

TagSpaces Intro

Welcome to the documentation of the TagSpaces products as of **version 3**.

Note: This documentation is in **work in progress** status.

TagSpaces is an open source, cross-platform, no backend, no login, file manager, organizer and browser. It helps you organize your files, photos and other documents with tags on different platforms and/or devices, according to your own preferences and following your own logic, by using the same smart and friendly interface everywhere.

Key Features

- Platform independent and future-proof tagging for files and folders
- Platform independent way for adding descriptions to files and folders
- Integrated free text and tag search (AND, OR and NOT boolean operators)
- Integrated viewers for many image, video, audio and document file formats
- Integrated editors for HTML, text and markdown files
- Support for user interface themes (e.g. dark mode)
- Supporting thumbnail preview for many file types

Philosophy

- TagSpaces follows a no backend and no login philosophy
- It is not a SaaS, so there is no back-end
- The application is not Internet dependent, a pure offline use is possible
- TagSpaces is not saving the meta information in a database -> no vendor locking, no lost information on database crashes or installations on a new computer
- All the needed information is extracted by the time of use from your files.
- File system as a database
 - The supported tagging options makes a folder with tagged files self containing all the needed information, which useful by e.g. syncing
 - No database or vendor locking
 - Easy to synchronize between devices, just use TagSpaces with your Dropbox/NextCloud/Google Drive folder -Saving the tags in the filename enables

you to use the search capabilities of your operating system

Products landscape

- **Community desktop version** - the main, community developed edition of TagSpaces
- **PRO desktop version** - extended solution based on the community version for advanced users
- **Web Clipper as Firefox addon** - a web clipper allowing the saving of whole webpages, webpage fragments and screenshot as local files
- **Web Clipper as Chrome extension** - same as the web clipper for Firefox
- **Android app** - an app offering most of the features from the community desktop version on a Android device (currently in development)

Common Use Cases

- Organizing files and folders
- Desktop search
- Note taking
- Photo management
- Bookmark management
- Simple file manager
- eBook organizer

Videos

The short introductory video below shows TagSpaces in action:



Check out the [TagSpaces YouTube channel](#) for more TagSpaces related videos.

Technology Stack

Frontend based on:

- JavaScript / React / Redux
- HTML / CSS / React Material UI

Native APIs (for example for file access) are:

- Desktop versions for Windows, macOS and Linux based on Electron
- Mobile versions for Android and iOS based on Cordova
- Web versions based on webDAV, AWS S3

About this Documentation

Hint: This documentation has currently a **WIP status**. The articles in this documents are being updated on a regular base.

You can download version of the documentation as PDF files:

- Documentation for TagSpaces v3 as [PDF](#)
- Documentation for TagSpaces v2 as [PDF](#)

The structure of this documentation

This documentation is built using [Docusaurus](#), for a streamlined and simple user experience. Each **page** will concern a particular topic, giving **detailed and illustrated explanations** and **instructions** about it. Every page is broken down to different level headings.

The navigation sidebar on the left side of this page will represent the **chapters** as expandable topics, with the **sections** listed in each expanded view.

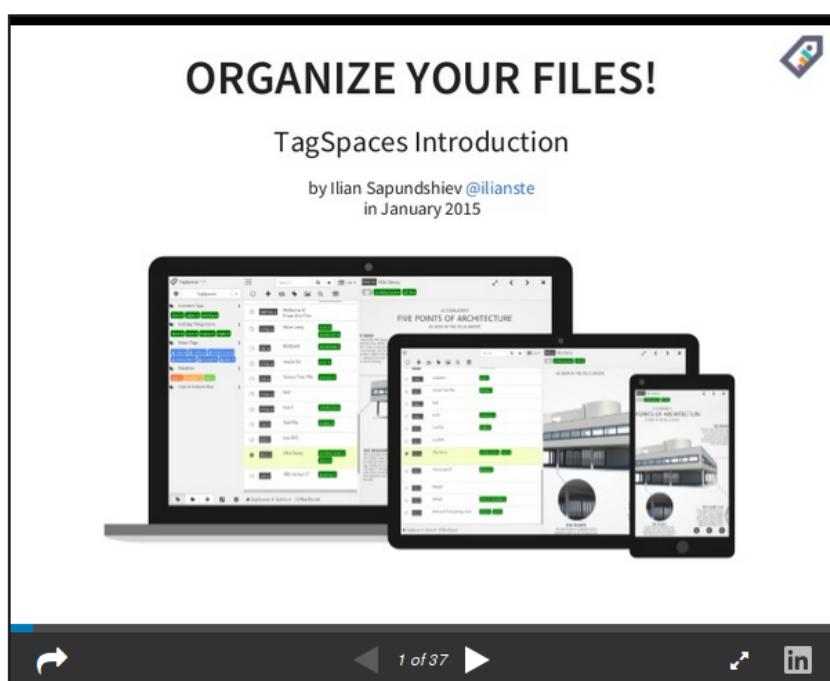
Illustrations

Much effort had gone into visually illustrating the documentation, so that you can instantly find what you are looking for, or what is being described in words. Most illustrations will feature some sort of annotation. For example if a **visible element** of the User Interface is discussed, a **neon-green rectangle around an element** will mark its location on the illustrating image.

Type to search

The sidebar contains the following sections and items:

- GETTING STARTED** — 1
- Introduction**
- Installation and Setup** — 2
 - Windows
 - OS X
 - Linux
 - Android
 - Firefox
 - Chrome
 - Portable Mode
 - Selfhosting TagSpaces
- User Interface**
 - Start screen
 - Locations
 - Folder navigation
 - Tag Library
 - File browsing and preview
 - Floating Action Button
- File Browsing**
 - Perspectives overview



Products landscape

- [Getting started](#) — The first step to start using TagSpaces
- [Creating POCO objects](#) — Perfect and intuitive for educational users.
- [Private developer edition](#) — Our software easily
- [Private developer and R&D license edition](#) — TagSpaces Pro + License
- [Architecting the TagSpaces app](#)
- [Architecting TagSpaces with Angular.js](#)
- [iOS app guide](#) — TagSpaces is coming to iOS soon
- [Windows Phone guide](#) — TagSpaces is coming to Windows Phone

When there are multiple elements discussed in the same paragraph, the illustrations will be further annotated with numbers, like on the image below while the corresponding numbers will be included in the text, after each element was first mentioned. For example the following image illustrates the structure of the navigation sidebar, with **major parts (1)** showing as unselectable titles, expandable **page titles (2)** will hold major **section titles (3)**, both of which are clickable. Clicking page titles will open the corresponding page, while clicking section titles will open the page and scroll down to the start of the selected section.

Note to contributors: When you annotate illustrations please use a rounded edge rectangle, with the following properties:

- **20 px radius** for the rounded corners
 - **#1cccd9c color**
 - **3-6px line width**, depending on image size (larger images can use thicker lines)
- Additionally, please use a **28pt font size** for numbering with a basic **sans font**.

Text markup

You will notice, that certain words are marked with **bold text**. These either mean names of elements, or significant notes/concepts about usage. *Italicized words* usually mark menu items, or other selectable elements, although it is not a hard and fast rule.

Bulleted lists will be used to

- Improve **readability**
- Make it **easier to find** what you are looking for.

Document symbols

There are currently two types of symbols, apart from the usual text formatting and annotations, that you can find on these pages:

- - means that the described feature is part of the TagSpaces Pro and Enterprise editions.
- ✘ - means that the section is not ready yet and may contain unclear, or not up-to-date information, or sections might be missing entirely.

Contribution

This documentation project is hosted on [GitHub](#), and uses the [Docusaurus MD format](#). Enhancement, or corrections are welcome via pull requests. For the markdown syntax used for the document please refer to the [Style Guide](#)

Credits

Original text and images in this documentation were **created and edited by**:

- [Ilian Sapundshiev](#) - initiator of the TagSpaces project
- [Attila Orosz](#) - main editor of the documentation for version 2 of the product, he can be reached via [email](#).

Articles published on the [TagSpaces Blog](#), served as the **basis upon which this documentation was built**. Fragments of the original text can still be found in the documentation, without marking the original author.

License of the documentation

TagSpaces Documentation by [TagSpaces Authors](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#).

Based on a work at <https://github.com/tagspaces/documentation>.



Installation overview

Here you will learn how to install TagSpaces on different operating systems.

Download TagSpaces

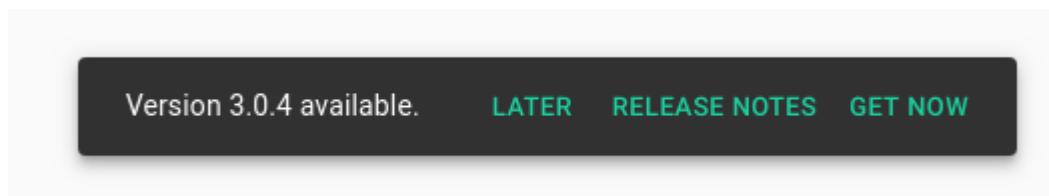
The community version of TagSpaces can be downloaded for Windows, macOS and Linux from the official [download page](#)

Downloads

The community versions of TagSpaces are available for download from the official [Downloads Page](#), where you can quickly find the appropriate installer for your operating system (Windows, macOS, Linux, Android, Firefox and Chrome).

New Version Notification

Once a new version of the application is available, you will see a green present icon near the TagSpaces logo. Clicking on this icon will lead you to the what's new webpage on the TagSpaces website. Here you can download the new version of the application.



If you do not want to TagSpaces to check for the availability of new version, disable this functionality in the [settings](#)

Installation on Windows

The Windows version of TagSpaces is distributed as `zip` file, which can be downloaded for [64bit](#) versions of Windows, depending on your system. Then you have to just unzip the downloaded file in a folder of your choice somewhere on your system. In the unpacked folder you will find a file called `tagspaces.exe`, which can be executed with double click.

Updating the Windows version: Just exchange the content of your current installation, with the content from the zip-file of a newer release. You don't have to worry about your tag library and locations since they are persisted in the users home folder.

Installation on macOS

For macOS 10.10 or later you have to download the [64bit](#) of the application. Then you have to double click the downloaded zip file in Finder to unpack it properly. Some users are reporting issues with unpacking the app with some 3th-party zip utils.



By default macOS does not allow TagSpaces to be executed with a simple double click, because it is currently not digitally signed. To work around this, right-click the TagSpaces.app folder and choose Open, then click **Open** on the dialog that appears. You need to do this just once.

Updating the macOS version: Just exchange the content of your current installation, with the content from the zip-file of a newer release. You don't have to worry about your tag library and locations since they are persisted in the users home folder.

Installation on Linux

The Linux version of TagSpaces is distributed as `tar.gz` file, which can be downloaded for [64bit](#) Linux versions, depending on your system. Then you have to just unpack the downloaded file in a folder of your choice somewhere on your system. In the unpacked folder you will find a file called `tagspaces`, which can be executed with double click or in a terminal. We also offer 64bit [deb](#) package for Debian/Ubuntu based distributions.

Updating the Linux version: Just exchange the content of your current installation, with the content from the tar.gz-file of a newer release. You don't have to worry about your tag library and locations since they are persisted in the users home folder.

Installation on Android

You can install the Android app directly from the [Google Play Store](#).

Updating the Android app: Once we publish a newer version of the Android app, it will be automatically installed on your mobile device within the following days.

Installing the Firefox Browser Extension

Download the [Add-on for Firefox](#). Open the **Add-on tab** in Firefox from the main menu and then click on the **Add-on** puzzle icon, or simply type `ctrl+shift+a` or `command+shift+a`. In the opened new tab, go to the settings dropdown on the left of the search field and select **Install Add-on From File...**. Then choose the downloaded file and follow the instructions.

You can also find TagSpaces in the Mozilla's addon store, but consider that the version there could be some months old due to their slow approval process.

Once installed the add-on can be started from the TagSpaces icon in the right upped corner of the browser or from the browser's main menu **Tools > TagSpaces**.

Updating the Firefox addon: Once a newer version of the Firefox addon is approved for the Mozilla store, it will be automatically installed on your Firefox browser within the following days.

Installing the Chrome Browser Extension

You can install the Chrome extension directly from the [Google Chrome Store](#).

Installation from the TagSpaces webpage

An alternative way is get the extension directly from [our download page](#). If you do so, please consider the following instructions:

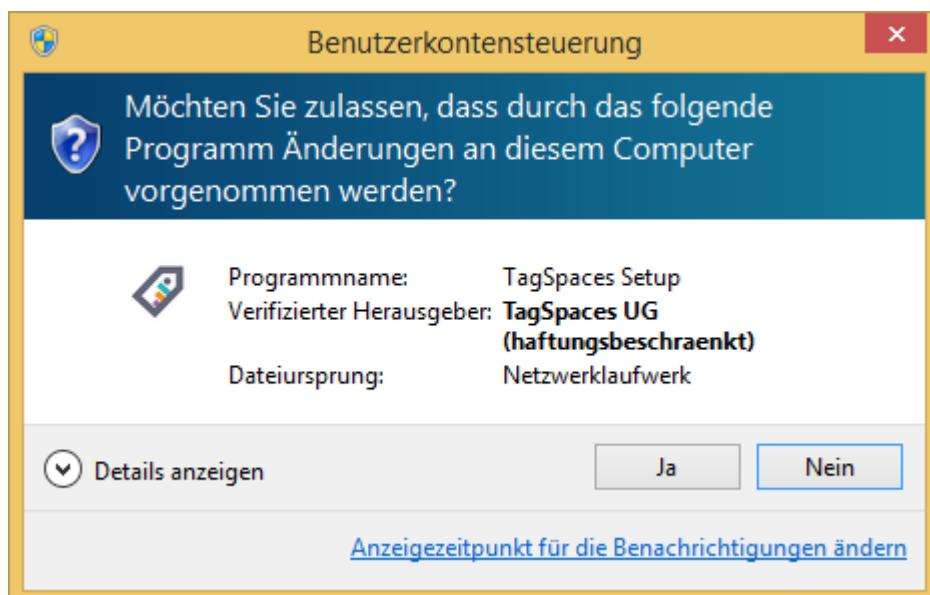
- Download the extension file from the link above and save it to your computer.
- Click the settings icon on the browser toolbar.
- Select **Tools > Extensions**.
- Locate the extension file on your computer and drag the file onto the Extensions page.
- Review the list of permissions in the dialog that appears and click **Install**.

After the installation, the TagSpaces extension can be started from the TagSpaces icon in the right upper corner of the browser.

Updating the Chrome extension: Once we publish a newer version of the Chrome extensions on the Chrome store, it will be automatically installed on your Chrome browser within the following days.

Installing TagSpaces PRO

For Windows we are providing installers for TagSpaces PRO, which are signed with modern software certificates. The following screenshot show this certificate in action during the installation under Windows.



Here are the steps needed for installing the PRO version on your system.

- Save the installer file to a location on your hard drive.
- Locate the installer and double-click to start the install process.
- The Windows installer allows you to specify a custom install location.

Updating the PRO version: Just run the installer from a newer version of TagSpaces. It will automatically update your installation.

Running in portable mode

The Windows and Linux versions of TagSpaces can be started in the so called portable mode, allowing the use of the application from an USB-stick or other portable devices. In this mode all the configuration information such as tags, tag groups and connection to locations is stored in a folder called *tsprofile*. This folder is located in the from where the application is started and not in the home user folder on current operating systems. The portable mode can be started with the `tagspacesp.cmd` script under Windows or the `tagspacesp` under Linux. These scripts are usually located in the unzipped application folder. Under Linux you have eventually to make this script executable with this command `chmod +x tagspacesp`. if the files are not in the distributed packages they can be downloaded from the following places: [tagspacesp](#) and [tagspacesp.cmd](#). The downloaded file should be placed in the same directory where the tagspaces executable is located.

Updating the portable version

In order to update a version of TagSpaces used in portable mode for example on USB stick you have just to exchange the files and directories with the new ones, coming from the installation package of the new application version. As mentioned before in the portable mode, the tag library and locations are stored in the *tsprofile* folder. So to upgrade to a newer version of tagspaces, we have to take special care for this folder, please follow these steps for the upgrade:

- Rename your existing *tagspaces* folder to e.g. *tagspaces_old*
- Extract the downloaded tagspaces zip-file, this will create a new *tagspaces* folder.
- Copy/move the *tsprofile* folder from the *tagspaces_old* folder to the newly created *tagspaces* folder.



Important: Be careful not to delete the `tsprofile` sub folder, it contains valuable information for your portable TagSpaces instance.

Self Hosting TagSpaces

⚠ CAUTION

Deprecated functionality: The here described functionality is not supported actively anymore. For a self hosted web version please use [TagSpaces Enterprise](#)

Motivation

Almost since the very first releases of TagSpaces back in the 2013, many users did requested a server based version of TagSpaces. They wanted to use the convenient tagging workflow of TagSpaces on their self hosted Nextcloud/ownCloud or in general WebDAV instances. So starting from today this is possible, TagSpaces can now run on servers and once installed you can access your files from anywhere.

Download and Installation

The current version can of the WebDAV version can be downloaded from [here](#).

Note Please handle the current status of the implementation is a technology preview, which in our opinion is still not suitable for production use on Internet.

In order to use the hosted version you need a working WebDAV server. The current release was tested with success on [ownCloud](#) which is based itself on the [sabre/dav](#) WebDAV server. On Ubuntu the installation steps are as following:

- Install Apache webserver (*nginx* webserver with its `webdav` extension is reported also to work)
- Install [Nextcloud/ownCloud](#) or any other WebDAV server
- Unzip the hosted version of TagSpaces somewhere in the `www` root folder of Apache. Currently the TagSpaces should be on the same host/ip and using the same port as the WebDAV server. This is so because of the XSS prevention build in the modern internet browsers.
- Assuming `ownCloud` is installed in `/var/www/owncloud` and TagSpaces in `/var/www/tagspaces` you have to type something like this in your terminal:

```
cd /var/www  
sudo chmod -R 755 tagspaces  
sudo chown -R your_www_group:your_www_user tagspaces
```

- Open your browser and enter: `127.0.0.1/tagspaces`. The TagSpaces UI should be loaded.
- Create a new location with the following path: `/owncloud/remote.php/webdav`
- Give a name to your location and save.
- A dialog for credentials entering will appear. Enter here your ownCloud username and password.
- That's all, you can now browse your files in TagSpaces.

Note: If the dialog prompting for the user credentials does not appear and you have running Nextcloud/ownCloud in some other browser tab, you have to logout there and reload the tab running TagSpaces.

The screenshot shows the TagSpaces web interface. The left sidebar displays a navigation tree with a 'DEMO' location selected. Under 'DEMO', there is a 'Demo' folder containing sub-folders '20090714 ES Soller' and '201410'. Below these are 'bookmarks' and 'Demo 2'. The main content area shows a list of files in the 'Demo' folder. There are 42 files found. The files listed are:

Type	Name	Tags	Size	Last Modified
JPG	034-IMG_29263	5star, 20130809	544.7 kB	2016.12.17 - 00:27:33
MP4	big_buck_bunny		5.5 MB	2016.12.17 - 00:27:33
OGV	big_buck_bunny		4.7 MB	2016.12.17 - 00:27:41
WEBM	big_buck_bunny	paper	5.1 MB	2016.12.17 - 00:27:40
PDF	bitmessage	high, paper	198.9 kB	2016.12.17 - 00:27:33
PDF	Cafe Wedekind	201208, restaurant, 5star	140.7 kB	2016.12.17 - 00:27:33

It is interesting to mention that you can open also your ownCloud contacts by creating a location with a path like

`/owncloud/remote.php/carddav/addressbooks/ilian/contacts`. This does not make currently much sense, because you only see a list with VCF files, but who knows perhaps somebody will write a contacts perspective and VCF viewer for TagSpaces some day.

Demo

You can experience a live demo of the TagSpaces webdav version on demo.tagspaces.org. The username and password are both `demo`.

Sharing links to files from the webdav version

tbd

The screenshot shows a web browser window with the URL <http://demo.tagspaces.org/?open=%2Fowncloud%2Fremote.php%2Fwebdav%2FDemo%2Fbitmessage%5Bhigh%20> highlighted in red. The left pane displays a file list in a 'List' view. The right pane shows a document titled 'bitmessage' with the subtitle 'Bitmessage: A Peer-to-Peer Message Authentication and Delivery System'. The document is authored by Jonathan Warren, with the email address bitmessage@jewarren.org and the website www.Bitmessage.org. It was published on November 27, 2012. The document's abstract discusses a system for secure message exchange using a peer-to-peer protocol. The introduction section notes that email is ubiquitous but not secure, and that current solutions are difficult for users to use. The document also mentions that governments are collecting call-detail records and social network analysis data.

File List (Left):

- JPG : 034-IMG_29263 5star : 20130809 : 544.7 2016.12.17 - kB 00:27:33
- MP4 : big_buck_bunny 5.5 2016.12.17 - MB 00:27:33
- OGV : big_buck_bunny 4.7 2016.12.17 - MB 00:27:41
- WEBM : big_buck_bunny paper : 5.1 2016.12.17 - MB 00:27:40
- PDF : bitmessage high : paper : 198.9 2016.12.17 - kB 00:27:33
- PDF : Cafe Wedekind 201208 : restaurant : 5star : 140.7 2016.12.17 - kB 00:27:33

Document View (Right):

bitmessage: A Peer-to-Peer Message Authentication and Delivery System

Jonathan Warren
bitmessage@jewarren.org
www.Bitmessage.org

November 27, 2012

Abstract. We propose a system that allows users to securely send and receive messages, and subscribe to broadcast messages, using a trustless decentralized peer-to-peer protocol. Users need not exchange any data beyond a relatively short (around 36 character) address to ensure security and they need not have any concept of public or private keys to use the system. It is also designed to mask message content data, like the sender and receiver of messages, from those not involved in the communication.

1. Introduction

Email is ubiquitous but not secure. The ability to send encrypted messages is necessary but current solutions are too difficult for people to use: users must exchange both an email address and an encryption key through a trusted channel (like in person or by phone). Even users who do know how to use tools like PGP/GPG usually do not put forth the effort to do so unless they are particularly concerned about the message content. Native users have a difficult time learning how to use the software because the relationship between public and private key pairs, and their uses, are foreign concepts. Even if users do manage to use PGP/GPG for communications, encryption alone does not mask the sender and receiver of messages. Government agencies in several countries are collecting call-detail records for all individuals and storing them in large databases for use in social-network-analysis [1][2][3]. There would be nothing stopping them from collecting the content of phone calls and messages also, and indeed, officials have told the New York Times that the United States' National Security Agency has engaged in "evercollection" [4].

A screenshot of a PDF viewer window. The title bar says "demo.tagspaces.org/?open=%2Fowncloud%2Fremote.php%2Fwebdav%2FDemo%2Fbitmessage%5Bhigh%20". The PDF document is titled "Bitmessage: A Peer-to-Peer Message Authentication and Delivery System" by Jonathan Warren, with the email bitmessage@jonwarren.org and website www.Bitmessage.org. The date November 27, 2012, is also present. The abstract discusses a trustless decentralized peer-to-peer protocol for message authentication and delivery.

Starting the WebDAV edition locally for testing

There is a script called `webdavserver.js` located in the `data/web`, which can be started with:

```
node data/web/webdavserver.js
```

or

```
npm run webdav
```

This command will start a local node.js based WebDAV server on `http://127.0.0.1:8000`. Open your browser and enter the following URL:

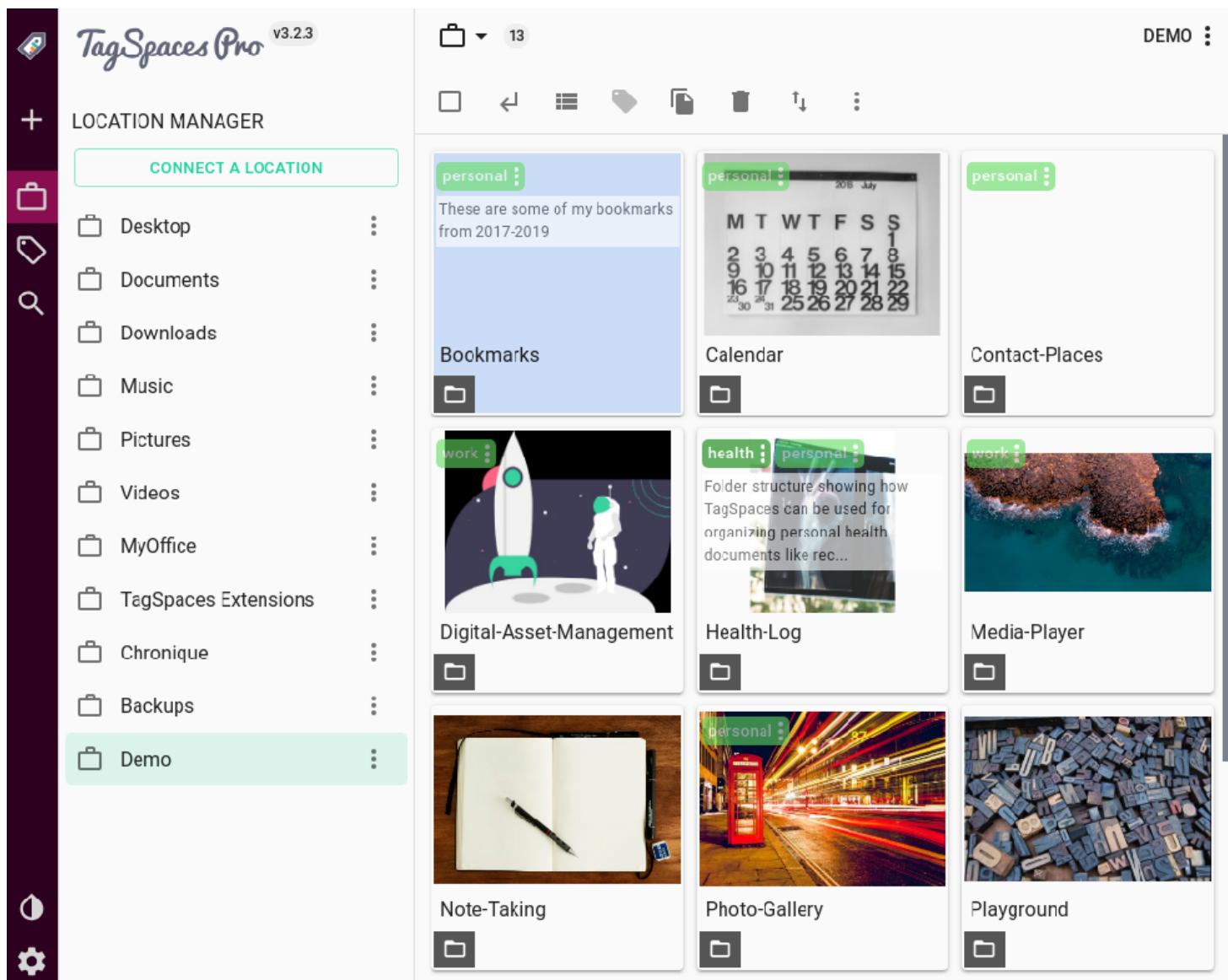
```
http://127.0.0.1:8000/index.html
```

You will be prompted for user credentials, which are username: `demo` and password: `demo` and now you should be able to work with the WebDAV version of TagSpaces.

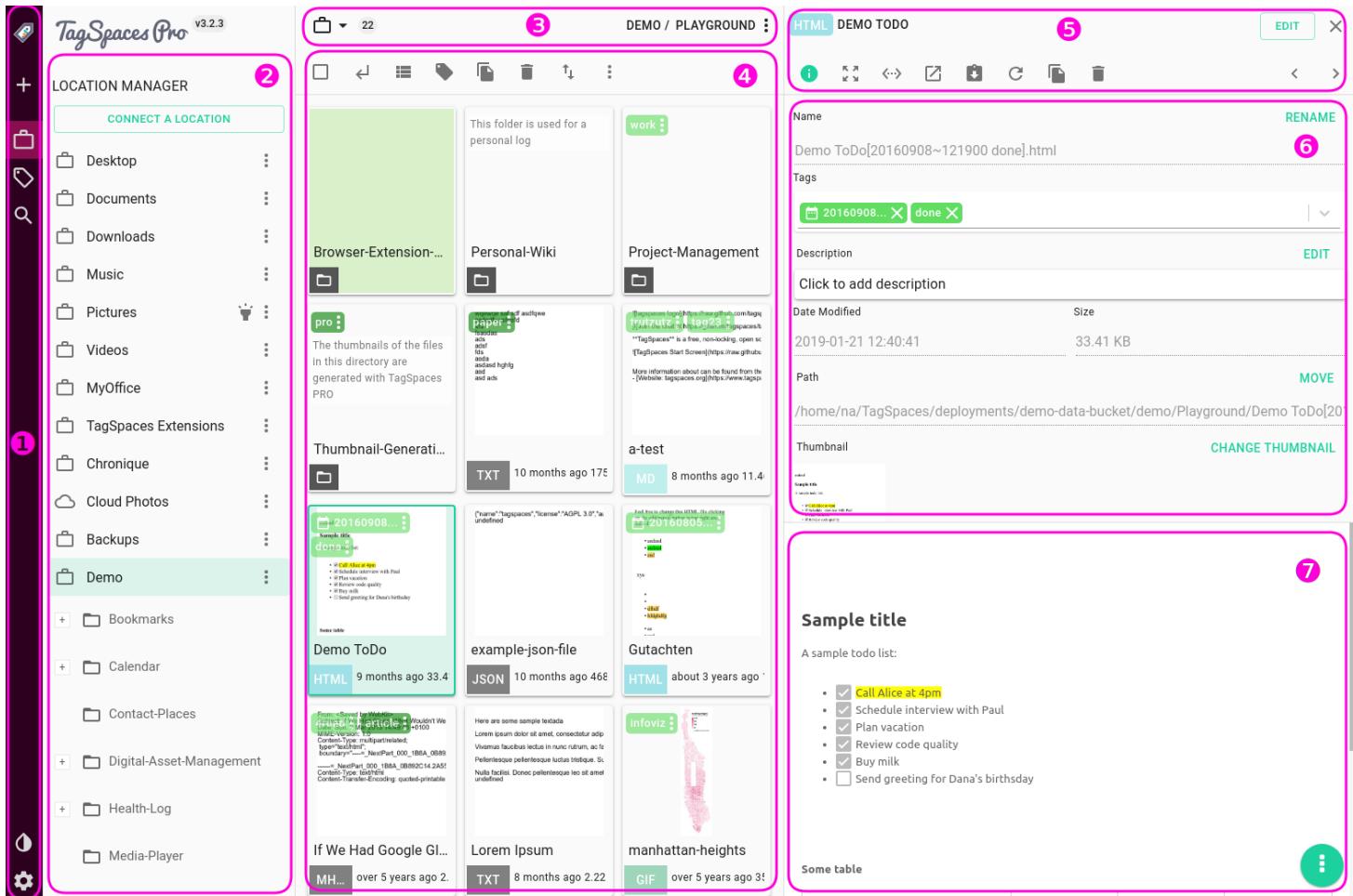
User Interface Areas

Start screen

TagSpaces opens up as a single-window application that tries to make the best use of any space available, be it large wide screens, or small mobile displays. The user interface, devised along the guidelines of Google's material design specifications, is very adaptable. The application will look the same, regardless of the operating system, or platform it runs under.



