ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

I18N with Angular

angular-architects.io

Contents

- Angular Compiler
- Transloco

Angular Compiler

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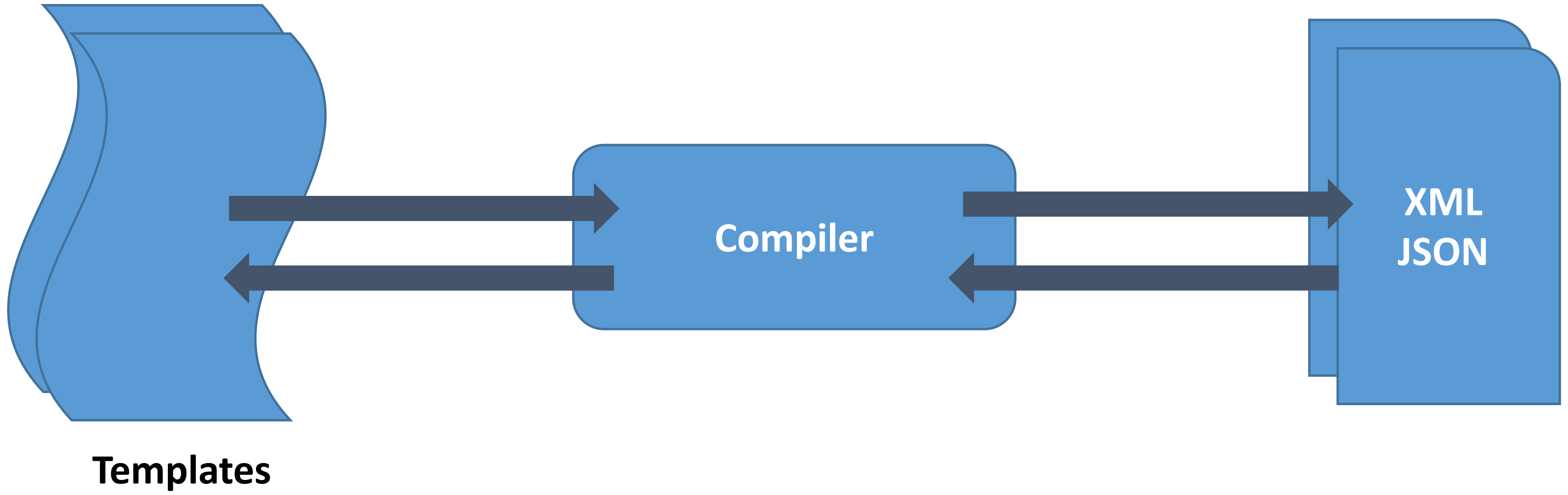
XML Localisation Interchange File Format (XLIFF, version 1.2)

XML Message Bundle (XMB)



Angular Compiler

Great Performance

One Build per Language

Cannot Change Language w/o Reload

Reading Code at runtime (since Angular 9)

Add @angular/localize

```
ng add @angular/localize
```

Define texts to translate

```
<th i18n>From</th>
<th i18n="Description">To</th>
<th i18n="Meaning|Description">Passengers</th>
<th i18n="Meaning|Description@@passengers">Passengers</th>
```

Text to Translate in TypeScript Files

```
title =  $localize `:meaning|description@@id:Hello World!`;
```

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Extract texts

```
ng extract-i18n

(formerly ng xi18n)
```

Compile app with translated texts

```
ng build --i18nFile=src/i18n/messages.de.xlf
         --i18nFormat=xlf
         --locale=de
         --prod
```

angular.json

```
"i18n": {
  "locales": {
    "de": "messages.de.xlf",
    "fr": "messages.fr.xlf"
  },
  "sourceLocale": "en-US"
},
```

```
ng build --localize
```

