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Open UI Component Certified Checklist

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[PLEASE USE SUGGESTION MODE]

Overview

The below checklist is meant to be reviewed by the component author first and then validated by at least two Open UI community group members and no one objects it landing as a reference implementation. This checklist helps ensure that the component that is submitted adheres to Open UI's principles of providing users with the best experience.

1. Accessibility
2. Privacy and Security
3. Internationalization
4. Performance
5. Style,Structure, and Behavior
6. Miscellaneous
7. W3C Intellectual Property
8. Blueprint

Notes about this checklist: The below tables are for general purpose testing, this section will not be duplicating the Accessible Name Computation Spec, Web Content Accessibility Guidelines (WCAG), Privacy Interest Group (PING), Internationalization, Web Performance Working Group or other documents/specifications provided by the standards community. As testing begins on a component more specific test cases should be produced by the reviewer(s) and then leveraged for additional components of the same variety moving forward.

Accessibility

Web UI needs to be accessible to all users across a variety of form-factors, with or without assistive technology to ensure a great user experience for everyone.

#	Name	Expected Result	Actual Result	Status

1	Keyboard	All interactive elements are accessible and invokable via keyboard, or via a keyboard alternative		TBD
2	Assistive Technology	Accessible name and descriptions are correct		TBD
3	Assistive Technology	If there are status updates surfaced to the end-user are these likewise surfaced via an AT using aria-live or appropriate state/property changes		TBD
4	Cognitive	No flashing or repeating animations are provided in the default base styles.		TBD
5	Zoom	Does the component render in an acceptable manner		TBD

Example of more granular test case for <article> on html5accessibility.com

Privacy and Security

There are always feature enhancements that can be introduced into a component that can provide a better user-experience. However, Open UI in *most* scenarios will not have sufficient context in order to provide these enhancements. Additionally, no information should be reported back to any third-party origin. (eg: A drop down component that fetches data 100 at a time and upon getting half-way through the scrollable container the next 100 options are retrieved)

#	Name	Expected Result	Actual Result	Status
1	Network activity	No utilization of un-necessary fetch, service workers or other network APIs?		TBD

2	Storage of data	No utilization of un-necessary storage of information that can be accessed by third-parties?		TBD
3	Eval	No utilization of unsafe-inline or unsafe-eval which increases potential for XSS		TBD
4	Global re-writes	Does not augment or proxy APIs on the window object.		TBD

Performance

#	Name	Expected Result	Actual Result	Status
1	Sanitization	If the component takes user input **no** sanitization is done as that will vary by consumer of the component		TBD
2	Asset budget	We want to limit the size assets provided to the end user. Each component should be under 100kb un-minified		TBD
3	Core web vitals	20 of the component on a single page with 10 runs and median of on mobile: LCP: < 150ms INP: < 200ms …TBD…		TBD
4	Declarative shadow	Leverage declarative		TBD

	DOM	shadow DOM to ensure that SSR of the component is possible		
5	setTimeout	setTimeout is only used where absolutely necessary		TBD

Internationalization

#	Name	Expected Result	Actual Result	Status
1	Logical properties	Within CSS there shouldn't be any utilization of physical properties		TBD
2	No lang attribute	While this is typically not applied at the component level, we should ensure it doesn't sneak its way in somehow		TBD
	Writing mode support	All supported correctly		TBD

Note about localization: *We will not focus on localization early on but as adoption grows we can add in additional translations of default text.*

Style and Structure

#	Name	Expected Result	Actual Result	Status
1	z-index	No utilization of z-index is used		TBD
2	Structural styles only	There should only be styles needed for layout and behavior		TBD

		support		
3	Extensible Styles	Leverage parts and custom properties to enable theming		TBD
4	No images	There should be no images or SVGs in the component. Unicode emojis are acceptable for the base layer.		TBD
	Extensible structure	Leverage named slots to enable replacement of entire parts		TBD
	Events & Behaviors	When attaching events and behaviors to an element use low specificity selectors to ensure they can be attached even if the parts are replaced.		TBD
	Responsive web design	It should focus on the container and not the form factor for a good user experience		TBD
	Pointer	If the component has interactions make sure that it is touch friendly and has settings for coarse (MDN).		TBD
	Touch friendly	If it has interaction, it must have a minimum of 44x44 pixel touch target (WCAG)		TBD
	No variations	Do not have variations through attributes, classes or other mechanisms.		TBD

		This should be handled at the defined at the component library level.		
	Is a web component	The Open UI component library will only ship web components		TBD
	Is the shadow root open?	We will default to an open root		TBD

Blueprint

While the component may pass all of the above it is important that a blueprint is produced that outlines all the structure, events, and specifics around the behaviors and the implications on attribute modifications due to the behavior changes. These should include:

- Keyboard interactions for accessibility and user-experience behavior
- Anatomy including parts and slot names
- Custom properties for adjustments
- Accessibility semantics (noting necessary native HTML features and/orARIA attributes) and reasoning
- Events that bubble
- Hooks if provided
- Form involvement

W3C Intellectual Property

The user that submits the PR to Open UI is a part of the W3C Open UI community group which will require them to agree to IPR policy set forward by the W3C. This action is already integrated within the Open UI GitHub organization and so it will be initiated on any PR to validate the Github user adheres to this policy.

Expert Reviewers

This general test checkbox was produced and reviewed by the following experts:

- Accessibility:

- Performance:
- Style & Structure:
- Internationalization:
- Privacy and Security:
- Web Developer:
- Design Systems:

Open Questions

1. How is testing done?
    a. We're going to need to dictate how to test each component and example artifacts that need to be shared. EG: Performance should have all 10 runs of testpage.html against <foo> browser with <device>, CPU speed, etc.
    b. What AT systems should we require (VoiceOver, Narrator, NVDA, etc)
2. Should we make it so that the shadow roots are open or closed by default?
3. How can we convey what is built-in (eg level of accessibility) vs what consumers of the component will need to add and tests when they consume it. See USWDS link below

Additional Resources

- USWDS has accessibility tests that show what they have done (what was 'built-in') and tests that consumers of the components will need to do when they use it: https://designsystem.digital.gov/components/button/accessibility-tests/