This streamlined experience offers familiarity and an ease to use the application across platforms, while you will need to familiarize yourself with its extensive features only once. The following screen shows a typical start screen of TagSpaces with the list of the available locations on left, and content of the currently opened folder with the default perspective in center of the application.



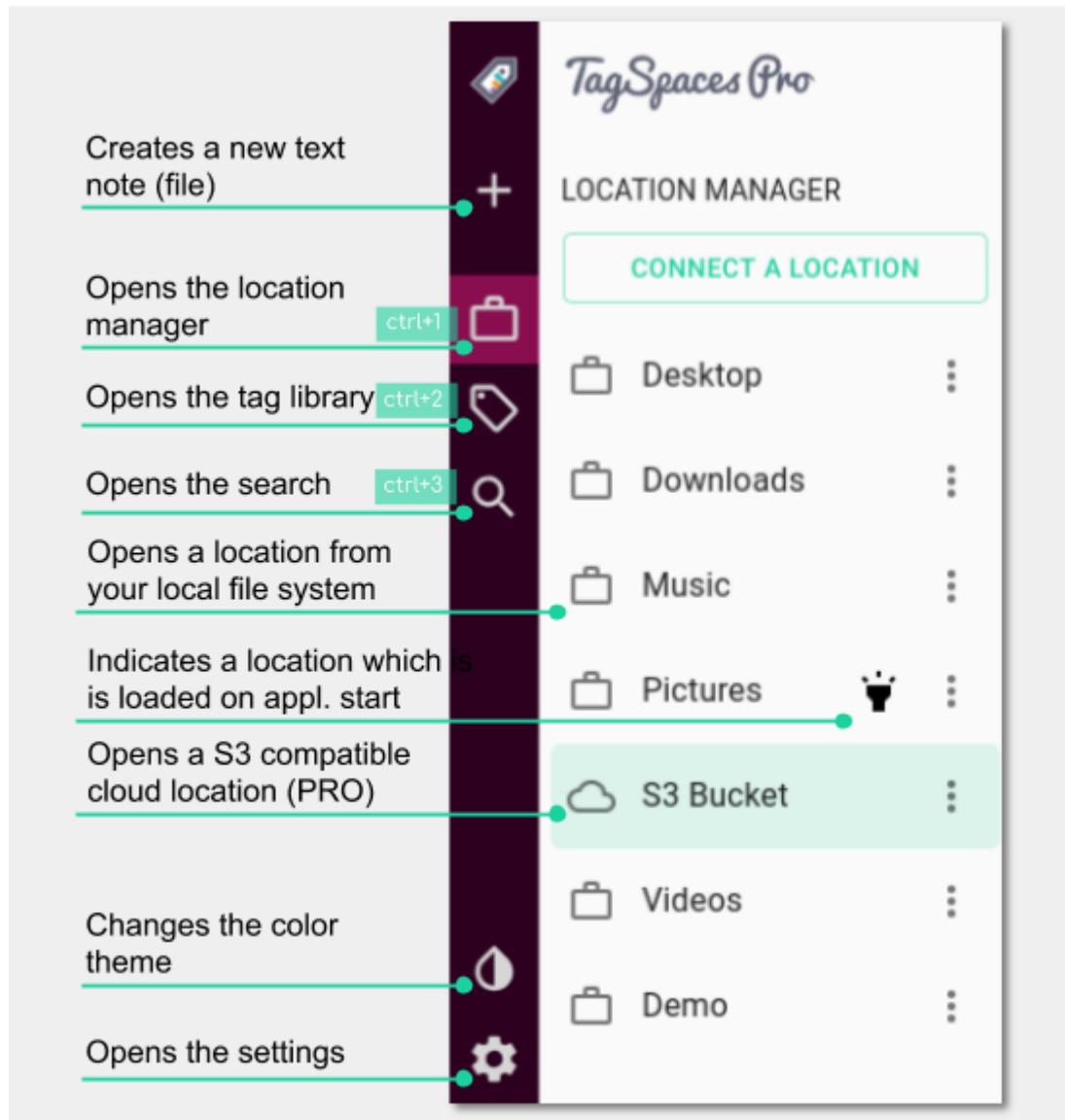
The user interface of the application consists of the following main areas:

- **(1) Vertical toolbar** - Is always visible and provides quick access to main parts of the application
- **(2) Location manager / Tag Library / Search areas** - Here you can manage the connected locations, the tag library or search for file and folders.
- **(3) Navigation** - Here you can switch the location or quickly navigate to parent folders.
- **(4) Browsing area** - This section is occupied by the so called **perspective** used for browsing files and folders.
- **(5) Common actions area** - Here you can access common actions for the currently opened file or folder.
- **(6) File / Folder properties** - Here you will find some properties for the currently opened file or folder.
- **(7) Preview area** - In this area you can preview and/or edit the current file.

Vertical toolbar

New in version 3 of the app is the vertical toolbar located in the most left part of the application. The toolbar is designed to be alway visible. Here you can quickly access the

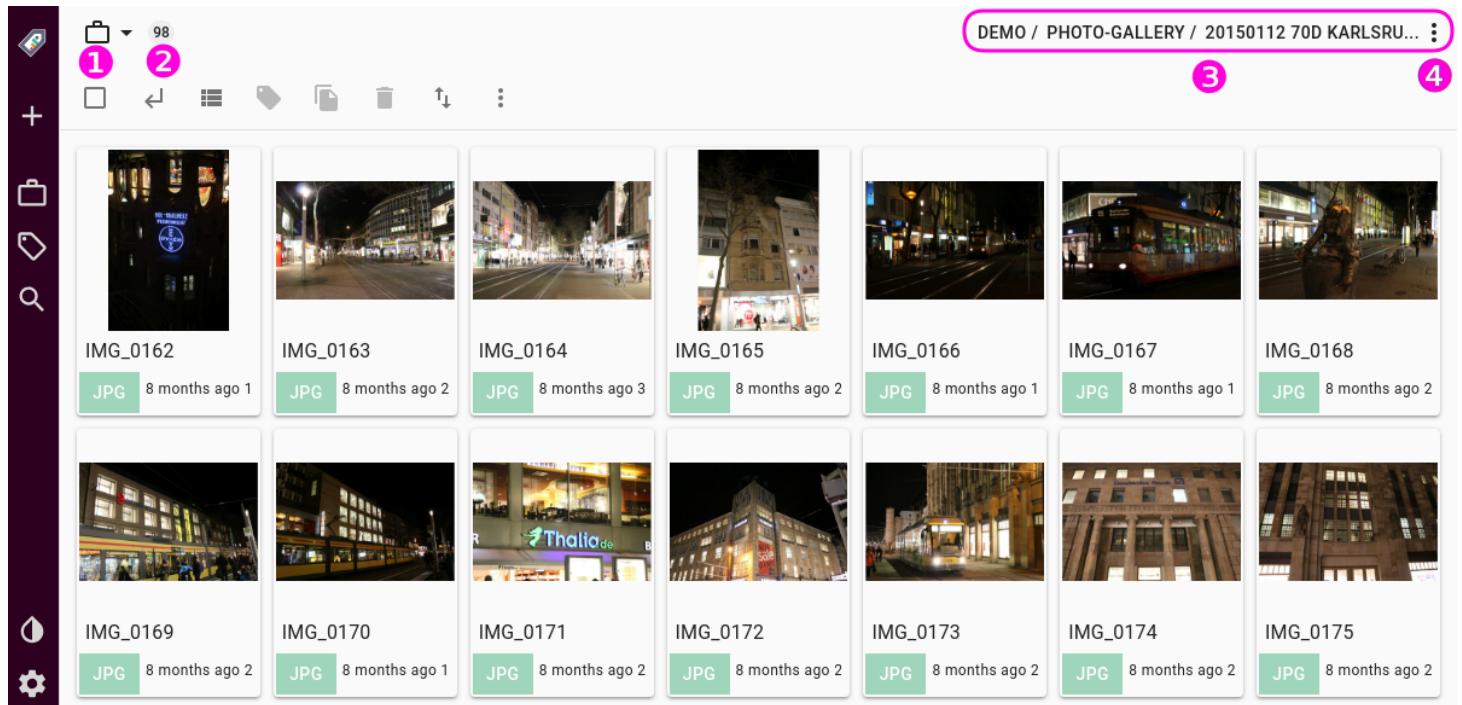
creation of a new file, switch between the location manager, tag library and the search panels, open the app setting or enable the [dark mode](#).



Hint: Clicking a second time on the icons for the location manager, the tag library or the search area will close the whole area contain these sections. This could be useful if you want to have more space for file browsing or previewing.

Browsing Area

The file browsing area normally takes up the majority of the user interface. This is where all files from the currently active folder are displayed, either as a list, grid, or folder tree, depending on the active [perspective](#). To learn more about the all file browsing features, navigate to the [Browsing Section](#).



In the top left corner of the browsing area is placed a button with a briefcase icon **(1)** which open a dropdown showing a list of all [locations](#). From this dropdown you can quickly switch to another location.

Hint : If you are currently using a cloud based location, the the icon of the button for changing the location **(1)** will be a cloud, in other cases the icon will be the briefcase.

The number above **(2)** shows the count of the files and folders in the current folder. If the file browsing area shows search results, then this number will represent the count of the found items.

The area above number **(3)** shows the name of the current folder, its parent folder name and name of the parent's parent folder in reversed order. The folder names are separated by slashes (/). The parent folders are shown only if the these folders are in the current location. Clicking on the name parent folders will navigate to them.

Folder context menu

Clicking on the name of the current folder or on the three dot icon above **(4)** will open the context menu for the current directory, which contains the following menu items:

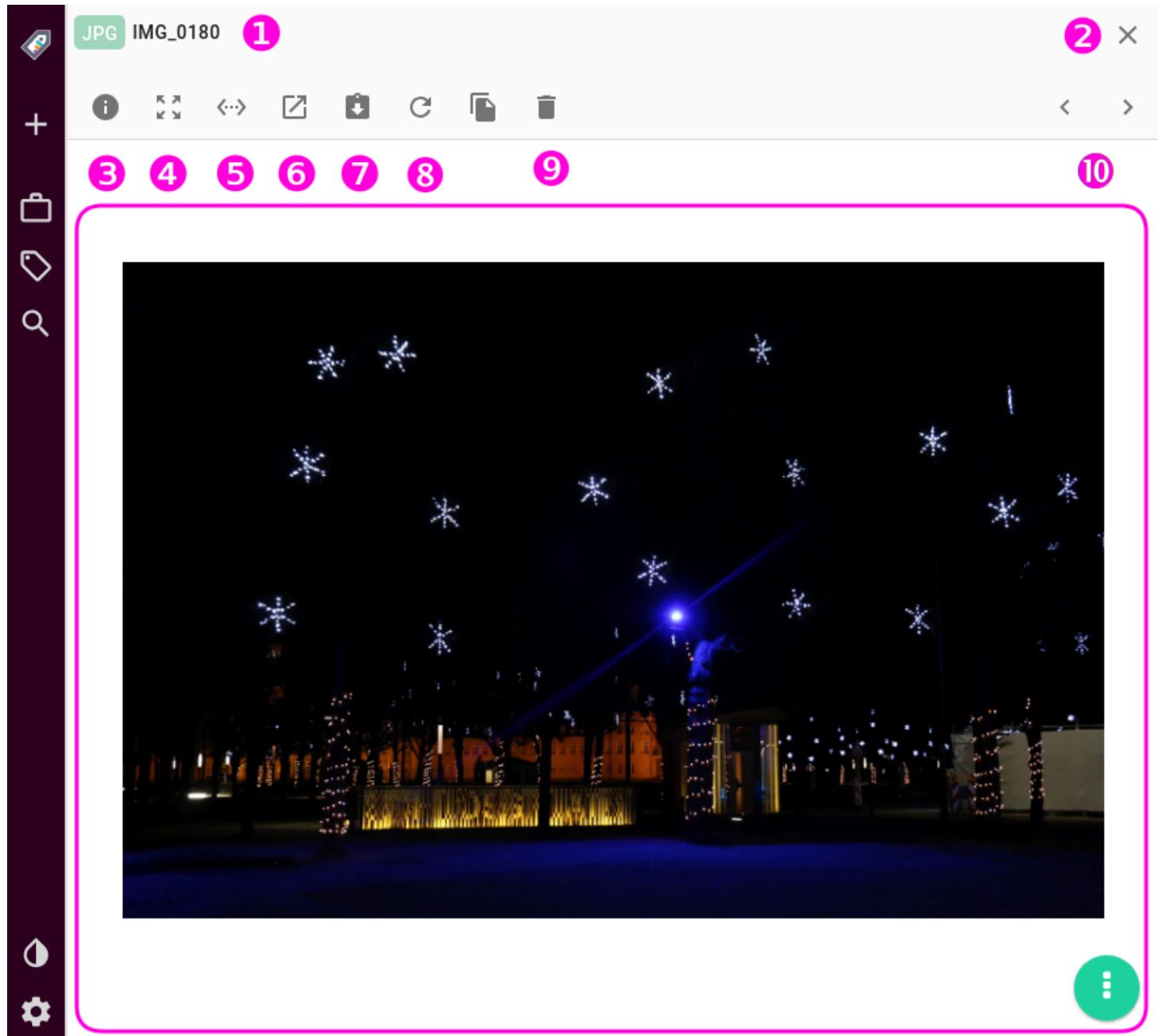
- **Open Parent Directory** - Open the parent folder in the browsing area, only if the parent folder is located inside the current location
- **Reload Directory** - Reloads the content of the current folder
- **Rename Directory** - Opens the folder rename dialog

- **Delete Directory** - Open a dialog where you can confirm the deletion of the folder
- **Show in File Manager** - Opens the folder in the default file manager of the operating system
- **New Subdirectory** - Opens the folder create dialog, where you can enter the name of the new sub folder
- **New File / Note** - Open the dialog for [creating new](#) files / notes
- **Add Existing File** - Opens a file choose where you can select a file from your local files system, which will be added to your current folder in TagSpaces.
- **Extract Content** - Starts a data extraction process, where you can retrieve some additional meta information from the files in the current folder.
- **Directory Properties** - Opens the folder properties area

Preview area

When a file is opened, the main UI area splits into two, the rightmost page becoming the **Preview area**. TagSpaces is capable of natively displaying different file types, from markdown, through HTML and docx, to PDF or various image files. To learn more about all the viewable and editable files, and TagSpaces' full file handling capacity, navigate to the [Viewing Files section](#) and [Editing Files section](#) respectively.

The following screenshot show a JPG file (photo) with name *IMG_0180 (1)* opened in the preview area. Here the preview area uses the full width of the application windows. This can be achieved by clicking on button **(5)** from the preview toolbar. The preview area can be closed by clicking the button with **X** icon located on the right to **(2)**



The file preview toolbar offer some actions, some of them are described bellow:

- **(3) Properties** - Toggles the [file properties area](#). This can be achieved also by clicking on the file name or the file extension located on the left of **(1)**
- **(4) Full screen** - Opens the file preview in full screen. You can leave the full screen mode by clicking the ESC key of you keyboard or the by clicking the round green x-button which will appear in the top right corner of the screen.
- **(5) Full width** - Toggles the file preview in the full width of the application windows, by hiding the file browsing and areas in left panel of the app.
- **(6) Open externally** - Opens the current file in the default application of your operating system.
- **(7) Download** - If you are running the web version of TagSpaces, this button will start the downloading of the file, on the desktop versions the button will open file save dialog allowing you to make copy of it somewhere else on the file system (e.g. your Desktop)

- **(8) Reload** - Will reload the file in the file preview area
- **(9) Delete** - Will open a dialog, where you can confirm the deletion of the file.
- **(10) Previous/Next** - With the arrow button located above **(10)** you can open the previous or the next file from the current folder (or search results) in the preview area.

File properties area

Clicking the button with the **i** icon will open and respectively close the file properties area. Here you will find details about the currently opened files such as:



Name

RENAME

IMG_0180[1star todo].jpg

1

Tags

1star X todo X

2

Description

EDIT

Some description for this photo

3

Date Modified

2019-01-21 14:20:52

4

Size

117.17 KB

5

Path

/home/

MOVE

demo/Photo-Gallery/20150112 70D Karlsruhe/IMG_0180[

Thumbnail

CHANGE THUMBNAIL

6



7



- **(1) Name** - Shows the complete name of the file with its file extension. Clicking the **RENAME** button located above (1) will switch the area to edit box, where you can change the name of the file.

- **(2) Tags** - Show the tags added to this file. Clicking on this area will open a dropdown where you can choose additional tags which will be assigned to this file.
- **(3) Description** - Shows the description assigned to the current file. Clicking on the **EDIT** will turn the description area in a edit box, where you can adjust the description of this file. Plain text and markdown formats are supported.
- **(4) Date modified** - Shows the date and the time when the file was last modified.
- **(5) Size** - Shows the size of the current file. Hovering the field will show the size in bytes.
- **(6) Path** - Shows the complete path of the file. Clicking on the **MOVE** button, will open a dialog, where you can move or copy the existing file to a new path.
- **(7) Thumbnail** - This area shows the current thumbnail of the file. Clicking on the **CHANGE THUMBNAIL** button will open a dialog, where can choose a new thumbnail for the file. The application supports adding a custom thumbnail to every file type.

Hint: The description field of files and folders supports basic **markdown syntax**.

Folder properties area

The folder properties is very similar to the file properties area. It can be opened and closed in the same way by the button with the **i** icon.

WEB-CLIPPING-INBOX X

+

Name **RENAME** (1)

Web-Clipping-Inbox

Tags (2)

personal X

Description **EDIT** (3)

Content collected with the **web clipping** browser extensions for [Chrome](#) and [Firefox](#)

Date Modified (4) Change Background Color (5)

2019-09-18 12:33:15

Path (6)

/home/... demo-data-bucket/demo/Web-Clipping-Inbox

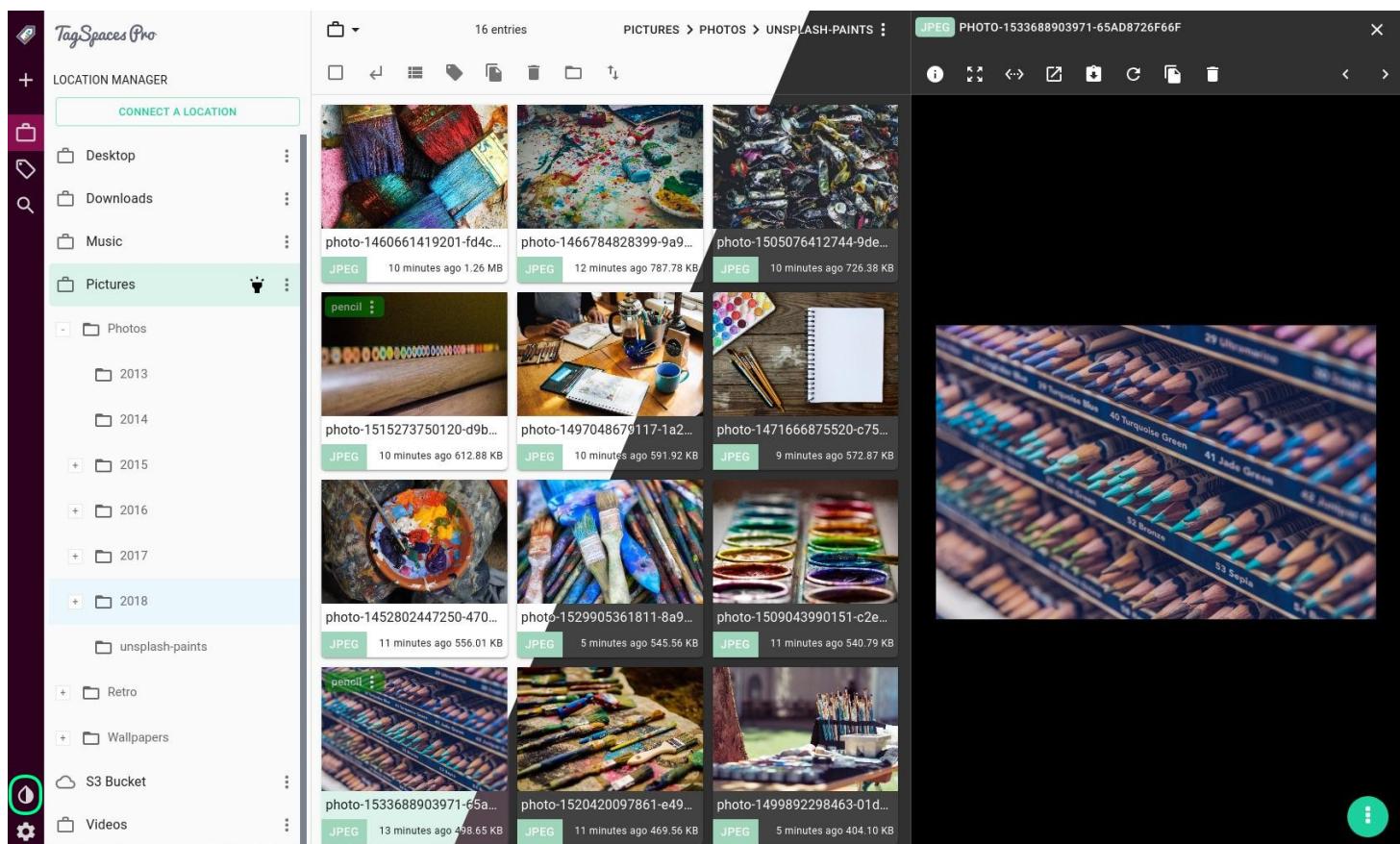
Thumbnail **CHANGE THUMBNAIL** (7)

- **(1) Name** - Shows the complete name of the folder. Clicking the **RENAME** button located above (1) will switch the area to edit box, where you can change the name of the folder.
- **(2) Tags** - Shows the tags added to this folder. Clicking on this area will open a dropdown where you can choose additional tags which will be assigned to this folder.
- **(3) Description** - Shows the description assigned to the current folder. Clicking on the **EDIT** will turn the description area in a edit box, where you can adjust the description of this folder. Plain text and markdown formats are supported.
- **(4) Date modified** - Shows the date and the time when this folder was last modified.

- **(5) Color** - Shows the color which is assigned to this folder. Clicking in the color area (5) will open a dialog for changing the color of the folder.
- **(6) Path** - Shows the complete path of the folder.
- **(7) Thumbnail** - This area shows the current thumbnail of the folder. Clicking on the **CHANGE THUMBNAIL** button will open a dialog, where can choose a new thumbnail for the folder.

Dark mode

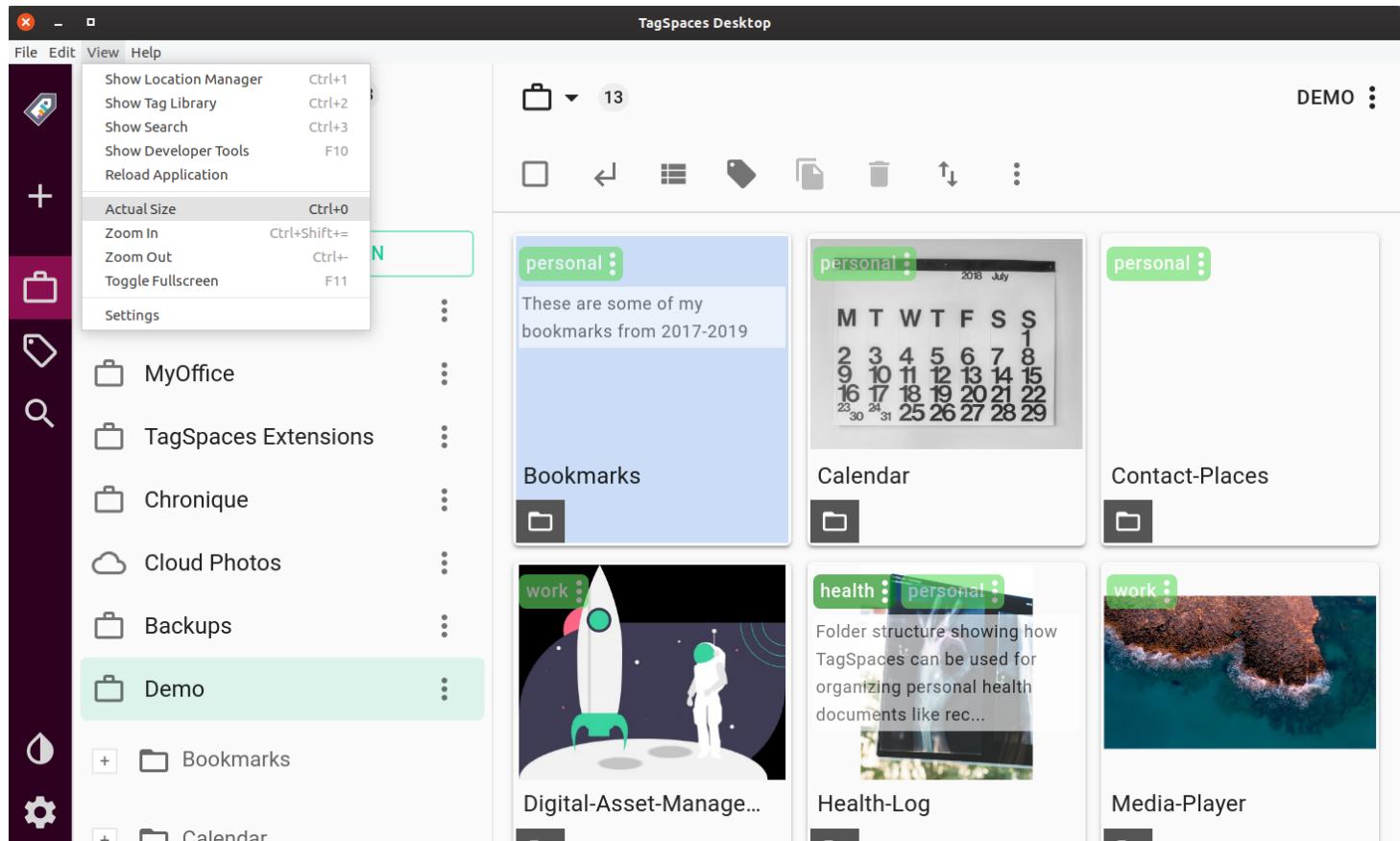
Version 3 of TagSpaces supports user interface themes. The community version is delivered with a light (which is the default one) and a dark theme. The themes can be switched with just one click on the button, which is emphasized on the following screenshot.



