UX - UI

Game View Full Pipeline

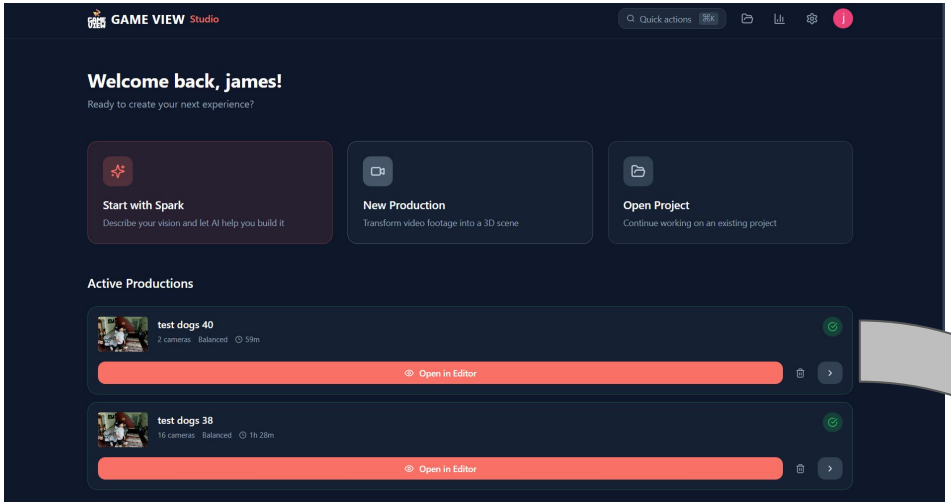
Open Editor

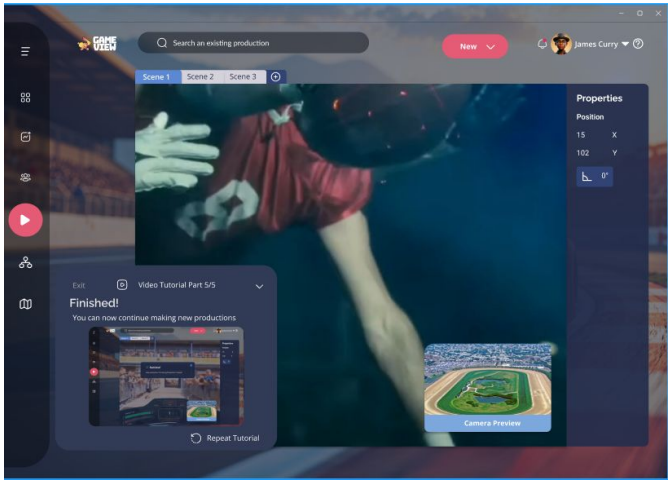
As a creator I want to open a 3D rendered production in the Game View Editor

So That I can test the 3D scene and use features available to me in the editor:

Acceptance Criteria:

- A successfully rendered scene opens in the game view editor when I click Open Game view Editor Button
- The editor UI and available features are seen in left side bar
- The editor opens in new window
- The rendered 3D scene is seen and in motion in the editor and timeline is visible when editor is opened
- If more than one scene is created in a single production, then the scenes are seen as tabs above the scene viewer





Test Scene - on Desktop + VR

As a creator, i want to test player controls and moving through a 3D scene i have created on desktop, vr, or both
So that I can see quality and first person experience of my creation and make changes or edit later if I choose
Acceptance criteria: (cameras previews and thumbnail are available as previous and jump feature, both can be collapsed for more view space. Timeline should be visible when editing experience not when testing)

Desktop Controls

- wasd - move
- q, e - roll
- t, g - up, down
- arrow keys - look
- right mouse button - hold down for mouse look.
- gamepad - if present, right stick to rotate, left stick to move, bumpers to roll
- c - toggle between initial SfM point cloud (if present) and gaussian splats.
- n - jump to next camera
- p - jump to previous camera
- y - toggle rendering of camera frustums
- h - toggle rendering of camera path
- return - save the current position and orientation of the world into a vr.json file.

