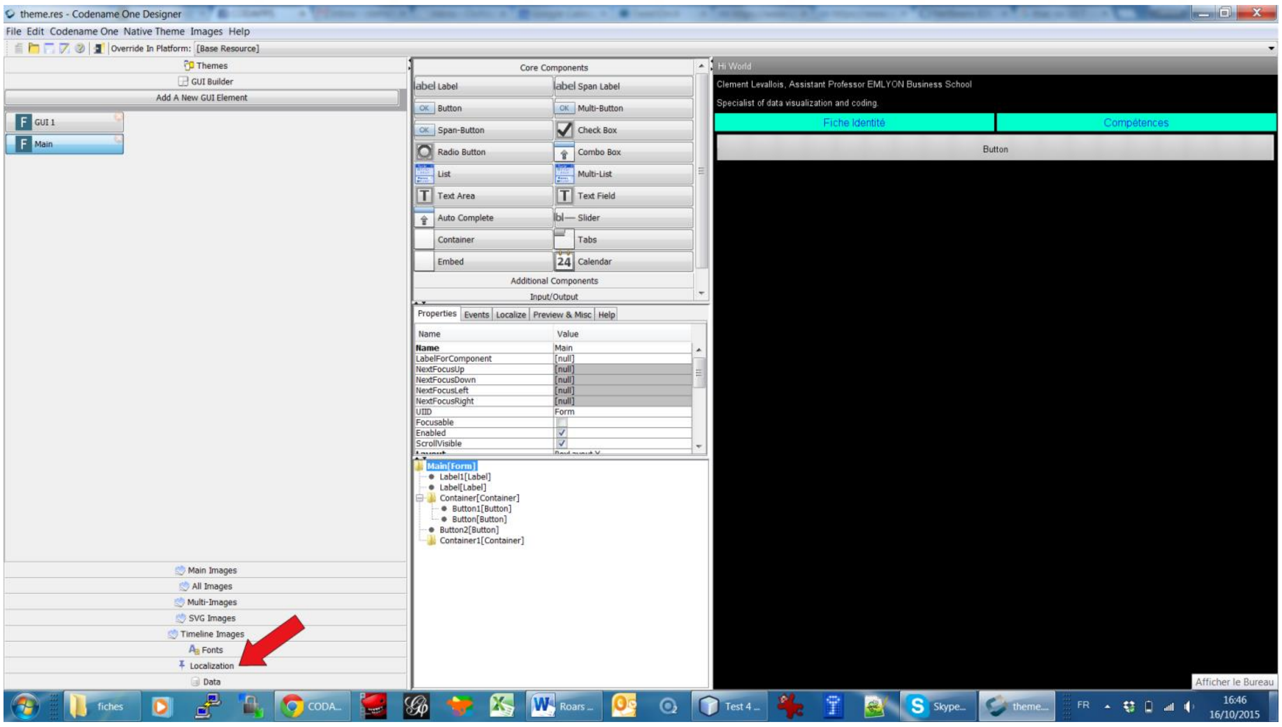
Level of difficulty: ● ○ ○ ○
Estimated time: 15 mn

Module 7 - BONUS

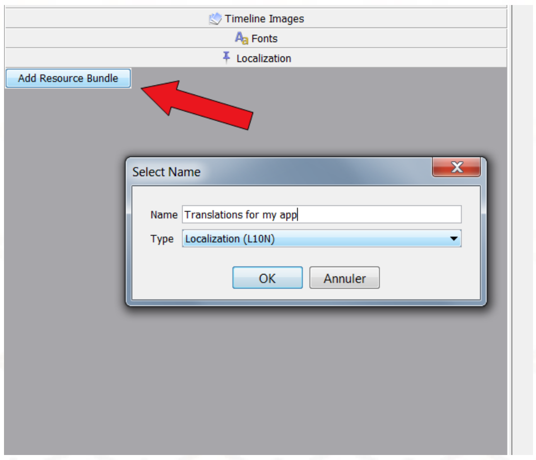
How to make your app appear in different languages

1. The designer is open, and we have a screen with labels, buttons, etc.
   We would like an app which appears in French on French phones, and in English on all phones which are not French phone. How to do that?
   The general principle is to use the menu "**Localization**":
   - For each Label and Button on all screens, we translate the text in French and English
   - We add a few lines of code in the file "StateMachine.java" in NetBeans to decide which language to use, depending on the language of the phone.

