psidialogs Documentation

Release 0.0.2

ponty

November 19, 2011

CONTENTS

psidialogs

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PDF psidialogs.pdf

Contents:

psidialogs (Python Simple Dialogs) is a common API for different standard dialogs like:

- message
- warning
- ask_string
- ...

Backends:

- PyGTK
- Zenity
- easygui
- gMessage
- PyQt
- TkInter
- wxPython
- PythonDialog
- console

Links:

- home: https://github.com/ponty/psidialogs
- documentation: http://ponty.github.com/psidialogs

Some dialogs are too simple, because a common basic implementation is used where implementation is missing.

CHAPTER

ONE

BASIC USAGE

```
>>> from psidialogs import message
>>> message('Hello!')
```

CHAPTER

TWO

INSTALLATION

2.1 General

- install setuptools or pip
- install the program:

if you have setuptools installed:

```
# as root
easy_install psidialogs
```

if you have pip installed:

```
# as root
pip install psidialogs
```

2.2 Ubuntu

```
sudo apt-get install python-setuptools
sudo easy_install psidialogs
```

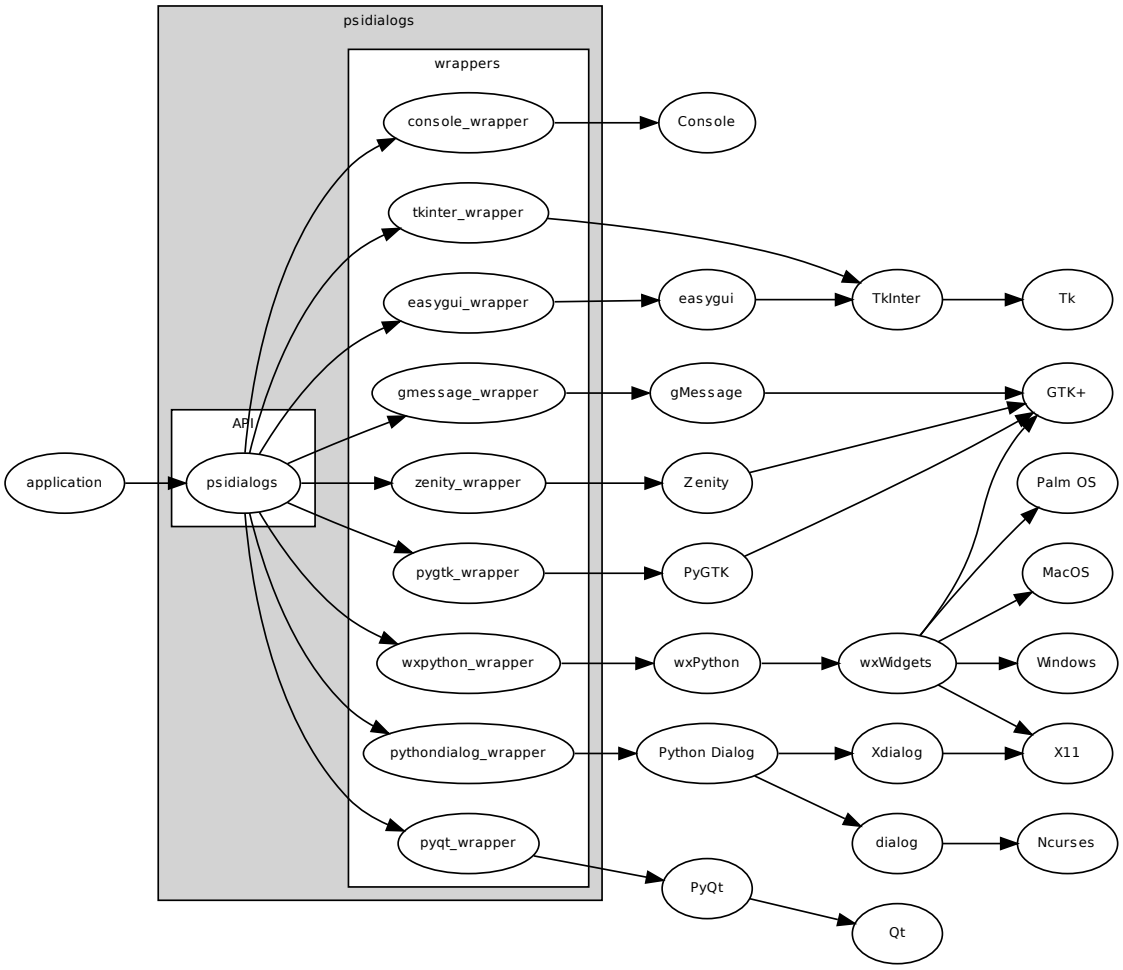
2.3 Uninstall

```
# as root
pip uninstall psidialogs
```

CHAPTER

THREE

HIERARCHY



CHAPTER

FOUR

API

4.1 ask_file()

psidialogs.**ask_file**(*message='Select file for open.'*, *default=''*, *title=''*, *save=False*)

A dialog to get a file name. The "default" argument specifies a file path.

save=False -> file for loading save=True -> file for saving

Returns the file path that the user entered, or None if he cancels the operation.

Parameters

- **message** – message to be displayed.
- **save** – bool 0 -> load , 1 -> save
- **title** – window title
- **default** – default file path

Return type None or string

4.2 ask_folder()

psidialogs.**ask_folder**(*message='Select folder.'*, *default=''*, *title=''*)

A dialog to get a directory name. Returns the name of a directory, or None if user chose to cancel. If the "default" argument specifies a directory name, and that directory exists, then the dialog box will start with that directory.

Parameters

- **message** – message to be displayed.
- **title** – window title
- **default** – default folder path
- **ok** – label of the ok button
- **cancel** – label of the cancel button

Return type None or string

4.3 ask_ok_cancel()

psidialogs.**ask_ok_cancel**(*message=''*, *default=0*, *title=''*)

Display a message with choices of OK and Cancel.

returned value: OK -> True Cancel -> False

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title
- **default** – default button as boolean (OK=True, Cancel=False)

Return type bool

4.4 ask_string()

psidialogs.**ask_string**(*message='Enter something.'*, *default=''*, *title=''*)

Show a box in which a user can enter some text.

You may optionally specify some default text, which will appear in the entry-box when it is displayed.

Returns the text that the user entered, or None if he cancels the operation

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title
- **default** – entry-box default string
- **ok** – label of the ok button
- **cancel** – label of the cancel button

Return type None or string

4.5 ask_yes_no()

psidialogs.**ask_yes_no**(*message=''*, *default=0*, *title=''*)

Display a message with choices of Yes and No.

returned value: Yes -> True No -> False

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title
- **default** – default button as boolean (YES=True, NO=False)

Return type bool

4.6 choice()

psidialogs.**choice**(*choices=[]*, *message='Pick something.'*, *default=None*, *title=''*)

Present the user with a list of choices. return the choice that he selects. return None if he cancels the selection selection.

screenshots

Parameters

- **choices** – a list of the choices to be displayed
- **message** – message to be displayed.
- **title** – window title
- **default** – default string of choice

Return type None or string

4.7 error()

psidialogs.**error**(*message='Error!'*, *title=''*)

Display a warning message

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title

Return type None

4.8 message()

psidialogs.**message**(*message*, *title=''*)

Display a message

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title

Return type None

4.9 multi_choice()

psidialogs.**multi_choice**(*choices=[]*, *message='Pick as many items as you like.'*, *default=None*, *title=''*)

Present the user with a list of choices. allow him to select multiple items and return them in a list. if the user doesn't choose anything from the list, return the empty list. return None if he cancelled selection.

screenshots

Parameters

- **choices** – a list of the choices to be displayed
- **message** – message to be displayed.
- **title** – window title
- **default** – default list of strings

Return type None or list of strings

4.10 text()

psidialogs.**text**(*text*, *message=''*, *title=''*)

This function is suitable for displaying general text, which can be longer than in `message()`

screenshots

Parameters

- **text** – (long) text to be displayed
- **message** – (short) message to be displayed.
- **title** – window title

Return type None

4.11 warning()

psidialogs.**warning**(*message='Warning!'*, *title=''*)

Display an error message

screenshots

Parameters

- **message** – message to be displayed.
- **title** – window title

Return type None

CHAPTER

FIVE

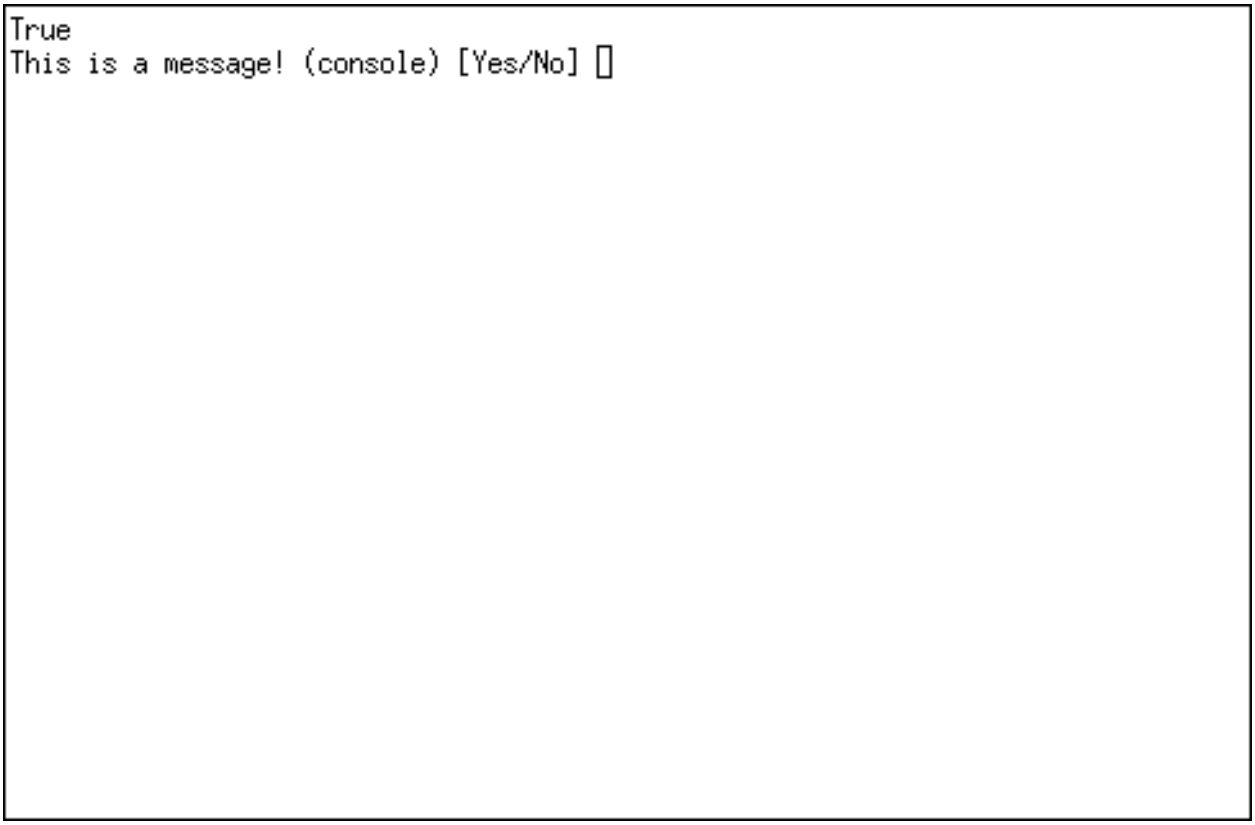
SCREENSHOTS

5.1 ask_ok_cancel()

