Version 2022.11.20

Chests - Fantasy
Instructions

3D, and animated, casual-style chests for your games. There are fantasy-style chests in the package with a variety of looks. Chests are also low poly, optimized, and suitable for mobile games. Built-In and URP materials are also available that have been optimized to work with both render pipelines. Using Adobe Photoshop (or another Image editor that can open PSD files), you can customize the textures, decals, and keyholes of the chest. Here are some more details regarding chests.

A list of all available chests (and more is coming).

3 x Different 3D models

Basic
1320 tris

Basic with Spikes
1320 tris

Basic Decorated
1402 tris

6 x Premade Textures with Mask Maps

Metal

Bronze

Silver

Gold

Obsidian

Legendary

Animations

Chests come with a few animations that are easy to use. The package also comes with a few particle effects ready to bring more life to the chest animations. Below is a list of some premade animations.

Opens and Closes
The cover opens and closes.

Quick Opens
The cover quickly opens and closes straight away.

Drops
The chest falls from the sky.

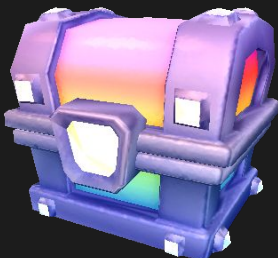
Glows
The chest glows bright.

Fades to Black
The chest fades to black.

Appears and Disappears
The chest appears and disappears.

Scroll
Manipulate texture offset. Rainbow VFX uses this for example.

Shaders and Materials (1/2)

The pack contains pre-made Unlit, Built-In, and URP shaders and materials. Built-In shaders are made with Amplify Shader Editor, and URP-shader are made with Shader Graph. Built-In and URP materials respond to the main light (only Directional Light) and use Ramp textures to display light effects (Diffuse and Specular ramps). Unlit material is the most optimized and is well suited for mobile games. You can also use your own shaders and materials in chests.
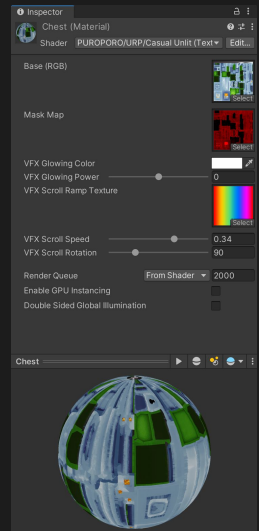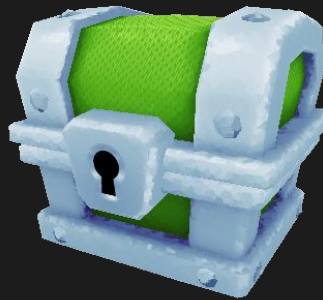
PUROPORO's Unlit (Built-In & URP)

Base Texture

VFX can be added:
- Glowing
- Scroll (Mask Map Green-channel)

Reacts to light
(Only Directional Light)

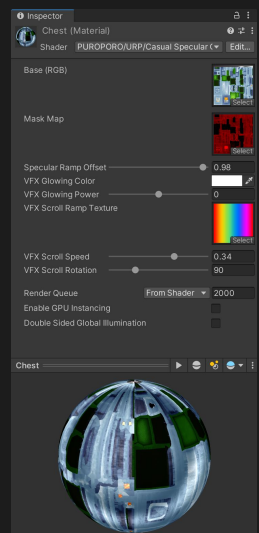## PUROPORO's Only Specular (Built-In & URP)

Base + Ramp Texture
Only Specular (from Ramp)
Specular Map (Mask Map Red-channel)

VFX can be added:
- Glowing
- Scroll (Mask Map Green-channel)

Reacts to light
(Only Directional Light)

PUROPORO's Diffuse + Specular (Built-In & URP)
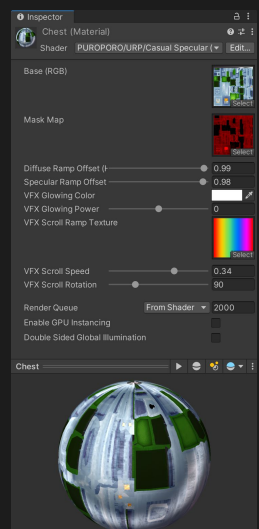
Base + Ramp Texture
Diffuse (from Ramp)
Specular (from Ramp)
Specular Map (Mask Map Red-channel)

VFX can be added:
- Glowing
- Scroll (Mask Map Green-channel)

Reacts to light
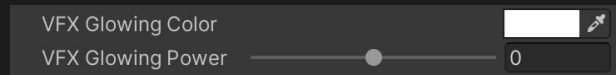**(Only Directional Light)**

Shaders and Materials (2/2)

Some materials have a few premade Visual Effects (VFX). More detailed information about these can be found below.