VR Controls

- left stick - move
- right stick - snap turn
- f - show hide floor carpet.
- single grab - translate the world.
- double grab - rotate and translate the world.
- triple grab - (double grab while trigger is depressed) scale, rotate and translate the world.
- c - toggle between initial SfM point cloud (if present) and gaussian splats.
- y - toggle rendering of camera frustums
- h - toggle rendering of camera path
- return - save the current position and orientation/scale of the world into a vr.json file.
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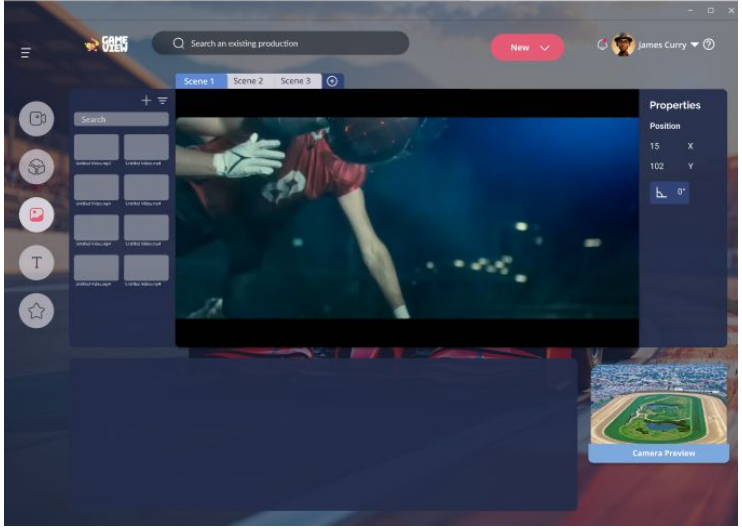
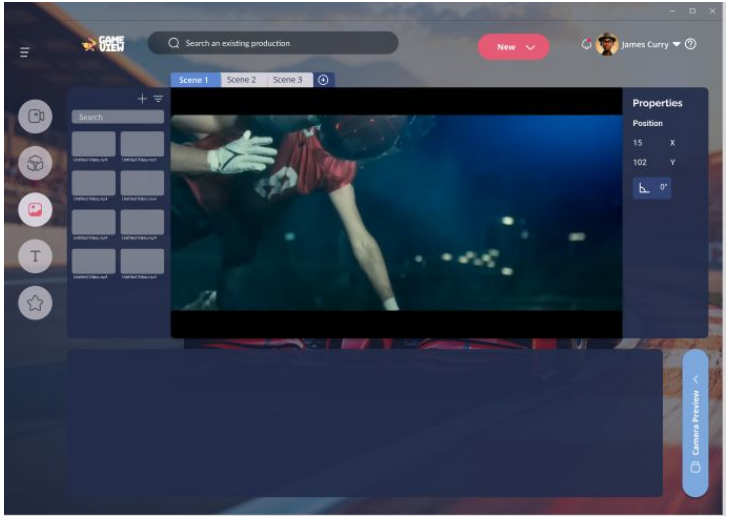




Add Objects

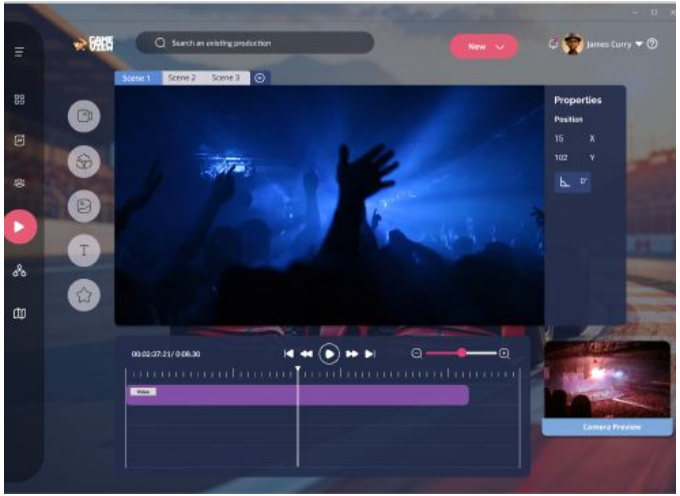
As an ad agency user, I want a searchable objects library so that I can quickly find and add branded 3D models (e.g., a Coca-Cola bottle) to my rendered scene.
Scenarios:

