Animagic Studio

A Unified Platform for AI-Powered Animation Production

From Script to Screen — Characters, Locations & Worlds

Version 1.0

December 2025

Abstract

Animagic Studio is a unified SaaS platform that brings together the best AI tools for animation production into a single, intuitive workflow. The platform orchestrates proven services—including Claude for script intelligence, Meshy for 3D characters, World Labs Marble for generated worlds, Google Maps for real locations, and ElevenLabs for voice—into a seamless pipeline from script to final render. With a particular emphasis on location creation, Animagic enables creators to place their stories in real-world cities captured via Google's Photorealistic 3D Tiles, fantasy realms generated by World Labs' spatial AI, or custom environments built from LiDAR scans. The result is a platform that democratizes professional animation production for independent creators and studios alike.

1. Platform Vision

Animation production has traditionally required large teams, expensive software, and years of technical training. Animagic Studio changes this equation by connecting best-in-class AI services into a unified workflow that any creator can use. Rather than building proprietary AI models, the platform orchestrates existing tools that are already excellent at what they do—and getting better every day.

The platform is built around a simple insight: the hardest parts of animation—creating believable characters, building immersive worlds, and synchronizing voice to movement—are now possible through AI services. What's missing is the connective tissue that brings these capabilities together into a coherent production pipeline.

1.1 Core Capabilities

- Script Analysis: Upload a script and receive automatic breakdowns of scenes, characters, locations, and production requirements
- Character Creation: Generate 3D characters from sketches, descriptions, or reference images
- World Building: Create locations from real-world data, AI generation, or custom LiDAR scans
- Voice & Performance: Generate dialogue with natural voices and automatic lip-sync
- Scene Assembly: Combine characters, locations, and performances in a 3D environment
- Export & Render: Output to industry-standard formats for further editing or final delivery

2. The Integrated Tool Stack

Animagic Studio brings together specialized AI services, each best-in-class for its function. The platform handles all the complexity of connecting these services, managing data flow, and ensuring outputs work together seamlessly.

Function	Tool	What It Does
Script Intelligence	Anthropic Claude	Analyzes scripts, generates breakdowns, suggests shots
3D Characters	Meshy AI	Creates rigged 3D models from text or images
Generated Worlds	World Labs Marble	Creates 3D environments from prompts or images
Real Locations	Google Maps 3D Tiles	Photorealistic 3D of 2,500+ real cities
Custom Locations	Polycam / Luma AI	Converts LiDAR scans and photos to 3D
Voice & Lip-Sync	ElevenLabs	Natural speech with timing for animation
Video Generation	Runway ML Gen-4	Image-to-video with consistent characters
3D Rendering	Blender (Headless)	Scene assembly, lighting, final render

3. Script Intelligence with Claude

Every production begins with a script. Animagic uses Anthropic's Claude to analyze screenplays and automatically generate the production documents that would traditionally take weeks to create manually.

3.1 What Claude Extracts

When you upload a script, Claude reads it like an experienced line producer would, identifying:

- Scenes: Location, time of day, estimated duration, and complexity
- Characters: Who appears in each scene, their emotional state, costume requirements
- Locations: Every setting mentioned, with notes on whether it's interior/exterior, real/fantasy
- Props & Assets: Objects characters interact with, vehicles, set dressing
- Dialogue: Lines extracted with speaker identification and emotional tone
- Camera Suggestions: Shot types and movements based on the scene's dramatic needs

3.2 Example Script Breakdown Prompt

The platform uses structured prompts to get consistent, actionable output from Claude:

> *"Analyze this screenplay and generate a JSON production breakdown. For each scene, identify: scene number, location name, location type (interior/exterior, real-world/fantasy/custom), time of day, characters present with emotional states, key props, dialogue lines with speakers, suggested camera setups, and estimated complexity (1-5). Also generate a master list of all unique locations and characters across the script."*

3.3 Animation-Specific Analysis

Unlike breakdown tools designed for live action, Animagic's script analysis includes:

- Lip-sync flagging: Dialogue that requires character mouth animation
- Complexity scoring: How difficult each shot will be to animate
- Asset reuse: Opportunities to use the same character or location across scenes
- Effects requirements: Particles, simulations, or compositing needed

4. Location System: Real, Generated & Custom Worlds

Locations are the foundation of visual storytelling. Animagic provides three powerful ways to create the worlds where your stories unfold: real-world capture, AI generation, and custom scanning. This flexibility means you can set a scene in actual Tokyo, a fantasy castle that exists only in your imagination, or your grandmother's kitchen captured with an iPhone.

