StyleForge v1.2.8

User Manual

Created by SammieYT

For Blender 5.2 or newer

Release edition

This manual covers the final v1.2.8 classic coloured interface, current world builder, live scatter-brush resizing, palettes, procedural assets, outlines, materials and export helpers.

How to use this manual

Start with Installation and the Five-Minute Quick Start. Each later chapter explains a complete workflow, followed by troubleshooting and limitations. Button and panel names are written exactly as they appear in StyleForge where possible.

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Navigation while live painting: SpaceMouse / NDOF and normal viewport navigation are passed through while Live Paint Faces or Paint Scatter Mask remains active. You can orbit, pan or zoom without exiting the brush. Use Shift+[or Shift+] for fine resizing; normal [and] resize more quickly.

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1. What StyleForge Includes

A single Blender sidebar for environment creation and stylisation.

StyleForge combines material creation, object scattering, procedural natural assets, outlines, colour tools, world generation and export preparation. It is designed to let artists build a stylised environment without manually assembling every Geometry Nodes network, material or helper object.

Workflow	Included tools
Procedural Materials	Material presets, two-colour control, scale, detail, roughness, metallic, bump, weather and effect controls.
Scatter & Paint	Procedural Geometry Nodes layers, terrain filters, direct vertex-mask painting, fill, clear and invert.
Smart Outlines	Automatic edge curves for flat/open meshes and silhouette shells for closed 3D meshes.
Palettes & Colours	Starter palettes, custom colours, hex codes, image extraction, JSON and TXT import/export, face painting.
World & Assets	Fourteen themes, terrain, water, vegetation, props, atmosphere, lighting and complete world building.
Procedural Assets	Rocks, grass, configurable trees and tree variations.
Production Tools	UV transforms, Smart UV, image planes, user presets, LOD copies, collision copies and FBX export helpers.

Blender theme behaviour
Blender controls add-on panel backgrounds through the active Blender theme. StyleForge adds its colour identity using custom icons and workflow badges while keeping native Blender controls for reliability.

2. Installation and Updating

Install the complete ZIP without extracting it.

Requirements

- Blender 5.2 or newer.
- A platform supported by Blender: Windows, macOS or Linux.
- The complete StyleForge ZIP file.

First installation

1. Download StyleForge_v1_2_8_Blender_5_2_Responsive_Live_Paint_RC.zip.

2. Leave the file zipped.

3. Start Blender.

4. Open Edit > Preferences > Add-ons.

5. Choose Install from Disk.

6. Select the StyleForge ZIP.

7. Search for StyleForge and enable it.

8. Close Preferences.

9. Press N in the 3D Viewport and select the StyleForge tab.

Clean update

When replacing a beta or earlier release, close Blender and remove old `styleforge` and `styleforge_ultimate_beta` folders before installing v1.2.8. This prevents cached Python modules from mixing with the new package.

> **Do not extract before installation**
> The outer release ZIP contains the correct styleforge package root. Install the ZIP directly through Blender.

3. Interface Overview

The preferred grouped dashboard with coloured workflow badges.

Main dashboard

- STYLEFORGE header, version and Blender compatibility.
- Colour-coded workflow badges for Scatter, Outline, Palettes, Procedural, World and Help.
- Current selection, active scatter asset and selected world theme.
- Quick Create buttons for Material, Scatter Layer, Outline and Build World.
- Paint & Colour buttons for scatter preparation, face painting, image palette and Smart UV.

Expandable panels

Panel	Purpose
Procedural Materials	Create and apply configurable generated materials.
Scatter & Paint / Brush Painting	Create procedural layers or paint direct placement masks.
Outline	Create, update and remove outlines.
Palettes & Colours / Face Painting	Build palettes and paint mesh faces.
World & Assets	Apply themes, generate terrain and build complete worlds.
Tree Generator	Create configurable trees and variations.
UV Tools / Image Plane	Prepare UVs and create reference planes.
User Library / Export & Optimise	Store presets and prepare selected assets for export.
Help & About	Open documentation, copy support information and run support diagnostics.

