

VANGUARDFX

# VanguardReclaim

Age. Break. Overgrow. — nature takes the city back, on your timeline.

User Guide · version 1.5.4 · 3ds Max 2024 – 2027 · vanguardfx.pro

# 01 Getting started

VanguardReclaim turns a city — a VanguardCity or any mesh — into a city that nature and time have taken back. Plants grow over the years on the Max timeline, buildings get dirty, streaked, cracked and ruined, and its own GPU renderer shows the result.

## What is in the box

| | |
|---|---|
| **VanguardReclaim** | The object. It measures the buildings you give it, plans what grows where and when, and builds weeds, grass, moss, climbing and hanging ivy, shrubs, trees and junk. It also holds the brushes. |
| **VanguardReclaim Aging** | A modifier for the buildings: grime, rain streaks, moss, wet patches, broken and boarded glass, ruined towers with rubble, snow. |
| **Reclaim Ivy Cover** | A box helper. Every wall inside it is covered in ivy. |
| **VanguardReclaim Render** | The GPU renderer: sky, sun, clouds, AO, bounce light, per-pixel grime, and the **Reclaim Surface** material. |




The object in the Modify panel: objects to age, years, MEASURE AGAIN, AGE THE BUILDINGS.

## Install

Close every copy of 3ds Max, run `VanguardFX_Reclaim_Setup_v1.5.4.exe` and tick the Max versions you use (2024, 2025, 2026, 2027). The installer puts `VanguardReclaim.dlo`, `VanguardReclaimRender.dlr` and a `VanguardReclaim` folder (leaf and grunge images) into each Max `Plugins` folder. Start Max again.

## Activate

1. In Max, create a VanguardReclaim object and open the **Licence** rollout in the Modify panel. Press **Copy machine ID**.
2. Sign in at **vanguardfx.pro**. Start the free 7-day trial or buy a plan, and give it that machine ID.
3. Open **My Licences** and press **Download licence file**.
4. Back in the Licence rollout press **Load file...**, choose that file and press **APPLY**. The object and the renderer go live at once — no restart.

> The site also shows a one-line **licence key**. That is not the licence file; the rollout tells you if you paste the key by mistake, and your old licence is left alone. Without a licence nothing grows and VanguardReclaim Render renders black.

## Where it appears in Max

| | |
|---|---|
| **Create ▸ Geometry ▸ VanguardFX** | VanguardReclaim (the object) |
| **Create ▸ Helpers ▸ VanguardFX** | Reclaim Ivy Cover |
| **Modify ▸ Modifier List** | VanguardReclaim Aging |
| **Render Setup ▸ Renderer** | VanguardReclaim Render |
| **Material Editor ▸ Materials** | Reclaim Surface |



One street, one layer at a time: every part of Reclaim can be switched off or turned up on its own.

# 02 Your first result in 5 steps

From a clean street to an overgrown one. Use a VanguardCity street, or any buildings and a ground plane in metres.

1

### Create the object and give it the city

Create ▸ Geometry ▸ VanguardFX ▸ **VanguardReclaim**, click anywhere in the viewport. In the Modify panel press **ADD** and pick the city (or each building and the ground). Reclaim measures every surface for rain, sun, shelter and height — that is what decides where plants want to grow.




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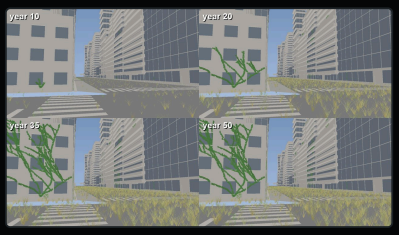
### Pick a story and the years

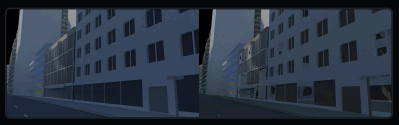
In **Nature**, set **Story** to *The Last of Us*. In **Time**, leave **Mode** on *Grow with timeline*: years 0 at frame 0, 100 years at frame 300. Scrub the timeline and watch weeds come first, then grass, then ivy climbing the walls.




3

### Age the buildings

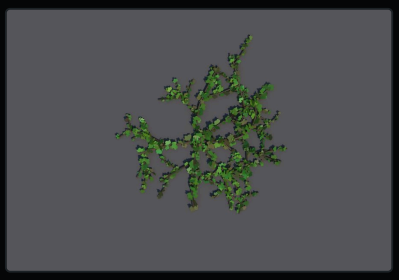
Press **AGE THE BUILDINGS**. Every target gets a **VanguardReclaim Aging** modifier that follows the object's years: dirt where water runs, rain streaks under ledges, moss in the shade, broken and boarded windows, and every third tall tower ruined.



