Create a Tropo Voice Machine

Duration: 15 minutes

Objectives

Tropo is a cloud API that allows you to automate communications over the phone and SIP VoIP networks. Both voice and SMS are supported, and no telephony knowledge is needed. Tropo extends common web programming languages like Ruby, JavaScript, or PHP and adds telephony building blocks that any web developer can understand. Tropo is a fully hosted service (we'll even host your code), so there's no equipment or software to install. Pay-as-you-go pricing means there's no contracts or commitments, allowing you to pay only for what you use.

In this lab, you will learn the basics of how to use Tropo. You'll create a simple Tropo application, get a Tropo number in a country of your choice, and build a simple Voice Machine controlled by your code.

Pre-requisites

You'll need:

- some basic knowledge of JavaScript and REST,
- a physical or soft phone to run this lab,
- as well as a Tropo account.

To create an account, visit Tropo's registration page. Once registered, log in at Tropo.com.

How to setup your own computer

This lab can be completed from any platform with an HTML5-compatible browser.

Step 1 - Create a Tropo application

Go to Tropo.com and log into your Tropo account.

Note that the upper right corner of the Tropo portal displays your full name and your Tropo Account Number in parenthesis. For example, 5051540. When times come to ask for activation, provide this account number to a Cisco mentor or Tropo support.

For the purpose of this lab, we'll stick to basic Tropo features which do not require any activation.

Click the *Create New App* button
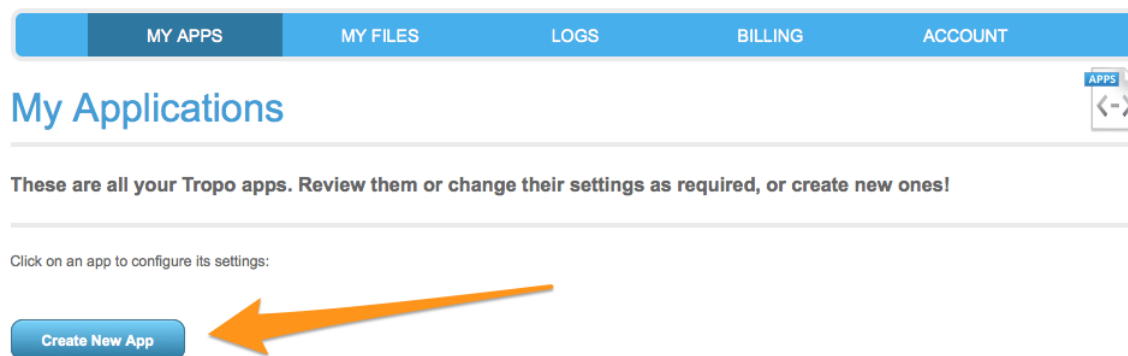
For your new application, name it anything you would like. Note that - hyphens - are the sole special characters supported.

Choose Scripting API for the API type and then click "New Script."

A popup with an embedded code editor shows up.

Type some basic HelloWorld code in the editor area, and give your script a filename of `learning.js`.

```
1   say("Hello world");
```

Filename: learning.js   Save   or close
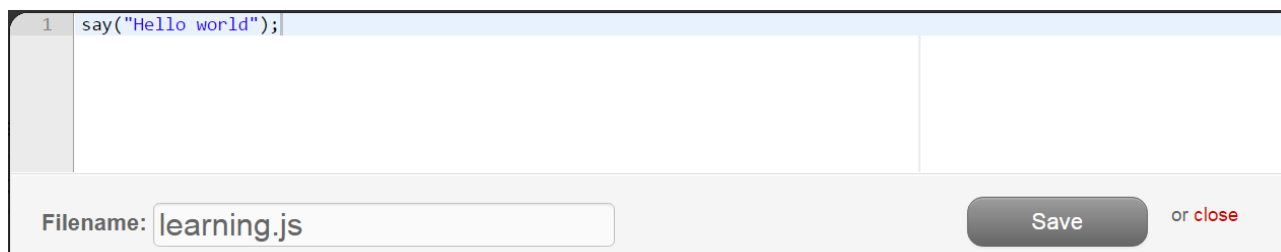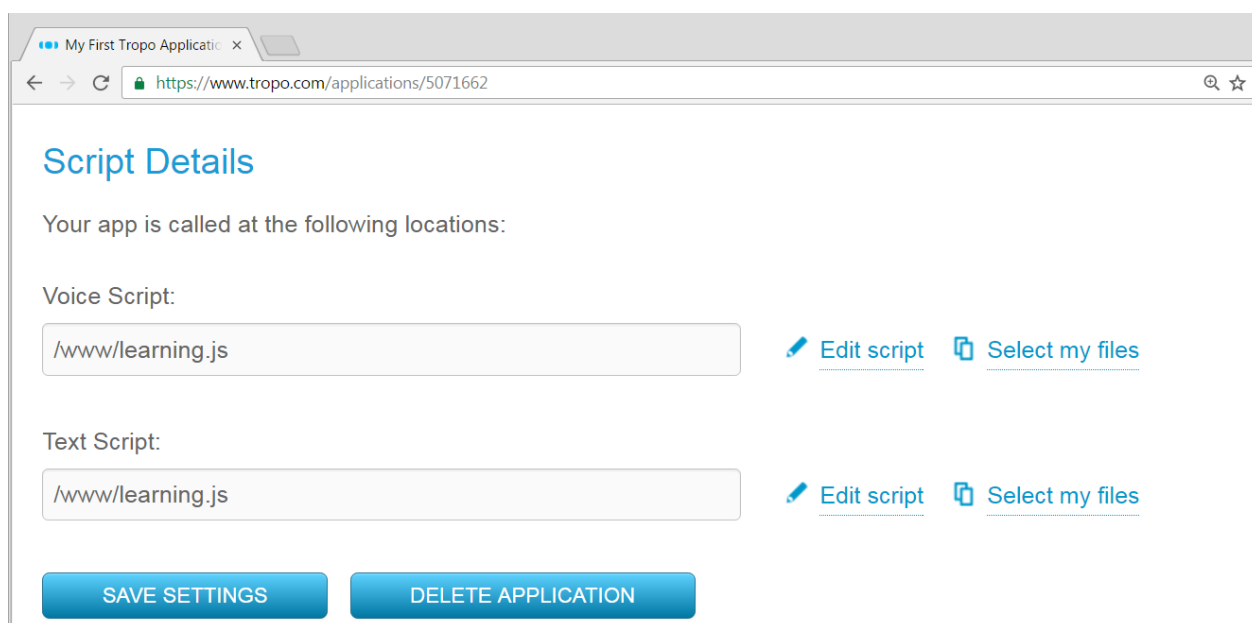
Note that the ".js" extension is inferred by Tropo so that a JavaScript engine is used to run your script.

