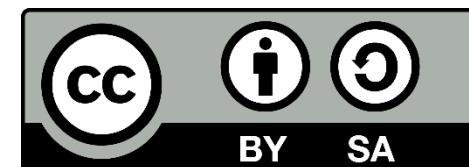


LaTeX und GitHub

Oliver Kopp
JabRef e.V.



Inhalt

- 1** Einrichtung von GitHub
- 2** Initiales LaTeX-Dokument
- 3** Automatische Prüfung durch GitHub
- 4** Pull-Requests
- 5** PDF verfügbar machen
- 6** Zusammenfassung, Ausblick, Weiterführendes

Motivation

- Online LaTeX-Dokumente bearbeiten
- Online LaTeX-Dokumente übersetzen („compile“)
- Automatisierte Rückmeldung von Übersetzungsfehlern („compile errors“)

Dieser Vortrag zeigt auf, wie man GitHub nutzen kann, um LaTeX-Dokumente automatisch übersetzen und das PDF zur Verfügung stellen kann.

Arbeitsumgebung für den Vortrag

- In diesem Vortrag wird ausschließlich GitHub genutzt
 - In einem nächsten Vortrag wird die Interaktion mit einem lokalen Repository gezeigt
- Server: GitHub
 - Kostenlos für OpenSource
- In der Präsentation werden Screenshots des Arbeitsablaufs gezeigt
 - Ziel: lualatex von einem Rechner von GitHub laufen haben
(AKA Nutzung von GitHub Actions zur Übersetzung von eines .tex-Dokuments)
- Demo-Repository <https://github.com/demo-kopp/dante-2024>

GitHub Account anlegen

- <https://github.com>
- Email
 - Kann vor der Öffentlichkeit versteckt werden
- Login-Name
 - Variante 1: Name ähnlich wie bei Universitätskonto. Beispiel: kopper
 - Variante 2: Nachname, dem der erste Buchstabe Ihresdes Vornamens vorangestellt wird. Beispiel: okopp
 - Variante 3: vorname.nachname. Beispiel: oliver.kopp
 - (viele weitere Möglichkeiten)

Stand nach Anlage des Accounts

Dashboard

Type to search

Home Send feedback Filter 8

Updates to your homepage feed

We've combined the power of the Following feed with the For you feed so there's one place to discover content on GitHub. There's improved filtering so you can customize your feed exactly how you like it, and a shiny new visual design. ✨

[Learn more](#)

Start writing code

Start a new repository for demo-kopp

A repository contains all of your project's files, revision history, and collaborator discussion.

Repository name *

Public
Anyone on the internet can see this repository

Private
You choose who can see and commit to this repository

[Create a new repository](#)

Introduce yourself with a profile README

Share information about yourself by creating a profile README, which appears at the top of your profile page.

```
demo-kopp / README.md Create
```

```
1 - 🦋 Hi, I'm @demo-kopp
2 - 📖 I'm interested in ...
3 - 🌱 I'm currently learning ...
4 - ❤️ I'm looking to collaborate on ...
5 - 📧 How to reach me ...
6 - 😄 Pronouns: ...
7 - ⚡ Fun fact: ...
8
```

Use tools of the trade

Simplify your development workflow with a GUI


Get AI-based coding suggestions

Latest changes

- 15 hours ago
Secret scanning now detects secrets in GitHub wikis
- 2 days ago
GitHub Actions: Hardware accelerated Android virtualization now available
- 2 days ago
What's new for GitHub Actions hosted runners
- 2 days ago
Code security configurations let organizations easily roll out GitHub security products at scale

[View changelog](#)

Explore repositories

 [guhungr](#) / [react-native-photo-manipulator](#) [☆](#)

React Native Image Processing API to edit photo programmatically for Android and iOS. It features print text, overlay on another image (add watermark), resize, crop, flip and optimize image size th...

☆ 293 TypeScript

The state of the Octoverse 2023

What does it mean for a technology to go mainstream? Discover how AI is changing the developer experience.

[Learn more](#)

Create your first project

Ready to start building? Create a repository for a new idea or bring over an existing repository to keep contributing to it.

[Create repository](#) [Import repository](#)

Recent activity

When you take actions across GitHub, we'll provide links to that activity here.

6

Repository anlegen I


Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?

[Import a repository.](#)

Required fields are marked with an asterisk ().*

Owner *

 demo-kopp ▾

Repository name *

/ dante-2024

✔ dante-2024 is available.

Great repository names are short and memorable. Need inspiration? How about **musical-funicular** ?

Description (optional)

Repository anlegen II

Initialize this repository with:

Add a README file

This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore


.gitignore template: TeX ▾

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license

License: MIT License ▾

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

This will set  main as the default branch. Change the default name in your [settings](#).

 You are creating a public repository in your personal account.

Stand nach Anlage Repository

demo-kopp / dante-2024

Type to search

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

dante-2024 Public

Pin Unwatch 1 Fork 0 Star 0

main 1 Branch 0 Tags

Go to file Add file Code

About

demo-kopp Initial commit	e98f592 · now	1 Commits
.gitignore	Initial commit	now
LICENSE	Initial commit	now
README.md	Initial commit	now

No description, website, or topics provided.

