Buzio Documentation

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Contents:

This document will guide you how to install, configure and use Buzio in your projects.

CHAPTER 1

What is Buzio?

Buzio is a python library tool for printing formatted text in terminal, similar to termcolor or colored. But unlike these, Buzio has some new features like:

1.1 Generate fancy formats

"Section" example 1:

```
from buzio import console

console.section("First Section")
```

Terminal output:

```
$ >> First Section
$ ----------------
```

"Section" example 2:

```
from buzio import console

console.section("Main Section", full_width=True, transform="upper center")
```

Terminal output:

```
$ >                                  MAIN SECTION                                  <
$ ------------------------------------------------------------------------------
```

1.2 Humanize Python objects

Buzio can automatically humanize any python object for printing in terminal:

```
from datetime import datetime, timedelta
from buzio import console

today = datetime.now()
yesterday = today - timedelta(days=1)
my_dict = {
        "start day": yesterday,
        "end day": today
}

console.box(my_dict, date_format="%a, %b-%d-%Y")
```

The output on terminal will be (in blue color):

```
$ ********************************
$ *                              *
$ *  start day: Thu, Feb-01-2018  *
$ *   end day: Fri, Feb-02-2018   *
$ *                              *
$ ********************************
```

1.3 Ask for Input data

You can use Buzio to automatically generate "choose" and "select" questions, based on Python objects:

"Choose" example:

```
from buzio import console

my_choices = [
        "Orange",
        "Apple",
        "Potato"
]

console.choose(my_choices)
```

Terminal output:

```
$ 1. Orange
$ 2. Apple
$ 3. Potato
$
$ Select (1-3): ?
```

"Select" example:

```
from buzio import console

my_options = [
        "Save",
        "Save and Exit",
        "Cancel"
]

console.select(my_options)
```

Terminal output:

```
$ Select: (S)ave and Exit, S(A)ve, (C)ancel?
```

You can also "ask" a question and, optionally, use a method to validate the answer:

```
from buzio import console

def check_answer(answer):
   return int(answer) == 4

console.ask("What is the sum of 2+2", validator=check_answer)
print("Thanks!")
```

Terminal output:

```
$ What is the sum of 2+2? : 3
$ Please answer again: 4
$ Thanks!
```

1.4 Run terminal commands

You can use Buzio to run terminal commands (using Python `subprocess`) and get the *stdout* result:

```
>>> from buzio import console
>>> ret = console.run("echo HelloWorld!", get_stdout=True, verbose=True)
Cmd: echo HelloWorld!
>>> print(ret)
HelloWorld!
```

1.4.1 Tutorial

This document will explain how to install Buzio and use it in your projects.

Installing Buzio

Install Buzio using the command:

```
$ pip install buzio
```

Importing the Library

```
from buzio import console, formatStr
```

The `console` is a instance of the `Console` class initialized with default color themes. You can also import the class and instantiate with your own settings (See the :doc:reference for more info)

The `formatStr` is also a instance of the `Console` class too, but instead of printing in terminal the message, this instance just return the formatted text.

Example:

```
>>> from buzio import console, formatStr
>>> ret = console.ask("What is the sum of 2+2?")
What is the sum of 2+2? : 4
>>> print(ret)
4
>>> ret = formatStr.ask("What is the sum of 2+2")
>>> print(ret)
['\x1b[33mWhat is the sum of 2+2 \x1b[0m']
```

The Output styles

Use the following styles to print your data:

Method	Text Color	Show Prefix
console.box	Fore.CYAN	No
console.error	Fore.RED	Yes
console.info	Fore.CYAN	Yes
console.section	Fore.LIGHTYELLOW_EX	No
console.success	Fore.GREEN	Yes
console.warning	Fore.YELLOW	Yes

The *Text Color* objects are based in colorama settings. Please check colorama documentation for all available constants and the *Buzio Package Reference* for create your own styles.

