

# Draft USWDS form controls

## About this document

- Use this doc to ideate content for USWDS [form controls](#).
- Use the Outline and text style features (especially Headings) of Google Docs to indicate content hierarchy.
- [Wireframes are in Figma](#).

## Useful links

- [USWDS Form Components Gap Analysis - 2/18/20](#)
- Two design systems Jared worked on:
  - <https://design.va.gov/>
  - <https://ussba.github.io/certify-design-system-documentation/>
- Additional design systems for gap analysis
  - Government
    - CMS - <https://design.cms.gov/>
    - CPFB - <https://cfpb.github.io/design-system/>
  - Non-Government
    - Carbon - <https://www.carbondesignsystem.com/>
    - GitHub - <https://primer.style/>
    - Shopify - <https://polaris.shopify.com/>
    - Adobe - <https://spectrum.adobe.com/>
    - Microsoft - <https://www.microsoft.com/design/fluent/#/web>
    - Google (Material) - <https://material.io/>
    - Bootstrap (more library than system but often referenced) - <https://getbootstrap.com/>
- Date pickers
  - [Carbon Design System](#)
- Document upload
  - [certify.sba.gov](https://certify.sba.gov)
- Combo box
  - [certify.sba.gov](https://certify.sba.gov)
- Bi-Weekly Check-ins
  - [1/22/20](#)

# Components

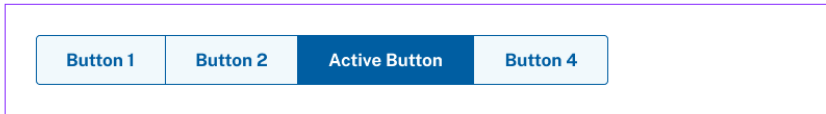
- [Button groups](#)
- [Character limit](#)
- [Combo box](#)
- [Date input fields](#)
- [Date pickers](#)
  - [Single date picker](#)
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  - [Time picker](#)
- [Document upload](#)
- [Editable tables](#)
- [Follow-ups](#)
- [Tooltips](#)
- [Typeahead box](#)

# Button groups

{Description of component}

## Wireframes

State: default



Useful for toggling between multiple, exclusive button actions.



## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

Accessibility

- {guidance}

Implementation

- {guidance}

# Character limit

{Description of component}

## Wireframes

State: default

**Type something below**

The character limit will be displayed as you type.

State: typing - under character limit

**Type something below**

The character limit will be displayed as you type.

It was a dark and story nigh

71 characters left

## State: typing - close to character limit

**Type something below**

The character limit will be displayed as you type.

It was a dark and stormy night; the rain fell in torrents, except at occasional intervals, when it was checked by a violent gust of wind which swept up the streets (for it is in London that our scen

*1 character left*

## State: typing - at character limit

**Type something below**

The character limit will be displayed as you type.

It was a dark and stormy night; the rain fell in torrents, except at occasional intervals, when it was checked by a violent gust of wind which swept up the streets (for it is in London that our scene

*0 characters left*

## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

*Screenshot:*



**Kristof Hamilton** 8:19 AM

I think if we know the valid character length for something e.g. phone number we should validate for that. You could potentially ignore symbols in the field and just pass the numerical characters through to the database in the format that's wanted.



**charles** 8:24 AM

sorry. almost missed the prior conversation since it was not threaded.

please do not use character count alone for validation. especially for phone. allow the user to input in any format, with any characters or delimiters. then normalize the string for only the numeric characters. then count them. different criteria apply to different input types.



**ddt** 9:09 AM

Dan Saffer's writing on microinteractions is a good primer on this. Again, if you expect any format, *show* the user exactly what you're asking for.

## Accessibility

- {guidance}

## Implementation

- {guidance}

# Combo box

A select box that provides a user with an input field that is either an autocomplete or readonly, accompanied by a listbox of options.