- Readme
- Activity
- 0 stars
- 1 watching
- 0 forks

README MIT license

dante-2024

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

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Erstes LaTeX-Dokument: Neue Datei anlegen

The screenshot shows the GitHub interface for a repository named 'dante-2024'. At the top, there is a navigation bar with options like 'Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. Below this, the repository name 'dante-2024' is displayed as 'Public'. A search bar is visible with the text 'Type to search'. The main content area shows the repository's file structure, including a 'main' branch, '1 Branch', and '0 Tags'. A search bar for files is present with the text 'Go to file'. A dropdown menu is open under the 'Add file' button, showing two options: '+ Create new file' and 'Upload files'. A purple arrow points to the 'Create new file' option. Below the dropdown, a table lists the files in the repository: '.gitignore', 'LICENSE', and 'README.md', all from the 'Initial commit' and uploaded '4 minutes ago'. At the bottom, the 'README' file is open, showing the title 'dante-2024' and an 'MIT license'.

demo-kopp / dante-2024

Type to search

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

dante-2024 Public

Pin Unwatch 1

main 1 Branch 0 Tags

Go to file t

Add file <> Code

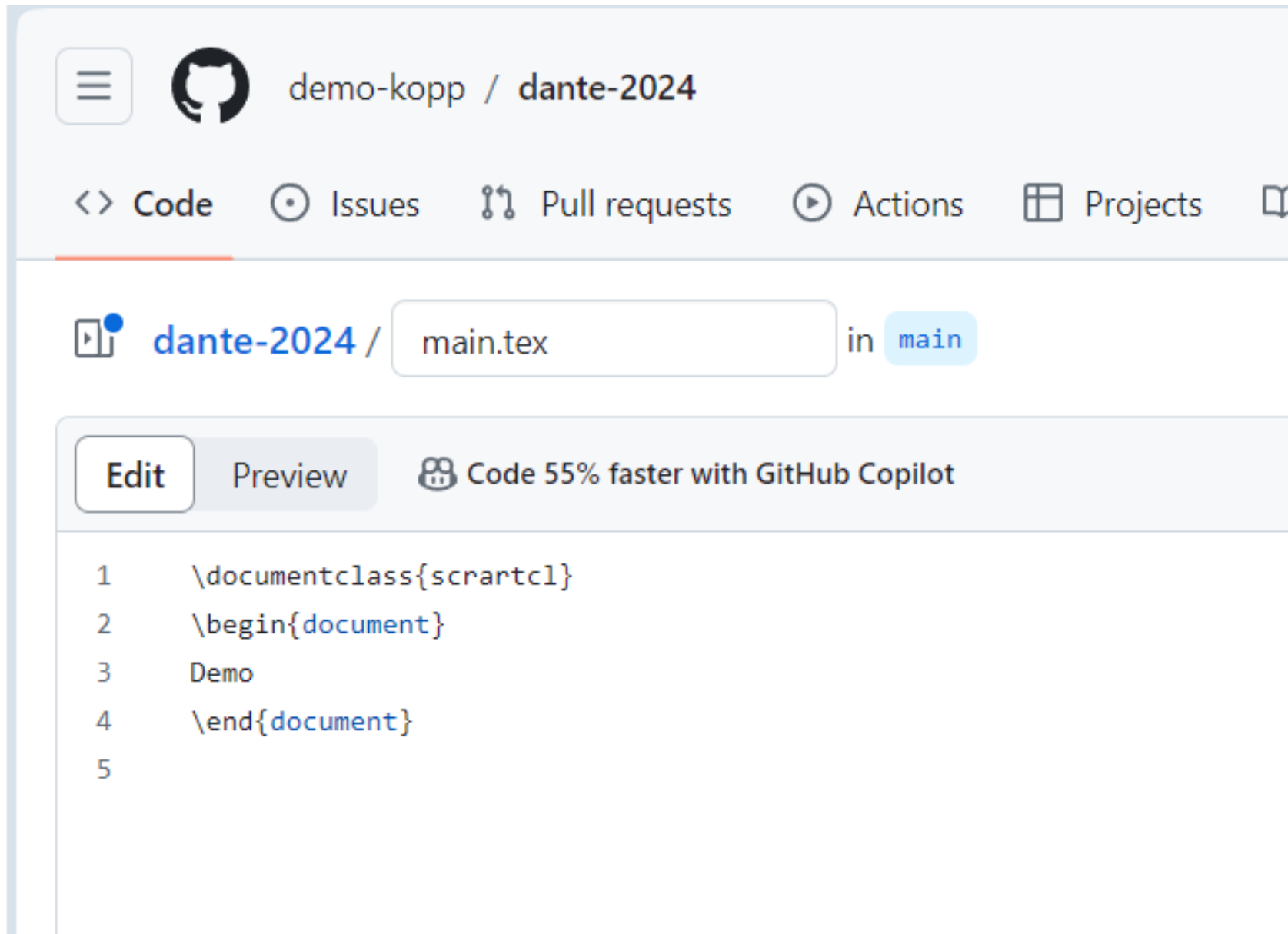
- + Create new file
- Upload files

demo-kopp Initial commit e98f592
.gitignore Initial commit 4 minutes ago
LICENSE Initial commit 4 minutes ago
README.md Initial commit 4 minutes ago

