HangoutBuilder Application Readme

We Like Pie

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Contents

Section One: Using the HangoutBuilder Application

This guide will take you through the steps in how to use HangoutBuilder to build your own Google+ Hangout. **Using HangoutBuilder.app (Mac) or HangoutBuilder.exe (Windows) will create a file called "hangout.xml".** This file will be what you need to host and link to when you're creating your Google Hangout Application in Section Four.
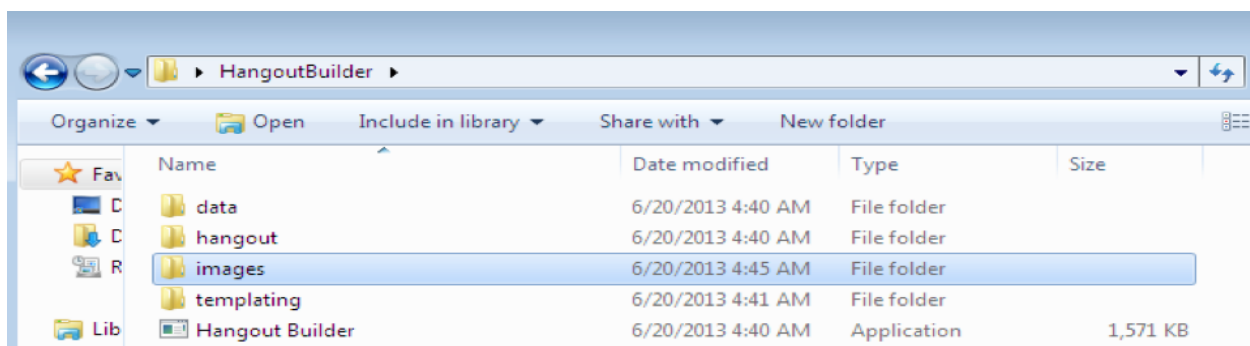

1.1 Downloading your application.

First, you need to download the folder containing HangoutBuilder.app/.exe and it's associated folders. **It is recommended that you save it to your Desktop**.

What you have downloaded should look like this (Mac Version)
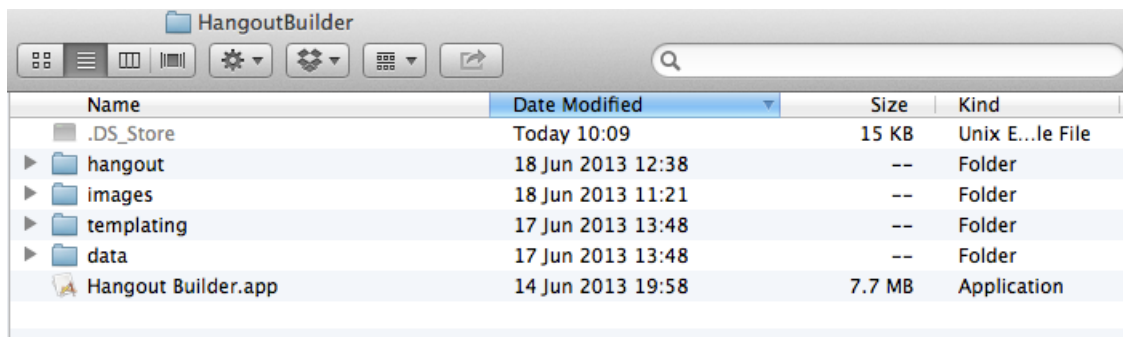
HangoutBuilder Mac Version

What you have downloaded should look like this (Windows Version)

HangoutBuilder Windows Version

1.2 Specifying the details of your Hangout

Before you run the Hangout Builder application. You need to edit a file called "**properties.yml**", this file will upload your specified settings for your application, including the content you want to display. **You will find "properties.yml" in the "templating" folder**.

The templating folder on a Mac
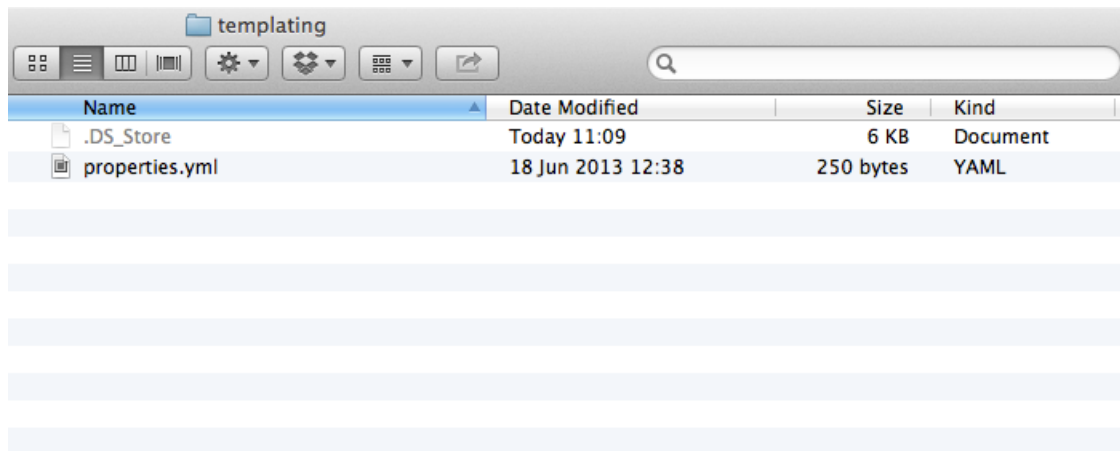
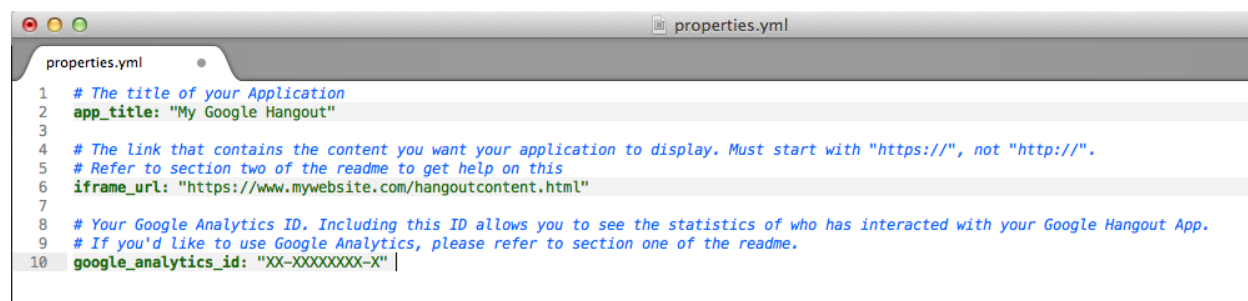**Templating Folder (Mac)**

The "templating" folder on Windows
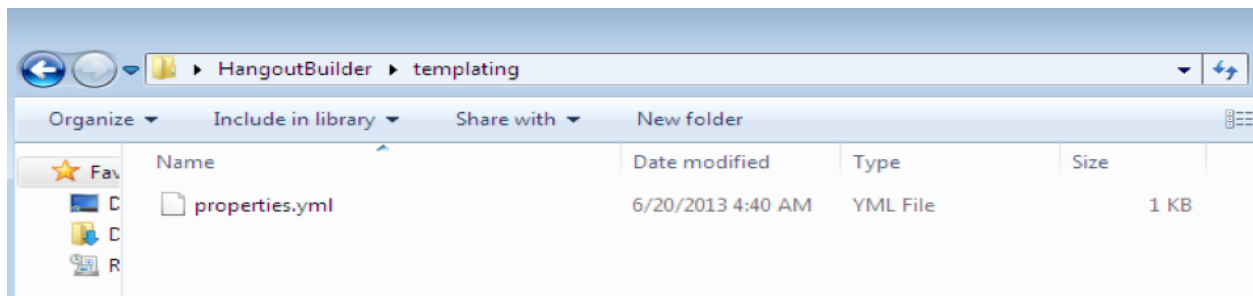
Templating Folder (Windows)

