



# **Green Throttle**

## **Design Standards Guide**

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# Chapter 1

## Welcome

Welcome to the Green Throttle Design Standards Guide. This document describes a series of best practices and recommendations for creating the best user experience when integrating your Android-based game with the Green Throttle Atlas controller and the Green Throttle Arena online gaming hub.

Using this guide, you will learn how to deliver games that match user expectations and ensure a consistent and enjoyable user experience.

This guide introduces you to the Green Throttle Atlas controller and explores the recommended button and stick conventions. The guide then introduces a series of user interface and user experience standards, and describes recommendations for integrating your game with the Green Throttle Arena.

### INTRODUCING THE GREEN THROTTLE EXPERIENCE

Green Throttle reimagines computer gaming by allowing you to take games that people enjoy playing on their mobile devices and turn them into a multiplayer, HDTV experience using state-of-the-art game controllers.

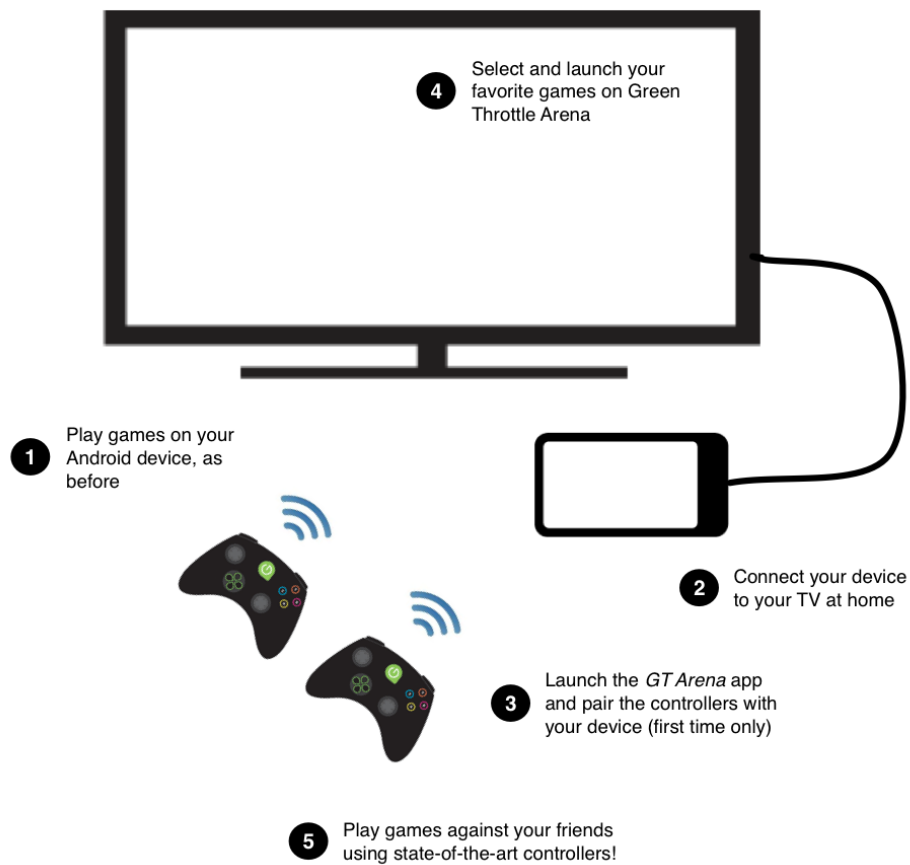
From a user's perspective, this rich new gaming experience works as follows:

1. Users play mobile games on their Android-based phones and tablets while on-the-go, as before.
2. After getting home (or while visiting a friend's home), users connect their Android device to a big-screen television using a Mobile HD TV Connector and HDMI cable.
3. Users launch the *GT Arena* app on their Android device, which serves as a portal into the Green Throttle Arena allowing users to discover their favorite Green Throttle-enabled games.

Users also use the *GT Arena* app to pair Atlas controllers with their Android device (first time only).

4. Users select and launch a Green Throttle-enabled game, navigating on the big-screen TV using their Atlas controller.
5. Users play their favorite games against their friends using true, state-of-the-art wireless, gaming controllers.

The following figure illustrates the Green Throttle user experience:



### The Green Throttle Experience

Green Throttle controllers feature full analog control sticks allowing players to have precise control and fluid motion for fast action games.