API

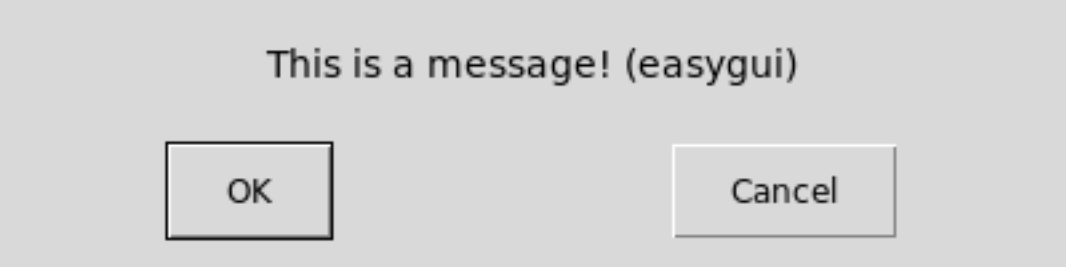
5.1.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f ask_ok_cancel"
```



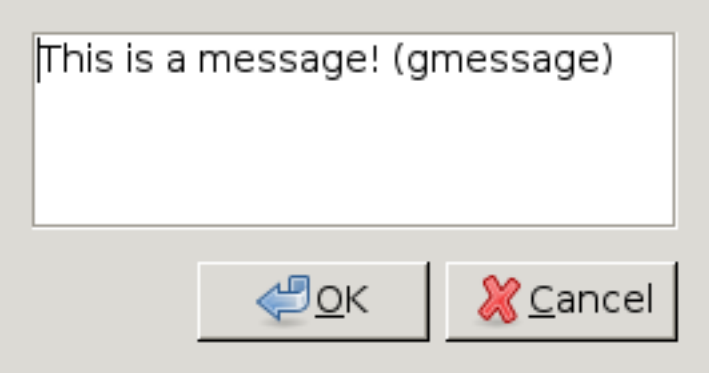
5.1.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f ask_ok_cancel
```



5.1.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f ask_ok_cancel
```

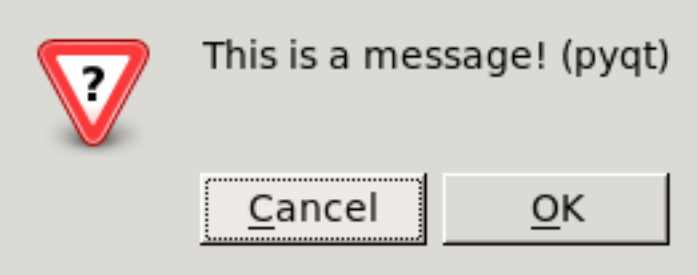


5.1.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f ask_ok_cancel
```

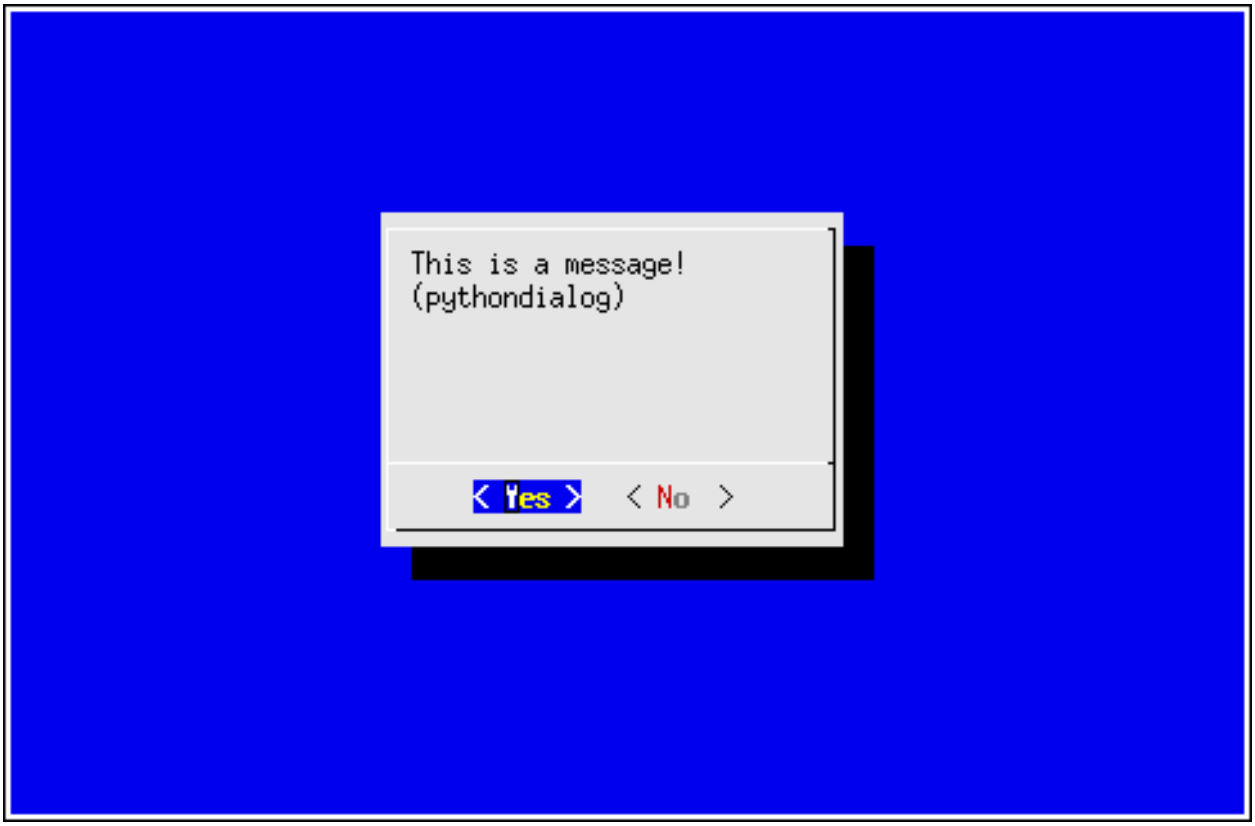
5.1.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f ask_ok_cancel
```



5.1.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f ask_ok_cancel"
```



5.1.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f ask_ok_cancel
```

5.1.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f ask_ok_cancel
```

5.1.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f ask_ok_cancel
```

5.2 ask_string()

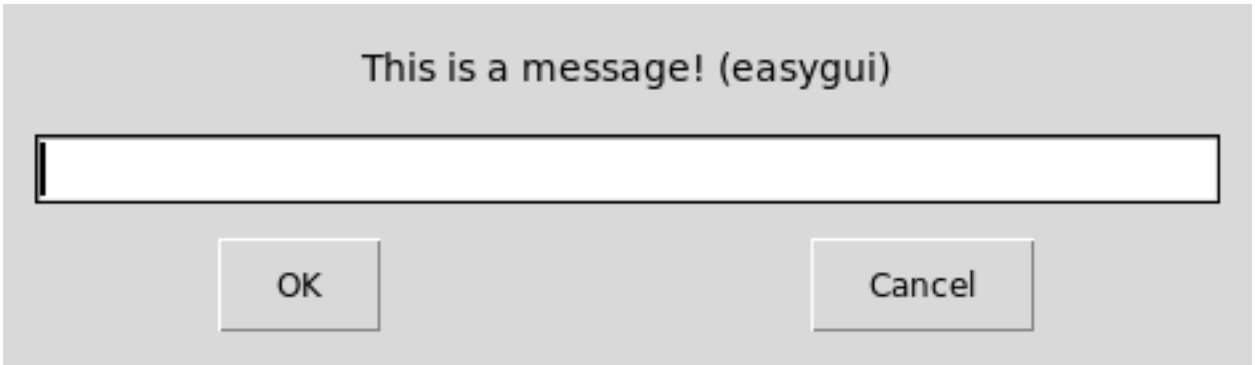
API

5.2.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f ask_string"
```

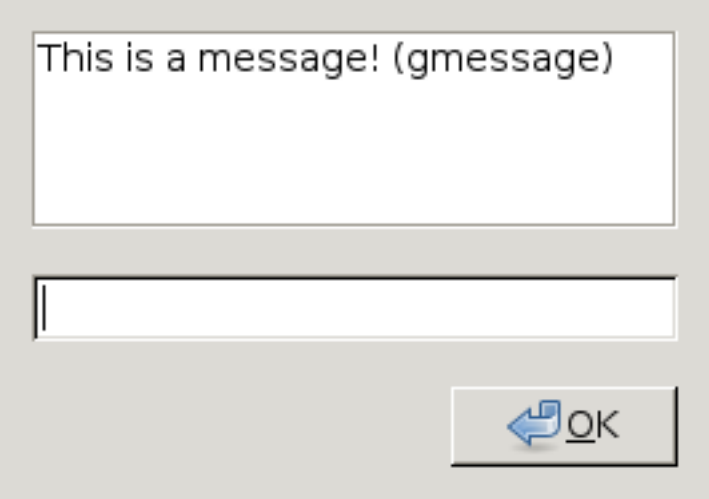
5.2.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f ask_string
```



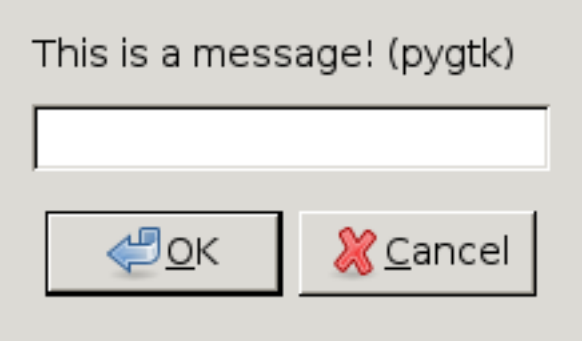
5.2.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f ask_string
```



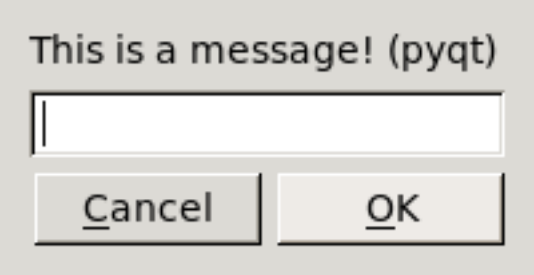
5.2.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f ask_string
```



5.2.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f ask_string
```

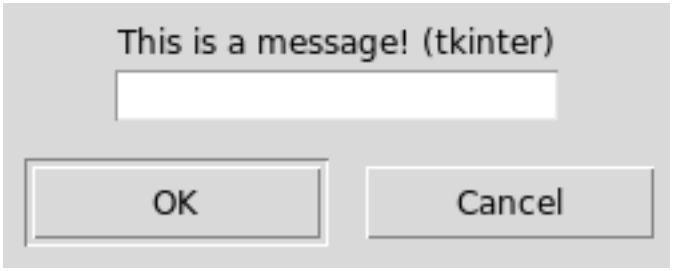


5.2.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f ask_string"
```

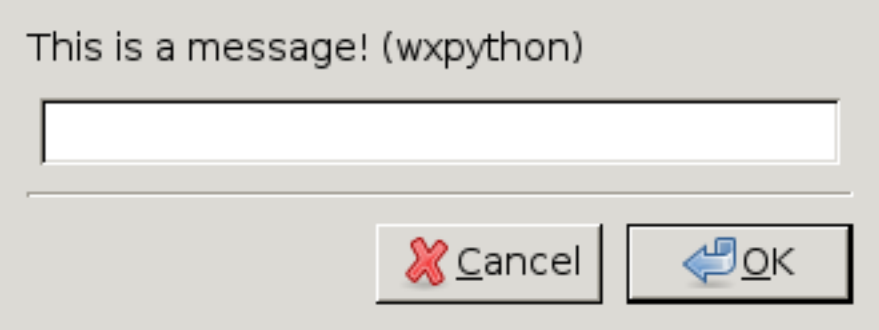
5.2.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f ask_string
```



