

EGroupware

SMART ONLINE OFFICE



RAG and AI

in



EGroupware

SMART ONLINE OFFICE

Topics



- EGroupware GmbH
- EGroupware (and surroundings)
- AI in EGroupware
  - RAG (-Search)
  - AI Tools
  - AI Assistant

EGroupware GmbH

- EGroupware GmbH (**Germany Kaiserslautern**, DC in Frankfurt/Karlsruhe)
- EGroupware as **SaaS Solution** and **On Premises**
- Mail Services in SaaS included
- **KI Proxy Service**

- Collabora Online, Rocket.Chat **as SaaS**

- Reseller: Collabora Online, bbbserver.de, Outlook CalDAV Synchronizer, Placetel

- Partner of: Placetel, KiwiTalk., Univention, bbbserver.de, benno MAILARCHIV, ...



EGroupware GmbH



- Support
- Migration and update support
- Organisational consultancy
- Custom programming, forms, functions, etc.

- **Offers a community forum and community manager**



EGroupware
(and surroundings)

Groupware



Email



InfoLog
(Tasks/
Notes/...)



Calendar



Contacts

More Groupware



File manager /
Filesharing



Online Office
(Collabora Online)



Video conference
(BBB)



Video conference
(Jitsi)



Chat
(Rocket.Chat)

More than groupware





Project Manager



Ticket system



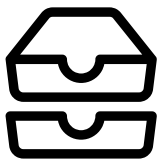
Kanban



Time tracking



Resources



E-invoices (ZUGFeRD/xml)



VIDOTEACH



CTI (Computer Telephony Integration)



Remote Desktop (Guacamole)

More than groupware





Integration Web applications (Open WebUI, ...)



Custom application



REST API



AI in EGroupware

Why?



- Because ‘everyone’ is doing it
- Because there’s a demand for it
- Because it **can** be productive
- Because large (in-house) datasets are easier to search

- Because your own AI chatbot doesn’t ‘give away’ any data

More?

AI in EGroupware



RAG

+ Full-text indexing/search
+ RAG search

AI Tools

+ Translations (including DeepL), text tools

AI Assistant (WIP)

+ AI chat
+ EGw data via AI/MCP
+ Integration of Open WebUI ~~(?)~~

Changes/Requirements



- MariaDB 11.8 (see Requirements and installation) for **vector tables**



RAG (search)

RAG



RAG => Retrieval-Augmented Generation

- Combines LLMs with additional data sources (CRM, ERP, CAQ, production, etc.)
- In other words, a ‘static’ LLM is supplemented with (mostly) in-house data to improve the quality of the response

Datenquellen EGroupware

* Ticket system
* InfoLog/CRM
* Address book
* ...

RAG Search



- **Cross-application** search
- **Combines** traditional **full-text search with semantic search** based on Retrieval-Augmented Generation (RAG)

- Both search types are indexed separately and can be configured independently or used together as a hybrid search.
- Full-text and RAG require time to build the relevant database tables and increase storage requirements.



