

Translate App

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Stipulations:

- For all use cases:
 - User will need an android device.
 - User will need a Google Glass and the latest version of the software.
- For all use cases that require a keyword to be spoken:
 - Make sure that the keyword can only turn off the Translate System if it is the only word spoken.

Use Case: Turn On

Scope: English-to-Spanish Translator

Level: User goal

Primary Actor: User

Stakeholders and Interests:

- **User:** Wants Translate System to turn on.
- **Google Glass:** Wants to efficiently boot up the Translate System.

Preconditions: Translate System is off.

Success Guarantee (or Postconditions): The Translate System has successfully turned on.

Main Success Scenario (or Basic Flow):

1. User requests to turn on Translate System.
2. Google Glass initializes Translate System.

Extensions (or Alternate Flows):

- 2a. Google Glass experiences error and cannot initialize Translate System.
 1. Error message is displayed

Special Requirements: None

Frequency of Occurrence: Often

Open Issues:

- Will keyword be used? Is said keyword set in stone or user-generated?

Use Case: Listen

Scope: English-to-Spanish Translator

Level: User Goal

Primary Actor: Translator Software

Stakeholders and Interests:

- **User:** The user wants the app to listen clearly and effectively.
- **Translator System:** Wants the data sent to be in a readable format.

Preconditions: The Translator app needs to be on.

Success Guarantee (or Postconditions): The app listens to what the user says and the text is sent to the Translate use case.

Main Success Scenario (or Basic Flow):

1. The User initiates the Listen command.
2. The Translate System starts to listen.
3. The Translate System hears a string.
4. The Translate System stops listening.
5. The Translate System stores the string to be translated.

Extensions (Or Alternate Flows):

- 3a. The App cannot hear the string.
 2. The user is presented with a nonsensical translation.
 3. The user is asked to repeat what was said.
- 4a. The App doesn't stop listening.
 2. The App's output doesn't match what was wanted.
 3. The user is asked to repeat what they said.

Special Requirements:

- The App needs to translate almost instantaneously.

Frequency of Occurrence: Often.

Open Issues:

- The User needs to be familiar with the software commands.
- How will listening be initialized, by keyword or press?

Use Case: Translate

Scope: English-to-Spanish Translator

Level: User goal

Primary Actor: Translate System

Stakeholders and Interests:

- User: Wants to have English voice input accurately translated to Spanish text and voice output.
- Google Glass: Wants an efficient app that does not consume resources.
- Google Translate: Wants a valid English input from the Listen use case and to translate said input to the valid Spanish translation.
- Translate System: Wants to receive valid information from the Listen use case and Google Translate in order to accurately and efficiently process the User's request.

Preconditions: The app must be successfully turned on and Translate System must collect voice input.

Success Guarantee (or Postconditions): The valid English voice input has been accurately translated to Spanish text and voice.

Main Success Scenario (or Basic Flow):

1. Translate System receives User's valid input from Listen use case.
2. Translate System sends the input to Google Translate to be translated.
3. Translate System receives the correct English-to-Spanish text translation from Google Translate.
4. Translate System sends translated text to the Output Text and Output Voice use cases.

Extensions (or Alternate Flows):

- 1a. Translate System receives an empty string from the Listen use case.
 1. There is nothing to translate, so Translate System sends an empty string to the Output Text and Output Voice use cases.
- 3a. Google Translate does not recognize User's input as English.
 1. Translate System cannot return translated text to User.
- 3b. Google Translate returns an incorrect English-to-Spanish text translation.
 1. Translate System passes the incorrect translation to the Output Text and Output Voice use cases.
 2. The User receives an incorrect translation.

Special Requirements:

- Google Translate must process data within 0.2 seconds.
- Translate use case must provide Output Text and Output Voice use cases data within 0.3 seconds of receiving input.

Frequency of Occurrence: Often

Open Issues:

- Google Translate can process other languages. Can we incorporate this into the app?
- Can this be utilized in conversational environment?

Use Case: Output Text

Scope: Google glass system

Level: User goal

Primary Actor: User

Stakeholders and interests:

- **User:** Wants to view text after translation
- **Translate System:** Wants to receive translation from Translate use case and display the translation to the User.

