

The HTML track element

Let's return to our example. Below is the HTML code:

```
<video id="myVideo" preload="metadata" controls crossOrigin
="anonymous">
  <source src="http://...../elephants-dream-
medium.mp4" type="video/mp4">
  <source src="http://...../elephants-dream-
medium.webm" type="video/webm">
  <track label="English
subtitles" kind="subtitles" srclang="en"
      src="http://...../elephants-dream-subtitles-
en.vtt" >
  <track label="Deutsch
subtitles" kind="subtitles" srclang="de"
      src="http://...../elephants-dream-subtitles-
de.vtt" default>
  <track label="English
chapters" kind="chapters" srclang="en"
      src="http://...../elephants-dream-chapters-
en.vtt">
</video>
<div id="trackStatusesDiv">
  <h3>HTML track descriptions</h3>
</div>
```

This example defines three `<track>` elements. From JavaScript, we can manipulate these elements as "HTML elements" - we will call them the "HTML views" of tracks.

GETTING THE STATUS OF AN HTML TRACK

[Example at JSBin](#) that displays the different elements we can get from an HTML track:



HTML track descriptions

- **Track:0:**

- label = English subtitles
- kind = subtitles
- lang = en
- readyState = 0

- **Track:1:**

- label = Deutsch subtitles
- kind = subtitles
- lang = de
- readyState = 2

**German subtitle track is
"loaded" and subtitles are
active**

- **Track:2:**

- label = English chapters
- kind = chapters
- lang = en
- readyState = 0

Here is the JavaScript source code:

```

var video, htmlTracks;
var trackStatusesDiv;

window.onload = function() {
    // called when the page has been loaded
    video = document.querySelector("#myVideo");

    trackStatusesDiv = document.querySelector("#trackStatusesDiv");
    // Get the tracks as HTML elements
10.    htmlTracks = document.querySelectorAll("track");
    // displays their statuses in a div under the video
    displayTrackStatuses(htmlTracks);
};

function displayTrackStatuses(htmlTracks) {
    // displays track info
    for(var i = 0; i < htmlTracks.length; i++) {
        var currentHtmlTrack = htmlTracks[i];
20.        var label = "<li>label = "
        + currentHtmlTrack.label + "</li>";
        var kind = "<li>kind = " + currentHtmlTrack.kind + "
        </li>";
        var lang = "<li>lang = "
        + currentHtmlTrack.srclang + "</li>";
        var readyState = "<li>readyState = "
        + currentHtmlTrack.readyState + "</li>"
        trackStatusesDiv.innerHTML += "<li><b>Track:" + i + ":
        </b></li>"
        + "
        <ul>" + label + kind + lang + readyState + "</ul>";
    }
}

```

The code is rather straightforward:

- We cannot access any HTML element before the page has been loaded. This is why

we do all the work in the `window.onload` listener,

- *Line 7*: we get a pointer to the div with `id=trackStatusesDiv`, that will be used to display track statuses,
- *Line 10*: we get all the track elements in the document. They are HTML track elements,
- *Line 13*: we call a function that will build some HTML to display the track status in the div we got from *line 7*.
- *Lines 16-29*: we iterate on the HTML tracks, and for each track we get the `label`, the `kind` and the `srclang` attribute values. Notice, at *line 24*, the use of the `readyState` attribute, only used from JavaScript, that will give the current HTML track state.

You can see on the screenshot (or [from the JSBin example](#)) that the German subtitle file has been loaded, and that none of the other tracks have been loaded.

Possible values for the `readyState` attribute of HTML tracks:

- **0 = NONE** ; the text track's cues have not been obtained
- **1 = LOADING** ; the text track is loading with no errors yet. Further cues can still be added to the track by the parser
- **2 = LOADED** ; the text track has been loaded with no errors
- **3 = ERROR** ; the text track was enabled, but when the user agent attempted to obtain it, something failed. Some or all of the cues are likely missing and will not be obtained

Now, it's time to look at the twin brother of an HTML track: the corresponding `TextTrack` object!

KNOWLEDGE CHECK 1.2.2

When playing a video, are all tracks loaded by default?

☐ Yes

- ☐ It depends on the browser