

Accessible Primitive Interaction Contract v1

Accessible UI Primitives, Focus, and Keyboard

Outcome. Build one bounded interactive primitive with an explicit keyboard and focus contract, visible and predictable focus, native controls where possible, and executable evidence for entry, operation, exit, and focus restoration.

Evidence gate. Accept only evidence that covers keyboard entry, activation, visible focus, owned dismissal paths, focus restoration or fallback, a detected mutation, repair, transfer, and a residual limitation.

Component Boundary to Focus Restoration

01 ENTRY Authority: Defines how the invoker receives focus and activates Boundary: Pointer success does not prove keyboard entry	02 ACTIVE FOCUS Authority: Places focus at the first meaningful target when the primitive opens Boundary: Focus location must be observed, not inferred from appearance	03 KEYBOARD ACTION Authority: Uses native activation or the pattern-specific key contract Boundary: ARIA semantics do not attach keyboard behavior
04 STATE CHANGE Authority: Separates focus, selection, expanded state, and applied values Boundary: Do not treat the focused item as automatically selected	05 EXIT AND RETURN Authority: Dismisses through owned paths and restores a sensible focus target Boundary: Handle the case where the original invoker no longer exists	06 EVIDENCE Authority: Records focus sequence, visible treatment, action, mutation, and repair Boundary: A structural checker is not a complete accessibility verdict

Identity, decision, and claim boundary

Learner		Reviewer	
Case / attempt		Capture date	
Scenario / concern		Decision	ACCEPT / REPAIR / DEFER

Claim boundary. This is a bounded executable lab. Retain implementation, applicable runtime, browser, DOM, or tool observations, mutation, repair, transfer, and residual-limit evidence; one passing checker is not whole-system proof. No accessible-interaction claim is accepted from role or appearance alone; retain semantic, keyboard, focus, mutation, repair, transfer, and limitation evidence.

Required record fields and evidence tests

A field is complete only when its value is bounded, traceable, and classified. Use UNKNOWN when the required observation is unavailable or contradictory.

Field	Question to close	Minimum evidence	Invalid promotion
scenario	What does scenario mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
contract_step	What does contract step mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
primitive	What does primitive mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
expected_keyboard_path	What does expected keyboard path mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
semantic_mechanism	What does semantic mechanism mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
focus_before	What does focus before mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
focus_after	What does focus after mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
focus_visible_observation	What does focus visible observation mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
keyboard_observation	What does keyboard observation mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
mutation	What does mutation mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
repair	What does repair mean in this case?	Bounded scenario fact, source, or observable	Inference can be relabeled as observation
observation_vs_inference	Which facts support observation vs inference?	Reasoning tied to an observation and explicit limit	Plausibility is treated as proof
residual_limitation	What remains outside residual limitation?	Explicit unknown, constraint, or non-claim	Missing evidence is hidden or converted to confidence

Evidence and failure states

Evidence: OBSERVED / INFERRED / UNKNOWN. Decisions: ACCEPT / REPAIR / DEFER. Failure layers: SEMANTICS / FOCUSABILITY / KEYBOARD / FOCUS_VISIBLE / STATE / RESTORATION.

Accessible Primitive Interaction Contract

English support projection from derived_text/tables/WEB-013-TAB1.example.en-US.json. This example demonstrates field relationships; it does not supply the learner's transfer or final decision evidence.

Field	Governed example value	Evidence question	Boundary check
scenario	baseline-open	What observation supports scenario?	Is the conclusion no stronger than this value?
contract_step	entry	What observation supports contract step?	Is the conclusion no stronger than this value?
primitive	filter dialog	What observation supports primitive?	Is the conclusion no stronger than this value?
expected_keyboard_path	Tab to Filters; Enter or Space activates native button	What observation supports expected keyboard path?	Is the conclusion no stronger than this value?
semantic_mechanism	native button plus native dialog	What observation supports semantic mechanism?	Is the conclusion no stronger than this value?
focus_before	Filters trigger	What observation supports focus before?	Is the conclusion no stronger than this value?
focus_after	first meaningful dialog control, to be observed	What observation supports focus after?	Is the conclusion no stronger than this value?
focus_visible_observation	to be observed	What observation supports focus visible observation?	Is the conclusion no stronger than this value?
keyboard_observation	to be observed	What observation supports keyboard observation?	Is the conclusion no stronger than this value?
mutation	none in baseline	What observation supports mutation?	Is the conclusion no stronger than this value?
repair	none in baseline	What observation supports repair?	Is the conclusion no stronger than this value?
observation_vs_inference	separate both	What observation supports observation vs inference?	Is the conclusion no stronger than this value?
residual_limitation	record tested browser and environment	What observation supports residual limitation?	Is the conclusion no stronger than this value?
Source-package validation	ACCEPTED_IMPORTABLE; 0 blockers; 0 warnings · QA_ACCEPTED_ELIGIBLE		

Complete Accessible Primitive Interaction Contract v1

Enter one bounded value per required field. Every material entry needs an evidence locator and a state. Use additional workbook rows when the artifact needs multiple concerns, responsibilities, resources, or path steps.