Preconditions: Text has already been translated

Success Guarantee (or Postconditions): The text will print out on the Google Glass for the user to read.

Main Success Scenario (or Basic Flow):

1. Translate System receives both the original text and translation from the Translate use case.
2. Translate System displays both the original text and the translation to the Google Glass screen.

Extensions (or Alternate Flows): None

Special Requirements:

- Text can be seen on both phone and Google Glass.

Frequency of Occurrence: Often.

Open Issues:

- How will text be formatted?

Use Case: Output Voice

Scope: English-to-Spanish Translator

Level: User goal

Primary Actor: User

Stakeholders and interests:

- **User:** Wants to hear translation spoken in Spanish.
- **Translate System:** Wants to audibly output the User's translation in Spanish.

Precondition: User's input has been translated and received.

Success guarantee (or Postconditions): Language is output in Spanish via the speakers.

Main Success Scenario (or Basic Flow):

1. Translate System receives translation from Translate use case.
2. Translate System uses text to voice software to audibly output translation.

Extensions (or Alternate Flow): None

Special Requirements: None

Frequency of Occurrence: Often

Open Issues:

- Are other languages possible?
- Will it be spoken in a male or female voice, or both?

Use Case: Turn Off

Scope: English-to-Spanish Translator

Level: User goal

Primary Actor: Translate System

Stakeholders and Interests:

- **Translate System:** Wants to execute the User's requests in minimal time.
- **User:** Wants the Translate System to produce translations in minimal time.

Preconditions: Translate System is on.

Success guarantee (or Postconditions): Translate System is off and the User is back at the Google Glass home screen.

Main Success Scenario (or Basic Flow):

1. The User requests the Translate System to turn off by speaking a keyword.
2. The Translate System hears the keyword and successfully turns off.

Extensions (or Alternate Flows):

- 1a. A gesture is used to turn off the Translate System instead.
- 1b. The word spoken is not recognized as the keyword.
 1. Flow resumes at Step 2a.
- 2a. The Translate System stays on.
 1. Flow resumes at Step 1.

Frequency of Occurrence: Often.

Special Requirements: None

Open Issues:

- If a gesture is used, will it be identified by a press or swipe, or either?
- Will there be a tone to confirm that the Translate System has turned off?
- Will the User be able to make their own keyword?

Use Case: Play Sound

Scope: English-to-Spanish Translator

Level: User goal

Primary actor: User

Stakeholder and Interests:

- **User:** Wants to be notified when translation is complete.
- **Translate System:** Wants to notify users that translation is complete.

Preconditions:

- Translate app has completed a translation.

Success guarantee (or Postconditions):

- A notification has been emitted.

Main Success Scenario (or Basic Flow):

1. The Translate System has returned the Spanish translation of the User input.
2. The Translate System emits a notification sound.

Extensions (or Alternate Flows):

- 1a. Emit a notification vibration.

Special requirements: None

Frequency of occurrence: Often

Open issues:

- Will the User be able to choose which sound is used?

Use Case: Change Text

Scope: English-to-Spanish Translator

Level: User goal

Primary Actor: User

Stakeholders and interests:

- **User:** Wants to make font more readable.
- **Translate System:** Wants to give user easy access to settings. Wants to allow change of settings as smoothly as possible.

Preconditions: User has already started app and is unhappy with font size.

Success Guarantee (or Postconditions): User is now content with the font size.

Basic Flow:

1. User selects the menu.
2. User navigates to “accessibility” category within the menu.
3. Menu displays a drop down box of text sizes.
4. The User selects a more desirable font size.
5. The menu is exited and the text size is updated.

Extensions (or Alternate Flow): None

Special Requirements: None

Frequency of Occurrence: Often

Open Issues:

- The Translate System could provide alternate “quick options” that are spoken word. Among these is the ability to change text size, such as “font size up.”
- The Translate System has an icon that looks something like “Aa” in one of the corners of the display. The User can select this icon to more quickly access the font change interface.