SPA Material Bake V2
Key Features

Advanced Material Baking

Bake full PBR textures from complex, layered, and procedural materials.

- Bake full PBR texture sets:
  - Base Color, Normal, Roughness, Metallic, Specular, AO, Emissive
- Supports complex materials:
  - Layered shaders
  - Procedural materials
  - World-aligned / triplanar materials

Static & Skeletal Mesh Support

Works seamlessly with static meshes, characters, and animated assets.

- Bake both Static Meshes and Skeletal Meshes
- Works with: Characters - Modular assets - Animated meshes

Automatic Material Workflow

Auto-create materials, instances, and assign textures in one click.

- Auto-create Material & Material Instance
- Assign baked textures instantly
- Apply to mesh after bake
- One-click: Bake → Ready Asset

Auto Master Material

Instantly generate a fully configured PBR master material.

- Generates PBR Master Material
- Auto-connects BaseColor, Normal, ORM, Emissive
- Handles sRGB, compression, and settings

Smart Material Instances

Automatically create and assign clean, organized material instances.

- Per mesh or per material index
- Auto texture assignment

- Clean, auto naming

Auto Assignment

Apply baked materials directly to meshes or actors instantly.

- Apply to Static & Skeletal Meshes
- Works on selected actors
- Fully integrated in bake pipeline

Powerful Batch Baking System (NEW)

Process multiple meshes and materials with production-ready workflows.

- Batch per mesh / per material
- Combined atlas baking
- Merge material meshes → single texture set
- Production-ready bulk workflows

Custom Pass System

Bake extra maps like displacement, opacity, and custom data outputs.

- Bake additional maps:
  - Displacement
  - Opacity / Alpha
  - Custom data maps
- Clean 0–1 linear output
- (Note: Custom passes are mutually exclusive)

Packed Texture Support (ORM)

Pack AO, Roughness, and Metallic into a single optimized texture.

- Automatically pack:
  - R → Ambient Occlusion
  - G → Roughness
  - B → Metallic
- Reduces texture count for optimized assets

UV & UDIM Support (Enhanced)

Supports tiled, overlapping, and UDIM-style UV layouts.

- Bake to any UV channel (UV0, UV1, Lightmap, custom)

- Supports:
  - Overlapping UVs
  - Tiled UVs
  - UDIM-style layouts (UVs outside 0–1)
- Seam stitching + border dilation for clean results
- Outputs a single texture atlas (no multi-tile UDIM export)

World Space Baking (NEW)

Bake world-aligned and triplanar materials with accuracy.

- World-aligned textures
- Triplanar projections
- Layered material blends
- Procedural mask generation
- Expensive shader networks

Material Index Control

Bake specific material slots or entire mesh materials easily.

- Bake specific material slots or all materials
- Automatic output naming per mesh/material

Quality & Optimization Controls

Fine-tune output with advanced quality and texture settings.

- Sharpen control
- Normal smoothing
- Optional normal Y inversion
- Emissive normalization/clamping
- Linear vs sRGB per pass
- Seam padding / border dilation