The *Show Prefix* column tells if the text to be printed will be the section name append in in. For example, `console.sucess("Operation Complete")` will be printed as:

```
$ Success: Operation Complete
```

You can control this behavior with the `use_prefix` paramenter. For example: `console.info("Starting download...", use_prefix=False)` ` will print:

```
$ Starting download...
```

Transforming text

You can use the `transform` to format text:

```
>>> console.warning("Hello World", transform="upper")
Warning: HELLO WORLD
>>> console.warning("Hello World", transform="breakline")
Warning:
Hello World
>>> console.warning("Hello World", transform="upper linebreak")
Warning:
HELLO WORLD
>>> console.warning(["Hello", "World"], transform="breakline")
Warning:
Hello
World
```

Current options for transform are:

- `upper`: UPPERTEXT

- `small`: lowertext
- `title`: Titletext
- `center`: horizontal centering text in terminal
- `breakline`: Break lines in text
- `bold`: Apply Style.BRIGHT effect in text
- `show_counters`: Add counters to text: 1) Hello 2) World (only for dicts and lists)

The Input styles

Use the following styles to print your input data questions:

Method	Text Color	Use Default	Custom Question	Can Validate
console.ask	Fore.YELLOW	Yes	N/A	Yes
console.choose	Fore.LIGHTYELLOW_EX	Yes	Yes	No
console.confirm	Fore.LIGHTMAGENTA_EX	Yes	No	No
console.select	Fore.LIGHTYELLOW_EX	Yes	Yes	No

The *Text Color* objects are based in colorama settings. Please check colorama source code for all available constants and the *Buzio Package Reference* for create your own styles.

The *Use Default* means you can pass a default value for answer. This can be a python object too. Example: `console.ask("What is the sum of 2+2?", default=4)`

The *Custom Question* means you can pass a custom question for the command. Example: `console.choose(my_list, question="What's your prefered fruit?")`

The *Can Validate* means you can pass a callable object, so Buzio can validate the prompt answer before return the value to your code. Example: `console.ask("What is the sum of 2+2?", default=4, validator=check_sum)`

Returning data

Data returned from input styles are:

- `console.ask`: string typed.
- `console.choose`: the *python object* selected from original list
- `console.confirm`: boolean
- `console.select`: the *index* for the select object in original list

Special Commands

Use the `console.clear` method to clear the terminal.

Use the `console.progress` to generate a animated progress bar.

Use the `console.run` method to run terminal commands. The return data will be a boolean (if task was succeded) or the capture `stdout` from command (use `get_stdout=True`). Please check *Buzio Package Reference* page for all options.

```
>>> console.run("lsb_release -a", get_stdout=True)
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 17.10
Release:    17.10
Codename:   artful
```

Use the `console.slugify` to generate a slug version from text:

```
.. code-block:: python
```

```
>>> console.slugify("Hello World")
hello_word
```

Use the `console.unitext` to convert text to ascii:

```
.. code-block:: python
```

```
>>> console.unitext("São Paulo")
Sao Paulo
```

1.4.2 Buzio Package Reference

Submodules

buzio.cli module

Buzio main code.

This is the main code for Buzio Package It contains the Console class.

Return

- console (obj) = Console instance
- formatStr (obj) = Console instance with format_only=True

class buzio.cli.**Console**(*format_only=False*, *default_prefix=''*, *default_transform=''*, *default_theme=''*, *theme_dict={'box': 'x1b[36m', 'choose': 'x1b[93m', 'confirm': 'x1b[95m', 'dark': 'x1b[37mx1b[2m', 'error': 'x1b[31m', 'info': 'x1b[36m', 'section': 'x1b[93m', 'success': 'x1b[32m', 'warning': 'x1b[33m'}*)

Console class.

Attributes: DEFAULT_THEMES (Dict): Default color theme format_only (bool): Print or format string only prefix (bool): Append prefix on text? text (str): text to be formatted/printed theme (str): theme selected for print/format theme_dict (dict): theme dictionary loaded transform (str): keywords for transform text

DEFAULT_THEMES = {'box': '\x1b[36m', 'choose': '\x1b[93m', 'confirm': '\x1b[95m', '

ask(*obj*, *theme='warning'*, *transform=None*, *humanize=True*, *validator=None*, *default=None*, *required=False*, ***kwargs*)

Summary

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description humanize (bool, optional): Description validator (None, optional): Description default (None, optional): Description required (bool, optional): Description

Returns: TYPE: Description

Raises: ValueError: Description

box(*obj*, *theme='box'*, *transform=None*, *humanize=True*, ***kwargs*)
Function: box Summary: InsertHere Examples: InsertHere