Click Save.

Leave the phone number area blank for now, as we will attach a phone number to our application in the next section.

Scroll to the bottom of the page, and click "Create App" to save your changes:

- the script is now registered on your private files directory on Tropo Hosting Platform,
- and the page URL displays your application number, "5071662" in the snapshot below.

My First Tropo Applicatic ×

https://www.tropo.com/applications/5071662

Script Details

Your app is called at the following locations:

Voice Script:

/www/learning.js   ✏ Edit script   ⎗ Select my files

Text Script:

/www/learning.js   ✏ Edit script   ⎗ Select my files

SAVE SETTINGS   DELETE APPLICATION

Step 2 – Attach a phone number

Scroll down a bit and choose a phone number in a Country of your choice. The monthly price is displayed for production purpose. You will not be charged as Tropo is free for Developers.

Note that Tropo provides phone numbers in more than 50 countries, even so some may not be listed in the combo due to country specific regulation: you'll then have to reach to Tropo support and provide extra information to get a number in these countries.

Make sure you have picked a phone number with Voice capabilities: "Voice Only" or "Voice + Text" are suitable for the purpose of this lab. In the example below, we have picked two numbers, one in Italy and one in US: Tropo gives instant worldwide presence.

Numbers

Phone numbers associated with your application. You can delete existing numbers or add new ones.

Number	Country	Region	Cost (monthly)	Connection Support
+1 414-999-0206	United States	Milwaukee Zone 01	$1	Voice + Text
+39 06 9480 2711	Italy	Roma	$6	Voice Only

Add new number: | Italy ▾ | 39051 BOLOGNA ($6) ▾ | ADD

After a few minutes, your new number will be provisioned and attached to your application.

Now call your number, and "listen" to your code!

As you call, Tropo answers the call, looks for the application associated to that number. Tropo then loads the Voice script associated to the application, and converts any text to speech, plays it back, then hangs up.

In the next section, we'll explore Tropo Voice features.

Step 3 – Change the Voice

Tropo uses voices to alter how your text is converted to speech. There are both male and female voices across a few dozen languages and accents.

View the list of all Tropo's voices and languages in the Tropo documentation.

Click *Edit Script* again, and change your code to:

```
say("Bonjour à tous", {voice: "Audrey"});
```

Or

```
say("Buongiorno a tutti", {voice: "Alice"});
```

Save your script, leave it a few seconds to synchronize among Tropo file servers, and call your Tropo number to hear your code speak in the language you chose.

Step 4 – Play an audio file

There are cases when you will want to play music, or may be speak your own messages, for brand reasons for example). This is where the Tropo audio file feature will come into the game.

Scroll up to your script details and click *Edit Script*. The script editor will pop up with your application script in it.

Edit your script to look like:

```
say("Hello World!");
say("http://www.phono.com/audio/troporocks.mp3");
```

When Tropo sees a url in a say function, instead of speaking the URL with text to speech, Tropo downloads plays the audio file.

Give your application a call and try it out.

Note that you can also mix and match text and audio in a single function. The above code is functionally equivalent to:

```
say("Hello World! http://www.phono.com/audio/troporocks.mp3");
```

To go further

The Tropo scripting platform is reach enough to let you build fully Interactive Voice Responders – IVR's - in a few lines of codes: we suggest you give a look to the "answer" function, as well as the advanced Call and advanced Speech controls.

To get inspiration for other scenarios, you will certainly want to browse through the Scripting Quick Starts.

Clean up instructions

In order to preserve Tropo Development Platform resources, we will remove some resources you reserved through the lab.

Reach to your Tropo application, and delete the phone numbers attached to your application by clicking the Red sign on the left of the phone numbers.