4. Five-Minute Quick Start

A complete first test using a cube and a plane.

Test a material

1. Select the default cube.
2. Open Procedural Materials.
3. Choose a Material Type.
4. Adjust Primary and Secondary Colour.
5. Press Generate Material.

Test painted scatter

1. Add a plane and select it in Object Mode.
2. Choose Grass in Scatter & Paint.
3. Open Brush Painting.
4. Keep automatic one-face plane preparation enabled.
5. Press Enable Mask and Build Layer.
6. Press Paint Scatter Mask.
7. Drag with Left Mouse to paint.
8. Hold Ctrl and drag to erase.
9. Press [and] to change brush radius while painting.
10. Press Esc to finish.

> **Live resizing**
> The brush circle and Blender status text update immediately. You do not need to exit the brush to change radius.

Test an outline and world

1. Select the cube and create an Automatic outline.
2. Remove the outline.
3. Open World & Assets, choose a theme and use modest population counts.
4. Press Build a World.
5. Use Clear Generated World when finished.

5. Procedural Materials

Generate reusable materials directly on selected meshes.

Basic workflow

1. Select a mesh object.

2. Choose a Material Type.

3. Use Load Material Defaults when starting from a preset.

4. Set the random Seed or use Randomise Seed.

5. Choose Primary and Secondary Colour.

6. Adjust surface and effect controls.

7. Press Generate Material.

Control group	What it changes
Scale, Detail, Distortion	The size and complexity of the procedural pattern.
Roughness, Metallic, Bump	Surface response and perceived relief.
Wetness, Dirt, Moss, Snow	Layered environmental appearance.
Transmission, Emission	Transparency-like light transport and glow.
Add Colours to Palette	Copies material colours into the Face Palette.

Themed materials

World themes can be applied as coordinated materials without building a full world. Choose the theme, palette variation, scale, roughness and emission, then apply the themed material to the selected object.

6. Scatter & Paint

Procedural distribution and deterministic vertex placement.

Two scatter workflows

Mode	Best for
Procedural Scatter Layer	Fast random coverage using density, scale, placement presets and terrain filters.
Painted Scatter Mask	Exact placement. One qualifying painted vertex creates one visible instance.

Procedural scatter layers

1. Select a mesh surface.

2. Choose Grass, Rocks, Trees, Flowers or Mushrooms.

3. Choose a Placement Preset.

4. Set Density and scale range.

5. Enable terrain filters when needed.

6. Press Generate / Update Layer.

7. Use Rebuild, Remove Current Layer or Remove All Scatter Layers as required.

Terrain filters

Filter	Use
Slope Mode and Limit	Restrict placement to flatter or steeper areas.
Minimum / Maximum Height	Restrict placement by object-space height.
Avoid Water	Keep instances above a water level plus clearance.
Patchiness	Use procedural noise to create natural clusters and gaps.

Painted scatter workflow

1. Select a mesh surface in Object Mode.

2. Choose the asset type.

3. Enable painted-mask use and set the threshold.

4. For a default plane, keep automatic preparation enabled and choose grid cuts.

5. Press Enable Mask and Build Layer.

6. Choose Paint or Erase mode.

7. Set Radius, Strength and Falloff.

8. Press Paint Scatter Mask and drag in the viewport.

Live brush controls

Active brush input	Action
Left Mouse	Paint the current asset mask.
Ctrl + Left Mouse	Temporarily erase.
[	Reduce the active live brush radius (scatter brush or Live Paint Faces).
]	Increase the active live brush radius (scatter brush or Live Paint Faces).
Esc or Right Mouse	Finish the modal brush.
SpaceMouse / NDOF	Navigate the 3D Viewport while the live brush remains active.
Middle Mouse / Wheel / Trackpad / Numpad	Normal viewport navigation is passed through during live painting.

