Google Drive File Download
(8 July 2022)

Introduction:

This document will explain how to setup a Google Drive account for the downloading of media files and how to use them in conjunction with the iPad/iPhone app called **Pause Service** (hereafter **PS**).

This document explains in detail how to do this from setting up an account with Google Drive and how to create a "MasterKey" file and the advantages of using Google drive.

This is not hard to do, but a little effort is required but it will prove justified when you see the result.

The main purpose of this document is to show how to setup media files that can be downloaded to the **PS** app when you have selected the Sandbox option.

Google Drive:

Google Drive is the facility I use to allow the downloading of media files to the **PS** app. I am starting from scratch for those users who may never have used Google Drive. If you have experience with Google Drive you may want to skip over this first part.

To use Google Drive you have to first create an account.

Step 1: Go to Google's main page: https://www.google.com

Step 2: Click on the 'matrix' icon in the upper right corner of the web-page:

Step 3: On the view that opens up, click on the 'Drive' icon shown here on the left.

Step 4: If you do not have an account, then establish one following these instructions shown on the screen.

Create the account for: 'myself' Then you will be asked for your first and last name. Then you will need to create a "User name" which will be an email address with the provider being:

"yourName@gmail.com"

Of course, change "yourName" as needed.

If that name is currently in use, you will need to create a name unique for you.

You also need to create a password.

Once you have established these credentials, you need to save them for later recall if needed.

Repeated Use:

Once your account is created, you can return to your account simply by going to the Google main page tap on the matrix icon then tap on the Drive icon and it will automatically log you in, if you are on the same computer, in most cases.

A Benefit:

Google Drive is free as long as you do not exceed 15 GB storage. This is a lot!

If I have a large file to send someone, I use Google Drive, as you can upload the file you want to send to someone (or as many people as you like). Get the sharable link, described below, and then they can tap on a web link (URL) that you provided in the email you send them and they can then download the file on to their computer. This link is provided by Google Drive when you tap on a file and ask to create a sharable link. Be sure to

'Remove' these files after it is received to make sure your storage is within the 15 GB limit.

Organization:

If you only intend to use Google Drive for one or two things, then use the main page. If you use it a lot, like I do, then I would create folders for each function you want to use it for. This will make things a lot easer to access and to organize your files on Google Drive.

Remember too, that if you have files you no longer use, delete them. You can delete them by right-clicking on them and select the remove option, shown here.

You will, after a while, go to the Trash folder and remove these items permanently. This frees up your storage so that you can avoid exceeding your free 15GB limit. There is a storage indicator that shows the status of your storage.

Folders:

You can create folders to organize your data and this is done by tapping on the

"new" button, shown here, and then you can tap on the option you want to use. In this case:

The new folder option is shown here. Do this to keep your data organized. I find this to be very helpful.

Data:

The data used for the **PS** app are music files (media) with the **m4a** extension.

This is easy to do, if you know a little bit about media files. They come in various formats, but the **PS** app only uses media files with the **m4a** extension.   I have included some instructions at the end of this document that deals with this.

You can extract music from CD's or on line sources, such as You-Tube. I am not going to go into detail on how to do this, but if you have questions you can send questions to me using the feed-back option in the app. These media files should have the extension: **.m4a**

You should note too that **.m4a** files can also be video files. The PS app is not capable of using video .m4a files. There are ways to separate audio

from the video of these files. In the Mac world the QuickTime player can do this.

I'm a Mac guy and I have a lot of media files in my Music app on my computer. This can also be a source for media. I also use You-Tube on the web, in conjunction with an app that runs on my Mac called: "ClipGrab"

A lot could be mentioned about selecting audio files and making sure they conform to the .m4a format. I will not go into that here.

Uploading:

Uploading the files is very easy for Google Drive. I usually put the file I want to upload to Google Drive on the desktop of my computer, or, I open a Finder window (Windows: File Explorer) that contains the files I want to upload. Then I open Google Drive's page and I open the folder I want to put the file in, then, simply drag the file from the desktop (or Finder window) to the folder on Google Drive. You will see a progress indicator and then an announcement will appear after the file has been uploaded announcing that the upload is finished.

File Identifiers:

Every file that you upload to Google Drive is shown with its file name, and extension, in the Google Drive window. However, with Google Drive, it assigns a unique file ID to every file. This key has over thirty characters and a sample key is shown here:

1nZtlfcTYJl3A13I0_kBq6QtedbJ6MdpG

This is important because it guarantees the uniqueness of the key and it is impossible to duplicate unless you have a copy of it, or you have perfect memory recall! You cannot access files externally from Google Drive unless you have this key. So, if you have, for example, a picture on Google Drive that you want to share with another person, this can be done by sending them a link to this file on Google drive. Here is an example:

https://drive.google.com/file/d/0B-qlO-QCeRRKRUMyYzF6SmJfaE0/view?usp=sharing

You can then click on this link and it will show the picture associated with this link, or, it will download the file to your computer's download folder.

