



Asset Management for Park Beyond

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Founded in 2002

>110 employees

Studios in Langen & Cairo

2-3 projects developed at any given time





Park BEYOND

IMPOSSIFIED \$3,544 304 35 99% 1,255 88%

Sélectionner
Déplacer
Pivoter
Zoom

Avoir 3 manèges impossifiés 2 / 3

>101.000 Assets in the project folder

18.100 Textures

8860 Meshes

20.052 Data assets

+ 2392 Videos

+ Engine assets

+ Source files (fbx, sbs, tga,...)

Every possible mistake happens at least once

“Being careful” isn't a valid approach

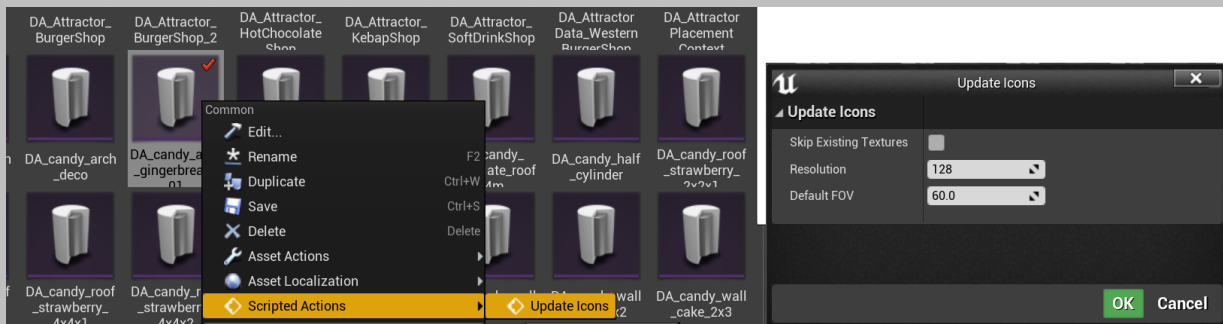
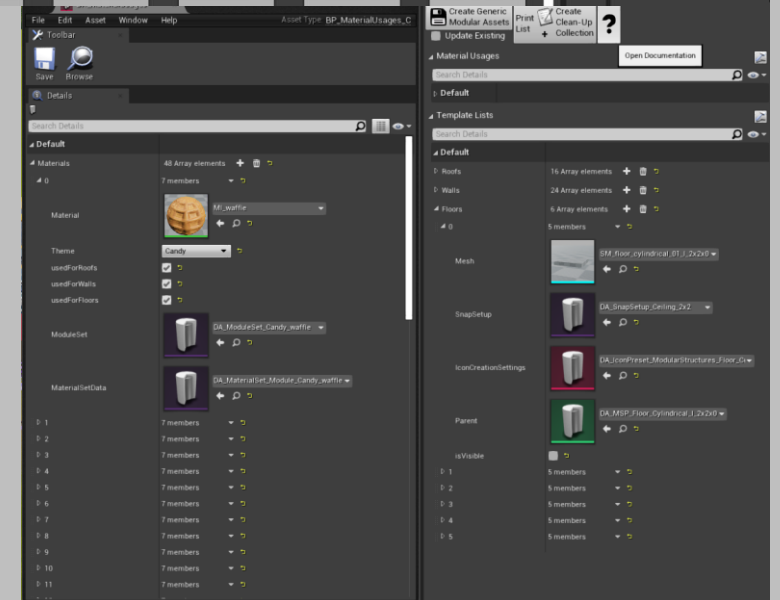
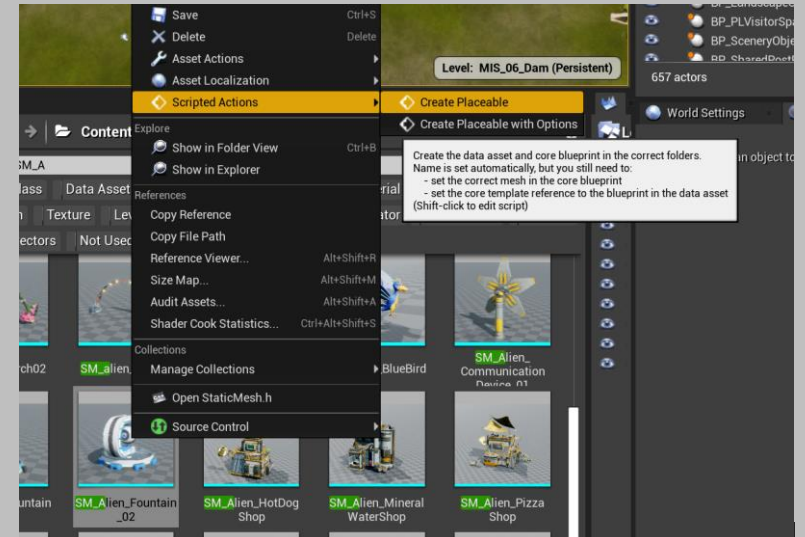
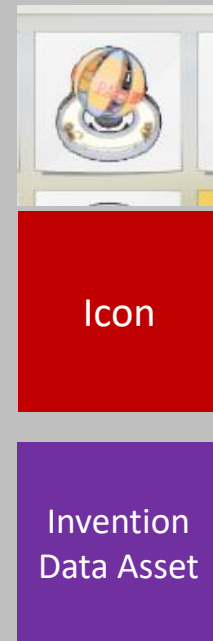
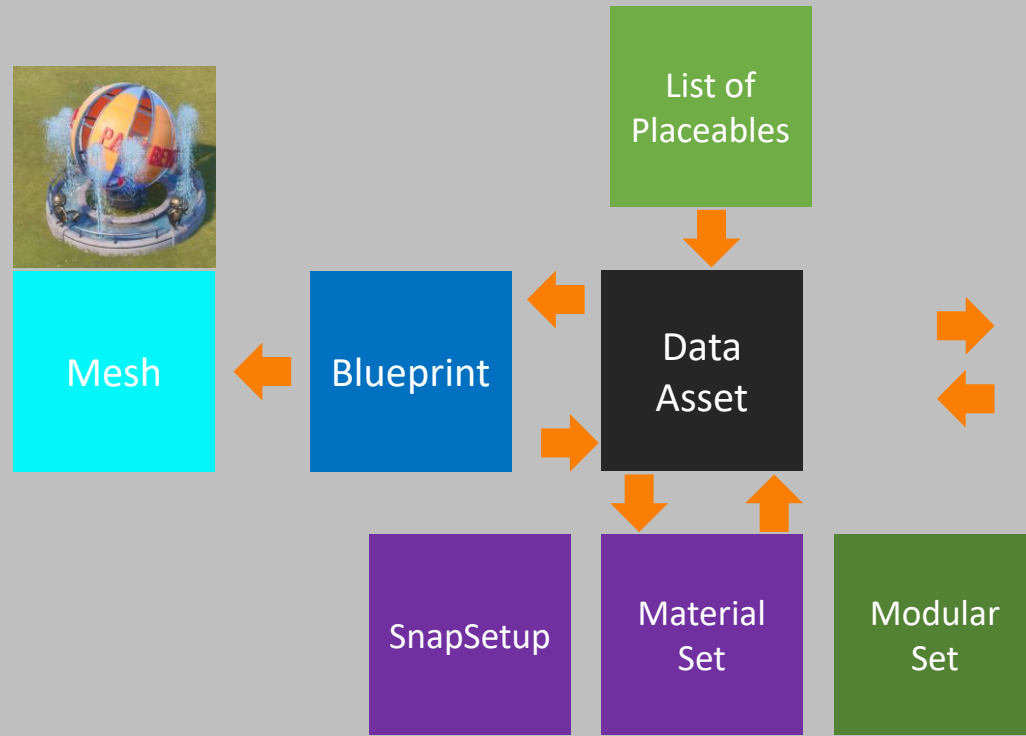
Goals

- Flexibility
- Absence of errors
- Speed
- Transparency

Methods

- Conventions
- Communication
- Tools

ASSET CREATION



Do all meshes have LODs?