Open "properties.yml" in the text editor of your choice. Some recommended editors are: Sublime Text 2[1] (Windows & Mac), TextMate[2] (Mac) and Notepad++[3] (Windows)

---

[1]http://www.sublimetext.com/2

[2]http://macromates.com/

[3]http://notepad-plus-plus.org/

```
● ○ ○                                                    properties.yml

  properties.yml              ●

  1    # The title of your Application
  2    app_title: "My Google Hangout"
  3
  4    # The link that contains the content you want your application to display. Must start with "https://", not "http://".
  5    # Refer to section two of the readme to get help on this
  6    iframe_url: "https://www.mywebsite.com/hangoutcontent.html"
  7
  8    # Your Google Analytics ID. Including this ID allows you to see the statistics of who has interacted with your Google Hangout App.
  9    # If you'd like to use Google Analytics, please refer to section one of the readme.
 10    google_analytics_id: "XX–XXXXXXXX–X" |
```

Properties.yml File

You will see three things that you need to edit in this file;

- "**app_title**" - The title of your application
- "**iframe_url**" - Where the content you want to display within your Google+ Hangout is located. Example: "https://www.yourdomain.com/hangout_application". It **must begin with** "**https://**" as we need to display secure content. If your domain is not secure, please **refer to Section Two on how to rectify this**.
- "**google_analytics_id** - (optional). Input your google analytics ID (or create one using section five of this readme) to track usage of your Google+ Hangout.

Edit these with your details and then save the file. **Make sure it is saved as "properties.yml"**

If you make a mistake in your "properties.yml" file, you can find a fresh version called "**propertiesTemplate.yml" in the "data" folder**. Copy this into the "templating" folder, and edit it accordingly. But make sure to rename it **"properties.yml" as the application looks for that specific file**.

1.3 [Optional Step] Adding Images to your Hangout

Your Google Hangout Application can make use of three image sizes * **A 16x16 image** that identifies your application * **A 32x32 image** that identifies your application in the recent applications and active applications lists on Google Hangouts. * **A 240x140 image**, this is what users will see when they are starting up your application.

To include these images in your application, you need to **add your images to the "images" folder of the HangoutBuilder**. There is a folder for each image size.
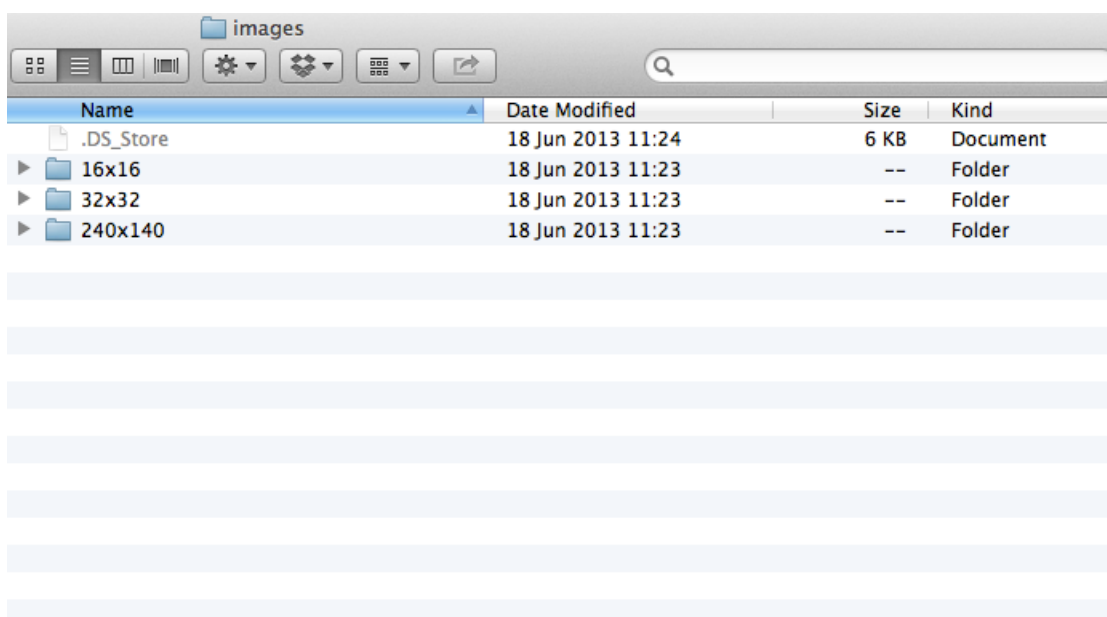
Images Folder (Mac)
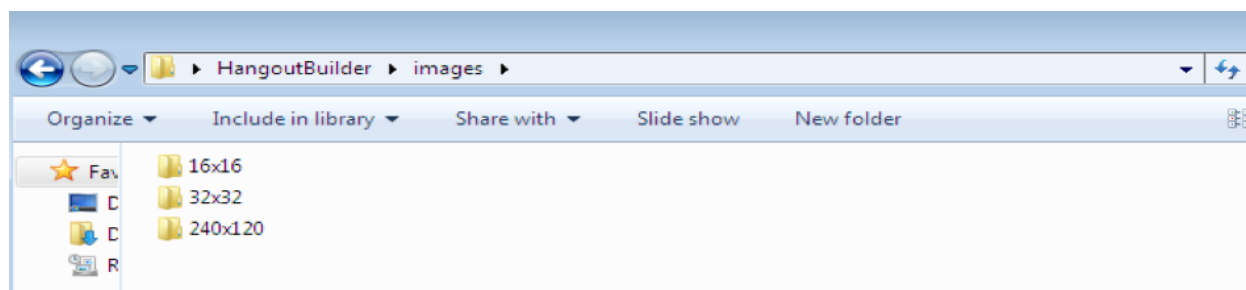
Images Folder (Windows)

When you have created your image, you can add it to these folders and the HangoutBuilder will reference these.

Please make sure the images are saved as either a .png, .jpg, .jpeg or .gif, the hangout will be unable to display any other image format. Please also make sure there is only a single image in each of these folders or else the HangoutBuilder will not be able to build your "hangout.xml" file.
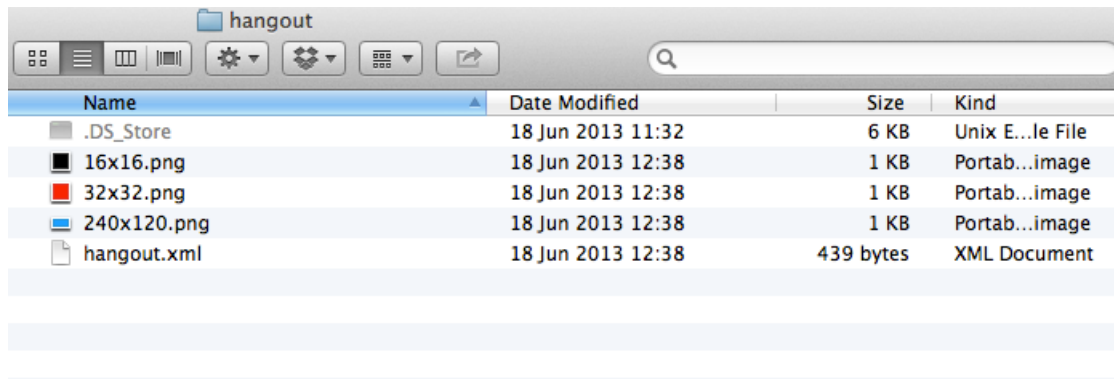
1.4. Running HangoutBuilder.

