



Tkinter Open File Dialog

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Summary: in this tutorial, you'll learn how to show an open file dialog in Tkinter applications.

Introduction to the Tkinter Open File Dialog functions

When developing a Tkinter application that deals with the file system, you need to provide a dialog that allows file selections.

To do that, you can use the `tkinter.filedialog` module. The following steps show how to display an open file dialog:

First, import the `tkinter.filedialog` module:

```
from tkinter import filedialog as fd
```

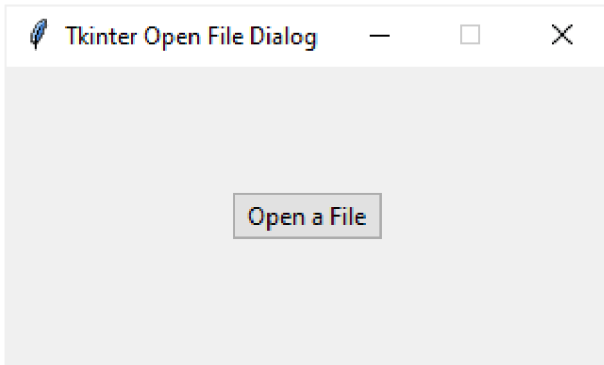
Second, call the `fd.askopenfilename()` function to show a dialog that allows a single file selection:

```
filename = fd.askopenfilename()
```

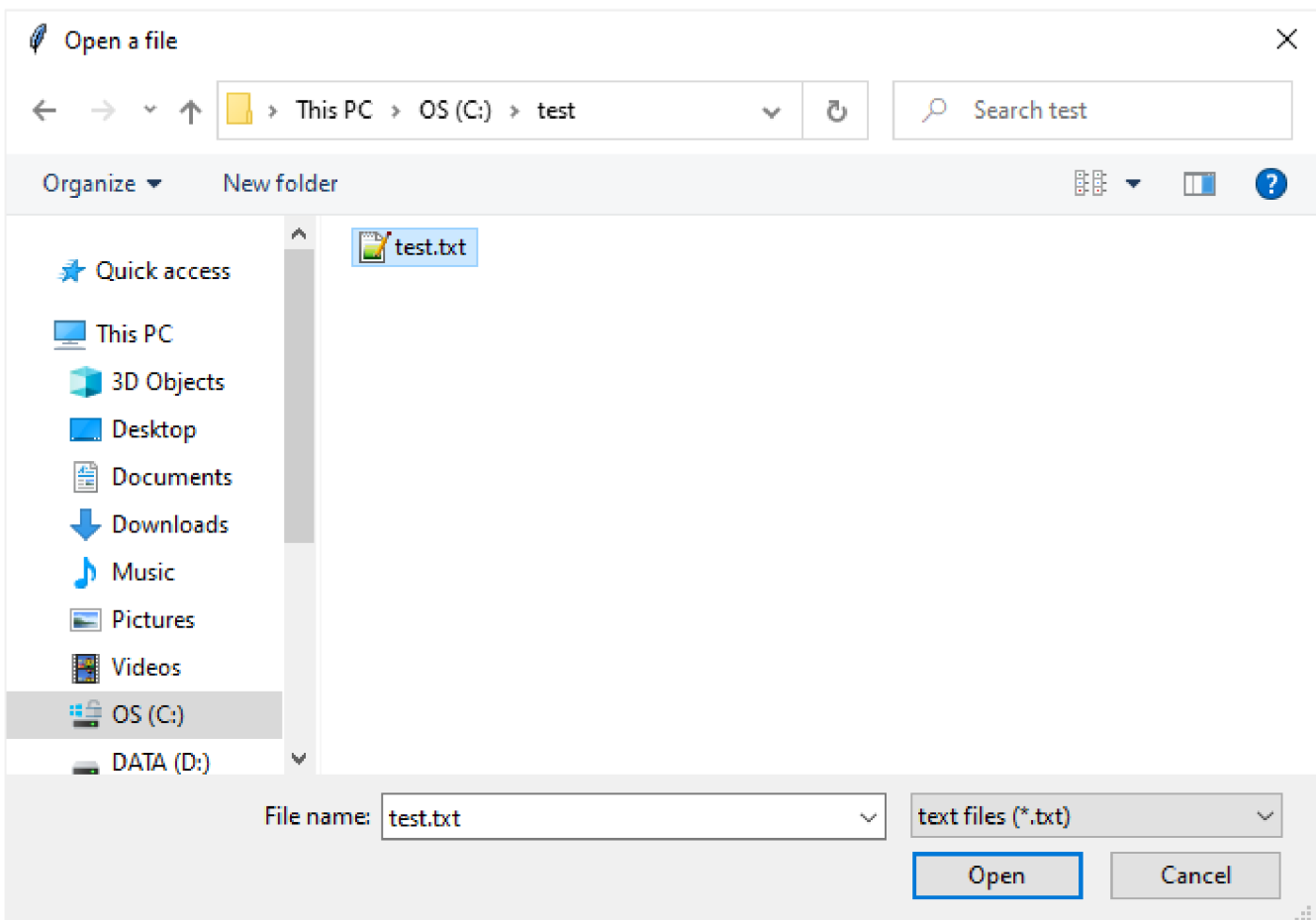
The `askopenfilename()` function returns the file name that you selected.

The `askopenfilename()` also supports other useful options including the initial directory displayed by the dialog or filtering files by their extensions.

