

DEAD OCEAN

Executive Feasibility Snapshot

Production-scale assessment of procedural world-building investment, staged release sequencing, and flagship-scope delivery for a high-fidelity survival simulator



Product concept

DeadOcean is a high-fidelity open-world survival simulator built around Unreal Engine 5.5, Houdini-driven procedural world building, advanced survival systems, modular boat construction, dynamic weather, and a complex ecology spanning marine and terrestrial life. The concept phase tested whether early production should handcraft a small island set for a faster short-term result or invest that effort into Houdini and Houdini Engine to create a reusable world-building system.

Technical foundation

Unreal Engine 5.5

Houdini Engine

C++ / Blueprints

Lumen & Nanite

Executive decision

Proceed with a Houdini-centered production pipeline, a single-player-first release on Steam, and multiplayer deferred to a later phase. Reason: DeadOcean's value depends on reusable world-production systems, not on spending one-off labor on a small handcrafted island set. The tooling complexity and Houdini license cost were accepted because this is the studio's flagship-scale project and by far the most production-intensive initiative in the portfolio.

Handcrafted island path

Curated terrain, dressing, and layout for a small set of islands. Assessment: faster to visualize once, but poor long-range scalability for a survival world that needs iteration and growth.

Houdini-centered pipeline

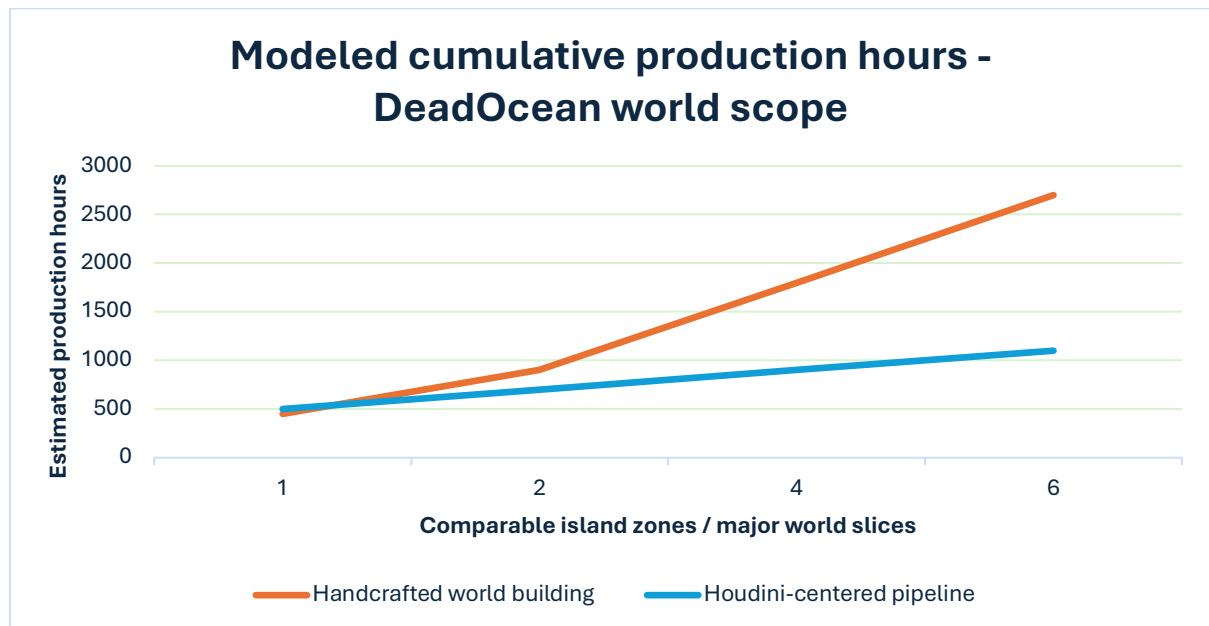
Procedural island generation, distribution logic, shoreline variation, and Unreal ingestion through Houdini Engine. Assessment: high upfront complexity, strongest long-term production leverage.