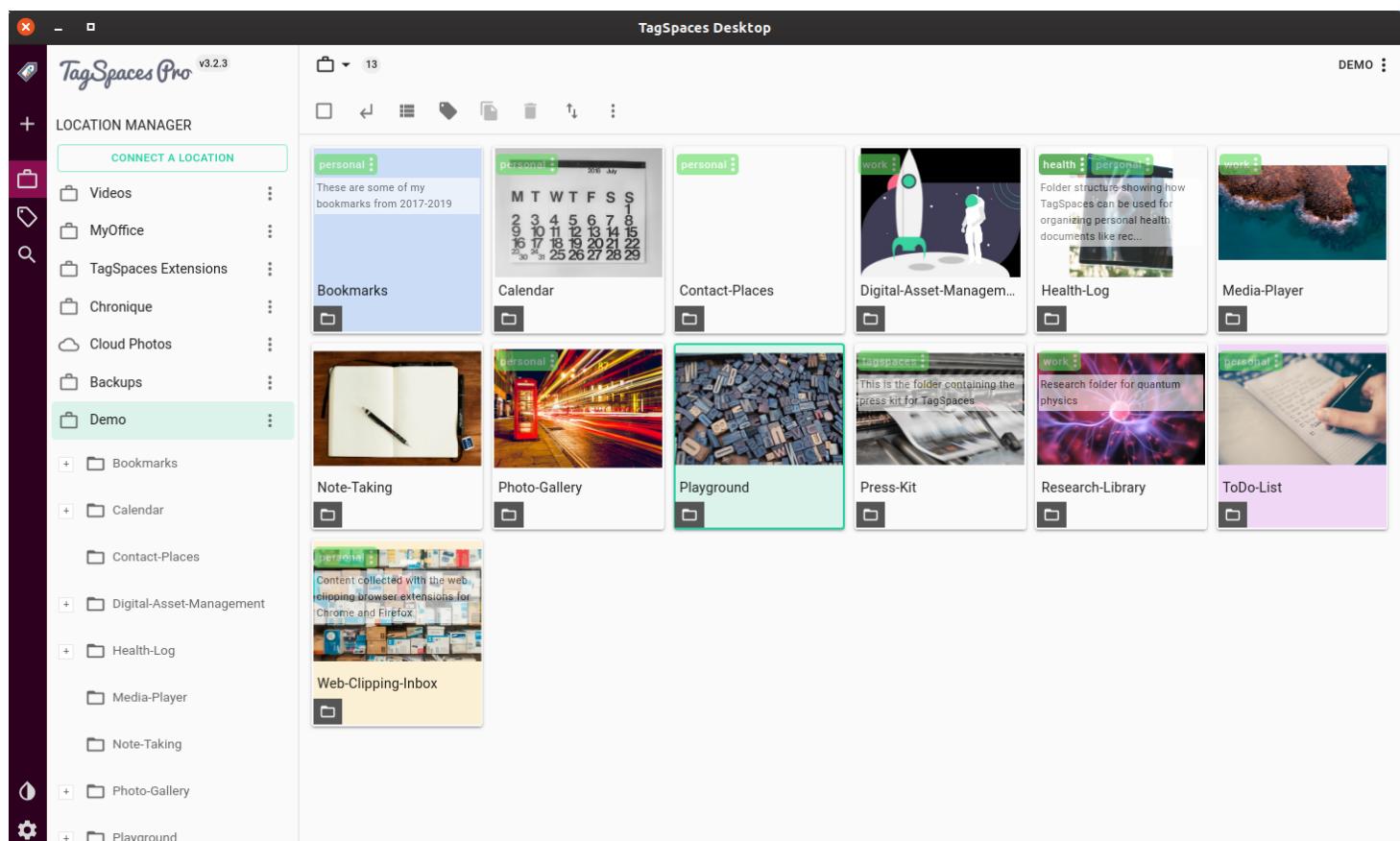
Scalable user interface

The user interface of the application scalable, this allows you to adjust the zooming factor according to your preference, screen resolution or display size. In the desktop you can access the zoom functionality from the **View** in the **Main Menu**. Here you will find zoom in, zoom out functionality and also the possibility to restore the initial zoom factor with **Actual size** menu item.

In the following screenshot you will see the menu options from the **View** sub menu and also TagSpaces with zoomed in interface.



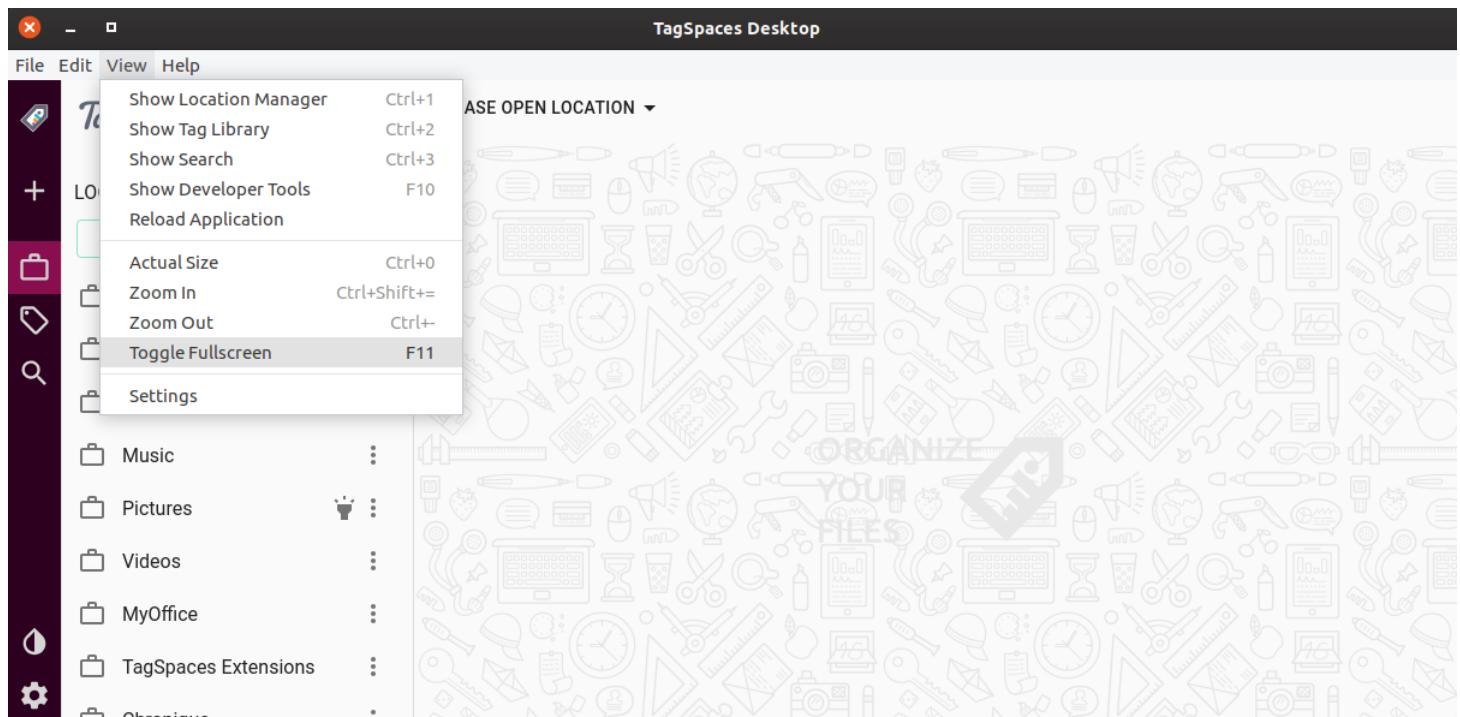
And here you will see TagSpaces with zoomed out interface.



Hint: If the application is running in a browser, please use the integrated in the browser zooming capabilities.

Full screen mode

The desktop application can run in a full screen mode, which can be toggled by pressing the **F11** key, or selecting *View -> Toggle Fullscreen* from the **Main Menu**.



Hint: If the application is running in a browser, please use the integrated in the browser full screen mode capabilities.

Locations

A **location** is a folder on your local file system, which will serve as a root for listing sub folders, files and documents. Typical locations are for example the folder where you collect your photos or folders where you store documents, ebooks or music.

Hint: Do not choose very large directories such as your *home folder* as a location root folder, as this may lead to performance issues. The reason for this is that TagSpaces is indexing the whole location every time you open it and the indexing can just take time if the location contains many files. On modern computers with SSD harddrives having a location with up to 60000 files is usually not a problem. The current upper limit for files indexed in a locations is 200000.

The **location manager** is can be opened by clicking the case button (1) from the vertical navigation, or by pressing the **CTRL+1** key combination. Once opened, you will see a list of the currently configured locations. Here you can open any location by clicking its name. You can add new locations, by clicking on the **Connect new location** button (2). This button will open the *Connect a Location* dialog, which is very similar to the *Edit Location* dialog. The torch icon (3) indicates **Startup Location**, which is the location loaded automatically on the application start.

Clicking second time on a location name, will trigger the loading of the sub directories in this locations, once loaded this folder will be listed in the **folder navigation area** (5)



LOCATION MANAGER

CONNECT A LOCATION

2



1

- Desktop ::
- Documents ::
- Downloads ::
- Music ::
- Pictures 3 ::
- Videos ::
- MyOffice ::
- TagSpaces Extensions ::
- Chronique ::
- Cloud Photos ::
- Backups ::

6



Demo

4

::



Bookmarks

5



Calendar

Contact-Places



Digital-Asset-Management



Health-Log

Media-Player

The location with the cloud icon (6) in front of its name is located in the AWS S3 compatible cloud storage. See [cloud locations](#) for more details.

The location with the light green background color (4) is the **currently opened location**. The 3-dot button located on the most right part of every location in the location manager will open the **context menu** for this location. This menu contains the following menu entries:

- *Edit Location* - will open the [Edit Location](#) dialog where you can change the location properties such as name or path.
- *Refresh Location Index* - will trigger the indexing process manually, this menu entry is visible only for the currently opened location
- *Move up* - will move the location visually up in the location manager
- *Move down* - will move the location visually down in the location manager
- *Remove location* - will remove the location permanently from the app. This operation will not affect your files, it only removes its reference in TagSpaces.
- *Show in File Manager* - will open the path in your file system to which this location point in the default file manager of your operating system
- *Close Location* - will simply close this location if it is currently opened.

Location types

In TagSpaces there two type of locations, regular (local) and cloud based (AWS S3 Object Storage). The type can be selected in the create and edit location dialogs.

Regular Locations

Regular locations are pointing to a folder located on your local computer. This could be also a folder where you sync locally your Dropbox files or a folder from a connected network drive.

Note: Be careful with connected huge folder located on network drive, depending on the speed of the network, this could lead to performance issues.

Edit Location

Type Local AWS S3 Object Storage

Location Name *

Documents

Location Path

/home/username/Documents



Startup location

Open this location in read-only mode

Enable full text search for TXT, MD and HTML files (BETA)

Switch to manual index creation with persisted search index

Watch for external changes in this location

[CANCEL](#) [OK](#)

The regular locations have the following properties:

- *Location name* - this is the name of location as displayed in the location manager
- *Location path* - the path from your computer, to which this location points
- *Startup location* - turning this switch on will make the location load automatically on application start. You can set only one location to be a startup one.
- *Open this location in read-only mode* - switches the interface of TagSpaces to read-only mode
- *Enable full text search for TXT, MD and HTML files* - activates the indexing of the content of text, markdown and HTML files.
- *Switch to manual index creation with persisted search index* - disables the automatic indexing of a location on its opening. The application will try to open a previously created index located in a file `tsi.json` from the `.ts` folder of the location. This is useful on locations with many files, where the content does not change very often.
- *Watch for external changes in this location* - once switched on TagSpaces will watch the folder to which the location points and all its sub folders for changes and reflect them in the application.

Cloud Locations

These locations are pointing to AWS S3 compatible stores (also known as buckets) located in the Internet.

Cloud locations are available only in the [Pro] (<https://www.tagspaces.org/products/pro>) and [Enterprise] (<https://www.tagspaces.org/products/enterprise>) editions of TagSpaces.

Edit Location

Type Local AWS S3 Object Storage

Location Name

Cloud Photos

Location Path

media

Access Key

AKIA22AWE5B35MS2SPNT

Secret Access Key

Bucket Name

example-bucket-name

us-east-2 (US East Ohio)

x | v

Startup location

Open this location in read-only mode

Enable full text search for TXT, MD and HTML files (BETA)

Switch to manual index creation with persisted search index

Watch for external changes in this location

CANCEL OK

In addition to the regular locations, the cloud locations have the following properties:

- *Location Path* - the path in the bucket to which this location points
- *Access Key* - the access key of a user, who has the rights to open this bucket
- *Secret Access Key* - the secret access key of the user
- *Bucket Name* - the name of the bucket to which this location points

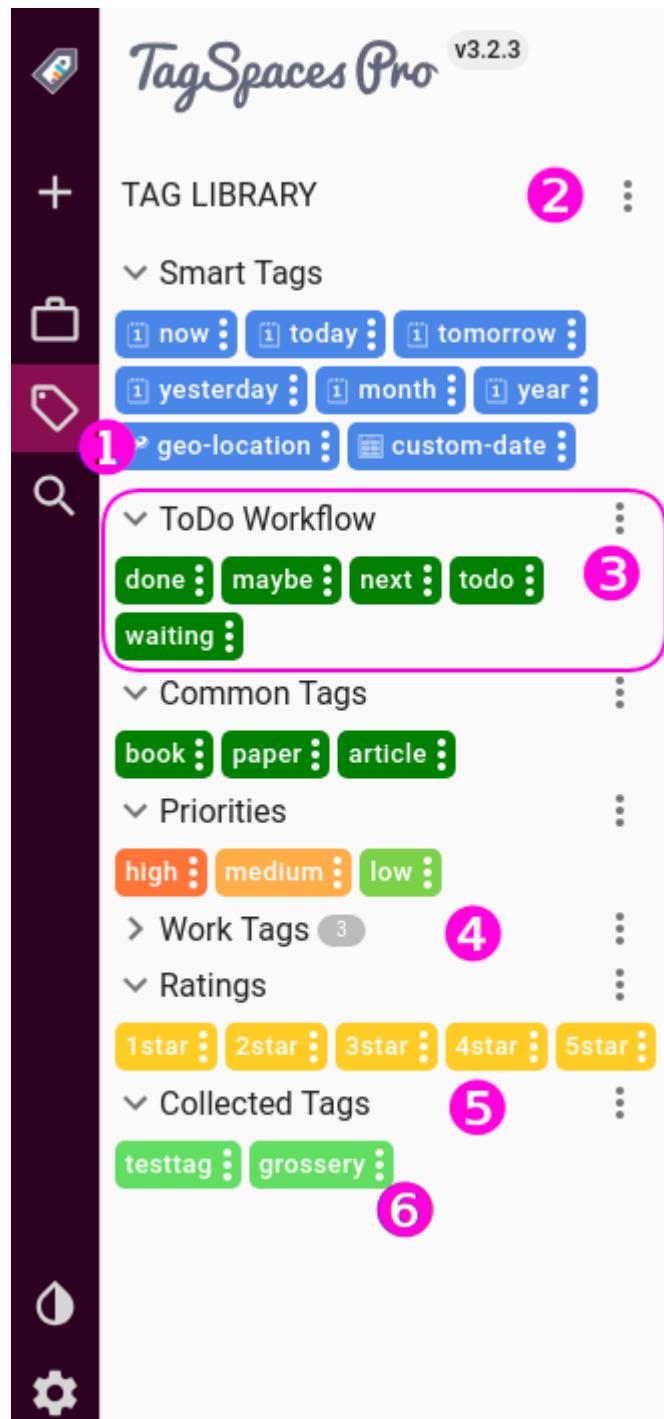
- *Region* - the AWS region, where the bucket is hosted. The dropdown is located on the right from the bucket name.

Note: *Watch for external changes in this location* is disabled because it is not available for cloud locations.

In our tutorial section you can find a [complete manual](#) on how to create a new AWS S3 bucket and connect it as location in TagSpaces.

Tag Library

The tag library is the place where you can manage and organize the tags with which you can tag your files and folders. To open it, you need to click the button with the tag icon (1), in the vertical navigation placed on the most left part of the application.



The tag library has its own [context menu](#), which can be started by clicking the three dot icon on right of (2). The area marked with (3) represents a single [tag group](#). On the top of (3) there is a three dot icon which will open the [context menu](#) of this tag group. (4) show a collapse tag group. Every tag group can be collapsed by clicking on the arrow icon in front of the tag group's name. (5) shows a special tag group used for automatically

collecting new tags used in the application. (6) shows a sing tag. Every tag has its own three dot icon, which will open its [context menu](#)

Tags

The primary purpose of TagSpaces, is tagging files and organizing them. **Tags** are organic and integral parts of TagSpaces. By default, tags are stored as part of the filename, which makes them easily transferable between file and operating systems, without any need to synchronize databases, or do any extra work. A file can organically hold its own tags, as long as changing the filename is permittable.

pro **Hint** In TagSpaces PRO, you have the option to use a hidden file (a so called sidecar file) to store tags related information. This can be useful when you are not able, or not allowed to change filenames, such as with a development project, or working collaboratively on shared documents.

Tags can be anything, from descriptive labels, to categories, ratings, priorities, or dates, timestamps, and smart tags.

Hint: To learn more about the powerful tag management features TagSpaces offers, read the [Tagging section](#)

Tag groups

Tags are organized into **tag groups**, which are basically categories for tags with similar purpose and/or characteristics. Tag groups make it easier to navigate, select and manage tags in the system. TagSpaces comes with a few pre-defined tag groups, which you can freely modify, delete, or expand upon. The default tag groups are:

- **Smart tags** include various date based tags and geo location tagging. Learn more about smart tags in the [tagging section](#)
- **Common Tags:** This group contains two predefined tags, *book*, and *paper*. This can give you a general idea of the intended purpose of the group.
- **Getting Things Done:** Another useful category that can enhance your productivity, is an implementation of the [GTD time management method](#). Predefined tags here are *done*, *next*, *maybe* and *waiting*.

- **Priorities** are exactly what they seem. These are color coded tags that will be easily identifiable by a simple glance. The three predefined priority tags are:
 - *high* - dark orange background
 - *medium* - orange background
 - *low* - lime background
- **Ratings** are predefined star-rating tags with an identifiable yellow background. As the `*` (asterix) character is considered a 'wildcard' on most file systems (meaning you cannot use it in filenames), giving a star rating as a filename-based tag would be somewhat difficult. With the yellow "rating" tags this problem can be easily solved, so your files can be organized in a rating-based system.
- **Collected Tags** is a group for all other tags you have given to your files or folders that do not belong to any other group. This tag group is created automatically after the option for collecting tags is activated in tab *General* of the application settings.

Hint: All the tag groups except the smart tag are optional and can be removed from the tag library if they are note needed.

Tag library context menu

This menu contains the following three menu items:

- **Create Tag Group** - Opens the dialog for creating tag groups
- **Import Tag Library** - Start the process for importing tag groups in TagSpaces. Lear more in the [tag sharing tutorial](#)
- **Export Tag Library** - Start the process for exporting tag groups from TagSpaces. Lear more in the [tag sharing tutorial](#)

The screenshot shows the TagSpaces Pro application interface. On the left is a dark sidebar with icons for file operations (New, Open, Save, Find, Settings). The main area has a light background. The top navigation bar includes the app name "TagSpaces Pro" (version v3.2.3), a folder icon, and a file count (22).

TAG LIBRARY

- Smart Tags**
 - now
 - today
 - tomorrow
 - yesterday
 - month
 - year
 - geo-location
 - custom-date
- To Do Workflow**
 - done
 - maybe
 - next
 - todo
 - waiting
- Common Tags**
 - book
 - paper
 - article
- Priorities**
 - high
 - medium
 - low
- Work Tags** (3)
- Ratings**
 - 1star
 - 2star
 - 3star
 - 4star
 - 5star
- Collected Tags**
 - testtag
 - grossery

A context menu is open over the "paper" tag, highlighted with a pink border. It contains three items:

- + Create Tag Group
- ↑ Import Tag Library
- ↓ Export Tag Library

The right side of the interface shows a "Browser-Extension-Repository" section with a "paper" tag card. The card displays the tag's name, a preview of its color swatches, a "TXT" button, and a timestamp ("10 months ago 175 B"). Below this is another card for a file named "20160805...".

To create a new tag group, click on **Create Tag Group**, right underneath the tag groups. This will bring up a dialog, that will allow you to specify a name for your tag group, and the color of tags that belong to that group. color coding tags groups can help to easily distinguish between tags belonging to the same group, or otherwise share common characteristics. You can also specify the text color for the tags, which can be useful when choosing a lighter or darker background, so that the name can contrast.

Create Tag Group

Tag Group Name

My new tag group

Default tag background color

Default tag text color

CANCEL **OK**

Selecting the **Import tag library** and **Export tag library** options will allow you to import/export predefined tags, which you have previously created in TagSpaces. This option takes a **JSON** file, previously exported from (probably another instance of) TagSpaces, and imports all the tags contained within, into your system. This can be useful, when you use TagSpaces on multiple systems, or you work collaboratively with others and wish to share the same tags library. To learn more about sharing tags between systems and people, refer to the [Sharing tag libraries](#) tutorial article.

Tag group context menu

Tag groups have their own context menu, accessible by clicking the three dot icon next to the tag group's name. The context menu offers the following options and operations:

- **Add tags** - This will open a very simple dialog, allowing to add new tags to the group. You can add more than one tag at once, separating them with commas, like `tag1, tag2, tag3, tag4`
- **Edit Tag Group** - will let you change the tag group's name, the default tag background, and tag text colors.
- **Move Tag Group Up** and **Move tag Group Down** - will allow you to change the tag group's position among other groups.
- **Sort Tag Group** - will sort all tags inside the group alphabetically. Useful after having manually added a number of tags.
- **Delete Tag group** - will remove the tag group from the library, with all the tags contained within.
- **Collect Tags From Current Location** - will collect all the tags used in the current location in the selected tag group.

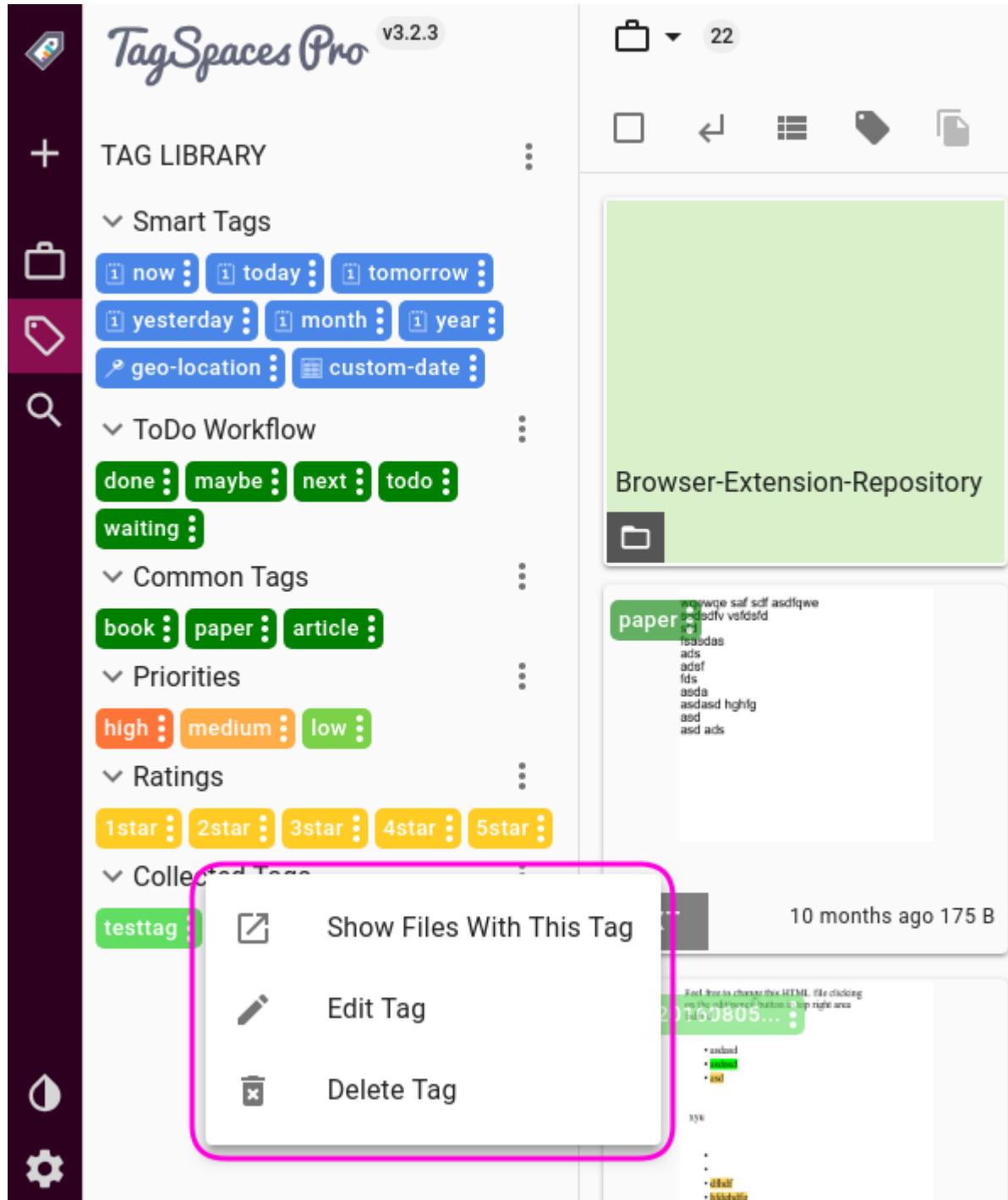
The screenshot shows the TagSpaces Pro application interface. On the left is the 'TAG LIBRARY' panel with sections for 'Smart Tags' (now, today, tomorrow, yesterday, month, year, geo-location, custom-date), 'ToDo Workflow' (done, maybe, next, todo, waiting), and 'Common Tags' (book, paper, article). A context menu is open over a tag in the 'Browser-Extension-Repository' folder, listing options: Add Tags, Edit Tag Group, Move Tag Group Up, Move Tag Group Down, Sort Tag Group, Delete Tag Group, and Collect Tags From Current Location.

Hint: Learn more about how to change the default tag background and text colors in the [settings documentation](#) section below.

Tag context menu

Each tag also offers its own context menu, accessible by clicking or right clicking on the tag. The displayed context menu will be slightly different depending on whether you've accessed it from the left panel tag library, or from a tag that is already added to a file. When accessed from the left panel, you will be presented with four options:

- **Show Files With This Tag** - is essentially a tag filter you can apply, so that only files that have the selected tag applied to them, will show.
- **Edit tag** - will let you change the tag's name, or background color and text color.
- **Delete tag** - will remove the tag from the tag group and the tag library. It will not remove it from any file or folder.



Accessing the tag context menu from the browsing area in the default perspective will show similar menu, containing the following items:

- **Show Files With This Tag** - is a tag filter you can apply, so that only files that have the selected tag applied to them, will show.
- **Edit tag** - will let you change the tag's name

- **Remove tag** - will remove the tag from the file or the folder on which the tags is assigned.

Hint: Editing the name of a tag deleting one from the library tags will only affect the library itself. If the same tag had already been applied to a file, the tag on that file will remain intact. But if you change the color of a tag in the library, it will be reflected on the files marked with that tag as well. This is because of the way TagSpaces handles tags, that essentially become an organic part of the filename. To learn more about how tagging works, please refer to [File tagging based on filename](#) under the Tagging section.

Default Keybindings

Keyboard shortcuts are combinations of two or more keys that you can use to perform a specific task that would typically require more than one mouse click. They are very useful and can make it easier to work with your software, saving you time and effort as you work with TagSpaces and other applications.

To use a keyboard shortcut, hold down one or more keys while pressing the last key of the shortcut. For example, to use the shortcut **Ctrl + C** on Windows and Linux or **Command - C** on macOS, hold down **Ctrl** button, press **C** and then release both keys.

TagSpaces like a much of modern software also provides a range of keyboard shortcuts for better experience with it. Please find the list of the currently supported keyboard shortcuts bellow.

Default keybindings

General

Action	Key binding on Windows/Linux	Key binding on macOS
Show Keybinding Help	F1	F1
Fullscreen mode	F11	F11
Show developer tools	F10	F10
Show location manager	control + 1	⌘ + 1
Show tag library	control + 2	⌘ + 2
Show search panel	control + 3	⌘ + 3
Show search panel (alternative)	control + f	⌘ + f

Working with documents

Action	Key binding on Windows/Linux	Key binding on macOS
Open current file or folder	enter	enter
Rename current file or folder	F2	F2
Delete current file(s) or folder(s)	del	?
Tag current file(s) or folder(s)	control + t	⌘ + t
Select/open the next document	right or down	right or down
Select/open the previous document	left or up	left or up
Select/Deselect all files	control + a	⌘ + a
Edit the currently opened document	control + e	⌘ + e
Save the currently opened document	control + s	⌘ + s
Close the currently opened document	control + w	⌘ + w
Open the properties of the currently opened document	alt+enter	alt+enter

Global keybindings

These keybindings are available even if TagSpaces is currently not in focus, but running in background for example in the system's tray.

