**New GUI**

Last Updated

# High Level Player Experience

Players are able to add touch-screen elements to their game so the player can access features in a manner other than direct touch on the game world.

**Feature Priority: Level of Importance here**

*Core Feature*: A major feature that interconnects with multiple core features and is a major part of the User/player experience.

# Design Details

**Goals:**

* To provide the User with the flexibility of making a game with their choice of player input.
* To extemporize the new touch interface, providing a efficient interface that fits within the Kodu visual style.

**Breakdown**:

* Overview
* General
* Touch interaction tiles
* Virtual DPad
* Score labels
* Virtual Keyboard
* Shelf buttons

**Overview**

This is a great new aspect of Kodu for Windows 8; Users get to define the best way for a player to experience their game. Screen touches, using custom buttons on a shelf across the top of the screen or a virtual DPad.

**General**

Given the User may have a specific experience in mind, they can lock the screen orientation in World Settings by specifying which edge to lock as the bottom:

* None (default)
* Bottom
* Right
* Left
* Top

The undo and redo button is placed in the top right hand corner.

Certain object and world settings are available to edit via tile within Kode. We will allow users to modify the following settings via the Kodu programming language:

* Object size/scale (re-use existing scale slider in programming UI)
* Object turn speed modifier (re-use existing turn speed slider in programming UI)
* Object forward speed modifier (re-use existing forward speed slider in programming UI)
* World Sky (re-use existing sky selection UI in programming UI)
* World Lighting (re-use existing lighting selection UI in programming UI)

**Touch interaction tiles**

A new series of tiles enables the User to give a Player access to touch controls in game.

The following are the gestures that can be assigned for gameplay:

|  |  |
| --- | --- |
| **Control** | **Action** |
| Tap anywhere/target | Tap anywhere on the screen or on set target |
| Swipe left/right/up/down | Swipe in a particular direction or any direction |
| Slide left/right/up/down/any/object | Slide in a particular direction or any direction. May or may not need an object target |
| Rotate left/right/any | Rotate in a particular direction or any direction |
| Buttons | Press On screen buttons (see below) |
| Pinch anywhere/target | Pinch anywhere on the screen or on set target |
| Spread anywhere/target | Spread anywhere on the screen or on set target |

**Virtual DPad**

The Virtual DPad is common place on many mobile titles, familiar to gamers worldwide as it mirrors the controller they’re all used to. Adding this new feature to Win 8 Kodu allows Users to create games that people can play in a way they are accustomed to.

In World Settings there is a Toggle On/Off for virtual DPad.

The Virtual DPad has a directional 8 way control (as seen on the Xbox 360 Controller) on overlaid the bottom left of the screen and 4 face buttons ABXY (as seen on the Xbox 360 Controller) overlaid on the bottom right of the screen.

These are two separate elements and always align to the bottom of the screen. If orientation is locked by the User, the elements are also locked.

**Score labels**

A small addition to Kodu that adds more definition to any level created. In the world settings a User is able to add a short text label (number of chars TBC) to each of the colored score variables. These then appear to the left of the variable during play.

These text labels are under the same restrictions as the text boxes the User can use via the Say tile.

A colored text label is only visible when the score number is visible.

See linked levels for more information on changes to colored scores.

**Virtual Keyboard**

The virtual keyboard is brought up whenever the User is entering text to the editor.

The virtual keyboard is not available to the Player.

**Shelf Buttons**

This is a new feature, unique to Windows 8 Kodu. With Shelf Buttons, the User has the ability to customize and use as direct inputs to their Kode. The buttons are large enough to be easy to tap but small enough so not to intrude too far into the game space.

Buttons are square and run across the top of the screen, as if on a shelf. Whilst retaining a uniform appearance, they each have a color swatch upon them.

Within code, we are adding an input tile (akin to Keyboard and Controller) to represent the touch screen. A colored button tile is then appended to trigger ‘When: | Touch | Button Red | Do:’

The game scans the Kode upon runtime and, similar to the scores, only shows the buttons of the ones referenced in Kode.

The maximum number of shelf buttons available during play is TBC.