

JUSTIN WALSH

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# UE4 PROTIPS

# PRO AGENDA

- ▶ Frustum Select
- ▶ Everything Is Super
- ▶ Ready, Set, Begin Play, Bgine Play, Niebg Play...
- ▶ GameMode, GameInstance, GameState, PlayerState
- ▶ Asset Registry Metadata Winning Awesome WOW
- ▶ Macros And Functions And Events Oh My
- ▶ Localization (nothing clever about it)
- ▶ 3D User Interface... Almost
- ▶ Custom Thunk AKA Advanced 💩

## FRUSTOM SELECT

- ▶ Box Select in Perspective Mode
- ▶ CTRL + ALT + DRAG

## EVERYTHING IS SUPER

- ▶ You must explicitly call the Super Class Function in a Blueprint if you want to invoke inherited behavior
- ▶ Right Click -> Add Call To Super Function
- ▶ i.e. BeginPlay, Tick, etc...

## READY, SET, BEGIN PLAY, BGINE PLAY, NIEBG PLAY...

- ▶ Begin Play order is not guaranteed
- ▶ Look to GameInstance / GameMode for better control of initialization

## GAMEMODE, GAMEINSTANCE, GAMESTATE, PLAYERSTATE

- ▶ GameMode: Server, Authority
- ▶ GameInstance: Client, Persists the life of the game
- ▶ GameState: Server/Client, Stores Variables, Replicated
- ▶ PlayerState: Server/Client, One per player, Replicated

## ASSET REGISTRY METADATA WINNING AWESOME WOW

- ▶ UPROPERTY(AssetRegistrySearchable)
- ▶ Tag Properties on Assets to find out information about them before even loading them
- ▶ Use the FAssetRegistryModule at runtime to discover assets
- ▶ Override the [AssetRegistry] block in DefaultEngine.ini
- ▶ Look to BaseEngine.ini to see defaults

## LANDSCAPE COLLISION WOES

- ▶ Sometimes you just fall through your landscape because why not
- ▶ In the console type *RecreateLandscapeCollision*



## MACROS AND FUNCTIONS AND EVENTS OH MY

- ▶ Event: Can't return, Can Delay
- ▶ Function: Can return, Simple Local Variables, Stand Alone
- ▶ Macro: Can return multiples, Odd Local Variables, everyone who uses it must be recompiled when changed
- ▶ Timers: Call a function or event, has no parameters to pass along

## LOCALIZATION (NOTHING CLEVER ABOUT IT)

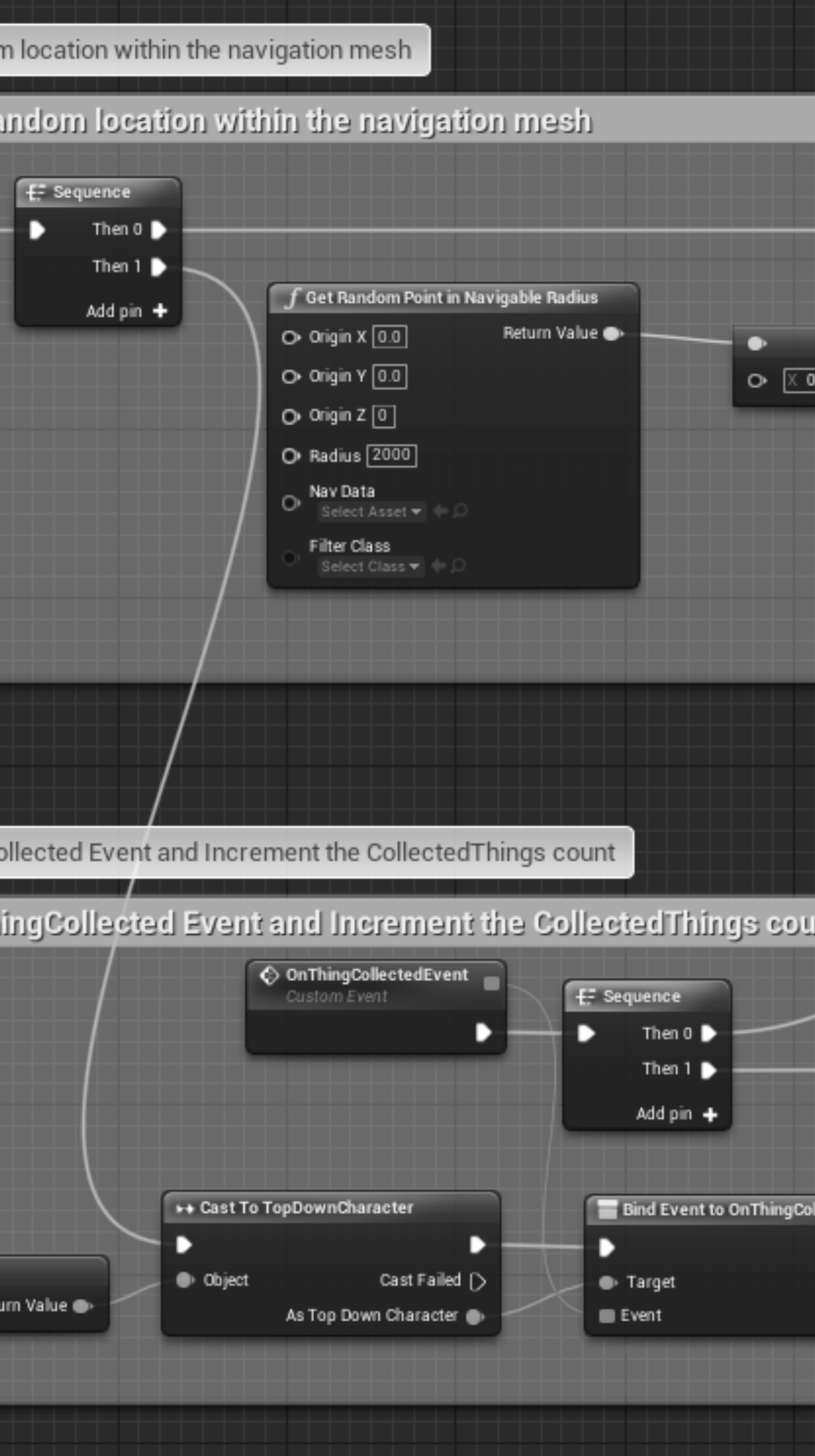
- ▶ Use FText whenever you think something needs to be localized
- ▶ 4.12 Added the ability to add a namespace to FText fields in blueprints
- ▶ When working with code the FTextInspector is your friend

## 3D USER INTERFACE... ALMOST

- ▶ SceneCapture 2D
- ▶ Color key the scene
- ▶ Custom PostProcess the scene capture with blendables
- ▶ Create a material to alpha out the color key
- ▶ Render the texture with UMG
- ▶ <http://anticto.com/steamrolls-3d-user-interface/>

## CUSTOM THUNK AKA ADVANCED 💩

- ▶ UFUNCTION(CustomThunk)
- ▶ DECLARE\_FUNCTION(execNameOfFunctionMarked) {}
- ▶ Access the VM Stack directly
- ▶ Use Reflection to inspect your data
- ▶ <https://forums.unrealengine.com/showthread.php?56537-Tutorial-How-to-accept-wildcard-structs-in-your-UFUNCTIONs>



# SHARING IS CARING