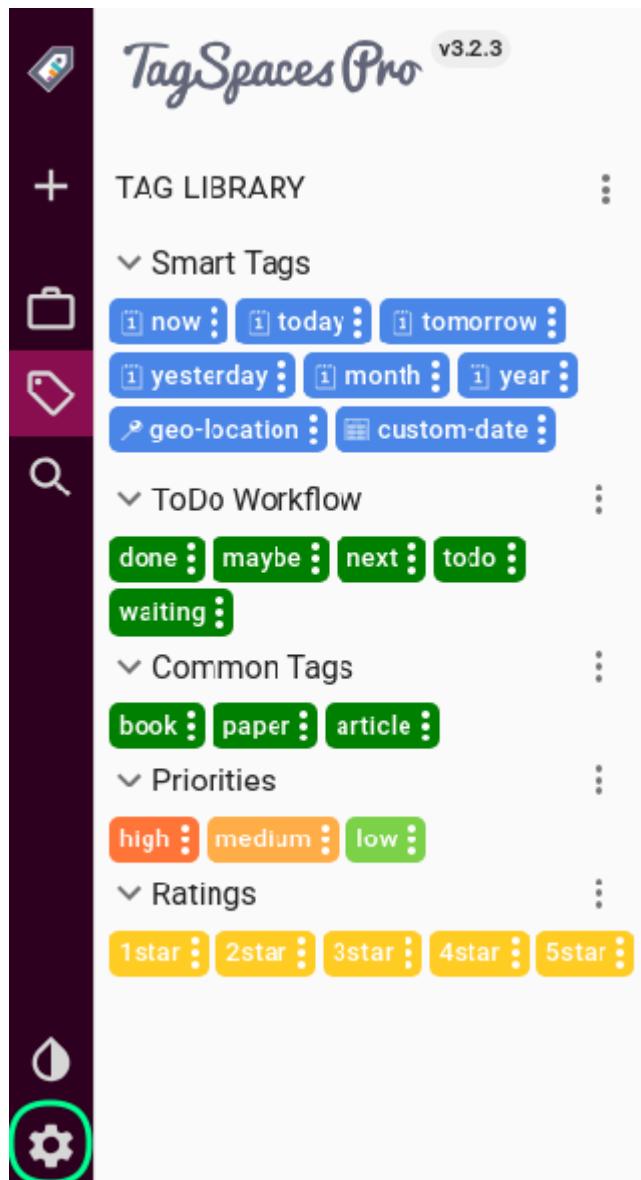
Action	Key binding on Windows/Linux	Key binding on macOS
Show TagSpaces	control + alt + w	⌘ + alt + w
Create new text document	control + alt + n	⌘ + alt + n
Open next document	control + alt + d	⌘ + alt + d
Open previous document	control + alt + a	⌘ + alt + a
Pause/resume playback	control + alt + p	⌘ + alt + p

Configuring the keybindings

Most of the keybindings integrated in TagSpaces are configurable. To change them, open the **Settings**. In the settings dialog, open the tab **KEY BINDINGS**. Learn more in the [settings](#) part of the documentation.

Settings

To access the settings dialogue, just click on the gears icon at the bottom left part of the app.



The dialogue has three tabs, which will be described in order:

General

Most of the TagSpaces' common settings can be accessed from this tab.

Options

GENERAL

FILE TYPES

KEY BINDINGS

Interface Language

English ▾

Theme selector

light ▾

Check for new version on startup



Use sidecar files for file tagging



Collect new tags in the tag library



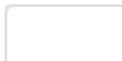
Enable thumbnails generation



Default tag background color



Default tag text color



Move deleted files or folders to trash bin



Show files/directories with a dot(.) in front of the name (e.g. Unix, Linux, OS X hidden files)



Max Search Results

1000

CLOSE

- **Interface language** - TagSpaces has been translated to a variety languages. Choose your preference here
- **Theme selector** - Here the user interface theme can be selected.
- **Check for new version on startup** - You will be notified when a new version is available.
- **Use sidecar files for tagging** - once activated, tags assigned to files will not be embedded in their file names, but in so called sidecar files, located in hidden .ts sub folder of the folder where the current file is located.
- **Enable thumbnails generation** - will generate and store persistent thumbnails in the hidden .ts sub folder of the folder where current file is located.

- **Default tag background color** - Allows you to change to default background color of any newly created tags. Existing tags will not be affected.
- **Default tag text color**- Allows you to change to default text color of any newly created tags. Existing tags will not be affected.
- **Move deleted files or folders to trash bin** - After activating it, all files deleted in TagSpaces will be send to the Trash, Trashbin or Recylcebin depending on your operating system. From these locations, you files can be easily recovered in case of a unintended deletion.
- **Show files/directories with a dot(.) in front of the name** - This will allow the browsing of hidden files in UNIX-like systems (Linux, macOS, BSD, etc.)
- **Max search results** - This is the limit of the maximum files and folders, which can be shown in the perspectives and respectively the maximum count of search results.

File types

Here you can choose which viewer and editor to launch for each supported file type.

Options

The screenshot shows the 'FILE TYPES' tab of the Options dialog. A dropdown menu is open for the 'haxe' entry, listing 'Text Editor', 'HTML Editor', 'HTML Viewer', 'JSON Viewer', and 'Text Editor'. The 'HTML Editor' option is highlighted. The menu has a pink circle with the number '1' on its left, and the highlighted item has a pink circle with the number '2' above it. A pink circle with the number '3' is also visible on the right side of the menu. At the bottom left, there is a button labeled 'ADD NEW FILE TYPE' with a pink circle containing the number '4'.

File Ext.	File Opener	File Editor
haxe	Text Editor	Text Editor
htm	HTML Viewer	HTML Editor
html	HTML Viewer	HTML Editor
ico	Image Viewer	JSON Viewer
java	Text Editor	Text Editor
jpeg	Image Viewer	File Editor
jpg	Image Viewer	File Editor
js	Text Editor	Text Editor
		File Editor

When you click on a file type's viewer dropdown, you will be offered a list of all installed viewer plugins (**1**).

Note: To learn more about file previews, refer to the [Viewing Files](#) section.

When you click on a file type's editor dropdown, you will be offered a list of all installed editor plugins (**2**).

Note: To learn more about file previews, refer to the [Editing Files](#) section.

Clicking on the colored area (**3**) in the most right part of every files type will open a color selection dialog where you can adjust the color of the current file type.

To add a formerly unrecognized extension, just use the **Add New File Type** button (**4**).

Key bindings

Under the key bindings tab, you can view and edit all the available key bindings, excluding those assigned to tags.

Most of the keybindings are configurable. To change them, Open the **Settings**. In the setting dialog, open the tab **KEY BINDINGS**.

Options

GENERAL

FILE TYPES

KEY BINDINGS

Enable global keyboard shortcuts



Select All

ctrl+a

Close Document

ctrl+w

Save Document

ctrl+s

Reload Document

ctrl+r

Edit Document

ctrl+e

Delete Document

del

Show Location Manager

ctrl+1

Show Tag Library

ctrl+2

Show Search

CLOSE

Here you can see all the keyboard shortcuts by default in TagSpaces, and what actions they perform. You also have the ability to change keyboard shortcuts by clicking on the field in which they were written. Before changing any of the binding, please read the following short instructions:

- For modifier keys you can use `shift`, `ctrl`, `alt`, `option`, `meta`, `command` and `mod`. The last one is special modifier allowing us to refer to the control and command key on Windows/Linux and macOS operating systems respectively.

- Other special keys are `backspace`, `tab`, `enter`, `return`, `capslock`, `esc`, `escape`, `space`, `pageup`, `pagedown`, `end`, `home`, `left`, `up`, `right`, `down`, `ins` and `del`.
- Any other key you should be able to reference by name like `a`, `/`, `$`, `*`, `=`.
- You can assign many keys to a single operation, simply by separating them by `,`.

Note: To learn more about the key bindings, refer to the [this section](#) of the documentation.

Internationalization

The user interface of TagSpaces application was translated so far in 26 languages by volunteers. For the coordination of the translation process we utilize the great service of [Transifex](#). Since TagSpaces is evolving fast, we need support for the translations of the existing languages and of course we are happy to see when new languages are added. If you want to support the translation efforts please create a Transifex account and apply for membership in the [TagSpaces project](#) there. The following table lists the languages in which the application is already translated.

ISO	Language	Language in English
en_US	English	English
de_DE	Deutsch	German
it	Italiano	Italian
zh_CN	中国的	Chinese
bg	Български	Bulgarian
ja	日本の	Japanese
pt_BR	Português	Brazil
pt_PT	Português	Portugal
fr	Français	French
sk_SK	Slovenský	Slovak
es	Español	Spanish
uk	Український	Ukrainian
ru	Русский	Russian
tr	Türk	Turkish
cs	Čeština	Czech
ca	Catalan	Català

ISO	Language	Language in English
ko	한국의	Korean
el	ελληνικά	Greek
sv	svenska	Swedish
nl_NL	Nederlands	Dutch
zh_TW	台灣	Chinese Taiwan BIG5
hu	Magyar	Hungarian
id_ID	bahasa Indonesia	Indonesian
pl	Polski	Polish
mt	Maltese	Maltese
hy	հայերեն	Armenian

The order of the languages represents the order in which the translations were made by the contributors.

Perspectives

When you navigate to a folder in your active location, the files contained in the selected folder will be displayed on the main file browsing area of the user interface. TagSpaces offers flexible views to display your files. We call these views **perspectives**.

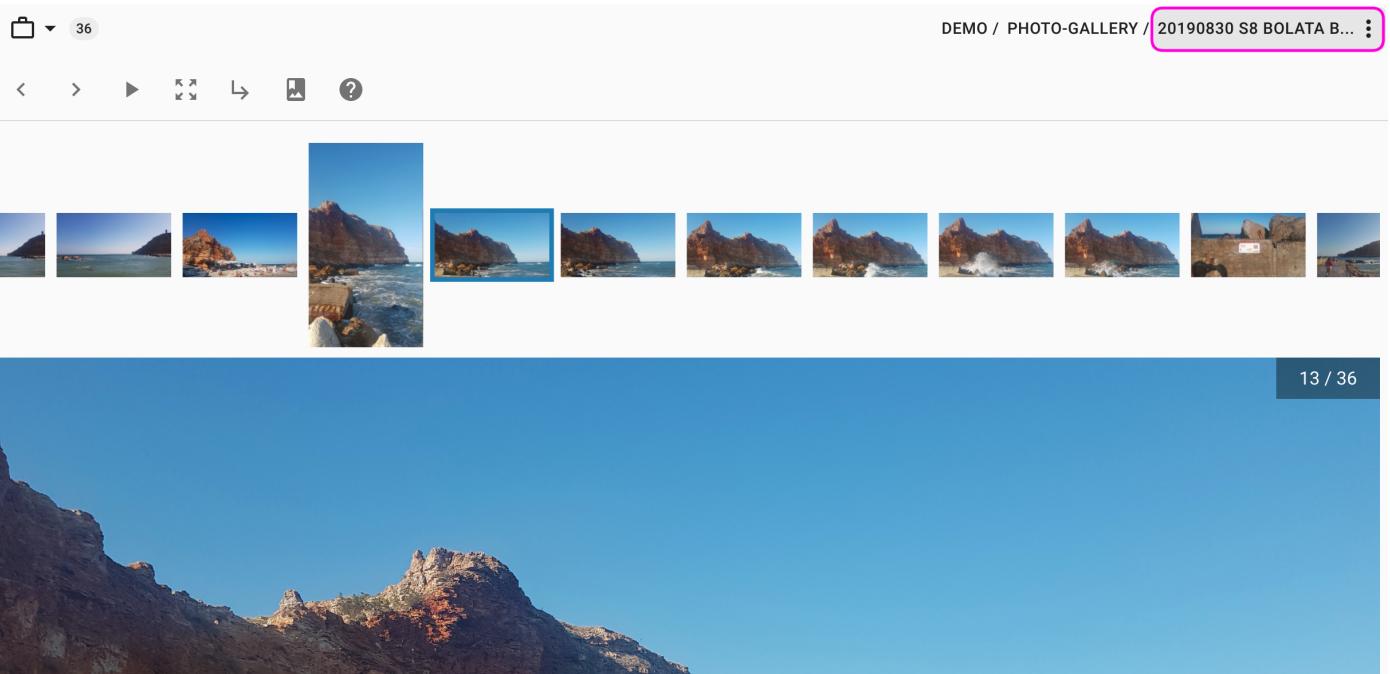
Overview

Perspectives are not an integral part of TagSpaces, but exist as modular extensions. This modular approach allows for more flexibility, easier development, and customizability of each separate perspective. TagSpaces is delivered by default with one perspective. Other perspective can be added on demand in the Enterprise version of the product. In this document we will describe the following perspectives:

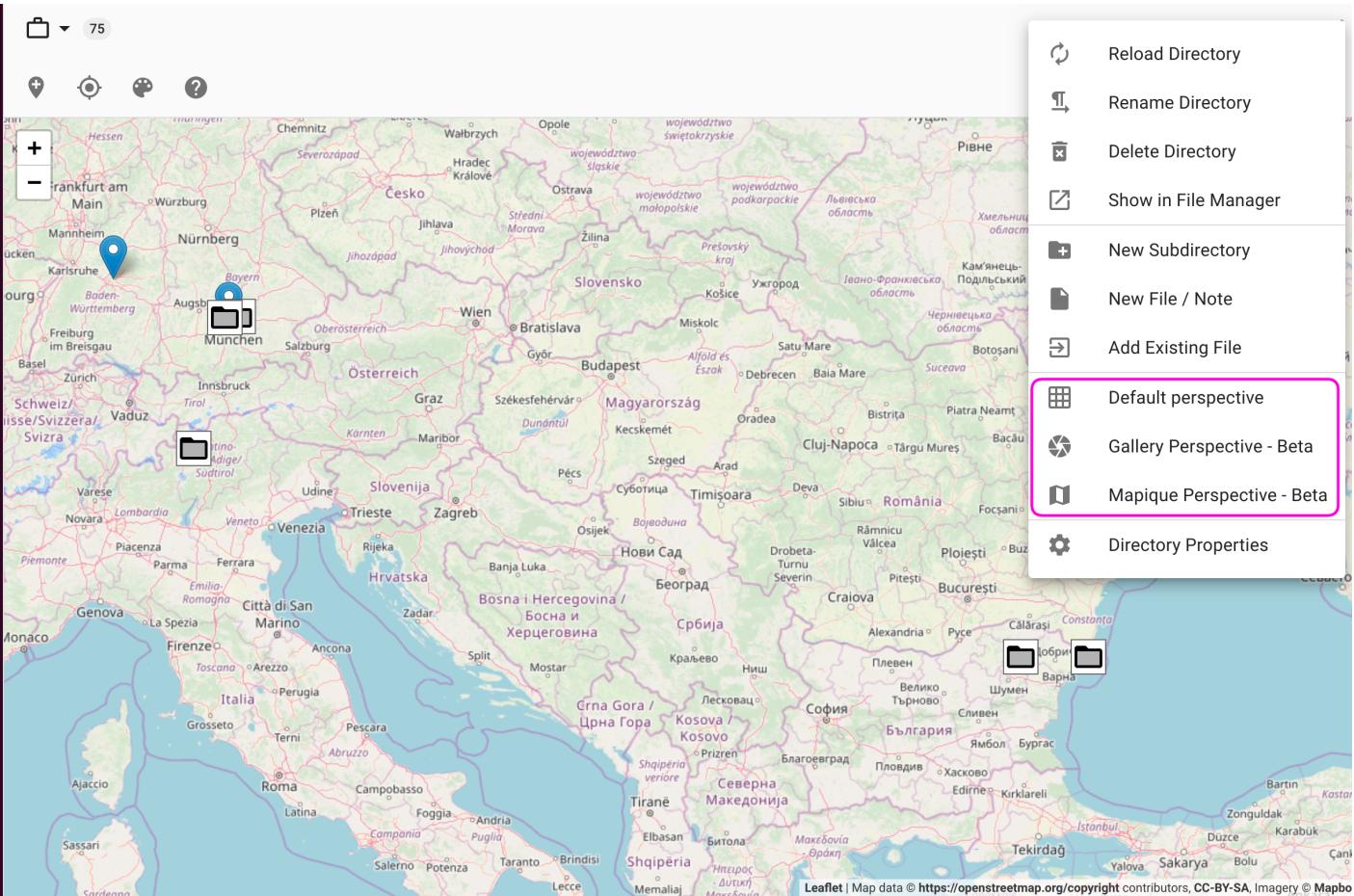
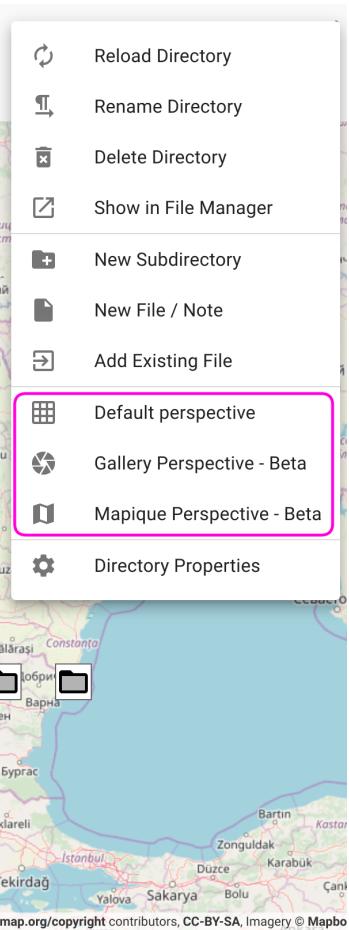
- [Grid Perspective](#) - presenting your files as list and in grid, suitable for tagging and file management. It is the **default** perspective build in TagSpaces.
- [Gallery Perspective](#) - optimized for browsing and viewing images and photos. This extension is available in the Pro and Enterprise packages
- [Mapique Perspective](#) - showing geo-tagged files and folder and folders on a map. This extension is available in the Pro and Enterprise packages
- [FolderViz Perspective](#) - this is an experimental perspective which applies some information visualization concepts to presenting your folder and file structures.

Switching perspectives

Switching the perspective is task which can be easily done from the folder menu, which is accessible on clicking the button with the name of the current folder, as seen in the following screenshot.



In the opened menu you will see a section, where you can directly choose the desired perspective.

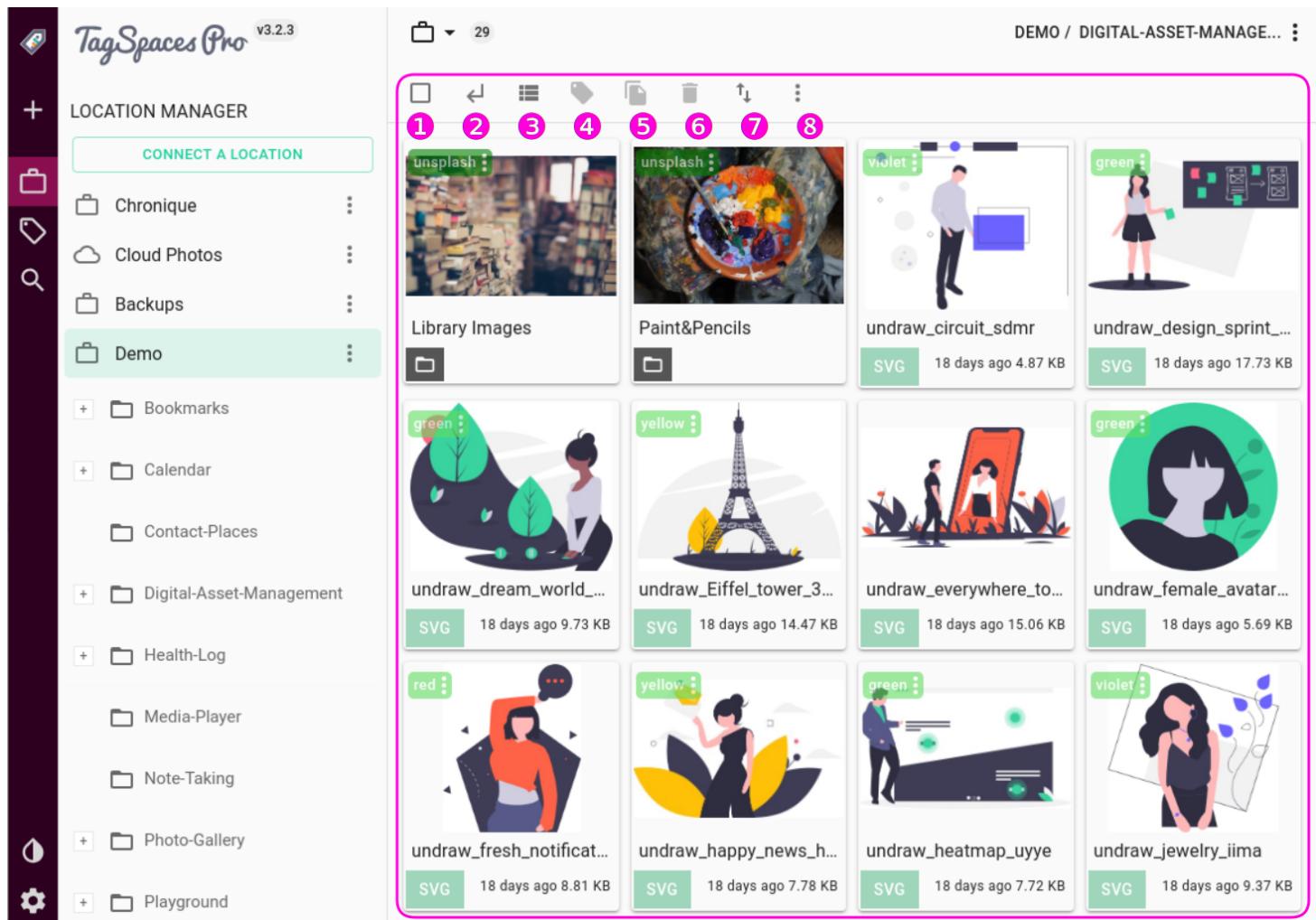


Grid Perspective (default)

This perspective is optimized for general browsing through file and folder structures while supporting some common file management operations such as:

- Tagging file and folders
- Renaming file and folders
- Deleting file and folders
- Copying files
- Moving files

The most common way of presenting files in a folder is in grid and list views. Both views are supported in the build-in *default perspective*. In the following screenshot you can see the grid view.



Hint: The violet colored rectangle shows the area in TagSpaces which is typically occupied by the perspectives.

Main Toolbar

The toolbar of the perspective is located in the top part of the perspective's, see the rectangle from the previous screenshot. The toolbar includes the following buttons and sub menus.

- **(1) Toggles File Selection** - will mark every *file* in the perspective as selected or unselected.
- **(2) Open parent folder** - will navigate to the parent folder of the current folder, if it is part of the current location. This action can be achieved also by using the **BACKSPACE** key of the keyboard.
- **(3) Switches the views** - toggles between the [grid](#) and [list](#) views of this perspective.
- **(4) Add/Remove tags** will allow you to manage tags on selected files. (This options is only available when there is an active selection, and works on multiple files simultaneously.) To learn more about how tagging works, refer to the [Tagging -> Tagging using context menus](#) section.
- **(5) Copy/move files** will allow you to copy or move the currently selected files. This option is only available when there is an active selection, and works on multiple files simultaneously. Selecting this option will present you with the **Move or Copy File(s)** dialog. After specifying the target directory (which can be anywhere on the file system, even outside your connected locations), you can choose to move or copy the file(s) by pressing the corresponding button.

Move or Copy File(s)



- undraw_dream_world_cin1[green].svg
- undraw_Eiffel_tower_3gw8[yellow].svg
- undraw_everywhere_together_bdmn.svg

/home/username/target-folder



[CANCEL](#) [MOVE FILE\(S\)](#) [COPY FILE\(S\)](#)

- **(6) Delete files** - will open a dialog where you can confirm the deletion of the selected files.
- **(7) Sort files** - open a menu with following options. There is an arrow in front of one these options, it indicates how the files and folders in the perspective are sorted.
 - **Title** - will sort the file alphabetically by name.
 - **Size** - will sort the files by their size.
 - **Date Modified** - will sort the files by the date of the last modification.
 - **First Tag** - will sort the files alphabetically by the title of their first tag.
 - **File Ext.** - will sort the files alphabetically by their file extension.
 - **Random** - will sort the files in a random way. This could be useful if TagSpaces is used as music player and you want to hear audio tracks in a random order.

Hint: Clicking a second time on same sorting option will reverse the sort order. By sorting option **random** this will lead to a new randomization of the file order.

Hint: Sort order is preserved after navigation to a new folder.

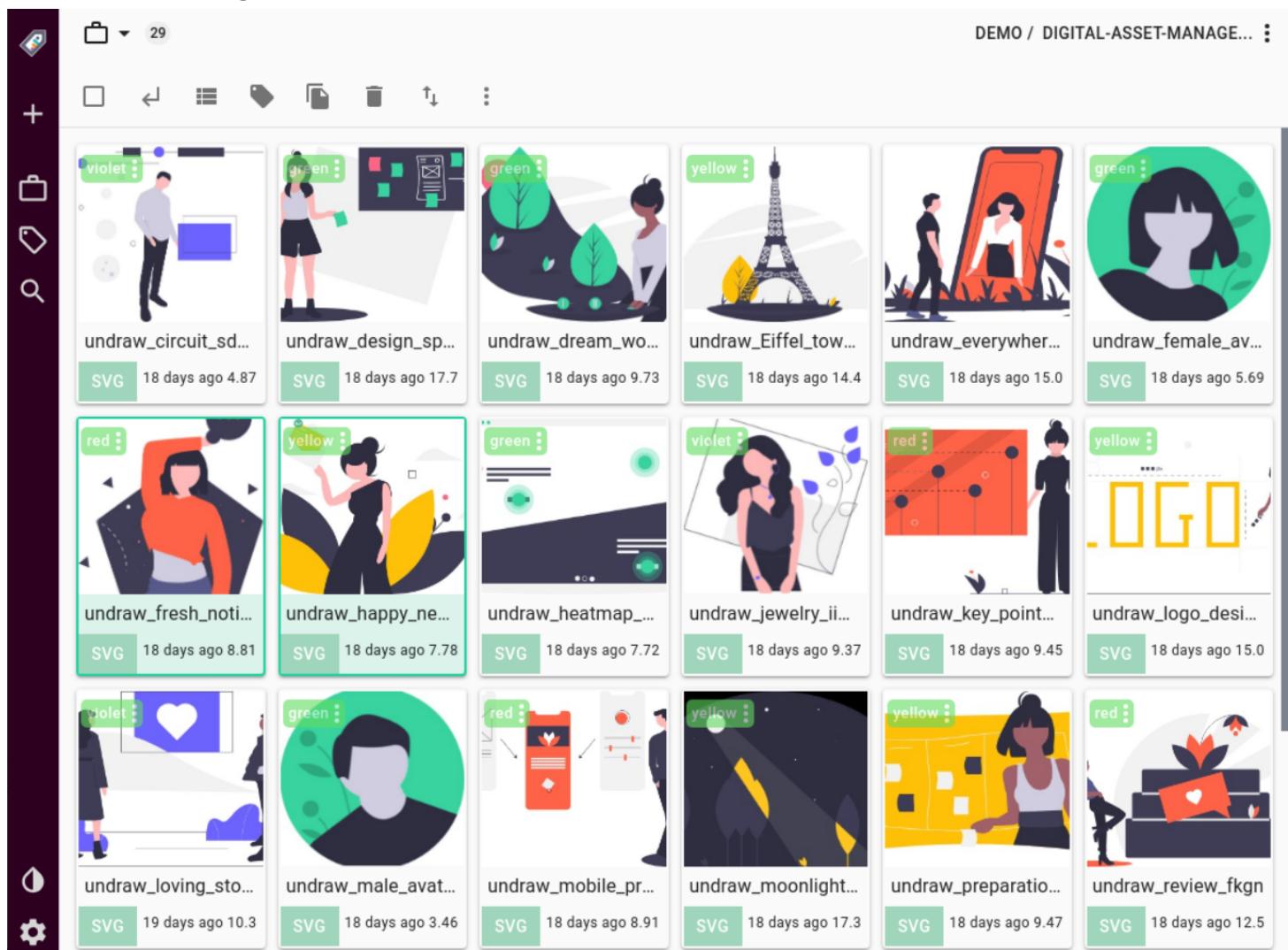
- **(8) More options** - will open a sub menu where you can choose among the following options:
 - **Show/Hide Subfolders** - Toggles the visibility of folders in the perspective
 - **Toggle thumbnail modes** - Toggles between the two modes(cover and contain) of displaying thumbnails, see [below](#) for more details.
 - **Compact mode** - A condensed display mode, where the area representing a file or folder takes a smaller place the default mode. Some of the information available in the following modes may be hidden here.
 - **Default mode** - The default display mode.
 - **Large mode** - A display mode, where the area representing a file or folder takes a larger place the default mode.
 - **Single click opens file internally** - Single click or tap on a file will open it in the applications
 - **Single click opens file externally** - Single click or tap on a file will open it in the default external application for your operating system.
 - **Single click selects only** - Single click or tab on a file will just select it, without opening it.

Hint: Double click on a file will always open it in the preview area. Double click on a folder will navigate to this folder.