Having the unique file ID is nice for this purpose, but if you have files that you update over time, then you will loose the original file ID as it will be replaced with a new one.

For my **PS** app, I create a text file (explained below) where I keep copies of these keys. The keys point to media files that the **PS** app will download when you set it up to do so. For simplification, I call this text file a Master Key File. You can change the keys inside this file, but as long as you don't delete this text file the file's ID key will not change.

My **PS** app incorporates code that allows one to only know the main file ID, which I sometimes call the **Master Key** file, to allow access to other files who's ID's change over time in the Master Key's text file.

As long as you do not delete the key file and create a new one, the file's unique ID will not change.

My **PS** app incorporates a method that takes advantage of this trait. It only needs the 'Master Key' of this new file and it should not change over time as long as you don't delete it. You can edit it, but this will not change the key.
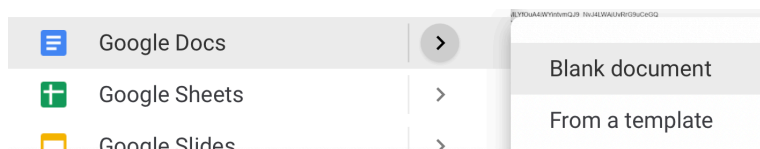
Creating a Master Key File:

You will first need to create a text
file on Google Drive that will
contain the keys of other files, but
the ID of the Master Key file should never change.
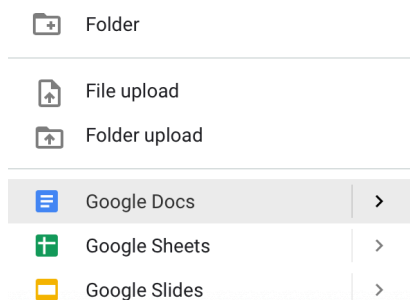
To create this file, tap on the "New"
button shown here:
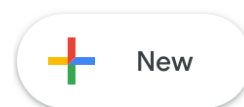
From the selections shown, choose:"Google Docs"

Also, choose
"Blank document"
as you want to insure a text only document.

You will then be shown a new window with the
document's title in the
upper left corner:

Tap on the label "Untiled
Document" and it will change to
a blue background that you can
enter your own title for the
document.

In this example, I chose: **ZPMaster1**

Remember, this is a text file. So you can start entering text. This file is going to be read by the **PS** app's parser and so it must follow formatting rules explained below. Lines that begin with a double back slash (//) are comment lines and you can have as many as needed so you can document your Master Key file.

As a suggestion, the first two lines in the file will be comment lines, the first is the name of the master-key file and the second is the file ID (UFID) for this master-key file. This will make it easy to copy the key for pasting into the **PS** app's Master-Key dialog, so you can download the selected media files for use in the app's Sandbox.

Links to Files

As mentioned above, to get a file's link (while in Google Drive) locate the file you want a link for and right click on the file. You will see a menu showing several options:

You want to click on the "Get Link" option from the list shown above.

Share

Get link

Show file location

You will then see this
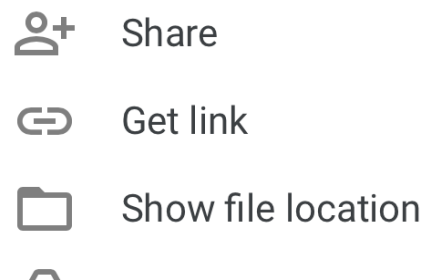
screen:

You will note that this link has the attribute of being: "Restricted"

General access

🔒 **Restricted** ▾
Only people with access can open with the link

🔗 Copy link

This is the default mode for Google Drive. For the **PS** app this will not work.

Click on the little down arrow next to the "Restricted" label to change it to: Anyone with the link:

General access

🌐 **Anyone with the link** ▾   Viewer ▾
Anyone on the internet with the link can view

ⓘ Viewers of this file can see comments and suggestions

🔗 Copy link   **Done**

You will then tap on the "Copy link" button and then tap on the "Done" button shown above.

IMPORTANT NOTE ABOUT LINKS:

These two option make a big difference when it comes to accessing the data of these files by the parser embedded in the **PS** app. When you select

between "**Anyone with the link**" and "**Restricted**" you get the same file ID number. However, Google Drive modifies the file pointed to by the ID to either be an HTML file, which the **PS** app cannot parse, or a simple plain text file that the **PS** app can parse. It took me a while to discover this property and this will save you a lot of time and exasperation to always select "**Anyone with the link**" option.

