CM4Git – Visual GitHub KPIs in Seconds

A zero-install, open-source GitHub insights dashboard for educators, developers, and teams.

# What Is CM4Git?

CM4Git is a lightweight, browser-based tool that connects directly to the GitHub API to visualize 16+ key software development KPIs — no sign-up, no backend, no tracking.

It's designed for:

* 📊 Auditing development practices
* 🧑‍🏫 Teaching Configuration Management
* 🛠️ Rapid onboarding and diagnostics
* 🧪 Exploratory data analysis from live repos

# Features & Benefits

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Feature | CM4Git | GitHub Insights | Code Climate | LinearB |
| No Account Needed | ✅ | ❌ | ❌ | ❌ |
| Runs Entirely in Browser | ✅ | ❌ | ❌ | ❌ |
| Native GitHub API Integration | ✅ | ✅ | ✅ | ✅ |
| Visual KPIs for Free | ✅ | ❌ | ❌ | ❌ |
| Self-Hosted Option | ✅ | ❌ | ❌ | ❌ |
| Transparent Calculations | ✅ | ❌ | ❌ | ❌ |
| Perfect for Workshops | ✅ | ❌ | ❌ | ❌ |

CM4Git offers unmatched simplicity with full control and transparency — all from a single index.html.

# Built-In KPIs

CM4Git supports over 16 pre-built KPI charts, including:

* Commits / Contributors / Comments Over Time
* Avg PR Merge Time
* Avg Time to Close Issues
* Open vs Closed PRs / Issues
* Code Churn (Files Changed)
* Lead Time for Changes
* Lines of Code Added vs Deleted
* Most Active Days
* Most Changed Files
* PR Rejection Rate
* Release Frequency
* Inactive Issues
* Branch Activity & Divergence
* Branch Categories (feature/bugfix/etc.)
* Expandable audit tables for branch insights

All charts support configurable time ranges and graph types (line, bar, pie, doughnut). Tooltips and visual refresh indicators are built in.

# How to Use

1. Download the index.html and main.js files from the GitHub repository.
2. Open index.html in your browser — no install needed.
3. On first load, you'll see empty chart placeholders.
4. Click “➕ Add Box” to set: Repo in owner/repo format, GitHub Personal Access Token (PAT), KPI category, time range, and chart type.
5. Use a GitHub token with repo and read:org scopes to bypass rate limits and access private data if needed.
6. Save your layout — it's stored in your browser’s local storage. You can import/export JSON configs and use on any machine.

# Ideal For

* 📚 Educators teaching software configuration management (SCM)
* 🧪 QA or DevOps leads assessing process metrics
* 🧑‍💻 Developers tracking repo health or planning refactors
* 🧘‍♂️ Teams needing self-hosted GitHub dashboards with full visibility

# Why CM4Git?

Unlike SaaS tools, CM4Git puts you in charge:

* No logins
* No tracking
* No backend
* Full transparency
* Works from a local file or GitHub Pages

It’s free, lightweight, and educational by design.

# Want to Try?

Just grab the files and double-click index.html

Or host from a GitHub repo using GitHub Pages:

/(your-repo)  
├── index.html  
└── main.js

Enable GitHub Pages in repo settings, and it’s live.