Grid view

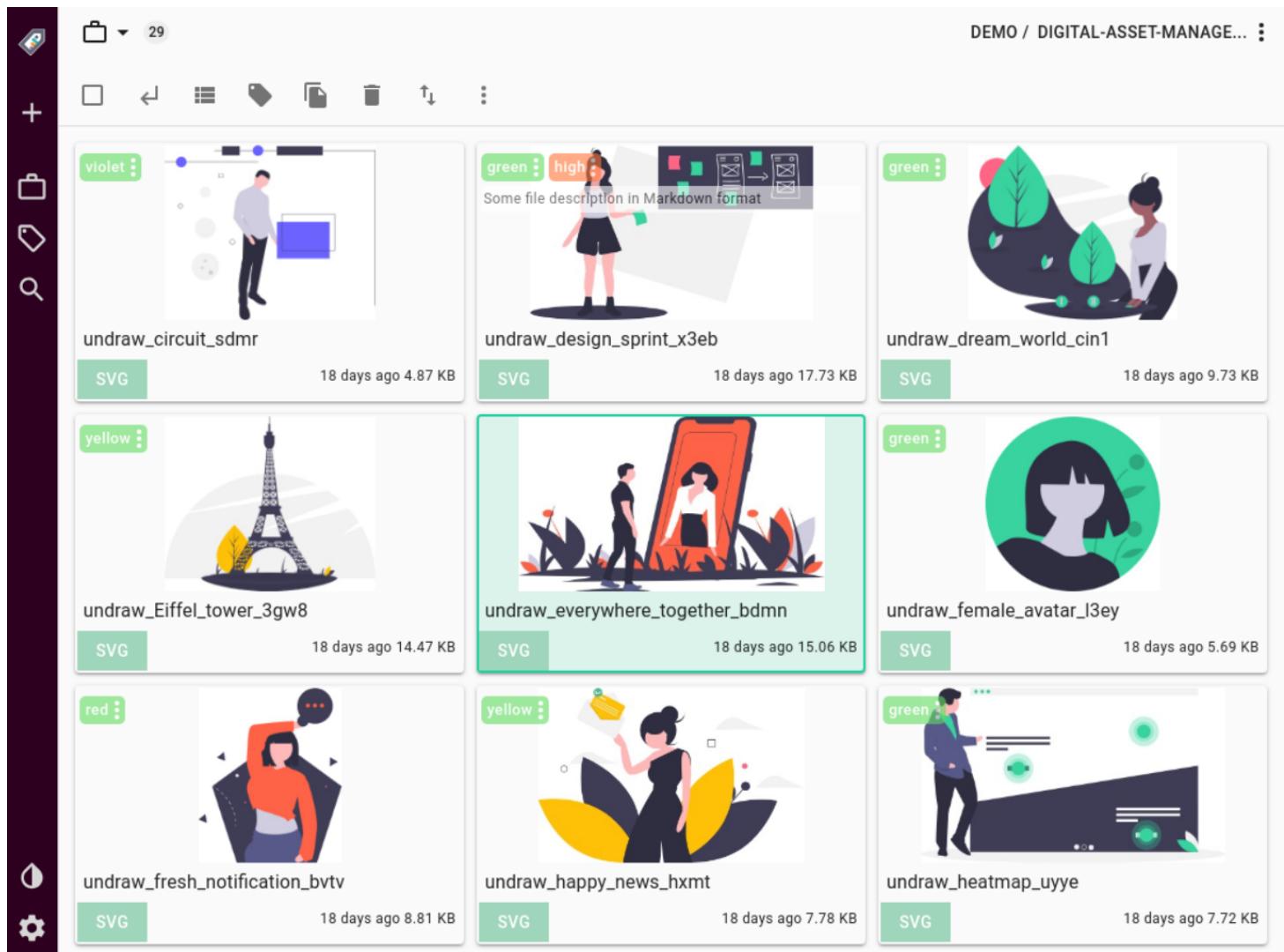
A common arrangement found in file browsing applications is the grid. The grid view offers a resizable grid with thumbnail previews of certain file formats, for quick and effective browsing. The files and folder are represented by user interface element called cards.

The following screenshot shows the grid view in its **compact mode**. The thumbnails are in the so called **cover** mode, covering the whole area defined for the thumbnail. In order to achieve this effect this mode will more likely cut some of the border areas of the thumbnail's image.



The next screenshot shows the grid view in its **large mode**. The thumbnails here are in the **contain** mode, which displays the whole thumbnail in the thumbnail area of the card, eventually causing transparent bars to appear on the left and right side of the thumb

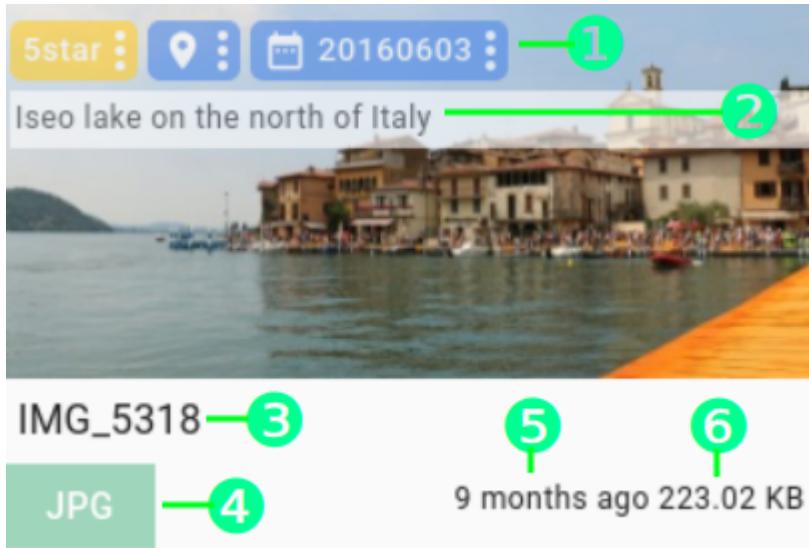
image.



Hint: Switching the thumbnail mode is triggered by the **Toggle thumbnails mode** menu item of the more options menu from the **perspective's toolbar**.

File Card

Each card on the grid can represent the following information. In area **(1)** the tags added to this file will appear. If the file has a description it will be displayed in section **(2)**. Behind the number **(1)** and **(2)** a thumbnail of the file (if available) will be displayed. In **(3)** you will find the title of the file. Title is the part of the file name without the file extension. In section **(4)** you will find the file extension with appropriate color defined in the [File types tab](#) from the settings. Below number **(5)** the amount of time elapsed since the last time the file was modified will be displayed. Hovering this area with the mouse pointer will show a tooltip with exact date and time of the file modification. Below number **(6)** the size of the file can be found. Hovering this area will display the file size in bytes.

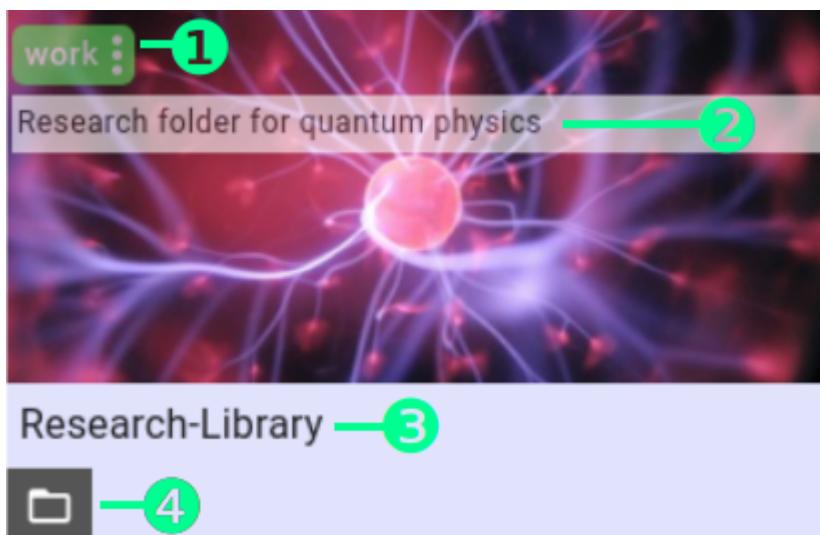


Hint: The tags are dimmed on the cards by default, which might render them unreadable, when there is a file preview available. To improve readability, hover your mouse over the extension, or the tags to make them more opaque.

Note : Defining descriptions for file is feature available in the Pro and the Enterprise versions of the app.

Folder Card

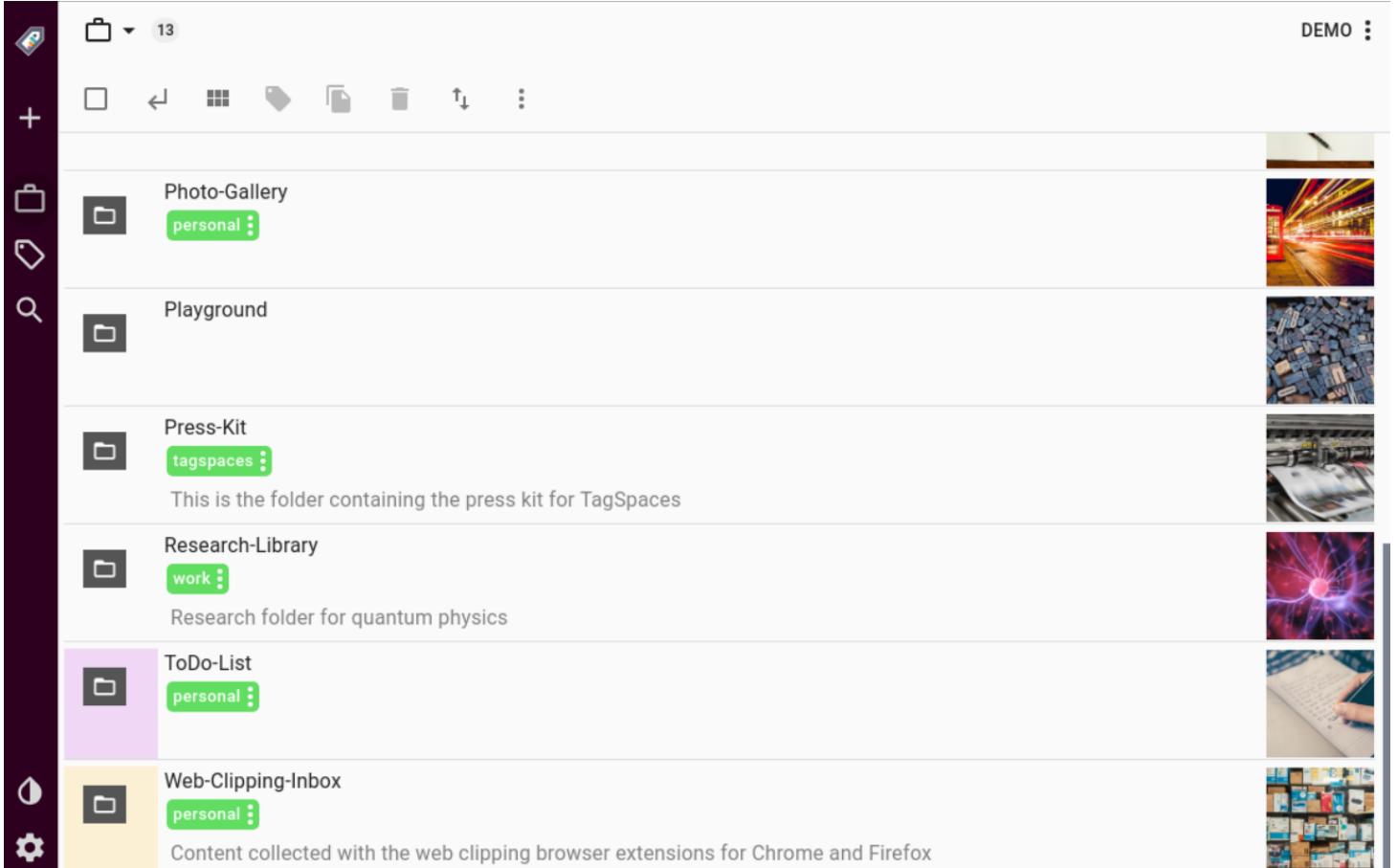
The folder card show basically similar information as the file card. In area **(1)** the tags added to this folder will appear. If the folder has a description it will be displayed in section **(2)**. Behind the number **(1)** and **(2)** a thumbnail of the folder will be displayed. In **(3)** you will find the name of the folder. Instead on the file extension in section **(4)** a folder icon will be shown. If the folder has a **custom color** it is also visible on the card behind number **(3)** and **(4)**.



Note : Defining descriptions and thumbnails for folders are features available in the Pro and the Enterprise versions of the app.

List view

The list view is a classic way to represent list of items such folders and files. It also features the three representation modes: compact, default and large.



The screenshot shows a list view interface with the following structure:

- Top Bar:** Includes a file icon, a dropdown menu, the number "13", and a "DEMO" button.
- Left Sidebar:** Features icons for file creation (+), folder creation (briefcase), move/duplicate (hand), and search (magnifying glass).
- Toolbar:** Contains icons for back, forward, refresh, file, trash, and more options.
- List Area:** Displays a list of items with columns for title, tags, and thumbnail.
 - Photo-Gallery** (personal): A thumbnail of a city street at night.
 - Playground**: A thumbnail of a pile of colorful blocks.
 - Press-Kit** (tagspaces): A thumbnail of a computer setup.
 - Research-Library** (work): A thumbnail of a plasma ball.
 - ToDo-List** (personal): A thumbnail of a person writing on a notepad.
 - Web-Clipping-Inbox** (personal): A thumbnail of a shelf full of books.

The following information can be found on every row representing a file on this view:

- **File extension** - A color coded icon, representing the file type. Scroll down to [Color coded file extensions](#) to learn more about this feature.
- **Folder icon** - On rows representing folders instead of the file extension a folder icon is displayed.
- **Title** - The file's title is the filename without the extension or any tag information.
- **Description** - If the file/folder have a description it will be displayed also here.
- **Tags** - All the tags that are applied to the file will appear here, with the right background and font color. To learn more about tag colors, refer to the [Tag Library](#)

section.

- **Size** - This is the file size in a human readable format.
- **Date modified** - The time the file had been last modified.

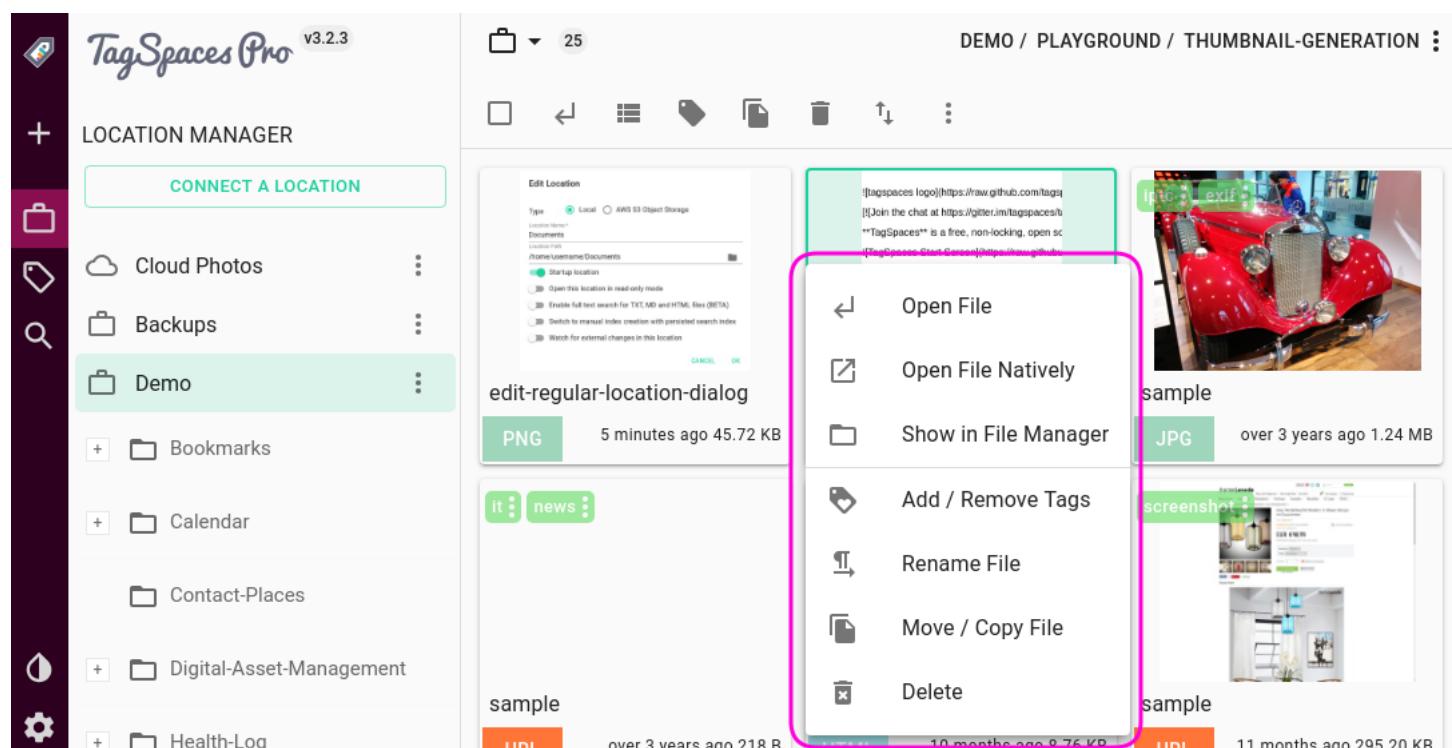
Selecting files

File in the perspective can be selected by holding the CTRL key and clicking on the file or the folder. You can select a range of files by holding the SHIFT key, clicking on a *file 1* and then clicking on *file 2*. This way make all file between *file 1* and *file 2* to be selected.

To select or deselect all the listed files, you can use the first button from the perspective's toolbar.

File context menu

The file context menu can be accessed by right-clicking a file in either perspective. It will offer some common file management options.

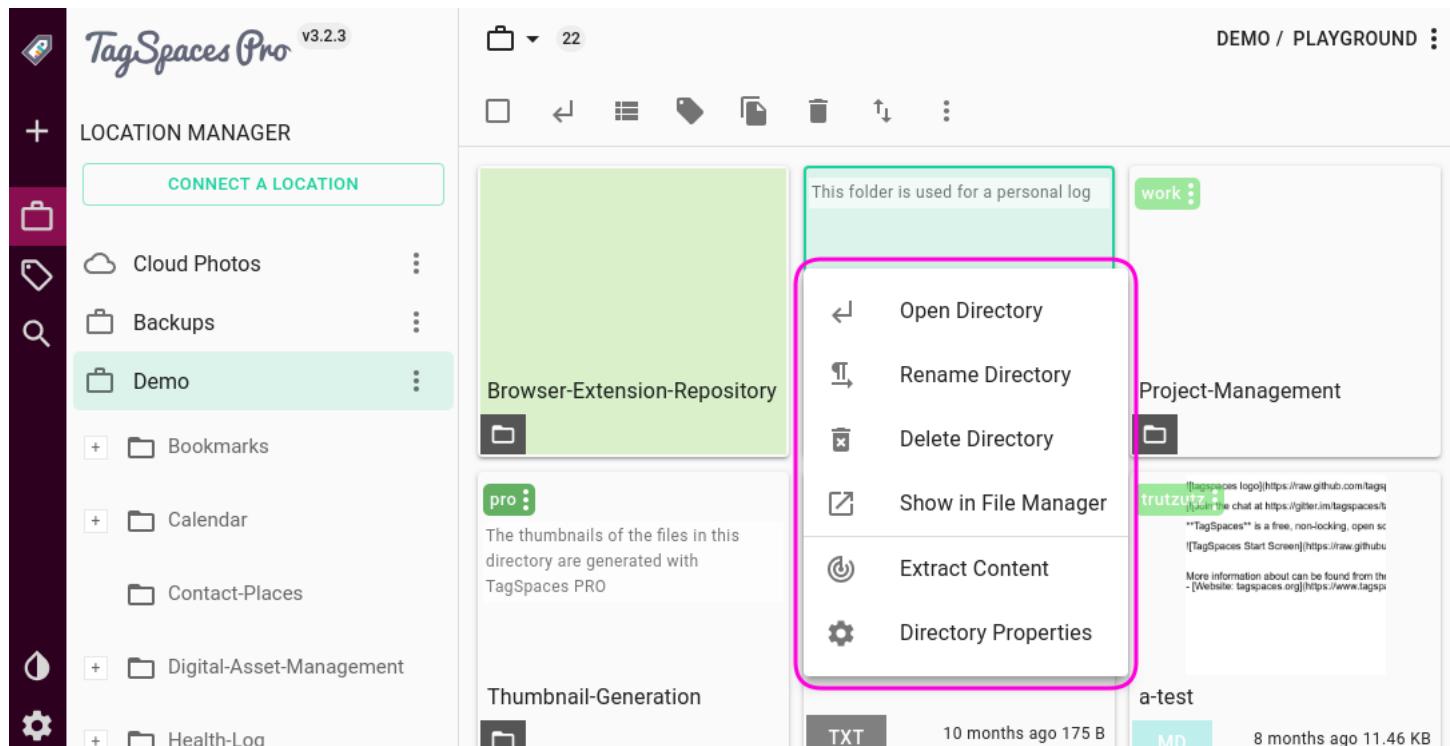


- **Open file** - will split the main area of TagSpaces into two, and open the file in the right pane. TagSpaces offers viewers for various file types, which can be opened inside the application. To learn more bout supported types, refer to the [Viewing Files](#) section.

- **Open File Natively** - will open the file in whatever application is associated with the file type in your operating system.
- **Show in File Manager** - will show this file in the default file manager of your operating system
- **Add / Remove Tags** - will open a dialog where you can add or remove multiple tag to this file.
- **Rename File** - will open the file rename dialog, where you can change the name of the file.
- **Move / Copy File** - will open a dialog, where you can choose where this file should be moved or copied
- **Delete** - will open a dialog, where you can confirm the deletion the file

Folder context menu

The folder context menu can be accessed by right-clicking on a folder the perspective. It will offer some common folder management options.



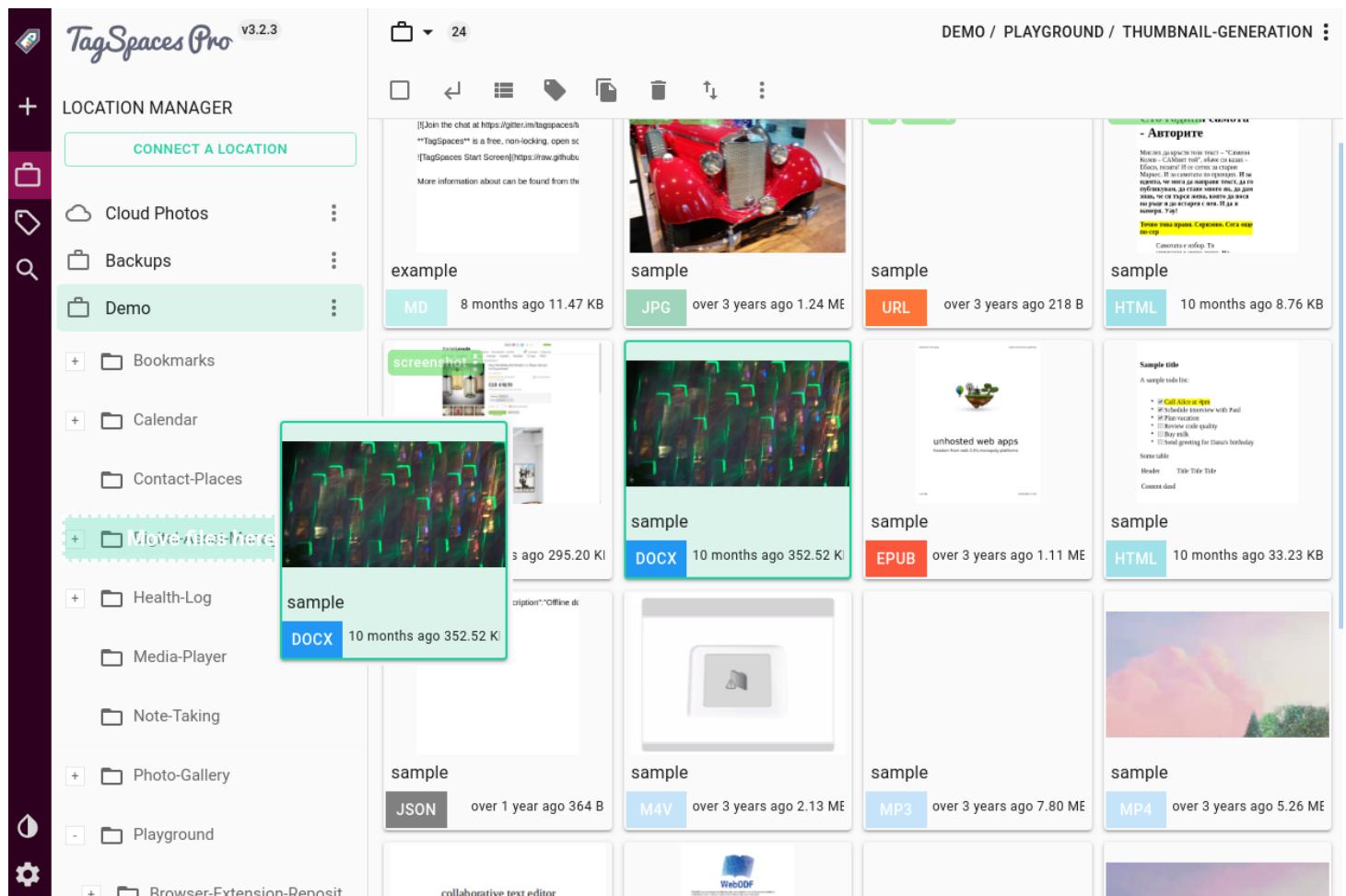
- **Open Directory** - will navigate to the selected directory.
- **Rename directory** - will open the directory rename dialog, where you can change the name of the folder.

- **Delete directory** - will open a dialog, where you can confirm the deletion the directory
- **Show in File Manager** - will open this directory in the default file manager of your operating system
- **Extract Content** - will start the extraction of special data such as *geo-locations* from the files in this folder
- **Directory Properties** - will open the properties of this folder in the preview area (most right panel) of the application

Drag to move within TagSpaces

An alternative way to move files into another folder is to drag it icon onto a folder on the **Folder navigation** area on the left panel. When the folder lights up with a greenish hue, just release the dragged item, and the file will be immediately moved into that folder.

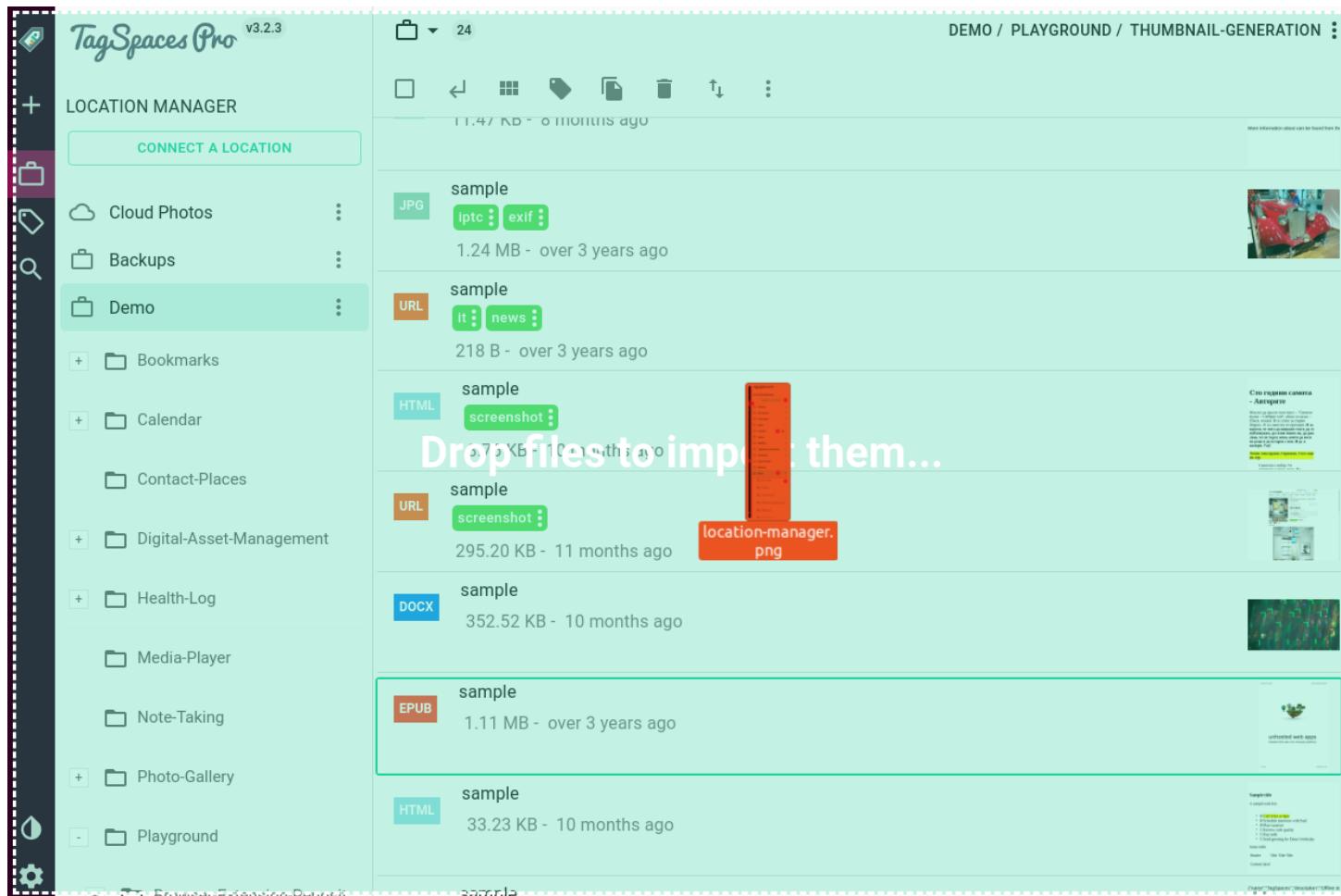
Hint: You can access sub folders of any folder displayed in the hierarchy, by clicking the black folder icon next to its name.



Importing files with drag and drop

Besides dragging files from the **File Browser Area** to a sub folder, TagSpaces allows you to add files the currently opened folder by dragging and dropping it from the operating system, or its default file management application.

To do this, just grab a file icon with your mouse, and drag it to TagSpaces' application.



Color coded file extensions

In the grid and list perspectives, color coded file extensions are supported, allowing for a better visual recognition of the file type. For the most common file extensions, custom colors have been defined, to be displayed on the extension buttons found on the file rows or cards.