Attributes: Returns: InsertHere

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

choose(*choices*, *question=None*, *theme='choose'*, *transform=None*, *humanize=True*, *default=None*, ***kwargs*)

Args: choices (TYPE): Description question (None, optional): Description theme (str, optional): Description transform (None, optional): Description humanize (bool, optional): Description default (None, optional): Description

Returns: TYPE: Description

Raises: ValueError: Description

clear()
Clear terminal.

confirm(*obj=None*, *theme='confirm'*, *transform=None*, *humanize=True*, *default=None*, ***kwargs*)

Args: obj (None, optional): Description theme (str, optional): Description transform (None, optional): Description humanize (bool, optional): Description default (None, optional): Description

Returns: TYPE: Description

Raises: ValueError: Description

error(*obj*, *theme='error'*, *transform=None*, *use_prefix=True*, *prefix='Error'*, *humanize=True*, ***kwargs*)

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description use_prefix (bool, optional): Description prefix (str, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

info(*obj*, *theme='info'*, *transform=None*, *use_prefix=True*, *prefix='Info'*, *humanize=True*, ***kwargs*)

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description use_prefix (bool, optional): Description prefix (str, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

load_theme(*theme*)
Function: load_theme Summary: InsertHere Examples: InsertHere

Attributes: Returns: InsertHere

Args: theme (TYPE): Description

Raises: ValueError: Description

progress(*count*, *total*, *prefix='Reading'*, *theme=None*, *suffix='Complete'*, *barLength=50*, ***kwargs*)

Args: count (TYPE): Description total (TYPE): Description prefix (str, optional): Description theme (None, optional): Description suffix (str, optional): Description barLength (int, optional): Description

Returns: TYPE: Description

run(*task*, *title=None*, *get_stdout=False*, *run_stdout=False*, *verbose=False*, *silent=False*, *use_prefix=True*, *prefix='Cmd'*)
Run command in subprocess.

Args: task (string): command to run title (string, optional): title to be printed get_stdout (bool, optional): return stdout from command run_stdout (bool, optional): run stdout before command verbose (bool, optional): show command in terminal silent (bool, optional): occult stdout/stderr when running command

Bool or String: Task success or Task stdout

section(*obj*, *theme='section'*, *transform=None*, *use_prefix=False*, *prefix='Section'*, *full_width=False*, *humanize=True*, ***kwargs*)

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description use_prefix (bool, optional): Description prefix (str, optional): Description full_width (bool, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

select(*obj*, *theme='choose'*, *humanize=True*, *question=None*, *default=None*, ***kwargs*)
Summary

Args: obj (TYPE): Description theme (str, optional): Description humanize (bool, optional): Description question (None, optional): Description default (None, optional): Description

Returns: TYPE: Description

Raises: ValueError: Description

slugify(*obj*, *humanize=True*, ***kwargs*)
Summary

Args: obj (TYPE): Description humanize (bool, optional): Description

Returns: TYPE: Description

success(*obj*, *theme='success'*, *transform=None*, *use_prefix=True*, *prefix='Success'*, *humanize=True*, ***kwargs*)

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description use_prefix (bool, optional): Description prefix (str, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

unitext(*obj*, *theme=None*, *transform=None*, *humanize=True*, ***kwargs*)
Function: unitext Summary: InsertHere Examples: InsertHere

Attributes: Returns: InsertHere

Args: obj (TYPE): Description theme (None, optional): Description transform (None, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

warning(*obj*, *theme='warning'*, *transform=None*, *use_prefix=True*, *prefix='Warning'*, *humanize=True*, ***kwargs*)

Args: obj (TYPE): Description theme (str, optional): Description transform (None, optional): Description use_prefix (bool, optional): Description prefix (str, optional): Description humanize (bool, optional): Description

Returns: TYPE: Description

buzio.cli.**get_terminal_size**()
Function: get_terminal_size.

Try to find terminal size using get_terminal_size on Python 3 and 'tput' commands for Python 2. Limited use on Windows: just returns (80, 25)

Tuple of Int: (col, lines)

Module contents

[summary]

[description]

Variables: init() {[type]} – [description] __version__ {str} – [description] console {[type]} – [description] formatStr {[type]} – [description]

CHAPTER 2

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