The following program displays a button:



If you click the button, it'll open a file dialog:



After you select a file, the program will show the full path of the selected file:



The program:

```
import tkinter as tk
from tkinter import ttk
from tkinter import filedialog as fd
from tkinter.messagebox import showinfo

# create the root window
root = tk.Tk()
root.title('Tkinter Open File Dialog')
root.resizable(False, False)
root.geometry('300x150')

def select_file():
    filetypes = (
        ('text files', '*.txt'),
        ('All files', '*.*)
    )

    filename = fd.askopenfilename(
        title='Open a file',
        initialdir='/',
        filetypes=filetypes)

    showinfo(
        title='Selected File',
        message=filename
    )
```

```
# open button
open_button = ttk.Button(
    root,
    text='Open a File',
    command=select_file
)

open_button.pack(expand=True)


# run the application
root.mainloop()
```

Selecting multiple files

The `askopenfilenames()` function displays a file dialog for multiple file selections. It returns the selected file names as a tuple. For example:

```
import tkinter as tk
from tkinter import ttk
from tkinter import filedialog as fd
from tkinter.messagebox import showinfo


# create the root window
root = tk.Tk()
root.title('Tkinter File Dialog')
root.resizable(False, False)
root.geometry('300x150')


def select_files():
    filetypes = (
        ('text files', '*.txt'),
        ('All files', '*.*')
```

```
)

filenames = fd.askopenfilenames(
    title='Open files',
    initialdir='/',
    filetypes=filetypes)

showinfo(
    title='Selected Files',
    message=filenames
)

# open button
open_button = ttk.Button(
    root,
    text='Open Files',
    command=select_files
)

open_button.pack(expand=True)

root.mainloop()
```

Opening files directly

After getting the selected file names, you can open them using the `open()` method.

To make it more convenient, the `tkinter.filedialog` module also provides some functions that allow you to select one or more files and return the file objects directly.

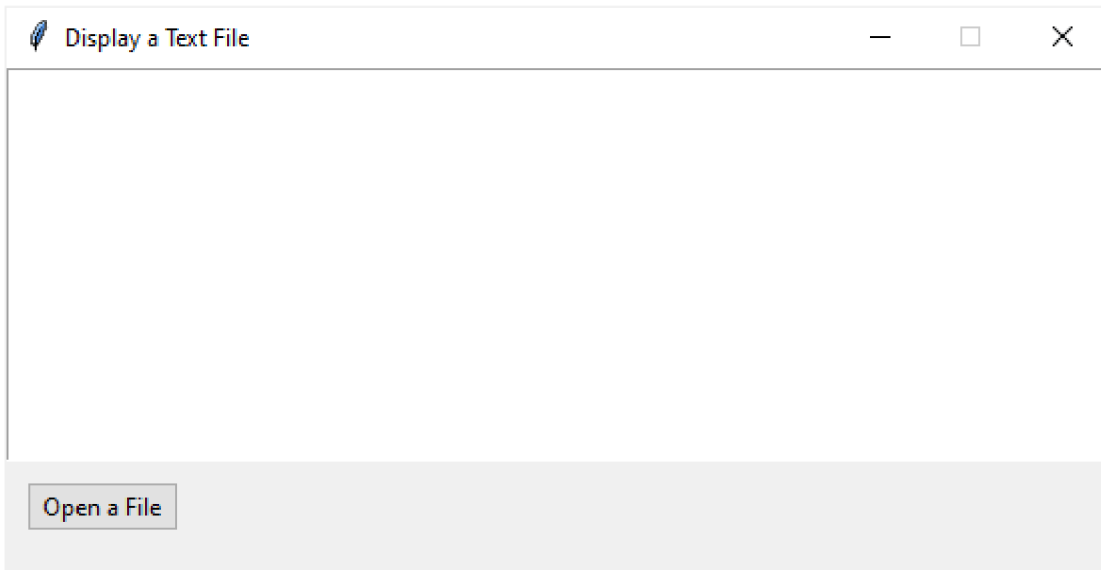
The `askopenfile()` function displays a file dialog and returns a file object of the selected file:

```
f = fd.askopenfile()
```

And the `askopenfiles()` function shows a file dialog and returns file objects of the selected files:

```
f = fd.askopenfiles()
```

The following program illustrates how to use the `askopenfile()` function:



It'll allow you to open a text file and display the file content on a [Text](https://www.pythontutorial.net/tkinter/tkinter-text/) (<https://www.pythontutorial.net/tkinter/tkinter-text/>) widget:

```
import tkinter as tk
from tkinter import ttk
from tkinter import filedialog as fd

# Root window
root = tk.Tk()
root.title('Display a Text File')
root.resizable(False, False)
root.geometry('550x250')

# Text editor
text = tk.Text(root, height=12)
text.grid(column=0, row=0, sticky='nsew')

def open_text_file():
    # file type
    filetypes = (
```

```
        ('text files', '*.txt'),
        ('All files', '*.*')
    )
    # show the open file dialog
    f = fd.askopenfile(filetypes=filetypes)
    # read the text file and show its content on the Text
    text.insert('1.0', f.readlines())

# open file button
open_button = ttk.Button(
    root,
    text='Open a File',
    command=open_text_file
)

open_button.grid(column=0, row=1, sticky='w', padx=10, pady=10)

root.mainloop()
```

Summary

- Use the `askopenfilename()` function to display an open file dialog that allows users to select one file.
- Use the `askopenfilenames()` function to display an open file dialog that allows users to select multiple files.
- Use the `askopenfile()` or `askopenfiles()` function to display an open file dialog that allows users to select one or multiple files and receive a file or multiple file objects.