Accepted project posture

Houdini Indie: \$299 annual license. Steam Direct: \$100 one-time app fee. Interpretation: tool spend was accepted; the real economic issue is hundreds of hours of production labor.

Production leverage view

Illustrative hours model shown below; the chart compares one-off handcrafted island production with a Houdini-centered reusable pipeline as world scope expands.



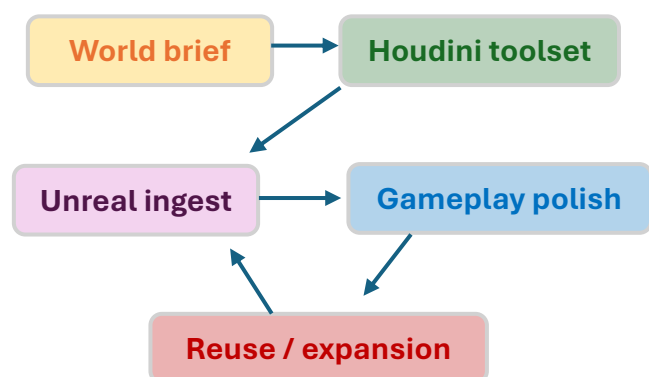
Note: the plotted curve is a management illustration. It uses a conservative production model rather than measured post-build telemetry. Actual effort will vary with biome count, quality bar, gameplay integration, optimization needs, and the maturity of the procedural toolchain.

Benchmark model and management interpretation

Illustrative benchmark assumptions

- Single-player release planning; multiplayer is intentionally excluded from launch build assumptions.
- Handcrafted benchmark: about 450 production hours per comparable island zone, including terrain shaping, scatter placement, traversal cleanup, and iteration.
- Procedural benchmark: about 500 hours initial investment for Houdini learning, generator design, Houdini Engine integration, debugging, and first production-ready setup.
- Additional comparable zone after pipeline setup: about 110 hours for parameter authoring, gameplay polish, and validation.
- Model excludes character animation, narrative content, audio, marketing assets, formal certification, and late-cycle QA spikes.

Why the leverage becomes decisive



The procedural route does not mainly save time at the first prototype. Its value appears once island creation, shoreline layout, distribution, and cleanup stop being repeated from scratch. Under this model, the same rough effort that would hand-build one small polished map can instead establish a generator that supports several comparable world slices over time.

Decision framework

Illustrative production benchmark, platform rationale, and risk interpretation for the studio's most ambitious project. Illustrative production benchmark (hours)

World scope	Handcrafted	Houdini pipeline	Hours avoided
1 island zone	450	500	-
2 island zones	900	610	290
4 island zones	1,800	830	970
6 island zones	2,700	1,050	1,650

Labor-value illustration

At a conservative \$90/hour production-equivalent rate, the modeled 1,650-hour gap at six island zones corresponds to roughly \$148,500 of repeated labor avoided.

Why Steam

Despite platform fees, Steam remains the primary commercial platform for PC indie game discovery and distribution. Steam Direct entry costs remain \$100 per app, making it a viable launch path for a single-player indie release.

Risk and management interpretation

Risk area	Impact	Operational response	Expected outcome
Procedural tooling ramp	High	Front-load Houdini R&D, generator tests, and Unreal integration before full production rollout.	Reusable world systems instead of repeated one-off map work.
Content ambition / scope creep	High	Define a ship-ready single-player slice and cap initial biome count before expanding the ocean.	Ambition stays staged instead of overwhelming delivery.
Performance burden	High	Profile Nanite, Lumen, streaming, AI density, and water systems continuously during content scaling.	Technical fidelity remains aligned with playable performance.
Later multiplayer expansion	High	Defer replication, persistence, session logic, backend services, moderation, and support overhead to a later phase.	Launch risk is reduced while future online scope remains possible.

Management recommendation

DeadOcean should proceed as a Steam-bound single-player release built on a Houdini-centered content pipeline, with multiplayer held for a later expansion phase. The \$299 annual Houdini Indie cost was acceptable because the decisive economic issue is not software price but whether hundreds of hours are spent on one small handcrafted map or on a reusable production system that can multiply output over time.