We're now ready to build your "hangout.xml" file using the HangoutBuilder.app/.exe.

Double click the application to get started. If you're using a Mac, a "Terminal" window will open, if you're on a Windows Machine, a "Command Line" window will open. **This window will display what is happening when the HangoutBuilder is running and will alert you of any errors that occur.**

If you have followed the steps correctly, **your hangout.xml file will be created and your images will be renamed**. Both your images and your hangout.xml file will now be found in the "**hangout**"

folder and will look something like the following:

Hangout Folder

If you encounter any errors whilst running HangoutBuilder, read the error messages that come up. They will often refer to the Section Two of this Readme, where you can look to fix these problems. **Once you've fixed any errors**, **run the HangoutBuilder again and it will create your "hangout.xml" file in the "hangout" folder**.

1.5 What to do with your newly created "hangout.xml" file.

Now that you've created your "hangout.xml" file, all you need to do now is upload it to the web and link to it when you're creating your Google+ Hangout in Section Four.

If you do not have access to your server, you can upload it to a multitude of services such as Google Code[4] or Amazon Web Services[5]. In Section Three of this readme, we go over how we can upload content files securely to Google Code. **You can follow the same steps to upload your "hangout.xml" file**.

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[4]http://www.code.google.com
[5]http://www.aws.amazon.com

Section Two: How to fix any errors that occur when using HangoutBuilder

2.1 The template file "hangout.xml" is missing

If the hangout.xml file cannot be found by the application, your hangout cannot be created. It is possible that it has been moved to another folder in the application, check through the folders of the application and if you find "hangout.xml", simply move it to the "hangout" folder.

If you cannot find the "hangout.xml" file, please re-download the application and it's folders, go back to Section One and run through the tutorial on HangoutBuilder again.

2.2 The file "properties.yml" is missing

If the "properties.yml" file cannot be found by the application, your hangout cannot be created. It is possible that it has been moved to another folder in the application, check through the folders of the application and if you find "properties.yml", simply move it to the "templating" folder.

If you cannot find the "properties.yml" file, please re-download the application and it's folders, go back to Section One and run through the tutorial on HangoutBuilder again.

2.3 The "data" folder could not be found

If the data folder cannot be found by the HangoutBuilder application, your hangout files cannot be created. It is possible that it has been elsewhere in the HangoutBuilder folders. Check through the folders of the application and if you locate the data folder, simply move it to the HangoutBuilder folder alongside the templating, images and hangout folders.

If you cannot find the "data" folder, please re-download the application and its folders, go back to Section One and run through the tutorial on HangoutBuilder

2.4 The "templating" folder could not be found

The HangoutBuilder was unable to create your hangout because it could not find the "templating" folder, which it needs to run. The HangoutBuilder has created the "templating" folder for you. What you need to do is add "properties.yml" into the "data" folder.

If you cannot find "properties.yml", check to make sure it hasn't been moved to another location within the application. If it hasn't, please redownload the application and run through Section One again.

2.5 The iframe_url must begin with "https://"

For your Google+ Hangout to display the content you want, **the content must be hosted on a site that has a "https://" domain rather than a "http://" domain**. This is because Google want to make sure that the content is from a secure source.

If the server where your content is contained does not have "https://" access, you can amend this by doing the following:

Purchase a security certificate for your server

Some places where you can do this are:

- GoDaddy[6]
- 123-Reg[7]
- GlobalSign[8]
- Digicert[9]

OR

Store the content you wish to display with a service that allows you to use secure https://, such as Google Code[10] or Amazon Web Services[11].

If you would like to go the route of uploading your content files, follow the steps in Section Three.

2.6 The file/folder could not be created/written to/loaded

If a file/folder could not be created/written to/loaded, the most likely cause of this is a permissions error. If your files are not already, please move HangoutBuilder and its associated folders to your Desktop and try again.

If this fails to work, please download the HangoutBuilder again and run through Section One again.

---

[6] http://uk.godaddy.com/ssl/ssl-certificates.aspx

[7] http://www.123-reg.co.uk/ssl-certificates/

[8] https://www.globalsign.co.uk/ssl/

[9] http://www.digicert.com/

[10] www.code.google.com

[11] www.aws.amazon.com

# Section Three: Uploading your Secure Content Files

In this tutorial, we will be using **Git** & **Google Code** to upload and store your secure content. However, there are other options available such as Amazon Web Services[12].

3.1. Install Git[13]

Download and install Git to your machine. This is to allow us to upload files to Google Code using the Command Line/Terminal.

3.2. Create a Google Code Project

This is where you will keep your content files. Go to File > Create a New Repository.
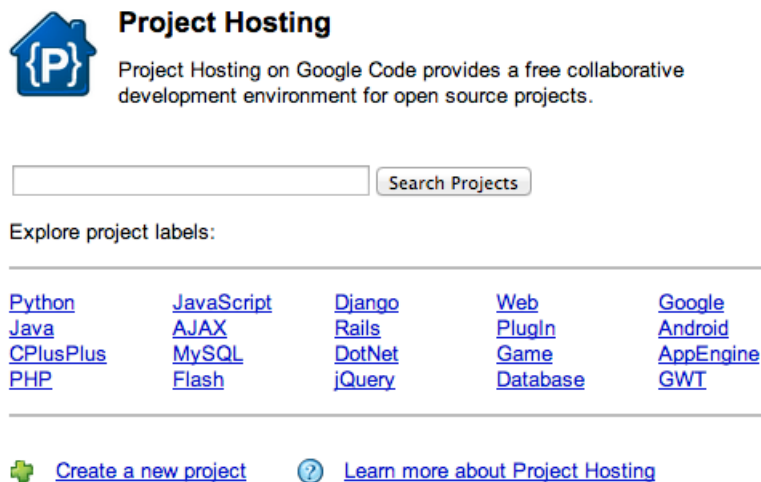
Create a Google Code Project

Choose the name for your project, give it a description and select a License for your content material. The most important step here is that you set **version control** to **Git**.

---

[12]http://www.aws.amazon.com

[13]http://git-scm.com/

Git Version Control

3.3. Prepare yourself your project to upload your files

Go to your Google Code Settings[14]. You should find a password on this page, or generate a new one if need be. Keep note of this password as you'll need to use this at a later stage of this tutorial.

Password

Remaining on this page, scroll down until you find the **Security** subtitle. Tick the box.

Security

3.4. Upload your content to Google Code

Go to the **Source** tab of your Google Code project. You should be on the "Checkout" page.
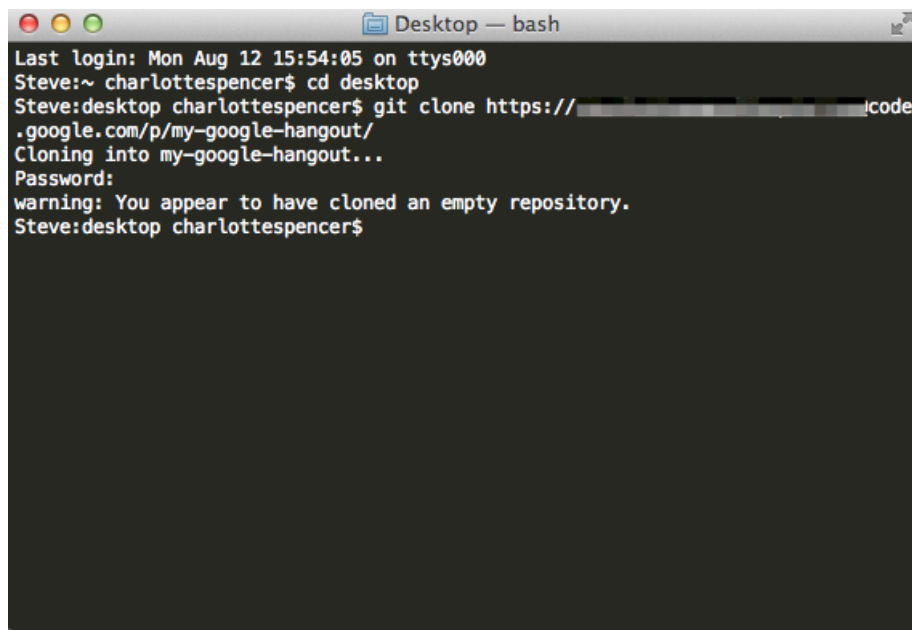
Copy the code on the page that will look something like:

```
git clone https://name%40domain.com@code.google.com/p/my-project-name/
```

