

A SMALL WORKING PLACE

The Lockkeeper's Quay

CANAL ENVIRONMENT KIT / BLENDER + GLB + GODOT



Keeper's Reach. Blender 4.5.14 Cycles CPU, AgX. All gallery images show the supplied geometry.

A squat lockhouse, timber mitre gates and a quiet place to wait for a delivery. Two furnished layouts share the same eleven modules, so you can keep the composition or build your own short canal-side location.

11 reusable modules	2 furnished layouts	2 shared materials
House, gates, banks, water and six prop groups	Keeper's Reach and Short Delivery Quay	Original palette atlas plus separate water

Start here: extract the whole archive. Import **Godot/project.godot** in Godot 4.7.2 and press F6 with Demo.tscn open, or F5 to run the project. For modelling, open **Source/Lockkeepers-Quay.blend**.

ARRANGE THE LOCATION

Build from the same parts



Module Library scene. Components are shown separately; the two furnished locations use these same parts.

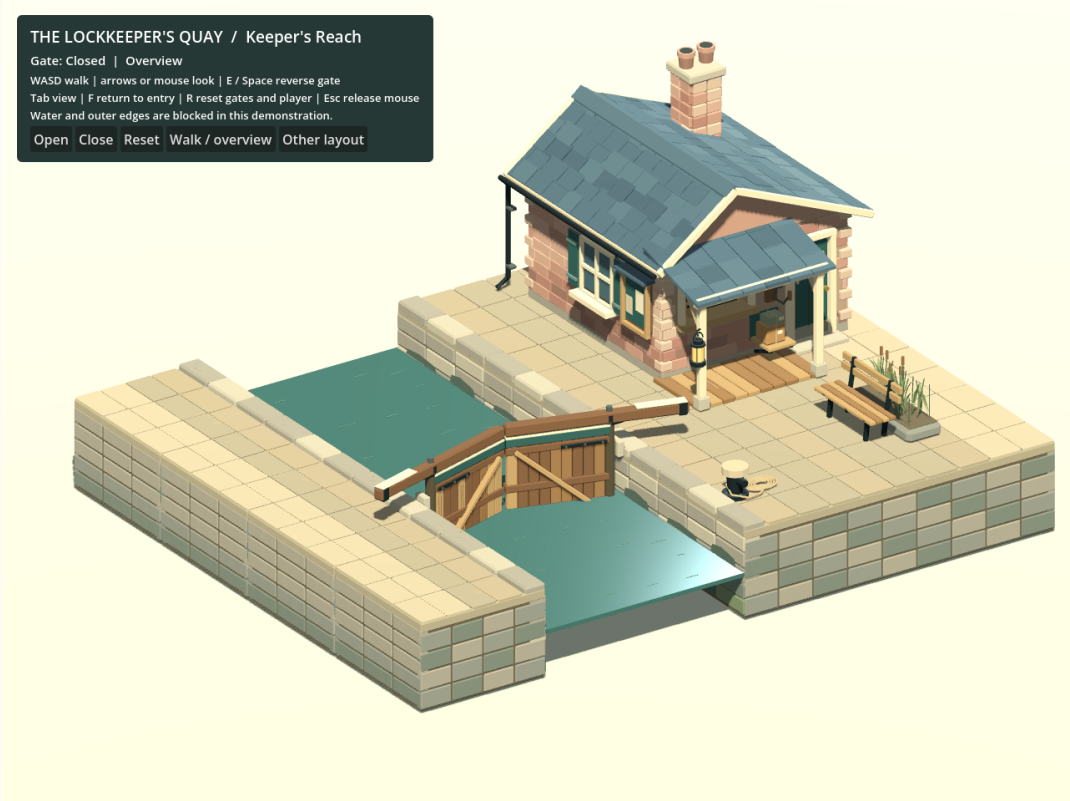
Module	Use / placement
Lockhouse	Exterior shell, closed door, service hatch and porch.
Paired Gates	Both leaves, fixed fittings and hinge origins.
Quay Narrow / Quay Wide	2.6 or 6.45 m wide; each section is 2.7 m long.
Water	4.1 x 2.7 m section. Opaque PBR surface and sparse ripples.
Windlass / Delivery Shelf	Hand tool with hook; shelf with parcels.
Mooring Bollard + Rope	Independent mooring furniture and removable coil.
Noticeboard / Portable Lantern	Hatch-side notices; small lantern with emissive panes.
Waiting Bench + Reeds	Bench with its attached planter.

Metres throughout. Blender uses Z up; GLB and Godot use Y up. Repeat banks and water every 2.7 m. A bank origin sits at its inner edge and waterline; its width extends along local +X, its length along Blender +Y / Godot -Z. Rotate the far bank 180 degrees.

Use Godot/Modules/*.tscn for native collision and materials. Use Godot/Layouts/*.tscn for an assembled location. Keep scale at (1,1,1), move the roots, and keep the waterway, porch approach and gate sweep clear. Exact origins and module bounds are in Inventory.json.

