Dictionary App Builder

App Builder

Distributing Apps

SIL

Last updated: 29 August 2016

Contents

1. Introduction

1.1. Transferring the APK file

After building your app you will have an **APK file**. This is the app installation file containing all the text, fonts, images and app code. The APK needs to be copied or downloaded onto users' smartphones in order for them to install and use the app.

There are several possible ways of transferring the APK to a smartphone:

	Google Play	Publish the app on the Google Play store for people to find and download. This is where most Android apps are distributed.
	Memory card	Copy the APK file onto microSD memory cards. People insert the card into their phone's memory card slot, find the APK file using a file explorer app and tap on the APK to install it.
	Bluetooth	Use Bluetooth to transfer the APK file from your phone to another phone. Once people receive the APK file they tap on it to install it.
	Wi-Fi Transfer	Transfer the APK from phone to phone, like Bluetooth but much faster. Both sender and receiver phones need the same app installed, e.g. SHAREit.
	Email	Email the APK file to others. Once people receive the APK file they tap on it to install it.
	Web Download	Post the APK file on your website or upload it to a Dropbox folder and tell others it is there.
	Lightstream, LibraryBox, BibleBox, etc.	Copy the APK into the memory of the Lightstream, LibraryBox or BibleBox. Users connect to the Wi-Fi device and choose the APK file to transfer to their phone. Once the APK file arrives, they tap on it to install it.

1.2. Advantages and disadvantages of each APK distribution method

The following table lists some of the advantages and disadvantages of each distribution method.

	Advantages	Disadvantages
Google Play	Users can find the app by searching on the app store. If you update the app, users will receive updates automatically next time they have an internet connection.	Requires an internet connection. If you are uploading the app to Google Play yourself, you need to create a developer account ($25 one-time fee) and learn the publishing process. The maximum APK size is 100 MB. Audio files need to be hosted online and so it will cost the user for each chapter of audio they choose to download.
Memory Card (microSD)	No internet connection needed. Can distribute hundreds of MB of audio files with the app.	Users have to remove their current memory card in order to insert the new one, then copy files from one memory card to the other. When you update the app on Google Play, users who installed from a memory card will not get automatic updates. You need a sales/distribution strategy to get the memory cards to people.
Bluetooth	No internet connection needed. Allows friends to share the app with each other, and encourages viral distribution.	When you update the app on Google Play, users who installed by Bluetooth will not get automatic updates. A slow method if you have a lot of audio files to transfer.

Wi-Fi Transfer (e.g. with the SHAREit app)	No internet connection needed. Up to 40 times faster than Bluetooth. Allows friends to share the app with each other, and encourages viral distribution.	Both phones need the Wi-Fi transfer app installed. When you update the app on Google Play, users who installed by Wi-Fi transfer will not get automatic updates.
Website download	You are not limited to a maximum app size of 100 MB like you would if you published it on Google Play.	Requires an internet connection. When you update the app on Google Play, users who downloaded the app from a website will not get automatic updates.
Email	Allows you to share new apps with specific people.	Not recommended if your APK size is over 5 MB. Requires an internet connection. When you update the app on Google Play, users will not get automatic updates so you will need to email the latest version.
Dropbox	You are not limited to a maximum app size of 100 MB like you would if you published it on Google Play.	Requires an internet connection. When you update the app, users who receive the app via Dropbox will not get automatic updates.

Lightstream, LibraryBox, BibleBox, etc.	No internet connection needed.	Requires specialist equipment, not always available locally. When you update the app on Google Play, users who downloaded the app from a Wi-Fi server like Lightstream will not get automatic updates.

2. Publishing apps on Google Play

To publish your app on Google Play, its APK file must be no larger than 100 MB.
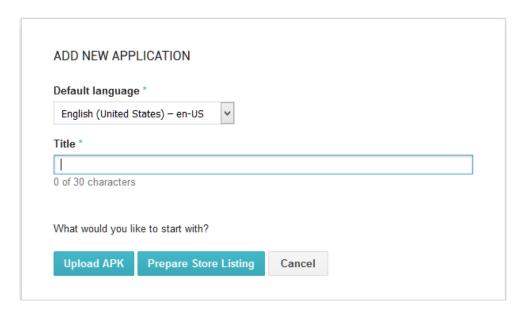
1. Go to the **Google Play Developer Console**:

   https://play.google.com/apps/publish

2. Create a new account or login with an existing Google account. If this is the first time you do this, there is a one-time fee of USD $25 to create a Google Play developer account.

   Note: If you are publishing an app on behalf of an organisation rather than you personally, we strongly recommend you create a new Google account for this purpose rather than using your personal Gmail account.

3. Click **Add New Application**.

4. Enter default language and the app title:

5. Click **Prepare Store Listing**

6. Enter the following information on the **Store Listing** page:

- **Short description** of the app (up to 80 characters)

- **Full description** of the app (up to 4,000 characters)

  o These descriptions should describe the app clearly to the target audience in the most appropriate language(s). Mention the country and alternative language names to increase the chance of users finding the app when they search on Google Play.