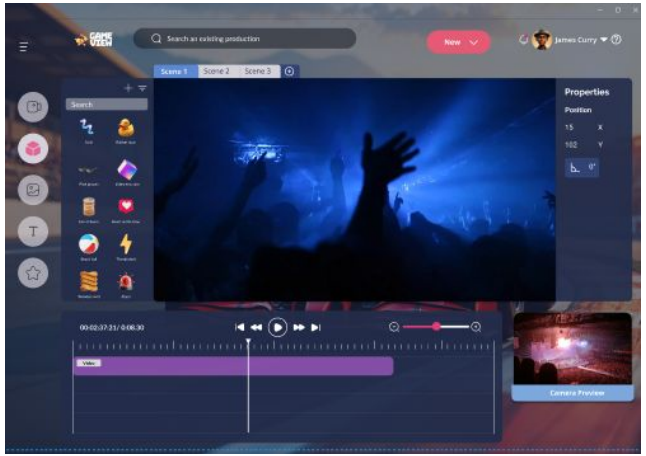
- Given I have rendered a 3D scene Iin Game View's editor
- When I open the Objects Library sidebar and type "Coca-Cola bottle" (this is an example) in the search bar,

- Then the library filters to show relevant glTF models with thumbnails (e.g., bottle model), and I can drag one into the scene, seeing it appear in the Viewport with real-time lighting at 60+ FPS

Acceptance Crtieria

- Objects must be 3D if labeled as such
- Graphics are a different library than 3D objects and should
- Sidebar panel with search bar (supports keywords, e.g., "bottle", "brand:coke").
- Filter options (categories: "Branded", "Products"); 50ms response time.
- Thumbnail previews (128x128px); drag-and-drop to ViewportSubViewport.
- Error toast for invalid glTF (e.g., "Unsupported format"); FPS counter in preview.
- Supports at least 100 models in library; loads in <5s.





Add Graphics

Narrative: As a content creator, I want graphic placement so I can add, position, and size graphics in my scenes effortlessly, ensuring a polished alpha experience.

Acceptance Criteria:

- I click “Add graphic” in the scene editor to open a polished library panel with thumbnails.
- Tooltip on “Add graphic” reads: “Insert a 3D graphic into your scene—max 10.”
- Dragging an graphic into the preview snaps it to a grid (10x10px).
- Control panel shows refined sliders (X/Y/Z position, size) with numeric inputs for precision.
- Success message: “graphic ‘[Name]’ placed” shows briefly on addition or adjustment.
- I can delete graphics with confirmation.

Scenarios:

Scenario 1

If I drag a “Scoreboard” from the library to the preview,
when I drop it,
then it snaps to the grid with a success message.

Scenario 2

If I adjust its position/size via sliders,
when I save,
then a success message shows, and the preview updates.

Scenario 3

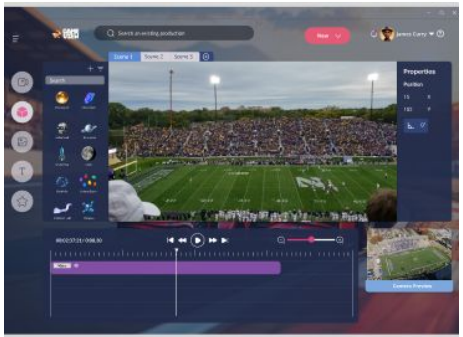
If I delete an graphic,
when I confirm “Remove ‘[Name]’?,”
then it’s removed from the scene.