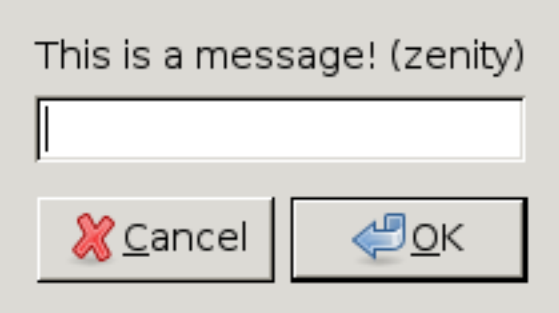
5.2.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f ask_string
```



5.2.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f ask_string
```



5.3 ask_yes_no()

API

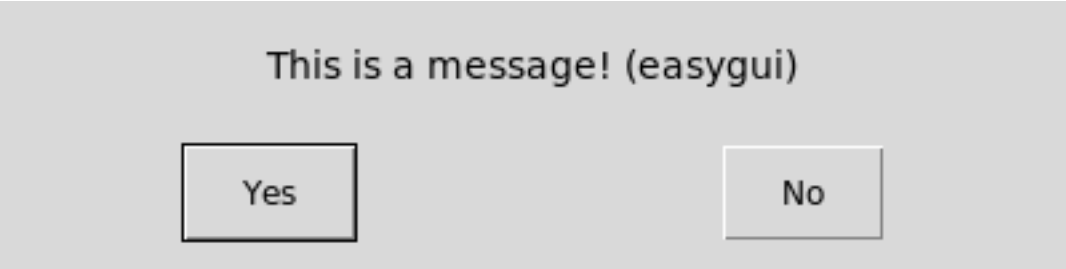
5.3.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f ask_yes_no"
```

```
True
This is a message! (console) [Yes/No]
```

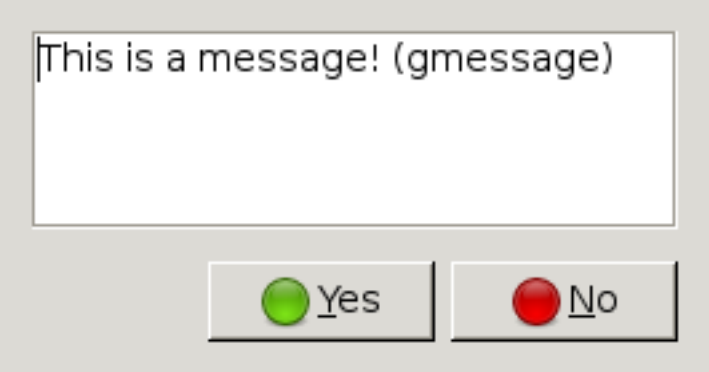
5.3.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f ask_yes_no
```



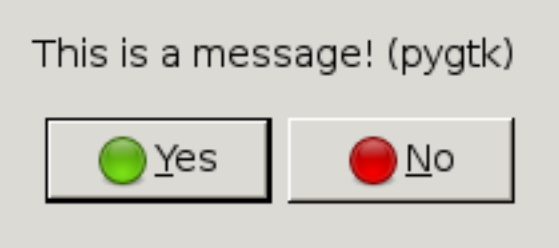
5.3.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f ask_yes_no
```



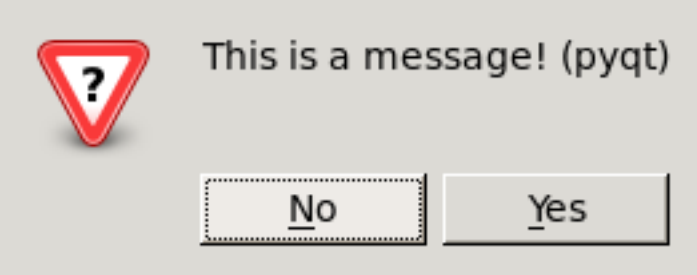
5.3.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f ask_yes_no
```



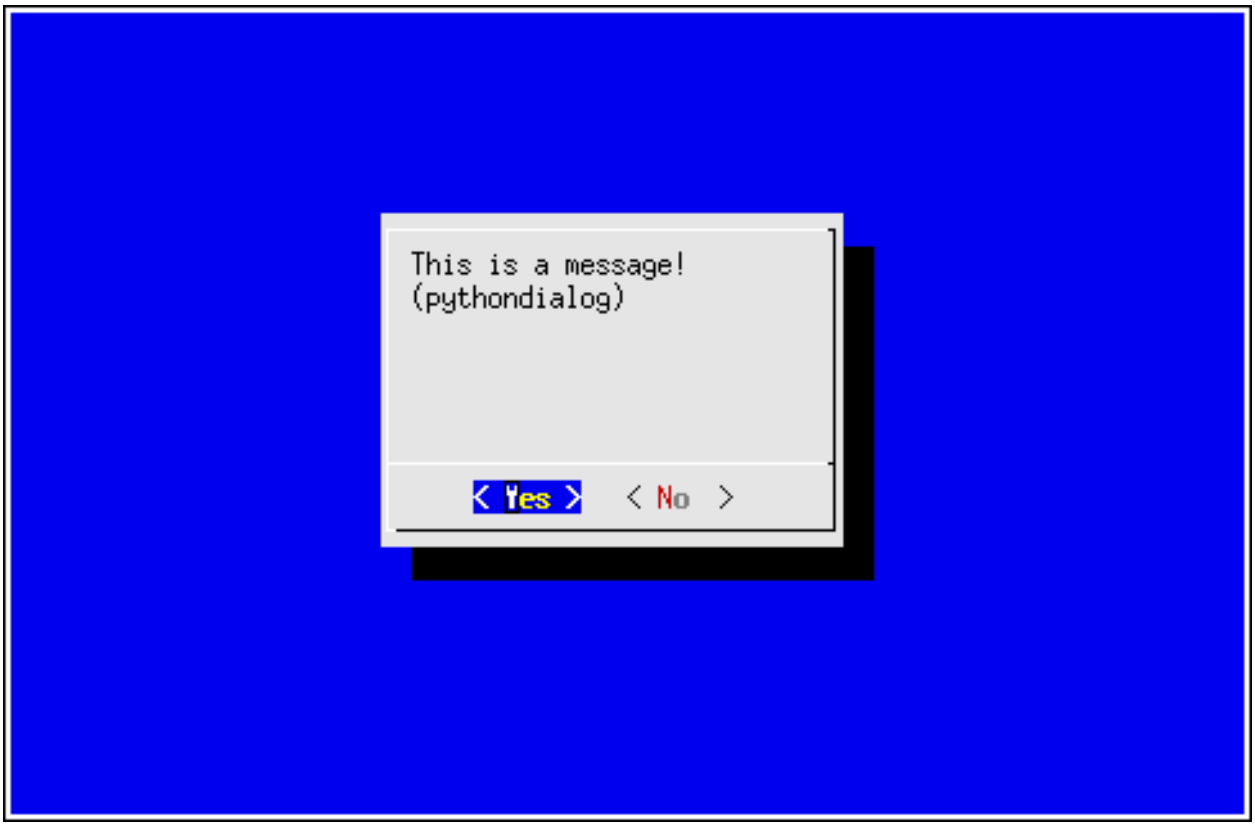
5.3.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f ask_yes_no
```



5.3.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f ask_yes_no"
```



5.3.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f ask_yes_no
```

5.3.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f ask_yes_no
```

5.3.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f ask_yes_no
```

5.4 choice()

API

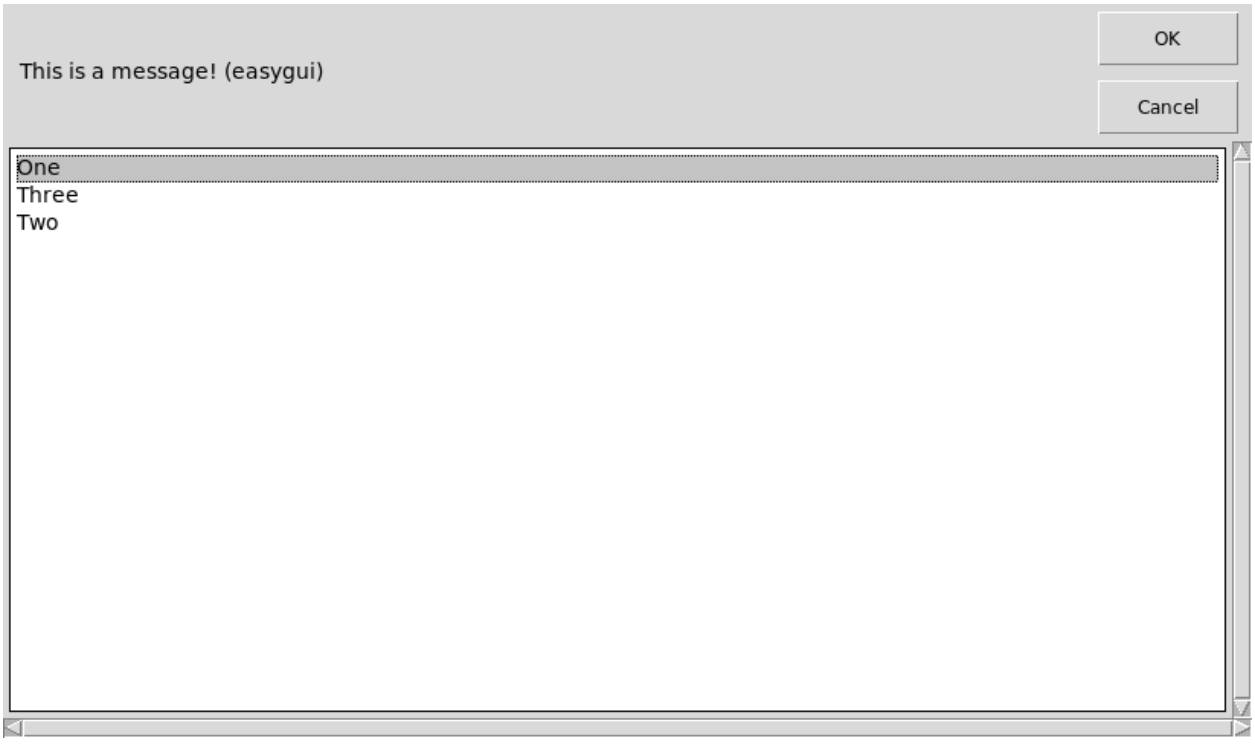
5.4.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f choice"
```

```
True
This is a message! (console)
[0] One
[1] Two
[2] Three
Select:
```