Open up a Command Line (Windows) or Terminal (Mac) window on your machine. Navigate to where you want to have your GoogleCode folder: in this tutorial we went to our desktop by typing "cd desktop" into the terminal window and pressing enter.

Then, paste the code we copied from our project page, and hit enter. This has created a folder where you can put your content files.

---

[14]https://code.google.com/hosting/settings

Cloning your Project Folder

Place the file which you are going to use as your "iframe_url" in your Hangout.xml, in the folder that has just been created.
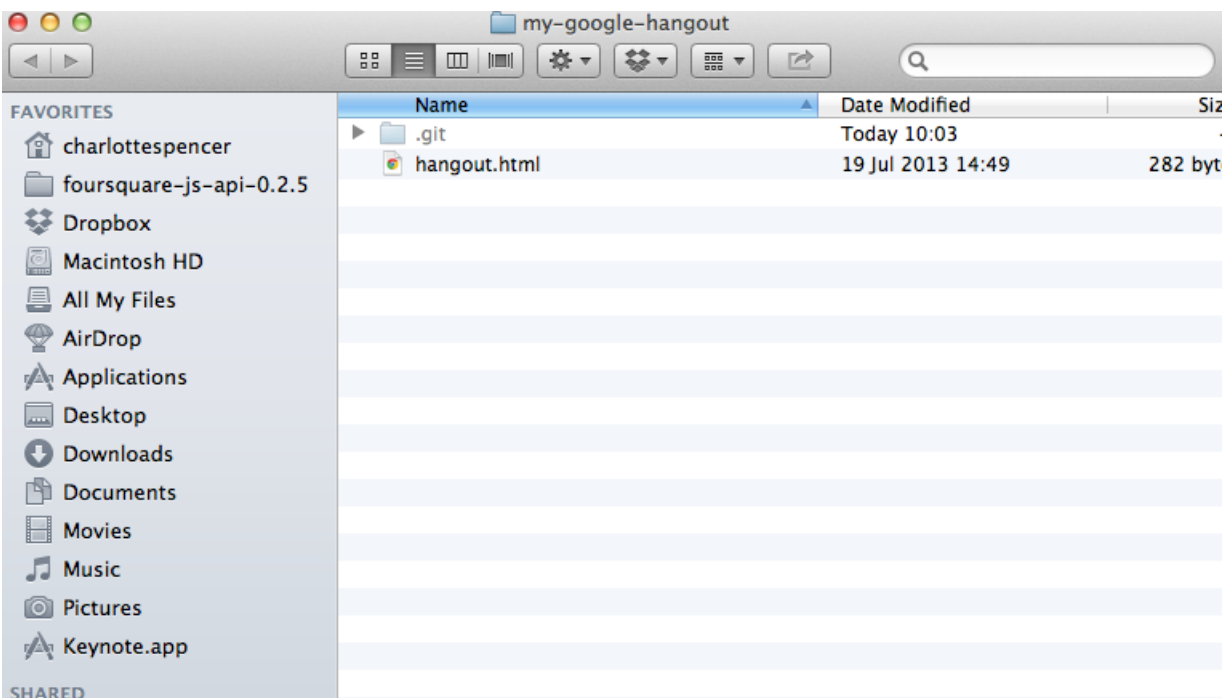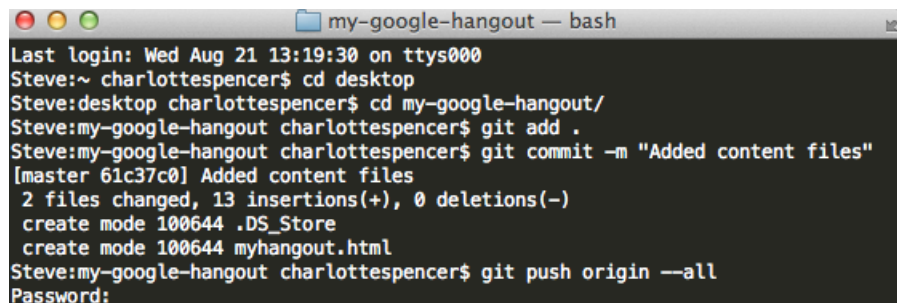

Putting your content in your project folder

Currently, your content is still only located on your computer. We need to upload it to the Google

Code servers! Go back to your terminal, making sure that you are within your Google Code Project folder ("cd my-project-name"), then type in the following, pressing enter after each line:

```
git add .
```

```
git commit -m "Uploading my content files"
```
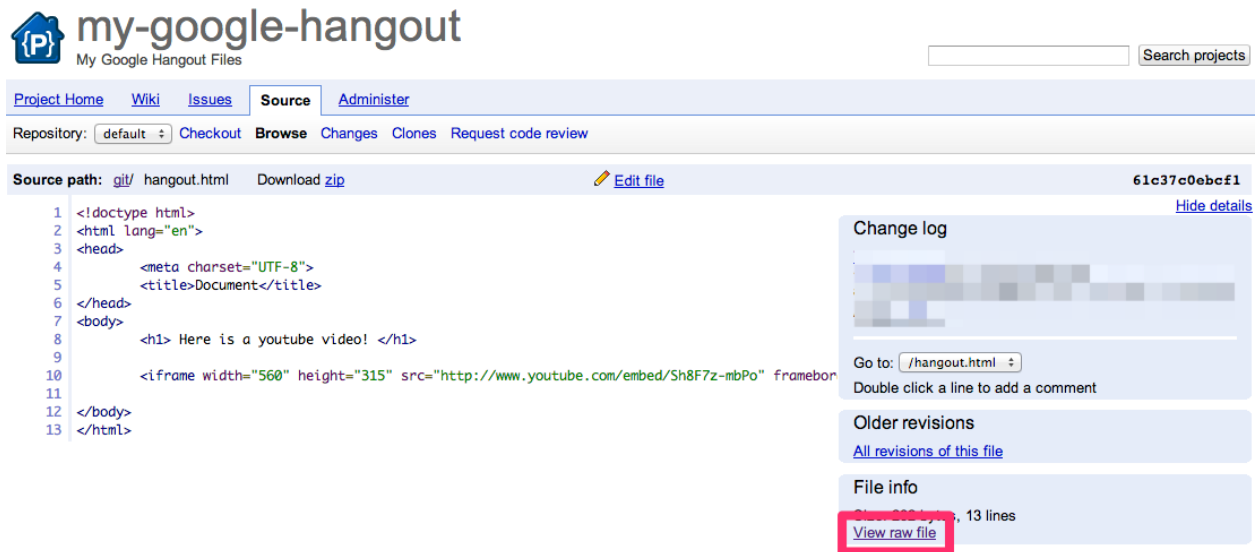
```
git push origin --all
```


Uploading your files

Once your files have been uploaded, feel free to close your Command Line/ Terminal Window as you will no longer need it for the remaining steps.