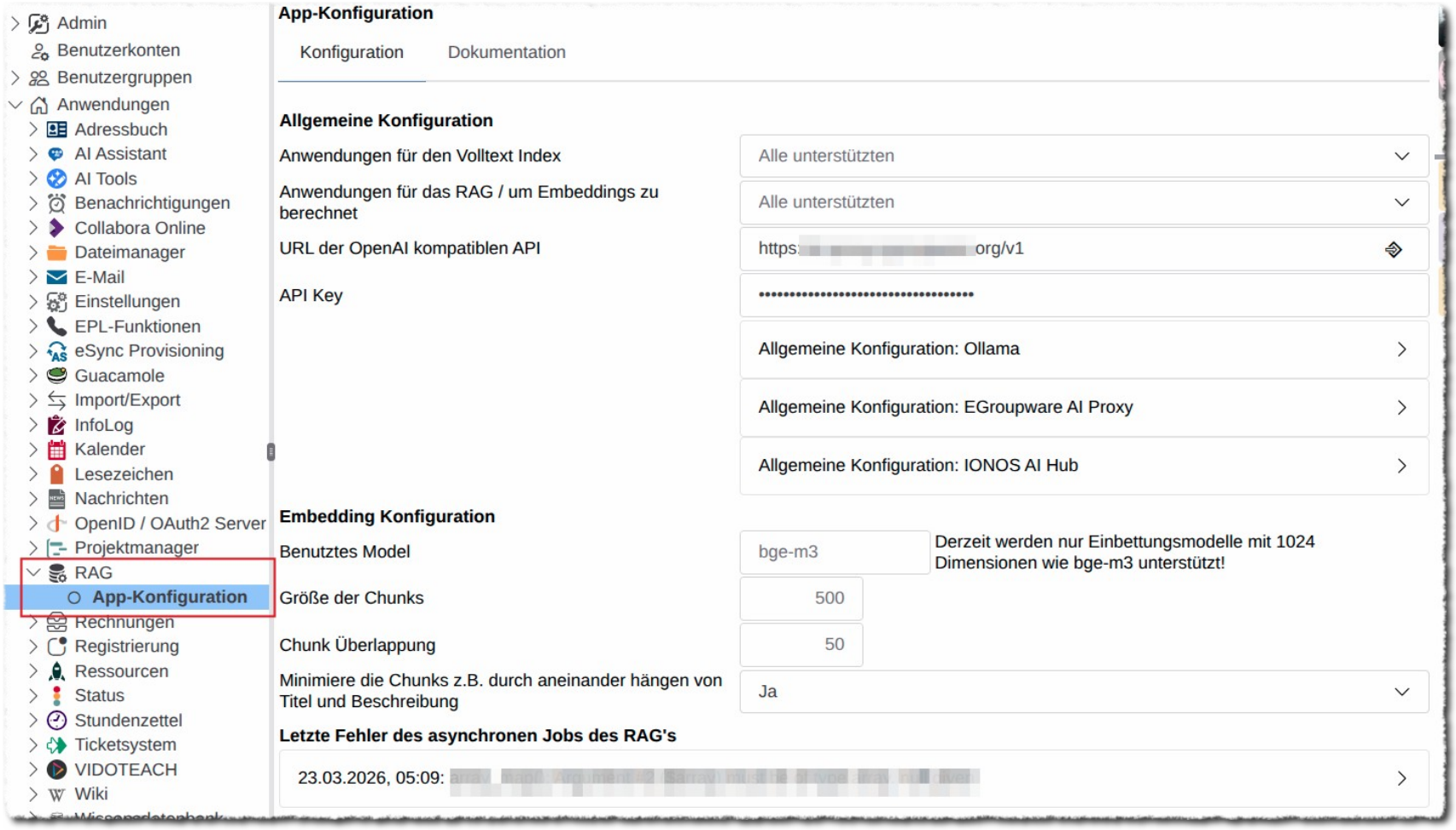
Issues/Miscellaneous

* Data permissions

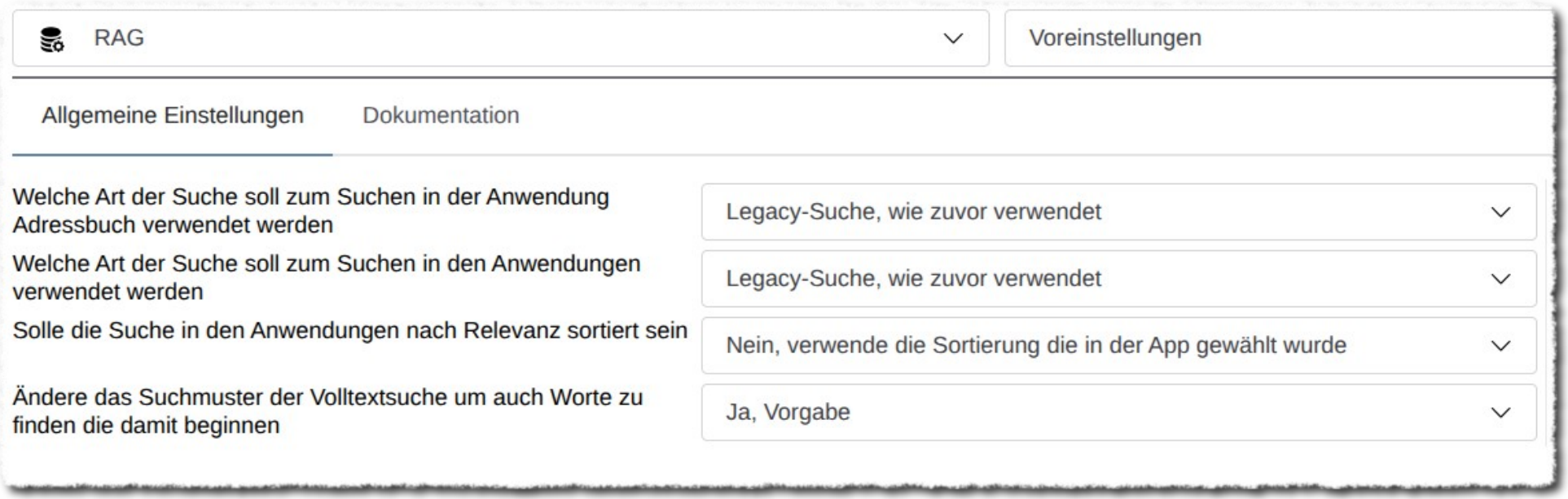
* Execution permission for RAG in EGroupware