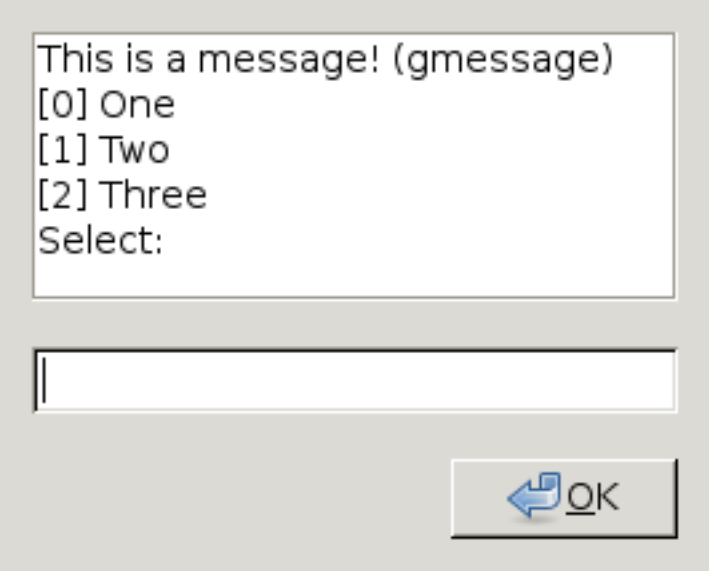
5.4.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f choice
```



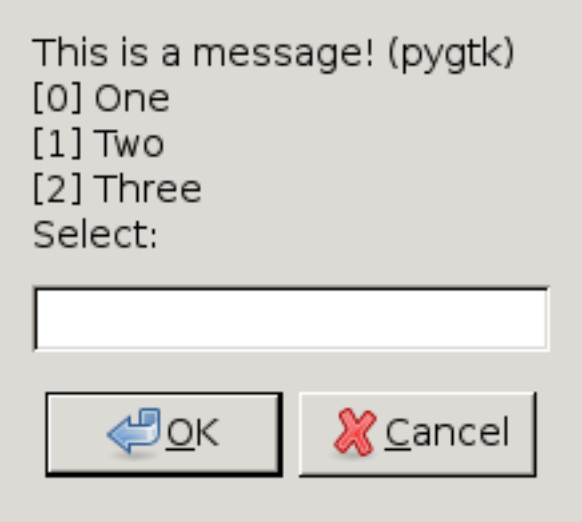
5.4.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f choice
```



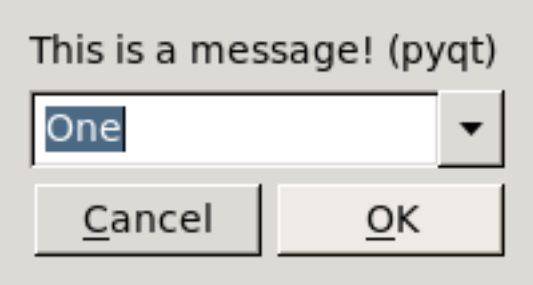
5.4.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f choice
```



5.4.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f choice
```

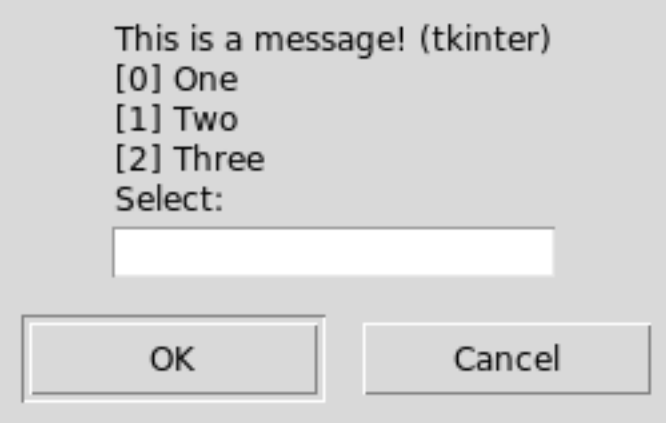


5.4.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f choice"
```

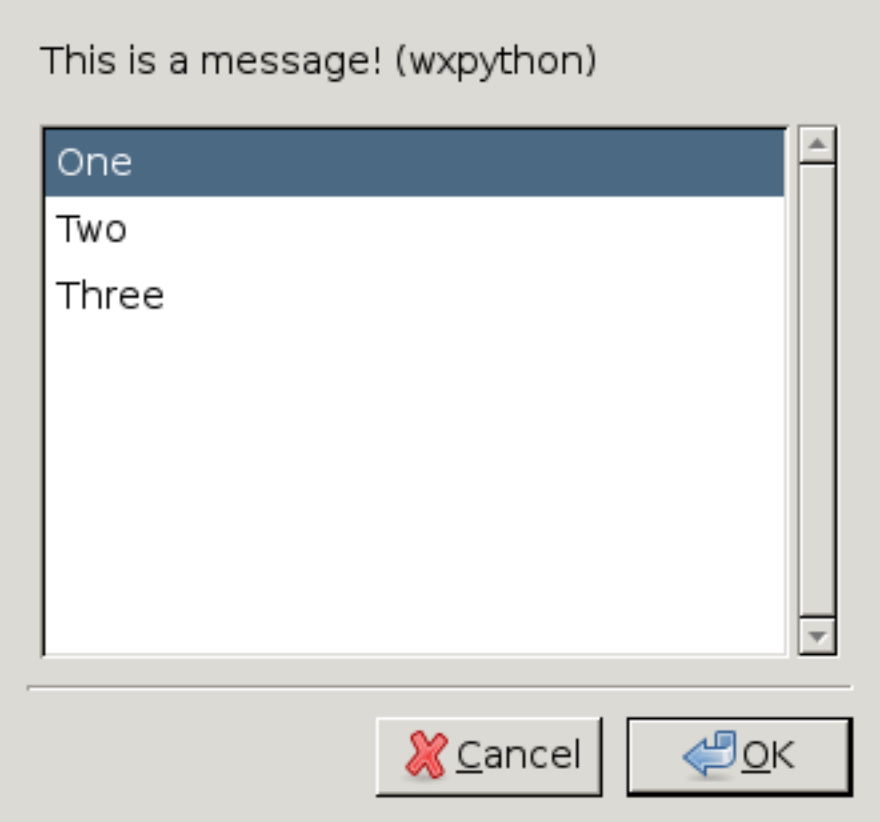
5.4.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f choice
```



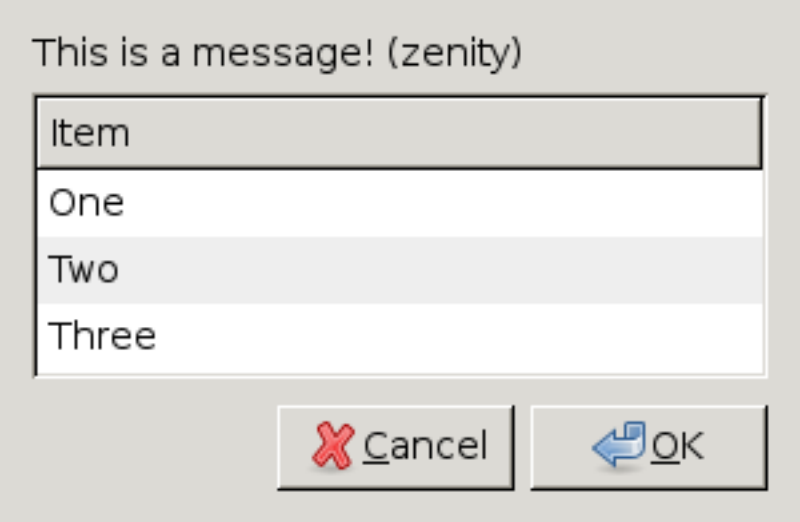
5.4.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f choice
```



5.4.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f choice
```



5.5 error()

API

5.5.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f error"
```

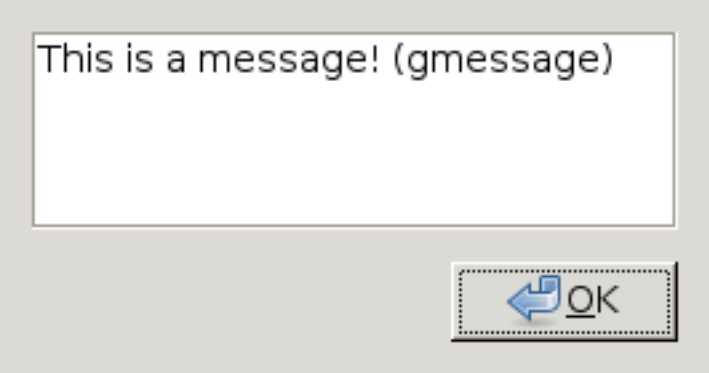
```
True
[ERROR] This is a message! (console)[ENTER][]
```

5.5.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f error
```

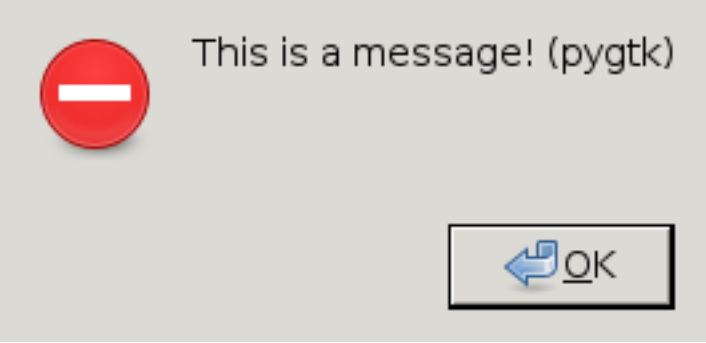
5.5.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f error
```



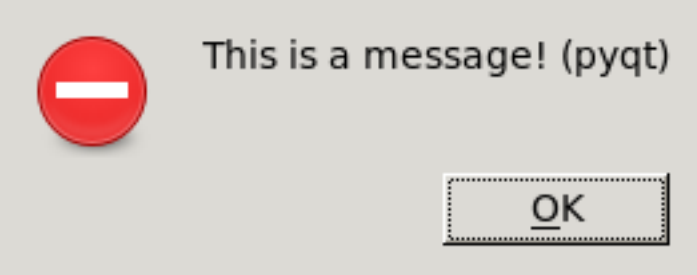
5.5.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f error
```



5.5.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f error
```



5.5.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f error"
```

5.5.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f error
```

5.5.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f error
```

5.5.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f error
```

5.6 message()

API

5.6.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f message"
```

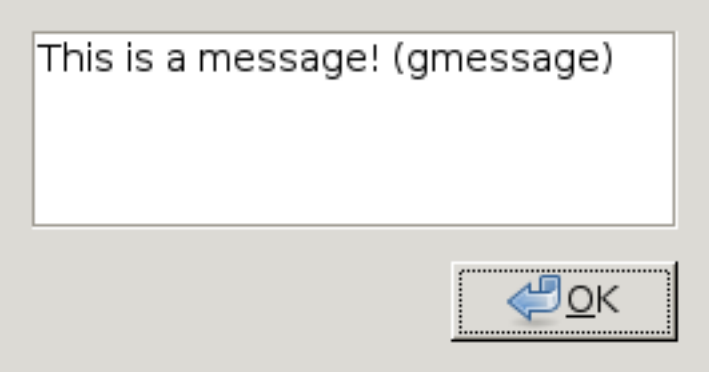
```
True
This is a message! (console)[ENTER][]
```

5.6.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f message
```

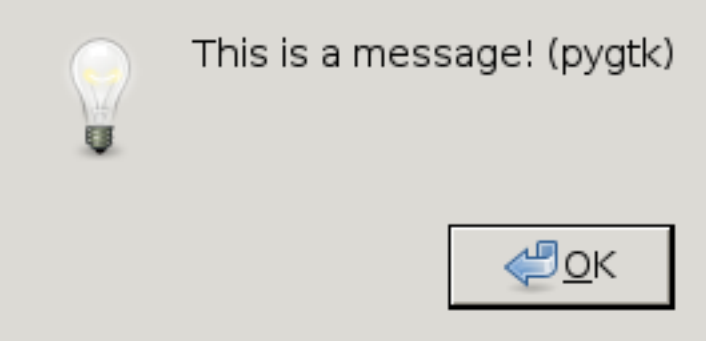
5.6.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f message
```



