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# Local development cli - LCLI

*Release 0.4.3*

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Local development productivity tools meant to smooth and ease developers day to day work. It is meant to be cross-platform but for now is tested using MacOS and Ubuntu



# CHAPTER 1

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This are few examples

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- unified command line interfaces for multiple cli tools
- interactive command line mode
  - this act as an interactive wrapper on top of existing cli tools
  - also allow extending the existing cli tools with auto-completion, input enhanced wizard or description
  - allow switching between command namespaces in the same terminal
- Implement custom CLI tools using Python, fully integrate with all LCLI tool features:
  - just write some code class or function and configure them to be wired in application
- use Fire to auto document Python objects, so all you should do is to focus on business logic





### 2.1 Fire mode

In fire mode the application allow user to configure a hierarchy of objects that fit its needs for various project. The user can navigate and execute the hierarchy using Fire library by Google. “Python Fire is a library for automatically generating command line interfaces (CLIs) from absolutely any Python object.” <https://github.com/google/python-fire>

### 2.2 Interactive mode

Most often during the development process developers are using various tools for various projects. The interactive mode purpose is to improve productivity by offering auto-completion details on the spot. This is implemented on top of python cmd package: <https://docs.python.org/3/library/cmd.html>



### 3.1 Installation process

Install from source

```
# Using invoke
invoke install
#from project root directory
./install
#or
python3 -m pip install -r requirements.txt
python3 -m pip install . --user
```

### 3.2 Software dependencies

This is a Python package available as MIT License and is depending on following packages:

- fire <https://github.com/google/python-fire/releases>
- pinject <https://github.com/google/pinject/releases>
- PyYAML
- prompt\_toolkit
- pyfiglet
- blessings
- tk
- appJar
- jsonschema

## 3.3 Latest releases

- V-0.2.2 - First released version.

## 3.4 API references

## CHAPTER 4

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### Build and Test

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#### 4.1 Build

```
# Using invoke
invoke build
```

#### 4.2 Test

```
# Using invoke
invoke test
invoke coverage
# Using pytest
py.test
pytest --cov=src/lcli/ .
```



## CHAPTER 5

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### Use cases

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:raw-html-m2r:‘ <<https://youtu.be/L9orYXE1nlU>>‘\_





### 6.1 Configuration



## CHAPTER 7

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Author

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George Babarus



## CHAPTER 8

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### Contribute

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Feel free to contribute to this project and make developer life easier:

- by submitting new ideas as a github issue [here](#)
- by making pull request with specific bug fixes
- for new features or architectural change please contact [George Babarus](#) to avoid double work on any way.



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### Useful links

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- <https://mypy.readthedocs.io/en/latest/generics.html#generics>
- <https://code-maven.com/interactive-shell-with-cmd-in-python>
- <https://www.journaldev.com/16140/python-system-command-os-subprocess-call>
- <https://stackoverflow.com/questions/3262569/validating-a-yaml-document-in-python>
- <https://github.com/oclif/oclif#-cli-types>
- <https://medium.com/the-z/getting-started-with-oclif-by-creating-a-todo-cli-app-b3a2649adbcf>

## 9.1 Installation

Install the package (or add it to your `requirements.txt` file):

```
# From source
$ invoke install

# or
# install in user space
$ ./install -u

#install it globally
$ ./install

# From repository
$ pip install lcli

# or simply install it using python in root of the repository
$ python -m pip install -r requirements.txt
$ python -m pip install . --user
```

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**Note:** Note that from this point on there are two options to use lcli

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- Configure the build in cli to support your custom cli commands, and expose better API for the existing commands. See *Configuration*
  - Build your own cli application by extending python package as in example bellow
- 

```
# Build your own cli application
import os
from lcli.app import App

class YourOwnApp(App):
    pass

def main():
    try:
        project_root_path = os.path.realpath(os.path.dirname(__file__))
        app = YourOwnApp(app_path=project_root_path)
        app.run()
    except Exception as error:
        # process errors

if __name__ == '__main__':
    main()
```

## 9.2 Configuration

### 9.2.1 Configuration files

## 9.3 Contributing

### 9.3.1 How you can contribute

#### Set up your environment

1. Install dependencies

```
$ pip install -e '.[dev]'
```

#### Making changes

Test your changes

```
$ invoke test
```

This script will do the following:

1. Run unit tests

#### Reporting bugs

Report bugs on github



## Bring some ideas

Feel free to share your ideas about the project.

## 9.4 Changelog

### 9.4.1 master

#### New Features

#### Fixes

#### Other Changes

### 9.4.2 v0.2.2

#### New Features

- Command configuration cache added
- Config schema validation

#### Other Changes

- Created documentation #215.

## 9.5 Structural Elements

### Table of Contents

- *Structural Elements*
  - *Document Section*
    - \* *Document Subsection*
      - *Document Subsubsection*
      - *Document Paragraph*
- *Structural Elements 2*
  - *Document Section*
    - \* *Document Subsection*

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## 9.6 Structural Elements 2

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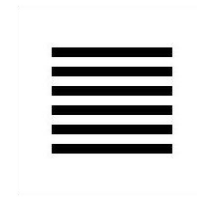


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## 9.7 Plugins for LCIL

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- *Plugins for LCIL*
- *Document Section*

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### 9.7.1 Document Section

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## 9.8 Demo

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## 9.8.1 Document Section

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## 9.9 Build your own cli application

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- *Build your own cli application*
  - *Extend lcli object*
  - \* *Simple example*

### 9.9.1 Extend lcli object

#### Simple example

```
# Build your own cli application
import os
from lcli.app import App

class YourOwnApp(App):
    pass

def main():
    try:
        project_root_path = os.path.realpath(os.path.dirname(__file__))
        app = YourOwnApp(app_path=project_root_path)
        app.run()
    except Exception as error:
        # process errors
```

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```
if __name__ == '__main__':  
    main()
```