

## Week 1

If you haven't read the before we begin page and the course overview please read it now.

Use the <u>discussion forums</u> to share links, write blog posts and give updates on your progress (of course you can use your own blog, so.cl and twitter if you like).

## Content:

- Welcome to the Planet Kodu, Kodu Game Lab course
- What is Kodu Game Lab?
- Game Making with Kodu Game Lab
- What is Kodu and where do I start?
- The informal process of game design

## External links:

Understanding Games 1234

Task:

Create your first game.

# Welcome to the Planet Kodu, Kodu Game Lab course

(Now hosted by Kodu Game Lab with permission)

### We're thrilled to have you onboard!

This course is will take you through many aspects of game design using <u>Kodu Game Lab</u>, a programming platform developed by Microsoft.

We've scaled the materials in this course so that Kodu users of any level of ability can benefit from being involved. During this course, we'll explore the practical nuts and bolts of how to create a game but also discuss the broader theory of games design.

This course will, we hope, give you a greater appreciation for what a game is, and what <u>Kodu Game Lab</u> is all about.

#### **Timeframe**

We've designed the course to be flexible to suit your schedule, so you won't have to fit in with ours!

Though the course is over five weeks, we're not expecting you to be in one place at any particular time. Dip in and out of the material during the week, or take it all in at one time. It's up to you.

# **Giving something back**

This is an interactive course, and we'll be counting on your participation!

Each week there will be challenges and requests for your involvement. You can post your thoughts about these in <u>our official Kodu Game Lab Get Connected forum</u> or the forums wherever this material is being taught.

#### **Delivery**

We'll deliver the course right here on the Kodu Game Lab website, as Planet Kodu is no longer in service.

Of course, you can share your game designs or responses to the course challenges on the website! If you'd prefer to use your blog to reflect on your participation in the course, and upload your game creations there instead of Kodu Game Lab, that's fine!

#### What do I need to get started?

You'll need <u>Kodu Game Lab</u> installed on your PC, and you can <u>download the most recent version of Kodu here for free</u>.

The Kodu client and Kodu Game Labs site use <u>socl</u> for authentication, so there is only one username and password required. **Existing users will need to create a new socl account** in order to take advantage of this feature if they do not have one. Once (re)registered, you can like and comment on worlds from the

Kodu client. Do you have an old client? Don't worry. You should be prompted to upgrade when trying to log in. Feeling shy? No worries – anonymous world uploading is still supported.

# What if I run into trouble during the course?

Problems with Kodu? Where can you turn if you need assistance during the course?

There are a number of ways in which you can seek out assistance during the course. Your first port of call should be the <u>Kodu Game Lab community forums</u>.

If you are having issues with the Kodu game client, such as crashing or bugs, contact our support email.

# What is Kodu Game Lab?



Richard interviews Rachel Schiff of Microsoft FUSE Lab developers of Kodu Game Lab. Rachel discusses the history of Kodu and the short and longer term plans.

#### **Rachel Schiff from the Kodu Team**

Planet Kodu was fortunate enough to speak with Rachel Schiff from Microsoft's FUSE Labs about the development of Kodu Game Lab and the future plans in 2010.

- Watch the video on Kodu Game Lab's official YouTube channel
- Kodu Game Lab
- Posts tagged "kodu" at Microsoft Research FUSElabs
- Cracked Rabbit Gaming Tutorial
- Stuart Ridout's Tutorial



# **Game Making with Kodu Game Lab**

Richard interviews Charles Howell, a respected Kodu Game Lab creator on the Xbox platform.

# **Game Making with Baaad Dad**

Charles Howell (or Baaad Dad as he is known in the Xbox Kodu Game Lab circles) has been creating games with Kodu Game Lab since the launch of Kodu on the Xbox platform in July 2009. In this video, Charles discusses the strengths of Kodu, suggests ways to begin with Kodu and shares some of the games that he has created.

- Watch the first part of the video on Kodu Game Lab's official YouTube channel
- Videos of Charles' games can also be seen on You Tube.
- Inspector Kodeux
- Kolosseum
- Kodu FC vs. Kodu United

# What is Kodu and where do I start?

#### What is it?

# Kodu Game Lab is for building games!

Originally called *Boku*, Kodu is a programming environment designed by Microsoft for Windows and the Xbox 360.

Matthew MacLaurin, at the time director of the Redmond FUSE (Future Social Experiences) Lab and the game's creator, designed Kodu to allow children to actively engage with computers rather than experiencing them passively. Kodu enables you to build games using a series of visual elements in a rich 3D environment, without having to learn a single line of code. Microsoft describes Kodu Game Lab as being '... designed to be accessible for children and enjoyable for anyone.'

The core of Kodu Game Lab is its intuitive user interface.



From the interface, you choose visual commands to determine the actions of the characters and environment, rather than having to type lines of code to build your games. Think of the commands as rules that the game characters and objects must follow.