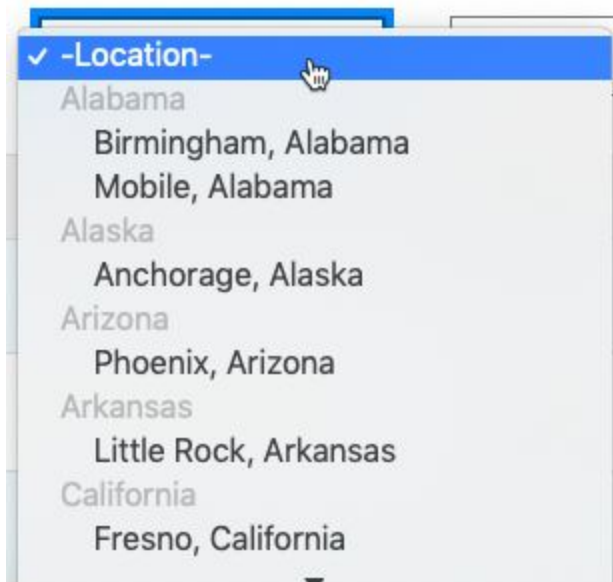
## Wireframes

Can probably get this one working:

<https://www.w3.org/TR/wai-aria-practices/examples/combobox/aria1.1pattern/listbox-combo.html>

State: default

**Select a state**  
  
Type to see options



### State: typing in text field

**Select a state**

Type to see options

Te

Tennessee  
Texas  
Utah  
Vermont  
Virginia

### State: hover or focus on list item

**Select a state**

Type to see options

Te

Tennessee  
**Texas**  
Utah  
Vermont  
Virginia

## Guidance

### When to use the combo box component

- When the user needs to make a specific selection from a long list of options.

### When to consider something else

- **If open text is allowed as part of the form submission.** Consider using using several conditional questions.

### Usability guidelines

- Do not allow users to submit with free form input



## Accessibility

- When toggling visibility of the Combobox, the aria-expanded attribute needs to be toggled to true. Set it to false again when the options are hidden.
- The listbox of options must be an **owned** child of the combobox. If it cannot be a direct child of the combobox element, then aria-owns must be placed on the combobox and point to the ID of the listbox instead.
- If using a keyboard, placing focus into the Combobox input field *will not* display the listbox of options automatically. After focusing inside the Combobox with the keyboard, pressing the Down or Enter key will expand the collapsed Combobox and display the listbox options. Be sure to update aria-expanded to be true. This will also highlight the first option in the listbox.

## Implementation

- {guidance}

# Date input fields

*This is the component currently in the USWDS*

## Wireframes

State: default

A wireframe of a date input field. It features a title "Date of birth" in bold, followed by a subtitle "For example: 04 28 1986". Below this, there are three labels: "Month", "Day", and "Year". Each label is positioned above a corresponding empty rectangular input box. The entire form is enclosed in a thin purple border.

### Date Received

A wireframe of a date input field. It features three labels: "MM", "DD", and "YYYY". Each label is positioned above a corresponding empty rectangular input box. The boxes are arranged horizontally.

## Guidance

When to use the date input fields component

**Appropriate for most dates.** Use this format for most dates, particularly memorized dates.

When to consider something else

- **Consider a calendar picker for scheduling.** If users are trying to schedule something, a calendar picker might make more sense.
- **Consider using a date range picker for date ranges.** If users need to select a date range with a beginning and end, a date range picker might make more sense.

### Usability guidelines

- **Label each field.** Be sure each field is properly labeled — some countries enter dates in day, month, year order.
- **Avoid dropdowns.** It may be tempting to switch all or some of these text fields to dropdowns, but these tend to be more difficult to use than text boxes.

## Accessibility

- **Follow input guidance.** These text fields should follow the [accessibility guidelines for all text inputs](#).
- **Don't auto-advance focus.** Do not use JavaScript to auto advance the focus from one field to the next. This makes it difficult for keyboard-only users to navigate and correct mistakes.

## Implementation

Currently, the max limit for the year input is set to 2019, but it should be changed depending on the context of the form.

# Date pickers

Date pickers allow users to select a date from a graphical calendar widget rather than typing numbers into text fields. However, date pickers are built in such a way that users also have an option for entering numbers into form fields.

There are three different date picker components:

- The **single date picker** is a text input with a calendar instance attached to it. It also ships with a calendar icon inside the input field. The calendar will open when the input is focused, and the user can either type in a date or select a day from the calendar.
- The **range date picker** has two text inputs with a ranged calendar instance attached to them.
- The **time picker** has one text input field for time (hours, minutes, and seconds), and two select lists for AM/PM and time zone.