* (Current) No indexing of emails and files

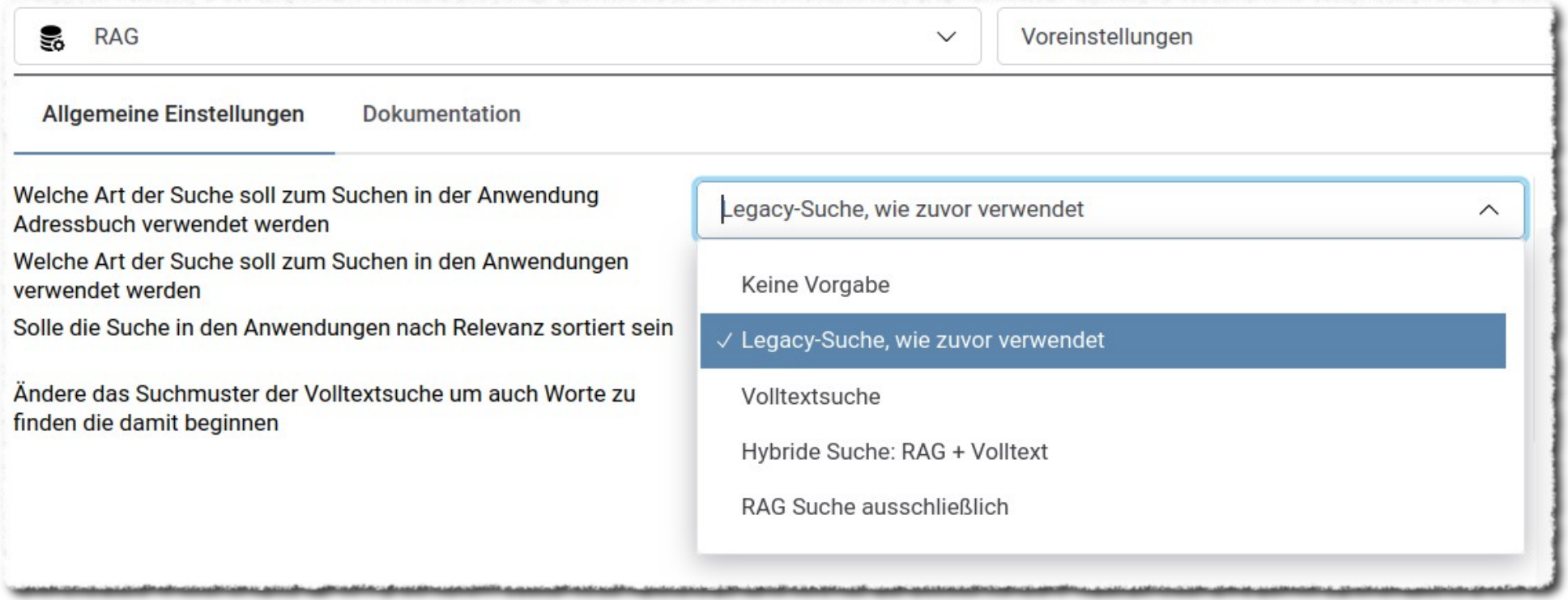
RAG - Configuration



RAG - User Preferences

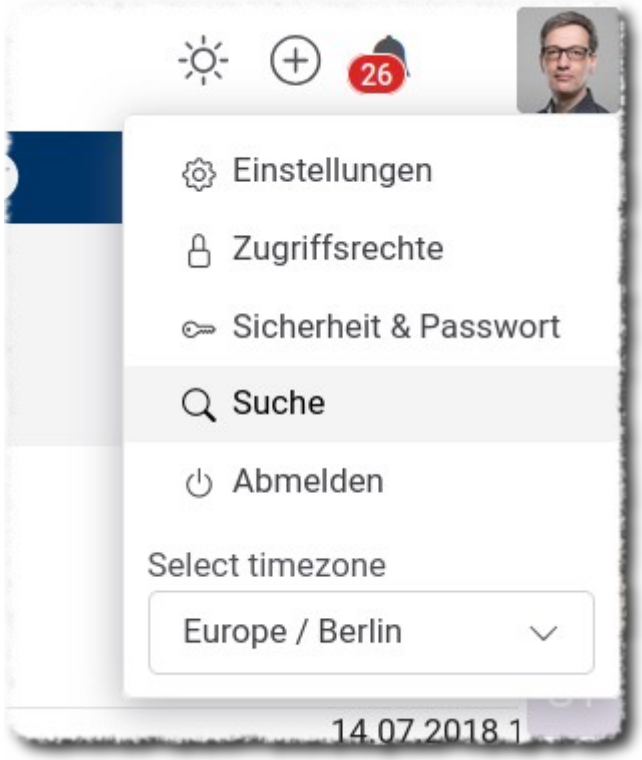


RAG - User Preferences



RAG Search in EGroupware

Launch from the
user (avatar) menu



RAG in EGroupware



RAG

Suchanfrage: Chemnitz

Operatoren verwenden: + - < > ( ) ~ * "