## AUDIENCE

This guide is intended for managers and developers who want to create the best user experience when integrating Android-based games with Green Throttle Atlas controllers and the Green Throttle Arena.

This guide assumes that you have read the Green Throttle SDK Developer Guide and are familiar with the Green Throttle environment.

## HOW TO USE THIS DOCUMENT

This guide is organized as follows:

- *Chapter 1: Welcome* introduces this guide and describes the types of information available.
- *Chapter 2: Exploring Atlas Controller Standards* describes specific recommendations that games should follow when integrating with Green Throttle Atlas controllers.
- *Chapter 3: Exploring User Interface Standards* describes specific design recommendations that games should follow to present a consistent user interface when integrating with the Green Throttle system.
- *Chapter 4: Exploring User Experience Standards* describes specific design recommendations that games should follow to ensure a consistent and enjoyable user experience.
- *Chapter 5: Exploring Green Throttle Arena Standards* describes specific recommendations for integrating with the Green Throttle Arena.

**IMPORTANT:** Many of the standards and recommendations in this guide include an identifier in brackets (for example [UX-3.1]), allowing specific entries to be easily referenced in this document and elsewhere.

## DOCUMENT HISTORY

The Green Throttle Design Standards Guide is available directly from Green Throttle Games, Inc.

Version	Date	Description
1.0	February 26, 2013	Initial release.

# Chapter 2

## Exploring Atlas Controller Standards

Green Throttle Atlas controllers serve as the principal input interface for Green Throttle-enabled games. Therefore, it is critical to match user expectations about the purpose and meaning of the various buttons and sticks to ensure a satisfactory user experience.

### INTRODUCING THE GREEN THROTTLE ATLAS CONTROLLER

The following illustrates the buttons and sticks available on the Green Throttle Atlas controller:









**Green Throttle Atlas Controller**









## EXPLORING ATLAS CONTROLLER BUTTON CONVENTIONS

Players will likely use Green Throttle Atlas controllers with more than one game, and therefore develop expectations about the purpose and meaning of the various buttons and sticks available on the controller. To ensure a satisfactory user experience, Green Throttle recommends that, where possible, you adopt the button conventions outlined in this section.

The following table provides guidelines for in-game usage of the buttons and sticks:

Button	Appearance	Guidelines
GT		<p>When pressed in a game, show users the <i>Return to Arena</i> dialog with the following text:</p> <p><i>Exit the game? Any unsaved progress will be lost.</i> <i>Yes No</i></p> <p>Ensure that the default option is <i>No</i>. [CO-1.3, CO-1.3.1]</p>
Back		<p>In general, pressing the <i>Back</i> button should take users back to the previous step.</p> <p>Specifically, pressing the <i>Back</i> button should do the following:</p> <ul style="list-style-type: none"><li>• On the first screen, exit the game [CO-1.4]</li><li>• From within a menu or dialog, return users to the previous menu or dismiss the dialog (respectively) [CO-1.5]</li><li>• During gameplay, display the <i>Return to Arena</i> dialog [CO-1.6]</li></ul>
Start		<p>Cause the game to pause and resume during gameplay. Optionally, use to accept menu choices (similar to the A button). [CO-1.7]</p>
Directional Buttons		<p>Use to support menu navigation.</p>
A		<p>Use to allow users to select any user interface element that can be highlighted [CO-1.2], as well as to accept prompts or move action forward in menus. [CO-1.8]</p>
B		<p>Use to dismiss prompts or move backward in menus. [CO-1.9]</p>



Button	Appearance	Guidelines
X		No Green Throttle-specific recommendations.
Y		No Green Throttle-specific recommendations.
L1		No Green Throttle-specific recommendations.
R1		No Green Throttle-specific recommendations.
L2		No Green Throttle-specific recommendations.
R2		No Green Throttle-specific recommendations.
Left Stick		No Green Throttle-specific recommendations.
Right Stick		No Green Throttle-specific recommendations.
L3	N/A	No Green Throttle-specific recommendations.
R3	N/A	No Green Throttle-specific recommendations.

