gitlab-projects-issues

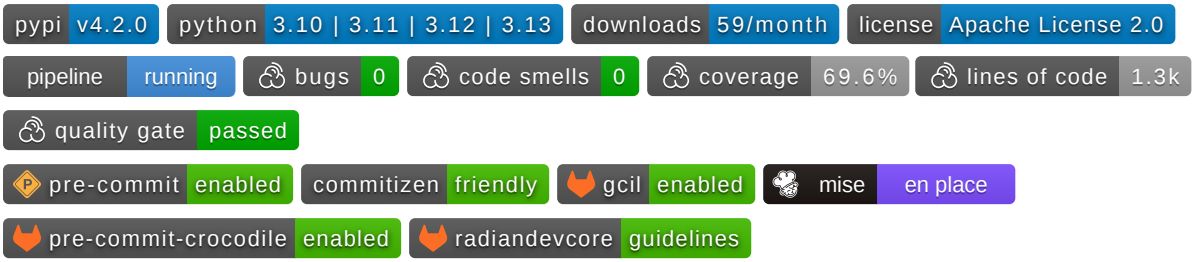
Author: Adrian DC

Description: Generate GitLab project issues and milestones statistics automatically

Date: 08/11/2026

Version: `4.3.0`

▸ Usage



Generate GitLab project issues and milestones statistics automatically

Documentation: https://radiandevcore.gitlab.io/tools/gitlab-projects-issues
Package: https://pypi.org/project/gitlab-projects-issues/

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Purpose

This tool can automatically generate issues and milestones statistics,
by analyzing project's issues, detecting milestones and assignees.

If issues without time estimations are found, `~?` will be shown before time outputs.

Milestone statistics will automatically be injected in the milestone description,
with a markdown table of assignees, timings, progress and issues total.

The following step is required before using the tool:

- The GitLab user tokens must be created with an `api` scope (a short expiration date is recommended)

Examples

```
# Show the helper menu
gitlab-projects-issues

# Inject milestones statistics into milestones' description
gitlab-projects-issues --milestones-statistics 'https://gitlab.com/group/project'

# Inject milestones statistics into milestones' description (with default 20h time per unestimated issues)
gitlab-projects-issues --milestones-statistics --default-estimate '20' 'https://gitlab.com/group/project'
```

Outputs

Milestones statistics will automatically be added to each milestone's description.

The following example shows how milestones statistics may look on a project:

Milestone statistics - MILESTONE NAME

Assignees	Issues	Estimated	Spent	Remaining	Progress
Without assignee	10	18d	18d	/	100.00%
User ONE	22	42d	5d	37d	11.90%
User TWO	29	50d 2h	20d 6h	29d 4h	41.29%
User THREE	7	9d 2h	3d 4h	5d 6h	37.84%
User FOUR	6	21d	/	21d	0.00%
Total	*74*	*135d 4h*	*47d 2h*	93d 2h	*34.87%*