Art der Suche:
- (●) Hybride Suche: RAG + Volltext
- ( ) RAG Suche ausschließlich
- ( ) Volltextsuche ausschließlich

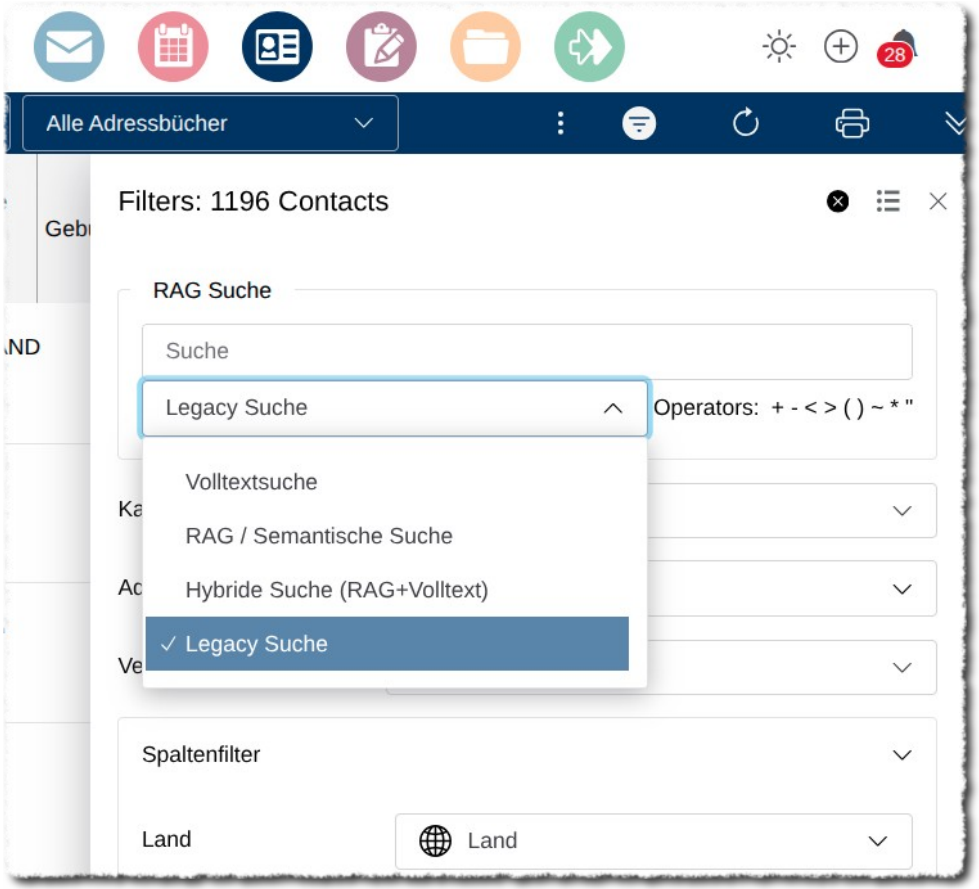
In welchen Anwendungen suchen: Alle unterstützten

RAG Distanz: 0=identisch, 1=kein Treffer, -1=Gegenteil, Volltext Relevanz: 0=Keine, >0=größer ist besser