README MIT license

dante-2024

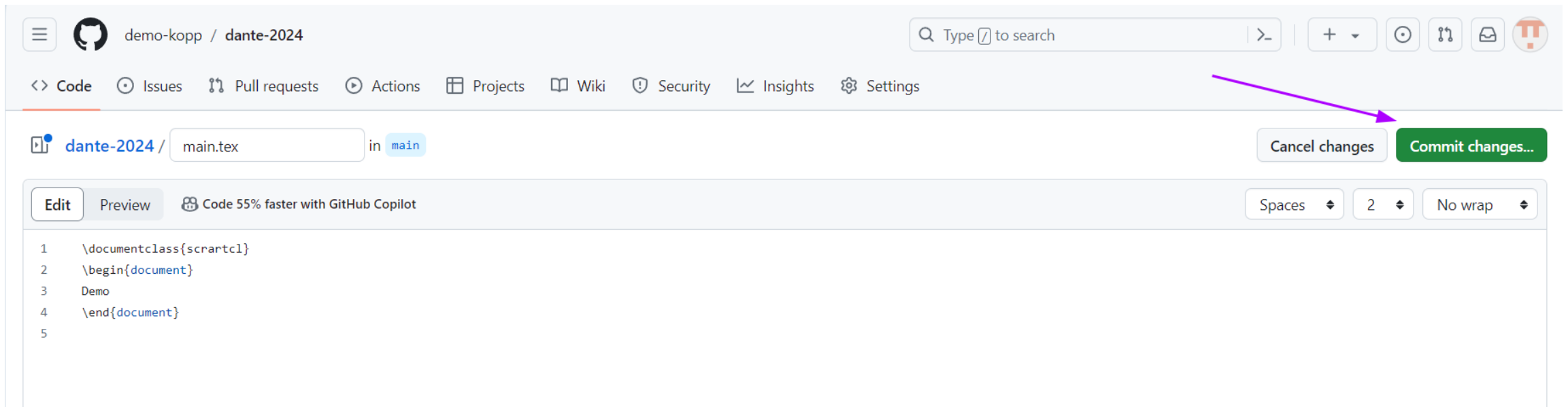
Inhalt hinzufügen



The screenshot shows the GitHub interface for a repository named 'demo-kopp / dante-2024'. The navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, and a book icon. The current view is the 'Code' tab, showing the file 'dante-2024 / main.tex' in the 'main' branch. The editor has 'Edit' and 'Preview' tabs, with a promotional message for GitHub Copilot. The code content is as follows:

```
1 \documentclass{scrartcl}
2 \begin{document}
3 Demo
4 \end{document}
5
```

Committed: Start



The screenshot shows the GitHub web interface for editing a file. At the top, the repository path is 'demo-kopp / dante-2024'. A search bar is present with the text 'Type / to search'. Below the search bar is a navigation menu with links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The current file being edited is 'main.tex' in the 'main' branch. On the right side, there are two buttons: 'Cancel changes' and 'Commit changes...'. A purple arrow points from the 'Commit changes...' button back to the 'Settings' link in the navigation menu. Below the navigation, there are tabs for 'Edit' and 'Preview', and a notification for 'Code 55% faster with GitHub Copilot'. The code editor shows the following LaTeX code:

```
1 \documentclass{scrartcl}
2 \begin{document}
3 Demo
4 \end{document}
5
```

At the bottom right of the editor, there are settings for 'Spaces' (set to 2) and 'No wrap'.

Committer: Nachricht festlegen

Commit changes ×

Commit message

Create main.tex

Extended description

Add an optional extended description..

Commit directly to the `main` branch

Create a **new branch** for this commit and start a pull request [Learn more about pull requests](#)

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Magie: YAML-Datei für einen GitHub Workflow für lualatex

dante-2024 / .github / workflows / `check-build.yaml` in `main`

```
1  name: Check Build
2
3  on: [push]
4
5  jobs:
6    build:
7      runs-on: ubuntu-latest
8      name: check
9      steps:
10     - name: Checkout
11       uses: actions/checkout@v4
12     - name: Install TeX Live
13       uses: zauguin/install-texlive@v3
14       with:
15         packages: >
16           latex latex-bin scheme-basic koma-script luatexbase luatex
17     - run: lualatex main
18
```

Ubuntu 22.04

Entspricht „git clone“

Installiert neuestes TEXLive mit angegebenen Paketen

lualatex ist jetzt verfügbar

Workflow läuft!

The screenshot displays the GitHub Actions interface for a repository named 'demo-kopp / dante-2024'. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The 'Actions' tab is highlighted with a purple box. On the left sidebar, under the 'Workflows' section, the 'Check Build' workflow is selected and highlighted with a purple box. The main content area shows the 'Check Build' workflow details, including the file 'check-build.yaml'. Below this, a section titled '1 workflow run' contains a single job named 'Fix path', which is currently in progress. A purple arrow points to the 'Fix path' job. The job details indicate it is 'Check Build #1: Commit [733377d](#) pushed by demo-kopp'.

demo-kopp / dante-2024

Code Issues Pull requests **Actions** Projects Wiki Security Insights S

Actions New workflow

All workflows

Workflows

Check Build

Management

Caches

Runners

Check Build
check-build.yaml

1 workflow run

- **Fix path**
Check Build #1: Commit [733377d](#) pushed by demo-kopp

Workflow läuft!