Then go back to the other window containing the text file **ZPMaster1** and paste the link. It will look like this:

// Zoom Master Key file number 1

https://docs.google.com/document/d/
1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAlSQ/
edit?usp=sharing

You need to edit this link so it only contains the file's UFID number, you will note that there are no backslashes '/' in the key, so it exists between to backslashes that you will note as you study the example above.

// Zoom Master Key file number 1
// 1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAlSQ

The above example shows only the file ID for ZPMaster1 file. I make this a comment line by inserting "//" at the beginning of the line. I do this so I can quickly copy the link for use in my **PS** app. This is shown and explained later. I have found that the key ID number is 44 digits in length, but the length of keys from files uploaded are a little shorter.

The third line in the Master key file is the RVD or Revision Date. It is in the format of **YYYY:MM:DD**

This date is used to document when you modified this Master Key file, and this date is displayed on the music selection screen of the **PS** app when you are in Sandbox mode. Here is an example:

RVD:2021:10:15

When you edit the master-key file and you update the RVD date as this will be reflected in the **PS** program on the song selection dialog.

Now, let's enter the titles and keys for the media files.

Go back to the main folder and select a media file:

The DaVinci Code.m4a
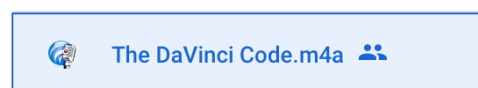
Using the same procedure as
explained above right-click on the
file's name and select "get link"   🔗 Get link
Make sure you use the "**Anyone
with the link**" option.

Then follow the same procedure to copy the link to
the clipboard.

Now go back to the window containing the
ZPMaster1 file and you will need to make two
entries. This applies for all the other entries too
(TITLE's and DATA's).

TITLE0:Moon River
DATA0:

Type in the tile and it should be no more than 30
characters long.

Then paste the file's link, previously copied to the
clipboard, to the right of the DATA0: label as
shown here:

// Zoom Master Key file number 1
// 1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAlSQ
RVD:2021:10:15
TITLE0:The DaVinci Code

DATA0:https://drive.google.com/file/d/ **161aDZ5yQU2FqhKFPlNbDTc-U374Q6t42**/view? usp=sharing

Separate the ULR from the key (witch I have highlighted) to get:

// Zoom Master Key file number 1
// 1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAlSQ
RVD:2021:10:15
TITLE0:Moon River
DATA0:161aDZ5yQU2FqhKFPlNbDTc-U374Q6t42

Now, repeat this for the rest of the entries you desire to have. You can have up to ten entries, TITLE0 to TITLE9 and DATA0 to DATA9, for each master key file.

Note that there is no space between the colon and the title or the key.

The next entry will have:
TITLE1:
DATA1:

This will repeat up to: TITLE9: and DATA9:

Again, remember, that you can have as many comments as you like (//) and, the title number

must match the data numbers and they must be in the order of TITLE and then DATA.

This format is also allowed:

TITLE0:
TITLE1:
TITLE2:
TITLE3:

Then

DATA0:
DATA1:
DATA2:
DATA3:
…
END

Then, make sure you have the END marker at the end of the Master Key file. For the parsing keys (TITLE, DATA, RVD, etc.) they are all capitalized.

Now, I am going to add a few more entries and then show how to configure the **PS** app to download these media files.

This master key file has three entries:

// Zoom Master Key file number 1
// 1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAlSQ
RVD:2021:10:15
TITLE0:Moon River
DATA0:161aDZ5yQU2FqhKFPlNbDTc-U374Q6t42
TITLE1:The Rock of Ages
DATA1:1GwMOlK3VJuoXAaUekbJEBpUtMNMgvpnl
TITLE2:Game of Thrones
DATA2:12Cysqxo6q3ZGoSHDaK7fkHifF46rnpJf
END

PS App Use Of MK File:

Now, let's see how we use the **PS** app to download these media files for storage in the Sandbox of the app.

Open the **PS** app and tap on "Settings" button, then on "Set Music" button, then make sure the "Bundle" or "Sandbox" switch is set to: "Sandbox"

Also, the Internet must be on to complete the downloads:

Then tap on the "Master Keys" button to bring up the next screen where you can paste the keys

Master Keys Manager ?