TagSpaces Pro v3.2.3

LOCATION MANAGER

CONNECT A LOCATION

Cloud Photos

Backups

Demo

Bookmarks

Calendar

Contact-Places

Digital-Asset-Management

Health-Log

Media-Player

Note-Taking

Photo-Gallery

Playground

Browser-Extension-Reposit...

Personal-Wiki

Project-Management

24

DEMO / PLAYGROUND / THUMBNAIL-GENERATION

sample
JPG
iptc
exif
1.24 MB - over 3 years ago

sample
URL
it
news
218 B - over 3 years ago

sample
HTML
screenshot
8.76 KB - 10 months ago

sample
URL
screenshot
295.20 KB - 11 months ago

sample
DOCX
352.52 KB - 10 months ago

sample
EPUB
1.11 MB - over 3 years ago

sample
HTML
33.23 KB - 10 months ago

sample
JSON
364 B - over 1 year ago

sample
M4V
2.13 MB - over 3 years ago

A pink rectangle highlights the first file, 'sample.jpg', in the list.

Hint: The colors of the supported file types can be configured in the **File Types** of application settings dialog.

Gallery Perspective

Motivation

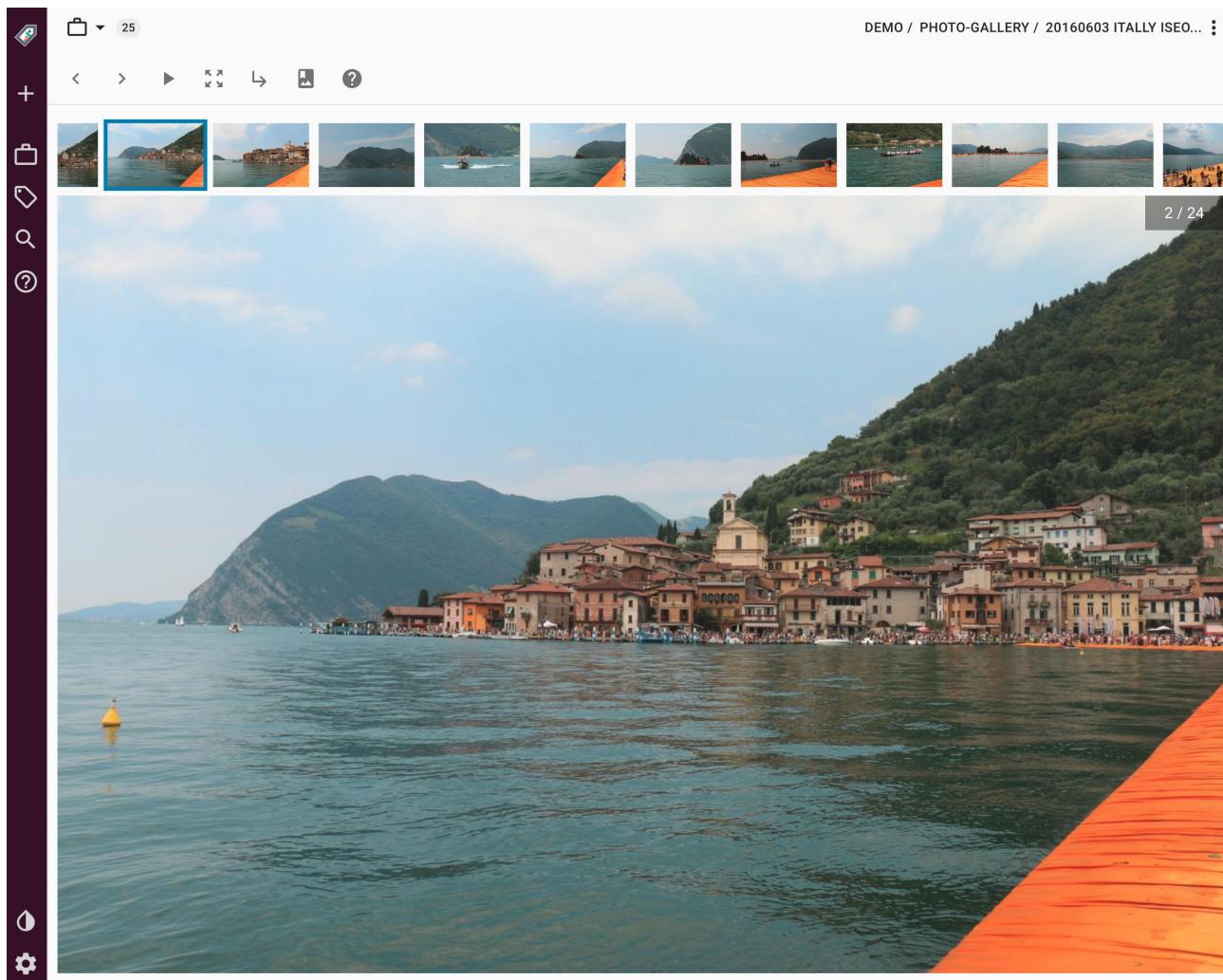
This perspective offers basic image gallery functionality, like previewing the images from the current folder, a presentation mode and a full screen view.

The perspective is available only in the PRO and the Enterprise versions of the product.

User interface

From the main toolbar of this perspective the user can access the following functionalities:

Note: This perspective can only be activated in folder which contains images and photos in the following file formats: JPG, PNG, GIF, BMP, SVG or WEBP.



Showing the regular view of the gallery perspective

- **Open previous image** - opens the previous image file from the current folder.
- **Open next image** - opens the next image file in the current folder.
- **Start/stops presentation mode** - toggles on and off the presentation of the images in the current folder, by showing them for 3 seconds. We plan to make this duration configurable in future release.
- **Full screen mode** - opens the currently selected file in full screen mode.
- **File properties** - clicking this button will open the properties of the current file in the regular area for this purpose.
- **Thumbnail bar modes** - clicking this button will toggle through the modes of the thumbnail bar, which are: position on the top, position on the left or hidden. This modes are respected in the full screen mode.
- **Opens perspective's documentation** - clicking on the button will open this page.

Note: In full screen mode you can navigate through the file by using the left and right key of the keyboard. On a device with touch screen, the image can be changed with the swipe left and right gestures.

Mapique Perspective

Motivation

This perspective can be useful for visualizing files and folder tagged with geo location tags on map.

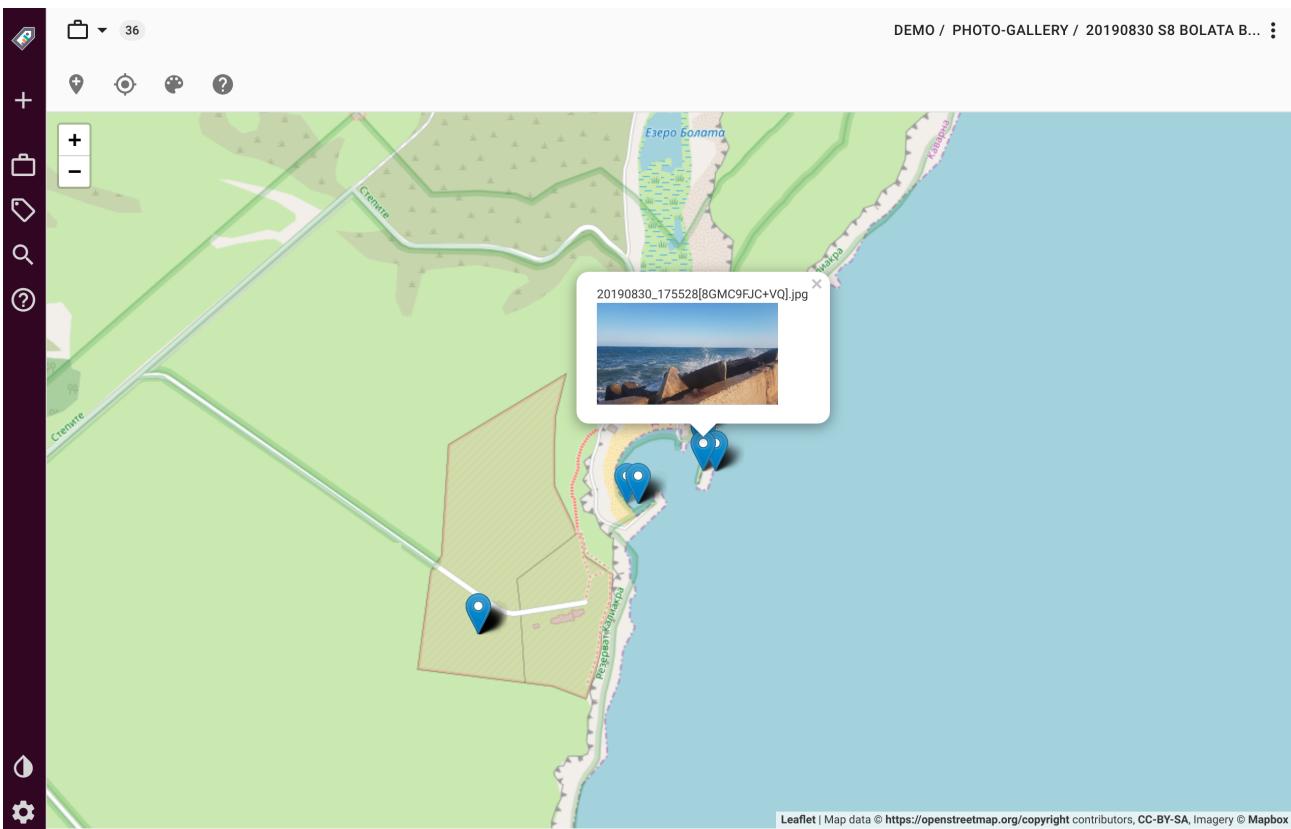
Here are some ideas for which this perspective can be used.

- Saving favorite places, privately
- Planning trips and places to visit
- Showing pictures taken on trips
- Place any file and document on a map
- Add private annotations to a map
- ... (please share your use case with us)

The perspective is available only in the PRO and the Enterprise versions of the product.

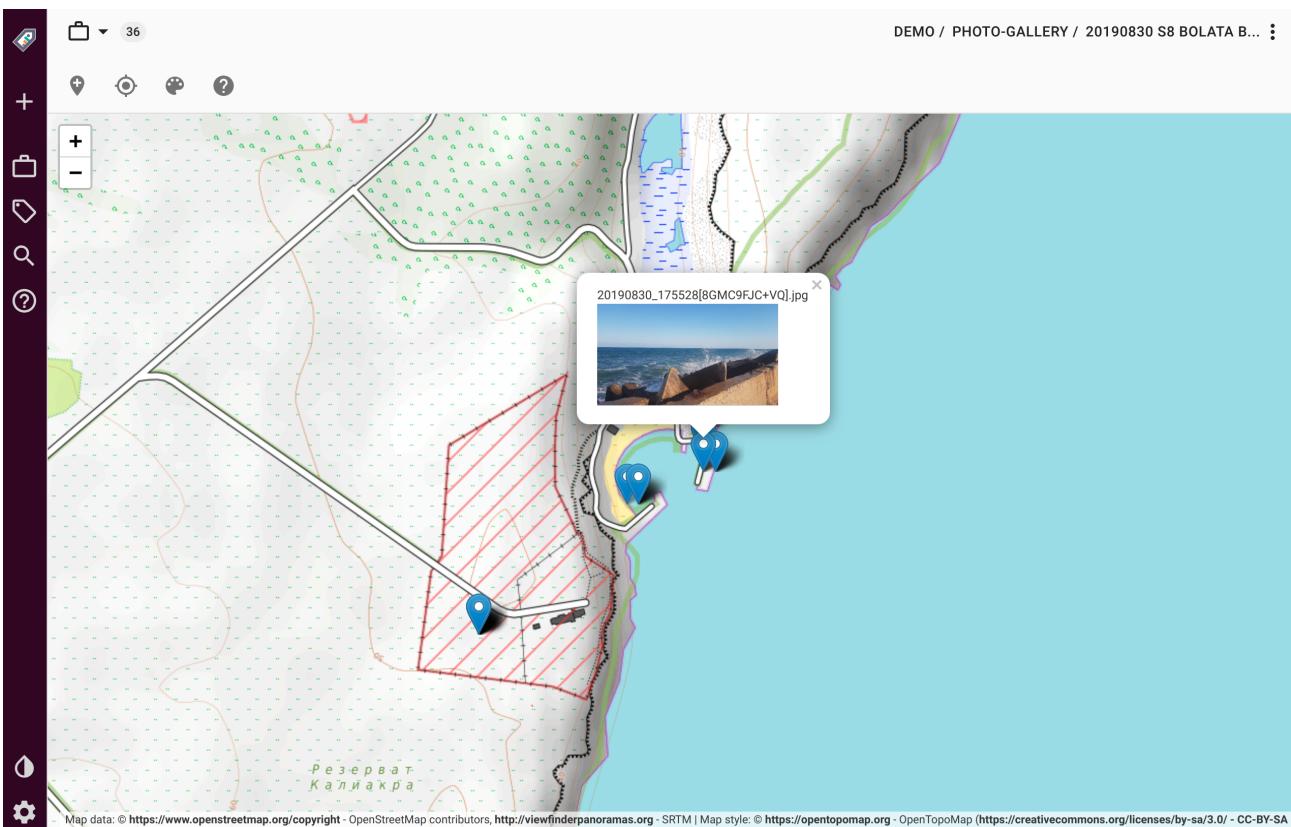
Supported Maps

The default map shown by opening of this perspective is provided by [OpenStreetMap](#)



Showing geo tagged files on the default map from openstreetmap.org

An optional topological map is provided by [OpenTopoMap](#) and looks as in the following screenshot.



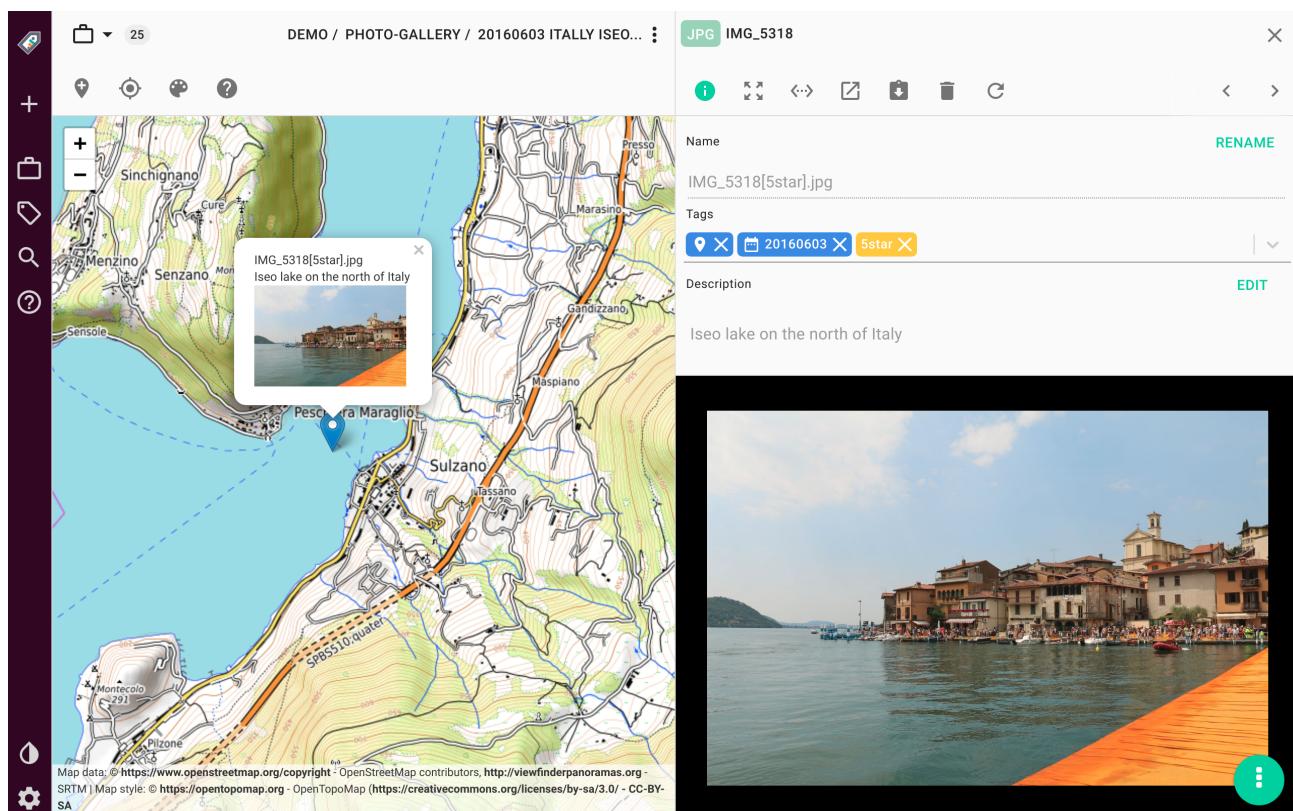
Showing geo tagged files on a topographical map

User interface

From the main toolbar of this perspective the user can access the following functionalities:

- **Extract geo locations** - start the extraction of geo location tags from EXIF information in JPG files from the current directory.
- **Geo tag current folder** - takes the location of the current map center and add it as geo tag in pluscode format to the current folder.
- **Change the map type** - clicking on this button will iterate through the currently supported map types, which are for now: openstreetmap (default one) and topographical.
- **Opens perspective's documentation** - clicking on the button will open this page.

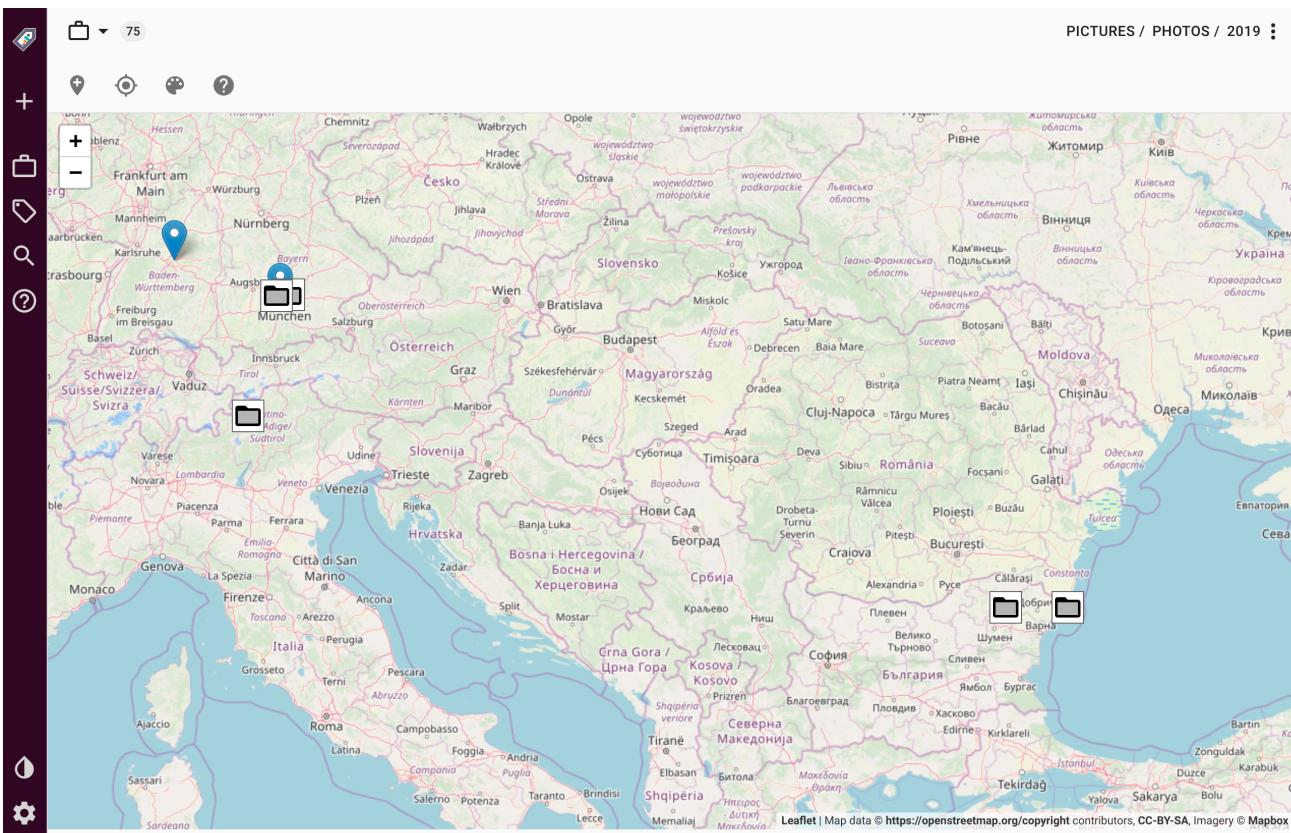
Clicking in the popup of a file on the map will open it the file previewing area of TagSpaces, where you add or change the file description, rename the file or choose another thumbnail, please see the following screenshot for comparison.



Showing the file properties in the mapique perspective

Navigating Tagged Folders

Since TagSpaces supports tagging of folders, you can geo tag your folders and turning them this way displayable in the mapique perspective. On the following screenshot you can see that folders have a dedicated icon, so they can differentiated from the files. Clicking on a folder icon will open a small popup, which when clicked will navigate to the selected folder.



Showing geo tagged files on topographical map

Encoding geo tags

TagSpaces uses by default [plus codes](#) for encoding the geo locations. Plus codes can encode for example these coordinates **48°08'27.8"N 11°34'53.6"E** with only few characters **8FWH4HRJ+CJ**, this makes the format perfectly suitable for using them as tags.

Folder Visualization Perspective

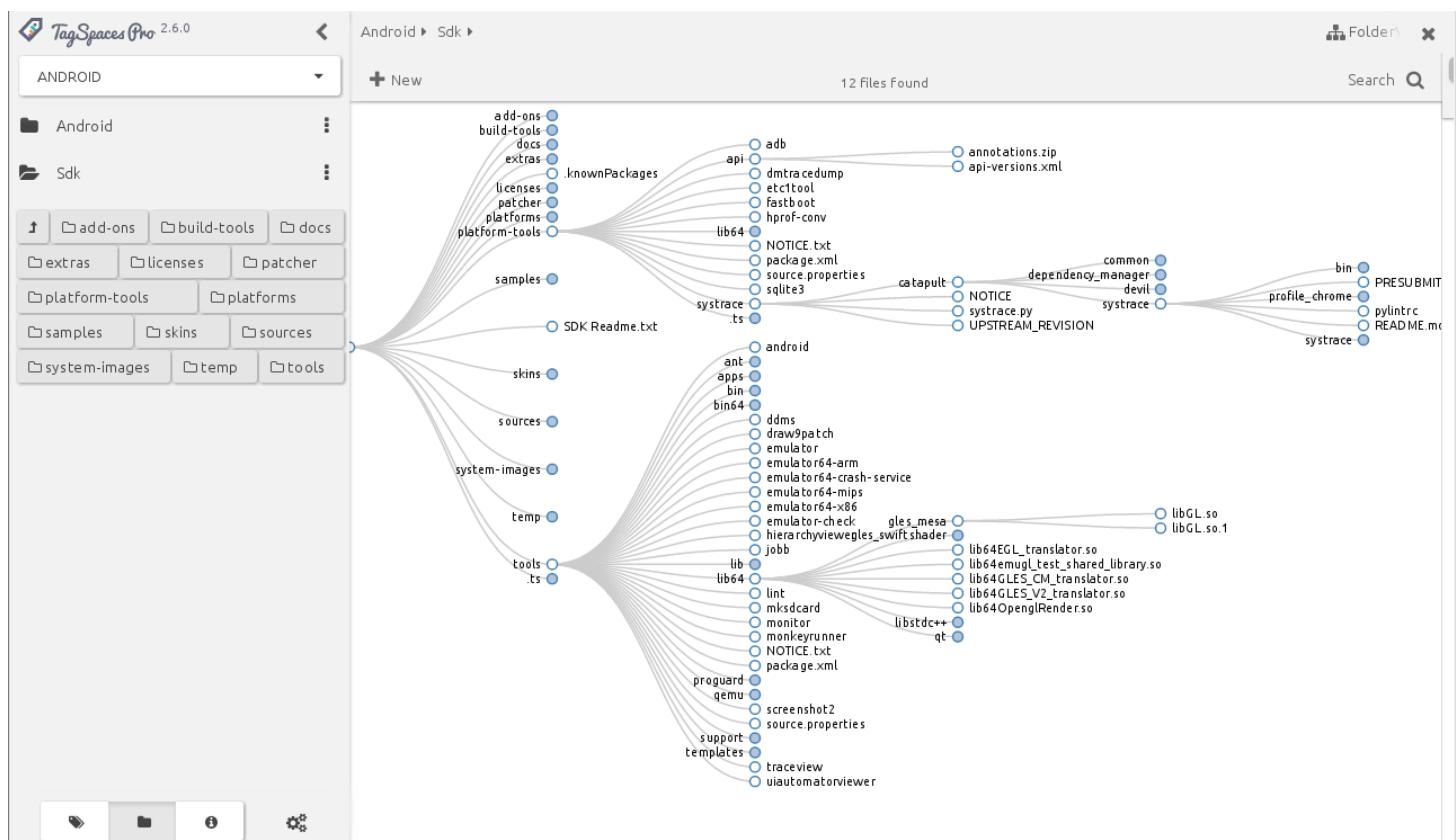
Note: This perspective is not available in version 3 of TagSpaces.

The **FolderViz Perspective** is a collection of experimental views that apply some information visualization concepts to representing your files and folders. While the primary aim of FolderViz perspective is to showcase TagSpaces' capabilities to developers, some of the options might offer some useful features to the end users.

FolderViz Perspective was offering five types of views, which were accessible from the FAB menu:

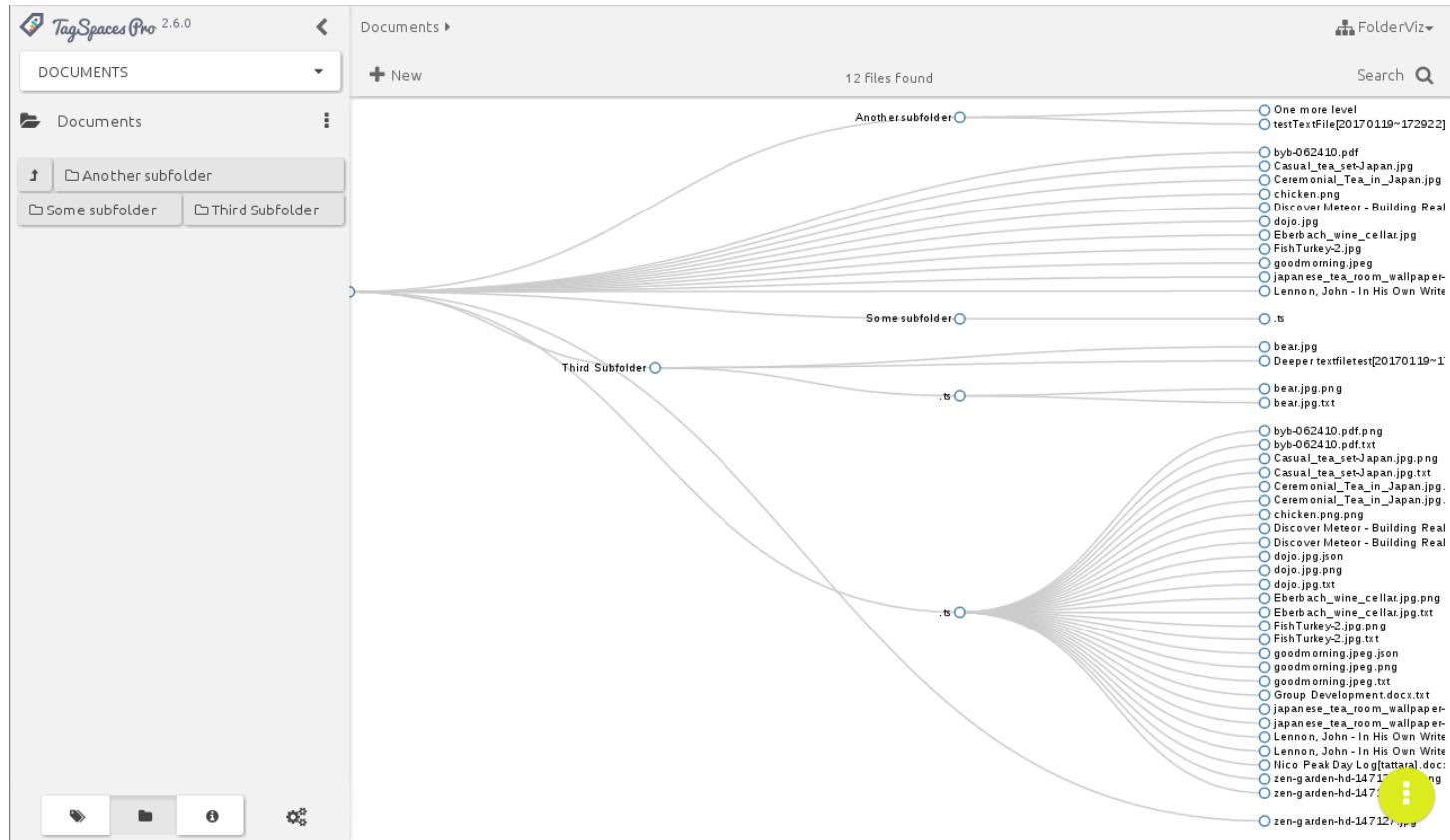
MindMap View

MindMap will display all folders and subfolders contained within the current directory, in an expandable tree-node format. There are plans to extend this view in the future with an inverted graph of tags so you can navigate your tagged files, with the help of the tag group three instead of the folder tree, and drag and drop files from one branch of tag tree to some other branch, which will automatically re-tag them.