← Check Build

🟡 Fix path #1

🏠 Summary



Jobs

🟡 lfgw

Run details

🕒 Usage

📄 Workflow file

Triggered via push now	Status	Total duration	Artifacts
 demo-kopp pushed  733377d main	In progress	–	–

check-build.yaml
on: push

🟡 lfgw 39s

(Statt „lfgw“ sollte „check“ dran stehen)

Workflow läuft!

The screenshot shows the GitHub Actions interface for a repository named 'demo-kopp / dante-2024'. The 'Actions' tab is selected, showing a workflow named 'Fix path #1'. The workflow is currently running, and a job named 'lfgw' is highlighted in the 'Jobs' section. The job 'lfgw' has a progress indicator and a duration of 1m 4s. The job steps are listed as follows:

- Set up job (1s) - Completed
- Checkout (0s) - Completed
- Install TeX Live (1m 4s) - In Progress
- Run lualatex main - Pending
- Post Checkout - Pending

The interface also includes a search bar for logs, a 'Cancel workflow' button, and a 'Give feedback' button.

(Statt „lfgw“ sollte „check“ dran stehen)

Alles grün!

The screenshot shows a job execution summary for 'lfgw'. The job is marked as successful with a green checkmark. The summary lists the following steps, all of which are completed with checkmarks:

- Set up job
- Checkout
- Install TeX Live
- Run lualatex main
- Post Checkout
- Complete job

The total execution time is 1m 17s. A purple arrow points from the text '1. Lauf: 77 Sekunden' to the 'Set up job' step in the list.

Summary

Jobs

- lfgw

Run details

- Usage
- Workflow file

lfgw
succeeded 7 minutes ago in 1m 17s

- > ✓ Set up job
- > ✓ Checkout
- > ✓ Install TeX Live
- > ✓ Run lualatex main
- > ✓ Post Checkout
- > ✓ Complete job

1. Lauf: 77 Sekunden

(Statt „lfgw“ sollte „check“ dran stehen)

Zweiter Lauf: 6 Sekunden (weil TeXLive aus dem Cache kommt)

← Check Build

✓ Update check-build.yaml #2

🏠 Summary

Jobs

✓ check

Run details

🕒 Usage

📄 Workflow file

Triggered via push 1 minute ago

👤 demo-kopp pushed 🔗 d2d2e99 main


check-build.yaml

on: push


✓ check

6s

Alles grün!


 dante-2024 Public

 Pin

 Unwatch 1

 main ▾


 1 Branch  0 Tags

 Go to file

t

Add file ▾

 Code ▾

 demo-kopp Update check-build.yaml




d2d2e99 · 2 minutes ago

 5 Commits

 .github/workflows


Update check-build.yaml

2 minutes ago

 .gitignore

Initial commit

31 minutes ago

 LICENSE


Initial commit

31 minutes ago

 README.md

Initial commit

31 minutes ago

 main.tex

Create main.tex

22 minutes ago

 README

 MIT license



dante-2024

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„main“ soll grün bleiben → Pull Requests

dante-2024 / .github / workflows / check-build.yaml in main

Edit

Preview



Code 55% faster with GitHub Copilot

Spaces

2

No wrap



```
1 name: Check Build
2
3 on:
4   push:
5     branches:
6       - main
7   pull_request:
8
9 jobs:
10  build:
11    runs-on: ubuntu-latest
12    name: check
13    steps:
14      - name: Checkout
15        uses: actions/checkout@v4
16      - name: Install TeX Live
17        uses: zauguin/install-texlive@v3
18      with:
19        packages: >
20          latex latex-bin scheme-basic koma-script luatexbase luatex
21      - run: lualatex main
22
```

Hiermit weisen wir GitHub an, lualatex auch dann auszuführen, wenn jemand einen Änderungswunsch über die GitHub-Funktionalität „Pull Request“ stellt.

„Pull Request“: Wir fragen an, ob jemand gewillt ist, diese Änderungen in den Branch „main“ hereinzuholen („pullen“).

[Folie 28](#) zeigt einen solchen Pull Request

„main“ soll grün bleiben → Pull Request stellen

Propose changes

Commit message

Update check-build.yaml

Extended description

Add an optional extended description..

Commit directly to the main branch

Create a new branch for this commit and start a pull request [Learn more about pull requests](#)




Cancel Propose changes

Diese Änderung senden wir selbst als Pull-Request ab

Pull Request stellen

Open a pull request

The change you just made was written to a new branch named `demo-kopp-patch-1`. Create a pull request below to propose these changes. [Learn more](#)

 base: main  compare: demo-kopp-patch-1  **Able to merge.** These branches can be automatically merged.













Add a title



Update check-build.yaml

Add a description

Write | Preview

H B I    |    |  @   


Add your description here...





 Markdown is supported |  Paste, drop, or click to add files


Create pull request 

Checks bei Pull Requests


Add check on pull requests #1



 Open demo-kopp wants to merge 1 commit into `main` from `demo-kopp-patch-1` 

 Conversation 0  Commits 1  Checks 0  Files changed 1



 demo-kopp commented now Owner ...

No description provided.






  Update `check-build.yaml` Verified ● 61f1a26

Add more commits by pushing to the `demo-kopp-patch-1` branch on `demo-kopp/dante-2024`.