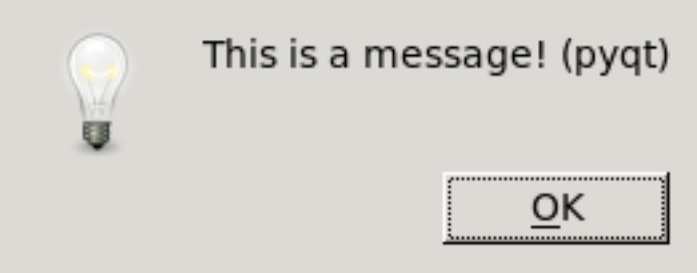
5.6.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f message
```



5.6.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f message
```



5.6.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f message"
```

5.6.7 tkinter

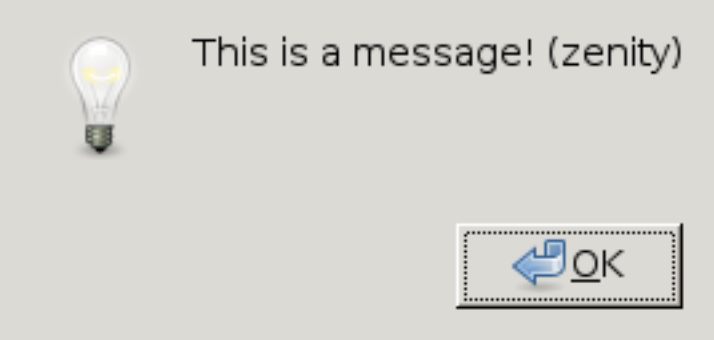
```
$ python -m psidialogs.examples.demo -b tkinter -f message
```

5.6.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f message
```

5.6.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f message
```



5.7 multi_choice()

API

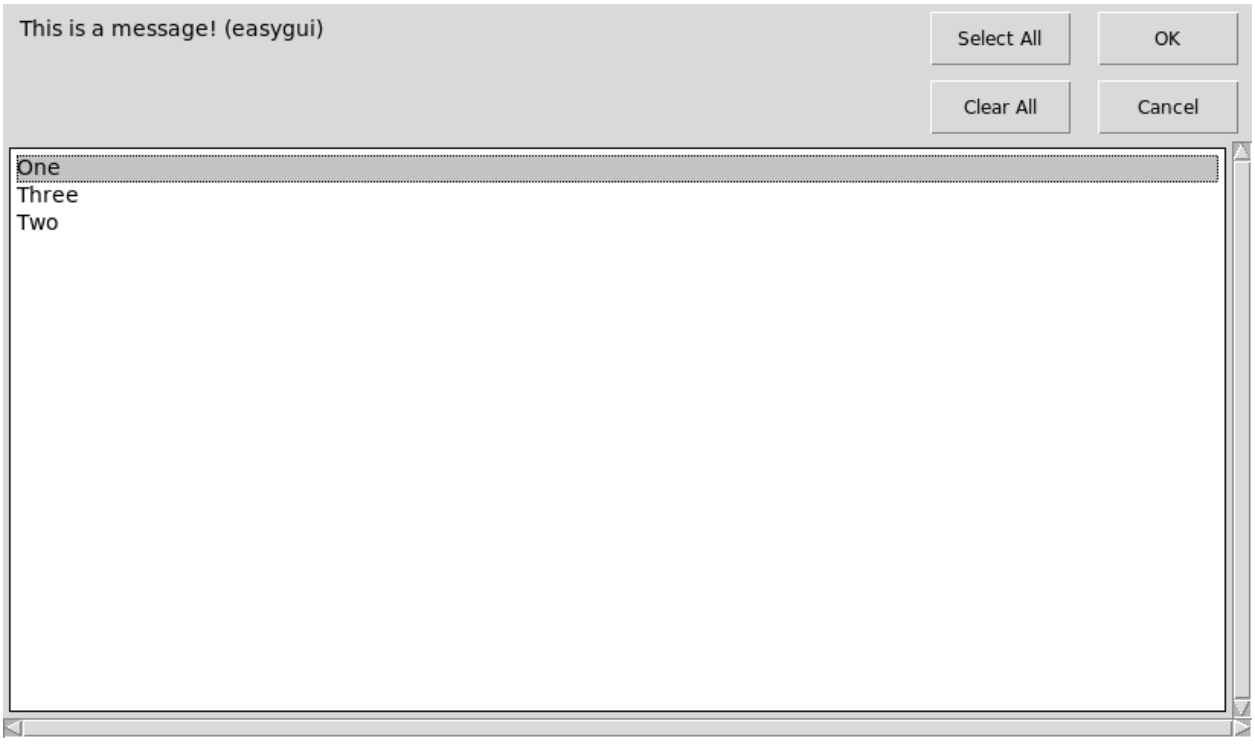
5.7.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f multi_choice"
```

```
True
This is a message! (console)
[0] One
[1] Two
[2] Three
Select:
```

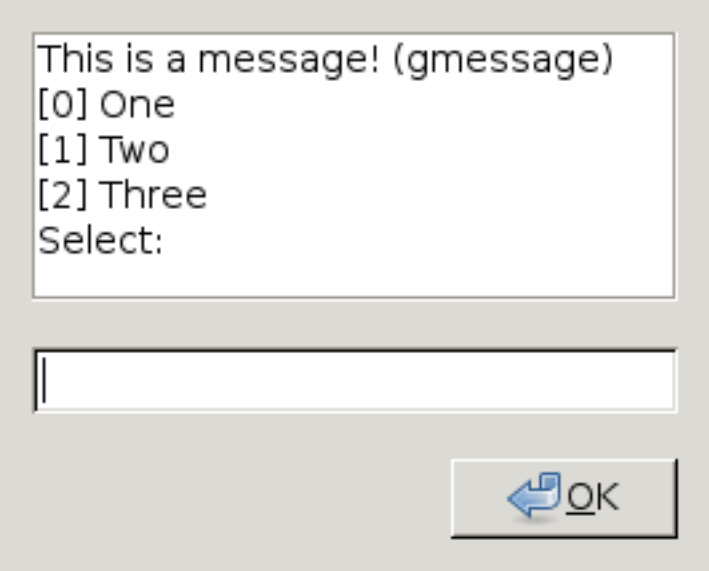
5.7.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f multi_choice
```



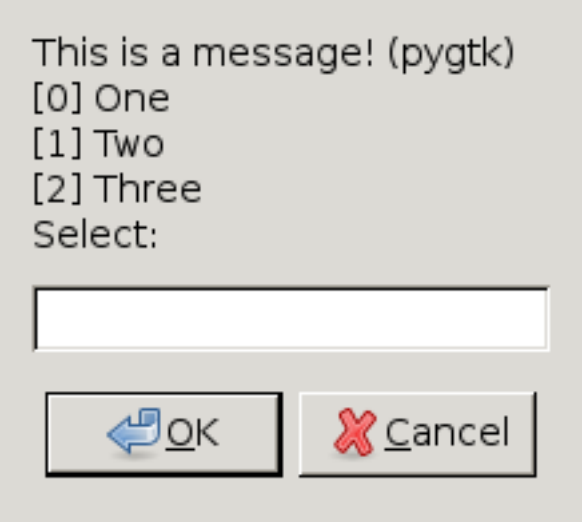
5.7.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f multi_choice
```



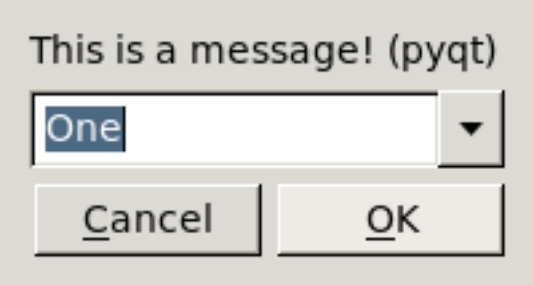
5.7.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f multi_choice
```



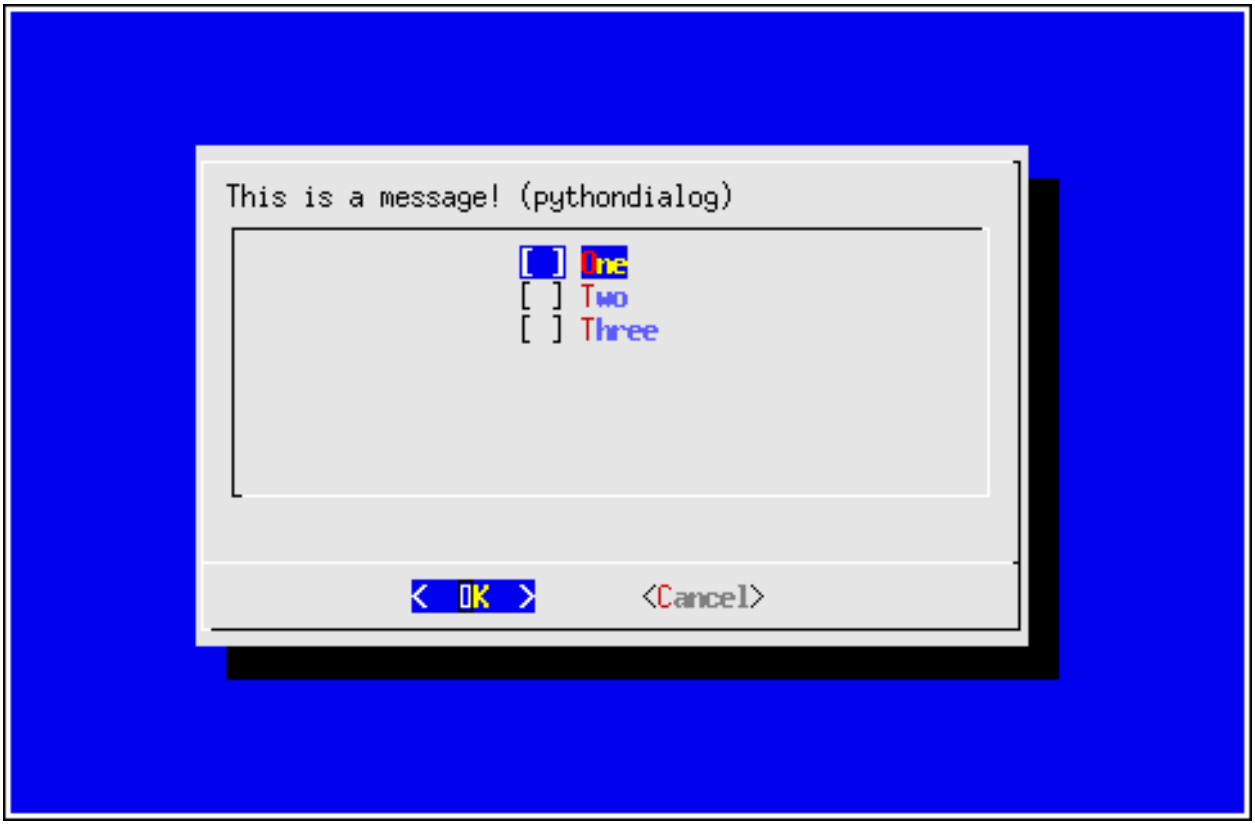
5.7.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f multi_choice
```