In the example above, whenever the character sees an apple, they will move toward it. At the same time, whenever the character bumps into an apple, they will eat it.

#### What isn't it?

While what you can build with Kodu is significant, there are limits to what you can achieve. Building games of expansive size with countless characters will tax the Kodu game engine.

Luckily, Kodu has a built in indicator to let you know when you're stretching the game engine beyond its capacity.

A thermometer to the right of the screen indicates clearly whether your game is becoming too big to manage. If it is, it's a simple matter of reducing the size of the game space, or removing peripheral characters from the game.

That's not to say that Kodu can't be used for building games of surprising complexity! What you can achieve with Kodu can be surprising.

### Where do I start?

# Start simple

There are a number of ways of approaching building a game, but our suggestion initially is to keep it simple. Our suggestion for your first attempt at building a game is to create a simple environment, and then program a bot (one of the characters you can place within the game) to perform some simple actions.

# GDC 2009 review of Kodu by IGN

In this <u>video review</u> from GDC, made shortly after the release of Kodu in 2009, we learn about the basic principles behind the game.

### Get some inspiration!

Watching what other users have created is always a great way to get ideas, and see how they have approached the game.

### **RPG Example**

#### **Download and edit**

Download some of the games already created on the Planet Kodu website. You'll also want to try the dozens of games that come preloaded with the Kodu Game Lab software. Play the games, look at the way the characters have been programmed, and then try to replicate it in your own game.

# The informal process of game design

There are a number of ways you can approach game design, but often an informal approach is the most suitable method to begin with.

### Developing a game idea

There are lots of ways to uncover great ideas for game designs. We've outlined a few approaches below that might help inspire you!

**You could attempt to replicate an existing game**, like Pac Man, where the rules and game design are predetermined. This gives you a framework within which to operate right from the start.

You might also consider replicating an environment that all game players would be familiar with, like a maze. There are numerous elements about the game that you'd still need to determine. Is it a maze from which you have to escape, or one in which you need to reach an item in the middle? Will there be creatures or objects to challenge you as you progress? Whatever decisions you make, the basic concept of how a maze works will offer you a starting point.

**You might use the characteristics of a familiar physical game** as your starting point. Take tag for example. Numerous games are built around this simple schoolyard activity. Because it is a game that everyone is familiar with, no matter what incarnation you choose, your audience will have an immediate way of engaging with it.

**If it's your first attempt** at a game with Kodu however, you'll want to keep it simple, and *perhaps aim to achieve one or two simple tasks*.

For example, you may decide that initially that you want to simply build the topography, and insert a character that wanders around the landscape. Once you've achieved that, you might add another layer of complexity, and then another.

#### **Testing**

Testing shouldn't be something you do at the end of the game creation process. Making alterations, and then testing to ensure they have worked as you intended should be done as you progress, not at the end of the process.

Try to achieve too many new things at once in your game, and you may find it difficult to rectify your problems all at once. One of the main reasons this is the case, is that your character interactions become unclear. Is the Kodu bot moving because he hears or sees something? Or is he simply moving of his own accord? If you have too many new elements introduced into the game at once, you may find it difficult to determine whether even simple improvements you've made have been successfully achieved.

Getting other users to test your games for you is another solid step in this process. Other users will have different approaches to game design, and will have their own solutions to problems you encounter that you may not have considered previously.

#### Refinement

It's a good idea to offer up progressive versions of your game creations for the assessment of your peers. With each new version you can more easily see where improvements have been made, and how successful your updates have been.

You can revert to previous attempts if you have to, and try different approaches to find out what the Kodu community thinks of your improvements.

Other users will also benefit from being able to keep track of your progress and understand how you improved your games, enabling them to replicate your achievements in their own games.

# Task 1

# Your challenge for this week!

This week we're asking you to come up with a game.

#### The rules?

You can spend as much preliminary thinking and exploring time in Kodu as you wish, but when it comes down to actually building your game, set the clock, and stop when your hour is up!

Now while that might seem easily done, consider how fast time can fly when you're engaged in this sort of task. You'll want to have a clear idea of what you want to achieve, and some idea of how to approach it.

It doesn't matter if your game is unfinished, we want to see them - warts and all!

Upload your games to the <u>Kodu Game Labs worlds page</u>, identifying it as a 'Planet Kodu Course Challenge'. The Kodu client and Kodu Game Labs site use <u>socl</u> for authentication, so there is only one username and password required. **Existing users will need to create a new socl account** in order to take advantage of this feature if they do not have one.

Alternatively, you might decide to upload your course challenge attempt to your own blog or web page. Don't forget to include a link in the comments section of the forums so we can find it and comment, or download it for ourselves!

We'd also love to hear how you approached your design, what you felt were the more difficult elements, and how you resolved them.

## Let the games begin!