  **Some checks haven't completed yet** Hide all checks

1 queued check

-   Check Build / check (pull_request) *Queued — Waiting to run this check...* Details

 **This branch has no conflicts with the base branch**
Merging can be performed automatically.

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Check erfolgreich

Add check on pull requests #1

 Open demo-kopp wants to merge 1 commit into `main` from `demo-kopp-patch-1` 

 Conversation 0  Commits 1  Checks 0  Files changed 1




demo-kopp commented now

Owner ...

No description provided.




 Update `check-build.yaml`


Verified ✓ 61f1a26

Add more commits by pushing to the `demo-kopp-patch-1` branch on `demo-kopp/dante-2024`.




 **Require approval from specific reviewers before merging**
[Rulesets](#) ensure specific people approve pull requests before they're merged.


Add rule ×

 **All checks have passed**
1 successful check

[Hide all checks](#)

  **Check Build / check (pull_request)** Successful in 9s

[Details](#)

 **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request ▾

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Zwang zur Nutzung von Pull Requests I

The screenshot shows the GitHub interface for a repository named 'dante-2024' by user 'demo-kopp'. The top navigation bar includes links for Code, Issues, Pull requests (with a notification badge '1'), Actions, Projects, Wiki, Security, Insights, and Settings (with a notification badge '1'). The left sidebar contains a list of settings categories: General, Access (Collaborators, Moderation options), and Code and automation (Branches, Tags, Rules, Actions, Webhooks, Environments, Codespaces, Pages). The 'Branches' option is highlighted with a purple circle containing the number '2'. The main content area is titled 'Branch protection rules' and displays a message: 'You haven't protected any of your branches'. Below this message is a button labeled 'Add branch protection rule' with a purple circle containing the number '3' next to it.

demo-kopp / dante-2024

Type to search

<> Code Issues Pull requests 1 Actions Projects Wiki Security Insights 1 Settings

General

Access

Collaborators

Moderation options

Code and automation

2 Branches

Tags

Rules

Actions

Webhooks

Environments

Codespaces

Pages

Branch protection rules

You haven't protected any of your branches

Define a protected branch rule to disable force pushing, prevent branches from being deleted, and optionally require status checks before merging. [Learn more about protected branches](#)

3 Add branch protection rule

Zwang zur Nutzung von Pull Requests II

- General
- Access
 - Collaborators
 - Moderation options
- Code and automation
 - Branches**
 - Tags
 - Rules
 - Actions
 - Webhooks
 - Environments
 - Codespaces
 - Pages
- Security
 - Code security and analysis
 - Deploy keys
 - Secrets and variables
- Integrations
 - GitHub Apps
 - Email notifications

Branch protection rule

Protect your most important branches
[Branch protection rules](#) define whether collaborators can delete or force push to the branch and set requirements for any pushes to the branch, such as passing status checks or a linear commit history.
[Your GitHub Free plan](#) can only enforce rules on its public repositories, like this one.

Branch name pattern *

main

Protect matching branches

- Require a pull request before merging**
When enabled, all commits must be made to a non-protected branch and submitted via a pull request before they can be merged into a branch that matches this rule.
- Require approvals**
When enabled, pull requests targeting a matching branch require a number of approvals and no changes requested before they can be merged.
- Dismiss stale pull request approvals when new commits are pushed**
New reviewable commits pushed to a matching branch will dismiss pull request review approvals.
- Require review from Code Owners**
Require an approved review in pull requests including files with a designated code owner.
- Require approval of the most recent reviewable push**
Whether the most recent reviewable push must be approved by someone other than the person who pushed it.

Zwang zur Nutzung von Pull Requests → Erforderliche Status-Prüfungen

Require status checks to pass before merging

Choose which [status checks](#) must pass before branches can be merged into a branch that matches this rule. When enabled, commits must first be pushed to another branch, then merged or pushed directly to a branch that matches this rule after status checks have passed.

Require branches to be up to date before merging

This ensures pull requests targeting a matching branch have been tested with the latest code. This setting will not take effect unless at least one status check is enabled (see below).

Q check

Status checks that are required.

check



GitHub Actions



„Schöne“ Historie

Require linear history

Prevent merge commits from being pushed to matching branches.

Nicht-lineare Historie:



[main] 11cead6 Initial commit - John Doe

[demo-dante-patch-1] bacc198 Improvement - Jof

[demo-dante-patch-1] 0ca553a Fix improvement -

[main] 69c2840 Merge branch `demo-dante-patch`

Lineare Historie:



[main] 7a5a03f Initial commit - John Doe

[demo-dante-patch-1] ea8dae1 Improvement -


[demo-dante-patch-1] 947dbb4 Fix improve


[main] 81b6fd3 Update check-build.yaml (#1) -


Branch wurde gelöscht


Resultat: Weitere Merge-Option

Add more commits by pushing to the [demo-kopp-patch-1](#) branch on [demo-kopp/dante-2024](#).





 **All checks have passed** [Show all checks](#)
1 successful check


 **This branch has no conflicts with the base branch**
Merging can be performed automatically.


Squash and merge  You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Add more commits by pushing to the [demo-kopp-patch-1](#) branch on [demo-kopp/dante-2024](#).



 **All checks have passed** [Show all checks](#)
1 successful check

 **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Squash and merge  You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Resultat nach Klick



Pull request successfully merged and closed

You're all set—the `demo-kopp-patch-1` branch can be safely deleted.