# Single date picker

## Wireframes

State: default

**Applicant information**


Date of birth



State: focus on input field

**Applicant information**

Date of birth




< January 2020 >

S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11

State: hover on month

**Applicant information**

Date of birth



< **January** 2020 >


S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11

On hover (or focus) on the month, give an affordance that the month can be changed.

State: select month

**Applicant information**

Date of birth




January	May	September
<b>February</b>	June	October
March	July	November
April	August	December

User selects month

State: hover on year

**Applicant information**

Date of birth



< January 2020 >


S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11

On hover (or focus) on the year, give an affordance that the year can be changed.

State: select year

**Applicant information**

Date of birth



< 2009 2013 2017 2010 2014 2018 2011 2015 2019 2012 2016 2020 >

User selects year.

## Guidance

When to use the single date text field component

**Use for scheduling.** Use for scheduling or when the day of the week is important to the usability of the form.

When to consider something else

- **Use a date text fields for known dates of if the date is many years in the past.** If a user has memorized the date, such as a birthday, the date text field is a better option.

## Usability guidelines

- **Label each field.** Be sure each field is properly labeled — some countries enter dates in day, month, year order.
- **Avoid dropdowns.** It may be tempting to switch all or some of these text fields to dropdowns, but these tend to be more difficult to use than text boxes.

## Accessibility

- **Follow input guidance.** These text fields should follow the [accessibility guidelines for all text inputs](#).
- **Allow keyboard entry.** Some users might have difficulty using the calendar picker. Allow users to enter dates using the text field

## Keyboard Entry

- Press the tab key to move forward shift + tab to move backward through the next and previous buttons on the calendar
- When focus is in the calendar, move keyboard focus between the dates using the arrow keys
- To select a date that has focus, press the enter/return

## Implementation



# Range date picker


## Wireframes


State: default

**Select a date range**

Start date label

End date label







State: focus on start field

**Select a date range**

Start date label

End date label





<

January 2020

>

S

M

T

W

Th

F

S

29

30

31

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

State: hover over start date

**Select a date range**

Start date label

End date label

< January 2020 >

S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18

State: Start date selected (auto focus on end date field)

**Select a date range**

Start date label

End date label

12/31/2019



< January 2020 >

S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18

State: Hover over end date

**Select a date range**

Start date label      End date label

12/31/2019  



<      **January 2020**      >

S	M	T	W	Th	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18

State: End date selected

**Select a date range**

Start date label      End date label

12/31/2019  1/3/2020 

If you try to select an end date before the start date , it instead selects the day after the start date. (No validation or error message is displayed.)

If you try to select a start date before the end date , it instead selects the day before the end date.

## Guidance

When to use the range date picker component

- **Use for single, continuous range selection.**

When to consider something else

- **If a specific day is not required.** Use the date text field instead.

Usability guidelines

- **Autocorrect for illogical date selections.** If the user tries to select an end date before the start date, the component instead selects the day after the start date. (No validation

or error message is displayed.) If the user tries to select a start date before the end date , it instead selects the day before the end date.

### Accessibility

- **Follow input guidance.** These text fields should follow the [accessibility guidelines for all text inputs](#).
- **Allow keyboard entry.** Some users might have difficulty using the calendar picker. Allow users to enter dates using the text field

### Keyboard Entry

- Press the tab key to move forward shift + tab to move backward through the next and previous buttons on the calendar
- When focus is in the calendar, move keyboard focus between the dates using the arrow keys
- To select a date that has focus, press the enter/return

### Implementation

# Time picker

## Wireframes

State: default

**Select a time**  
hh:mm  
  

AM

Time zone 1

## Guidance

When to use the time picker component

When to consider something else

Usability guidelines

Accessibility

Implementation

# Document upload

Document upload is a component for uploading files of various types

## Wireframes

### Upload your petition

File must be in PDF format (.pdf). Max file size 500MB.

Choose File

No file chosen

State: default

**Upload your driver's license**

Issued by state. May include non-drivers' ID.