3.7. Accessing your secure files.

1. Go back to your Google Code Project online
2. Click on the "Source" tab, then click "Browse".
3. Click on the file you have just uploaded.

We need to access the raw data of this file. Go ahead and click "raw" like below.

Raw File Click

You will be taken to a page that looks like the following:
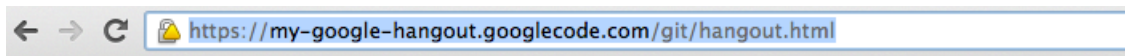
Raw Content

The URL above is what you can use as your iFrame URL!

Copy and paste this into your "properties.yml" file back in the hangoutbuilder templating folder and

run the application. You will now have a valid **"hangout.xml"** file which you can upload to your server and link to when you're setting up your Google Hangout Application in the next section.

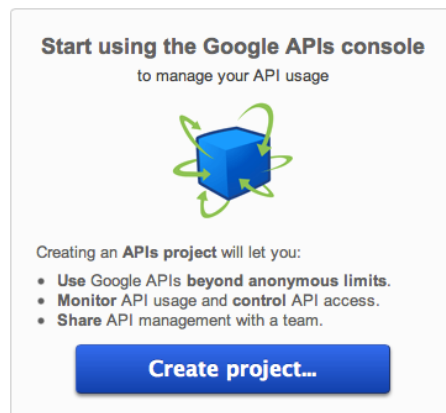# Section Four: How to Create a Google+ Hangout Application

Once you've run the HangoutBuilder and have your "hangout.xml", you are ready to create your Google Hangout Application Online!

4.1. Create a Google Project

To create your Google+ Hangout, visit the following page: Google Code APIs[15]

4.2. After signing in with your Google account (or creating one if you do not have one), you will see the following page. Click on "**Create Project...**"

Google apis

Start using the Google APIs console
to manage your API usage

Creating an **APIs project** will let you:
- **Use** Google APIs **beyond anonymous limits**.
- **Monitor** API usage and **control** API access.
- **Share** API management with a team.

Create project...

Create Project

4.3. Enable the Google+ Hangouts API

After clicking "**Create Project...**" you will be taken to the "Services" page. This is where you will choose what Google Technology your application will be using. In this case we will be using the "**Google+ Hangouts API**" service.

Google+ Hangouts API   OFF

Turn on API

Click the button to turn the API "**on**". This will now allow you to use Google+ Hangouts in your application.

---

[15]https://code.google.com/apis/console

When you click to turn it on, you will be presented some term of services to accept to continue using the API. **Accept these terms and conditions**.

4.4. Creating an API Access Key Before we get to creating your hangout, you need to create an **access key to use the Google+ Hangouts API**. To do this, go to the "**API Access**" link on the left-hand toolbar.

You will be presented with the screen below. Click on the blue "**Create an OAuth 2.0 client ID…**" button to get started.
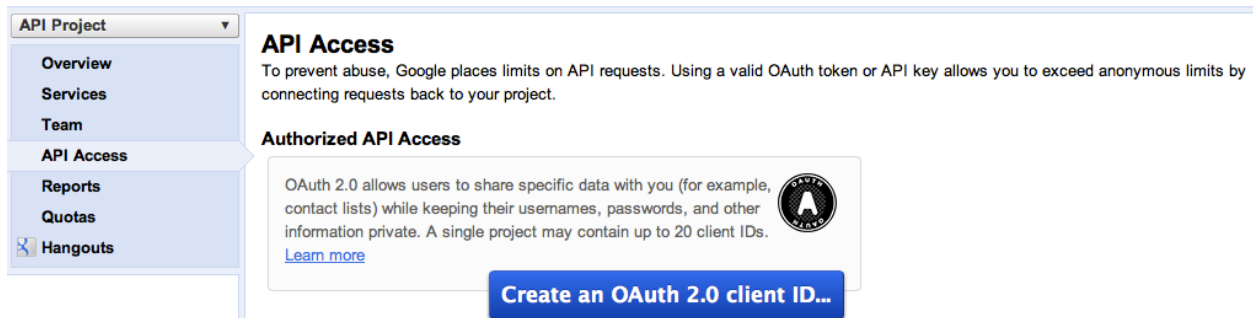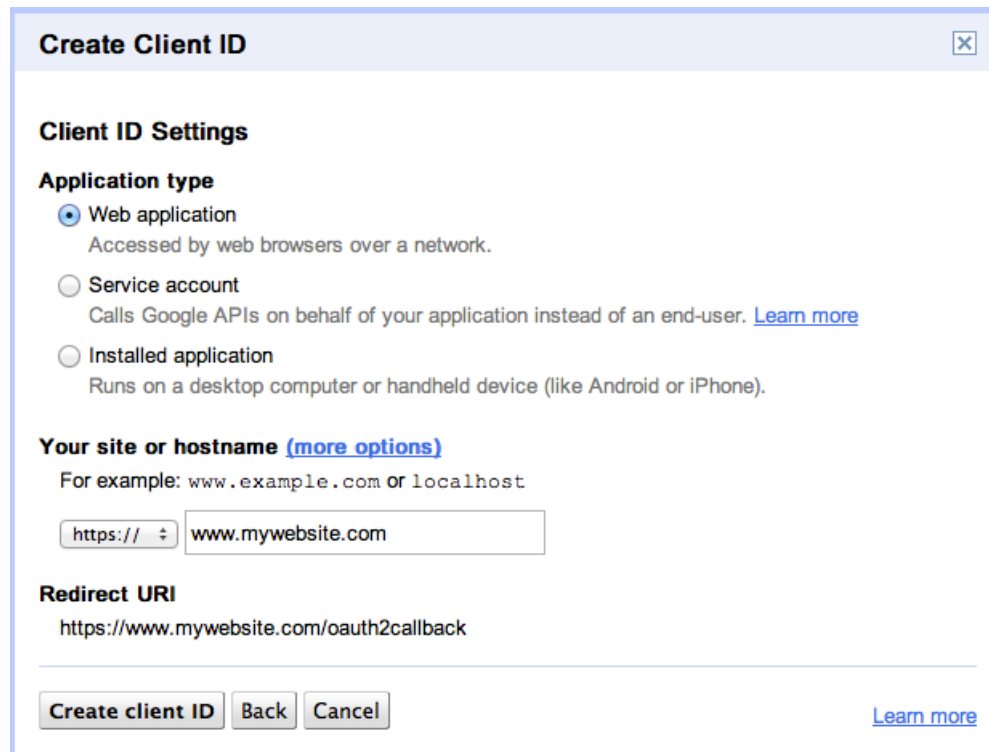

Create OAUTH API

You will be shown a screen asking you to create you "Client ID". Input the name of your application, the link to your logo (if you want) and a link to your homepage. Then click "next" to continue.

Create Client ID Part 1

In the next step of creating the "Client ID", you need to **make sure your "Application type" is set to "Web application"**. You also need to input your website URL.

Once you've finished, click "Create Client ID" and you'll be able to work with the "Google+ Hangout API"!

Create Client ID 2

4.5. Creating your Google+ Hangout

Click on the "Hangouts" link in the left-hand sidebar and you will be presented with the following page. Fill in the details like it has been done below, but with your own URL's and descriptions. **Make sure that "Application Type" is set to "Main Application"**.

It is not necessary to include links to images, but it is recommended so your app has it's unique visual style. **It is required that you submit links to your Terms of Service, Privacy Policy, and Contact Page**.

Application URL (Required)

Specify the location of your Hangout gadget XML.

https://www.mywebsite.com/hangout/hangout.xml

Application Type learn more

This application is:
- ● a **Main application** that runs in the center.
- ○ an **Extension** that runs on one side of the hangout.

