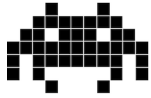




## Introduction to Game Development with Unity 3D



### Target Audience:

Beginners new to Game Development

Junior Game Developers

Instructors, researchers, architects interested in 3D visualization and Game Development

### Pre-requisites:

Basic experience in programming languages (C,Java,Javascript or C#)

Interest in Game Development

### Length:

2-3 days

### Objectives:

- Learn about the architecture of a Component Based Game Engine.
- Learn how to navigate the interface of Unity3D
- Learn concepts of building a simple game.
- Explore how Unity allows quick prototyping in a visual environment.
- Learn how to bring simple external assets into Game Engine,
- Learn how to structure Game Objects, Components and communications required when building a game.
- Learn how to build a GUI and how to bind Scenes together into a working game.
- Learn how to deploy their game on the Web.

### Summary:

Participants of this workshop will be introduced to Unity3D, a industry tested visual Game Development Environment and Engine. They will be guided through the various interfaces, and learn how to write scripts that control Game Objects. At the end of the lesson, the participants will be learn how to build a Space Invaders game, establishing a foundation for them to build upon for more complex topics in Game Development.



## Building a platform game using Unity3D



### Target Audience:

Junior developers with some experience in Game development  
Experienced instructors who have started using Unity  
Beginners who have started using Unity  
Instructors, researchers, architects interested in 3D visualization and Game Development

### Pre-requisites:

Basic experience in programming languages (C,Java,Javascript or C#)  
Prior course if no Unity experience.

### Length:

2-3 days

### Objectives:

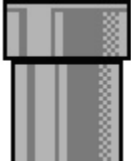
- Learn about how to create a player controlled Character
- Learn how to create basic monster AI
- Learn power-ups, health upgrades, equipping items
- Learn about Game Physics
- Create simple particle effects provided by Unity
- Import 3D assets into the game, and layout a level

### Summary:

Participants will be taken through the steps required to build a side-scrolling platformer similar to Mario and Donkey Kong. They will learn how to add AI logic to computer controlled Game Objects and allow how to script the controls for a 3D character. They will also learn about collision and Game Physics. At the end of the workshop, they will have all the necessary skills to build a full Game using Unity and be ready to explore intermediate/advanced topics.



## Exploring the Game Asset Pipeline with Unity3D



### Target Audience:

3D Game Artists  
Game Developers  
Game Instructors  
Beginners with Game Development Experience

### Pre-requisites:

Experience in modeling software (Blender will be used workshop because Freely available for all platforms)

### Length:

1-2 days

### Objectives:

- Teach artists how to setup, import environment assets into Unity
- Teach artists how to import animated characters
- Teach artists how to setup textures in Unity
- Teach artists how to write simple scripts in Unity to check animations
- Teach artists about the Unity Animation Editor

### Summary:

This workshop is for artists showing them how to export/import 3D assets (Character and Environments) into Unity for use. It will provide information on the best practices to follow and how to make sure the assets are setup properly in Unity for use.



## Implementing Path-finding and AI using Unity3D



### Target Audience

Experienced Game Developers  
Experienced Game Instructors

### Pre-requisites:

Prior Basic Courses  
Intermediate experience in programming languages (Javascript, C# preferred)  
Unity 3D experience

### Length:

2 days

### Objectives:

- Teach how to implement path finding in a 3D environment
- Teach how to implement flocking for use in Games
- Teach how to implement state-based AI
- Research into more complicated AI topics such as fuzzy logic, Needs based AI systems

### Summary:

This is an intermediate/advance course that will go over implementing AI in a game. It will discuss choosing the right AI for the right game. It will also implement a path finding system and a state based AI that can be modified according to game difficulty. It will also explore other more advanced AI topics and how they can be used in different games.



## Implementing Multi-player gaming using Unity3D



### Target Audience:

Experienced Game Developers  
Experienced Game Instructors

### Pre-requisites:

Prior Basic Courses  
Intermediate experience with programming languages (C#/Javascript)  
Basic Unity 3D experience

### Length:

2 days

### Objectives:

- Learn how to setup a server and client connection
- Learn how to setup a user controlled player with a network view
- Learn how to synchronize states using the networkview and serialization
- Learn how to use RPC's to implement status updates, special powers
- Learn how to setup an master server
- Learn how to write a simple lobby system

### Summary:

This is an advanced course intended to help game developers implement a real-time multi player game using Unity3D. Participants will be taken through the basics of a network architecture, client/server concepts and the different messaging schemes available. They will then be shown how to create a connection to the server, synchronize player transforms and game states. They will also be show how to setup/use a game server to allow games to be run independently or provide a way to match-make games sessions.

For more information about these workshops, please contact [terence@bigbadrobots.com](mailto:terence@bigbadrobots.com).