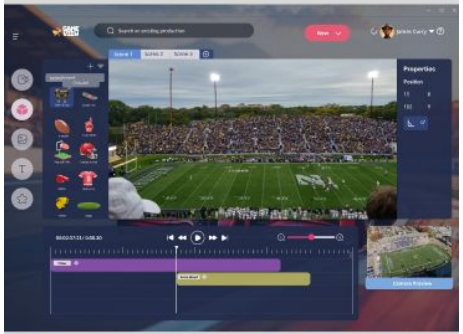
Scenario 4

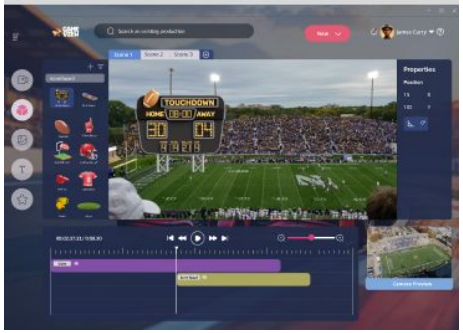
If I exceed 10 graphics,
when I drag another,
then an error shows: “Max 10 graphics reached.”

Scenario 5

If I hover over “Add graphic,”
when the tooltip appears,
then I understand the limit and purpose.







Customize object or graphic appearance

As an content creatorr, I want to customize branded object properties (e.g., bottle color) so that they align with campaign aesthetics or my game or scene desire.
Priority: Medium (enhances branding flexibility).

Scenarios:
- Given a Coca-Cola bottle placed in my splatted scene,

- When I select it and adjust its material color to silver via a color picker,

- Then the bottle updates in real-time, maintains lighting/shadows, and saves the change for export.
AC:
- Color picker UI for material properties (StandardMaterial3D.albedo_color).

- Real-time preview in Viewport; FPS >60.

- Save material changes to glTF custom props or scene Resource.

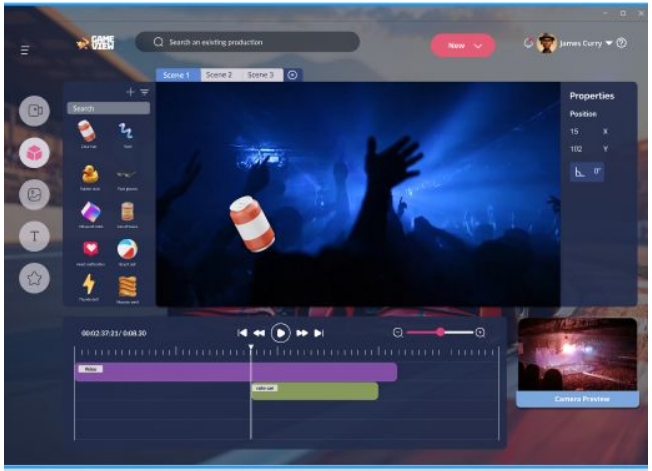
- Revert option for changes; supports 10+ simultaneous customizations.

- Warning if changes impact perf (e.g., complex shaders).

Tech Notes: Modify MeshInstance3D.material_override; sync with GSplatNode's render pipeline.

double click or right click the object in the scene to edit

color picker, move, size, scale, all show up



Upload and Tag Objects to Library

As an content creator , I want to upload and tag branded objects to the library so that I can reuse them
Priority: Medium (supports scalability).

Scenarios:
- Given I'm in the Objects Library panel with an active project,

- When I click "Upload Model" and select a Coca-Cola bottle glTF file, then add tags "brand:coke, category:product",

- Then the model appears in the library with tags, is filterable by "coke" or "product", and is saved for reuse across projects.

AC:

- Upload button opens FileDialog (glTF/OBJ, max 50MB).