Master Key 0 Not Set

Master Key 1 Not Set Set

Master Key 2 Not Set Set **Paste**

Set
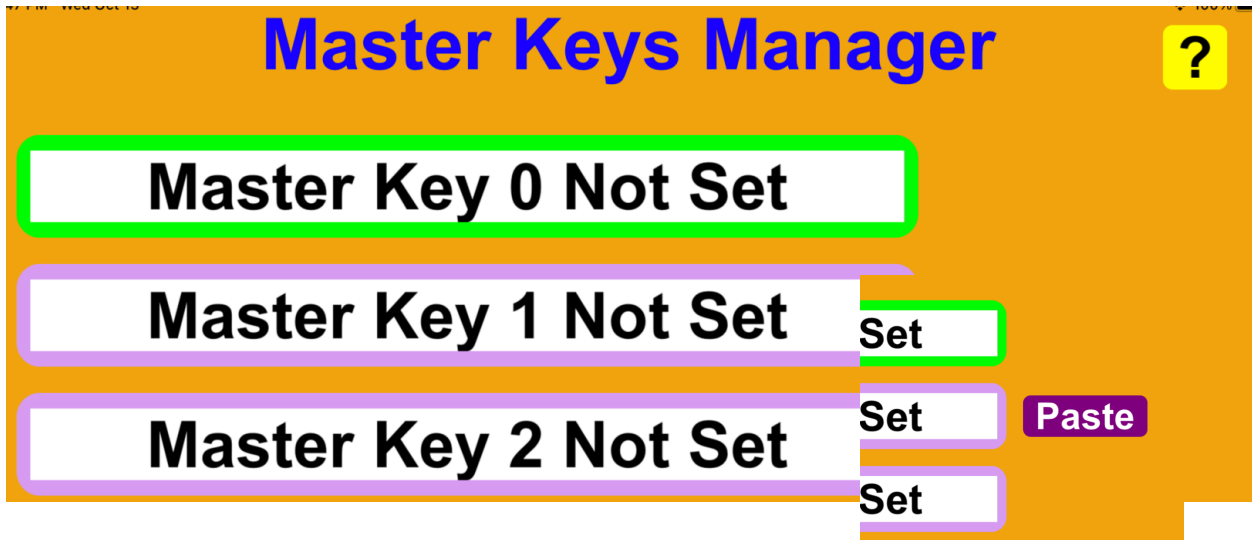
mentioned above.

The screen shot (shown below) shows the three key

Use This Key

sections where you can paste keys. Go back to Google drive and copy the key (which is the second line of   the

1P8HliFhsLI6LidAXBFHP73C4o_bex5Q9b5uX6GyAISQ

ZPMaster1 file) to the clipboard. Then you will see the "Paste" button:

With the selected section (in this example, number 0) showing the green background tap on the "Paste" button. You will then see a copy of the key you just copied to the clipboard:

The system will then check the key for being a valid key. You will see: **This is a valid key**

If it is not a valid key you will see: **This key is invalid**

Then this button will appear (if the key is valid):

15-Oct-2021		
Song Title	**D**	**P**
The DaVinci Code		
The Rock of Ages		
Game of Thrones		

You now know that this is a valid key. You can now tap on the "Use This Key" button and you will be returned to the "Music Source Selector" dialog. The "Use This Key" button will show "Wait…" while it is decoding the master key file, pointed to by the pasted key. You will then see the song titles shown here on the right that match the master key file's entries.

The two columns labeled "**D**" and "**P**" on the right stand for "Download" and "Present in the Sandbox"

So, you first have to download the media

The Rock of Ages		
Game of Thrones		

Download

file. Let's say you want the "Game of Thrones" media. Tap inside the "**D**" column and you will see a green square:

You can only download one media file at a time, and you will notice the "Download" button is now shown.

Tap on this button and you will see:

Then, after a time to download the file, the green mark will go away and the "P" square will show a blue mark:

The Rock of Ages		
Game of Thrones		

This indicates that the the selected media is now in the app's Sandbox.

You can repeat this process for the other songs too. Remember, these songs will remain in your app's Sandbox as long as you don't delete the app, or, you go back to the Master Key dialog and activate another selection.

If you "Use This Key" it will purge all the songs in the Sandbox and then you can download the songs in the second or third groups.

Song Title	D	P
The DaVinci Code		
The Rock of Ages		
Game of Thrones		

Select

Once you have downloaded

what you want to have the app to play, tap on the title of the song to you want to play, in this case "Game of Thrones" and tap on the "Select" button and then this screen will be dismissed and you will then be on the main screen. Tap anywhere on it to begin the pause session and that music will be played. The title of the song being played is shown in the lower left corner of the main screen. The "SB:" prefix stands for Sandbox, meaning the media is coming from the Sandbox and not the Bundle.