Last update using gitlab-projects-issues : 2024-06-01 19:38:48 UTC

Usage

```
usage: gitlab-projects-issues [-h] [--version] [--no-color] [--update-check] [--settings] [--set GROUP KEY VAL]
                              [-c FILES] [--dump] [--default-estimate ESTIMATE] [--exclude-closed-issues]
                              [--milestone MILESTONE] [--create-milestone | --get-milestone | --milestones-
statistics]
                              [--exclude-closed-milestones] [--ignore-issues-without-milestone]
                              [--set-milestone-description TEXT] [--set-milestone-state STATE]
                              [--set-milestone-start-date DATE] [--set-milestone-due-date DATE] [--]
                              [url_path]

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internal arguments:
  -h, --help                        # Show this help message
  --version                         # Show the current version
  --no-color                        # Disable colors outputs with 'NO_COLOR=1'
                                    # (or default settings: [themes] > no_color)
  --update-check                    # Check for newer package updates
  --settings                        # Show the current settings path and contents
  --set GROUP KEY VAL               # Set settings specific 'VAL' value to [GROUP] > KEY
                                    # or unset by using 'UNSET' as 'VAL'

credentials arguments:
  -c FILES, --config FILES          # Python GitLab configuration files (default: PYTHON_GITLAB_CFG environment)

common arguments:
  --dump                            # Dump Python objects of projects

issues arguments:
  --default-estimate ESTIMATE       # Default issue time estimate if none providedin hours (default: 8)
  --exclude-closed-issues           # Exclude issues in closed state

milestones arguments:
  --milestone MILESTONE             # Use a specific milestone by name, by ID, or "None"
  --create-milestone                # Create a new milestone
  --get-milestone                   # Get existing milestone
  --milestones-statistics           # Inject milestones statistics into milestones description
  --exclude-closed-milestones       # Exclude milestones in closed state
  --ignore-issues-without-milestone  # Ignore issues without a milestone
  --set-milestone-description TEXT  # Set milestone description
  --set-milestone-state STATE       # Set milestone state [activate,close]
  --set-milestone-start-date DATE   # Set milestone start date
  --set-milestone-due-date DATE     # Set milestone due date

positional arguments:
  --                                # Positional arguments separator (recommended)
  url_path                          # GitLab project path URL

environment variables:
  GITLAB_TOKEN                      # GitLab API token environment variable
  CI_JOB_TOKEN                      # GitLab CI job token environment variable (CI only)
```

Python GitLab configuration file

`gitlab-projects-issues` uses the same configuration files as the `python-gitlab` API, holding domains, URL and private tokens credentials for the GitLab instances.

The default user configuration file can be created at `~/.python-gitlab.cfg`.

The `-c` or `--config` parameters can provide specific configuration files, otherwise the `PYTHON_GITLAB_CFG` environment variable can be used.

Example `~/.python-gitlab.cfg` configuration file:

~/.python-gitlab.cfg

```
[global]
default = gitlab.com
ssl_verify = true
timeout = 5

[gitlab.com]
url = https://gitlab.com
private_token = glpat-...

[gitlab.local.dev]
url = https://gitlab.local.dev
private_token = glpat-...

[gitlab.private.dev:4243]
url = https://gitlab.private.dev:4243
private_token = glpat-...
ssl_verify = /usr/local/share/ca-certificates/gitlab.private.dev.crt
```

`python-gitlab` **configuration files documentation:** Getting started with the CLI / Configuration files

Userspace available settings

`gitlab-projects-issues` creates a `settings.ini` configuration file in a userspace folder.

For example, it allows to disable the automated updates daily check (`[updates] > enabled`)

The `settings.ini` file location and contents can be shown with the following command:

```
gitlab-projects-issues --settings
```

Environment available configurations

`gitlab-projects-issues` uses `colored` for colors outputs.

If colors of both outputs types do not match the terminal's theme,
an environment variable `NO_COLOR=1` can be defined to disable colors.

Dependencies

- colored: Terminal colors and styles
- python-gitlab: A python wrapper for the GitLab API
- setuptools: Build and manage Python packages
- update-checker: Check for package updates on PyPI

References

- commitizen: Simple commit conventions for internet citizens
- git-cliff: CHANGELOG generator
- gitlab-release: Utility for publishing on GitLab
- gcil: Launch .gitlab-ci.yml jobs locally
- mkdocs: Project documentation with Markdown
- mkdocs-coverage: Coverage plugin for mkdocs documentation
- mkdocs-exporter: Exporter plugin for mkdocs documentation
- mkdocs-material: Material theme for mkdocs documentation
- mypy: Optional static typing for Python
- pre-commit: A framework for managing and maintaining pre-commit hooks
- pre-commit-crocodile: Git hooks intended for developers using pre-commit
- PyPI: The Python Package Index
- twine: Utility for publishing on PyPI