   Let's do it. In the menu on the left, click on "Localization":



2. Then click on "**Add Resource Bundle**", and give a name for your translations. Here I called them "Translations for my app":



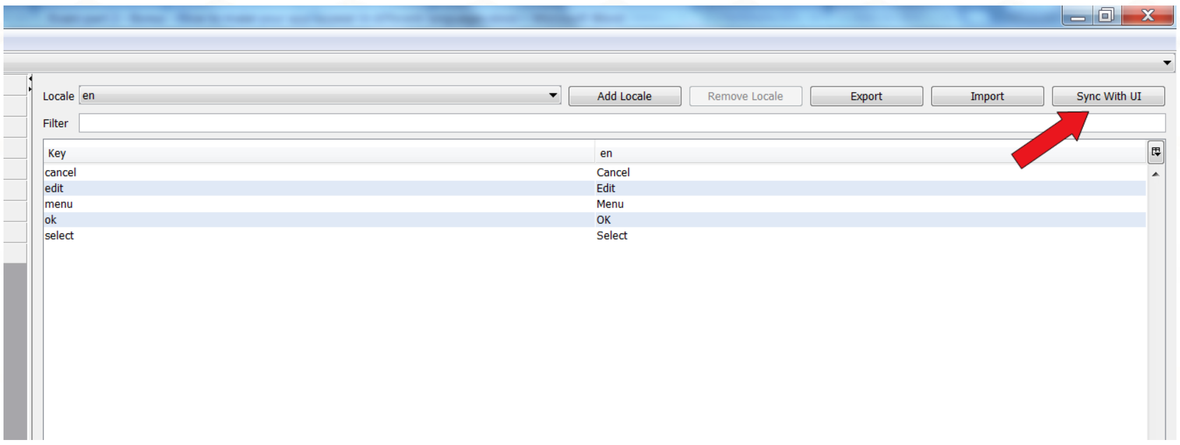
Name: Translations for my app
Type: Localization (L10N)

Module 7 - BONUS

Level of difficulty: ● ○ ○ ○
Estimated time: 15 mn

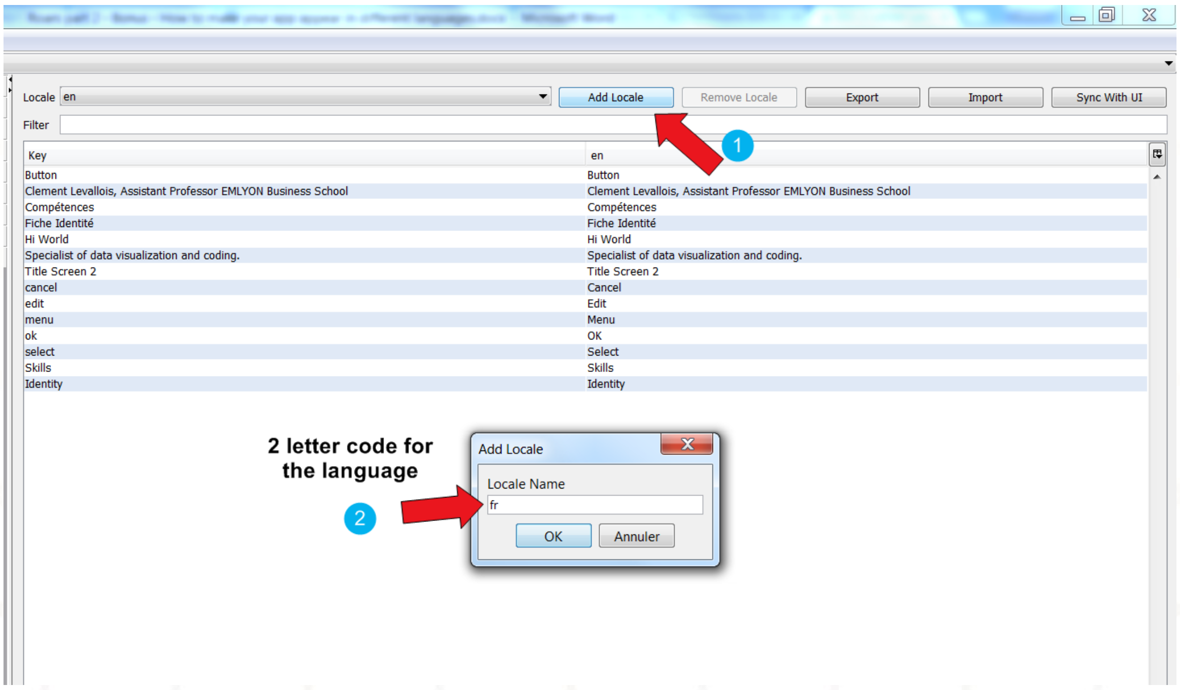
How to make your app appear in different languages