ID	App	App ID	Titel	Normale Sortierung	Modified	Distanz	Relevanz
calendar:4210		4210	16.03.2024, 00:00: CLT		08.12.2023 16:01	0,20	5,33
calendar:4648		4648	21.03.2025, 13:00: CLT		14.01.2025 14:45	0,20	5,33
calendar:2212		2212	13.03.2020, 11:30: Anfahrt Chemnitz		11.11.2019 16:58	0,25	5,33
calendar:5327		5327	28.03.2026, 00:00: CLT 2026		19.01.2026 09:49	0,31	5,33
calendar:2071		2071	06.03.2019, 10:00: Buchhändler Chemnitz anrufen		05.03.2019 21:21	0,32	5,33
calendar:1621		1621	02.09.2016, 00:00: Chemnitzer Linux Tage		02.09.2016 08:06	0,38	5,33
calendar:1636		1636	11.03.2017, 00:00: Chemnitzer Linux-Tage		29.09.2016 20:08	0,39	5,33
addressbook:1386		1386	Technische Universität Chemnitz		24.12.2023 13:49		37,35
addressbook:1416		1416	Technische Universität Chemnitz:		31.08.2019 13:36		32,02
calendar:4251		4251	16.01.2024, 19:00: Ihr Beitrag bei den Chemnitzer Linux-Tagen 2024		09.01.2024 20:27		26,68
calendar:2771		2771	26.02.2021, 19:00: Ihre Anmeldung bei den Chemnitzer Linux-Tagen 2021		23.02.2021 21:41		21,34