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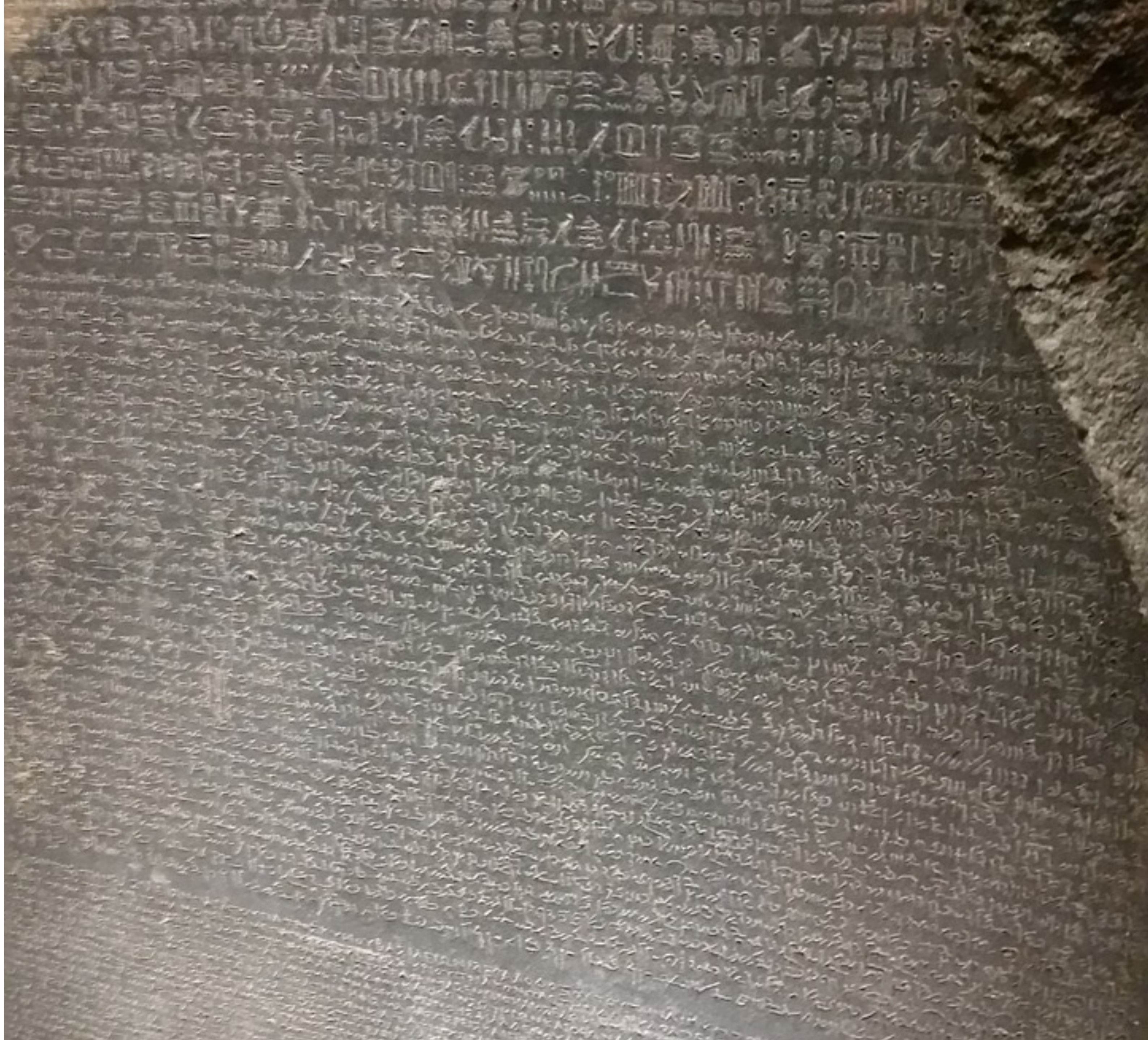
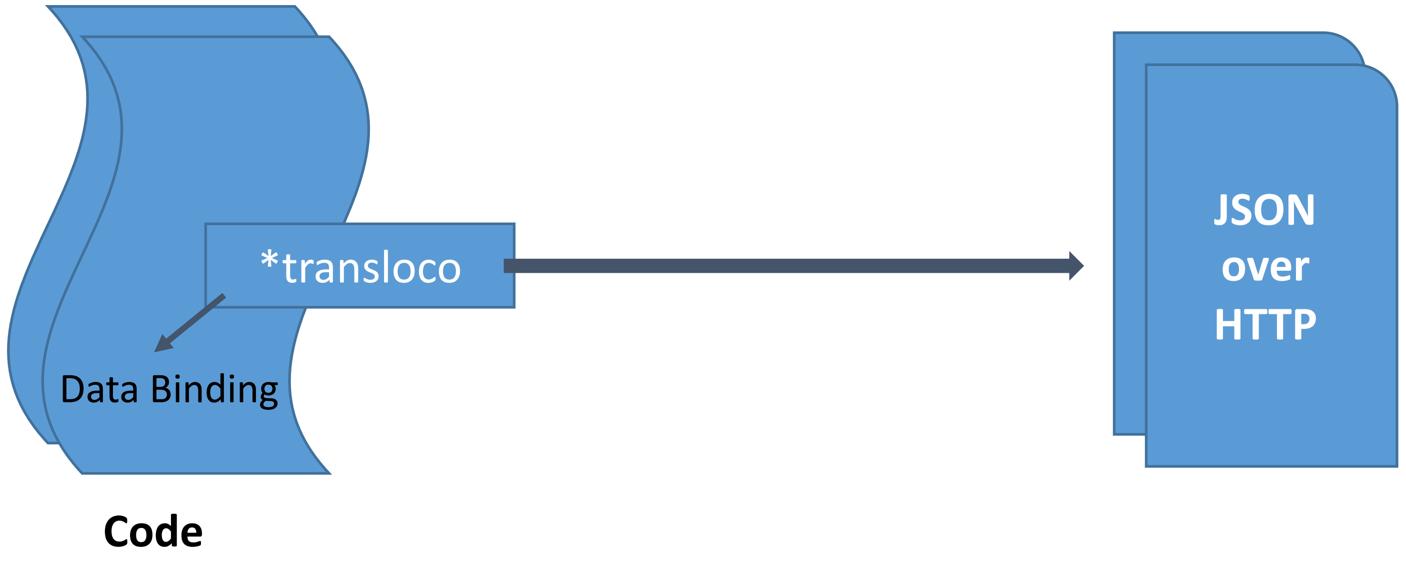
Transloco