3. We click on "Synch UI", this will show all elements of text in our app:



Key	en
cancel	Cancel
edit	Edit
menu	Menu
ok	OK
select	Select

4. Now we have all the elements of text in our app appearing in a list. For each of element, we can create a text in a different language. To do that, just click on "Add Locale" and write the 2-letter symbol for the language (fr = French, de = German, …)
The list of all 2 letter symbols for all languages: http://www.sitepoint.com/web-foundations/iso-2-letter-language-codes/
Here I show it in French, "fr":



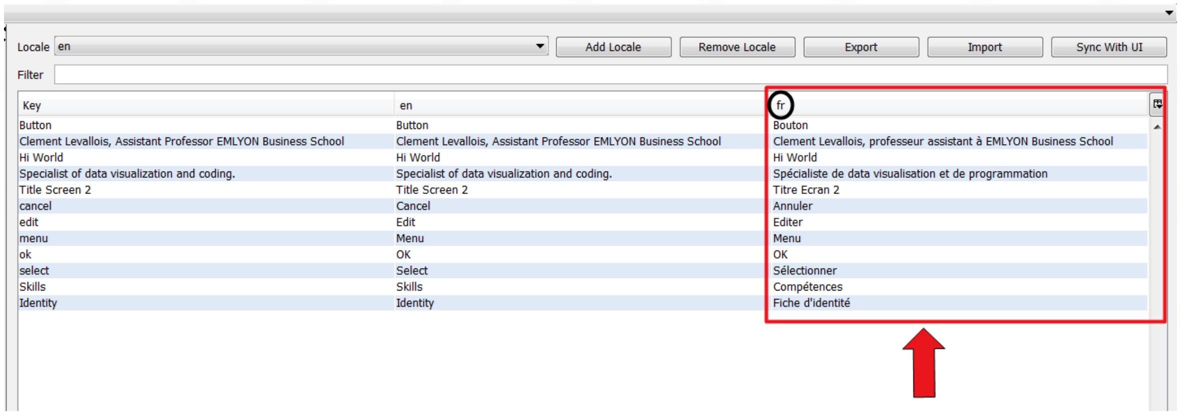
Key	en
Button	Button
Clement Levallois, Assistant Professor EMLYON Business School	Clement Levallois, Assistant Professor EMLYON Business School
Compétences	Compétences
Fiche Identité	Fiche Identité
Hi World	Hi World
Specialist of data visualization and coding.	Specialist of data visualization and coding.
Title Screen 2	Title Screen 2
cancel	Cancel
edit	Edit
menu	Menu
ok	OK
select	Select
Skills	Skills
Identity	Identity

Level of difficulty: ● ○ ○ ○
Estimated time: 15 mn

Module 7 - BONUS

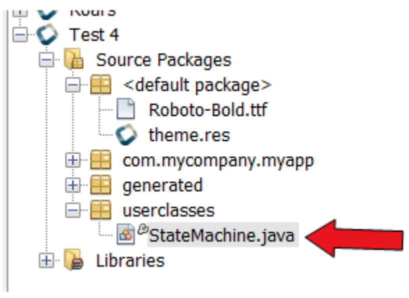
How to make your app appear in different languages

5. A new column has been automatically created on the right (squared in red on the screenshot below). You can type the translations in French for all elements (or any language you have chosen if not French).