Now, you can return to Google Drive and add more titles and their keys to the ZPMaster1 file as you may need, up to ten. Then you can create additional master files if you want additional songs available in your library. Just remember that when you change groups (one of three) the existing media in your Sandbox will be deleted.

There is no limit to the number of master key files that you may create on Google Drive. To use them you have to be able to paste their keys into one of the three slots in the Master Key dialog. It might be a good idea to keep a separate document containing the master keys for these: 'key files' Then, when you feel you need to you can paste their keys into one of the three slots and change

the music played during the Zoom pause to suit the needs of the group watching the Zoom meeting.

Download All:

I have added the option of downloading all the files from a master key group. Each group has ten song media files and this button reduces the time to download the files.

The Download All function will only appear if there are none of the files in the list have yet been downloaded.

Once tapped this function will proceed from file 1 to file 10 and download them. The program first changes the color of the square next to the file being downloaded to green. Then it will download the media data and when done, the square under the 'P' column will change to dark blue. This will continue in sequence to song ten.

Then when it is done the label will be turned to "Finished" and it will disappear after about five seconds.

Look for the song you want to be played and tap on its title. It's background will turn yellow and

the "Select" button will appear. Tap on the "Select" button and you will be returned to the main screen of the program.

You will then see: SB:Title Selected

This will be at the bottom left of the screen.

If you want to go back to the "Music Source Selector" you can select another media file to play.

Embedded Master Keys:

I have modified the **PS** app to have six embedded Master Keys. I have also, in the help file, shown the titles of the media contained in these master key files.

If you tap on the help button "?" And then tap on the "Available Music" link at the top of the help file to see the media files associated with each key.

On the master key dialog you will see six buttons labeled: **K1** through **K6**

You first select one of the three key slots (its boarder will turn green) and then tap on one of the six "K" keys. Its key will be inserted in the slot and with the green background. Then tap on the

"Use This Key" button and you will be returned to "Music Source Selector" screen where you can download and use the media of your choice.

Use This Key

Conclusions:

You are creating a file that I call the 'Master Key file' and it will contain the keys to other files that the **PS** app will download. As long as you do not delete this file and create a new one, it's key will not change.

Consult the help facility contained in the **PS** app for more information on this feature and how to use it.

If you have questions, you can contact me using the feed back option in the "A" about dialog.

Media File Types:

As mentioned above, the m4a is the format your media file must be in to use for the **PS** app. Media files can be in wav, m3a, and few other formats. There are a number of online converters that I find useful in doing this.

Most audio CD's use the WAV format. WAV is an un-compressed format where m4a is a compressed format. But there is very little audio quality lost between WAV and m4a.

Most audio program for Windows and Mac can read CD audio disks and then they convert the media to m4a. Use iTunes on both the Windows and Mac computer. iTunes converts the media files on cd's to m4a format files. Then, you can upload the media files to your Google Drive page and use the above instructions to allow them to be downloaded to the **VP** app.

I hope this document helps you in using media you prefer to use over what I have provided. If you have any questions you may use the feedback option on the 'About' screen of the **PS** app.

Existing Media:

As of the date of this document, the current media that you can access from the built in keys of the **PS** app are as follows: Each key in sequence with the preset keys, K1 through K6.

MK1 Song Title

Song Title
A Million Dreams
Can I Turn for Peace
Consider the Lilies
Did You Think to Pray
Hallelujah Chorus
Holy Holy Holy
I Believe in Christ
Nearer, My God to Thee
The Holy City
You Will Never Walk Alone

MK2 Song Title

Song Title
Ave Maria
Botany Bay
Il Silenzio
My Girl
Panis Angelicus
Someone You Loved
The Avengers
The Holy City
Lord Of the Rings
Unchained Melody

MK3 Song Title

Song Title
A Man and a Woman
Chariots of Fire
Dies Mercuril I Martius
Duane Street
Grande Amore
Memory
Moon River
Partita
So Close
True Love's Kiss

MK4 Song Title

Song Title
Battle for Pride Rock
Jupiter
Lavenders Blue Dilly
Lightsaber Duel
Love Theme
Redemption
The Glory of the Lord
The Lord of the Rings
Danny Boy
Beginning of the Adventure

MK5 Song Title

Song Title
Hook Prologue
Albinoni Adagio
Best That You Can Do
Dinicu Hora Staccato
Flicker
Don't Know How to Love
Nessun Dorma
Perfect
Rewrite the Stars
You and I

MK6 Song Title

Song Title
Aeon
Braveheart
Canzone Per Ti
Edoras
May it be
The Lion
Postcards
Quando, Quando
Serenade
Suns and Stars