



root: geometry = "400x400"

main-frame: Frame(root), pack(fill=both)
background="green", height=400, width=400

list-frame: Frame(main-frame), pack(side=top, fill=both,
background="white", width=790, height=550
{padx=5, pady=5}
borderwidth=3 relief="ridge"

button-frame: Frame(main-frame), pack(side=top, fill=both)
background="orange", width=790 height=30
padx=5 pady=5

up-button: Button(button-frame), pack(side=left, fill=X)
text="Move Up", width=9
height="30p", padx=4, pady=4

down-button: Button(button-frame), pack(side=left, fill=X)
text="Move Down", width=9
height="30p", padx=4, pady=4

```
close_button: Button(buttons_frame), pack(side=RIGHT, fill=X)  
text="Close", width=9,  
height="30px", padx=1, pady=0
```

FLIST

```
dir_label: Label(flist_frame), background="yellow"  
padx=0, pady=0, height=2  
width=50,
```

```
text="[Current Directory Here]"
```

```
pack(side=TOP, fill=BOTH)
```

```
scroll_list_frame: Frame(flist_frame), background="blue"  
padx=0, pady=0, side=BOTTOM, fill=BOTH, → Pack properties  
width=790, height=530,
```

```
file_list: Listbox(flist_frame),  
activestyle="dotbox", padx=0, pady=0, width=50,  
background="white", height=26
```

```
* listvariable = StringVar() ← Don't worry.
```

```
yscrollcommand = scrollbar(parent, orient=tk.VERTICAL).
```

```
pack(side=LEFT, fill=BOTH) selectmode=tk.SINGLE set.
```

```
file_scroll: Scrollbar(flist_frame)  
orient=tk.VERTICAL  
'command' = file_list.yview  
pack(side=RIGHT, fill=BOTH)
```

Class Modularization: It is ok.

Now for event binding:

```
self.curdir = os.getcwd()
```

```
self.pardir = os.path.dirname(self.curdir)
```

```
self._ch_iter = os.listdir(self.curdir) →  
StringVar(self.scroll_list_frame, )
```

```

-init_dir_info(dir): os.getcwd()
    self.curdir = dir
    self.pardir = os.path.dirname(dir)
    self.fstringvar = StringVar(self, scroll_list_frame.widget,
    self.flist = os.listdir(dir)) os.listdir(dir)

```

↑ update

```

-set_dir_info():
    self.dir_label.widget.configure(text=self.curdir)
    self.fscroll_list.listbox.configure(listvariable=self.fstringvar)
    if len(self.flist) is not 0:

```

```

        self.fscroll_list.listbox.selection_set(0)
-init_pd_booleans():
    self.up_button_pd = False
    self.down_button_pd = False
    self.close_button_pd = False
    - up_pd_callback(event):
        self.up_button_pd = True
    - up_pu_callback(event):
        if self.up_button_pd is True:
            self.up_button_pd = False
            self.update_dir_info(self.pardir)

```

```

-set_button_callbacks():
    self.upbutton.widget.bind('<Button-1>', lambda: self.up_button_pd=True)
    self.upbutton.widget.bind('<ButtonRelease-1>', self.up_pu_callback)

```

OR COMMAND BINDING

```

self.upbutton.widget.configure(command=self._up_callback)

```

```

-up_callback(): self._update_dir_info(self.pardir)

```

```

-down_callback():

```

```

    if len(self.fscroll_list.listbox.curselection()) is not 0:
        index = self.fscroll_list.listbox.curselection()[0]

```

```

        file_name = self.flist[index]

```

```

        file_path = self.curdir + os.sep + file_name

```

```

        if os.path.isdir(file_path):

```

```

            self._update_dir_info(file_path)

```

```

self.f_list.listbox.selection_clear(0, len(self.flist)-1)

```

```

-close_callback(): self.root.destroy()

```



```
make_widget(data, parent)
    widget = data.widget_type(parent)
    widget.configure(**data.attrs)
    widget.pack(**data.pack_attrs)
    return widget.
```

data → Empty Class or Dictionary.