Transloco



Data format and way of loading are adaptable

Transloco

One Build

Change Language at Runtime!

Read Translations in Code

Data Binding Influences Performance

Usage

```
# Using angular/cli
-> ng add @ngneat/transloco

# Using nx
-> npm install @ngneat/transloco

-> nx g @ngneat/transloco:ng-add --project flight-app
```

Generated code - Module

```
@NgModule({
  exports: [ TranslocoModule ],
  providers: [
    {
      provide: TRANSLOCO_CONFIG,
      useValue: translocoConfig({
        availableLangs: ['de', 'en'],
        defaultLang: 'de',.
        reRenderOnLangChange: true,
        prodMode: environment.production,
      })
    },
    { provide: TRANSLOCO_LOADER, useClass: TranslocoHttpLoader }
  ]
})
export class TranslocoRootModule {}
```

Generated code - Loader

```
@Injectable({ providedIn: 'root' })
export class **TranslocoHttpLoader** implements **TranslocoLoader** {
  constructor(private http: HttpClient) {}

  getTranslation(lang: string) {
    return this.http.get<Translation>(`/assets/i18n/${lang}.json`);
  }
}
```

Resource File

```
{
  "FLIGHTS": {
    "from": "From",
    "to": "to",
    "search": "Search",
    "found": "{{count}} flights found."
  }
}
```

Translation

```
<ng-container *transloco="let t">

      <p>{{ t('FLIGHTS.from') }}</p>

      <p>{{ t('FLIGHTS.flightsfound', {count: 5}) }}</p>

</ng-container>
```

DEMO

LAB

Local Formats

Pipes and local Formats

{{ flight.date | **date:'long'** }}

Import format information

```
import { registerLocaleData } from '@angular/common';
import localeDe from '@angular/common/locales/de';
import localeDeAt from '@angular/common/locales/de-AT';
import localeEs from '@angular/common/locales/es';

registerLocaleData(localeDe);     // de-DE
registerLocaleData(localeDeAt);   // de-AT
registerLocaleData(localeEs);     // es-ES
```

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Define default locale

```
providers: [
    […]
    { provide: LOCALE_ID, useValue: 'de' },
]
```

Use Formats

```
<p>Datum (Default=de): {{ item.date | date:'long' }}</p>
<p>Datum (de-AT): {{ item.date | date:'long':'': 'de-AT' }}</p>
<p>Datum (es): {{ item.date | date:'long':'': 'es' }}</p>
```

I18N and Inputs?

- Pipes are just for outputs
- Use component lib (like Angular Material)
- General concept: ControlValueAccessor