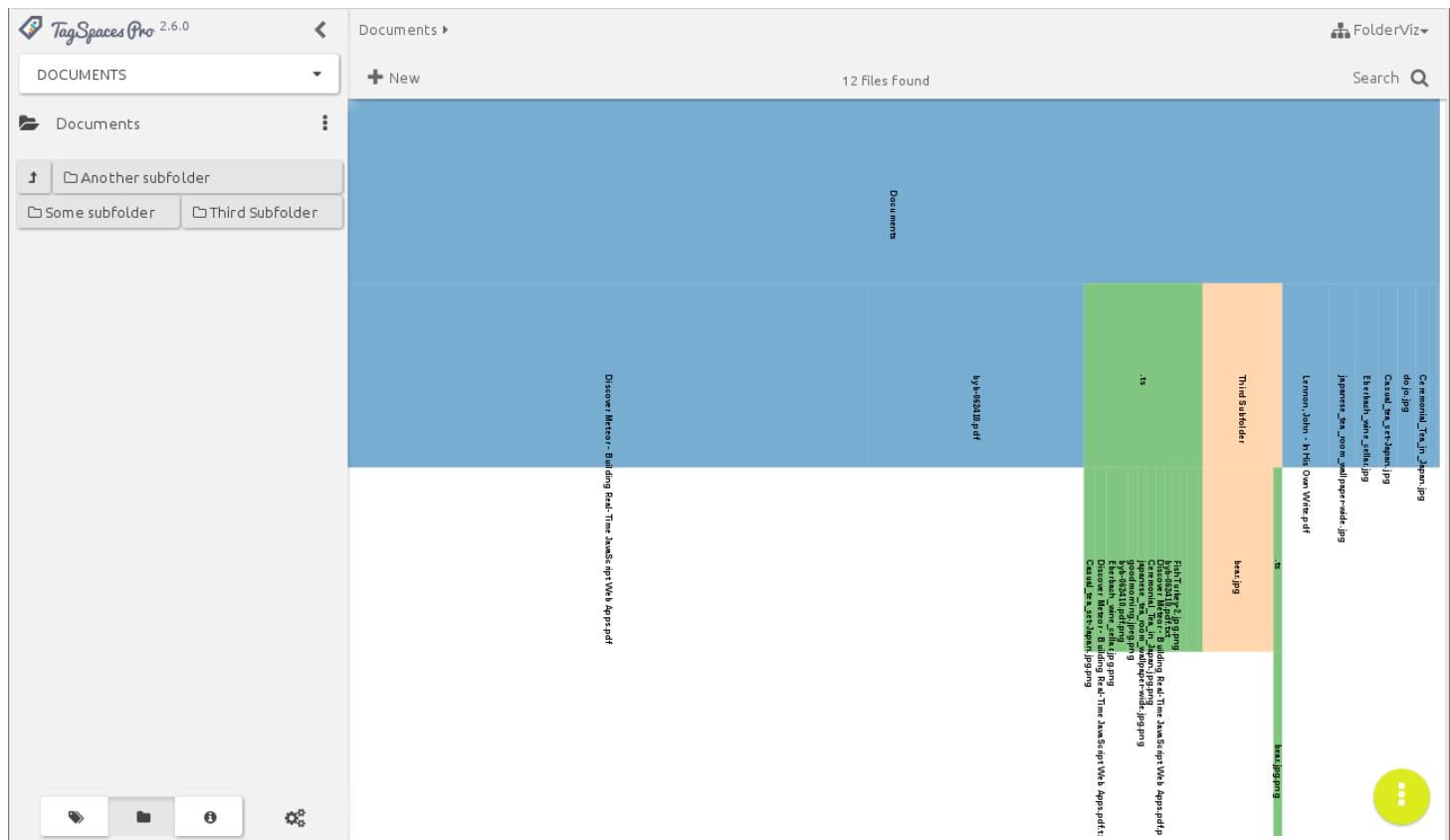
Tree View

Tree will display a fully expanded tree, similar to **MindMap**, only not interactive. It can be useful to visualize folder hierarchy, but this view can have performance issues with large directory structures.



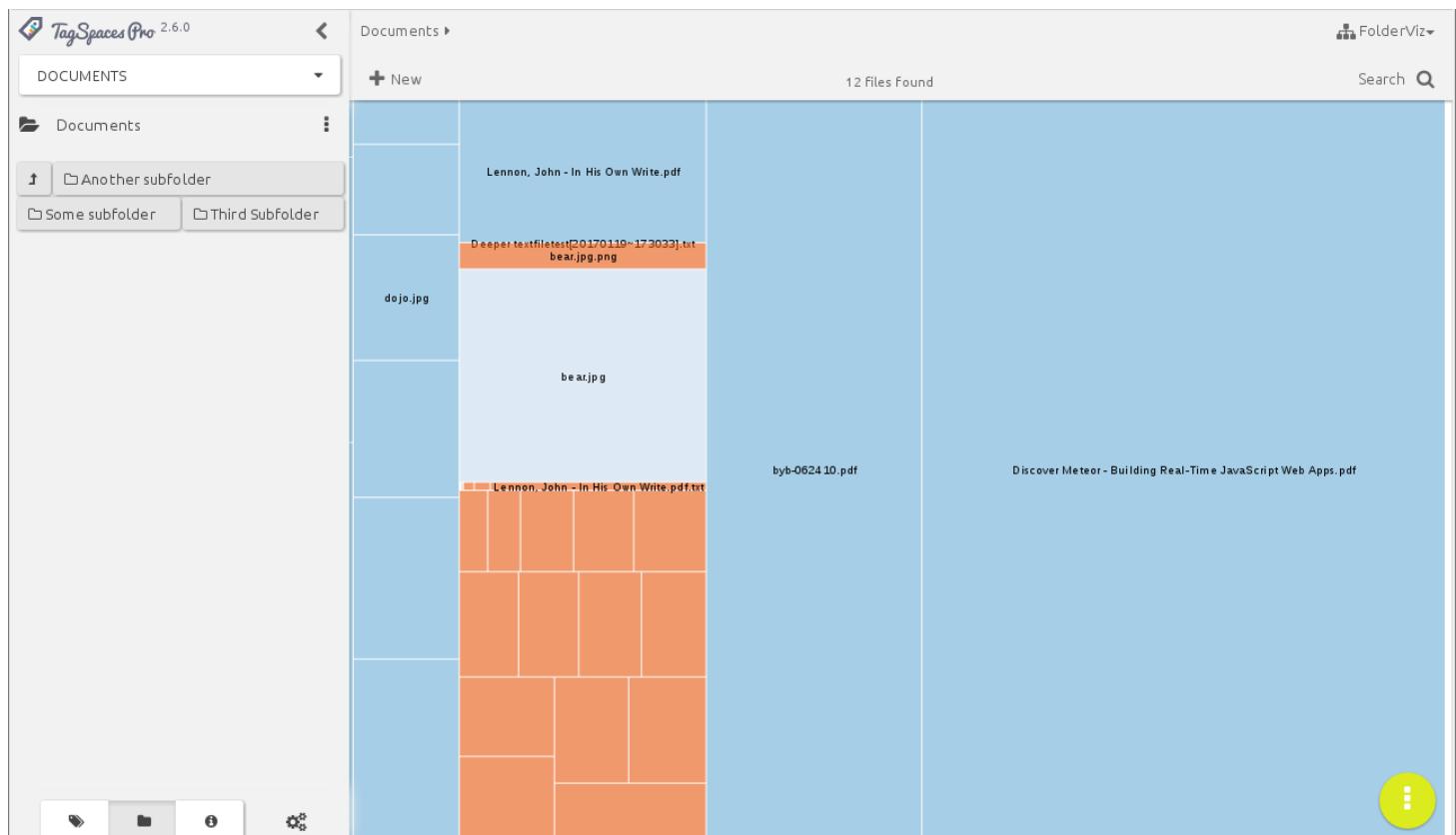
TreeMap View

TreeMap offers a representation of all files and folders, where the size of the squares correspond to file sizes, relative to the root and each other, while the structure of the squares represents folder hierarchy.



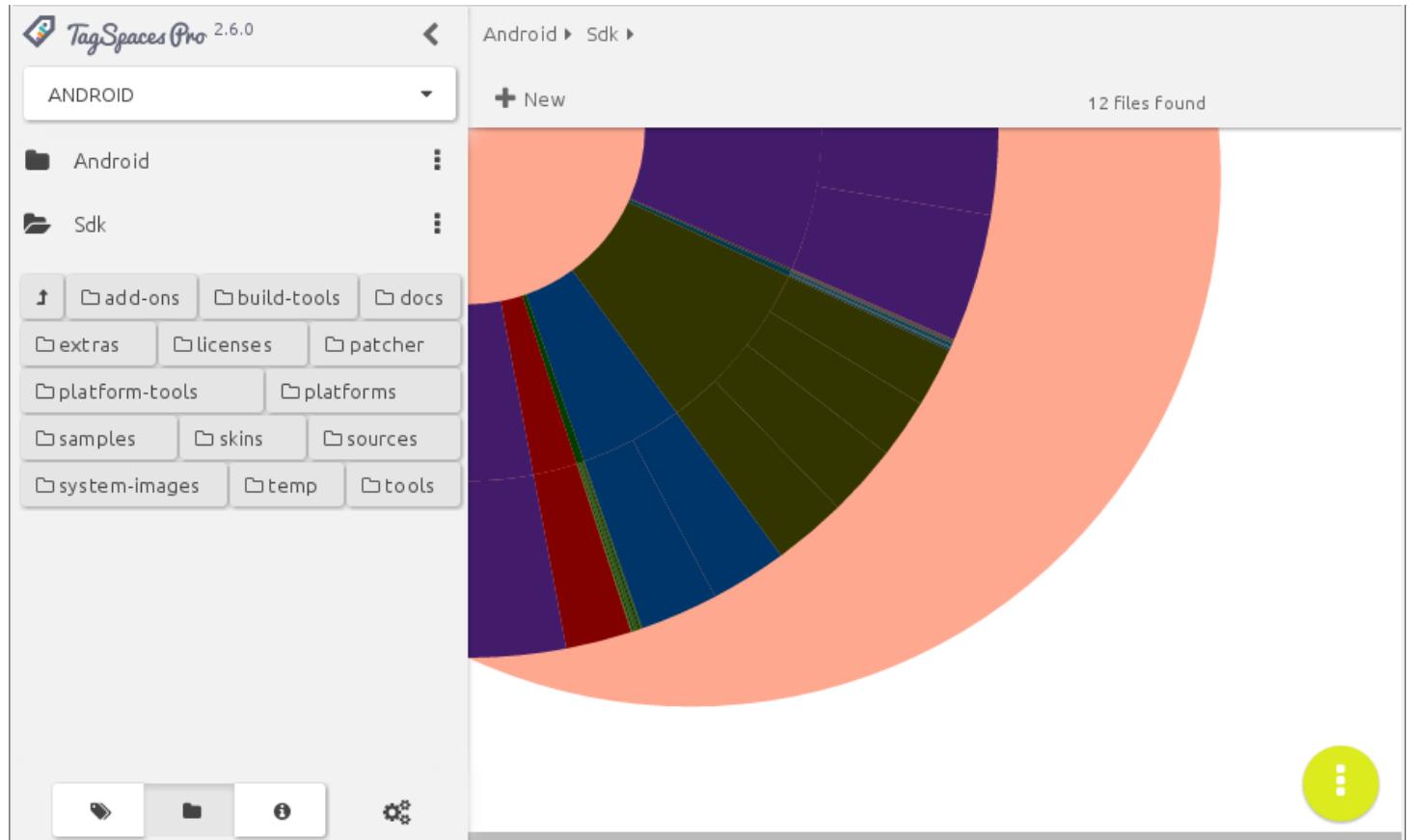
TreeMap-Navi View

TreeMap Navi is just like **TreeMap**, but without the hierarchy. Here the squares fully use up the available User Interface, allowing for a better visual representation of relative file sizes. This can be useful for finding large files or folders.



Bilevel Partition

Bilevel Partition is the most experimental and least functional of all views, basically a test to push the capabilities of folder and file visualization. While it might produce some interesting looking results, it will most certainly be removed from a future release of TagSpaces.



Organizing files and folders with tags

Motivation

Tagging and tags are a fresh approach to categorizing and grouping things. Tagging allows the user to label thing with their own words. They don't need to conform to keywords or categories created by somebody else. Tagging allows you to describe what you're seeing in your own words, to imbue the experience with your own meaning. Tagging saves your time, and can makes searching for a specific song, movie, book, document, note, or whatever you're looking for, much easier and faster.

Tags are personal things. Tagging something is your emotional response and not simply a taxonomic decision. With using tags, you have the control to define things for yourself, and on the web -- not only for music, literature, games and movies, but also public websites, data repositories and consultations. Tagging is a new indirect way of control to express your mind and to name things your way -- you can call it a form of "freedom of speech", if you want to go that far. Tagging is a power to create your own genres in movies, music popular culture, or basically anywhere.

Key functionality in TagSpaces is the ability to add tags to files and folders. In comparison to similar product, **TagSpaces does not use a central database for storing the tags** but rather offers to alternative ways for saving this meta information, which are described in the following sections.

File tagging based on filenames

TagSpaces supports tagging of files in a cross platform way. It uses basically the name of the file to save this kind of meta information. As an example if you want to add the tags `vacation` and `alps` to a image named `IMG-2653.jpg`, the application will simply rename it to `IMG-2653[vacation alps].jpg`. File renaming is of course very controversial solution, with its own limitations (on some operating systems the file path length is limited to ca. 256 characters). Once embedded in the name of file, the tag stick there and can be removed only by file renaming. **This makes the tagging "durable" and portable**. The tags embedded in the name of a file "survives" synchronization across cloud platforms such as Dropbox and Google Drive and can be read by TagSpaces or any other file searching software on Windows, macOS, Linux or Android.

Optional space for visual separation of the tag area

Mandatory space character used for tag separation

File extension.
Common length is 3 to 4 characters

Filename [tag1 tag2 smarttag1].extension

Opening bracket "[" marks the begin of the tag area

A Tag

Closing bracket "]" marks the end of the tag area

The original name of the file. Ideally this string should be a title for the content of the file.

Smarttag: A special kind of tag, which encodes in his name the type of the described information.
e.g. "20EUR" encoding the amount of zwanazig in the euro currency

Note: Drawback of this methods is the limiting in file name/path length in some operating systems. Windows for example is limiting the file path length to ca. 256 characters, which is in general enough but could be a limitation.

File tagging with sidecar file

As alternative to saving the tags in the file names, TagSpaces offers saving this kind of data in a sidecar files located in a hidden `.ts` folder. The activation of this kind tagging for files, can be done in the settings of the application as shown in the following screenshot.

Options

GENERAL FILE TYPES KEY BINDINGS

Interface Language	English ▾
Theme selector	light ▾
Check for new version on startup	<input checked="" type="checkbox"/>
Use sidecar files for file tagging	<input checked="" type="checkbox"/>
Collect new tags in the tag library	<input checked="" type="checkbox"/>
Enable thumbnails generation	<input checked="" type="checkbox"/>
Default tag background color	<div style="background-color: green; width: 100px; height: 20px;"></div>
Default tag text color	<div style="background-color: white; border: 1px solid #ccc; width: 100px; height: 20px;"></div>
Move deleted files or folders to trash bin	<input checked="" type="checkbox"/>
Show files/directories with a dot(.) in front of	<input checked="" type="checkbox"/>

CLOSE

Activating the persisting of tags for files in sidecar files

After the activation, the application will create for every tagged file an extra file having the same file name as the source file, but with an additional JSON extension. For example after tagging some files in some of your file locations you will have a similar file structure.

```
~ location (with your files)
├── subfolder1
│   ├── .ts
│   │   ├── file1.jpg.json <-- contains the tags and the description for file1
│   │   └── file2.pdf.json
│   ├── file1.jpg
│   └── file2.pdf
└── .ts
    └── file3.png.json
```

```
|   └── file4.docx.json  
├── file3.png  
└── file4.docx
```

The main advantage of this solution is that the name of the files is not changed after tagging and there is theoretically no limit in the number of tags you can add to a given file. If you move or rename tagged files in TagSpaces it will take care of the sidecar file, which will also renamed or moved in the appropriate folder. But if you move or rename this file in an external file manager, you have to move or rename the sidecar files by hand. The same hold true for the deleting a file from an external application. It will not automatically delete the sidecar file in the `.ts` folder. These drawbacks makes the tagging with sidecars less robust and future proof.

Note: If you want to have the files located in the `.ts` folder synched with some cloud service such as Dropbox or Google Drive you have to enable the synching of hidden folders and files.

Folder tagging with sidecar file

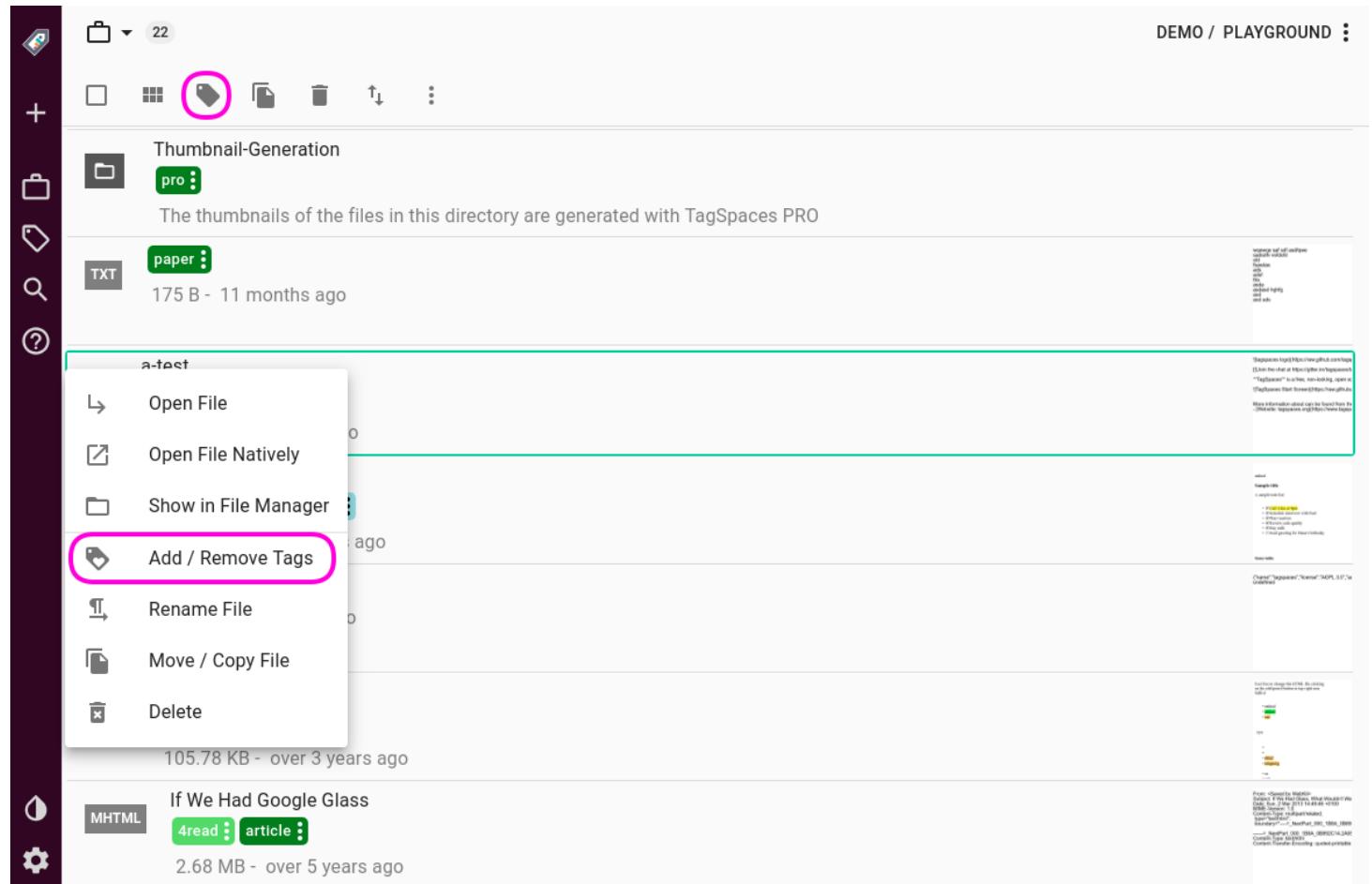
Tags added to folders in TagSpaces are save always in the co called sidecar file. The file is located in the `.ts` sub folder of any tagged folders and is called **tsm.js**

```
~ location (with your files)  
└── subfolder1  
    ├── .ts  
    │   ├── tsm.json <-- contains tags and description for subfolder1  
    │   └── file2.pdf.json  
    └── file2.pdf  
└── .ts  
    └── file4.docx.json  
└── file4.docx
```

Note: If you want to have the files located in the `.ts` folder synched with some cloud service such as Dropbox or Google Drive you have to enable the synching of hidden folders and files.

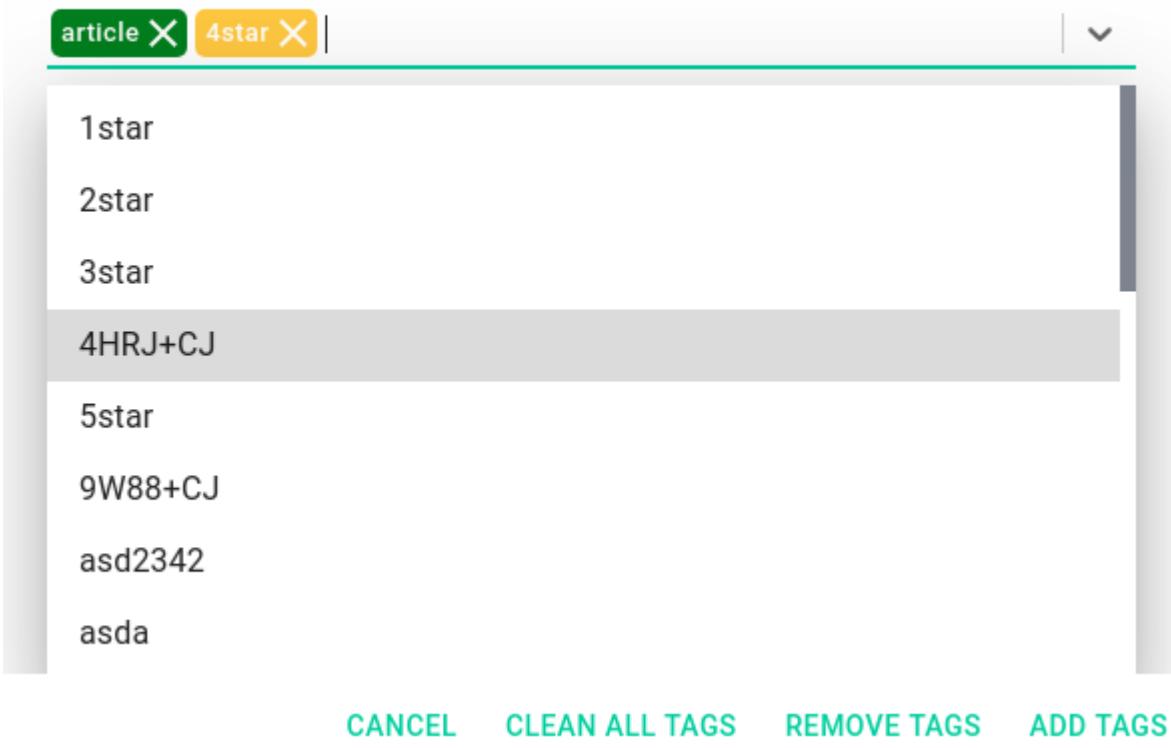
Tagging using context menus

A context menu can be accessed by right clicking a file or folder in the default perspective. From the context menu, select *Add / Remove Tags*.



This will open a popup dialog, that allows you to manage tags on the current file. If the multiple tags were selected the popup dialog will not display all tags from all files, but rather will allow you to specify tags by name, offering suggestions based on tags currently in the tag library.

Tag operation on multiple files

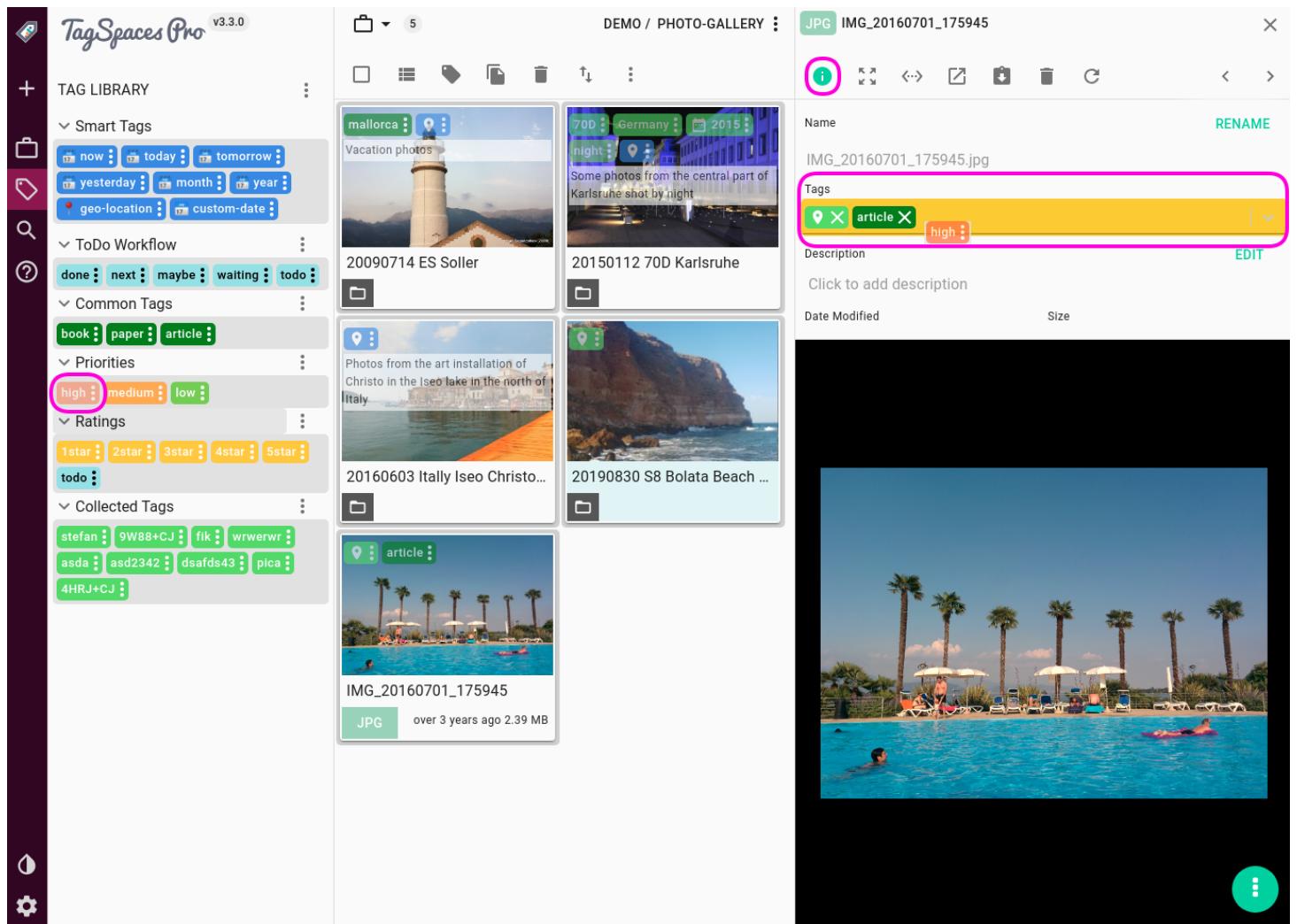


The options you have here are:

- **Clean all tags**, which will remove all tags from the selected files
- **Remove tags** will remove the specified tags from the files
- **Add tags** will add the specified tags to the selected files

Tagging in file and folder properties area

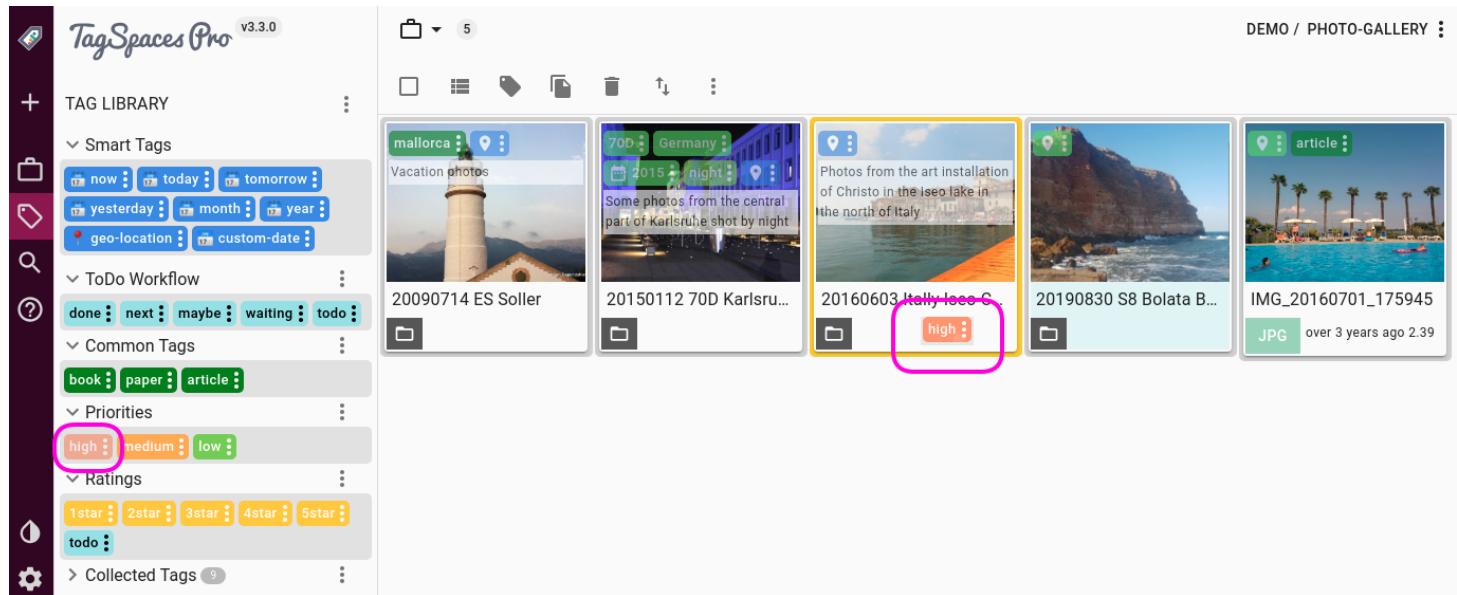
Tags can be added in the file and folder properties area, by simple selecting them from the dropdown list or dropping them over the tagging area. For removing tags just click on the **x**-button located in tag components.