  Google encourages you to "highlight what's great about your app. Share interesting and exciting facts about your app to help users understand what makes your app special."

  You must not include user testimonials, excessive details or long lists of keywords. See https://play.google.com/about/storelisting-promotional/metadata/ for more details.

- Graphic Assets:

  o **Screenshots**

    ▪ Take screen captures from your phone when running the app. The way to do this differs from phone to phone: try pressing the **Power** and **Volume down** buttons simultaneously or the **Home** and **Volume down** buttons simultaneously. Find the screen capture images in your phone's Pictures folder.

    You need to specify at least 2 screenshots of the app running on a smartphone. You can add up to 8 screenshots for each device type: phone, 7-inch tablet and 10-inch tablet.

  o **High-res app icon** (512x512 pixels)

    ▪ This should be the same as the app icon but a higher resolution 512x512 version. Ensure it is clear and not blurred, i.e. it might not work well to take a 144x144 icon and stretch it to 512x512.

  o **Feature graphic** (1024x500 pixels)

    ▪ The feature graphic is displayed at the top of your store listing page in the Play Store app. Do not include any copy or important visual information near the borders of the image - specifically near the bottom third of the frame. Try to center align any logo or information in the vertical and horizontal center of the frame.

- Categorization:

  o Application type (Applications or Games)
  o Category (Books & Reference, etc.)
  o Content Rating

- Contact details:
    - o Website (optional)
    - o Email address (a contact email address, publicly displayed with your app)
        - ▪ Avoid using a personal email address, such as john.smith@gmail.com, or a work email account that is unrelated to the publishing of your apps. It might be best to create a new email address for this purpose.
    - o Phone number (optional)
- Privacy policy

7. Upload your APK by doing the following:

    a. Select **APK** from the menu on the left of the screen.

    b. Choose whether you want to upload the APK as a Production app, or for Beta or Alpha testing.

    c. Click the button **Upload your first APK**.

    d. Browse for your APK or drag it onto the screen.

8. Select **Pricing & Distribution** from the menu on the left of the screen.

    Choose at least one country, or **Select All Countries**.

9. When you are ready, click **Publish App** on the top right of the screen.

3. Distributing apps by memory card

Copy the APK file onto **microSD** memory cards. People insert the card into their phone's memory card slot, browse for it in a file explorer app, and tap on the APK to install it.

Most phones come with a pre-installed file explorer app, but if not, one of the most popular such apps is ES File Explorer. This app allows you to browse files and folders on the phone – both internal memory and external memory cards.

If you have audio files to distribute together with the app, these can be placed in a sub-folder on the memory card.

There are three main problems that you might encounter when installing an app from memory cards:

1. **Install blocked**
   Most phones are configured only to install apps that are downloaded from the Google Play store – rather than those that are shared offline by memory card or Bluetooth. In that case you will get an "Install blocked" message. To fix this, go to **Settings** > **Security** (or Settings > Applications) and check the box next to **Unknown sources**.

2. **Low on Space**
   If there is not much space left in the phone's internal storage, you will get a message saying that the phone is low on space. Check the internal storage space by going to **Settings** > **SD card & phone storage** and looking at the **Available space** under **Internal phone storage**. It should be at least 27 MB. If it is less than that, clear up space by deleting unused apps (with the phone owner's permission of course). Similarly, the SD card will need to have sufficient space for installing the app and associated audio files. You can check the available space on the SD card in **Settings** > **SD card & phone storage**.

3. **Problem with Parsing the Package**
   If you get an error about a problem parsing the package or if the application installation finishes and says that the application could not be installed, then the phone is unable to write the files to the memory card. When this happens, you need to remove the memory card from the phone and put it in a computer or other device and write the files directly to the memory card. Then put the memory card back in the phone and try the install again. It should work this time.

4. Sharing apps by Bluetooth

Use Bluetooth to transfer the APK from your phone to another phone. Once people receive the APK file they tap on it to install it.

If you have audio files to distribute together with the app, these would need to be transferred as well.

Troubleshooting
Some Android devices block you from sending or receiving APK files. This behaviour has been observed on Google Nexus devices. This is analogous to some email systems stopping you from sending .exe or .zip files because of security concerns.

To get round this, you can rename the file extension to MP3, send it, and then change it back to APK before installing it.

5. Sharing apps by Wi-Fi transfer

If you have large APK files to transfer from phone to phone or if you have a lot of audio files, Bluetooth can be a slow method of transfer. In such cases, using a Wi-Fi transfer app can give you phone to phone transfer speeds up to 40 times faster than Bluetooth.

Both devices (the sender and the receiver phone) need to have a Wi-Fi transfer app installed, and both need to have Wi-Fi turned on.

A popular app for Wi-Fi transfer is Lenovo's **SHAREit** app:

http://shareit.lenovo.com/

Instructions on how to use this app can be found on the above website.