XyzPilot

Agent Chat — v3.1.6 UI Upgrade

AI Panel Menu, Provider Settings Hardening & 35 New Tests

`v3.1.6 | 1,235 passed | 39 known failures | 1 skipped | Zero regressions`

1,235	39	35
Tests Passed	Known Failures	New Tests Added

39 known failures identical to baseline — zero new regressions

Inspection Findings

Before the v3.1.6 upgrade, an inspection of the Agent Chat window identified three structural UI problems that needed to be resolved. All three panels live in the agent-chat window — not the CAD page.

Panel / Element	Finding	Resolution
`Proposals panel (xpc-)`	Well-built docked right-side panel with close button, Escape, ARIA and count badge	Good — no changes needed to panel itself
`Referred Geometry panel (rgp-)`	Well-built docked right-side panel with close button, Escape, ARIA and count badge	Good — no changes needed to panel itself
`Provider Settings panel`	Lacked close button (x), Escape key handling, role=dialog, and aria-hidden	Fixed in v3.1.6
`Proposals launcher`	Floating launcher at bottom-right — scattered, inconsistent with other launchers	Replaced by unified AI menu
`Referred Geometry launcher`	Floating launcher at bottom-right — duplicate position with Proposals launcher	Replaced by unified AI menu
`Provider Settings launcher`	Floating launcher at top-right colliding with 'Menus' toolbar opener (both at top:12px;right:12px)	Replaced by unified AI menu — collision eliminated

Root Cause

The core problem was three scattered floating launchers with inconsistent positioning. Proposals and Referred Geometry launchers both sat at bottom-right. Provider Settings launcher collided with the 'Menus' toolbar opener — both at top:12px;right:12px. The panels themselves were well-built; only the launchers and Provider Settings accessibility needed fixing.

Files Changed

Five files were created or modified in v3.1.6. Two are new files; three are modifications to existing files.

NEW	`static/agent-chat/assets/ai-menu.js`	AI menu + shared controller (window.aiPanelController). Provides the unified 'AI ▾' dropdown button and coordinates all three panel launchers.
NEW	`static/agent-chat/assets/ai-menu.css`	Menu styling, hides legacy floating launchers, z-index layering, responsive rules. Ensures the AI menu sits correctly beside the 'Menus' toolbar opener.
MODIFIED	`static/agent-chat/assets/provider-settings.js`	Added: x close button, Escape key handling, role=dialog / aria-hidden, unsaved-key clearing on close, open/close API, idempotent build guard, internal scroll + viewport caps.
MODIFIED	`static/agent-chat/index.html`	Includes ai-menu.js and ai-menu.css. Provider-settings script bumped to v2 to bust browser cache.
NEW	`tests/test_zz_v316_ai_panel_menu.py`	35 new tests covering the AI menu, panel controller, Provider Settings accessibility, and launcher collision elimination.

2	2	1
New JS/CSS files	Modified files	New test file

AI Menu — Design & Layout

The AI menu replaces three scattered floating launchers with a single, unified dropdown button placed beside the existing 'Menus' toolbar opener in the top-right of the Agent Chat window.

Menu Structure

[Menus]	[AI ■]
Chat	Opens the main chat panel
Proposals (n)	Opens the Proposals panel — count badge mirrors xpc- launcher
Referred Geometry (n)	Opens the Referred Geometry panel — count badge mirrors rgp- launcher
Provider Settings	Opens the Provider Settings panel

Count Badge Synchronisation

The Proposals (n) and Referred Geometry (n) count badges in the AI menu are derived from the existing launcher badges using MutationObserver — they are never fabricated independently. This ensures the menu counts always match the panel counts exactly.

Menu Item	Source	Sync Method
Proposals count	xpc- launcher badge	MutationObserver on badge element
Referred Geometry count	rgp- launcher badge	MutationObserver on badge element
Provider Settings	No count badge	Binary: configured / not configured

Collision Elimination

The former collision between the Provider Settings launcher and the 'Menus' toolbar opener (both at top:12px;right:12px) is eliminated. The AI menu sits beside the 'Menus' button using standard toolbar flow — no absolute positioning conflict.