Additional OAuth Scopes

☐ This application requires additional OAuth 2.0 scopes.

Title, Description and Icons

Titles, descriptions and icons are locale-specific. If a title, description or icon is not available for the user's current locale, the values specified in the Default locale will be applied.

Locale learn more

Default ▾

Title

The name of your application.

My Hangout App

Application description learn more

Briefly describe your application.

This is my hangout app!

Icons learn more

Specify the URL of images that can be used to represent your application.

16x16	http://www.mywebsite.com/images/16x16/16x16.png
32x32	http://www.mywebsite.com/images/32x32/32x32.png
220x140	http://www.mywebsite.com/images/240x140/240x140.png

Support learn more

The URLs of your Terms Of Service, Privacy Policy and Support contact information.

Terms of Service	http://www.mywebsite.com/tos
Privacy Policy	http://www.mywebsite.com/privacy
Support Contact Information	http://www.mywebsite.com/contact

Make Public Learn more.

If you want to make your app available to the public, you need to be a Chrome Web Store verified developer. Your app will also need a Terms of Service, a Privacy Policy and Support Contact information.

☑ Make your application available to all users.

Only a registered Chrome Web Store developer can make an app public or make changes to a public app. You may continue editing and testing your application by first making it private with the checkbox above.

Save

Your "application URL" is where your hangout.xml will be stored. **This is the hangout.xml you created using the HangoutBuilder.app/HangoutBuilder.exe**. The files and folders from running that application should be upload to your server so it can be linked to in your Hangout Application setup.

If you choose to add images to your application, these should also be in the images folder created by your HangoutBuilder.app/HangoutBuilder.exe and uploaded to your server.
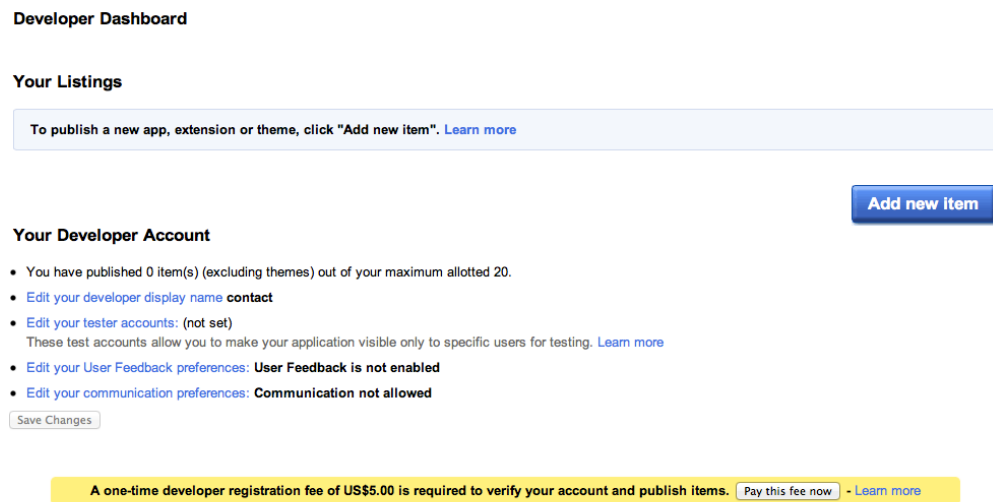
4.6. Become a Chrome Web Store Developer

You may have noticed that you were unable to click "save" above if you've ticked "Make your application available to all users", which you should have. We just have one more step to go through before you have a fully fledged google hangout app.

You need to become a registered "Chrome Web Store Developer". This will allow you to publish your hangout so it can be used by others.

Right click the "Chrome Web Store Developer" link to open it in a new tab, so all the information you've just input doesn't get erased.

You will be presented with the following page.


Become a Chrome Store Developer

In order to become a Chrome WebStore Developer, and have the ability to make your Hangout App available to use by others, you need to pay a one-time $5 fee. Click "pay this fee now" to do so. Accept the terms and conditions and you will be taken to the transaction page via Google Wallet. Once that is done, your account will now be a registered Chrome Developer!

Go back to the Hangout you were creating and you should be able to click "save". Your settings will save and you have now created your hangout app!

4.7. Show your application to others

Now that we've created an app, we want to be able to let other people access it. To do this, **we need to find our project ID**.

To get our project ID we need to go to the summary of application by clicking "Overview" on the right hand sidebar.
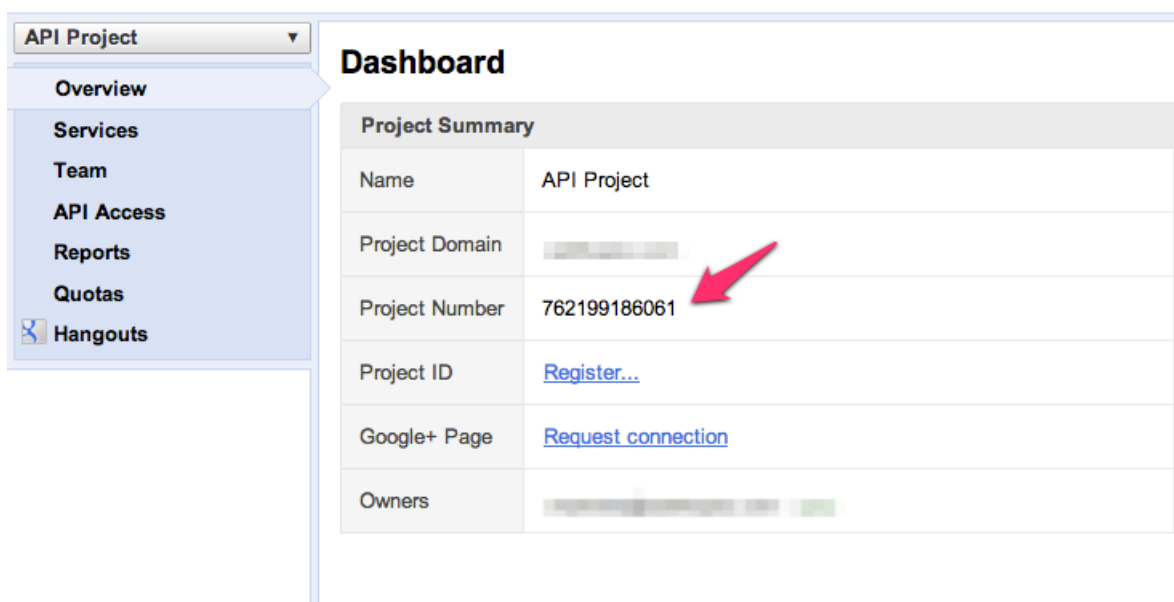
Project ID

The link to access your hangout and share it with us can be gotten by doing the following:

Add your project ID to the end of the URL (replacing "APP_ID"). **https://plus.google.com/hangout/_-?gid=APP_ID**

The Project ID above is "762199186061" so our hangout URL will be **https://plus.google.com/hangouts/_-?gid=762199186061** Obviously your URL will be different as you will have a different project ID.

Paste this link into your address bar and you will see your application running. You can share this link with other people and they can now view your application in their own Hangout, *without you having to set a Hangout up.*

You have now created your Google+ Hangout Application. You have completed the tutorial! If you'd like to learn how to share your application with others, see below.

4.8 Sharing your Google+ Hangout with others

If you'd just like another person to take a look at the application you've built, you can send them the link which includes your Google Project ID that we created in Section Four[link].

Google+ Hangouts are meant to be experience with others, so next we'll walk through how to start your application and **invite other people to hang out with you**.

