



- ProgressEvent 



AJAX ☐ ☐ <audio> ☐ <video> ☐ <style> ☐ <link>

ent ☐

- abort 
- error 
- load 
- loadstart 
- loadend   error  abort  load 
- progress 
- timeout 

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```
image.addEventListener('load', function (event) {
    image.classList.add('finished');
});

image.addEventListener('error', function (event) {
    image.style.display = 'none';
});
```

[illegible]

```
finished □ Class
```

complete  load error

```
function loaded() {
  // ...
}

if (image.complete) {
  loaded();
} else {
  image.addEventListener('load', loaded);
}
```

DOM
HTML

error


```

```

loadend

abort

load

error

```
req.addEventListener('loadend', loadEnd, false);
```

```
function loadEnd(e) {
  console.log('XXXXXXXXXX');
}
```

loadend

error

error

error

ProgressEvent

ProgressEvent

AJAX

<video>

<style>

<link>

ProgressEvent()

```
new ProgressEvent(type, options)
```

ProgressEvent()

Event

ProgressEvent

- lengthComputable ☐ false ☐
- loaded
- total

ProgressEvent

- ProgressEvent.lengthComputable
- ProgressEvent.loaded
- ProgressEvent.total

☐ ProgressEvent.lengthComputable ☐ false ☐ ProgressEvent.total

```
var p = new ProgressEvent('load', {
  lengthComputable: true,
  loaded: 30,
  total: 100,
});

document.body.addEventListener('load', function (e) {
  console.log('Progress: ' + (e.loaded / e.total) * 100 + '%');
});

document.body.dispatchEvent(p);
// Progress: 30%
```

load

```
var xhr = new XMLHttpRequest();

xhr.addEventListener('progress', updateProgress, false);
xhr.addEventListener('load', transferComplete, false);
xhr.addEventListener('error', transferFailed, false);
xhr.addEventListener('abort', transferCanceled, false);

xhr.open();

function updateProgress(e) {
```

```

if (e.lengthComputable) {
    var percentComplete = e.loaded / e.total;
} else {
    console.log('');
}

function transferComplete(e) {
    console.log('');
}

function transferFailed(evt) {
    console.log('');
}

function transferCanceled(evt) {
    console.log('');
}

```

[Progress bar with 20 segments, 10 filled, 10 empty]
 [4 empty segments]

XMLHttpRequest.upload

```

var xhr = new XMLHttpRequest();

xhr.upload.addEventListener('progress', updateProgress, false);
xhr.upload.addEventListener('load', transferComplete, false);
xhr.upload.addEventListener('error', transferFailed, false);
xhr.upload.addEventListener('abort', transferCanceled, false);

xhr.open();

```

#2

[] [] [] 2018-05-08 12:53:25 UTC
 [] [] [] 2019-01-03 17:58:43 UTC