VFX Glowing

This is an emission-style effect that can be used to make the chest glow or make the chest darker.

VFX Glowing Color	
VFX Glowing Power	0

VFX Scroll

This effect moves the effect by modifying
the offset values of the ramp texture.
This effect is ideal for pulsating effects, for example.
The effect uses the green channel of the Mask Map.

VFX Scroll Ramp Texture

Select

VFX Scroll Speed	0.34
VFX Scroll Rotation	90
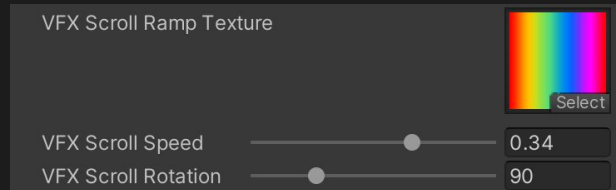
NOTE! URP and Built-In shaders use different values for rotation.

URP	**90°**	**180°**	**270°**	**360°**
Built-In	**1.6**	**3.2**	**4.8**	**6.4**

The package includes pre-made textures to give chests a more finished look. You can also edit and customize the textures of the chests. For this, you need an image editing software that can open PSD files (For example, Adobe Photoshop, Krita, or Gimp). Below is an image from Adobe Photoshop.

Albedo Texture

The albedo texture has been updated and is now more customizable than ever before. This texture previously contained pre-made colors and textures, but you can now change the texture colors to whatever you want. Colors are changed using grayscale textures and gradient colors.

Ramp texture (Diffuse and Specular)
At the top of the texture are Ramp gradients. To discover these on 3D models, utilize the Diffuse and Specular Ramp Offset Sliders from the materials.

Layers
Folders are used to organize layers. Premade textures include e.g. folders for keyholes, crystal parts, cover parts and frame parts. Inside the folders you can usually find colors, gradients, grayscale textures or shape of keyholes.

Grayscale textures
Grayscale textures are used to draw details and shapes on the chest. These textures are usually found in the "Textures" folder and are named as "Texture Type Name".

Gradient maps
The gradient map is an adjustment layer in Adobe Photoshop. It turns the image into black and white, then look at the graph and colorizes the image based on that. With this technique, you can easily change the chest colors to whatever you want.

Mask Map layer
In the "Template" file, on the top row of layers you can find the Mask Map layer. If you want, you can create your own mask layers for the texture using this Mask Map.

The different parts of the chest are colored as follows:
- **Red:** Frame/Metal parts
- **Blue:** Cover/Fabric parts
- **Green:** Crystal parts
- **Magenta:** Nails and decorate parts
- **Yellow:** Hinge parts
- **Cyan:** Lock parts
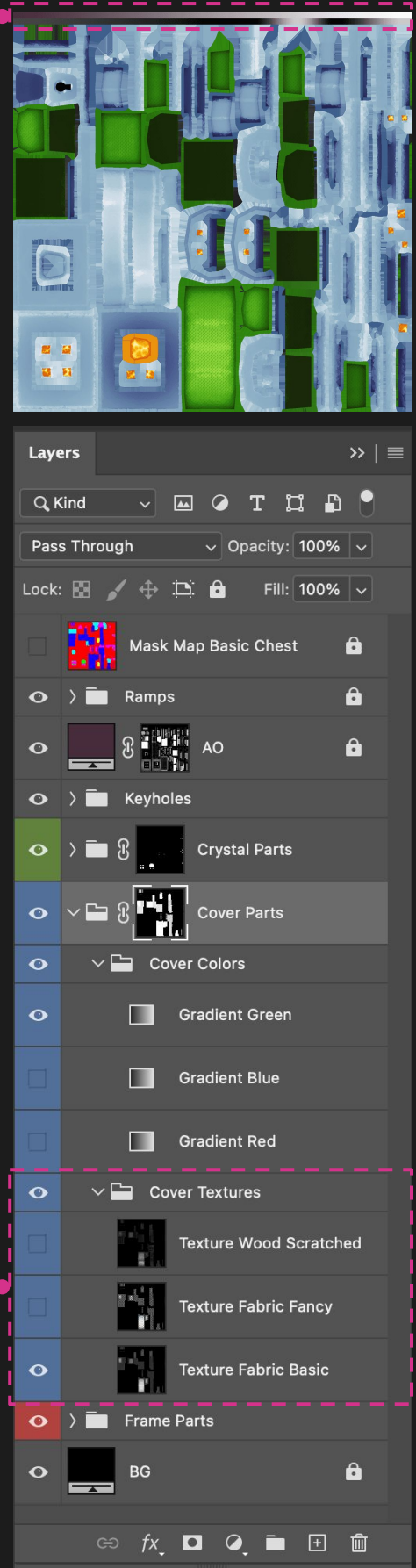
Mask Map