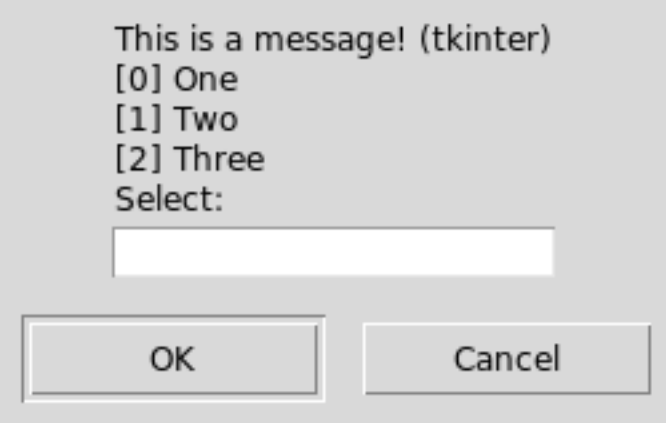
5.7.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f multi_choice"
```



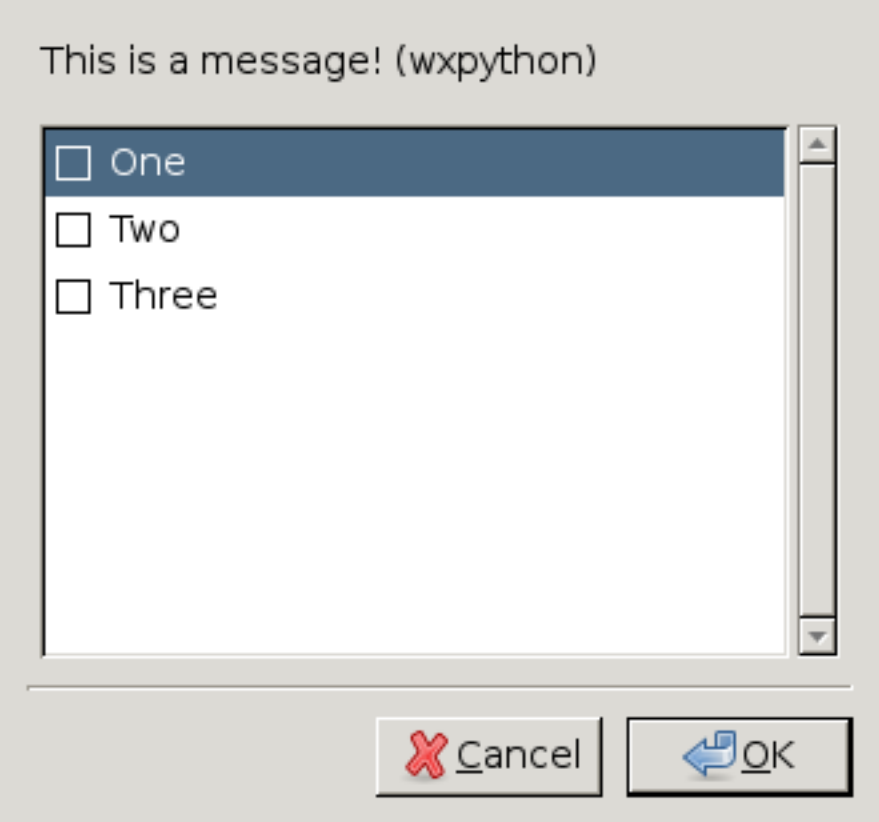
5.7.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f multi_choice
```



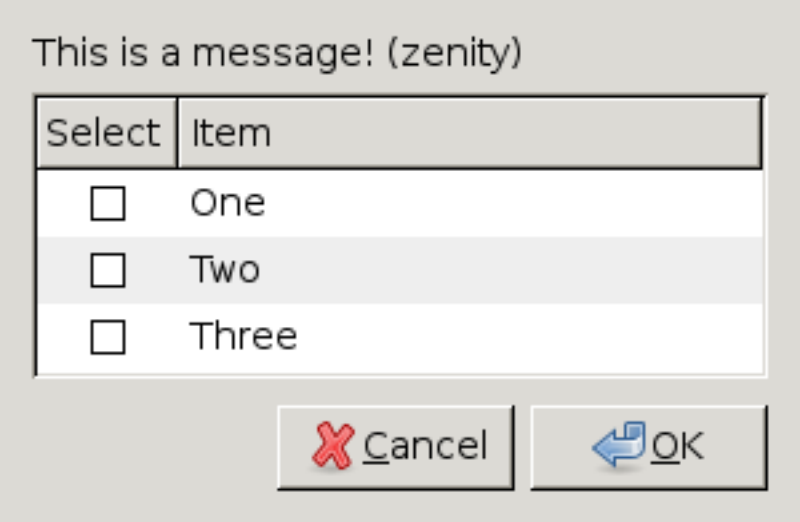
5.7.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f multi_choice
```



5.7.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f multi_choice
```



5.8 text()

API

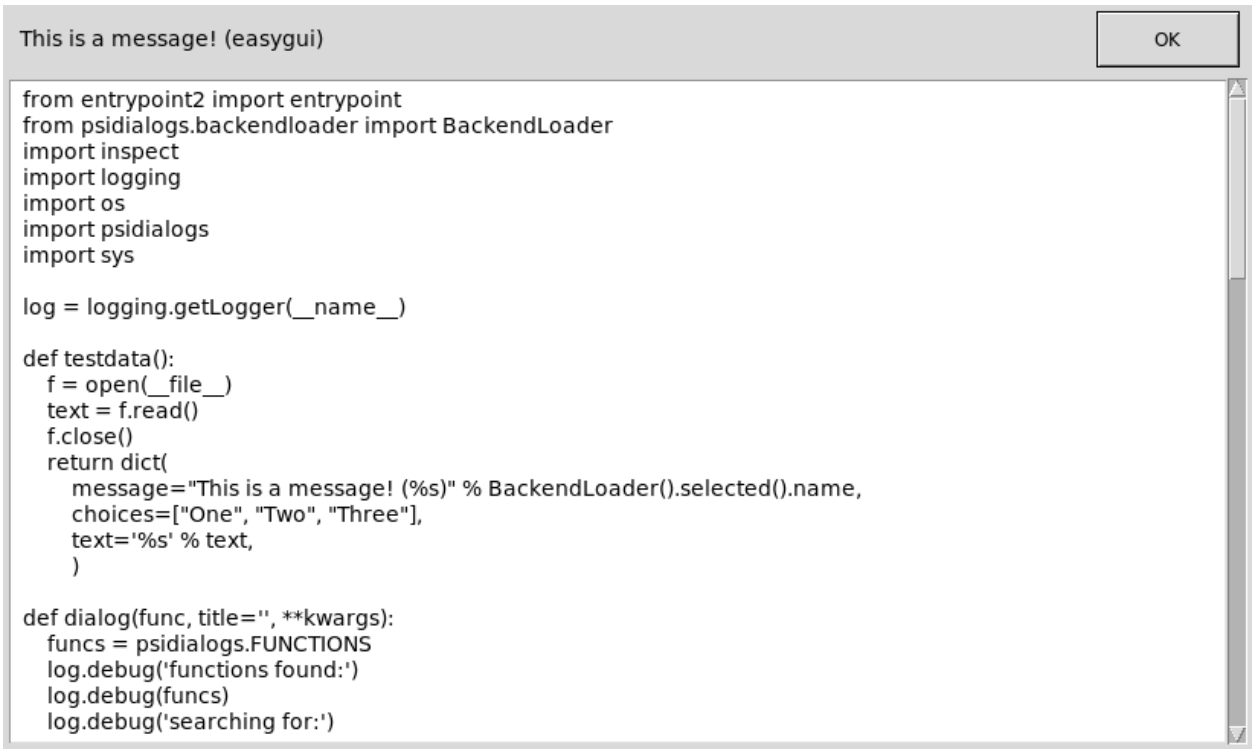
5.8.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f text"
```

```
        while 1:
            #d = dict([(x.backend, x.name) for x in psidialogs.all_backends()])
            #names=sorted(d.keys()
            names=sorted(BackendLoader().all_names)
            b = psidialogs.choice(names, 'Select backend!', title=title)
            if not b:
                break
            BackendLoader().force(b)
            try:
                BackendLoader().selected()
            except Exception, detail:
                BackendLoader().force(None)
                psidialogs.text('Exception:\n' + str(detail))
                continue

            #psidialogs.set_backend(force_backend=d[b])
            selectfunc(title, **kwargs)

@entrypoint
def demo(backend=None, function=None, title=''):
    print os.isatty(sys.stdout.fileno())
    selectbackend(backend=backend, function=function, title=title)

[ENTER][]
```

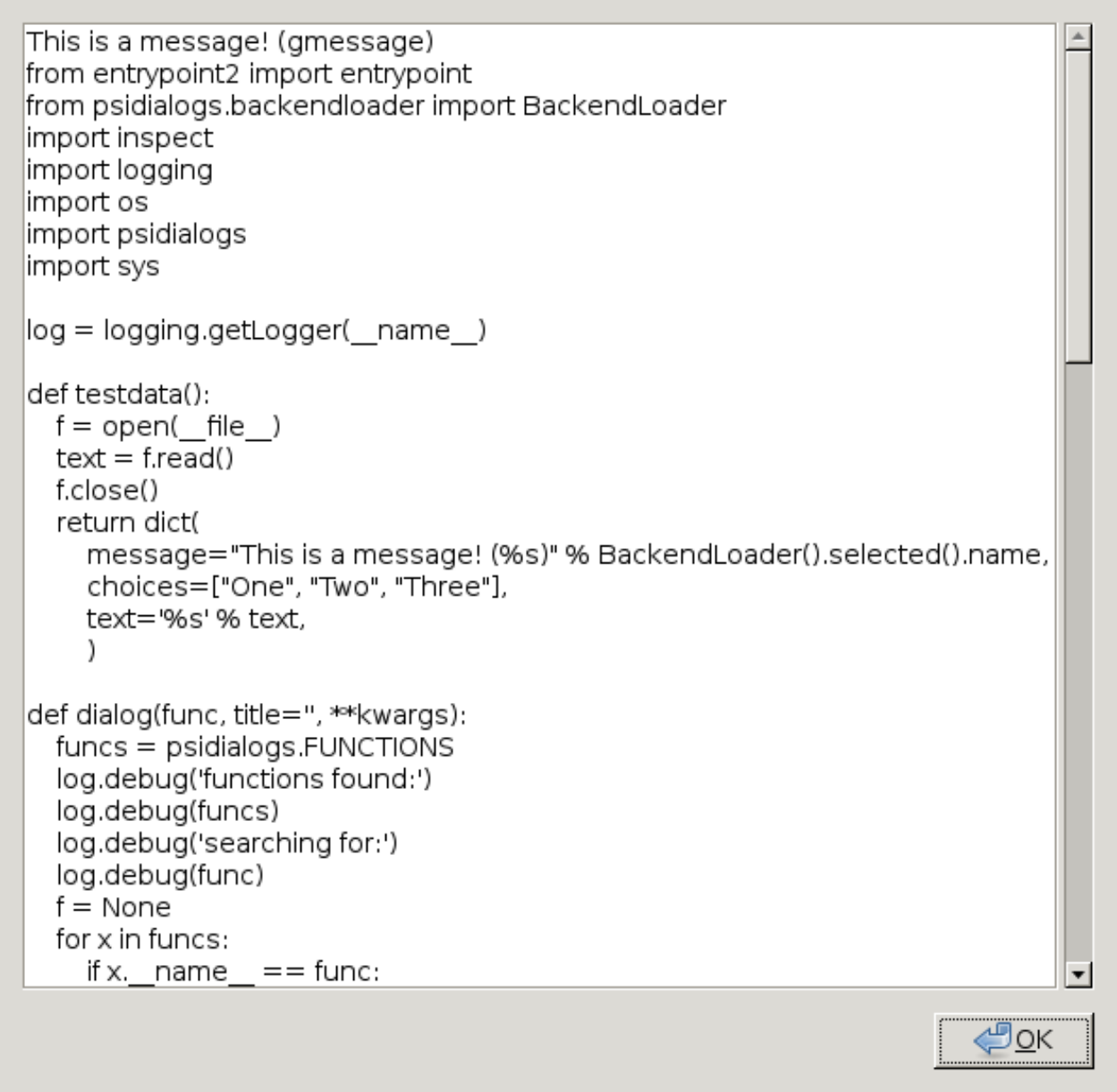
5.8.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f text
```