Delete branch



demo-kopp deleted the `demo-kopp-patch-1` branch now

Restore branch



dante-2024

Public

Pin

Unwatch 1

main

1 Branch 0 Tags

Go to file

t

Add file

Code



demo-kopp Update check-build.yaml (#1)



6385c34 · 2 minutes ago

6 Commits

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- 4** Pull-Requests
- 5** PDF verfügbar machen
 - 5.1** ... als Build-Artefakt
 - 5.2** ... dauerhaft (mittels GitHub pages)
- 6** Zusammenfassung, Ausblick, Weiterführendes

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 - 5.2** ... dauerhaft (mittels GitHub pages)
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PDF verfügbar stellen

dante-2024 / .github / workflows / in main


Edit

Preview

 Code 55% faster with GitHub Copilot

Spaces 

2 

No wrap 



```
--  
22     - name: Upload build artifats  
23       uses: actions/upload-artifact@v4  
24       with:  
25         path: main.pdf  
26
```

An das Artefakt ran kommen

Add upload of build artifacts #2

Open

demo-kopp wants to merge 1 commit into `main` from `demo-kopp-patch-1`

Conversation 0

Commits 1

Checks 1

Files changed 1

✓ Add upload of build artifacts 1ad86a0

Artifacts 1

✓ Check Build
on: pull_request

check Beta Give feedback
succeeded now in 11s

✓ check

> ✓ Set up job

Artifacts 1

Download artifacts

artifact

2.58 KB



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 - 5.2** ... dauerhaft (mittels GitHub pages)
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Artefakt für User verlinken I


```
9 permissions:
10   contents: write
11
12 jobs:
13   build:
14     runs-on: ubuntu-latest
15     name: check
16     steps:
17       - name: Checkout
18         uses: actions/checkout@v4
19       - name: Install TeX Live
20         uses: zauguin/install-texlive@v3
21         with:
22           packages: >
23             latex latex-bin scheme-basic koma-script luatexbase luatex
24       - run: lualatex main
25       - name: Prepare build dir
26         run: |
27           mkdir build
28           cp main.pdf build/
```

```
33   - name: Upload to gh-pages branch
34     uses: crazy-max/ghaction-github-pages@v4
35     with:
36       target_branch: gh-pages
37       build_dir: build
38     env:
39       GITHUB_TOKEN: ${{ secrets.GITHUB_TOKEN }}
```




Artefakt für User verlinken II

 dante-2024 Public

 Pin

 Unwatch 1

 gh-pages ▾

 3 Branches  0 Tags

 Go to file

t


Add file ▾

 Code ▾

 github-actions[bot] Deploy to GitHub pages

ff6236f · now

 1 Commits

 main.pdf

Deploy to GitHub pages

now

Artefakt für User verlinken III

The screenshot shows the GitHub Settings interface for GitHub Pages. The top navigation bar includes links for Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings (1). The left sidebar contains categories: General, Access (Collaborators, Moderation options), Code and automation (Branches, Tags, Rules, Actions, Webhooks, Environments, Codespaces, Pages (2)). The main content area is titled 'GitHub Pages' and includes a description, a 'Build and deployment' section, and a 'Visibility' section. The 'Build and deployment' section has a 'Source' dropdown set to 'Deploy from a branch' (3), a 'Branch' dropdown set to 'gh-pages' (4), and a 'Save' button (5). The 'Visibility' section is marked 'GITHUB ENTERPRISE' and includes a description.

Issues Pull requests 1 Actions Projects Wiki Security Insights Insights Settings 1

General

Access

- Collaborators
- Moderation options

Code and automation

- Branches
- Tags
- Rules
- Actions
- Webhooks
- Environments
- Codespaces
- Pages 2

GitHub Pages

[GitHub Pages](#) is designed to host your personal, organization, or project pages from your GitHub repository.

Build and deployment

Source

Deploy from a branch 3

Branch

Make a commit to the `gh-pages` branch to publish your GitHub Pages site. [Learn more about the source for your site.](#)

4 gh-pages / (root) Save 5

Visibility

GITHUB ENTERPRISE

With a GitHub Enterprise account, you can restrict access to your GitHub Pages site.

Artefakt für User verlinken IV

- ... ein bißchen mehr Arbeit -> neuer Commit, damit es live ist
 - z.B. „workflow_dispatch:“ als Trigger

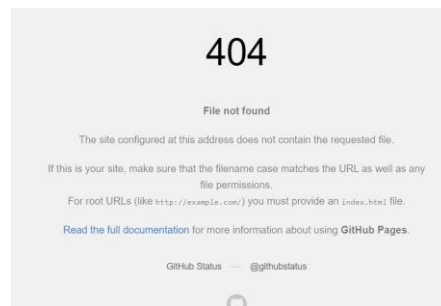
GitHub Pages

[GitHub Pages](#) is designed to host your personal, organization, or project pages from a GitHub repository.

