How to properly start PAGE

by Greg Walters

I can't tell you how many troubleshooting requests over the last two years were related to startup problems. It happened again this morning and the poor programmer was at his wit's end. It almost always shows up as a user (typically a fairly new user) who is having problems with a program that they are trying to create that won't work. These users usually get an error message similar to this…

```
Traceback (most recent call last):
  File "/home/greg/Desktop/support/Pedro/Pedro2.py", line 74, in <module>
    Pedro2_support.main()
  File "/home/greg/Desktop/support/Pedro/Pedro2_support.py", line 23, in main
   _w1 = Pedro2.Main(_top1)
  File "/home/greg/Desktop/support/Pedro/Pedro2.py", line 51, in __init__
    _img0 = tk.PhotoImage(file=photo_location)
  File "/home/greg/.pyenv/versions/3.8.10/lib/python3.8/tkinter/__init__.py", line 4064, in
__init__
    Image.__init__(self, 'photo', name, cnf, master, **kw)
  File "/home/greg/.pyenv/versions/3.8.10/lib/python3.8/tkinter/__init__.py", line 4009, in
__init__
    self.tk.call(('image', 'create', imgtype, name,) + options)
_tkinter.TclError: couldn't open
"/home/greg/Desktop/support/Pedro/./support/Pedro/icons/document-print.png": no such file or
directory
```

The user immediately goes into the folder and looks to make sure the images are there. They are! Why is this happening? The answer is both simple and complicated at the same time, so please bare with me. It will be worth your time!

In short, the reason is that you aren't creating your PAGE project correctly. By that I mean that you are not starting PAGE correctly. And for the most part, it's not really your fault. It happens to users of any of the Operating Systems that PAGE supports, but it happens more to Windows users than to Mac or Linux users.

The answer is also very simple. ALWAYS go to the folder you plan to create your project in BEFORE you start PAGE. Make sure your image files are there, either in that folder or a subfolder of that folder and then IN A TERMINAL OR COMMAND PROMPT, start PAGE. You can do it in a few different ways.

- Type "python3 page" or "python page" depending on how your Python installation set things up.
- Type "python3 page <projectname>" where <projectname> is what you want to call your project. You don't even have to put the .tcl extension in.

Many people, just start PAGE without a project filename and that's ok. That part is up to you.

Now for the complicated reason that this can happen. Let's take a look at part of the GUI file that I started incorrectly on purpose. I started this project (without a filename) from my desktop, used the file dialog to find the image files and save it into the development folder not on the desktop. When you

want to embed an image in a PAGE design session, here is the code that PAGE generates in the GUI.py file...

```
photo_location = os.path.join(_location,"./support/Pedro/icons/document-print.png")
global _img0
_img0 = tk.PhotoImage(file=photo_location)
self.Label1.configure(image=_img0)
```

Notice that part that I highlighted in yellow? That's the path that PAGE thinks it's supposed to use to find the image files. While that looks pretty much right to most of you, it isn't really correct. It's one that is relative to my Desktop, which Python can not resolve.
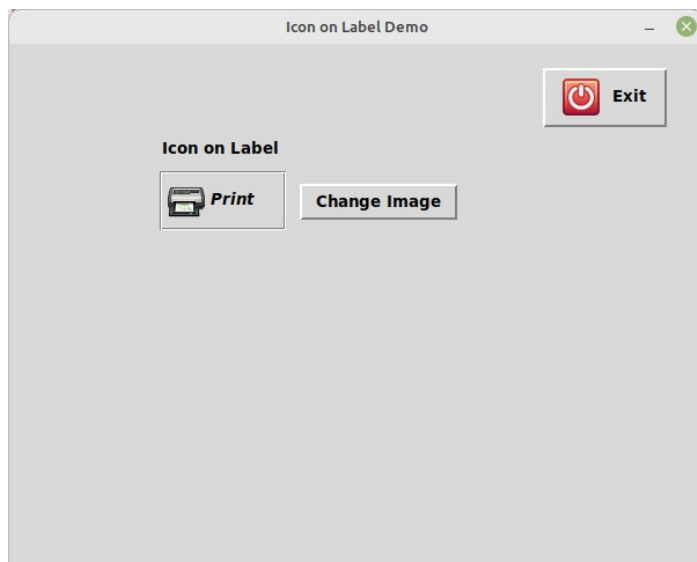
Now, let's look at the same portion of code in a GUI.py file for the same kind of project that was started within the project folder...

```
photo_location = os.path.join(_location,"./icons/document-print.png")
global _img0
_img0 = tk.PhotoImage(file=photo_location)
self.Label1.configure(image=_img0)
```
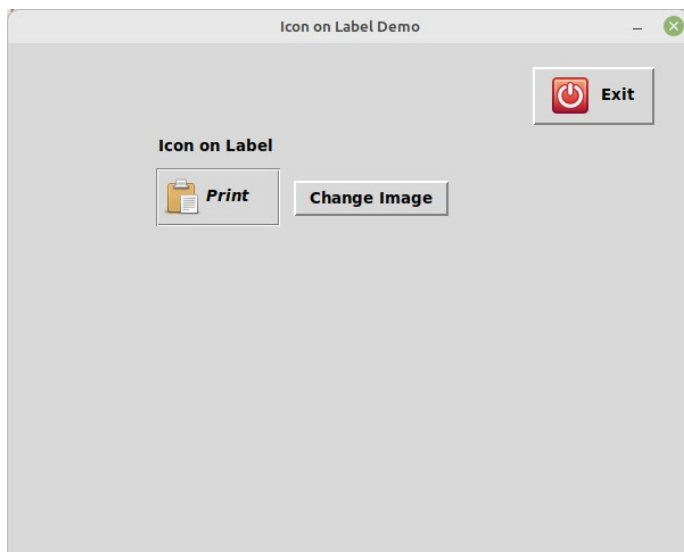
Notice that now, the path is based on the folder that you are actually in when you start PAGE.

When you start a PAGE design project session correctly, it will run (and run from just about anywhere).

After I started the email to try to help the poor user, I went ahead and created a very simple program that shows some very important concepts. Here is what it looks like when it's run.

If you click on the "Change Image" button, the image in the Label will change.

The code for this is in the files Pedro1.py, Pedro1.tcl and Pedro1_support.py (Pedro2 is the example I used to show what happens when you start PAGE from the wrong place). I did my best to comment the code fairly extensively. One of the things the code shows is how to set the image attribute in the PAGE designer (not exactly rocket science, huh?). However, it also shows how to set one of two images to the Label widget from code and swap them simply by clicking the Button marked "Change Image". Again, it's not a very useful program, but it does show how easy it is to set up images from the code.

Greg