5.8.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f text
```



5.8.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f text
```

```
This is a message! (pygtk)
from entrypoint2 import entrypoint
from psidialogs.backendloader import BackendLoader
import inspect
import logging
import os
import psidialogs
import sys

log = logging.getLogger(__name__)

def testdata():
    f = open(__file__)
    text = f.read()
    f.close()
    return dict(
        message="This is a message! (%s)" % BackendLoader
().selected().name,
        choices=["One", "Two", "Three"],
        text='%s' % text,
        )

def dialog(func, title='', **kwargs):
    funcs = psidialogs.FUNCTIONS
    log.debug('functions found:')
    log.debug(funcs)
    log.debug('searching for:')
    log.debug(func)
    f = None
    for x in funcs:
        if x.__name__ == func:
            f = x
    assert f
    argnames, varargs, varkw, defaults = inspect.getargspec(f)
    #argnames = psidialogs.argnames(func)
    args = testdata()
    if title:
        args['title'] = title
    args = dict([(k, v) for (k, v) in args.items() if k in argnames])
    result=None
    exec 'result = psidialogs.%s(**args)' % (func)
    #result = psidialogs.__dict__[func](**args)
    #print 'result: ' , result
    log.debug('result:'+str(result))
    if result is not None:
```

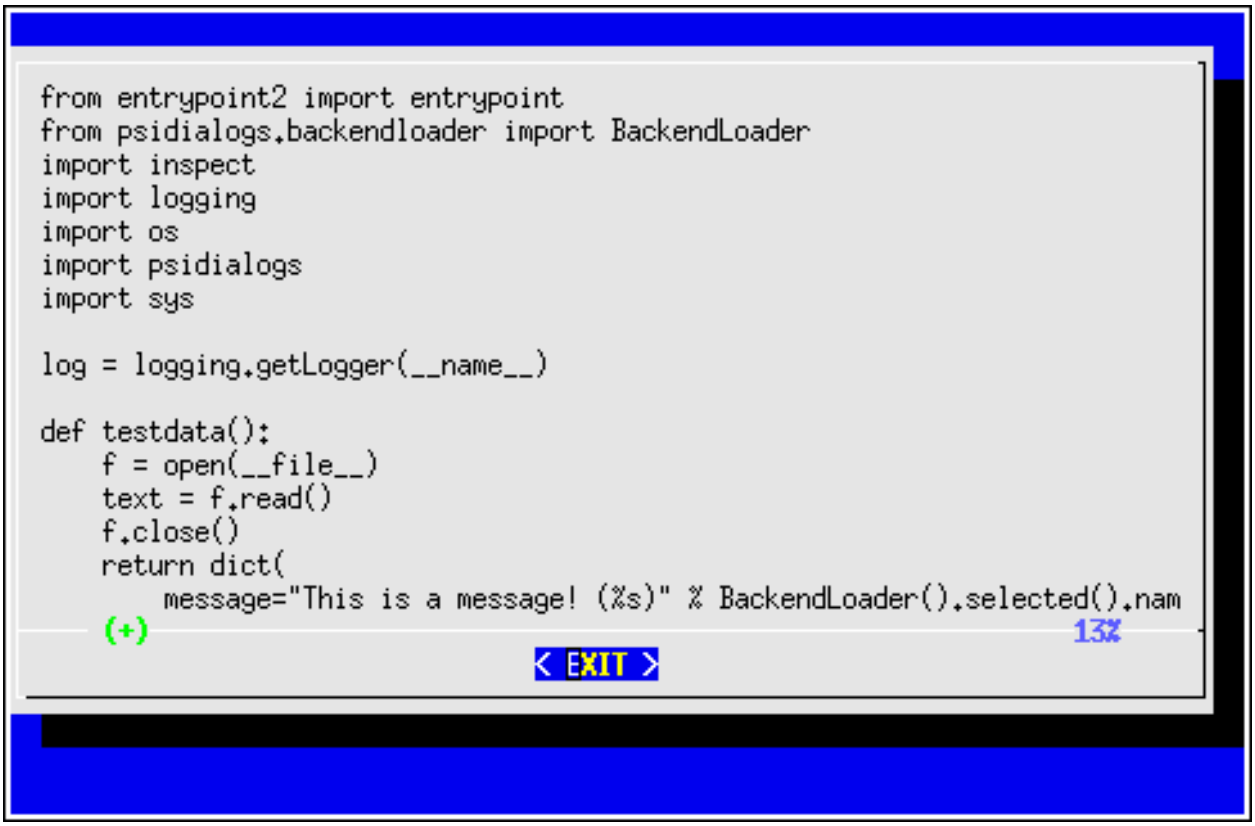
5.8.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f text
```

```
This is a message! (pyqt)
from entrypoint2 import entrypoint
from psidialogs.backendloader import BackendLoader
import inspect
import logging
import os
import psidialogs
import sys

log = logging.getLogger(__name__)

def testdata():
    f = open(__file__)
    text = f.read()
    f.close()
    return dict(
        message="This is a message! (%s)" %
BackendLoader().selected().name,
        choices=["One", "Two", "Three"],
        text='%s' % text,
        )

def dialog(func, title='', **kwargs):
    funcs = psidialogs.FUNCTIONS
    log.debug('functions found:')
    log.debug(funcs)
    log.debug('searching for:')
    log.debug(func)
    f = None
    for x in funcs:
        if x.__name__ == func:
            f = x
    assert f
    argnames, varargs, varkw, defaults =
inspect.getargspec(f)
    #argnames = psidialogs.argnames(func)
    args = testdata()
    if title:
        args['title'] = title
    args = dict([(k, v) for (k, v) in args.items() if k in
argnames])
    result=None
    exec 'result = psidialogs.%s(**args)' % (func)
    #result = psidialogs.__dict__[func](**args)
    #print 'result: ' + result
```

5.8.6 pythondialog

```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f text"
```



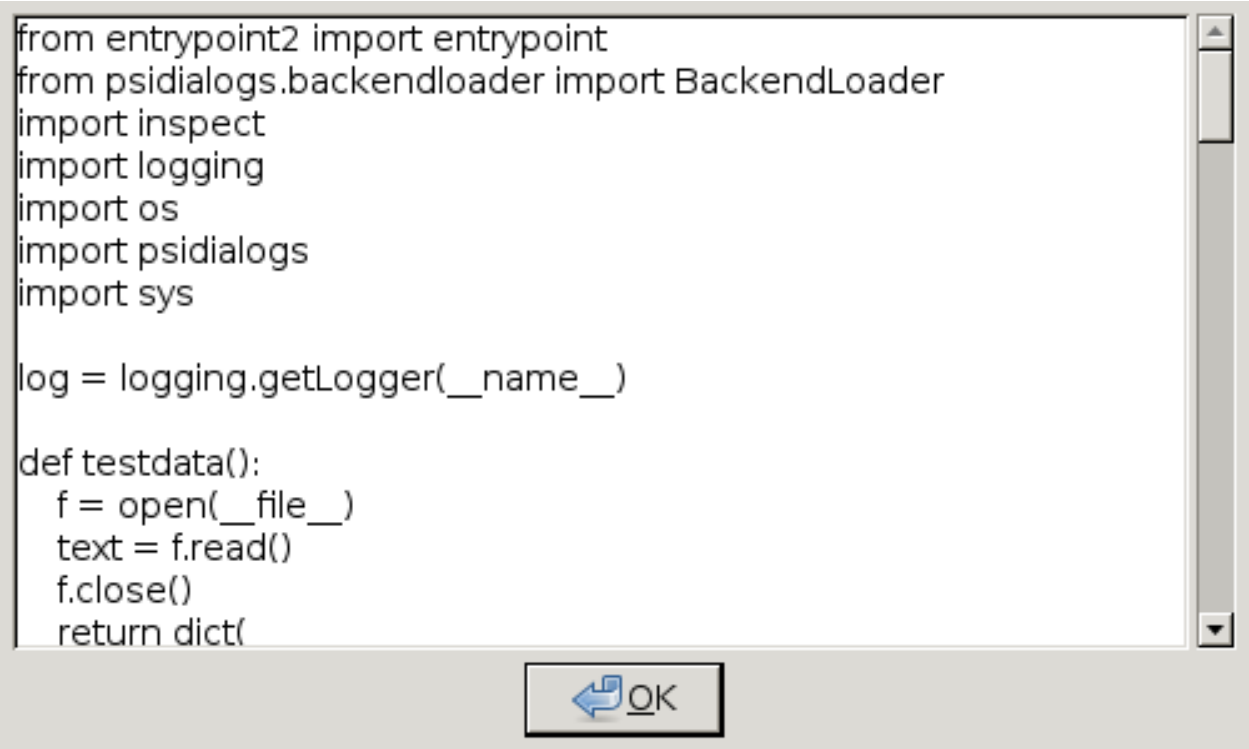
5.8.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f text
```

```
    assert f
    argnames, varargs, varkw, defaults
= inspect.getargspec(f)
    #argnames =
psidialogs.argnames(func)
    args = testdata()
    if title:
        args['title'] = title
    args = dict([(k, v) for (k, v) in
args.items() if k in argnames])
    result=None
    exec 'result =
psidialogs.%s(**args)' % (func)
    #result =
psidialogs.__dict__[func](**args)
    #print 'result: ' , result
    log.debug('result:'+str(result))
    if result is not None:
        psidialogs.text('Return
value="%s"' % result)

def selectfunc(title='',
function=None, **kwargs):
    if function:
        dialog(function, title, **kwargs)
    else:
        while 1:
            funcs =
psidialogs.FUNCTION_NAMES
            funcs.sort()
            func =
psidialogs.choice(funcs, 'Select
function!', title=title)
            if not func:
                break
            dialog(func, title, **kwargs)

def selectbackend(backend=None,
title='', **kwargs):
    if backend:
        BackendLoader().force(backend)
```