TRY THE WORKING DEMONSTRATION

Open, reverse, walk



Godot 4.7.2 native compatibility renderer, Linux llvmpipe. Lighting differs from the Blender gallery; this is the running project.

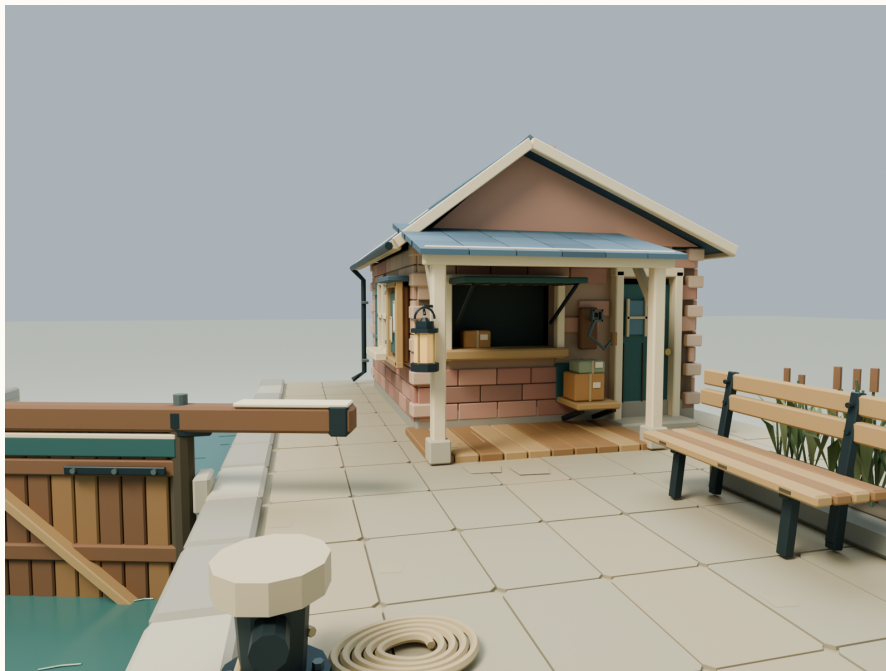
Control	Action
WASD / arrows / mouse	Walk / look with arrow keys / click the view to capture the mouse.
E or Space	Toggle the target; reverses a gate already moving.
Tab / Esc	Switch walk and overview / release the mouse.
R / F	Reset both gates and player / return the player to the entry.
1 or 2 / Other layout	Select a furnished layout. Open and Close buttons set an explicit target.

Gate travel takes four seconds. A single progress value drives both the visible hinges and their simple collision bodies. The balance-beam keep-clear areas pause travel while the demo player stands inside; stepping away resumes it.

Integrating the gate: instance Modules/Paired_Gates.tscn and call request_open(), request_close(), toggle() or reset_closed(). Edit travel_seconds in the Inspector. Return your player to a safe point before an immediate reset. The GLB also carries a baked Gate_Open rotation clip; do not run that clip alongside the native controller.

EDIT THE APPEARANCE

Small palette, editable source



Approach view, Blender Cycles. The house retains its low roof, deep eaves, asymmetric hatch and restrained work wear.

Two active materials. QuayPalette.tres is shared by all opaque coloured geometry; Water.tres controls the separate water. The main layout has 55 mesh surfaces / 68,786 instanced triangles. The shorter layout has 51 / 59,772. These counts are not a hardware performance claim.

The three 256 x 256 PNGs use an 8 x 8 palette grid. BaseColor stores colour; ORM stores occlusion in R, roughness in G and metallic in B. Emission lights the lantern cells only. Each face samples the centre of one palette cell with nearest filtering. Palette.json names the cells and records their original values.