4.1 Real-World Locations with Google Maps

Google's Photorealistic 3D Tiles provide stunning, accurate 3D models of over 2,500 cities worldwide. These aren't flat satellite images—they're fully navigable 3D environments with buildings, streets, landmarks, and terrain.

4.1.1 What's Available

- Coverage: Major cities across 49 countries including New York, Paris, Tokyo, Sydney
- Detail: Individual buildings, bridges, monuments, parks, and natural features
- Accuracy: Based on the same data as Google Earth, continuously updated
- Formats: Exportable as 3D meshes compatible with standard animation tools

4.1.2 Use Cases

- Period drama set in recognizable real cities
- Contemporary stories that need authentic urban environments
- Establishing shots that ground fantasy elements in reality
- Educational content about real places

4.2 Generated Worlds with World Labs Marble

World Labs, founded by AI pioneer Fei-Fei Li, has created Marble—a spatial AI that generates persistent, explorable 3D worlds from text prompts, images, or rough layouts. Unlike video generators that produce flat pixels, Marble creates true 3D environments you can move through, edit, and populate with characters.

4.2.1 Marble Capabilities

- Text-to-World: Describe an environment and Marble generates it in 3D
- Image-to-World: Upload a concept painting or photograph and step inside it
- Style Consistency: Generate multiple locations that share the same visual aesthetic
- Persistent & Editable: Unlike AI video, these worlds can be saved, modified, and reused

- Export Formats: Gaussian splats, triangle meshes, and video with camera control

4.2.2 The Chisel Editor

Marble includes Chisel, an experimental 3D sculpting mode that separates structure from style. You can rough out walls, rooms, and terrain, then apply a text prompt to define the visual style. This gives you precise control over spatial layout while letting AI handle the artistic details.

4.2.3 Use Cases

- Fantasy environments: Castles, alien planets, underwater cities
- Historical settings: Victorian London, ancient Rome, 1920s speakeasies
- Stylized worlds: Anime backgrounds, painterly landscapes, low-poly game aesthetics
- Concept exploration: Quickly visualize script locations before committing to a design

4.3 Custom Locations with LiDAR Scanning

Sometimes you need a specific real location that isn't in Google's database—your character's apartment, a local restaurant, a family home. Animagic accepts 3D scans from iPhone LiDAR, professional scanners, or photogrammetry apps.

4.3.1 Supported Capture Tools

Tool	Hardware	Best For
Polycam	iPhone 12+ LiDAR	Quick room scans, props, small spaces
Luma AI	Any smartphone	NeRF captures, objects, outdoor scenes
Record3D	iPhone LiDAR	Real-time streaming, technical workflows
RealityCapture	Camera + photos	High-detail photogrammetry, large sites
Matterport	Matterport camera	Real estate, architecture, interiors

4.3.2 Scan Enhancement

Raw scans often have gaps, noise, or lighting baked in. Animagic processes uploaded scans to:

- Fill holes and clean geometry
- Remove unwanted objects (people, furniture)
- Relighting: Strip baked lighting so the scene can be lit for your production
- Style transfer: Apply different visual styles to a scanned location

4.4 Location Transformation

Any location—real, generated, or scanned—can be transformed to fit your story's needs:

- Time Period: Turn a modern street into 1920s or 2050s
- Weather: Add rain, snow, fog, or sunshine
- Time of Day: Shift from noon to golden hour to midnight
- Style: Apply anime, painterly, noir, or other visual treatments
- Damage: Age, destroy, or rebuild locations for narrative purposes

5. Character Creation

Characters bring stories to life. Animagic uses Meshy AI to generate production-ready 3D characters from text descriptions, reference images, or artist sketches.

5.1 Input Options

- Text Description: 'A tired detective in his 50s, rumpled suit, kind eyes'
- Reference Image: Upload a photo, painting, or character design
- Artist Sketch: Scan a hand-drawn character and convert to 3D
- Style Guide: Reference an art style the character should match

5.2 Output Features

- Rigged for Animation: Characters come ready to pose and animate
- PBR Textures: Physically-based materials that look good under any lighting
- Multiple Formats: GLB, FBX, OBJ for different software pipelines
- Costume Variations: Generate the same character in different outfits
- Expression Blendshapes: Facial controls for emotion and lip-sync

6. Voice and Performance

ElevenLabs provides the voice synthesis engine that brings characters to life. The platform handles the technical work of synchronizing generated speech with character animation.