4

### Paint where you want more

Open **Paint**, choose **Ivy** and press **PAINT**. Drag up a wall, or just click once: when you let go of the mouse, shoots crawl off the stroke over the surface and branch. Hold **Ctrl** to erase.



5

### Render

Render Setup ▸ Renderer ▸ **VanguardReclaim Render**. Pick the **Preview** preset for a look, **Production** for the final frame. The sun comes from a sun light in the scene if there is one.





The same street with VanguardReclaim (top) and the same street before.

# 03 Every control explained

The VanguardReclaim object's rollouts, top to bottom. Anything marked *anim* can be keyed.

## VanguardReclaim (the main rollout)

| Control | What it does | Default |
|---|---|---|
| **Objects to age** | The buildings and ground nature takes back. **ADD** / **REMOVE**. A VanguardCity or any mesh. | — |
| **Points / m², Max points** | How finely the surfaces are measured. Raise for a small detailed scene, lower for a whole district. | 1.0 · 4 M |
| **Units** | How a scene unit maps to metres. *Auto* reads the Max system units. | Auto |
| **Logo size** | Size of the object's gizmo in the viewport. Display only. | 20 |
| **MEASURE AGAIN** | Re-measure after you move or change the buildings. | — |
| **AGE THE BUILDINGS** | Puts an Aging modifier on every target, following this object's years. | — |

## Time

| Control | What it does | Range · default |
|---|---|---|
| **Mode** | *Grow with timeline* (a time-lapse) or *Frozen at a year* (one moment; plants still sway in the wind). | Grow |
| **Start / End frame** | The frames the growth runs between. | 0 · 300 |
| **Years at start / end** | How many years have passed at the start and end frame. *anim* | 0 · 100 |
| **Frozen year** | The year shown in Frozen mode. *anim* | 0–500 · 20 |
| **Pace** | How fast nature moves. 0.5 = everything takes twice as long. *anim* | 0.1–5 · 1 |
| **Seed** | A different, equally plausible arrangement. | 7 |
| **FREEZE AT THIS FRAME** | Switch to Frozen at the year the current frame shows. | — |
| **REBUILD GROWTH PLAN** | Plan again from scratch (after big changes to the city). | — |

## Nature

Every layer amount runs 0–3 (default 1, 0 = none). **Story** fills them all at once: *I Am Legend, The Last of Us, Overgrown jungle, Dry wasteland, Autumn decay, Lived-in (few years), Neglected*. Touching any amount afterwards makes it your own.

| Group | Controls |
|---|---|
| On the ground | **Weeds in cracks**, **Grass**, **Tall grass**, **Moss** |
| On the buildings | **Climbing ivy** (crawls over every surface: climbs corners, wraps edges, turns at glass), **Hanging ivy** (curtains and strands from wall tops and slab edges), **Balconies** |
| Larger growth | **Shrubs**, **Trees**, **On / around cars**, **Junk & litter** |

| Where and how much | What it does | Range · default |
|---|---|---|
| **Plant size** | Scales every plant. | 0.2–4 · 1 |
| **Area radius (m)** | Growth only within this distance of the object. 0 = everywhere. | 150 |
| **Area falloff** | How softly growth thins towards the radius. | 0–5 · 0.5 |
| **Budget (M tris)** | The most triangles the whole plan may make. When the plan asks for more, every layer is thinned evenly. | 1–500 · 60 |
| **Detail around** | *This object*, or *The camera*: full density near the camera, thinner far away. | The camera |
| **Overgrowth** | How wild everything gets, on top of the layer amounts. | 0–6 · 1.6 |

| Look of the plants | What it does | Range · default |
|---|---|---|
| **Dryness** | Green to straw and brown. | 0–1 · 0.3 |
| **Colour variety** | How much plant colours differ from each other (incl. red climbers). | 0–3 · 1 |
| **Ivy leaf size** | Size of the ivy leaf cards. | 0.2–4 · 1 |
| **Leaf angle · Angle / Size randomness** | How far ivy leaves stand off the wall, and how uneven they are. | 35° · 0.6 · 0.4 |