Required field	Learner value	Evidence locator	State / review note
scenario			OBSERVED / INFERRED / UNKNOWN
contract_step			OBSERVED / INFERRED / UNKNOWN
primitive			OBSERVED / INFERRED / UNKNOWN
expected_keyboard_path			OBSERVED / INFERRED / UNKNOWN
semantic_mechanism			OBSERVED / INFERRED / UNKNOWN
focus_before			OBSERVED / INFERRED / UNKNOWN
focus_after			OBSERVED / INFERRED / UNKNOWN
focus_visible_observation			OBSERVED / INFERRED / UNKNOWN
keyboard_observation			OBSERVED / INFERRED / UNKNOWN
mutation			OBSERVED / INFERRED / UNKNOWN
repair			OBSERVED / INFERRED / UNKNOWN
observation_vs_inference			OBSERVED / INFERRED / UNKNOWN
residual_limitation			OBSERVED / INFERRED / UNKNOWN

Human closure

Decision	ACCEPT / REPAIR / DEFER	Reviewer	
Residual uncertainty		Consequence	
Smallest next evidence		Evidence owner / date	

Run → observe → mutate → repair → transfer

Run the bounded fixture and retain observable results. Predict each deliberate mutation before executing it, then prove the repair and changed-context transfer.

Case	Bounded concern or change	Provisional decision	Deciding evidence	Learner observation	Stable / unresolved boundary
CONTRACT FIRST	Write the trigger, open, initial-focus, action, close, and return paths	Every keyboard step has an observable state transition	A recorded focus path before implementation	_____	_____
NATIVE BUILDING BLOCKS	Use a button, dialog-like surface, and ordinary form controls	Baseline activation and focusability come from native behavior	DOM semantics plus keyboard observation	_____	_____
VISIBLE FOCUS	Provide a focus-visible treatment without removing the user-agent fallback	The active target stays perceivable through the full path	Named-browser observation at each focus transition	_____	_____
RESTORATION	Close with Escape, Cancel, or Apply and return to the invoker or fallback	Focus does not disappear into the document body	Focus-before and focus-after capture including removed-invoker transfer	_____	_____

Reasoning sequence

Phase	Action	Required capture	Truth rule
Boundary	Run the structural check on the intentionally weak starter.	Scenario fact, evidence locator, or explicit UNKNOWN	No accessible-interaction claim is accepted from role or appearance alone; retain semantic, keyboard, focus, mutation, repair, transfer, and limitation evidence.
Boundary	Write the expected keyboard and focus path before repair.	Scenario fact, evidence locator, or explicit UNKNOWN	No accessible-interaction claim is accepted from role or appearance alone; retain semantic, keyboard, focus, mutation, repair, transfer, and limitation evidence.
Boundary	Observe entry, action, dismissal, and restoration in a named browser.	Scenario fact, evidence locator, or explicit UNKNOWN	No accessible-interaction claim is accepted from role or appearance alone; retain semantic, keyboard, focus, mutation, repair, transfer, and limitation evidence.
Stress test	Create a hide-focus mutation.	Prediction, changed assumption, stable boundary, next evidence	A plausible counterexample does not become an observed implementation fact
Stress test	Create a drop-restoration mutation.	Prediction, changed assumption, stable boundary, next evidence	A plausible counterexample does not become an observed implementation fact
Stress test	Create a pointer-only mutation and compare the failed contract dimension.	Prediction, changed assumption, stable boundary, next evidence	A plausible counterexample does not become an observed implementation fact

Guardrail. Semantics, focusability, keyboard behavior, selection, and visual focus are related contracts, not interchangeable labels.

Changed-context transfer

Complete the changed-context filter primitive independently when the original invoker may be removed, then record the fallback restoration decision and evidence.

Transfer item	Changed-context requirement	Learner evidence	Review check
Scenario	State the changed concern, resource, or responsibility boundary.	_____	Worked scenario not copied
Observed facts	Record only facts supplied or directly observed.	_____	Inference stays separate
Concern split	Create separate rows for independent responsibilities or paths.	_____	No page-wide shortcut
Classification	Choose only ACCEPT / REPAIR / DEFER or preserve UNKNOWN.	_____	Placement is justified
Failure probe	Apply one counterexample that tests an over-broad claim.	_____	No invented mechanism
Non-claims	State at least two limits plus the smallest next evidence.	_____	Residual and next evidence stated

Non-compensatory review

Critical dimension	PASS / REPAIR	Evidence locator	Repair or rationale
Scenario and responsibility boundary correctness	_____ _____	_____	_____
Observation, inference, and source traceability	_____ _____	_____	_____
Decision rationale and next-evidence quality	_____ _____	_____	_____
Failure diagnosis and overclaim resistance	_____ _____	_____	_____
Transfer, residual uncertainty, and non-goals	_____ _____	_____	_____

Canonical QA gate

Validation	ACCEPTED_IMPORTABLE; 0 blockers; 0 warnings	Disposition	QA_ACCEPTED_ELIGIBLE
Blocker / note	No canonical-source blocker recorded.	Clearance receipt	_____

Media decision. Deck and video are NOT_APPLICABLE_WITH_RATIONALE; the embedded visuals, editable record, worksheet, and learner-authored reasoning are the assessed support.