Hi Philip,

I've analyzed the WEB components in Design System [https://philipallen.github.io/?path=/docs/introduction--docs](https://protect2.fireeye.com/v1/url?k=31323334-501d5122-31306c49-454445555731-98cf96698f02ac62&q=1&e=f9d89886-095f-4da3-a4c2-fead19d7bf50&u=https%3A%2F%2Fphilipallen.github.io%2F%3Fpath%3D%2Fdocs%2Fintroduction--docs) from accessibility perspective. In general, most of them are designed with accessibility in mind and are accessible.

Please see the list of accessibility issues found. Some of these can be fixed in the Design System to prevent accessibility issues during the testing stage, some of them can be fixed on dev or design stage.

Tooltip issues found:

Properties

1.The popup with the info message should follow its trigger element ("i" image-button) in the DOM (1.3.2 Meaningful Sequence (Level A).

As a popup

1. The popup with the info message should follow its trigger element ("i" image-button) in the DOM (1.3.2 Meaningful Sequence (Level A).

2. State "collapsed/expanded" for the "i" image-button is not indicated to screen reader users. aria-expanded attribute is missing (4.1.2 Name, Role, Value (Level A).

3. After closing popup, the focus should be set to the trigger element ("i" image-button) (2.4.3 Focus Order (Level A).

StandardModal issues found:

Properties

1. Keyboard focus should be trapped in modal dialog (2.4.3 Focus Order (Level A):

Pressing Tab: should move the focus to the next tabbable element inside the dialog. If focus is on the last tabbable element inside the dialog, should move the focus to the first tabbable element inside the dialog.

Pressing Shift + Tab: should move the focus to the previous tabbable element inside the dialog. If focus is on the first tabbable element inside the dialog, should move the focus to the last tabbable element inside the dialog.

2. After closing modal dialog, the focus should be set to the trigger element ("Open Modal" button) (2.4.3 Focus Order (Level A).

Please see <https://www.w3.org/WAI/ARIA/apg/patterns/dialog-modal/>

AlertModal recommendation:

In Design System the modal cannot be closed by clicking outside of its area and what if the user doesn't want to proceed by clicking the "Contact us" and "Login" buttons and just wants to close this modal? And if a modal can be closed by clicking outside of its area and does not provide a "Close" button or possibility to close the dialog by pressing Esc key, the following WCAG success criterion may be failed: 2.1.1 Keyboard (Level A).

Checkbox issues found:

Variants

1. Error message should be associated with a checkbox using aria-describedby attribute and should be announced by screen reader each time when the element with active error receives focus (1.3.1 Info and Relationships (Level A). Applicable to all components with errors in Design System.

CurrencyInput issues found:

1. Currently after entering, for example, "1,5" in "CurrencyInput" field and leaving the field, the data is automatically changed to "15.00" and it is not clear to the user that the correct data format is with "." but not with ",". Instruction that describes expected data format for "CurrencyInput" field should be provided. It will help all users - but particularly those with cognitive, language, and learning disabilities - to enter information correctly. People with motion impairment can reduce the number of times they need to change an input value (3.3.2 Labels or Instructions (Level A). In addition, format data validation should occur, and in case of incorrect format data, an informative error message should appear instead of automatic input value changes (3.3.1 Error Identification (Level A). Applicable to all fields in "CurrencyInput" section.

2. Hint "Pressing ↑ and ↓ steps value by ..." should be added to the "CurrencyInput", "CurrencyInput (German locale)", "CurrencyInput with zero decimal places", "CurrencyInput with $" fields by analogy with the instruction to the "CurrencyInput with step 5" field (3.3.2 Labels or Instructions (Level A).

3. The currency type "€", "$" visually specified for the field should be associated with the field and announced by screen reader when the field is focused (1.3.1 Info and Relationships (Level A). Applicable to TextInput With prefix.

MultiSelect issues found:

1. Items in a listbox should be grouped in a list. When the focus is set to the item the screen reader announces just the item without any list semantics (1.3.1 Info and Relationships (Level A).

2. When combobox is expanded using Enter key from the keyboard, focus remains on a combobox and it is not possible to collapse combobox using Enter key. Possible solutions: 1. When combobox is expanded using Enter key from the keyboard, focus remains on a combobox and it is possible to collapse combobox using Enter key (as for Select component in Design System). 2. When combobox is expanded using Enter key from the keyboard, focus is be set to the first listbox item (or to the first selected listbox item). Please see [https://accessibleculture.org/misc/aria/combobox/combobox.html](https://protect2.fireeye.com/v1/url?k=31323334-501d5122-31306c49-454445555731-31d6503110739770&q=1&e=f9d89886-095f-4da3-a4c2-fead19d7bf50&u=https%3A%2F%2Faccessibleculture.org%2Fmisc%2Faria%2Fcombobox%2Fcombobox.html).

3. Keyboard focus indicator is slightly visible on selected listbox item. Possible solution: provide a clearly visible focus outline for selected listbox item (2.4.7 Focus Visible (Level AA), 1.4.11 Non-text Contrast (Level AA).

4. Selected items in a listbox are not indicated as selected to screen reader user when focused. aria-selected="true" should be added to selected items (1.3.1 Info and Relationships (Level A).

5. After selecting an items from the opened listbox using keyboard and pressing Tab/Shift+Tab key, combobox is collapsed and the last selected item is automatically deleted from selection (3.2.1 On Focus (Level A). E.g., Select Item 1, press Tab/Shift+Tab key, None of selected items are displayed in collapsed combobox; Select Item 1 and Item 2, press Tab/Shift+Tab key, only Item 1 of selected items is displayed in collapsed combobox; etc. Selected items should remain selected after pressing Tab/Shift+Tab key and combobox collapsing.

Select issues found:

1. Items in a listbox should be grouped in a list. When the focus is set to the item the screen reader announces just the item without any list semantics (1.3.1 Info and Relationships (Level A). Please see <https://www.w3.org/WAI/ARIA/apg/patterns/combobox/examples/combobox-select-only/>

Toggle issues found:

Yes/No type

1. Visually state of the toggle is indicated as "Yes/No” but is announced by screen reader just as "On/Off". Possible solution: state of the toggle button should be announced by screen reader as "On Yes/Off No" or as "Yes/No". Applicable to Small Yes/No type, Disabled Yes/No type.

Tabs issues found:

With icon

1. "Secondary label" text presented visually should be announced by screen reader when tab is focused.

With heading.

2.For tabs with visual labels, the label should be programmatically associated with tabs by aria-labelledby attribute. Please see <https://www.w3.org/WAI/ARIA/apg/patterns/tabs/examples/tabs-automatic/>

Please let me know if you have any questions.

Best Regards,

**Inna Morozova**

Software Testing Engineer