Go to http://plus.google.com and sign in with your Google account if you haven't already done so. Then find and click the **hangout** icon to **start a new Google+ Hangout**.
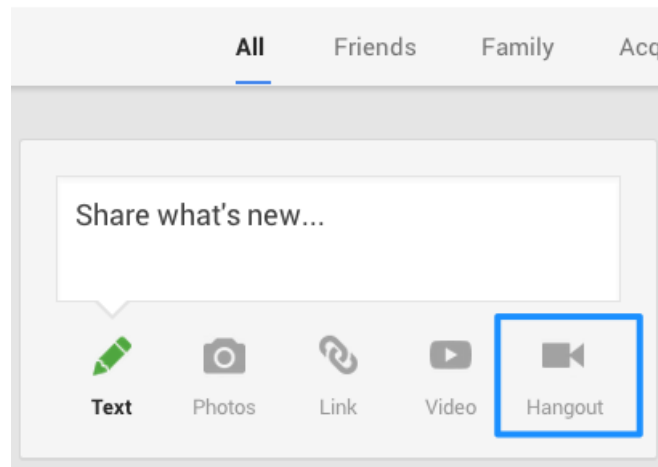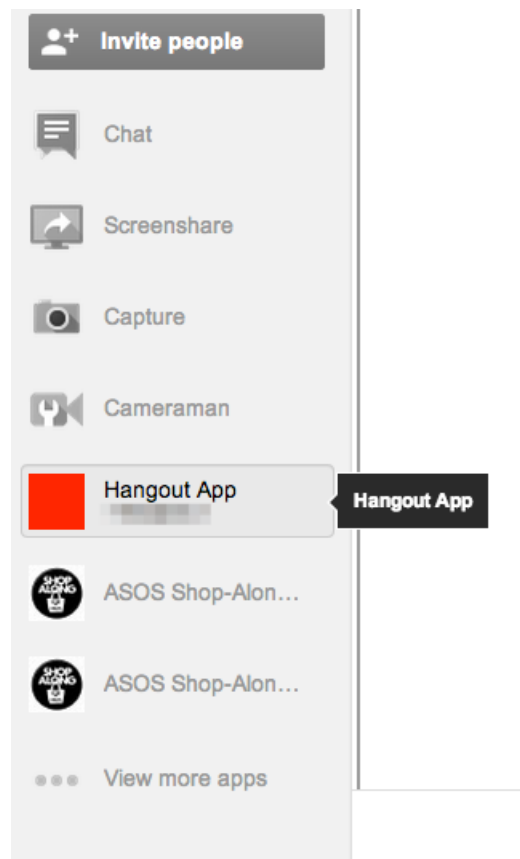
Casual Google Hangout

Once you start the Hangout, you will have the option of sending a **"Party Invitation"** to friends you have on Google+.
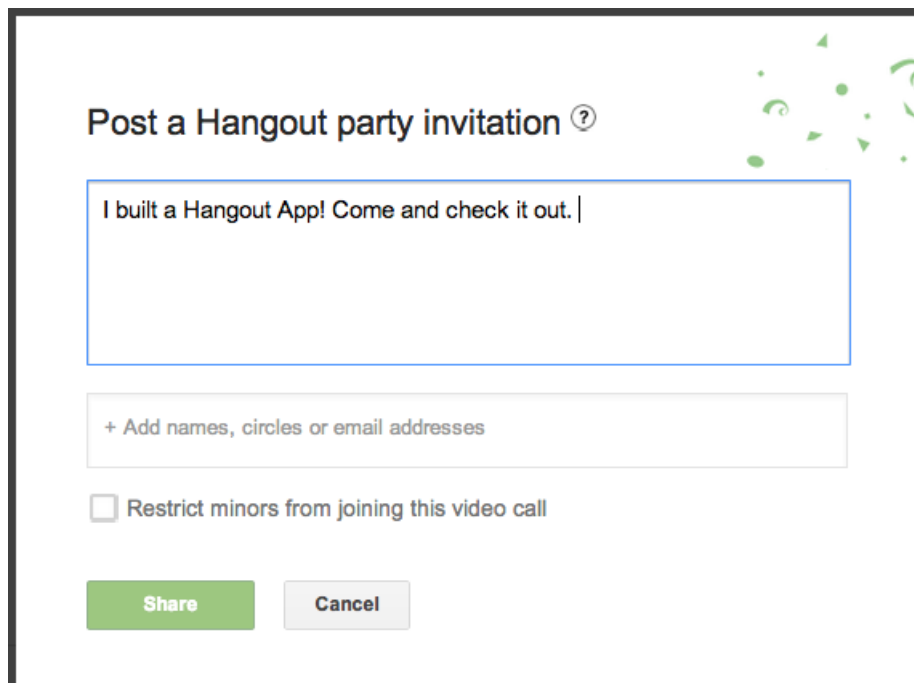

Party Invitation

Next, we need to start your Hangout Application. Look to the left hand side of the page and you will find your application listed. Click on it to start it.

Left-Hand Sidebar, Start Application

To share your Hangout with others, simply copy the URL in the address bar and send it to who you want. They will be able to join the hangout, start up your application from the left hand sidebar and view it with you!
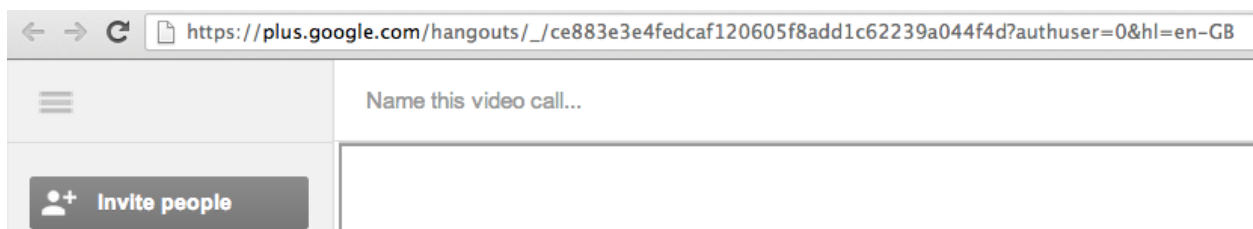

Share URL

One exciting way you can use your Google+ Hangout App and share it with others is by creating a **"Hangout On Air"**. A Hangout On Air allows you to live stream your Hangout, which you can then include in your own web page.

The benefit of Hangouts on Air is that your Hangout will be streamed on YouTube, recorded and saved on your YouTube channel which means **people who missed the live hangout can view it at a later time**.

To start your own Hangout on Air, got to: http://hangouts.google.com/onair[16] If this is your first time using Hangouts on Air, you will be asked to connect your YouTube account to your Google Account, so you can livestream your hangout. Go ahead and click "Connect Account"
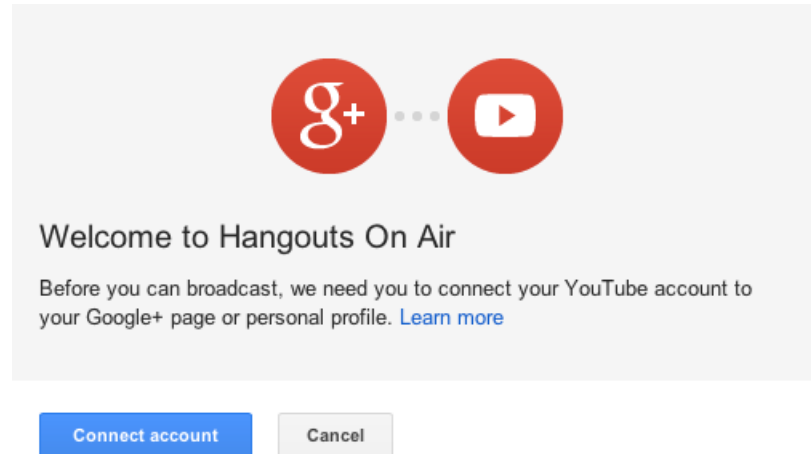
Connect On Air

You may be required to Verify your Account using either a Voice Call or an SMS process. Here, we are going to use the SMS Verification, but it is up to you which method you prefer.


