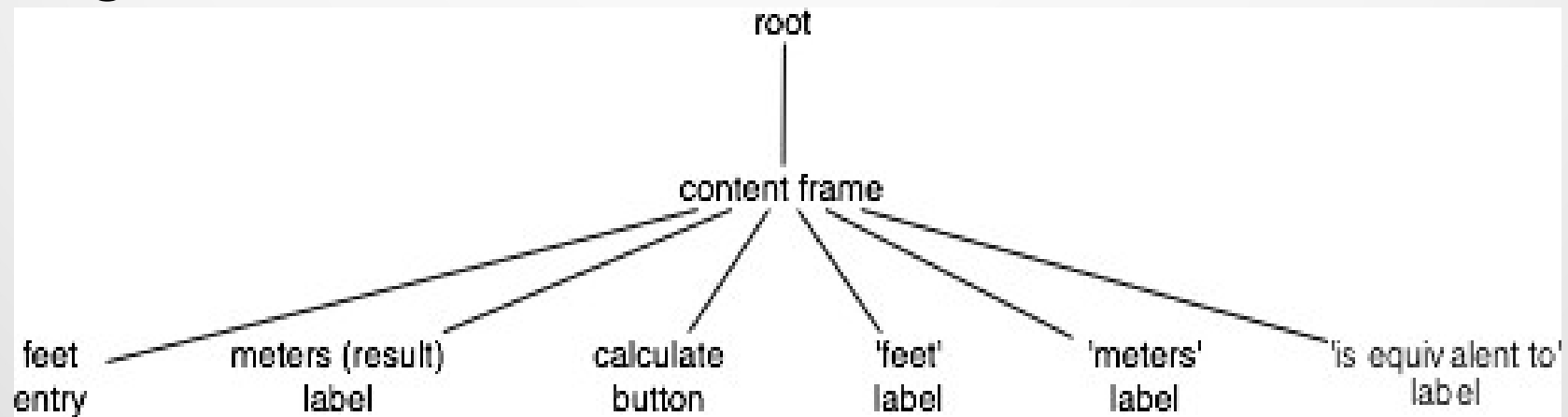


Tk - Tkinter

- Native in python
- Hierarchical
- Easy to understand
- Widgets



Widgets

- Hierarchy, python objects

```
root = Tk()
```

```
content = ttk.Frame(root)
```

```
button = ttk.Button(content)
```

- Geometry management
 - .grid()

Widgets

- Options



```
% python
>>> from tkinter import *
>>> from tkinter import ttk
>>> root = Tk()
create a button, passing two options:
>>> button = ttk.Button(root, text="Hello", command="buttonpressed")
>>> button.grid()
check the current value of the text option:
>>> button['text']
'Hello'
change the value of the text option:
>>> button['text'] = 'goodbye'
another way to do the same thing:
>>> button.configure(text='goodbye')
check the current value of the text option:
>>> button['text']
'goodbye'
get all information about the text option:
>>> button.configure('text')
('text', 'text', 'Text', '', 'goodbye')
get information on all options for this widget:
>>> button.configure()
{'cursor': ('cursor', 'cursor', 'Cursor', '', ''), 'style': ('style', 'style', 'Style', '', ''),
'default': ('default', 'default', 'Default', <index object at 0x00DFFD10>, <index object at 0x00DFFD10>),
'text': ('text', 'text', 'Text', '', 'goodbye'), 'image': ('image', 'image', 'Image', '', ''),
'class': ('class', '', '', '', ''), 'padding': ('padding', 'padding', 'Pad', '', ''),
'width': ('width', 'width', 'Width', '', ''),
'state': ('state', 'state', 'State', <index object at 0x0167FA20>, <index object at 0x0167FA20>),
'command': ('command', 'command', 'Command', '', 'buttonpressed'),
'textvariable': ('textvariable', 'textVariable', 'Variable', '', ''),
'compound': ('compound', 'compound', 'Compound', <index object at 0x0167FA08>, <index object at 0x0167FA08>),
'underline': ('underline', 'underline', 'Underline', -1, -1),
'takefocus': ('takefocus', 'takeFocus', 'TakeFocus', '', 'ttk::takefocus')}
```

Event handling

- Callback functions
- Bindings (<http://www.tcl.tk/man/tcl8.5/TkCmd/bind.htm>)
- Virtual event
-