

# Art Asset - Overview / Guidelines

## What is an Asset?

In a production pipeline, (both animated films and video games), art assets are finished pieces that are ready to be used in a scene. Creating an asset is more than making a model and submitting a .blend file. A completed asset involves all of the surrounding work to enable the next person in the pipeline to effectively drag-and-drop the asset into the scene, and have everything just work.

## What's expected?

For a 3D game, a finished asset includes:

### Art Source Content:

- A .blend source file for the high-res model checked into the `art-source` repository:
  - file in the right place with the correct 'snake\_case' naming convention.
  - A collection inside the file named correctly for the asset.
- A .blend source file for the low-res model checked into the `art-source` repository:
  - file in the right place with the correct 'snake\_case' naming convention.
  - A collection inside the file named correctly for the asset.
    - A "collection exporter" set up for the asset saved with the correct export settings, with the export path pointed at the correct location in the `game` repository.
  - UV unwrapped correctly.
  - Materials assigned correctly.
  - Topology prepared for game:
    - No n-gons
    - Reasonable polycount
    - other validation. - TODO add more about validation.
- A set of input 'mesh maps' saved as .png files in the same folder:
  - asset\_name\_mesh\_id.png - ID map
  - asset\_name\_mesh\_world\_normal.png - High-res world space normal (16 bit depth).
  - asset\_name\_mesh\_tangent\_normal.png - High-res tangent space normal (16 bit depth).
  - asset\_name\_mesh\_ao.png - High-res ambient occlusion
  - asset\_name\_mesh\_curvature.png - High-res curvature

- A textures set of baked output textures channel packed and saved as .png files in the same folder:
  - asset\_name\_abedo.png - (Color map aka "Base Color")
  - asset\_name\_normal.png - (16 bit)
  - asset\_name\_orm.png (Channel packed Occlusion, Roughness, Metallic).

## In-Game Content:

- A pair of asset\_name.gltf + asset\_name.bin files exported into the `game` repository via the "export collection" in the source .blend file.
  - One or more materials for the model:
    - asset\_name\_mat.tres
    - OR e.g:
      - asset\_name\_head\_mat.tres
      - asset\_name\_body\_mat.tres
      - asset\_name\_armor\_mat.tres
  - All textures from the model's texture set imported with the correct settings:
    - asset\_name\_albedo.png
    - asset\_name\_normal.png
    - asset\_name\_orm.png
  - A scene for the asset:
    - asset\_name.tscn
    - Simple colliders assigned:
      - [SphereShape3D](#)
      - [BoxShape3D](#)
      - [CapsuleShape3D](#)
      - [CylinderShape3D](#) - NOTE: this is reportedly buggy, we need to test it before approval, use Capsule instead.
      - If absolutely necessary:
        - ConvexPolygonShape3D
        - ConcavePolygonShape3D
  - LODs created or generated for the model.
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