# 03 Every control explained — continued

## Wind

| Control | What it does | Range · default |
|---|---|---|
| **Wind on** | Trunks sway, branches swing, leaves flutter, strands swing — in both time modes. | on |
| **Speed (m/s)** | 6 is a breeze, 15 a storm. | 0–40 · 6 |
| **Direction (deg)** | Where the wind blows towards. | 45 |
| **Gusts · Turbulence** | Changes in strength over time, and how uneven it is across the scene. | 0.4 · 0.3 |
| **Trunk sway · Branch sway · Leaf flutter** | How each part of a plant answers. | 0–3 · 1 |
| **Frequency** | Faster or slower movement. | 0.1–5 · 1 |

## Display

| Control | What it does | Default |
|---|---|---|
| **Plants** | *Mesh, always · Cloud, always · Hidden · Mesh painting, cloud.* The cloud draws plants as lit points: light, fast, with sun and building shadows. Renders always use the full mesh. | Mesh painting, cloud |
| **Max shown (M tris)** | Limit for the viewport mesh. | 4 |
| **Points (M) · Point size · Brightness** | The cloud view's density and look. | 12 · 1 · 1 |
| **Building shadows** | Shade the cloud where the buildings shade it. | on |

## Paint

Choose a brush — *Wild Grass, Dry Grass, Weeds, Dandelions, Red Poppies, Fern, Ivy, Bush, Young Tree, Dead Tree*, junk, or **Decay** — then **PAINT** or **ERASE**. Every stroke is one undo step (Ctrl+Z / Ctrl+Y); **CLEAR ALL PAINTING** removes every painted plant, and **Show the brush circle** draws the footprint.

| Control | What it does | Range · default |
|---|---|---|
| **Size · Density** | Size of each plant and how many a stroke lays down. | 0.05–10 · 1 |
| **Size variation · Spread** | Size differences, and how wide the stroke scatters. | 0.25 · 1 |
| **Paint on** | *Surfaces + ground, Surfaces only, Ground only.* | Surfaces + ground |
| **Ivy runners — shoots that crawl off an ivy stroke** | | |
| **Grow runners** | After an Ivy stroke, shoots crawl off both sides of it over the surface: they climb into a wall, follow it and wrap round edges; water stops them. A click throws a round patch. | on |
| **Runners per metre** | How many shoots along a stroke. | 0–15 · 4 |
| **Runner length (m)** | How far each shoot travels. | 0.05–5 · 0.7 |
| **Branching levels** | Shoots off shoots. 0 = straight runners, 3 = dense mat. | 0–3 · 2 |
| **Curl** | How much the shoots wander. | 0–1 · 0.4 |
| **Eraser radius · Strength** | Size and force of ERASE (or Ctrl while painting). **Erase only the selected brush** keeps the others. | 0.5 m · 1 |
| **ADD OBJECTS AS BRUSHES…** | Paint your own models (rocks, cans, statues) like plants. **REMOVE YOUR OBJECTS** takes them out again. | — |

## Brush Settings

Shapes the selected brush: **Placement** (plants per metre, spread, grow upright), **Stem** (height, width, segments, droop, wiggle), **Branches** (count, levels, start, angle, length), **Leaves** (per segment, length, width, angle, droop), **Flower, cap, grass** and **Colour** (stem, leaf, petal, variation, glow). **RESET THIS BRUSH** brings back its factory shape.



Each built-in brush painted in a row, as the viewport shows them while painting.

# 03 Every control explained — continued

## VanguardReclaim Aging (modifier)

Writes aging into the building's vertex colours and, where asked, changes its geometry. Usually added by **AGE THE BUILDINGS**; you can also add it by hand to any mesh.

| Control | Range · default |
|---|---|
| **Years *anim*** | 0–200 · 20 |
| **Follow** | pick a VanguardReclaim object: use its years |
| **Pace** | 0.1–5 · 1 |
| **Grime, moss, wet (on/off)** | on |
| **Grime · Rain streaks · Moss · Wet** | 0–3 · 1 |
| **Map channel** | 0 (vertex colour) |
| **Break glass (on/off)** | on |
| **Breakage** | 0–3 · 1 |

| Control | Range · default |
|---|---|
| **Gone** | share of broken panes missing · 0.4 |
| **Boarded (low)** | low windows boarded up · 0.25 |
| **Seed** | 11 |
| **Every Nth tower** | 0–50 · 3 (0 = no ruins) |
| **Tower from (m)** | only towers taller than this · 40 |
| **Collapse · Rubble** | 0–2 · 1 · 0–3 · 1 |
| **Snow depth (m) · Cover** | 0–5 · 0 · 0–1 · 0.85 |
| **APPLY AGED MATERIALS** | materials that read the masks |



Grime, rust and water stains on a facade, with the Decay brush.