6.1 Voice Generation

- Natural Speech: Voices that sound human, not robotic
- Emotional Range: Happy, sad, angry, scared—the voice matches the scene
- 30+ Languages: Create multilingual versions of your content
- Voice Cloning: With permission, clone a specific voice for consistency
- Character Voices: Deep, squeaky, old, young—match voice to character

6.2 Automatic Lip-Sync

The platform automatically synchronizes generated audio with character mouth animation:

- Word-level timing extracted from ElevenLabs
- Phoneme-to-viseme mapping for accurate mouth shapes
- Smooth interpolation between poses
- Applied directly to character blendshapes in the 3D scene

7. Video Generation with Runway

Runway ML's Gen-4 model enables rapid creation of animated sequences from keyframes and prompts. This is particularly useful for animatics, background animation, and style exploration.

7.1 Key Features

- Image-to-Video: Animate a still image with described motion
- Consistent Characters: Gen-4 maintains character identity across shots
- Style References: Ensure visual consistency throughout a project
- Camera Control: Specify dolly, pan, zoom, and other movements

7.2 Use Cases in Animation

- Animatics: Quickly visualize storyboards before full production
- Background Motion: Subtle environmental animation (clouds, water, foliage)
- Style Tests: Explore different visual approaches before committing
- Motion Reference: Generate reference for traditional animators

8. Complete Tool Reference

The following tools are integrated into Animagic Studio. Each is accessible through the platform's unified interface—you don't need separate accounts or API keys.

8.1 Script & Planning

Anthropic Claude	Script analysis, scene breakdowns, shot suggestions, dialogue extraction

8.2 Characters & Assets

Meshy AI	Text-to-3D and image-to-3D character and prop generation with rigging

8.3 Locations & Environments

World Labs Marble	AI-generated 3D worlds from text, images, or layouts. Fantasy, historical, stylized.
Google Maps 3D Tiles	Photorealistic 3D models of 2,500+ real cities across 49 countries
Polycam	iPhone LiDAR scanning for rooms, objects, and small spaces
Luma AI	NeRF and Gaussian splat captures from photos or video
Record3D	Real-time LiDAR streaming and point cloud export

8.4 Voice & Audio

ElevenLabs	Text-to-speech, voice cloning, multilingual support, timing data for lip-sync

8.5 Video & Motion

Runway ML Gen-4	Image-to-video generation with consistent characters and camera control

8.6 Rendering & Assembly

Blender (Headless)	Scene assembly, lighting, animation application, final rendering

9. Example Workflow

Here's how a creator might use Animagic Studio to produce a short animated scene:

1. Upload Script: The creator uploads a two-page script for a short film
2. Review Breakdown: Claude analyzes the script and identifies three scenes, two characters, and four locations (a Tokyo street, a café interior, a fantasy forest, and an apartment)
3. Source Locations: Tokyo street from Google Maps 3D Tiles, café generated by World Labs Marble with the prompt 'cozy Japanese kissaten, warm lighting, 1970s aesthetic', forest also generated by Marble, apartment scanned with Polycam
4. Create Characters: Character descriptions sent to Meshy, which generates rigged 3D models
5. Generate Voices: Dialogue sent to ElevenLabs, which returns audio files with timing data
6. Assemble Scenes: Characters, locations, and audio combined in Blender
7. Apply Lip-Sync: ElevenLabs timing data drives character mouth animation
8. Render: Final frames rendered and exported for editing

10. Conclusion

Animagic Studio demonstrates that professional-quality animation production is now accessible to individual creators and small teams. By orchestrating best-in-class AI services into a unified workflow, the platform eliminates the technical barriers that have traditionally made animation expensive and time-consuming.

The emphasis on locations—real, generated, and custom—reflects a fundamental truth about visual storytelling: the world your characters inhabit is as important as the characters themselves. With Google Maps providing real cities, World Labs generating fantasy realms, and LiDAR enabling capture of personal spaces, creators now have unprecedented access to the environments their stories need.

As these underlying AI services continue to improve—and they are improving rapidly—Animagic will automatically deliver better results without requiring fundamental changes. The platform's value lies not in competing with specialized tools, but in connecting them into a workflow that lets creators focus on what matters: telling great stories.