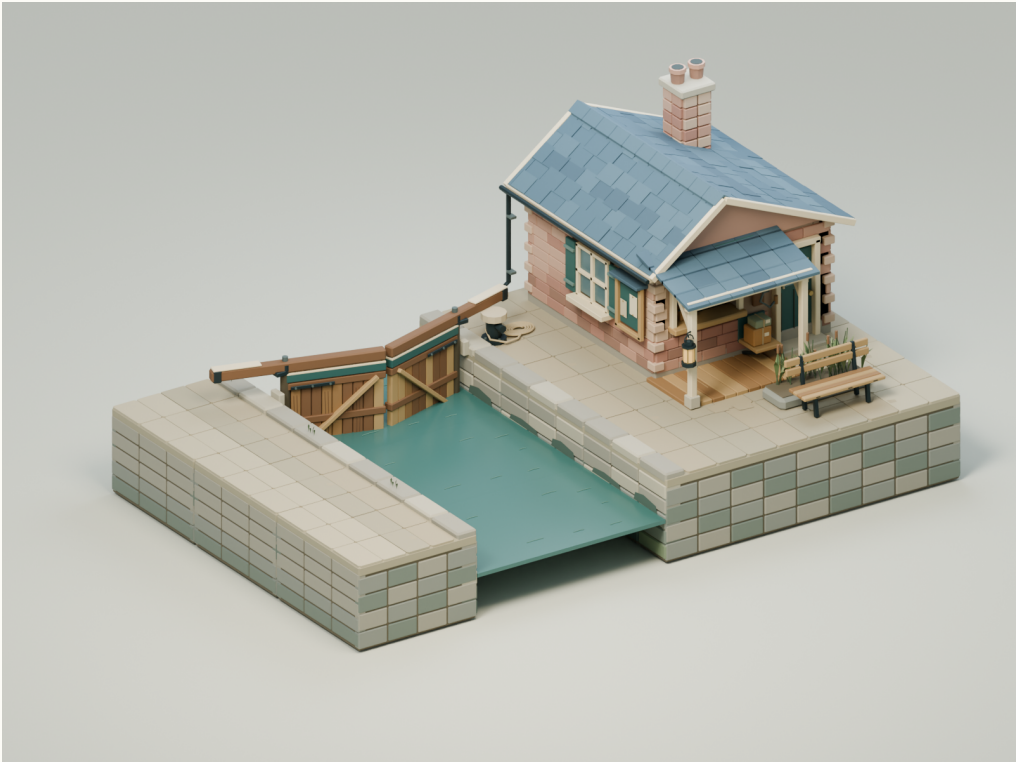
Change a colour: edit the matching cell in Godot/Textures/Quay_Palette_BaseColor.png, preserving its size and cell boundaries, then let Godot reimport. Edit the G/B channels of the ORM cell to change roughness/metallicity. For a module variant, duplicate the material and texture, set palette_material on the module root, then reopen or run the scene. Mesh overrides are rebound from that property at startup.

In Blender: use the scene selector for Keeper's Reach, Short Delivery Quay or Module Library. Mesh parts and hinge parents remain editable; cameras and lights are saved. Texture images are packed as well as supplied separately. The original unused single-colour materials remain for editing, but exported meshes use the shared atlas.

Palette UVs are intended for flat colour assignment, not detailed texture painting or a lightmap unwrap. Adding painted detail requires your own unwrap. Update both Textures copies if you want matching Blender and Godot edits; exported GLBs embed their own texture copies and must be re-exported after a change.

PLACE AND NAVIGATE

Keep the working space clear



Short Delivery Quay: three sections long, relocated gates and bench, the same house and six prop groups.

The optional walking controller uses a **0.28 m radius, 1.75 m high capsule**, with the eye 1.60 m above the feet and a 0.12 m step allowance. Automated native checks traversed 22 waypoints across both layouts, including the porch step and return paths.

Banks, the closed house exterior, porch, bollard and bench use simple box/cylinder collisions. Small paper, rope, tools and lantern details rely on their enclosing support collision. Gate leaves and beams use moving AnimatableBody3D shapes; they are approximations, not triangle-perfect collision meshes.

Layer / location	Meaning
1 / module scenes	Solid scene geometry and gate collision.
2 / demo Player	Character layer; the player checks layers 1 and 3 (mask 5).
3 / DemoOnlyWaterAndOuterBoundaries	Invisible water/outer-edge barriers, created only by Demo.tscn. They are labelled in its HUD and absent from placement scenes.

Adjust CollisionShape3D nodes in the module scenes for your own character. Keep the visual hinge and moving collision roots together, and retest the whole sweep after changing leaf dimensions or placing new objects nearby. The supplied pause areas are a basic demo safeguard, not a general crowd or physics system.

USE AND ADAPT

Files, rights and limits

Exchange/ contains both complete GLBs and individual module GLBs. All texture images are embedded; no HDRI, external art, paid plugin or network service is needed. GLB is standard glTF 2.0 PBR. Tested versions are Blender 4.5.14 LTS and Godot 4.7.2 on Linux. Other engine integrations, operating systems, mobile and VR have not been verified.

Optional regeneration. Source/build_release.py and seed_geometry.py rebuild the editable geometry, atlas and GLBs using Blender. Set the QUAY_BUILD_ROOT environment variable to a new empty output directory, then run Blender in background mode with --factory-startup --threads 2 --python Source/build_release.py. Run Python 3 on Source/build_godot.py with the same variable to rebuild the native project from Source/Templates. Builders write a new stage/ tree; documentation and gallery capture are not regenerated.

Scope. This is an exterior location kit. The door is closed, the house has no room interior, and the water is opaque and inaccessible in the demo. No boats, characters, swimming, hydraulics, navigation mesh, LOD system or full game framework are included. The optional player and gate code are small integration examples.

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AI-generated disclosure. Geometry, materials, arrangements, code, text and renders were created with OpenAI Codex. The previews are renders of the actual files. Validation is automated; no human modelling, human playtest, customer endorsement or sales evidence is claimed. PROVENANCE.json records sources and testing scope.

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