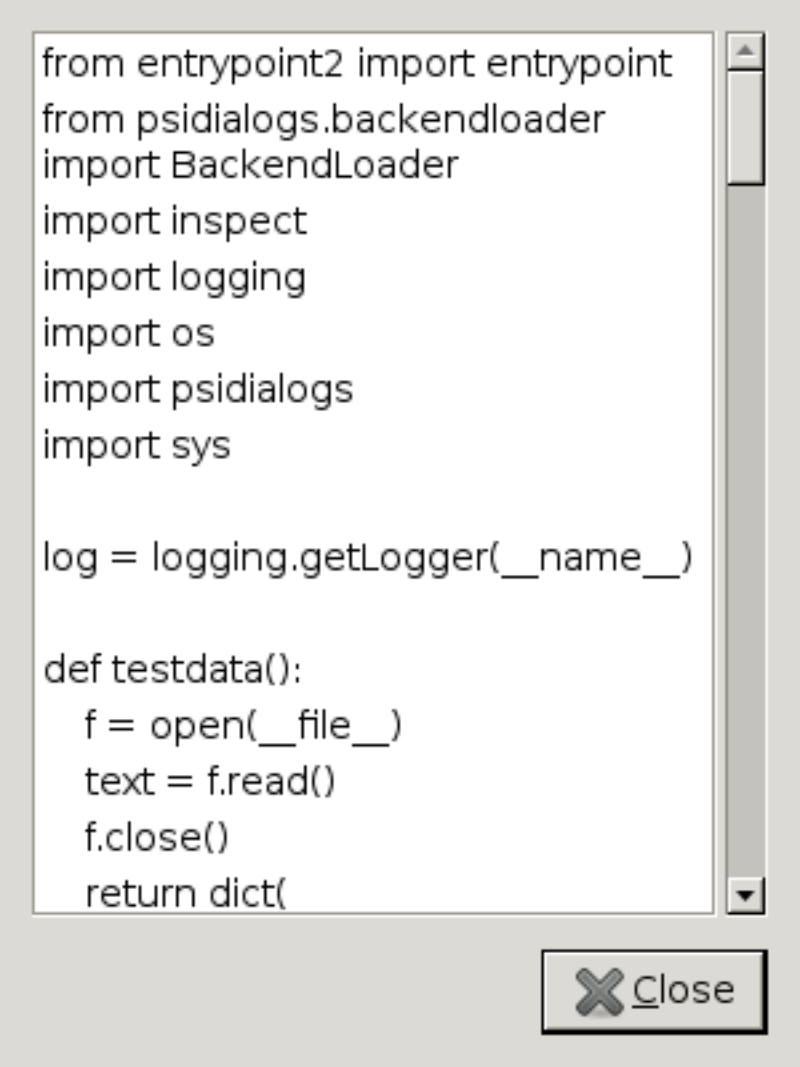
5.8.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f text
```



5.8.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f text
```



5.9 warning()

API

5.9.1 console

```
$ xterm -e "python -m psidialogs.examples.demo -b console -f warning"
```

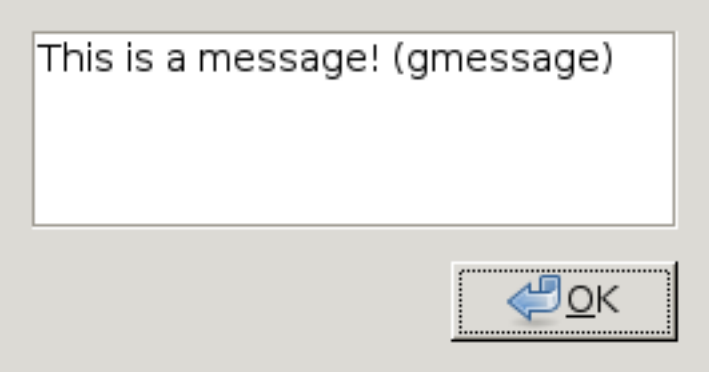
```
True
[WARNING] This is a message! (console)[ENTER][]
```

5.9.2 easygui

```
$ python -m psidialogs.examples.demo -b easygui -f warning
```

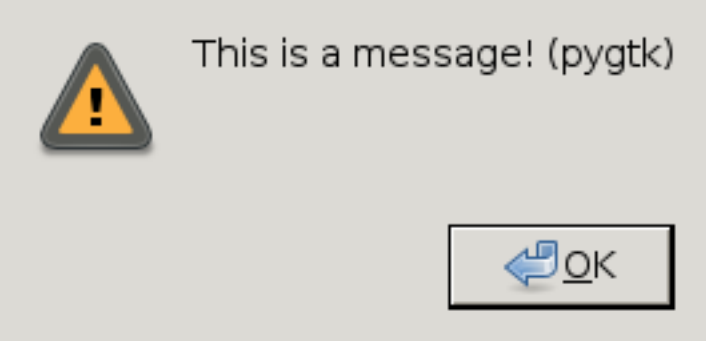
5.9.3 gmessage

```
$ python -m psidialogs.examples.demo -b gmessage -f warning
```



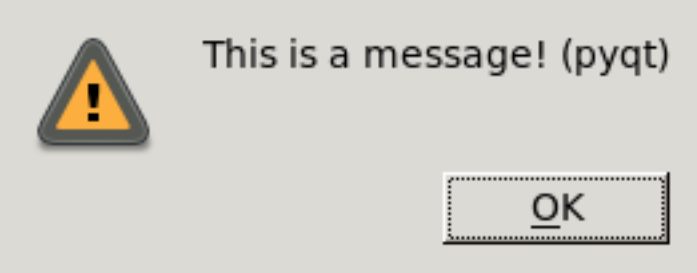
5.9.4 pygtk

```
$ python -m psidialogs.examples.demo -b pygtk -f warning
```



5.9.5 pyqt

```
$ python -m psidialogs.examples.demo -b pyqt -f warning
```



5.9.6 pythondialog

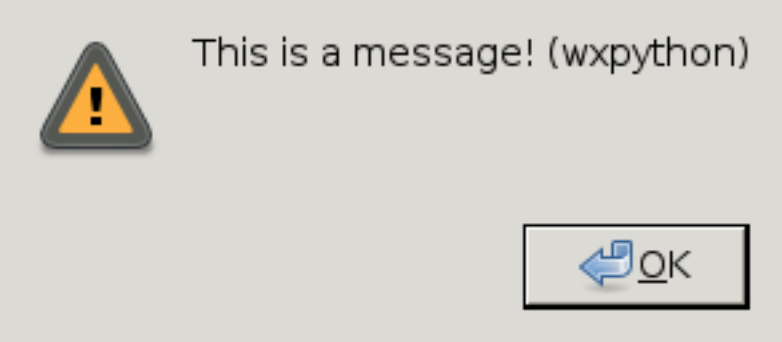
```
$ xterm -e "python -m psidialogs.examples.demo -b pythondialog -f warning"
```

5.9.7 tkinter

```
$ python -m psidialogs.examples.demo -b tkinter -f warning
```

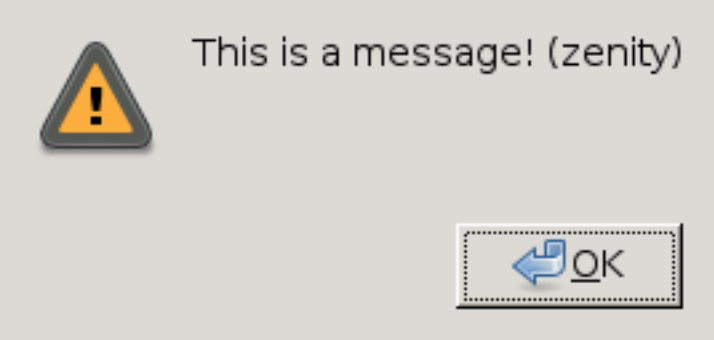
5.9.8 wxpython

```
$ python -m psidialogs.examples.demo -b wxpython -f warning
```



5.9.9 zenity

```
$ python -m psidialogs.examples.demo -b zenity -f warning
```



CHAPTER

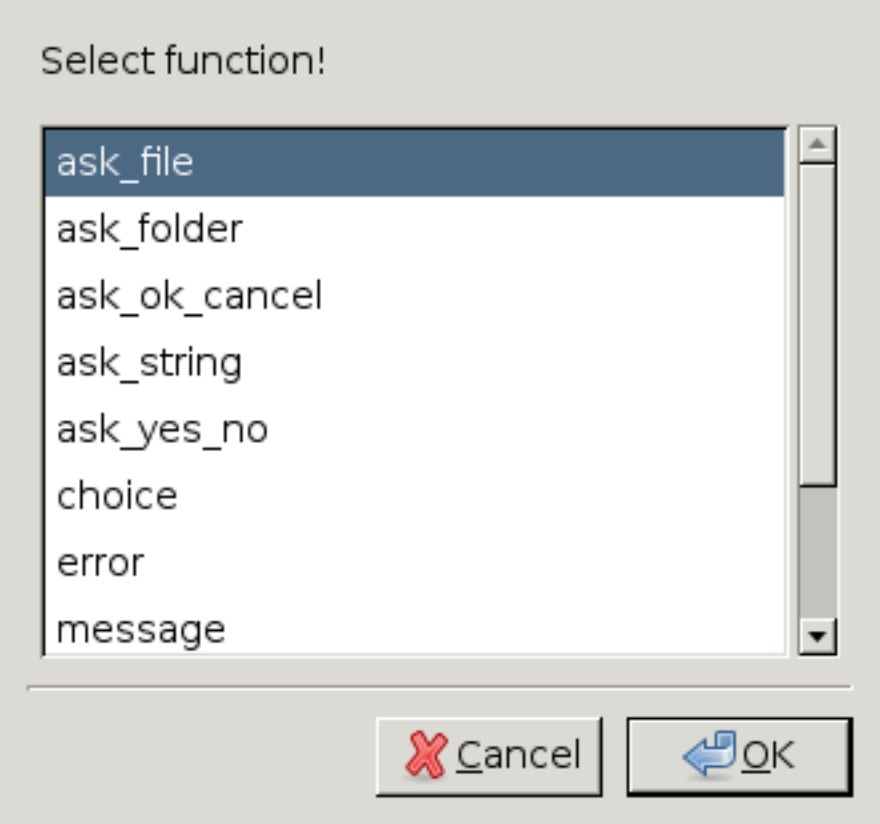
SIX

DEMO

Backends and functions can be selected from list or as command line parameter

```
$ python -m psidialogs.examples.demo
```


```
$ python -m psidialogs.examples.demo --backend wxpython
```




```
$ python -m psidialogs.examples.demo --backend wxpython --function message
```


6.1 command line help

```
$ python -m psidialogs.examples.demo --help
usage: demo.py [-h] [-b BACKEND] [-f FUNCTION] [-t TITLE] [--debug]

optional arguments:
  -h, --help            show this help message and exit
  -b BACKEND, --backend BACKEND
  -f FUNCTION, --function FUNCTION
  -t TITLE, --title TITLE
  --debug               set logging level to DEBUG
```

CHAPTER

SEVEN

SIMILAR PROJECTS

- anygui (http://anygui.sourceforge.net/): multiple backends, abandoned
- easygui (http://easygui.sourceforge.net/): tk backend

CHAPTER

EIGHT

DEVELOPMENT

8.1 Tools

1. setuptools
2. Paver
3. nose
4. ghp-import
5. pyflakes
6. pychecker
7. paved fork
8. Sphinx
9. sphinxcontrib-programscreenshot
10. sphinxcontrib-paverutils
11. `autorun` from sphinx-contrib (there is no simple method, you have to download/unpack/setup)

8.2 Install on ubuntu

```
sudo apt-get install python-setuptools
sudo apt-get install python-paver
sudo apt-get install python-nose
sudo easy_install ghp-import
sudo apt-get install pyflakes
sudo apt-get install pychecker
sudo easy_install https://github.com/ponty/paved/zipball/master
sudo apt-get install scrot
sudo apt-get install xvfb
sudo apt-get install xserver-xephyr
sudo apt-get install python-imaging
sudo apt-get install python-sphinx
sudo easy_install sphinxcontrib-programscreenshot
sudo easy_install sphinxcontrib-programoutput
sudo easy_install sphinxcontrib-paverutils
```

8.3 Tasks

Paver is used for task management, settings are saved in pavement.py. Sphinx is used to generate documentation.

print paver settings:

```
paver printoptions
```

clean generated files:

```
paver clean
```

generate documentation under *docs/_build/html*:

```
paver cog pdf html
```

upload documentation to github:

```
paver ghpages
```

run unit tests:

```
paver nose
#or
nosetests --verbose
```

check python code:

```
paver pyflakes
paver pychecker
```

generate python distribution:

```
paver sdist
```

upload python distribution to PyPI:

```
paver upload
```

CHAPTER

NINE

INDICES AND TABLES

- *genindex*
- *modindex*
- *search*

PYTHON MODULE INDEX

p

INDEX