Mask Maps stores multiple Material maps in a single Texture by using channel-packed Textures. Channel packing saves performance by allowing the renderer to sample up to four grayscale maps with the same UV coordinates with a single Texture fetch.

RBGA Channels

Mask maps are commonly used in PUROPORO's shaders and materials for masking shader effects. A list of the channels used in these shaders is given below.

- **Red (R):** Specular
- **Blue (B):** VFX Scroll
- **Green (G):** Empty for now
- **Alpha (A):** Empty for now

Mask Map layer

In the "Template" file, on the top row of layers you can find the Mask Map layer. If you want, you can create your own mask layers for the texture using this Mask Map.

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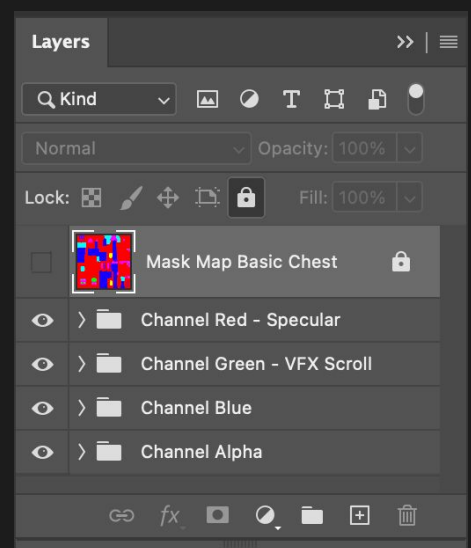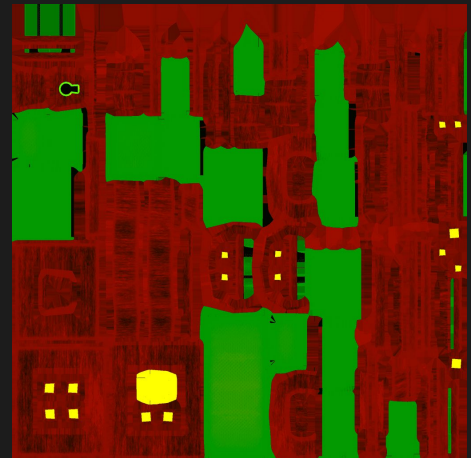
DEMOs