RAG in EGroupware

Users can select the search mode





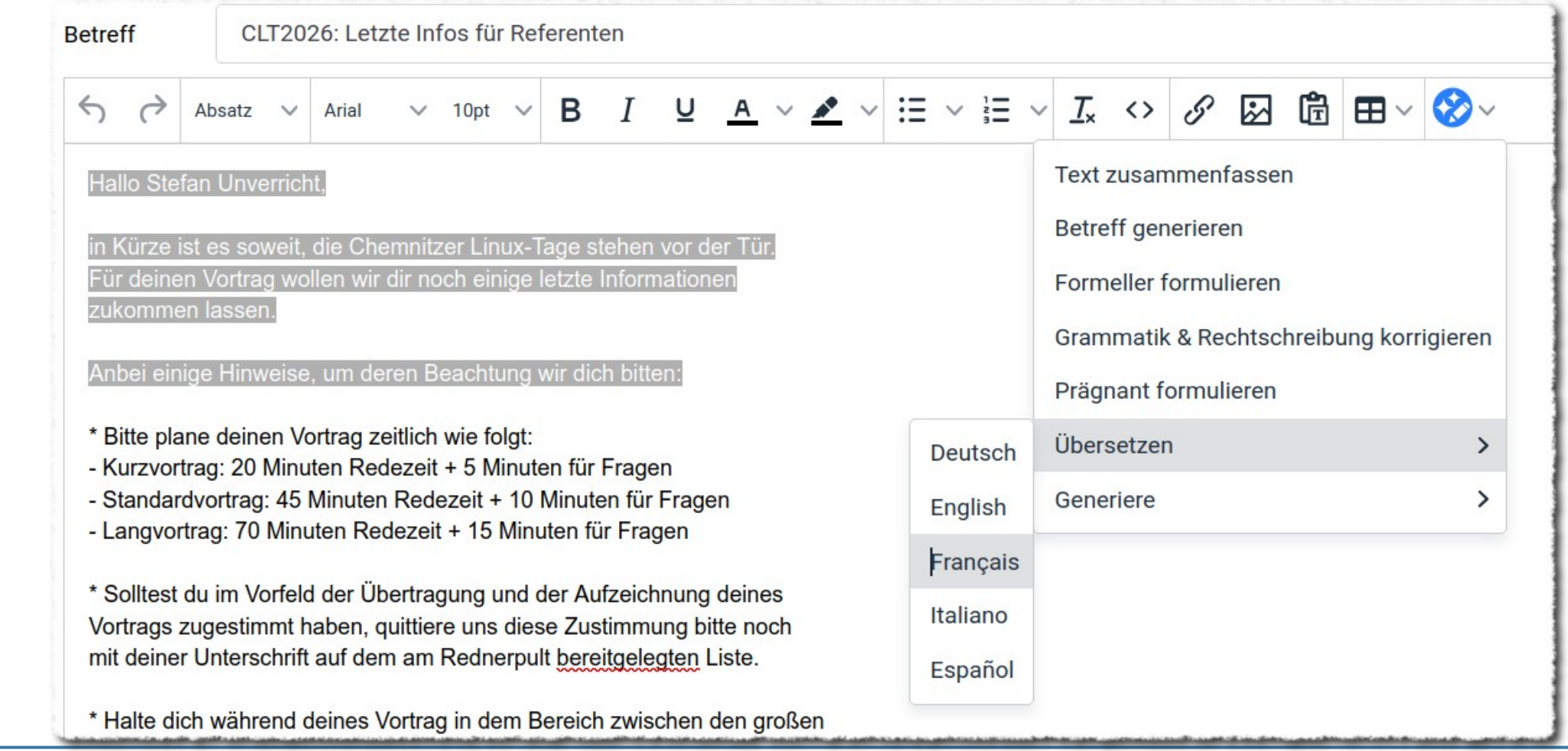
AI Tools

AI Tools



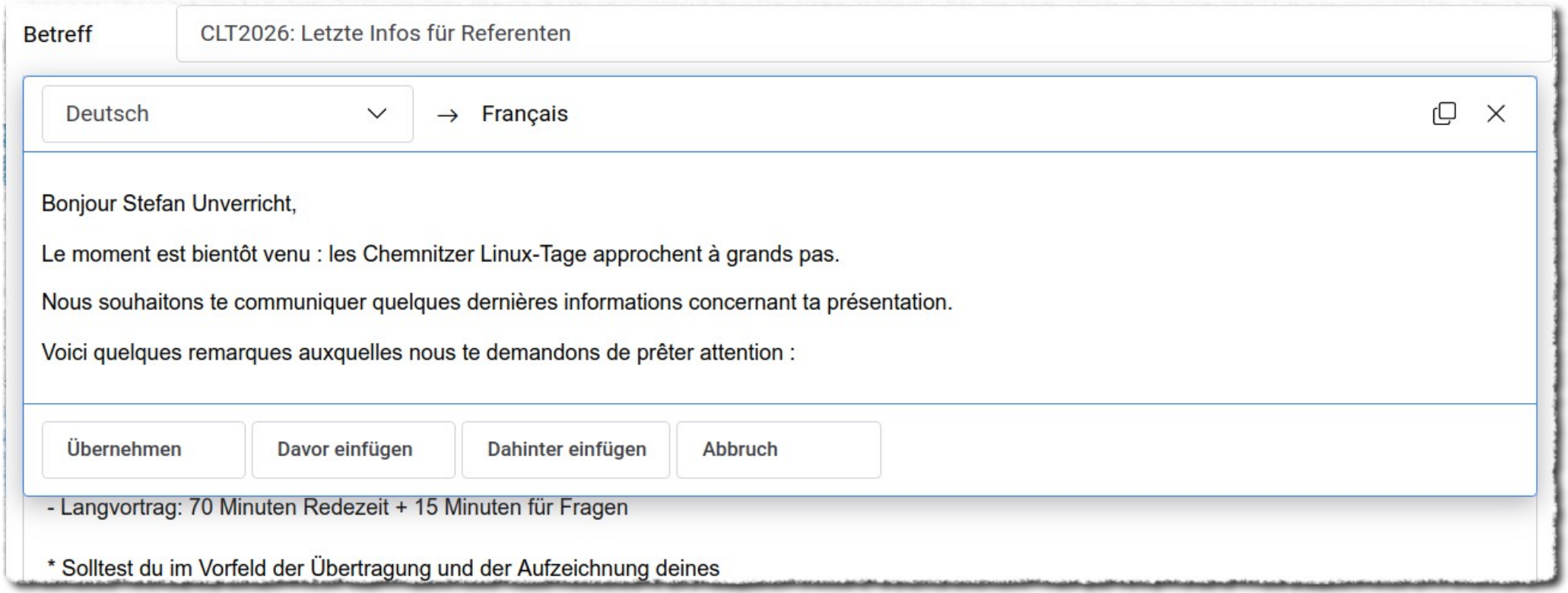
- Includes text tools (text and HTML fields)
- Integrates AI services and/or DeepL
- Execution permissions for AI Tools in EGroupware