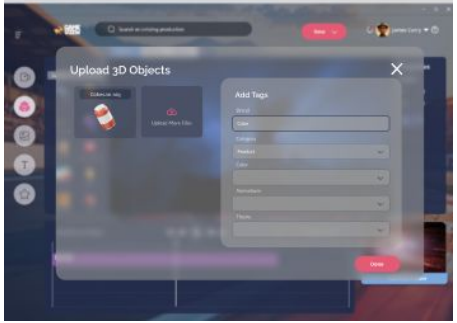
- Tag input field (comma-separated, e.g., "brand:coke"); auto-suggest existing tags.

- Private/shared library toggle (per project or global).

- Confirmation dialog post-upload (e.g., "Model added: Coca-Cola Bottle").

- Library persists across sessions (saved to Godot Resource or JSON).

Tech Notes: Store library metadata in a Godot Resource file; use DirAccess for file management; sync with GSplatNode's project state.



Position and size objects

- **Narrative**: As a content creator, I want to position and size objects in my 3D scenes so I can customize their placement and scale, tailoring the experience to my vision.

- **Acceptance Criteria**:
    - I click an added object in the scene preview to select it.
    - A control panel shows X/Y/Z position sliders and a size slider (0.5x to 2x scale).
    - Tooltip on control panel: “Adjust position and size of your 3D object.”
    - Changes reflect in the preview as I adjust sliders.
    - Success message: “Object ‘[Name]’ updated” shows briefly on save.

- **Scenarios**:

Scenario 1

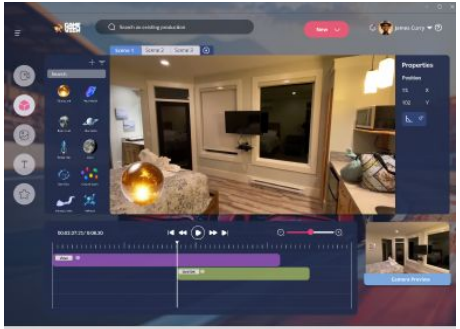
If I click a “Scoreboard” in the preview,
when the control panel opens,
then I can slide X/Y/Z and size controls to adjust it.

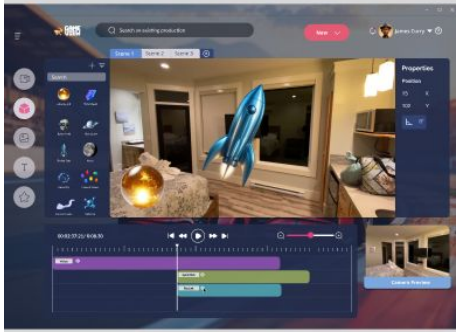
Scenario 2

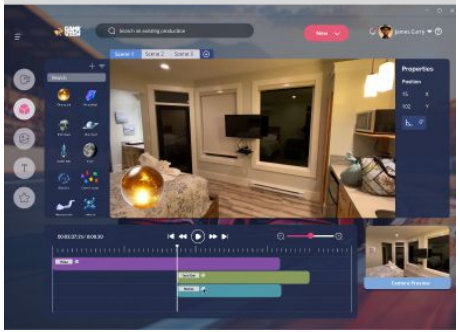
If I move the scoreboard and save,
when I click “Save,”
then a success message shows, and the position sticks.

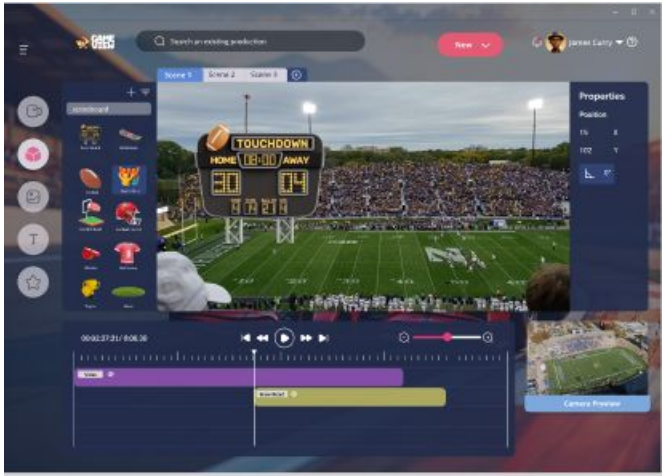
Scenario 3

If I adjust beyond scene bounds,
when I slide too far,
then an error shows: “Keep object within scene.”



