Internationalization and Localization with JavaScript (quick guide)

i18N

Internationalization (sometimes shortened to "I18N , meaning "I - eighteen letters -N") is the process of planning and implementing products and services so that they can easily be adapted to specific local languages and cultures, a process called **localization**.

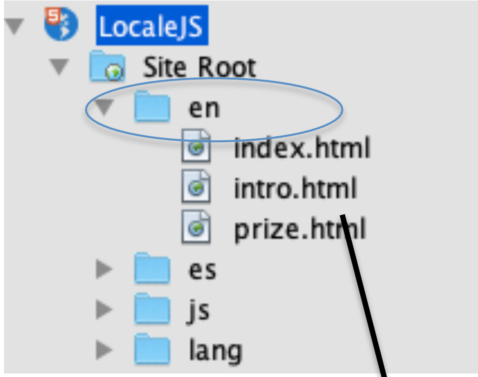
i18N Country – region codes

en: English
en_GB: English (UK)
en_US: English (US)

es: Español
es_ES: Español (España)

Website language structure & browser lang detection

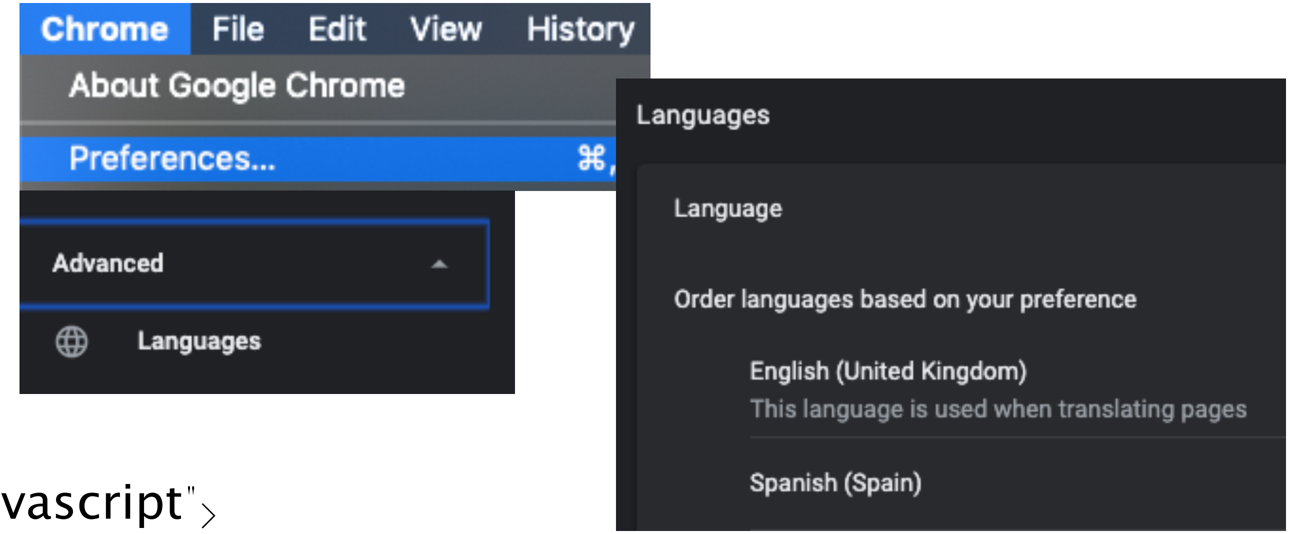
Website:
One folder / language



LocaleJS
- Site Root
  - en
    - index.html
    - intro.html
    - prize.html
  - es
  - js
  - lang