Content

Filters UsedTextures-5

Name	Type	Use Custom Colors	Store Colk	Used Textures
M_Landscape_Path_Alpha	Material	True	True	6
pr_background_mountain_e_M_summer	Material	True	True	6
M_Pen_Ready	Material	True	True	7
pr_background_mountain_d_M_summer1	Material	False	False	8
M_background_mountain_d_M_summer_EastA	Material	False	False	8
MI_AlpineMountain_Rocks_bakedNormal	Material Instance	True	True	10
MI_cliff_alpine_01	Material Instance	True	True	10
pr_background_mountain_a_M_summer	Material	True	True	10
MI_Landscape_Path_Alpha	Material Instance	True	True	14
SB_AlpineMountain_01_FragmentMaterial	Material Instance	True	True	15
MI_AlpineMountain_UnrealLandscape	Material Instance	False	False	16
MI_Mediterranean_Voxel	Material Instance	True	True	17
MI_Desert_Voxel	Material Instance	True	True	17
MI_Asian_Voxel	Material Instance	False	False	17

```
void UNiagaraSystem::GetAssetRegistryTags(TArray<FAssetRegistryTag>& OutTags) const
```

The screenshot shows the Unreal Engine interface with the following components:

- Left Panel:** Hierarchy view showing the selected asset **SM_candy_sculpture_cake_02 (Static Mesh)**. Properties include: Path: /Game/SceneryObjects/Props/Meshes; Vertices: 2,554; Materials: 1; Triangles: 3,422; UVChannels: 1; Approx Size: 238 x 184 x 615; Collision Prims: 1; Never Stream: False; LODGroup: None; LODs: 4; Sections with Collision: 1; Default Collision: BlockAll; Collision Complexity: CTF_UseSimpleAsComplex; Min LOD: 1; Source File: K:/Artsource/Props/Sculptures/Cake_02/SM_candy_sculpture_cake_02.fbx.
- Center Panel:** Content Browser with filter **lod=1**. It displays a grid of 262 items, including various meshes like GasStation, SM_AirshipHangar_Flag_01, SM_alien_fence_01_mid, SM_Alien_Fountain_01_001, SM_Alien_Fountain_02_01_01, SM_Alien_Fountain_02_01_02, SM_Alpine_Forest_Root_03, SM_AlpineMountain_Daisies_01, SM_AlpineMountain_DriedGrass, SM_AlpineMountain_DriedGrass_02, SM_AlpineMountain_Gravel, and SM_AlpineMountain_Pebbles.
- Right Panel:** Collections browser showing a list of asset collections such as Background_assets_Mediterran (37), BackyardBuildingPieces (88), basev2AndOthers_Referencers (102), DA_AgentVisualsCollection_Dej (298), DuplicateSceneryObjects (45), EmptyInventionStructures (∞), EmptyStructureDataAssets (∞), and FlatRideVisuals (∞).



- Happens when saving assets
- Created in blueprints/C++

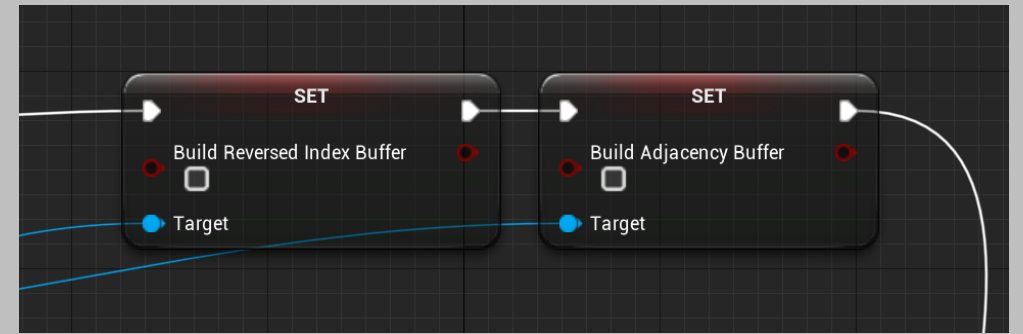
The image displays a Unreal Engine blueprint and a Message Log window. The blueprint, titled "Validate Loaded Asset", contains the following logic:

- Validate Loaded Asset** (Function Block):
 - Input: In Asset (Object)
 - Output: Validation Errors (Array)
- Get Display Name** (Function Block):
 - Input: In Asset (Object)
 - Output: Return Value (String)
- Starts With** (Function Block):
 - Input: Source String (String) - connected to Get Display Name's Return Value
 - Input: In Prefix (String) - set to "MI_"
 - Input: Search Case (Dropdown) - set to "Ignore Case"
 - Output: Return Value (Boolean)
- ToText (string)** (Function Block):
 - Input: In String (String) - connected to Starts With's Return Value
 - Output: Return Value (String) - set to "The material instance doesn't use the correct prefix"
- Asset Fails** (Function Block):
 - Target: self
 - Input: In Asset (Object)
 - Input: In Message (String) - connected to ToText's Return Value
 - Output: Validation Errors (Array)
- Return Node** (Function Block):
 - Output: Return Value (String) - set to "Invalid"

The Message Log window shows the following error messages:

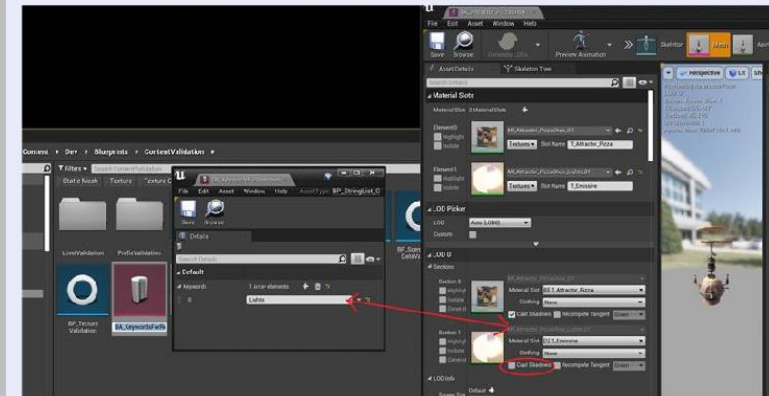
- Head_Adult_Female_3_Inst failed:
 - The material instance doesn't use the correct prefix. (BP_ColorCustomizationValidator_C)
 - /Game/Agents/Visitors/BodyParts/Adult/Female/Head_Adult_Female_3_Inst contains invalid data.
 - Data validation FAILED. Files Checked: 1, Passed: 0, Failed: 1, Skipped: 0, Unable to validate: 0

- Trivial errors are fixed by the validator
 - Mesh Import Settings
 - Color Customization Data
 - Shadow Casting



8.2.2022, 16:24

And the next new feature in the validators:



When saving a skeletal mesh, shadow casting gets disabled on any section if the material used for that section contains a keyword. The list of keywords is saved in a data asset called **DA_KeywordsForRemovingShadows**, so feel free to add new entries or check the list when naming materials.

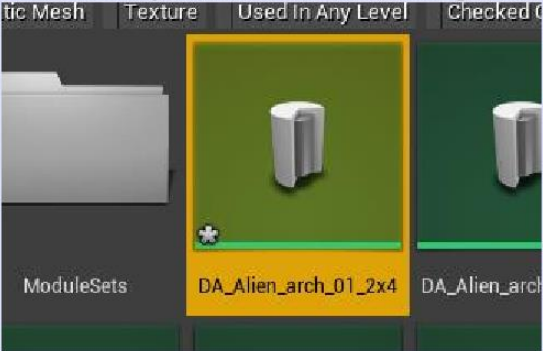
For now, the list contains only the word **Lights**, since the mesh sections using the animated lights material are usually on top of other meshes, so it's not that noticeable if they don't cast shadows.

The idea is to disable shadow casting on any sections that aren't that relevant or would just cause issues, like very thin grid structures, to save draw calls where it's not that noticeable.

- Critical errors prevent submits

12.4.2022, 17:38

Changed the validator, from now on structure data assets that conflict with other identically named assets are always marked as modified, making it less likely to not notice the issues:



[Weniger anzeigen](#)

How do you want to handle this?

Delete the assets and update referencers to point at an asset of your choosing.

Delete the asset anyway, but referencers may not work correctly anymore.

Use as a last resort.

None **None** ▼

Replace References Force Delete Cancel

- 1. Create as much as possible procedurally**
- 2. Ensure visibility**
- 3. Detect and fix errors automatically**
- 4. Don't let people submit critical errors**
- 5. Use warnings for the remaining errors**

Animator

Lead/Senior Artist

(Lead) Game/UI/UX/Level Designer

Narrative Manager

Console/Engine/Game/Graphics Programmer


DevOps


Student Internships





THANK YOU

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