The package includes a few DEMOs where you can try out how the chest looks and works. There is also a DEMO that demonstrates the loot box event, which is a familiar feature, especially in mobile games.
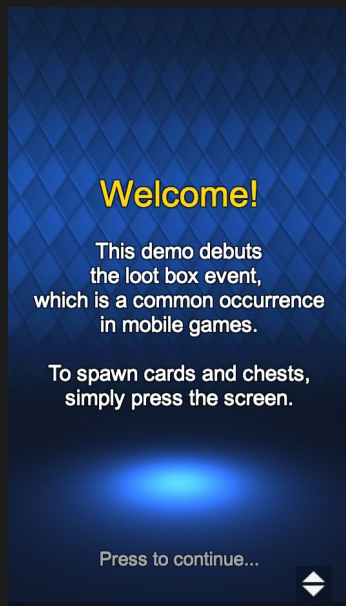
DEMO Casual Chest Fantasy
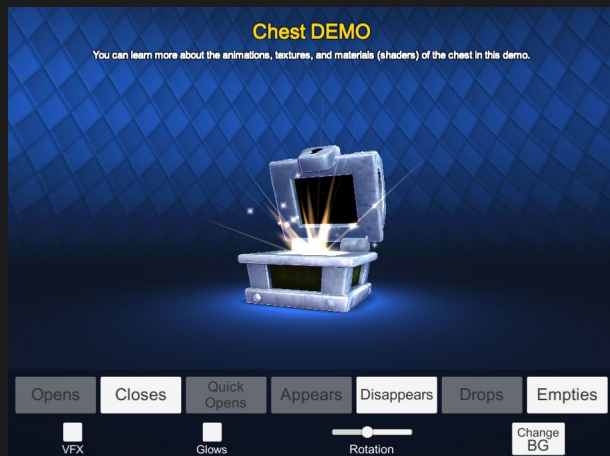
DEMO Casual Chest Graphics Fantasy

DEMO Casual LootBox Fantasy

Technical details

More technical information about the features of models, materials, and textures is given below.

Models Details
- Under 1500 tris, low-poly models
- Rigged and animated

Shaders Details
- Built-In-shaders made with Amplify Shader Editor
- URP-shaders made with Shader Graph
- Optimized for mobile platforms
- Properties: Unlit, Diffuse, and Specular
- Use a Mask Map for masking Specular-effects
- Use Gradient Ramps for Diffuse and Specular
- Directional Light Only
- VFX: Glowing and Scroll (offset manipulation)

Textures Details
- Resolution 2048 x 2048 px
- PSD-format
- Customizable
- Albedo and Mask Map textures (all four RGBA channels used)
  - Mask Map Red (R): Specular
  - Mask Map Green (G): VFX Scroll
  - Mask Map Blue (B): Empty for now
  - Mask Map Alpha (A): Empty for now
  - Albedo includes Gradient Ramp for Diffuse and Specular effect
- For customization, you need image editing software that can open PSD files (For example, Adobe Photoshop, Krita, or Gimp)

Naming - Prefix & Suffix

The assets in the package are named as follow:

Prefix_AssetName_Variant_Suffix.FileFormat
Example: T_StylizedGrass_Dark_AO.png

More information about the prefix and suffix can be found in the table below.

Asset Type	Prefix	Suffix
Animation Clip	A_	
Animator Controller	AC_	
Material	M_	_*
Particle System	PS_	
Skeletal/Rigged Mesh (for Skinned Mesh Renderer)	SK_	_mesh
Skeleton/Armature	SKEL_	
Skeleton Bone	BONE_	
Static Mesh (for Mesh Renderer)	SM_	
Texture	T_	
Texture (Alpha/Opacity)	T_	_A
Texture (Diffuse/Albedo/Base Color)	T_	_D
Texture (Gradient Ramp)	T_	_ramp
Texture (Mask Map)	T_	_MM_**
Texture (UI)	T_	_GUI

* URP or Built-In

** It is common practice to pack multiple layers of texture data into one texture. An example of this is packing Emissive, Roughness, Ambient Occlusion, and Height together as the Red, Green, Blue, and Alpha channels (RGBA channels) of a texture respectively. To determine the suffix, stack the given suffix letters from above together, e.g. _ERAOH.

Changelog

2022.11.20
- **ADDED:** 2 x new 3D models of Chest (With Spikes and Decorated)
- **ADDED:** Textures for Legendary Chest
- **ADDED:** Scroll, Shader VFX
- **ADDED:** Template files for Albedo and Mask Map textures
- **UPDATED:** Albedo textures and mask maps - More customizable than ever before

2022.08.26
- First release
- **INCLUDES:** 3D Model (Basic-style), 1272 tris
- **INCLUDES:** 5 x 7 Different Albedo Textures, 5 MaskMap Textures, max. 2048^2
- **INCLUDES:** Materials (Built-In & URP shaders)
- **INCLUDES:** Animations (Basic-style)
- **INCLUDES:** A couple of Particle Effects
- **INCLUDES:** A couple of DEMO-scenes