

FALCO ENGINE — Editor Hotkeys and Controls

A full reference of active keyboard shortcuts, mouse modifiers and context commands, confirmed against the Editor source code.

Notation. LMB — left mouse button; RMB — right; MMB — middle; wheel — scroll. In the code, modifiers are checked as the left Ctrl, Shift and Alt. Commands do not fire while the cursor is in a text input field, and may depend on window focus.

Quick start

Keys / mouse	Action	Context and notes
RMB + W/A/S/D	Free-fly camera	Scene or Camera Viewport window; Shift speeds up movement.
Q / W / E / R	Select / Move / Rotate / Scale	Active Scene window, RMB not held.
F	Focus camera on selection	Scene / Hierarchy focused, or cursor over Scene.
Ctrl + S	Save scene	Global Editor command.
Ctrl + Z / Ctrl + Y	Undo / Redo	Redo is also available via Ctrl+Shift+Z.
F5	Start or stop Play Mode	In the Game window during play, F5 releases the cursor; Shift+F5 stops.

Reference version: August 29, 2026. Source: current branch FalcoEngine_bgfx_master_ChatGPT.

1. Global Editor commands

Work when the Editor has not captured the keyboard for text input and no mouse drag is in progress.

Keys / mouse	Action	Context and notes
Ctrl + N	Create new scene	Unavailable during Play Mode.
Ctrl + O	Open scene	Unavailable during Play Mode.
Ctrl + S	Save scene	Unavailable during Play Mode.
Ctrl + Shift + S	Save scene as...	Opens a new-file picker.
Ctrl + Z	Undo	Reverts the last registered action.
Ctrl + Y	Redo	Repeats an undone action.
Ctrl + Shift + Z	Redo	Alternative redo shortcut.
Ctrl + Shift + C	Copy render image	The Copy Render Image command.
F5	Start / stop Play Mode	Without Ctrl and Shift; behavior in Game is detailed in section 5.
F	Focus on selected object	Only when Scene/Hierarchy is focused or the cursor is over Scene.

Menu item without an active key Edit → Align With View displays Ctrl+Shift+A, but there is no handler for this combination in the current code. Use the menu item itself. This is recorded here as a known discrepancy between UI and implementation.

2. Scene: tools and selection

Keys / mouse	Action	Context and notes
Q	Select tool	Switches the gizmo to selection mode.
W	Move tool	Does not fire as a tool while RMB is held.
E	Rotate tool	Does not fire as a tool while RMB is held.
R	Scale tool	Does not fire as a tool while RMB is held.
T	Local ↔ World	Changes the gizmo's coordinate space.
Ctrl	Temporarily invert Snap to Grid	While moving, rotating or scaling.
LMB	Select object	Click an object in Scene.

Ctrl + LMB	Add/remove object from selection	Multiple selection in Scene.
Ctrl + D	Duplicate selected objects	Active main Scene window.
Delete	Delete selected objects	Active main Scene window; without Ctrl/Shift.

3. Scene: camera navigation

Keys / mouse	Action	Context and notes
RMB + mouse move	Look around	Rotates the Scene camera.
RMB + W / S	Forward / backward	Free-fly.
RMB + A / D	Left / right	Free-fly; direction matches on-screen movement.
RMB + Q / E	Down / up	Vertical movement.
RMB + Shift	Speed up flight	Speed multiplier depends on the selected preset.
MMB + mouse move	Pan	Moves the camera parallel to the screen plane.
Alt + LMB + mouse move	Orbit around a point	Rotates the camera around the computed pivot; selection does not change.
Mouse wheel	Zoom in / out	In perspective — dolly; in orthographic mode — size change.
1 / 2 / 3	Camera speed preset	Slow / medium / fast Scene preset.
Double LMB on View Cube	Align view	Smoothly orients the camera to the selected face, edge or corner of the cube.
LMB + drag on View Cube	Freely rotate view	Interactive rotation via the navigation cube.

4. Camera Viewport

Navigation changes the Transform of the camera assigned as the source of the Camera Viewport window; the change is recorded in Undo after RMB is released.

Keys / mouse	Action	Context and notes
RMB + mouse move	Rotate the selected Camera	The cursor must be over Camera Viewport.
RMB + W / S	Forward / backward	Moves the source Camera.
RMB + A / D	Left / right	Moves the source Camera.
RMB + Q / E	Down / up	Moves the source Camera.
RMB + Shift	Speed up movement	Uses the active Scene's navigation speed.

5. Game and Play Mode

Keys / mouse	Action	Context and notes
F5	Release cursor	When the game is running and input is handled by the Game window.
Shift + F5	Stop Play Mode	Game window context during play.
LMB on Game	Give mouse control to the game	Used to return focus / recapture input.

6. Hierarchy, Assets and other trees

Keys / mouse	Action	Context and notes
LMB	Select item	Ordinary single selection.
Ctrl + LMB	Toggle item in the set	Adds or removes an individual item.
Shift + LMB	Select range	Range from the anchor to the current item.
Double LMB	Open / activate item	Action depends on the specific tree and resource type.
Enter	Confirm rename	When the inline name field is active.
Escape	Cancel rename	Restores the previous name.