AI Tools in EGw Mail

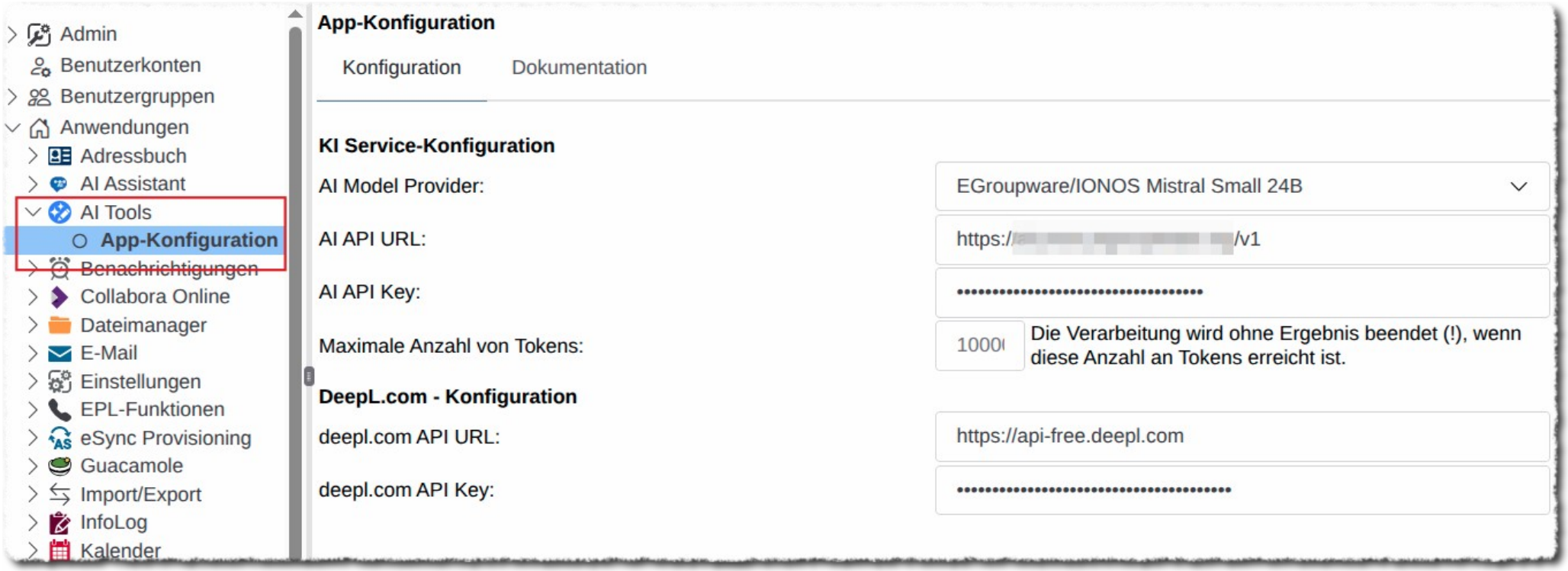


AI Tools in EGw Mail

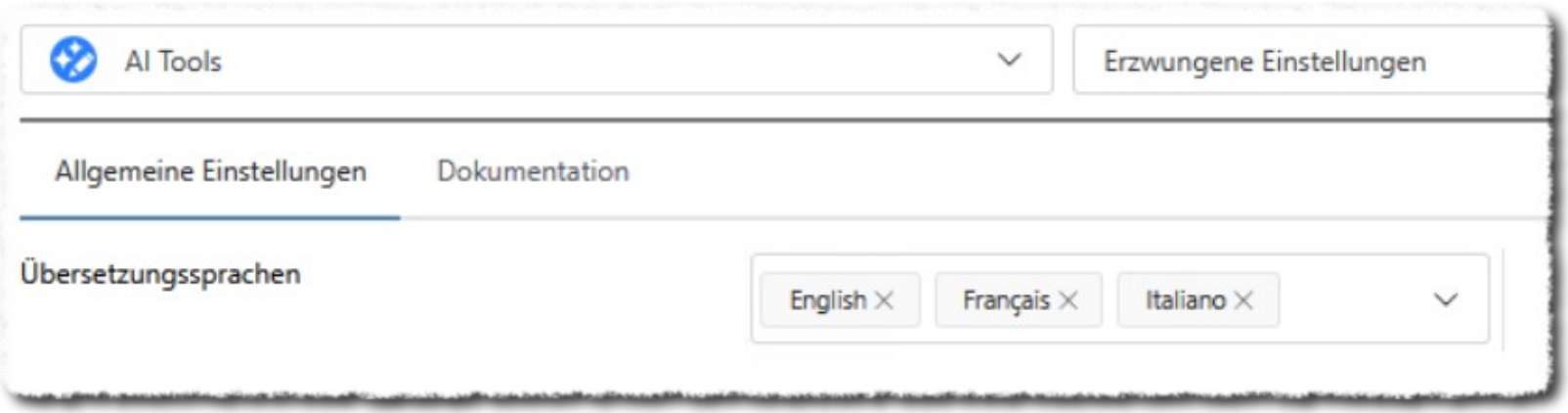




AI Tools - Configuration



AI Tools - User preferences





AI Assistant

AI Assistant

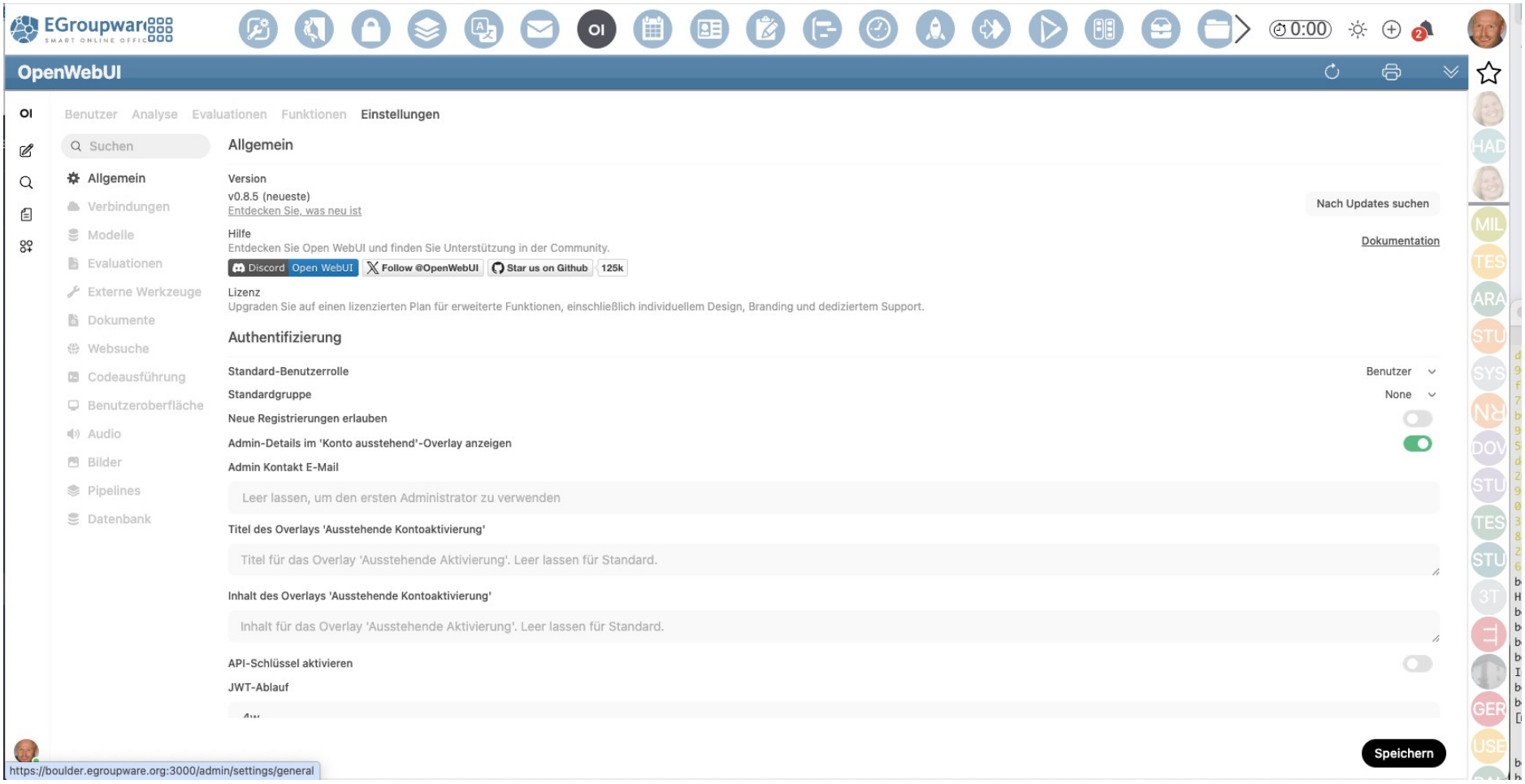


- Getting started …

- Primarily provides a chatbot (Open WebUI) within an EGroupware Iframe as an app
- The chatbot creates/modifies data (via MCP) in EGroupware
- Open WebUI can also integrate SearXNG (…), for example

Aims to provide employees (…), with AI (and web search).

AI Assistant



WIP



Commit `bbc6a0d`

ralfbecker committed yesterday

```
WIP EGroupware REST API as tools for AI Assistant / Open WebUI:
```

`master`

Commit `755e157`

ralfbecker committed 7 hours ago

```
WIP parsing invoice data via AI from scanned receipts
```

`master`

Commit `b7d3653`

ralfbecker committed 3 weeks ago

```
* RAG: added REST-API to search RAG e.g. for an AI Assistant
```

`master`

Links



Website EGroupware 26

Release Notes EGroupware 26

GitHub EGroupware

GitHub Wiki: Open WebUI integration into EGroupware

GitHub Wiki: RAG Requirements and installation

GitHub Wiki: RAG (Retrieval-Augmented Generation) for EGroupware

Community Forum



Thank you very much for your interest!

Contact: su@egroupware.org

Community Forum: help.egroupware.org