Before	After
Provider Settings launcher: top:12px;right:12px Menus toolbar opener: top:12px;right:12px COLLISION — both overlap	AI menu button: inline beside Menus opener No absolute positioning conflict Legacy launchers hidden by ai-menu.css

Provider Settings — Accessibility & Hardening

The Provider Settings panel was the only panel in the Agent Chat window that lacked proper accessibility attributes and close behaviour. v3.1.6 brings it to the same standard as the Proposals and Referred Geometry panels.

✓	**x close button** Added a visible close button (x) to the panel header — consistent with Proposals and Referred Geometry panels
✓	**Escape key handling** Panel closes on Escape key press — consistent with all other panels in the window
✓	**role=dialog** Added role=dialog to the panel container for correct ARIA semantics
✓	**aria-hidden** Panel sets aria-hidden=true when closed, aria-hidden=false when open
✓	**Unsaved key clearing on close** If the user has typed a key but not saved it, the field is cleared when the panel closes — no accidental key exposure
✓	**Open/close API** Exposed open() and close() methods on the panel object for use by window.aiPanelController
✓	**Idempotent build guard** Panel HTML is only built once — calling open() a second time does not duplicate the DOM
✓	**Internal scroll + viewport caps** Panel content scrolls internally; panel height is capped to viewport height to prevent overflow on small screens

Panel Consistency

After v3.1.6, all three panels in the Agent Chat window (Proposals, Referred Geometry, Provider Settings) have identical accessibility behaviour: x close button, Escape key, role=dialog, aria-hidden, and correct z-index layering.

New Test Suite — test_zz_v316_ai_panel_menu.py

35 new tests were added in v3.1.6, all in a single new test file. The tests cover four categories: AI menu structure and behaviour, panel controller coordination, Provider Settings accessibility, and launcher collision elimination.

35	4	0
Total new tests	Test categories	New failures

AI Menu Structure & Behaviour (11 tests)

`test_ai_menu_button_exists`	AI menu button is present in the DOM Category: AI Menu Structure & Behaviour
`test_ai_menu_button_label`	Button label is 'AI ▾' Category: AI Menu Structure & Behaviour
`test_ai_menu_opens_on_click`	Clicking the button opens the dropdown Category: AI Menu Structure & Behaviour
`test_ai_menu_closes_on_outside_click`	Clicking outside the menu closes it Category: AI Menu Structure & Behaviour
`test_ai_menu_closes_on_escape`	Pressing Escape closes the menu Category: AI Menu Structure & Behaviour
`test_ai_menu_has_chat_item`	Menu contains a Chat item Category: AI Menu Structure & Behaviour
`test_ai_menu_has_proposals_item`	Menu contains a Proposals item with count badge Category: AI Menu Structure & Behaviour
`test_ai_menu_has_referred_geometry_item`	Menu contains a Referred Geometry item with count badge Category: AI Menu Structure & Behaviour
`test_ai_menu_has_provider_settings_item`	Menu contains a Provider Settings item Category: AI Menu Structure & Behaviour
`test_proposals_count_mirrors_launcher`	Proposals count in menu matches xpc- launcher badge Category: AI Menu Structure & Behaviour
`test_referred_geometry_count_mirrors_launcher`	Referred Geometry count matches rgp- launcher badge Category: AI Menu Structure & Behaviour

Panel Controller (window.aiPanelController) (6 tests)

test_panel_controller_exists	window.aiPanelController is defined Category: Panel Controller (window.aiPanelController)
test_panel_controller_opens_proposals	Controller opens Proposals panel Category: Panel Controller (window.aiPanelController)
test_panel_controller_opens_referred_geometry	Controller opens Referred Geometry panel Category: Panel Controller (window.aiPanelController)
test_panel_controller_opens_provider_settings	Controller opens Provider Settings panel Category: Panel Controller (window.aiPanelController)
test_panel_controller_closes_others_on_open	Opening one panel closes the others Category: Panel Controller (window.aiPanelController)
test_panel_controller_open_close_api	open() and close() methods work correctly Category: Panel Controller (window.aiPanelController)

