10px;"> <p>Please note that support for the "rsg_version=1.0" manifest flag is deprecated as of Roku OS 8. This deprecation means that the 1.0 features continue to work in Roku OS 8, but will no longer be supported (and thus should not be expected to work) starting with the next major firmware release. All channels will have to adopt the current observer callback model in successive firmware updates.</p> </div>	rsg_version=1.0
automatic_audio_guide_disabled	integer	Set to 1 to disable Audio Guide within a channel.	automatic_audio_guide_disabled=1
bs_prof_enabled	boolean	Enable BrightScript profiling	bs_prof_enabled=true

confirm_partner_button	integer	<p><i>Available since firmware version 7.7</i></p> <p>This new feature has been added that launches a confirmation dialogue before launching a channel when the user presses one of the four channel-specific buttons on the Roku remote. This minimizes the number of unintended channel launches after accidentally hitting a button while fast forwarding or rewinding content in a different channel.</p> <p>When this manifest flag is set to "1" (confirm_partner_button=1), the OS will display a confirmation HUD (Head Up Display) any time the user presses a partner channel button while in that app. By default, the OS will always display this confirmation HUD when a partner button is pressed during video playback, regardless of if the manifest flag has been set.</p> 	confirm_partner_button=1	
suppress_unconnected_hud	integer	<p><i>Available since firmware version 7.7</i></p> <p>Manifest entry for overriding network connectivity HUD.</p> <p>This attribute is used to override the system level display that indicates when media playback is interrupted due to network connection failures.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;"> <p>For more information on the connectivity HUD, please read the related support article</p> </div>	suppress_unconnected_hud=[1 0]	1 suppresses, 0 enables.
game	integer	<p><i>Available since firmware version 9</i></p> <p>All game channels must add the game manifest entry to their manifest file. This flag prevents the channel from having audio/sound effects delays in the game.</p>	game=1	

Screensaver Attributes

For an overview and guide on screensavers, see [Screensavers on Roku](#).

Required Screensaver Attributes

For stand-alone screensavers, only the following attributes are required:

Attribute	Type	Description	Sample manifest entry
screensaver_title	string	name of the screensaver displayed in Settings	screensaver_title=Dog Screensaver
major_version	integer	major portion of the screensaver version	major_version=1
minor_version	integer	minor portion of the screensaver version	minor_version=2
build_version	integer	build number	build_version=150

Optional Screensaver Attributes

Attribute	Type	Description	Sample manifest entry
screensaver_private	integer	Attribute to specify if the screensaver will only run within a channel.	screensaver_private=1

Legacy Attributes (Deprecated)

The following attributes are no longer required or used by Roku devices:

Attribute	Type	Description	Sample manifest entry
subtitle	string	Short promotional description of your application for display beneath the title	subtitle=providing the latest in cool videos
mm_icon_side_hd	string	Local URI for side unfocused image for HD	mm_icon_side_hd=pkg:/images/side-hd.png
mm_icon_side_sd	string	Local URI for side unfocused image for SD	mm_icon_side_sd=pkg:/images/side-sd.png
requires_bluetooth	integer	Specifies that a Bluetooth remote must be linked to the box to launch the app. If not, a dialog box is presented to the user. This attribute has been superseded by <code>requires_gaming_remote</code> .	requires_bluetooth=1