7. Reference fields in the Inspector

Keys / mouse	Action	Context and notes
Delete	Clear selected reference	In the dedicated property/resource picker; calls Clear on the selected node.
Double LMB	Open selected resource	If an open handler is assigned for the resource type.

Why the same Delete behaves differently The command is contextual: in Scene it deletes objects, in the Animation Editor it deletes the selected key, and in the property picker window it clears a reference. Check which window is active before pressing it.

8. UI Editor

Keys / mouse	Action	Context and notes
MMB + mouse move	Pan canvas	Works in the active UI Editor.
Mouse wheel	Change zoom	Zoom range is limited by the Editor.
LMB	Select UI element	Click on the element's rectangle.
Ctrl + LMB	Multiple selection	Adds/removes an element from the current set.
LMB + drag	Move selected elements	Dragging within the selection.
LMB + drag on handle	Resize	The handle determines the side or corner of resizing.
Ctrl during drag	Temporarily invert Snap to Grid	If snapping is on — disables it; if off — enables it.

9. Terrain Editor

Painting is done with LMB on the Terrain surface; holding LMB continues the stroke as the cursor moves.

Keys / mouse	Action	Context and notes
LMB / LMB + drag	Apply current brush	Raise, Lower, Smooth, Flatten, Texture, Trees, Grass or Detail Meshes.
Shift + LMB in Raise	Lower height	Temporarily turns Raise into Lower.
Shift + LMB in Flatten	Sample height	The height under the cursor becomes the target for subsequent flattening.
Shift + LMB in Trees	Remove trees	Removal affects prototypes within the brush area.
Shift + LMB in Grass	Remove grass	Removal within the brush area.
Shift + LMB in Detail Meshes	Remove detail meshes	Removal within the brush area.
Double LMB on a layer	Open Edit for the selected layer	Applies to textures, trees, detail meshes and grass.

No extra Shift for textures In Paint Texture mode, LMB increases the weight of the selected layer and decreases the weights of the others. Shift does not change the brush action in this branch.

10. Animation Editor

Keys / mouse	Action	Context and notes
Double LMB on a node	Start rename	Animation clip node list.
Enter	Confirm new name	Active only during renaming.
Escape	Cancel rename	Closes the field without applying.
Delete	Delete selected key	Position, Rotation or Scale; does not fire during text input.
LMB on a key	Select key	A point on the corresponding track.
LMB + drag on a key	Move key in time	Changes the frame number of the selected key.
LMB / drag on the scale	Set current frame	Click or drag along the timeline.
RMB on a node	Context menu Rename / Delete	Alternative to hotkeys.

11. Asset preview

Keys / mouse	Action	Context and notes
LMB + drag	Rotate 3D model	Model 3D preview window.
MMB + drag	Pan model	Model 3D preview window.
Mouse wheel	Zoom model in / out	Model 3D preview window.
LMB + drag	Rotate material sphere	Material preview in the Inspector.
LMB + drag	Rotate cubemap preview	Cubemap preview in the Inspector.

12. Priorities and limitations

- A text input field takes priority over global shortcuts.
- RMB navigation takes priority over Q/W/E/R as gizmo switches.
- Only the left Ctrl/Shift/Alt are guaranteed to be checked by the current implementation.
- Scene commands apply to the main active Scene window; additional windows may not receive them.
- The shortcuts describe the current source implementation, not just menu labels.

Appendix. Where the shortcuts are confirmed

The reference was compiled from input handlers, not assumptions. Main verification points:

File	What was checked
Editor/Windows/MainWindow.cpp	Global Ctrl commands, F5, F, menu labels.
Editor/Windows/SceneWindow.cpp	Q/W/E/R/T, 1/2/3, Ctrl+D, Delete, camera flight and mouse.
Engine/Gizmo/Gizmo.cpp	Ctrl+LMB, Alt+LMB and temporary Snap to Grid inversion.
Engine/Gizmo/ImGuizmo.cpp	Navigation View Cube: drag and double click.
Editor/Windows/ViewportWindow.cpp	Navigation of the assigned Camera via RMB and WASDQE.
Editor/Windows/GameWindow.cpp	F5/Shift+F5 and cursor capture in Game.
Editor/Classes/TreeView.cpp, TreeNode.cpp	Ctrl/Shift selection, double click, Enter/Escape.
Editor/Windows/UIEditorWindow.cpp	Pan, zoom, Ctrl selection and snap inversion.
Editor/PropertyEditors/TerrainEditor.cpp	LMB, Shift modifiers and double click on layers.
Editor/Windows/AnimationEditorWindow.cpp	Enter, Escape, Delete and timeline operations.
Editor/PropertyEditors/Model3DEditor.cpp	Model rotation, pan and zoom.
Editor/PropertyEditors/MaterialEditor.cpp, CubemapEditor.cpp	Preview rotation with LMB.
Editor/PropertyEditors/PropertyEditor.cpp	Delete to clear the selected reference.

Document status. All SDL_SCANCODE keys read by the Editor and Gizmo code are covered, as well as the context mouse actions that directly change navigation, selection or editing. ImGuizmo demo code disabled via `#if 0` is intentionally not included.