Provider Settings Accessibility (10 tests)

test_provider_settings_has_close_button	Panel has a visible x close button Category: Provider Settings Accessibility
test_provider_settings_closes_on_x	Clicking x closes the panel Category: Provider Settings Accessibility
test_provider_settings_closes_on_escape	Pressing Escape closes the panel Category: Provider Settings Accessibility
test_provider_settings_has_role_dialog	Panel has role=dialog Category: Provider Settings Accessibility
test_provider_settings_aria_hidden_closed	aria-hidden=true when panel is closed Category: Provider Settings Accessibility
test_provider_settings_aria_hidden_open	aria-hidden=false when panel is open Category: Provider Settings Accessibility
test_provider_settings_clears_unsaved_key	Unsaved key field is cleared on close Category: Provider Settings Accessibility

`test_provider_settings_idempotent_build`	Opening panel twice does not duplicate DOM Category: Provider Settings Accessibility
`test_provider_settings_viewport_cap`	Panel height is capped to viewport height Category: Provider Settings Accessibility
`test_provider_settings_internal_scroll`	Panel content scrolls internally when overflowing Category: Provider Settings Accessibility

Launcher Collision Elimination (8 tests)

`test_legacy_proposals_launcher_hidden`	Legacy Proposals floating launcher is hidden by ai-menu.css Category: Launcher Collision Elimination
`test_legacy_referred_geometry_launcher_hidden`	Legacy Referred Geometry launcher is hidden Category: Launcher Collision Elimination
`test_legacy_provider_settings_launcher_hidden`	Legacy Provider Settings launcher is hidden Category: Launcher Collision Elimination
`test_no_top_right_collision`	No two elements share top:12px;right:12px positioning Category: Launcher Collision Elimination
`test_ai_menu_z_index_correct`	AI menu z-index is above panels but below modals Category: Launcher Collision Elimination
`test_ai_menu_responsive`	AI menu renders correctly on mobile viewport widths Category: Launcher Collision Elimination
`test_menus_button_unaffected`	'Menus' toolbar opener is unaffected by ai-menu.css Category: Launcher Collision Elimination
`test_ai_menu_beside_menus_button`	AI menu button sits correctly beside 'Menus' opener Category: Launcher Collision Elimination

Updated Test Results — v3.1.6

Before vs After v3.1.6

Metric	Before v3.1.6	After v3.1.6	Delta
Tests passed	1,200	1,235	+35
Known failures	39	39	0 (unchanged)
Skipped	1	1	0 (unchanged)
New regressions	0	0	None introduced

Zero Regressions

The 39 known failures are identical to the pre-v3.1.6 baseline. All 35 new tests pass. No existing tests were broken by the AI menu, CSS changes, or Provider Settings modifications.

Cumulative Test Progress

Version	Theme	Passed	Failed	Milestone
v3.0	Web Platform Architecture	~800	39	Baseline established
v3.1	Project Geometry Isolation	1,113	39	Isolation certified
v3.1.x	Agent Chat & OpenAI BYOK	1,200	39	Chat architecture complete
v3.1.6	AI Panel Menu & Hardening	1,235	39	UI unified, 35 new tests

What Comes Next

Task	Description	Priority
Render OpenAI BYOK test	End-to-end test on Render using a temporary OpenAI key	Must do now
Group A route migration	~35 constructor routes still using global geometry store — migrate to ProjectStore	Before v3.2
v3.2 PostgreSQL Persistence	Persist sessions, projects, proposals, geometry stores, provider metadata	Next major version
v3.3 Authentication	Account-based auth after persistence is in place	Planned

v3.1.6 Complete

v3.1.6 is complete with 1,235 passed / 39 identical known failures / 1 skipped. The Agent Chat window now has a unified AI menu, no launcher collisions, fully accessible Provider Settings, and 35 new tests covering all changes. The main immediate task is the Render OpenAI BYOK end-to-end test.