[add file](#)

State: add file

**Upload your driver's license**

Issued by state. May include non-drivers' ID.

1) Attach a file

Drag file into this space or [choose a file](#)

2) Brief description (optional)

Add file

Cancel

State: confirmation

**Upload your driver's license**

Issued by state. May include non-drivers' ID.

✓

Upload complete.

## Guidance

When to use the document upload component

When to consider something else

Usability guidelines

Accessibility

Implementation



# Editable tables

{Description of component}

# Wireframes

State: default

Payments and excessive withdrawals

Name	Title	Equity Interest	Reasons for Payment	Total Payments	Actions
No items added yet					

Add item

Editable tables can include any number of columns, and columns have the option to be summated.

State: adding item

Payments and excessive withdrawals

Name	Title	Equity Interest	Reasons for Payment	Total Payments	Actions
<div><div>Name</div><div></div><div>Title</div><div></div><div>Equity Interest</div><div><div>%</div></div><div>Reasons for Payment</div><div>This is optional</div><div></div><div>Total Payments</div><div><div>\$</div></div><div><div>OK</div><div>Cancel</div></div></div>					

Add item

## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

Accessibility

- {guidance}

Implementation

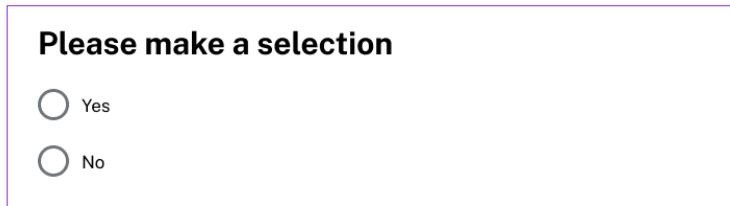
- {guidance}

# Follow-ups

{Description of component}

## Wireframes

State: default



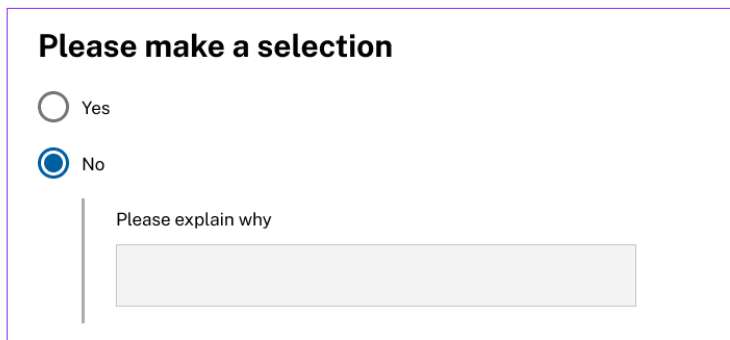
A wireframe of a follow-up component in its default state. It consists of a rectangular box with a light gray background. At the top left, the text "Please make a selection" is displayed in bold. Below this text, there are two radio button options: "Yes" and "No". Both radio buttons are unselected, indicated by empty circles.

Follow-ups can be used on the following form fields:

- Radio buttons
- Checkboxes
- Select box options

This example shows a radio button.

State: follow-up displayed



A wireframe of a follow-up component with the follow-up displayed. It consists of a rectangular box with a light gray background. At the top left, the text "Please make a selection" is displayed in bold. Below this text, there are two radio button options: "Yes" and "No". The "No" option is selected, indicated by a filled blue circle. To the right of the "No" option, there is a text input field with the placeholder text "Please explain why".

A Follow-up can appear anywhere on the page, however, because it's content length cannot be determined, it should be placed below the fieldset or parent container of the input that controls it to avoid creating large gaps between input sets.

## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

Accessibility

- {guidance}

## Implementation


- {guidance}

# Tooltips

{Description of component}


## Wireframes

State: default

**Anchor tag with image as content**  
Username: 

State: hover on image

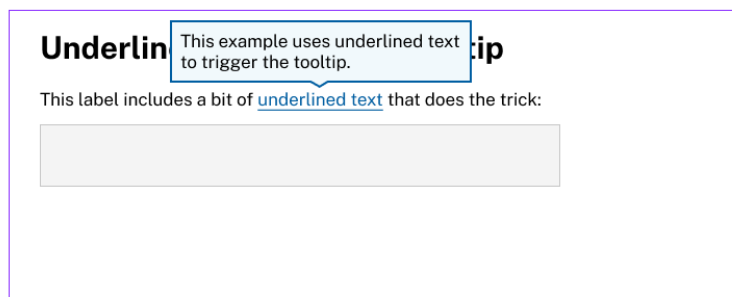
This example uses an icon to trigger the tooltip.

