# tuulbachs

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# CONTENTS:

Low-level software tuuls, organized into drawers.

CHAPTER

# ONE

# TUULBASH

**kickpy** - A bash script intended to kick a Python script from an environment that doesn't have an estabished Python environment yet. For example:

```
./kickpy.sh example.py
```

CHAPTER

TWO

# TUULCLI

Tuuls for command line interface (CLI).

## 2.1 cli_color.py

Define colors and font styles for use in CLI output

**class** tuulcli.cli_color.**CliColor**
Contain the list of colors and font styles

CHAPTER

THREE

# TUULDEVOPS

Automation tuuls for common tasks around software development

## 3.1 pipeline_steps.py

Provide routines for outputting automated pipeline steps consistently

tuuldevops.pipeline_steps.**major_step**(*title*, *description*)
Output title and description of a major step in the pipeline

## 3.2 tag_current_version.py

Git tag the commit on the current branch with the current version of this software

tuuldevops.tag_current_version.**tag_product_version**(*conf_filename*)
Git tag the commit on the current branch with the version of this software given in conf_filename

## 3.3 update_version.py

Update the version in the tuulbachs-formatted YAML version file

tuuldevops.update_version.**update_product_version**(*conf_filename*, *new_ver*)
Write a new_ver as the new value for the 'version' key in the conf_filename

CHAPTER

FOUR

# TUULGIT

An opinionated set of Git tuuls.

## 4.1 check_status.py

Check the status of the local git working tree

tuulgit.check_status.**has_staged_uncommitted**()
Return a boolean indicating whether the repository has staged, but uncommitted changes

tuulgit.check_status.**has_unstaged_changes**()
Return a boolean indicating whether the working tree has unstaged changes

tuulgit.check_status.**has_untracked_unignored_files**()
Return a boolean indicating whether the working tree has untracked, unignored files

tuulgit.check_status.**is_clean_working_tree**(*check_if_working_tree=True*)
Return a boolean indicating whether the Git working tree is clean or not

tuulgit.check_status.**is_working_tree**()
Check if this is a git working tree at all

**Raises** ***TuulError*** – when the caller attempts to use this function outside of a git working tree

tuulgit.check_status.**repo_toplevel_path**()
Return a string containing the path of the repo's top-level directory

## 4.2 tag_commit.py

Git tag the commit on the current branch, *only if* the working tree is clean

tuulgit.tag_commit.**tag_current**(*tag*)
Git tag (annotated) the current commit from a clean working tree

**Raises** ***TuulError*** – when the caller attempts to tag an unclean working tree or to use a tag that already exists on the repo

tuulgit.tag_commit.**tag_current_signed**(*tag*)
Git tag (signed) the current commit from a clean working tree

**Raises** ***TuulError*** – when the caller attempts to tag an unclean working tree or to use a tag that already exists on the repo

tuulgit.tag_commit.**tag_delete_local**(*tag*)
Delete the named Git tag (local only). This function does *not* delete remote tags

**Raises** *TuulError* – if the tag delete fails

CHAPTER

FIVE

# TUULVER

Parsing tuuls for a tuulbachs-formatted version YAML input file.

## 5.1 version.py

Utility functions for managing a tuulbachs-formatted version YAML file

tuulver.version.**bump_build**(*filename*)
Bump the "build" portion of the version from the input YAML filename

tuulver.version.**bump_major**(*filename*)
Bump the major portion of the version from the input YAML filename

tuulver.version.**bump_minor**(*filename*)
Bump the minor portion of the version from the input YAML filename

tuulver.version.**bump_patch**(*filename*)
Bump the patch portion of the version from the input YAML filename

tuulver.version.**bump_pre**(*filename*, *prebase='pre'*)
Bump the "pre" portion of the version from the input YAML filename

tuulver.version.**create_version_file**(*filename*, *product_name*)
Create an initial tuulbachs-formatted version YAML file

tuulver.version.**emit_product_name**(*filename*)
Return the product name value from the input YAML filename

tuulver.version.**emit_version**(*filename*)
Return the version value from the input YAML filename

CHAPTER

SIX

# TUULYAML

Low level tuuls for interacting with YAML files.

## 6.1 parse.py

Parse an input YAML file

tuulyaml.parse.**parse_yaml**(*filename*)
Given input path filename, parse YAML file.

## 6.2 update_simple_value.py

Update a simple top-level value in a YAML file

tuulyaml.update_simple_value.**update_value**(*inout_path*, *existing_key*, *new_value*)
Update existing_key to new_value in the existing inout_path YAML file.

CHAPTER

SEVEN

# INSTALL

Note that tuulbachs is not yet published at PyPi.

1. Set up and activate a Python virtual environment at the top level of this project
2. `python -m pip install -r requirements.txt`
3. `cd` to the local `auto` directory
4. `./install_local.sh`

CHAPTER

# EIGHT

# DEPLOY

Guidance about how to deploy updates to tuulbachs itself

1. Decide which type of semantic version upgrade this is (major, minor, patch, etc.)
2. From `tuulver/version.py`, use the appropriate `bump_*` function to update the version string in `version.yaml`
3. Follow *install* guidance
4. Commit changes to Git
5. From `tuuldevops/tag_current_version.py`, use the `tag_product_version` function to properly tag this release
6. Push the Git update (including tags) to this repo's remotes
7. In a temp dir, download all required packages without installing them, tar and zip these for deployment.
8. In the src dir, run `pyinstaller --add-data ../version.yaml:.  --onefile tuul.py`
9. Publish the release (including offline packages tarball and `tuul` executable) on the repo's remote (Github, for instance)

CHAPTER

NINE

# INTERNAL API

This is code intended for use by tuulbachs itself, not external users.

## 9.1 exception.py

This module contains the set of tuulbachs' exceptions.

**exception** tuulbachs.exception.**TuulError**(*msg=None*)

The parent exception from which all other Tuulbachs Python exceptions are derived.

CHAPTER

TEN

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