Key	en	fr
Button	Button	Bouton
Clement Levallois, Assistant Professor EMLYON Business School	Clement Levallois, Assistant Professor EMLYON Business School	Clement Levallois, professeur assistant à EMLYON Business School
Hi World	Hi World	Hi World
Specialist of data visualization and coding.	Specialist of data visualization and coding.	Spécialiste de data visualisation et de programmation
Title Screen 2	Title Screen 2	Titre Ecran 2
cancel	Cancel	Annuler
edit	Edit	Editer
menu	Menu	Menu
ok	OK	OK
select	Select	Sélectionner
Skills	Skills	Compétences
Identity	Identity	Fiche d'identité

6. That's it, your app is ready to be displayed in English, or in French! But how can the app "know" when it should show English text, or French text?
First, go back to NetBeans, and double click on the file StateMachine.java to open it:



In this file, add these lines of code in the action "initVars":

```
protected void initVars(Resources res) {
```
This line of code should already be in your file. It means « execute everything inside the green curly brackets when the app starts »

```
    String languageOfThePhone;
```
First, you create a box specialized in containing text.

```
    languageOfThePhone = Display.getInstance().getLocalizationManager().getLanguage();
```
Then, we use a special action (just copy paste it…) which finds the language of the phone, and we put it in the box we have created.

```
    if (languageOfThePhone.equals("fr")) {
```
If the lanuage of the phone, that we have put in the box, is « fr »…

```
        UIManager.getInstance().setBundle(res.getL10N("Translations for my app", "fr"));
    }
```
… then use this special action which makes your app use the texts from the column « fr » in « Translations for my app »

```
    else {
        UIManager.getInstance().setBundle(res.getL10N("Translations for my app", "en"));
```
… otherwise, it means the phone is not in French. Use the texts from the column « en » in « Translations for my app »

```
    }
}
```

7. Note: the lines of code above can simply copy pasted from here:

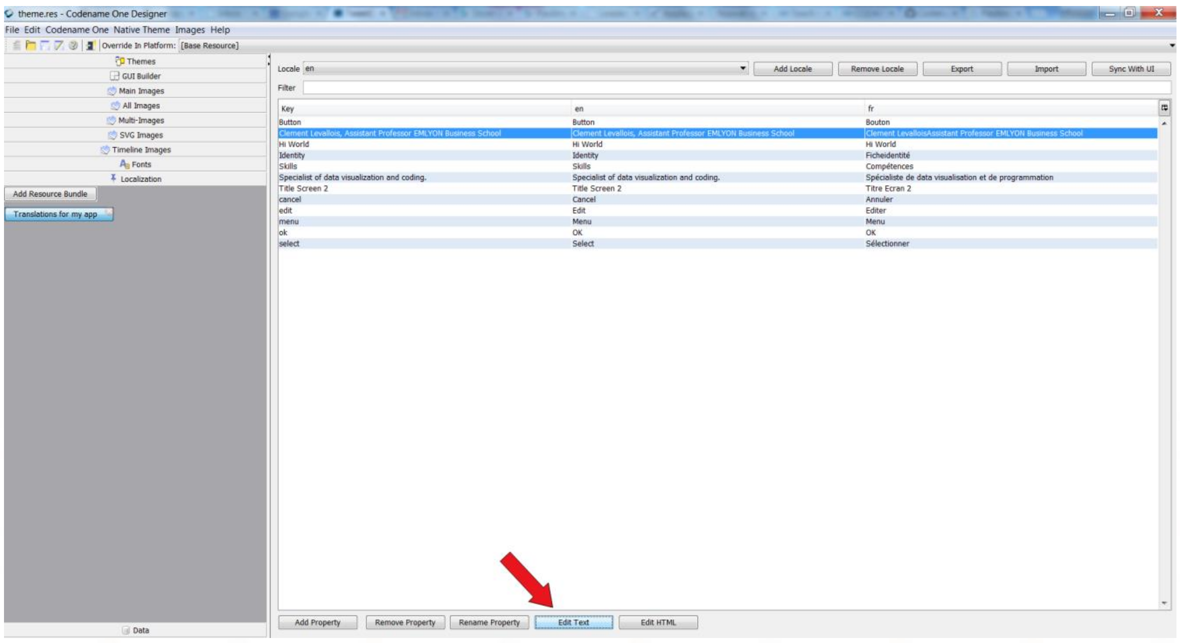
https://github.com/seinecle/CodenameOneLocalization/blob/master/src/userclasses/StateMachine.java#L29