Direct placement behaviour

In painted mode, each vertex above the paint threshold creates one instance. Increase Plane Grid Cuts for denser placement; reduce them for better performance.

7. Smart Outlines

Plane-safe edges and closed-mesh silhouettes.

Outline methods

Mode	Result
Automatic	Chooses edge curves for flat/open meshes and a silhouette shell for closed 3D meshes.
Edge Outline	Creates curves from boundary and qualifying sharp edges.
Silhouette	Creates an expanded inverted-hull style shell for closed meshes.

Create an outline

1. Select a mesh object.

2. Choose Automatic unless you need a specific method.

3. Set Outline Width and Colour.

4. For edge outlines, set the sharp-edge angle.

5. Press Create / Update.

6. Use Remove Selected or Remove All to clean up.

> **Planes and open meshes**
> Use Automatic or Edge Outline. Silhouette mode is intended for closed 3D meshes.

8. Palettes, Hex Colours and Face Painting

Build reusable colour sets from themes, materials, images and text files.

Palette sources

Source	Use
Starter Palette	Loads a ready-made starting set.
Theme Colours	Adds colours from the selected world theme.
Material Colours	Adds colours from the current procedural material.
Image to Palette	Extracts dominant or unique colours from an image.

Hex Code	Adds a precise hexadecimal colour.
Hex TXT	Imports or exports editable text palettes.
JSON Palette	Saves and reloads full StyleForge palettes.

Image to Palette

Use Dominant extraction for photographs and Unique extraction for logos, flat artwork and pixel art. Maximum Colours and Minimum Separation determine how many sufficiently different colours are kept. Transparent pixels can be ignored.

Face painting

1. Select a mesh in Object Mode.
2. Load or create palette colours, then choose the active colour.
3. Set roughness, metallic, emission, highlight alpha and Face Brush Radius.
4. Click Live Paint Faces, then hold Left Mouse and drag across the mesh surface. Precision update: the radius can be reduced to 0.000001 scene units. Coverage is measured against the actual triangulated polygon surface instead of polygon centres, and drag strokes are resampled every 3 viewport pixels with batched updates so tiny brushes do not skip faces.
5. Press [to shrink the brush or] to enlarge it while painting; the circular preview updates live.
6. Press Esc or Right Mouse to finish. Test Object remains available for a quick whole-object colour check.

9. UV Tools and Image Planes

Prepare texture coordinates and add reference images.

UV transform

- Scale X and Y resize existing UV coordinates.
- Rotation turns UVs around their centre.
- Offset X and Y reposition UVs.
- Apply UV Transform writes the selected values to the active mesh UV map.

Smart UV Unwrap

Select a mesh and press Smart UV. Inspect the result in the UV Editor before baking or exporting, especially on production assets with deliberate seam requirements.

Image Plane

1. Choose an image path.

2. Set the desired image height.

3. Press Create Image Plane.

4. Position the plane as a modelling or composition reference.

10. World Themes and Build a World

Generate a complete stylised environment with a fail-safe workflow.

Included themes

Theme	Visual direction
Vibrant Cartoon	Bright rolling hills, colourful oak trees, flowers and clear blue water.
Fantasy Viking	Rugged grey-green highlands, pine trees, dark water and cold fog.
Tropical Island	A raised island with sand edges, palm trees, bright ocean and strong sunlight.
Snow Mountains	High snowy mountains, snow-covered pine trees, ice and cold blue atmosphere.
Haunted Forest	Dark marshy ground, twisted dead trees, glowing mushrooms and purple fog.
Sci-Fi Colony	Flattened alien terrain, neon crystals, metallic rocks and cyan-magenta lighting.
80s Neon	Black-purple terrain, hot pink and cyan lights, neon monoliths and a retro night atmosphere.
Classic Arcade	Dark arcade-floor colours, saturated red, yellow and blue blocks, glowing pillars and playful geometry.
Synthwave Sunset	Magenta hills, cyan accents, dark reflective water and a sunset-inspired neon skyline.
Vaporwave Pastel	Soft pink, lavender, mint and cyan colours with pastel columns and dreamlike fog.
Retro Computer	Near-black terrain, phosphor green highlights, amber accents and terminal-like structures.
Pixel Fantasy	Bold RPG-like greens, royal blues and gold accents with blocky ruins and colourful vegetation.
Space Arcade	Dark alien terrain, cyan and violet beacons, metallic asteroids and luminous sci-fi props.
Laser Grid	A minimal dark landscape with electric-blue surfaces, red laser accents and glowing grid towers.

