



BLUEPRINTS TO C++

UNREAL ENGINE 4 - C++ PROGRAMMING GUIDE


EPISODE 1

STARTING A PROJECT





OUTLINE

1. Project Creation
 2. Editor Settings for C++ IDE
 3. Small Example
 1. Creation of Blueprint Version
 2. Converting it to C++
 4. Public/Private Folders
 5. Basic Code Structure and Naming Conventions
 6. General Topics
 7. Recap and Tips
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EXAMPLE RECAP

1. Creating a base class in C++
2. Added Variables
3. Added a Component
4. Implemented BeginPlay and Tick
5. Created Blueprint from C++ Class
6. Added Blueprint to Scene

Shows why it is important to have a C++ Base but why Blueprints are also still important to use

CLASS NAMING CONVENTIONS

- UObject -> Class Name starts with U
- AActor -> Class Name starts with A
- Structs -> Structs start with F
- Enums -> Enums start with E
- Others -> Other classes as above start with F

CODE STRUCTURE AND NAMING CONVENTIONS

- Camel Case Naming of Variables
- Boolean variables start with a lower case b
- Use Single line if statements with curly braces
- Curly braces always start on next line

TIP OF THE DAY

Use uint8 instead of bool for Boolean variable definitions

```
UPROPERTY(BlueprintReadWrite)
```

```
uint8 bIsInitialized :1;
```

Initialize in Constructor

```
bIsInitialized = false;
```

If you have several booleans in the class place them one after the other, preferably on top of header file to make memory layout of class more efficient



THANK YOU FOR WATCHING

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