# Chapter 3

## Exploring User Interface Standards

Although Green Throttle displays the identical user interface on both the mobile device and the HDTV, it is important to remember that the two environments are different in fundamental ways. For example, while mobile devices feature significantly smaller screens than an HDTV, users often perceive that televisions display less information and offer less intuitive application navigation.

In addition, users are typically positioned some distance away from their TV. This viewing and playing environment is commonly referred to as the ten-foot (10ft) environment. Because of this, it is important that you offer users the ability to control all aspects of the game using their controllers without having to interact directly with the mobile device.

### EXPLORING THE RECOMMENDATIONS

Green Throttle requests that games conform to the following user interface standards:

- Present the game in landscape view. If any portion of the game must be in portrait view, use pillar boxes to display complementary graphics (for example, not black). [UI-2.5]
- Clearly indicate the number of players entering gameplay. [UI-2.6]
- Ensure that any user interface element that users can touch on the device can also be highlighted and selected using only the controller. [CO-1.1]
- Verify that there are no touch references, such as “*Tap to skip*” in the game user interface. Note that touch references are acceptable when no controllers are connected and the device is not connected to an external display. [UI-2.4]
- Do not include button icons specific to the Atlas controller. Instead, allow users to navigate and accept all options using the *A* button. [UI-2.3]
- Ensure that navigation is possible using the D-pad, *A* and *B* buttons since future Green Throttle controllers may include a different set of buttons (from the current configuration).

# Chapter 4

## Exploring User Experience Standards

As with all software, it is important to consider user expectations when integrating your game with the Green Throttle system. Green Throttle therefore requests that games follow specific design standards to ensure a consistent and enjoyable user experience.

### EXPLORING THE RECOMMENDATIONS

Green Throttle requests that games conform to the following user experience standards:

- Ensure that the game does not hang or crash. [UX-3.1]
- Ensure that performance is acceptable across all supported devices. [UX-3.2]
- Display a warning dialog before the user is allowed to exit the game or gameplay that would result in the loss of data. [UX-3.3]
- Display a warning dialog before allowing users to navigate outside of the Green Throttle Arena. [UX3.4]

In the case when a button (or other selectable item) is designed to launch an application that does not support Atlas controllers (such as Amazon or Facebook), display a dialog with the following suggested wording:

*[appname] will now launch an application that does not support Green Throttle Controllers. Touch controls will still be available. Do you wish to continue?*

Display *OK* and *Cancel* buttons in the dialog.

**NOTE:** Only display this message when users are using a Green Throttle controller; do not display this message when users are interacting using touch. [UX-3.4.1]

- Display a *Controller Disconnected* dialog if a controller connection is lost during gameplay.

Note that users can disconnect a controller in the following ways: by pressing the *GT* button for approximately five seconds; by moving the controller out of range of the device; by removing the batteries. The controller can also disconnect by timing out. [UX-3.5]

- Communicate non-Green Throttle specific controls using a help dialog, a tutorial, or similar method. [UX-3.6]

In cases when the device is not connected to an external display:

- Allow users to play a single-player, touch-based game [UX-3.9]
- Present the game in the correct orientation when connected to an external display [UX-3.8]
- Display the *Return to Arena* dialog when users press the *Back* button on the navigation bar [UX-3.7]

# Chapter 5

## Exploring Green Throttle Arena Standards

Green Throttle Arena is an enhanced HDTV user experience that provides a central hub and game portal that allows users to find and interact with games developed by Green Throttle and other independent developers and publishers.

### EXPLORING THE RECOMMENDATIONS

Green Throttle requests that games conform to the following Green Throttle Arena standards:

- Ensure that game icons are appropriately sized and formatted on the *Home*, *My Games*, and *Recommended* tabs. [UI-2.1]
- Provide text that is sufficiently descriptive for the *Recommended* page for the game, including an indication of the number of controllers supported. [UI-2.2]

# Appendix A

## Additional Resources

This appendix offers links to additional resources that you can access to help you develop your Green Throttle games.

### GREEN THROTTLE FORUMS

Visit our Developer Forums at [www.greenthrottleforums.com](http://www.greenthrottleforums.com) for help, tips and community news.

### TECHNICAL SUPPORT

Got questions about Green Throttle design standards, or the Green Throttle SDK, API, or game controllers? Contact us anytime at [devsupport@greenthrottle.com](mailto:devsupport@greenthrottle.com).