Build a World

1. Choose a World Theme.

2. Set World Size and Terrain Height.

3. Set tree, rock, grass, flower and mushroom counts.

4. Choose whether to generate water and set its level.

5. Set fog density and whether previous generated worlds should be cleared.

6. Press Build a World.

7. Use Clear Generated World to remove the generated collection.

The builder creates terrain, water when enabled, vegetation, props, lighting, atmosphere and a world camera. It builds the new collection in stages and rolls back the new build if a required stage fails.

> **Support diagnostics location**
> The World Builder Self-Test is intentionally hidden from the normal world-creation workflow. It is available under Help & About > Support Diagnostics for installation checks and support.

11. Procedural Trees and Natural Assets

Create reusable stylised trees, rocks and grass.

Tree Generator

Group	Main controls
Tree Type and Seed	Choose the tree family and repeatable random variation.
Trunk and Roots	Height, radius, taper, twist, root count and root length.
Branches	Count, length, angle and randomness.
Canopy	Canopy size, leaf density, leaf scale and autumn colour.
Age and Effects	Age, overall variation, damage, moss, snow and wind.

1. Choose a Tree Type.

2. Set or randomise the Tree Seed.

3. Adjust trunk, branch and canopy controls.

4. Choose optional age and environmental effects.

5. Press Generate Tree.

6. Use Generate 3 Variations to create alternative versions.

Rocks and blade grass

Rock Shape Variation and Flatness change the generated rock forms. Grass Blades per Tuft, Blade Width and Bend control generated grass source variants used by the scatter system.

12. Cursor Scatter and User Library

Quick placement at the 3D Cursor and reusable presets.

Cursor Scatter

Choose a brush kind, radius and density, position the 3D Cursor, then press Scatter at 3D Cursor. This is separate from the viewport painted-mask workflow and is useful for quick local placement.

User Library

1. Enter a preset name and optional tags.

2. Press Save to Library.

3. Use Search and Refresh to locate stored entries.

4. Select a library item.

5. Press Apply Selected Preset.

13. Export and Optimisation

Prepare selected assets and export an FBX package.

Game-ready helpers

- Generate LODs creates simplified level-of-detail copies.
- Add Collision creates a collision copy for the selected asset.
- Export Selected for Unreal writes the selected objects to FBX and adds a StyleForge JSON sidecar.

Recommended export check

Apply or verify transforms, inspect material assignments, confirm collision naming and test the result in the target Unreal project. Different projects can require different scale, material and collision conventions.

14. Help, Diagnostics and Support

Documentation access and reproducible problem reports.

Help & About

- Displays StyleForge v1.2.8, Blender requirement and Author: SammieYT.
- Open User Manual launches the packaged PDF.
- Open Documentation Folder opens the markdown support files.
- Copy Support Information copies version, Blender, platform and active-object details.

Support Diagnostics

Run the World Builder Self-Test after installation, after upgrading Blender, or when support requests it. The test is not part of the everyday world-building workflow.

A useful report includes

- StyleForge and Blender versions.
- Operating system.
- Exact panel and button.

- Selected object type and approximate polygon count.
- Modifiers, linked data and unapplied transforms.
- Complete traceback.
- Screenshot and exact reproduction steps.

