Technologies ▼   References & Guides ▼   Feedback ▼

English ▼

SpeechSynthesisUtterance

🧪 **This is an experimental technology**
Check the Browser compatibility table carefully before using this in production.

The `SpeechSynthesisUtterance` interface of the Web Speech API represents a speech request. It contains the content the speech service should read and information about how to read it (e.g. language, pitch and volume.)

Constructor

`SpeechSynthesisUtterance.SpeechSynthesisUtterance()`
    Returns a new `SpeechSynthesisUtterance` object instance.

Properties

SpeechSynthesisUtterance *also inherits properties from its parent interface,* `EventTarget`.

`SpeechSynthesisUtterance.lang`
    Gets and sets the language of the utterance.

`SpeechSynthesisUtterance.pitch`
    Gets and sets the pitch at which the utterance will be spoken at.

`SpeechSynthesisUtterance.rate`
    Gets and sets the speed at which the utterance will be spoken at.

`SpeechSynthesisUtterance.text`
    Gets and sets the text that will be synthesised when the utterance is spoken.

`SpeechSynthesisUtterance.voice`
    Gets and sets the voice that will be used to speak the utterance.

`SpeechSynthesisUtterance.volume`
    Gets and sets the volume that the utterance will be spoken at.

Events

Listen to these events using `addEventListener()` or by assigning an event listener to the *oneventname* property of this interface.

boundary

Fired when the spoken utterance reaches a word or sentence boundary.
Also available via the `onboundary` property.

end

Fired when the utterance has finished being spoken.
Also available via the `onend` property.

error

Fired when an error occurs that prevents the utterance from being succesfully spoken.
Also available via the `onerror` property

mark

Fired when the spoken utterance reaches a named SSML "mark" tag.
Also available via the `onmark` property.

pause

Fired when the utterance is paused part way through.
Also available via the `onpause` property.

resume

Fired when a paused utterance is resumed.
Also available via the `onresume` property.

start

Fired when the utterance has begun to be spoken.
Also available via the `onstart` property.

Examples

In our basic Speech synthesiser demo (source), we first grab a reference to the SpeechSynthesis controller using `window.speechSynthesis`. After defining some necessary variables, we retrieve a list of the voices available using `SpeechSynthesis.getVoices()` and populate a select menu with them so the user can choose what voice they want.

Inside the `inputForm.onsubmit` handler, we stop the form submitting with `preventDefault()`, use the `constructor` to create a new utterance instance containing the text from the text `<input>`, set the utterance's `voice` to the voice selected in the `<select>` element, and start the utterance speaking via the `SpeechSynthesis.speak()` method.

```
1   var synth = window.speechSynthesis;
2   var voices = synth.getVoices();
3
4   var inputForm = document.querySelector('form');
5   var inputTxt = document.querySelector('input');
6   var voiceSelect = document.querySelector('select');
7
8   for(var i = 0; i < voices.length; i++) {
9     var option = document.createElement('option');
10    option.textContent = voices[i].name + ' (' + voices[i].lang + ')';
11    option.value = i;
12    voiceSelect.appendChild(option);
13  }
14
15  inputForm.onsubmit = function(event) {
16    event.preventDefault();
17
18    var utterThis = new SpeechSynthesisUtterance(inputTxt.value);
19    utterThis.voice = voices[voiceSelect.value];
20    synth.speak(utterThis);
21    inputTxt.blur();
22  }
```

Specifications

Specification	Status	Comment
Web Speech API The definition of 'SpeechSynthesisUtterance' in that specification.	D　Draft	

Browser compatibility

	Chrome	Edge	Firefox	Internet Explorer	Opera	Safari	Android webview	Chrome for Android	Firefox for Android	Opera for Android	Safari on iOS	Samsung Internet
SpeechSynthesisUtterance 🧪	33	≤18	49	No	21	7	No	33	62	No	7	3.0
SpeechSynthesisUtterance() constructor 🧪	33	≤18	49	No	21	7	No	33	62	No	7	3.0
boundary event 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
end event 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
error event 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
lang 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
mark event 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onboundary 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onend 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onerror 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onmark 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onpause 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0
onresume 🧪	33	14	49	No	21	7	No	33	62	No	7	3.0

	Desktop						Mobile					
	Chrome	Edge	Firefox	Internet Explorer	Opera	Safari	Android webview	Chrome for Android	Firefox for Android	Opera for Android	Safari on iOS	Samsung Internet
onstart ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
pause event ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
pitch ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
rate ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
resume event ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
start event ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
text ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
voice ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0
volume ⚗												
	33	14	49	No	21	7	No	33	62	No	7	3.0

What are we missing?

- Full support
- No support
- ⚗ Experimental. Expect behavior to change in the future.
- 🏳 User must explicitly enable this feature.

See also

- Web Speech API

Related Topics

SpeechSynthesisUtterance

▼ Constructor

SpeechSynthesisUtterance()

▼ Properties

⚗ lang

⚗ onboundary

⚗ onend

⚗ onerror

⚗ onmark

⚗ onpause

⚗ onresume

⚗ onstart

⚗ pitch

⚗ rate

⚗ text

⚗ voice

⚗ volume

▼ Events

boundary

end

error

mark

pause

resume

start

▼ Inheritance:

EventTarget

▼ Related pages for Web Speech API

SpeechGrammar

SpeechGrammarList

SpeechRecognition

SpeechRecognitionAlternative

SpeechRecognitionError

SpeechRecognitionEvent

SpeechRecognitionResult

SpeechRecognitionResultList

SpeechSynthesis

SpeechSynthesisErrorEvent

SpeechSynthesisEvent

SpeechSynthesisVoice