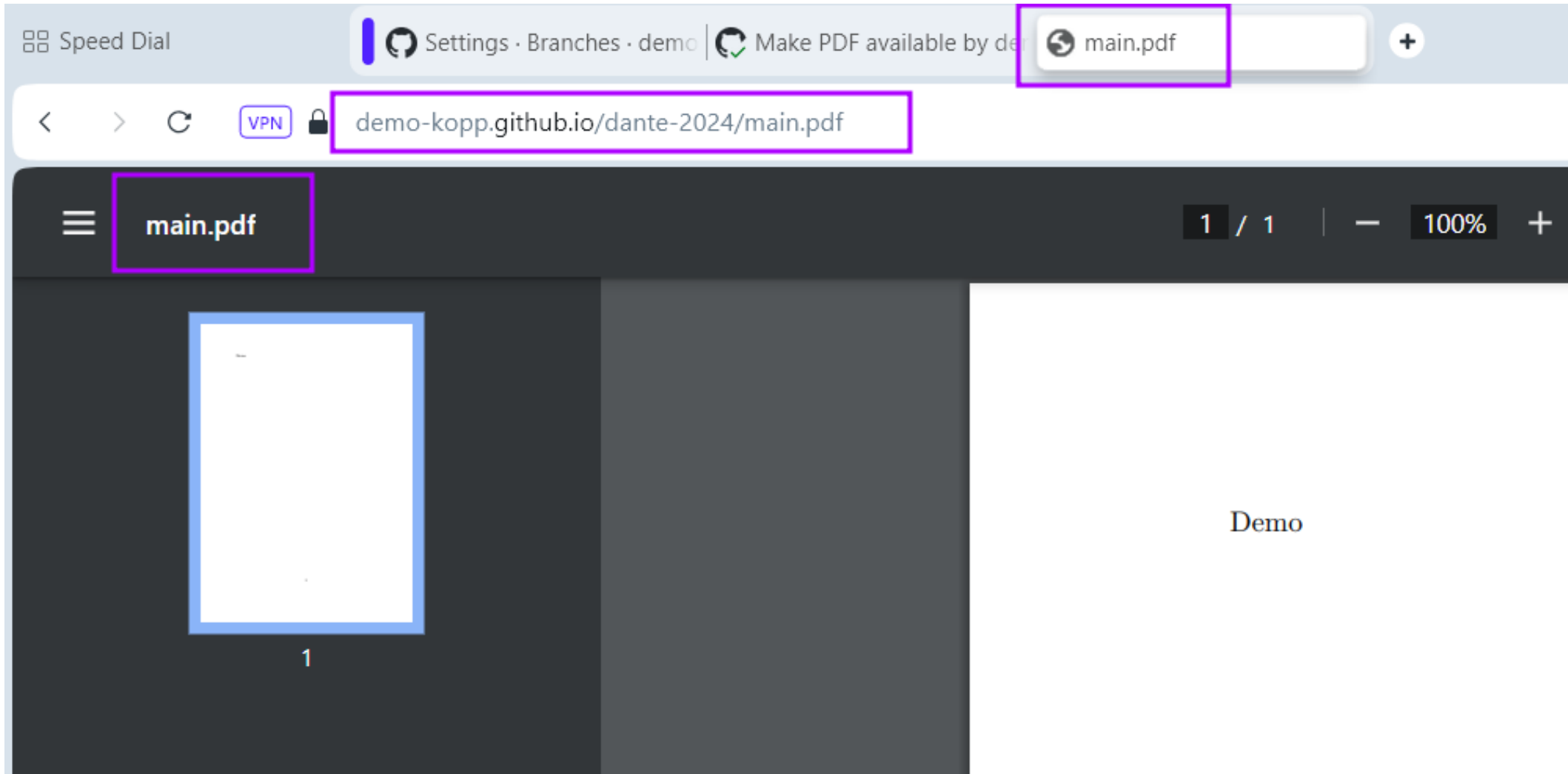
Your site is live at <https://demo-kopp.github.io/dante-2024/>

Last [deployed](#) by  [github-pages\[bot\]](#) now

 Visit site

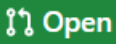







PDF ist live



PDF aus README.md verlinken I



Make PDF available #3

 Open demo-kopp wants to merge 2 commits into `main` from `demo-kopp-patch-1` 

 Conversation **0**  Commits **2**  Checks **1**  Files changed **1**




demo-kopp commented 8 minutes ago

 demo-kopp-patc... 

3 Branches  0 Tags






This branch is 2 commits ahead of `main`.



 #3

 demo-kopp Enable manual triggering 

ee0ddd2 · 4 minutes ago

 9 Commits

 .github/workflows	Enable manual triggering	4 minutes ago
 .gitignore	Initial commit	2 hours ago
 LICENSE	Initial commit	2 hours ago
 README.md	Initial commit	2 hours ago
 main.tex	Create main.tex	2 hours ago

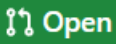

 README  License







dante-2024

PDF aus README.md verlinken II


Make PDF available #3

 Open demo-kopp wants to merge 2 commits into `main` from `demo-kopp-patch-1` 

 Conversation **0**  Commits **2**  Checks **1**  Files changed **1**



demo-kopp commented 8 minutes ago






 demo-kopp-patc...


 3 Branches  0 Tags

This branch is 2 commits ahead of `main`.