Account Verification

After entering your phone number and clicking through to the next step, you should receive a verification code on your phone. Enter this code into the box provided on the page and click "Verify".


[16]http://hangouts.google.com/onair

Go back to the page where you were starting a Google Hangout on Air, click "Check Accounts" to show that your account has been verified. If verified you should be able to set up your hangout on air, by naming it and clicking "Start Hangout on Air".

To run the application you've made in the previous sections of this Guide, within the Hangout on Air, your application should be on the left hand side of the Hangout. Click this to start your application.
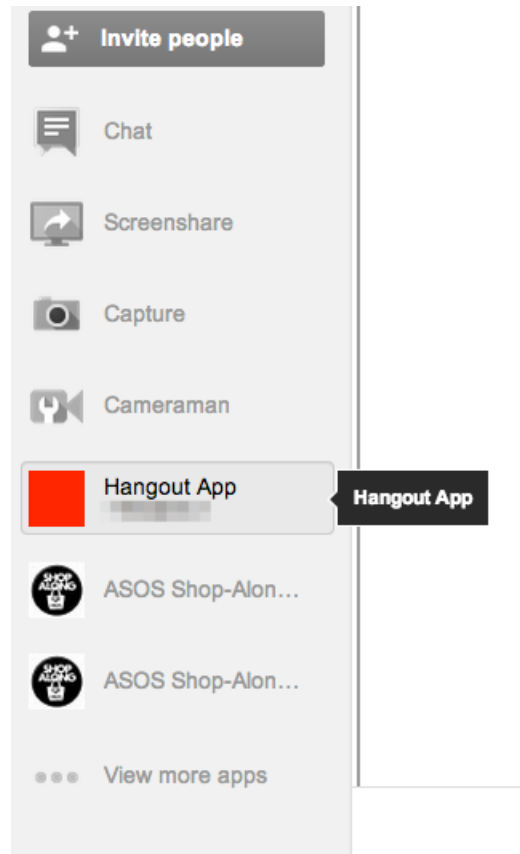
Left-Hand Sidebar, Start Application

You have now successfully started your Hangout, but it is not yet Live and viewable by others. If you are ready to broadcast your Hangout, click the red "Start Broadcast" button on the top of the hangout.
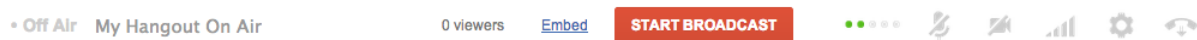
Start Button

You can now share this hangout with people in one of two ways

1. By linking to the livestream on YouTube directly:

Click "**Embed**" in the top bar of your Hangout. You will see a YouTube URL. Feel free to copy this and send it to those you want to view the Hangout.

Youtube URL

2. By embedding the LiveStream directly into your own web page.

Click "Embed" in the top bar of your Hangout. You will see some HTML, it is an iFrame containing your LiveStream. You can copy this and include it in the HTML of your own web-page, like we have done below.

```
1   <!doctype html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <title>My Hangout App</title>
6   </head>
7   <body>
8       <h3>This is my Hangout LiveStream</h3>
9       <!-- Below is my embedded LiveStream -->
10      <iframe width="420" height="315" src="http://www.youtube.com/embed/E83r7ME80aI"
            frameborder="0" allowfullscreen>
11      </iframe>
12      <!-- Above is my embedded LiveStream -->
13  </body>
14  </html>
15  |
```

Embedded HTML Sample

This is my Hangout LiveStream
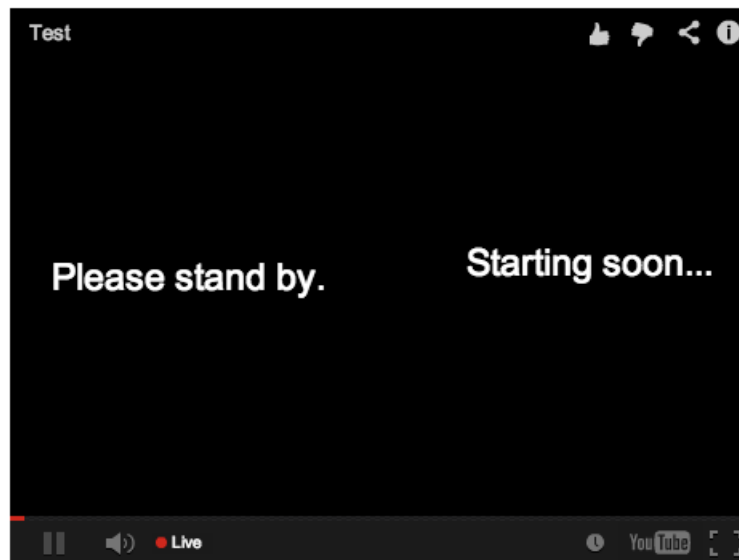
Embedded Live Stream

In order to end your broadcast, you can press the red "End Broadcast" button on the top of your hangout.

You have now successfully broadcast your very own Google Hangout Application to the public!

Section Five: Adding Google Analytics to your Application

Using HangoutApp.app / HangoutApp.exe allows you to input a **Google Analytics ID**, which will allow you to collect stats on your Hangout Application, such as how many people used it at a certain time, and where they visited from.

If you don't already have a Google Analytics account, you first need to create one. Go to this URL to get started: http://www.google.com/analytics/[17] and click **"Sign Up"**.
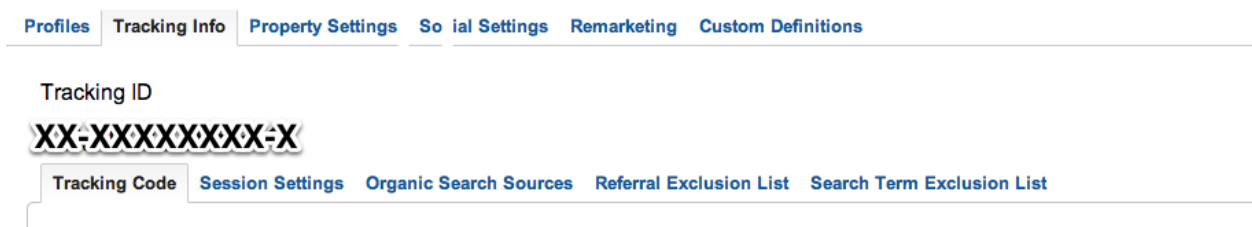
Make sure you select **"Website"** to track.

Choose between **"Universal Analytics"** or **"Classic Analytics"**, depending on your preference. Fill out the rest of the form and click **"Get Tracking ID"**.

Submit, **and accept the terms of service**.

You will be then taking to the Tracking Info of the analytics you just created. Add the top right, you will see you tracking code! **This is what can be copied and pasted into the "properties.yml" file**. If you have modified your "properties.yml" file and have already run the HangoutBuilder application, you must run it again and upload your change hangout.xml file as your Google+ Hangout will not have analytics until you do so.

My Hangout App

| Profiles | Tracking Info | Property Settings | So ial Settings | Remarketing | Custom Definitions |

Tracking ID

XX-XXXXXXX-X

| Tracking Code | Session Settings | Organic Search Sources | Referral Exclusion List | Search Term Exclusion List |

Google Analytics ID

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[17]http://www.google.com/analytics/