

Static Analysis Tool

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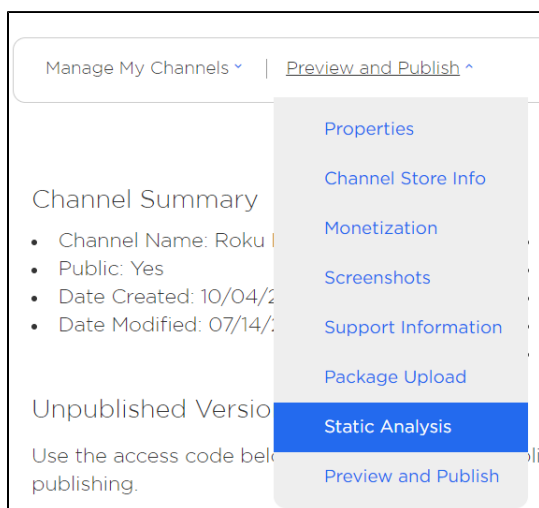
Overview

The channel publishing flow includes a Static Analysis tool used to analyze the channel's BrightScript source code and detect common issues without having to submit for certification. This arm developers with the information they need to optimize their channels and ensure the channel passes certification quickly. These common issues include but are not limited to simple channel runtime issues, such as crashes on launch, and media playback errors (automated testing).

Developer Dashboard

The developer can access the Static Analysis tool from the Developer Dashboard.

1. To use Static Analysis, first upload a channel package. Refer to [Update an Existing Channel](#) for the steps to uploading a package.
2. After uploading the package, the developer can see a new Static Analyze feature in the drop-down (see below).



3. Below is the Static Analysis dashboard setup. Click on Analyze to begin the Static Analysis of your channel

The screenshot shows the Roku SDK web interface. At the top, there is a navigation bar with the Roku logo and links for 'How it works', 'See what's on', 'Products', and 'Support'. Below the navigation bar, there is a breadcrumb trail: 'Manage My Channels' | 'Static Analysis'. The main content area features a dark square icon for 'Roku Media Player' with three circular icons (headphones, camera, and play button). To the right of the icon, there are two bullet points: 'Package File: Download' and 'Upload New Package: Upload'. Below the icon, the text 'Static Analysis' is displayed, followed by a description: 'Static Analysis checks the code in your package for errors in the structure or syntax.' At the bottom of the main content area, there are two buttons: a solid blue 'Analyze' button and a white 'Cancel' button with a blue border.

4. The following screen indicates that the analysis is underway



- Package File: [Download](#)
- Upload New Package: [Upload](#)

Static Analysis

Static Analysis checks the code in your package for errors in the structure or syntax.

Refresh

Static analysis has begun. It can take a while.

When analysis is complete, results will be shown down below and sent to you via email. Please use the link in the email to return to this screen for your results.

If the developer thinks the process is taking longer, they can click on the Refresh button to check for analysis results.

5. Typically, the analysis results look like the following

Static Analysis Results

1 ERROR

- Manifest is missing a required attribute: "splash_screen_fhd"

7 WARNINGS

- Found deprecated roParagraphScreen in file Main.brs, line 15
- Found deprecated roParagraphScreenEvent in file Main.brs, line 32
- Found deprecated attribute in manifest: "subtitle"
- Found deprecated attribute in manifest: "mm_icon_side_hd"
- Found deprecated attribute in manifest: "mm_icon_side_sd"
- Found deprecated attribute in manifest: "splash_screen_sd"
- Found deprecated attribute in manifest: "mm_icon_focus_sd"

Alternatively, the developer can wait for a notification email sent by the service to the email address associated with their developer account. This email contains a link to the results of the Static Analysis for the channel.

Static Analysis Test Details

Following are the tests that Static Analysis performs on the channel package. These may be expanded over time.

- **Check for deprecated components**
Check for the usage of legacy (SDK1) UI components (roGridScreen, etc.). For a complete list of flagged components, refer to [Sunsetting the legacy Roku SDK visual screens](#).

- **Check for usage of the TimeGrid (EPG) component**
As this component is allowed on a case by case basis, we are checking for its usage in channels.
- **Check for breakpoints left in code**
Check for intentional stopping or pausing place in the code.
- **Check for potential PII queries**
Check for usage of terms like credit, card, age, gender, etc.
- **Extraneous file inclusion**
Channel scanned for files inadvertently packaged with ZIP files (such as the side loadable development app,) __MACOSX artifact folders, .pkg files, etc.
- **Deprecated manifest entries**
Channel scanned for usage of deprecated manifest flags as specified in the [Roku Channel Manifest](#).