 #3

 demo-kopp Enable manual triggering  ee0ddd2 · 4 minutes ago  9 Commits

 .github/workflows	Enable manual triggering	4 minutes ago
 .gitignore	Initial commit	2 hours ago
 LICENSE	Initial commit	2 hours ago
 README.md	Initial commit	2 hours ago
 main.tex	Create main.tex	2 hours ago

 README  License



dante-2024

PDF aus README.md verlinken III


dante-2024 /

README.md

in demo-kopp-patch-1

Edit

Preview

 Code 55% faster with GitHub Copilot

```
1 # dante-2024
2
3 PDF: <https://demo-kopp.github.io/dante-2024/main.pdf>
4
```

 README  License



dante-2024

PDF: <https://demo-kopp.github.io/dante-2024/main.pdf>

Nur erstellen, wenn auf „main“

if: >

```
(github.repository == 'demo-kopp/dante-2024') &  
(github.ref == 'refs/heads/main')
```

check

succeeded now in 13s

- > ✓ Set up job
- > ✓ Checkout
- > ✓ Install TeX Live
- > ✓ Run lualatex main
- > ✓ Prepare build dir
- > ✓ Upload build artifats
- ⊘ Upload to gh-pages branch
- > ✓ Post Checkout
- > ✓ Complete job

Inhalt

- 1 Einrichtung von GitHub
- 2 Initiales LaTeX-Dokument
- 3 Automatische Prüfung durch GitHub
- 4 Pull-Requests
- 5 PDF verfügbar machen
- 6 Zusammenfassung, Ausblick, Weiterführendes

Zusammenfassung und Ausblick

- GitHub zur Versionskontrolle
- GitHub Actions zum Übersetzen („compile“) der Dokumente

- Hausaufgaben
 - Durcharbeiten von <https://lostechies.com/joshuaflanagan/2010/09/03/use-gitk-to-understand-git/>
 - **Eigenes LaTeX-Projekt auf GitHub mit Check versehen**
 - Beitrag („Pull Request“) zu <https://github.com/dante-ev/l2kurz> leisten

- Weiterführendes (bezogen auf git)
 - Interaktive Simulation von git: <https://github.com/initialcommit-com/git-sim>
 - Curated list of amazingly awesome Git tools, resources and shiny things: <https://github.com/dictcp/awesome-git>

LaTeX für Geisteswissenschaftler

- Ein Skript mit Hinweisen zur Benutzung von LaTeX für (nichtmathematische) Geisteswissenschaftler
- Link: <https://github.com/thomas-hilarius-meyer/LaTeX-fuer-Geisteswissenschaftler?tab=readme-ov-file#latex-fuer-geisteswissenschaftler>
- Actions: <https://github.com/thomas-hilarius-meyer/LaTeX-fuer-Geisteswissenschaftler/actions>
- YAML-Datei: <https://github.com/thomas-hilarius-meyer/LaTeX-fuer-Geisteswissenschaftler/blob/master/.github/workflows/check-build.yml>

texlogsieve zur Herausarbeitung von wichtigen Log-Nachrichten

Run texlogsieve --no-heartbeat main.log

```
1 ▶ Run texlogsieve --no-heartbeat main.log
```

```
4 -----
```

```
5 From file /home/runner/texlive/texmf-dist/tex/latex/koma-script/scrbase.sty:
```

```
6 pg 1: Applying: [2021/05/01] Usage of raw or classic option list on input line 252.
```

```
7 pg 1: Already applied: [0000/00/00] Usage of raw or classic option list on input line
```

```
8 pg 1: 368.
```

```
9
```

```
10 After last page:
```

```
11
```

```
12 -----
```

```
13 From file ./main.tex:
```

```
14 *****
```

Hinweis: Moderne Action für gh-pages

- name: Upload artifact
 - uses: actions/upload-pages-artifact@v3
 - with:
 - path: main.pdf

Git Installationstipps

- Standard-Werkzeuge „git gui“ und „gitk“ nutzen
 - Geschrieben in tcl/tk
- Ubuntu: `sudo apt-get install git git-gui gitk`
- macOS: `brew update && brew install git && brew install git-gui`
- Windows: `choco install git.install -y --params "/GitAndUnixToolsOnPath /WindowsTerminal /WindowsTerminalProfile /Editor:VisualStudioCode"`

Git Konfigurationstipps

```
rem always have Linux line endings in text files
git config --global core.autocrlf input
rem support more than 260 characters on Windows
rem See https://stackoverflow.com/a/22575737/873282 for details
git config --global core.longpaths true
rem some color and diff tweaks
rem Use SVN's ||| also in git - and remove matching lines in the conflict region
rem See https://git-scm.com/docs/git-config#Documentation/git-config.txt-mergeconflictStyle
for details
git config --global merge.configStyle "zdiff3"
rem Always push to the branch we pulled from
rem See https://git-scm.com/docs/git-config#Documentation/git-config.txt-pushdefault for
details
git config --global push.default current
rem Source: https://stackoverflow.com/a/72401899/873282
git config --global push.autoSetupRemote true
rem Colors in output
rem Source: https://unix.stackexchange.com/a/44297/18033
git config --global color.ui auto
rem Sort branches at "git branch -v" by committer date
git config --global branch.sort -committerdate
rem tabs are 4 spaces wide
git config --global gui.tabsize 4
```

Source: <https://github.com/koppor/koppors-chocolatey-scripts/blob/main/install.bat> 55

Viel Freude beim Experimentieren!



@kopper@mastodon.acm.org



[kopper](https://github.com/kopper)