## Reclaim Ivy Cover (helper)

Draw a box around a building. Every wall inside it is covered in ivy by the VanguardReclaim object. **Length / Width / Height** set the box; **Amount** (0–1, default 1) how fully the walls are covered. Moving or scaling the box re-grows the ivy.

> Every rollout is a native Max rollout: type a value into any spinner, and key the ones marked *anim* with Auto Key like any other Max parameter.




Paint and Brush Settings in the Modify panel.

## Reclaim Surface (material)

A weathered-surface material for buildings. Its **Look** list fills every value: *Concrete, weathered* · *Plaster, peeling* · *Brick, sooty* · *Asphalt, cracked* · *Painted metal, rusting* · *Stone, mossy* · *Wood, rotting*, or *Custom (keep my values)*.

| Group | Controls (default) |
|---|---|
| **Base** | Colour, Colour map, Roughness (0.85), Metalness (0) |
| **Dirt** | Amount (0.6), Colour, Your dirt texture, Texture tile (2 m), Sharpness (0.7), Pattern size (1), In corners (1), Rain streaks (0.6), Your streak texture |
| **Moss and stains** | Moss (0.3), Moss colour, Your moss texture, Rust (0), Water stains (0.3) |
| **Relief** | Pores and grain (0.6), Cracks (0.3), Chipped edges (0.2) |
| **Age** | Years (30) — every edge gets dirtier and the detail grows; Grunge detail (1); Tile randomizer (1) hides repeats |

> Reclaim Surface is shaded in full by VanguardReclaim Render. In V-Ray and Corona it shows its base colour and a simple dirt preview.

# 04 Presets and recipes

Start from a Story, then change only what the recipe lists. Layer amounts are in the order Weeds · Grass · Tall grass · Moss · Climbing ivy · Hanging ivy · Balconies · Shrubs · Trees · Cars.

### Abandoned Manhattan — "I Am Legend"

Story **I Am Legend** (1.2 · 1.5 · 2.4 · 0.8 · 0.7 · 0.5 · 0.8 · 0.8 · 0.7 · 1.3; size 1.1, pace 1.6, dryness 0.35). Frozen year **3**. Aging: Grime 1, Breakage 0.6, Every Nth tower 0. Tall grass rules the streets; the walls are still mostly bare.

### Twenty years after — "The Last of Us"

Story **The Last of Us** (1.3 · 1.2 · 0.8 · 1.4 · 2.3 · 2.2 · 1.6 · 1.7 · 1.6 · 1.6; dryness 0.2). Frozen year **20**, Overgrowth 1.6. Aging: defaults, Every Nth tower 3, Collapse 1. Walls disappear under ivy and curtains.

### Jungle city

Story **Overgrown jungle** (2.0 · 2.5 · 2.0 · 2.5 · 2.8 · 2.8 · 2.5 · 2.5 · 2.6 · 2.5; size 1.3, dryness 0.1). Frozen year **60**, Overgrowth 3, **Budget 150**, Detail around: The camera. Aging: Moss 2, Wet 1.5. Needs memory — see Troubleshooting.

### Dust bowl

Story **Dry wasteland** (0.8 · 0.6 · 1.3 · 0.1 · 0.2 · 0.1 · 0.3 · 0.5 · 0.2 · 0.6; dryness 0.85). Wind 12 m/s, Gusts 0.7. Aging: Grime 1.5, Moss 0, Wet 0, Rain streaks 0.5. Paint *Dead Tree* and junk by hand.

### Time-lapse: 0 → 100 years in 10 seconds

Mode **Grow with timeline**, frames 0–300, years 0–100, Pace 1. Story *The Last of Us*. Aging Follow = this object, so the walls darken with the plants. Wind on 6 m/s. Render Preview preset, 1280×720.

### Ivy-covered facade (painted)

Paint ▸ Ivy, Size 1, Density 1.5; Runners per metre 6, Runner length 1.2 m, Branching levels 3, Curl 0.5. Three or four vertical strokes up the wall, a click at each foot. Or use a Reclaim Ivy Cover box with Amount 1.