Just make sure that you make no mistake on the line:

UIManager.getInstance().setBundle(res.getL10N("Translations for my app", "fr"));

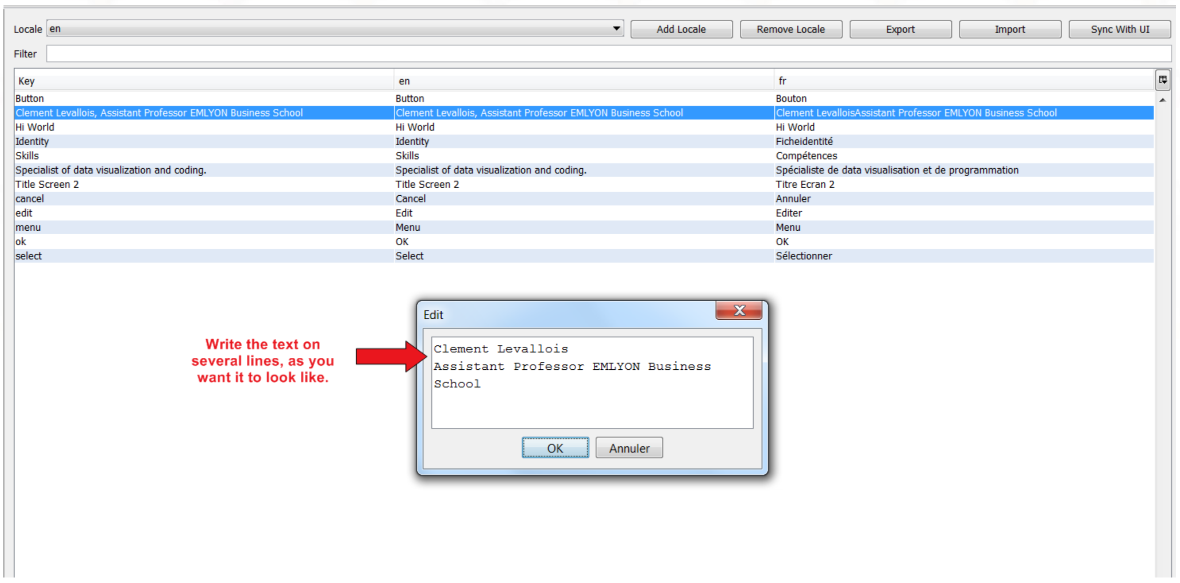
➔ I use "Translations for my app" because that's how I named the Resource bundle in step 2 of this tutorial, but of course you should use any name you have chosen in step 2.