15. Troubleshooting

Common problems and focused fixes.

Problem	First action
The StyleForge tab is missing	Enable the add-on, press N over the 3D Viewport, confirm Blender 5.2+, and perform a clean reinstall.
Painted scatter shows nothing	Select a mesh, prepare the mask and layer, start with strength 1.0, and confirm vertices exist where you paint.
[and] do not resize the brush	Keep Paint Scatter Mask active, place the pointer over the 3D Viewport and use the keys that produce literal bracket characters on the current keyboard layout.
Outline is a duplicate plane or black object	Remove old outlines, use Automatic, and let flat/open meshes use edge curves while closed meshes use silhouettes.
World build is slow	Reduce population counts, world size, realised instances and plane subdivisions.
Python traceback appears	Stop clicking, copy the full traceback and Support Information, then reproduce once in a new file.

16. Known Limitations

Expected boundaries of the current release.

- Blender 5.2 or newer is required.
- Panel background colours follow the Blender theme; StyleForge colour is delivered through icons and badges.
- Automatic plane preparation modifies topology by subdividing a one-face plane.
- Direct painted density depends on vertex count and threshold.
- Bracket resizing requires the modal scatter brush and 3D Viewport keyboard focus.
- Silhouette outlines require closed meshes for the intended result.
- Generated scatter source collections must remain while their modifiers are in use.
- Very large worlds, realised instances and dense grids increase memory and processing cost.
- Exported content must be checked against the target Unreal project conventions.
- Future Blender Python API changes may require a StyleForge update.

17. Keyboard Reference

Controls used during the modal painted-scatter workflow.

Input	Result
Left Mouse drag	Paint scatter density.
Ctrl + Left Mouse drag	Erase scatter density temporarily.
[	Reduce the active live brush radius (scatter brush or Live Paint Faces).
]	Increase the active live brush radius (scatter brush or Live Paint Faces).
Esc	Finish painted scatter.
Right Mouse	Finish painted scatter.
N	Open or close the Blender 3D Viewport sidebar.
SpaceMouse / NDOF	Navigate the 3D Viewport while the live brush remains active.
Middle Mouse / Wheel / Trackpad / Numpad	Normal viewport navigation is passed through during live painting.

18. Release Notes and Licence

Final v1.2.8 publication details.

What changed in v1.2.8

- Added Live Paint Faces: click-drag directly across connected mesh faces using the active palette colour.
- Added Face Brush Radius plus live [and] resizing without leaving face-paint mode. The precision update lowers the minimum radius to 0.000001 and adds surface-based coverage plus 3-pixel batched stroke sampling.
- Added an in-viewport circular brush preview and multi-face highlight for the live face brush.
- The existing palette, scatter brush, outlines, world builder and production tools remain available.
- StyleForge remains targeted at Blender 5.2 or newer and is published by SammieYT.
- Supporting quick-start and interface documentation updated for the live face brush.

Licence

StyleForge includes a GPL licence file in the add-on package. Read LICENSE.txt for the complete licence text and redistribution conditions.

Credits

StyleForge is created and published by SammieYT.

Live Paint Faces - responsive workflow (v1.2.8)

- Live Paint Faces batches mesh updates and brush-preview work for smoother painting. Palette rows now include an explicit live colour selector so sidebar clicks reliably pass through the modal brush.
- SpaceMouse / NDOF navigation passes straight through StyleForge without forcing brush redraws.
- While Live Paint Faces is active, click the palette colour name beside its swatch. The active indicator changes immediately and the next brush dab uses that colour without restarting Live Paint.
- Ctrl+Z undoes the previous live-paint stroke without closing Live Paint Faces.
- [and] resize the brush; Shift+[and Shift+] make fine adjustments. The precision minimum remains 0.000001 scene units.
- Esc or Right Mouse finishes the live-paint session. Sidebar controls remain usable while the brush is active.