Climbing ivy close up: leaf cards with an alpha leaf, on an aged wall with cracks.

# 05 Rendering and export

| Renderer | What you get |
|---|---|
| **VanguardReclaim Render** | Everything: plants with alpha ivy leaves, aging masks, per-pixel grime with relief, aged glass, Reclaim Surface, sky, sun, clouds, OIDN denoiser, render elements, motion blur. |
| **V-Ray · Corona · Arnold · Scanline** | Plants with their own materials (Bark, Leaf, Petal, Glow, junk, Reclaim Ivy Leaf) and the aging in vertex colours. Use **APPLY AGED MATERIALS** so the building materials read the masks. |

**Typical settings in VanguardReclaim Render** — *Quality and speed*: preset **Draft** for checks (6–12 passes, seconds), **Preview** for looks, **Production** or **Ultra** for finals; turn on the **Denoiser**. *Sun and lighting*: uses a sun light in the scene if present, otherwise Azimuth / Elevation (try 140° / 50°). *Ambient / GI*: one bounce is the tuned look — keep extra bounces at 0. *Output*: background Sky; Linear output and render elements for compositing.

# 06 Troubleshooting and FAQ

**Nothing grows, and the render is black.**
There is no licence on this computer, or the trial has ended. Open the Licence rollout: it shows the status and the machine ID. Load the licence file (not the one-line key) and press APPLY.

**One part of the street is full and another almost bare.**
The plan asked for more triangles than the **Budget** allows, so everything was thinned. Set **Detail around** to *The camera*, lower **Area radius**, or lower Climbing ivy — ivy is usually the largest layer. A fully ivy-covered street can ask for 300 M triangles.

**Max uses a lot of memory or slows down.**
Raise the budget in steps. At 150 M triangles Max used about 42 GB on a test machine. Keep the viewport on *Mesh painting, cloud*: the cloud costs almost nothing, and renders still use the full mesh.

**My ivy strokes have no branches.**
Check **Grow runners** in Paint. Runners appear when you release the mouse, not while you drag. A stroke that ends on water does not branch there.

**The Material Editor crashed with a Reclaim Surface material.**
Fixed in 1.5.4 — update from your account page.

**My buildings look the same in V-Ray or Corona as before.**
The aging lives in vertex colours. Press **APPLY AGED MATERIALS** on the Aging modifier. Reclaim Surface's full detail renders only in VanguardReclaim Render.

**I moved a building and the plants float.**
Press **MEASURE AGAIN**, then **REBUILD GROWTH PLAN** if needed.

**The trial stops painting.**
The 7-day trial grows up to 3 M triangles, paints up to 1.5 M and gives no plants on Snapshot or Collapse. Erasing always works. Any plan removes the limit.

**Can I use VanguardReclaim Render next to Vanguard Render?**
Yes. They are separate renderers with separate script names (`rcr*` for Reclaim).

**Do old scenes open in new versions?**
Yes. Settings, brushes and painted plants are stored so that new versions only add to them.

## MAXScript

Everything in the panel can be scripted. The most useful calls: `reclaimPaintStroke <node> <brush> <points> size density upm` paints a stroke; `reclaimErase <node> <point> radius strength` erases; `reclaimRunners <node> on perMetre lengthM levels curl` sets the ivy runners; `reclaimBrushes()` lists the brushes; `reclaimInfo <node>` prints the budget per layer — the first thing to read when a scene looks wrong; `reclaimCount <node> #plants` / `#triangles` counts. The renderer: `rcrPreset n`, `rcrSet "aa" 8`, `rcrVersion()`.

# 07 Requirements and licence

| | |
|---|---|
| **3ds Max** | 2024, 2025, 2026, 2027 (64-bit Windows) |
| **GPU** | NVIDIA with CUDA recommended. The renderer falls back to the CPU without one. |
| **Memory** | 32 GB for a street; 64 GB+ for budgets above 100 M triangles |
| **Works with** | VanguardCity, any mesh; V-Ray, Corona, Arnold, Scanline |

| | |
|---|---|
| **Licence** | One licence, one computer (by machine ID). Covers the object, the Aging modifier, Ivy Cover, the renderer and the material. |
| **Trial** | 7 days, free, limited triangles |
| **Moving computer** | Write to support with the new machine ID |
| **Support** | **support@vanguardfx.pro** · vanguardfx.pro |

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