8. **The bonus of the bonus… how to have Labels with some text on several lines**
   - Create a localization, as explained in steps 1 to 6
   - Open the Localization menu, select the line where you want to have the text on several lines, and click on the "**Edit Text**" button:



Key	en	fr
Button	Button	Bouton
Clement Levallois, Assistant Professor EMLYON Business School	Clement Levallois, Assistant Professor EMLYON Business School	Clement LevalloisAssistant Professor EMLYON Business School
Hi World	Hi World	Hi World
Identity	Identity	Ficheidentité
Skills	Skills	Compétences
Specialist of data visualization and coding.	Specialist of data visualization and coding.	Spécialiste de data visualisation et de programmation
Title Screen 2	Title Screen 2	Titre Ecran 2
cancel	Cancel	Annuler
edit	Edit	Editer
menu	Menu	Menu
ok	OK	OK
select	Select	Sélectionner

9. In the box that opens, you can write your text in several lines. To create a new line, just press the “Return” key on your keyboard (as usual).



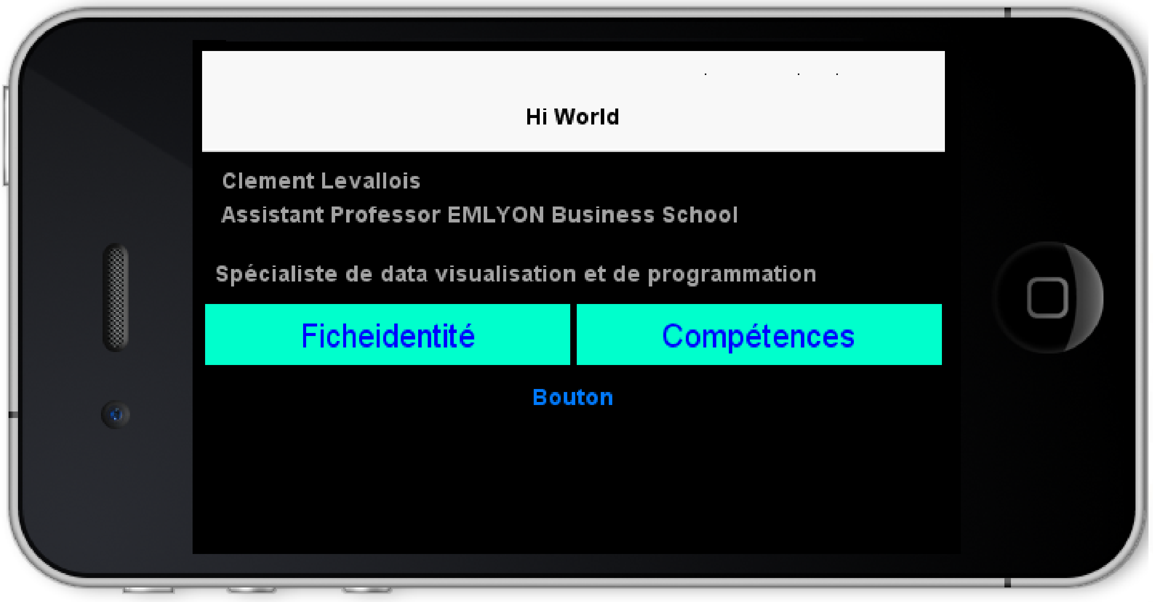
Key	en	fr
Button	Button	Bouton
Clement Levallois, Assistant Professor EMLYON Business School	Clement Levallois, Assistant Professor EMLYON Business School	Clement LevalloisAssistant Professor EMLYON Business School
Hi World	Hi World	Hi World
Identity	Identity	Ficheidentité
Skills	Skills	Compétences
Specialist of data visualization and coding.	Specialist of data visualization and coding.	Spécialiste de data visualisation et de programmation
Title Screen 2	Title Screen 2	Titre Ecran 2
cancel	Cancel	Annuler
edit	Edit	Editer
menu	Menu	Menu
ok	OK	OK
select	Select	Sélectionner

Edit

```
Clement Levallois
Assistant Professor EMLYON Business
School
```

Write the text on several lines, as you want it to look like.
OK
Annuler

10. Now you can have one Label with the text on 2 lines:


Hi World
Clement Levallois
Assistant Professor EMLYON Business School
Spécialiste de data visualisation et de programmation
Ficheidentité
Compétences
Bouton