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▸ Webhooks



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- CI/CD webhooks project
- Issues webhook configuration

Issues access token

- **Settings:**
  - **Action:** Add new token
  - **Token name:** `<path/to/webhooks/project>-reporter-api`
  - **Expiration date:** `yyyy-12-31`
  - **Select a role:** `Reporter`
  - **Select scopes:**
    - **api:** Enable
  - **Action:** Create project access token
  - **Your new project access token:**
    - **Action:** Copy project access token

CI/CD webhooks project

- **Settings / CI/CD / Variables:**
  - **Action:** Add variable
    - **Visibility:** Masked and hidden
    - **Protect variable:** Enable
    - **Expand variable reference:** Enable
    - **Key:** `GITLAB_TOKEN`
    - **Value:** `PASTE_<path/to/webhooks/project>-reporter-api_TOKEN`
    - **Action:** Add variable
- **Settings / Access tokens:**
  - **Action:** Add new token
    - **Token name:** `webhook-issues`
    - **Expiration date:** `yyyy-12-31`
    - **Select a role:** `Maintainer`
    - **Select scopes:**
      - **api:** Enable
    - **Action:** Create project access token
  - **Your new project access token:**
    - **Action:** Copy project access token
- **Repository sources with a `gitlab-projects-issues` CI/CD pipeline:**

Webhooks / README.md

```
# GROUP - PATH - Webhooks

**Documentation:** <https://radiandevcore.gitlab.io/tools/gitlab-projects-issues>
```

Webhooks / .gitignore

```
# Cache intermediates
.cache
```

Webhooks / .gitlab-ci.yml

```yaml
.image-issues:
  image: registry.gitlab.com/radiandevcore/tools/gitlab-projects-issues/gitlab-projects-issues:latest

variables:
  # Predefined CI variables
  GITLAB_TOKEN:
    value: ''
    description: 'GitLab private token'
  ISSUES_DEFAULT_ESTIMATE:
    value: '20'
    description: 'Issues - Default estimated times for issues'
  ISSUES_PROJECT:
    value: 'group/path/to/issues'
    description: 'Issues - GitLab project path with namespace'

stages:
  - issues

issues:milestones:
  stage: issues
  extends:
    - .image-issues
  interruptible: true
  resource_group: 'issues.milestones'
  script:
    # Debounce pipeline executions
    - |
      set +x
      mkdir -p ./.cache/
      touch -d '-5 minutes' ./.cache/timestamp_debounce
      if [ -f ./.cache/timestamp_last ] && [ ./.cache/timestamp_last -nt ./.cache/timestamp_debounce ]; then
        echo ' '
        echo ' [INFO] Debouncing API access, cancelling job...'
        echo ' '
        exit 0
      else
        touch ./.cache/timestamp_last
      fi
    # Generate milestones statistics
    - |
      gitlab-projects-issues \
        --milestones-statistics \
        --default-estimate "${ISSUES_DEFAULT_ESTIMATE:?}" \
        "${CI_SERVER_URL}/${ISSUES_PROJECT:?}"
  cache:
    paths:
      - .cache/timestamp_last
  start_in: 5 minutes
  when: delayed
```

Issues webhook configuration

- **Settings / Webhooks:**
  - **Action:** Add new webhook
    - **URL:** `https://<GITLAB_DOMAIN>/api/v4/projects/<PATH%2FTO%2FWEBHOOK%2FPROJECT>/pipeline?ref=<BRANCH>`
    - **Action:** Add custom headers
      - **Header name:** `PRIVATE-TOKEN`
      - **Header value:** `PASTE_webhook-issues_TOKEN`
    - **Name:** `gitlab-projects-issues`
    - **Trigger:**
      - **Issues events:** Enable
    - **Enable SSL verification:** Enable
    - **Action:** Add webhook
  - **Action:** Test (`gitlab-projects-issues`) / Issue events

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