**image as content**  
Username: 

### State: default



### State: hover on underlined text



## Guidance

### When to use the combo box component

- {guidance}

### When to consider something else

- {guidance}

### Usability guidelines

- {guidance}

### Accessibility

- {guidance}

### Implementation

- {guidance}

# Typeahead box

{Description of component}

## Wireframes

State: default

**Type something**

Options may be presented as you type

State: typing in text field - options presented

**Type something**

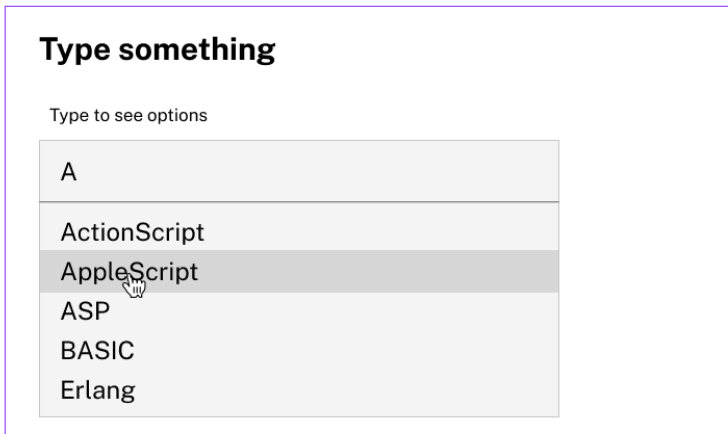
Type to see options

A

ActionScript  
AppleScript  
ASP  
BASIC  
Erlang



State: hover or focus on list item



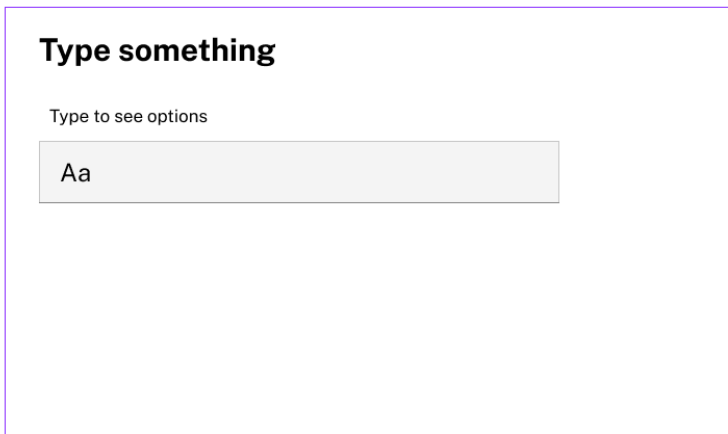
**Type something**

Type to see options

A
ActionScript
<b>AppleScript</b>
ASP
BASIC
Erlang

This screenshot shows a search interface with a title 'Type something' and a placeholder 'Type to see options'. Below the placeholder is a list of programming languages. The first item is 'A', followed by 'ActionScript', 'AppleScript', 'ASP', 'BASIC', and 'Erlang'. The 'AppleScript' item is highlighted with a dark grey background, and a mouse cursor is pointing at it.

State: typing in text field - no options presented



**Type something**

Type to see options

Aa
----

This screenshot shows the same search interface as the previous one, but with 'Aa' typed into the text field. The placeholder 'Type to see options' is still visible, and no list of options is shown.

## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

Accessibility

- {guidance}

## Implementation

- {guidance}

# \_Template

{Description of component}

## Wireframes

## Guidance

When to use the combo box component

- {guidance}

When to consider something else

- {guidance}

Usability guidelines

- {guidance}

Accessibility

- {guidance}

Implementation

- {guidance}