es/intro.html

Browser language preference



Languages

Language

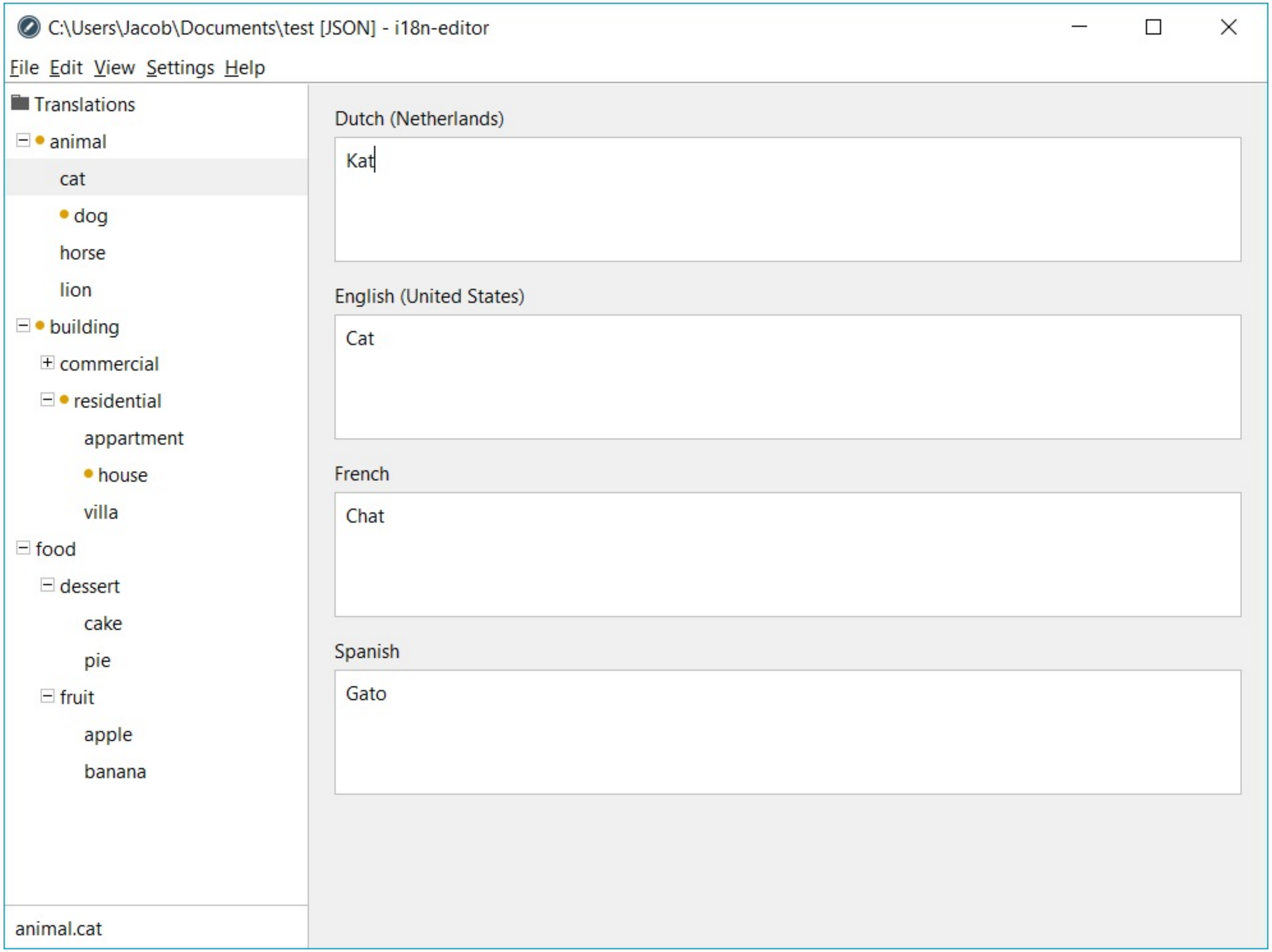
Order languages based on your preference

English (United Kingdom)
This language is used when translating pages

Spanish (Spain)

```
<script type="text/javascript">
      function ready(){
       var userLang = navigator.language ||navigator.userLanguage;

       if (userLang.indexOf("es”) === -1){
         window.location.href = "../en/intro.html";
       }
    }
    </script>
  </head>
  <body onload="ready()">
```

i18N Json



Dutch (Netherlands)

Kat

English (United States)

Cat

French

Chat

Spanish

Gato

i18N Json Editor for Angular & React: https://www.codeandweb.com/babeledit

Translate using .json onload()

lang/es.json

```
{
        "Locale in JavaScript": "Localizacion en JavaScript",
        "This is an Internationalization Test!": "Esta es una prueba de internacionalizacion”
}
```

index.html

```
<link rel="localization" hreflang="es" href="./lang/es.json" type="application/vnd.oftn.l10n+json"/>
    <script type="text/javascript" src="./js/i18n.js"></script>
    <script type="text/javascript" src="./js/intl.js"></script>

<body onload="load()

 <a href="index.html?lang=es">Ver en Español</a>
```

Translate using .json onload()

js/intl.json

Translate HTML contents by tagID

```
function localizeHTMLTag(tagId)
{
	tag = document.getElementById(tagId);
	tag.innerHTML = _(tag.innerHTML);
}
```

Example (index.html):

```
<h2 id="subtitletext">Bet and enjoy</h2>
```

(js/intl.json)

```
localizeHTMLTag("subtitletext");
```

Translate JS string using the operator **_ followed by ("string")**

```
var _ = function (string) {
	return string.toLocaleString();
};
```

Example (js/intl.json)

```
alert(_("Localizing the document title..."));
```

JavaScript Intl Object

Formatting a Number:

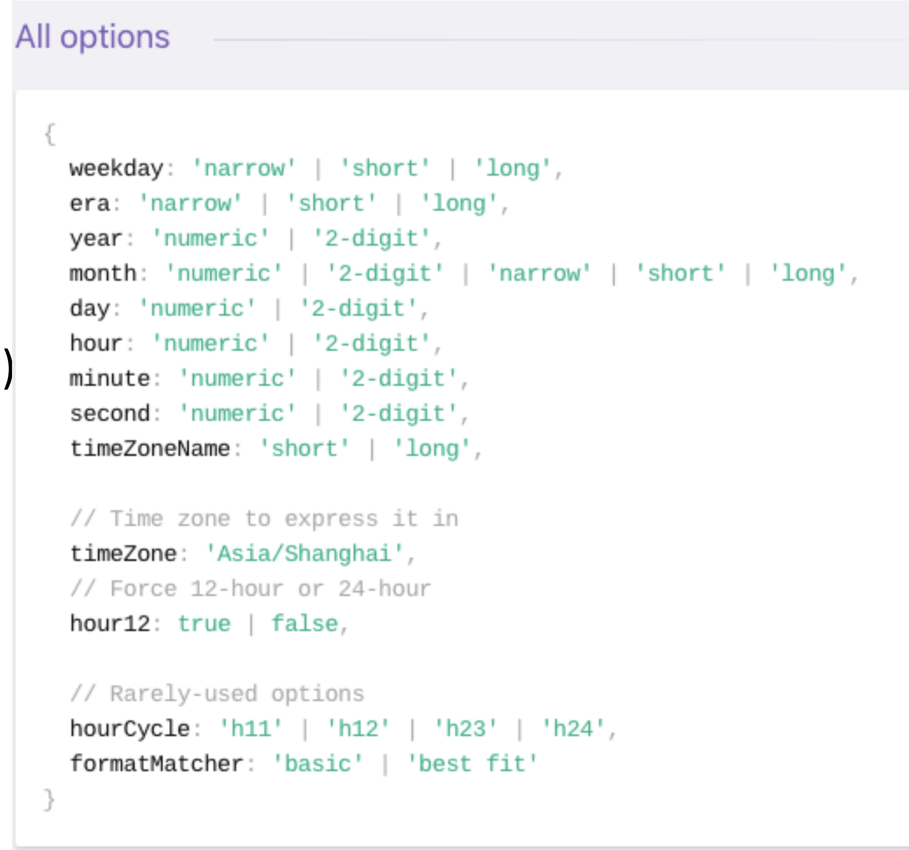
var number = 1302.93;

var formatedNumber = **Intl.NumberFormat**('en-GB').format(number);

Formatting a Date:

var date = new Date(2020, 4, 16);

var formatedDate = **Intl.DateTimeFormat**('en-GB')
format(date, {options});



All options

```
{
  weekday: 'narrow' | 'short' | 'long',
  era: 'narrow' | 'short' | 'long',
  year: 'numeric' | '2-digit',
  month: 'numeric' | '2-digit' | 'narrow' | 'short' | 'long',
  day: 'numeric' | '2-digit',
  hour: 'numeric' | '2-digit',
  minute: 'numeric' | '2-digit',
  second: 'numeric' | '2-digit',
  timeZoneName: 'short' | 'long',

  // Time zone to express it in
  timeZone: 'Asia/Shanghai',
  // Force 12-hour or 24-hour
  hour12: true | false,

  // Rarely-used options
  hourCycle: 'h11' | 'h12' | 'h23' | 'h24',
  formatMatcher: 'basic' | 'best fit'
}
```

JavaScript Intl Object Example

```
//date
var Day=6;
var Month=0;
var Year=2021;

//number
var Jackpot=192334.69;
```

js/locate.json

Index.html

```
<span id="chooselocale">Choose locale</span>:
<select id='idLocale' ..

<span id="choosestyle">and date style</span>
<select id='idStyle' ..
```

```
function changeLocale(idLoc,idStyle){

   var Locate=document.getElementById(idLoc).value;
   var Style=document.getElementById(idStyle).value;
   var P=document.getElementById('IntlText');
   var ReyesDay=new Date(Year,Month,Day,0,0,0,0);

}
```

```
P.innerHTML=_("For the Three Wise Men day") +': '+ Intl.DateTimeFormat(Locate,{dateStyle:
Style}).format(ReyesDay)+' ’  +_("we have a jackpot of")+
'Intl.NumberFormat(Locate).format(Jackpot) + ' ’ + _("pounds");
```

Currency: Formatting a number with options

Formatting a Number with Currency Style:

var number = 1302.93;

var formatedNumber = **Intl.NumberFormat**('es-ES’, **{ style: 'currency', currency: 'EUR' }**)
.format(number);

Example: en/prize.html js/prize.js

CSS language selector

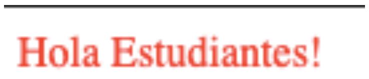
css/lang.css

```
div {color: green;}

div:lang(en) {
  color: blue;
}

div:lang(es) {
  color: red;
}
```

Example

es/intro.html

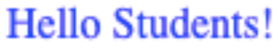
```
<html lang="es”>

<link rel="stylesheet" type="text/css" href="../css/lang.css">
```



Hola Estudiantes!

en/intro.html

```
<html lang=”en”>
```



Hello Students!