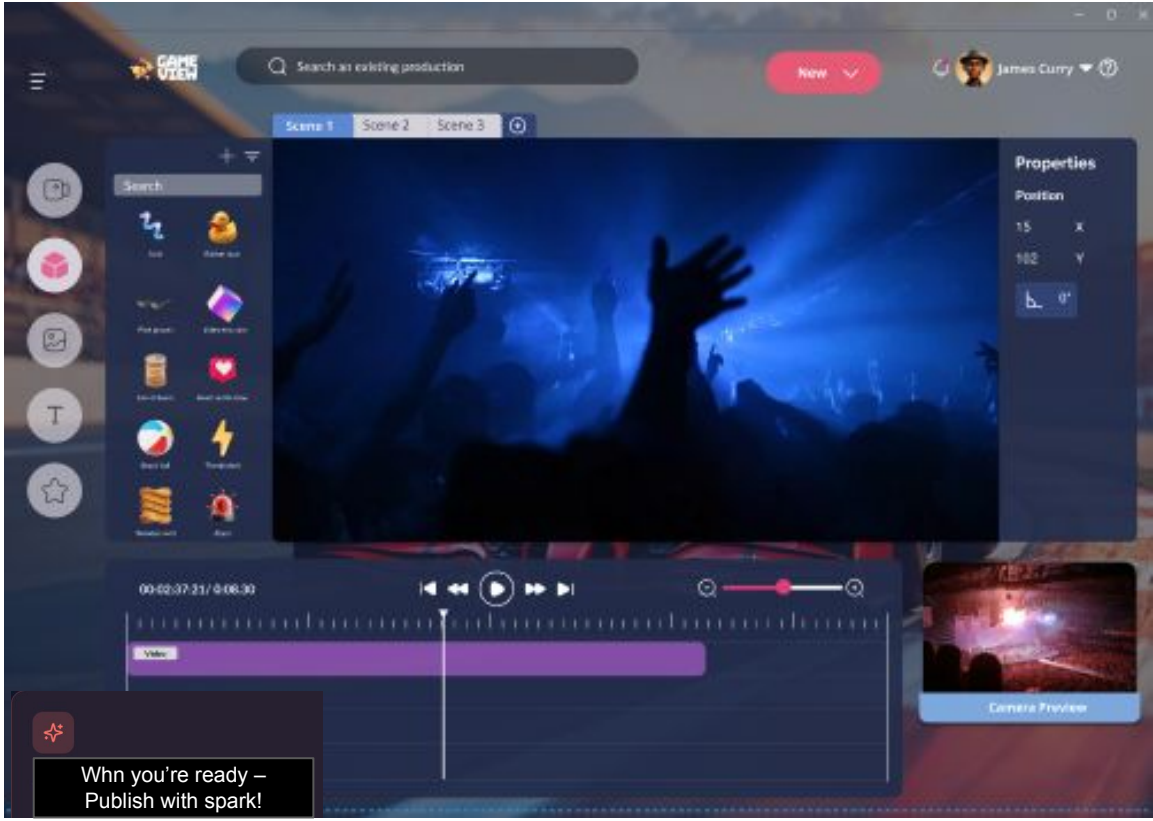






Publish Production

As a creator I want to publish a scene and/or game I have created so that i can share it with my audience

Acceptance criteria

- Publish button is available at any time in editor to choose
- Spark initiates to support publishing process through interactive request (e.g. what type of devices publish to, unlisted, listed, private?, should i provide a description or do you want to, what is the title of the published game)
- Spark then shows a preview of how it will be published on Game View player site.
- When edits can be made via spark
- When ready, just tell spark to publish.
- A published product can be unpublished.