Tagging with drag and drop

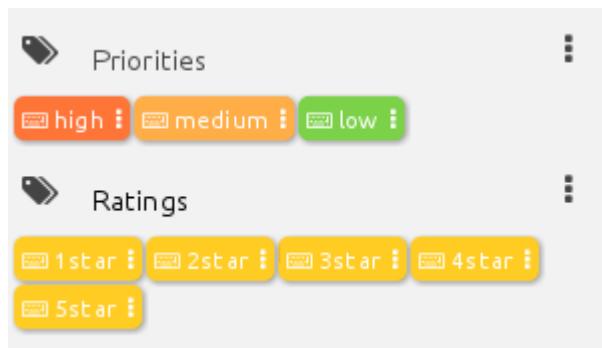
File and folder can be tagged also with drag and drop. Here is a list of the supported drag and drop operations.

- Dragging a tag from the tag library and dropping it to a file or folder. This action is supported in the [default perspective](#).
- Dragging a tag from the tag library and dropping it to a tagging section in file or folder properties area. This action work regardless of the current perspective.
- Drag a tag from a file or folder and drop it on another file or folder for tagging it. This action is supported in the [default perspective](#).
- Drag and drop can be used also in the tag library for moving tags from one tag group to another



Priorities and ratings

These special tags are useful for organizing files by either importance or quality. You can apply priorities `high`, `medium` and `low`, and start ratings from `1star` to `5star`. Star ratings are yellow by default, whereas priorities are colour coded to easily distinguish visually.



Users can easily extend these tags: You can simply create a new tag and add it to e.g. the priority group, give it a name a colour and a key binding, and you are all set.

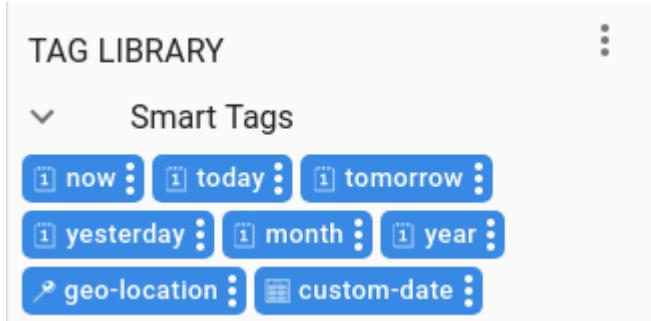
Smart tags

Smart tags are one of the advanced tagging features of TagSpaces. Smart tags can be either **date and time**, or **location based**, and offer convenient **dynamic tagging** tagging, based on a range of criteria.

- **Time and date tags** are timestamps textual representations, such as `now`, `today`, `tomorrow`, etc. Applying one of these tags to a file will add a timestamp, corresponding to your choice of smart tag. A timestamp has the format of `YYYYMMDD~hhmmss`. Tagging a file with e.g. `now` would apply the full timestamp down

to the second, while tagging e.g. *month* would tag it with a subset like `YYYYMM`. Smart tags have a distinguishing blue background, which they only retain in the tag library.

- Applying a **geo tag**, an additional feature in TagSpaces PRO, opens up a dialog with an interactive map, where you can drop a pin. The geo-location (longitude and latitude coordinates), will be added to the selected file as a tag.



These smart tags offer a quick and easy way to timestamp documents or files, with different levels of precision. Dragging or applying a smart tag to a file will create a tag based on the current time date. Currently the following tags and formats are available:

- **now** - This tag will create a very precise timestamp (from current year, down to seconds) of the moment you have applied it, in a format of `YYMMDD-HHmss`, e.g. `20170314~145021`
- **today, tomorrow and yesterday**** will apply a timestamp with the current, the next, or the previous day's date, in the format of `YYMMDD`, e.g. `20170314`.
- **month** will create a timestamp of the current month, in the format of `YYYYMM`, e.g. `201703`
- **year** only applies the current year, in the format of `YYYY`, e.g. `2017`

Note: Every newly created file will automatically have a smart tag, equivalent to **now**.

Custom timestamp tagging

With the help of the `custom-date` smart tag, the user can add any date and time as a tag to any file or folder.



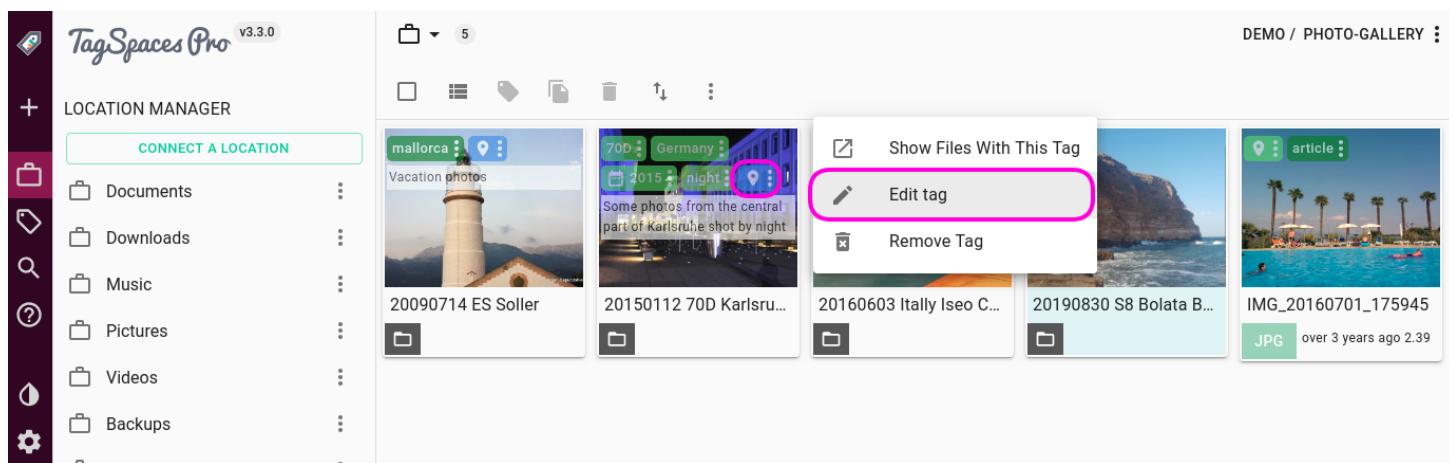
Geo tagging

Geo Tagging can be used to add geo coordinates as a tag to any kind of files. It is useful to connect your photos or other documents with a geo location. This can be used for planning your vacation or next trip. In order to use this feature you have to use the smart tag `geo-location`. When you apply it to a file, the dialog shown on following screenshot will appear. Here with the help of the [OpenStreetMap](#) and you can select any location somewhere in the world. The geographic coordinates (latitude and longitude) of this location will be converted in the [plus codes](#) format, which is a good way for coding geo coordinates with smaller amount of characters .



Editing smart tags

Smart tags, once applied, can be edited, or further refined by including date ranges. Clicking on a tag, and selecting *Edit Tag* from the context menu



will bring up the **Tag Properties** popup dialog. Depending on the type of the smart tag, the dialog looks differently. In the next screenshot the "editor" for the geo smart tags.

Tag Properties

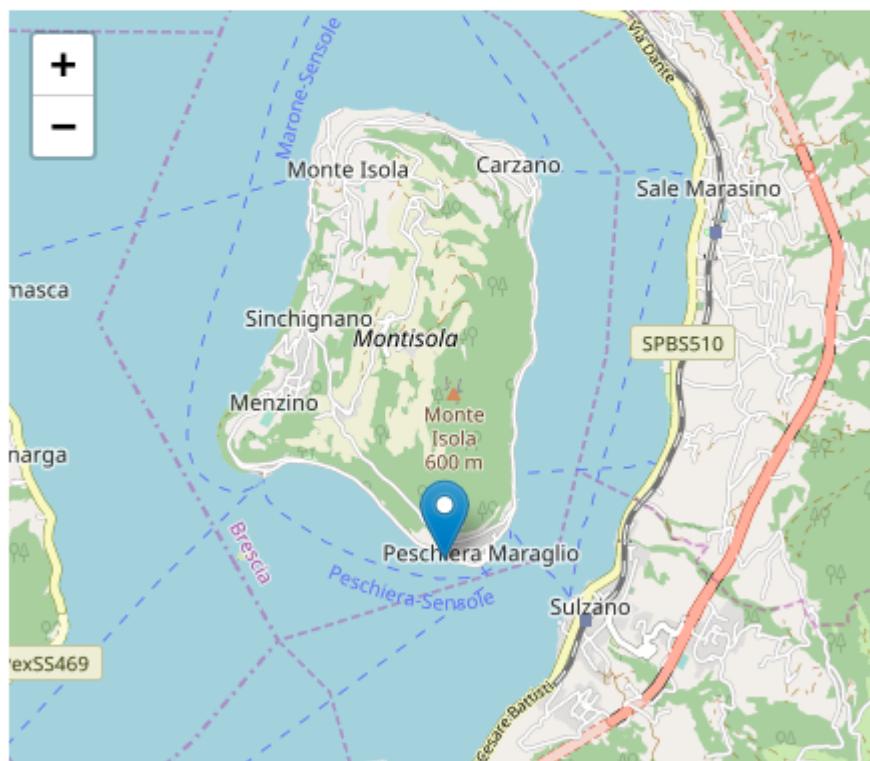
[Edit Tag](#)

8FQGM3VQ+68|

[GET CURRENT LOCATION](#)

[OPENSTREETMAP](#)

[GOOGLE MAPS](#)



[CANCEL](#) [OK](#)

Date ranges as tags

besides being able to easily modify date, or date/time tags on their respective tabs, you can also specify date ranges in the following formats:

- **Year Ranges:** 2016-2018
- **Month Ranges:** 201605-201701
- **Date Ranges:** 20160531-20160603
- **DateTime Ranges:** 20160529~124532-20160529~154500

Search Overview

In order to compete with other desktop search applications, TagSpaces offers a variety of search related features, which are described in this section.

The user can switch to the search area by clicking the `Ctrl+3` / `Cmd+3` key combination (configurable in the Setting). For the desktop app there is also a global key combination for opening TagSpaces in search mode. Just press `Ctrl+Shift+f` / `Cmd+Shift+f` to get there.

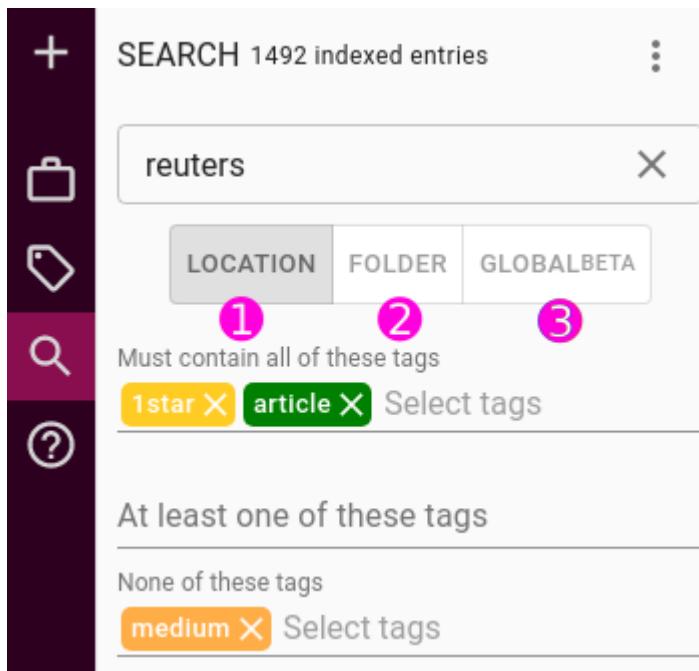
Basic search

The search query in the basic search consists of two components. The first one is just a simple free text which searched in the index. The second component is a list of tags. It is possible to define very precise tag queries by including and excluding tags. Please see the next section for more details. The search algorithm considers with different weight the following fields from the index.

- The file or folder name
- The tags assigned to the file or folder
- The description added to the file or the folder
- The name of the parent directory of a given file is also considered by the search algorithm. So for example if you are searching for photos from your vacation in USA and the folder where these files are located contains the word USA (e.g. '20160301 vacation usa 70D'), then the search will list all the files located directly in this folder.
- The content of TXT, MD and HTML, if the full text search is activated for the current location. The full text search for these files is a feature.

The search algorithm has a build-in fuzziness, meaning that if the search query contains a misspelled word, TagSpaces will try to find files and folder with the best guessed similar names.

- The tag search is strict, without fuzziness, if you are not sure about the exact name of a tag, write in the free text query.
- The search is case insensitive.



Basic search in TagSpaces

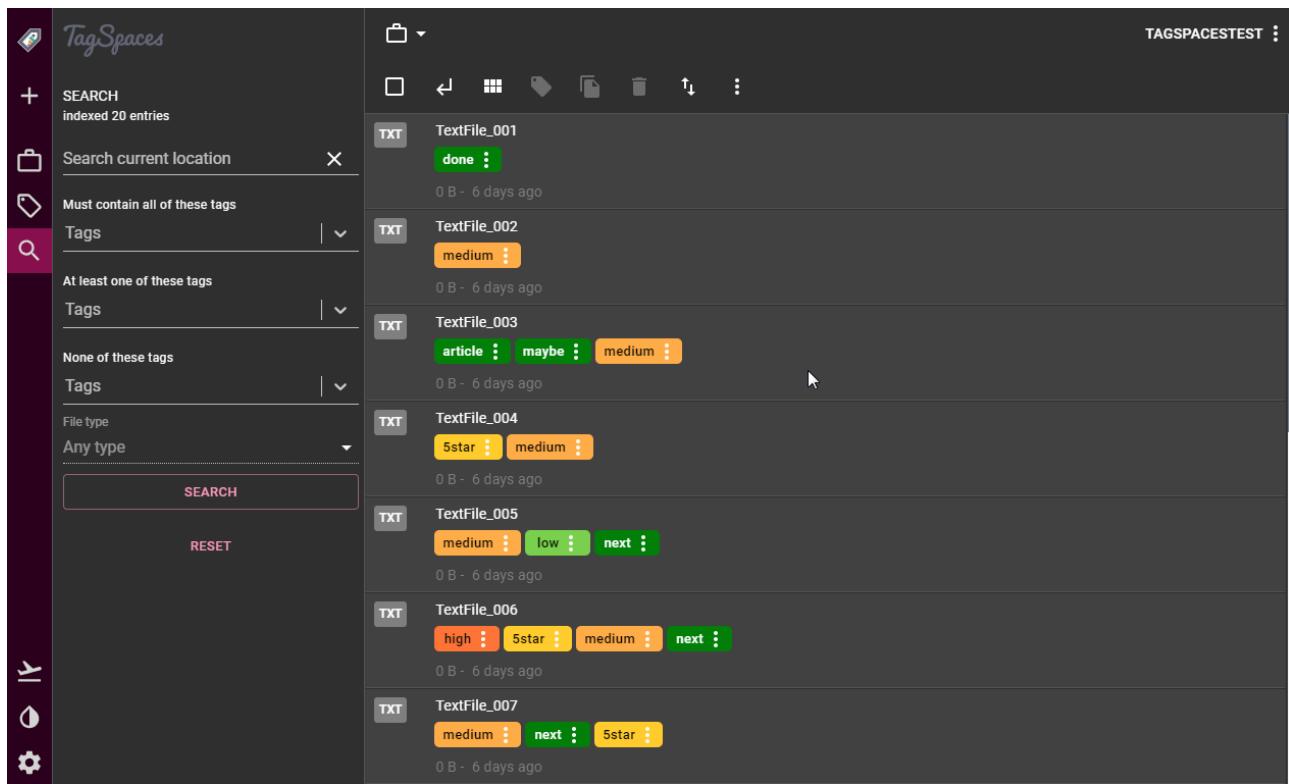
The search functionality can be targeted to deliver result for the following scopes:

- **(1) Current location**, which is the default scope
- **(2) Current folder** including all sub-folders, which in the case of the root folder in a locations is the same as the first scope
- **(3) All locations**. You can find out more in the [Global Search](#) section of the documentation.

Searching for tags

In order to provide a boolean search support for tags, the search user interface for tags was split in three input fields:

- Must contain all of the tags - all of the tags listed here should be attached to the files or directories (**logical AND search**)
- At least one tag - any file or folder which contains one of the specified here tags will be included (**logical OR search**)
- None of these tags - entries which have one the tags listed here will be excluded from the search results (**negative search**)



Short video showing searching for tags in action

Note: After opening of a certain location, the application starts to index in background all the files and folders from this location recursively. During the indexing time the search is not available to the user, but all other functionalities are accessible. Opening of location containing more the 100000 files could lead to performance issues, during the index or later by search.

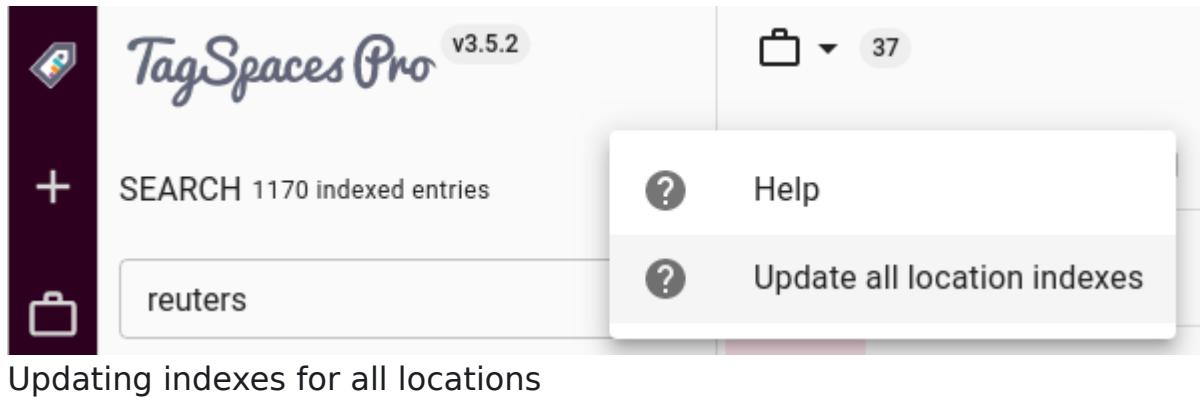
Indexing

TagSpaces has an integrated file and folder search functionality based on an **index**, which is created immediately after the user opens a given location. The indexing process may take some resources on opening the location, but delivers later accurate and up to date search results.

Note: If your location contains a huge amount of files (> 20000) it is recommended to split it in two or more location or to [disable the indexing](#) on location start (which is a feature). Disabling the indexing at start may also be useful for location based in a networks like on NAS systems or AWS S3 buckets.

If you decide to disable the automatic indexing, you should do this step manually on regular based in order to have a working and accurate search functionality. The index can be updated in the following ways:

- In the menu of every location in the location manager there is an item called "Refresh Location Index"
- All indexes can be update at once from the search menu with the option "Update all location indexes"



Limiting the search results

By default, TagSpaces is limiting the amount of the found search results to 1000 files. This limitation is also valid for the maximum files, which can be displayed in a single folder. The reason for adding such limitation is the fact that pagination is not typical for file managers and for now we do not want to add such. In tab general of the Settings there is a field where you can increase or decrease this limit. See the next screenshot.

Options

GENERAL

FILE TYPES

KEY BINDINGS

Interface Language English ▾

Theme selector light ▾

Check for new version on startup

Use sidecar files for file tagging

Collect new tags in the tag library

Enable thumbnails generation

Default tag background color 

Default tag text color 

Move deleted files or folders to trash bin

Show files/directories with a dot(.) in front of the name (e.g. Unix, Linux, OS X hidden files)

Mobile Mode (experimental)

Max Search Results 1000 

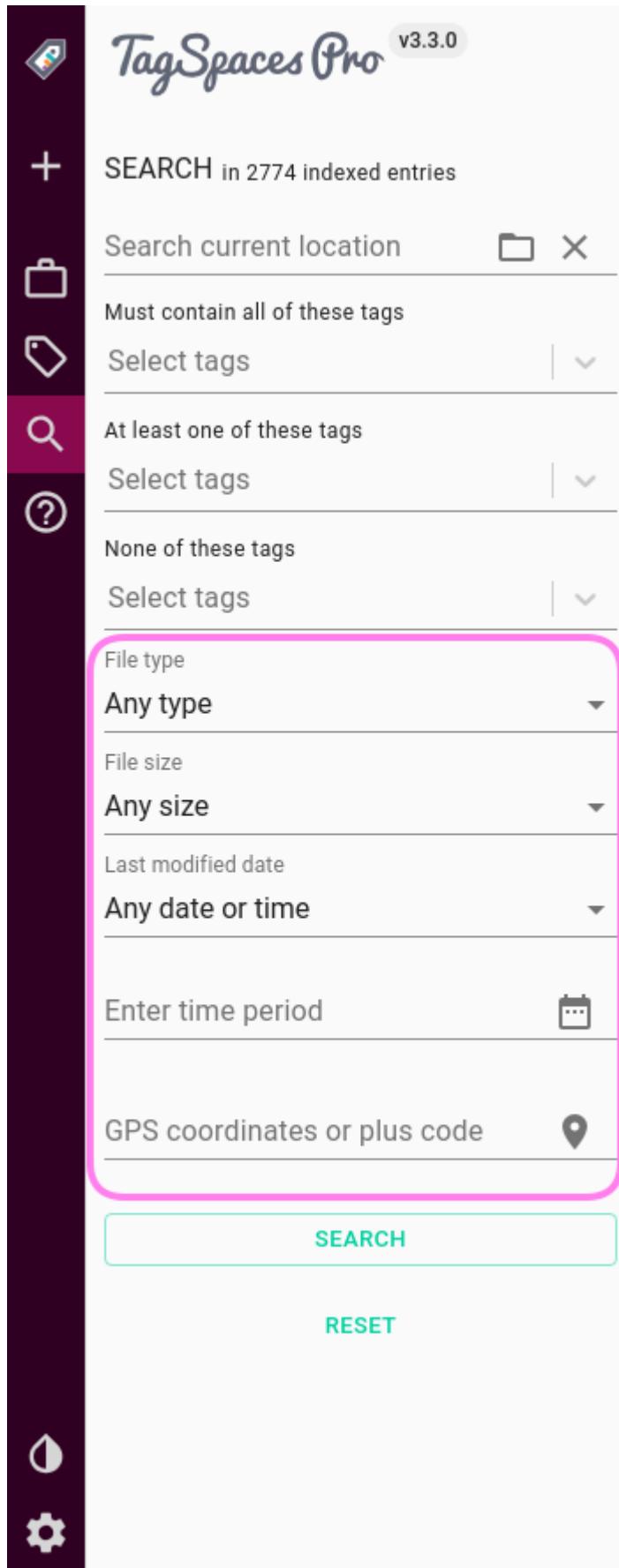
CLOSE

Adjust number of shown / found items in the perspectives

Advanced search

The search options described in this section are available only in the Pro and Enterprise editions of TagSpaces. In addition to the searching by files name and by tag, the

advanced search supports the following filter criteria:



Screenshot showing the advanced search options

Search by type

In the file type dropdown you can specify types of the files you want to search. The file types are grouped in the following sections:

- Pictures and Photos: JPG, PNG, GIF, etc.
- Documents: PDF, ODF, DOCX, EXL, etc.
- Notes: MD, TXT, HTML, etc.
- Audio files: OGG, MP3, WAV, etc.
- Video files: WEBM, OGV, MP4, etc.
- Archives: ZIP, RAR, TGZ, 7Z, etc.
- Bookmarks: URL, LNK, etc.
- eBook EPUB, MOBI, AZW, PRC, etc.

In addition to that there are some special filters:

- Folders - selecting this options will limit the search to only folders
- Files - selecting this option will limit the search to only files
- Untagged files or folders - this options will show only files and folders which are not tagged

Any type

-  Folders
-  Files
-  Untagged files or folders
-  Pictures & Photos
-  Documents
-  Notes
-  Audio
-  Videos
-  Archives
-  Bookmarks
-  eBooks

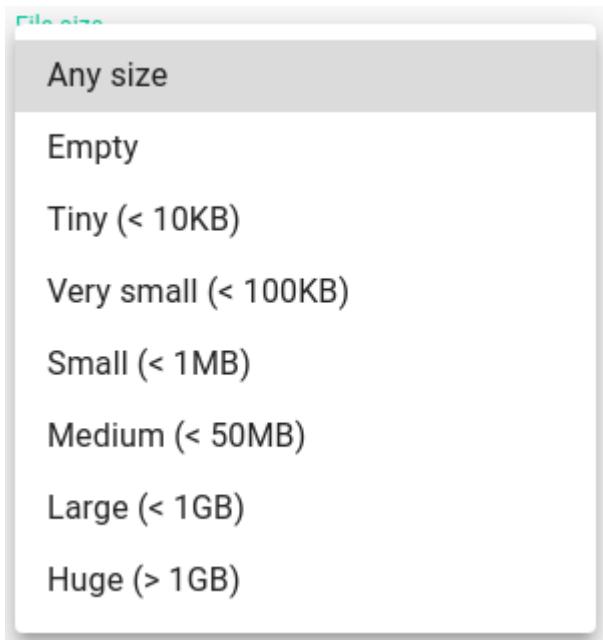
Search by file type

Search by file size

In this dropdown you can filter for files by their size. The following options are supported:

- Empty - will filter files with zero size
- Tiny - will filter files smaller than 10KB
- Very small - will filter files smaller than 100KB
- Small - will filter files smaller than 1MB
- Medium - will filter files smaller than 50MB
- Large - will filter files smaller than 1GB

- Huge - will filter files bigger than 1GB

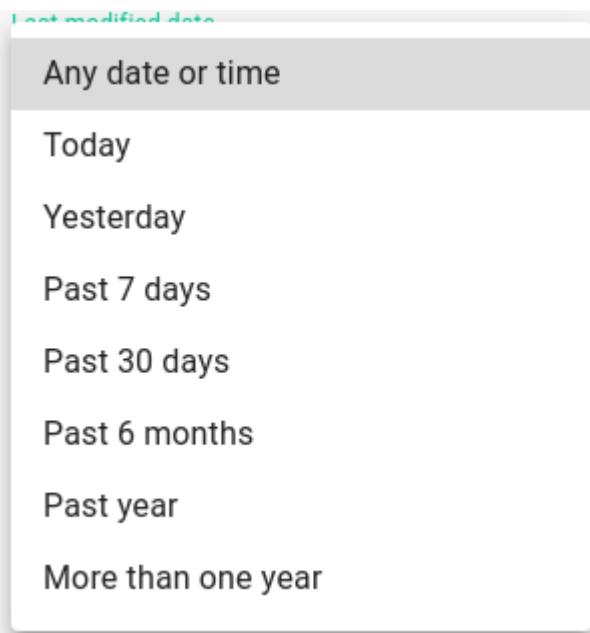


Options for searching by size

Search by last modified date

Here you can specify in which period the files you are searching should have been modified. This filter supports the following options:

- Today - will show files and folders modified today
- Yesterday - will show results modified yesterday
- Past 7 days - will show results modified in the last 7 days
- Past 30 days - will show results modified in the last 30 days
- Past 6 months - will show files and folders modified in the last 6 months from today
- Past year - will show files and folders modified in the last 12 months from today
- More than one year - will show files and folder older than one year



Options for searching by last modified date

Search by time period

This filter is still work in progress.

Search by GPS coordinates

This filter is still work in progress.

Full text search for TXT, MD and HTML

After activating the full text search with the checkbox in the properties of a given location (see next screenshot), TagSpaces will try to extract and index the text content of supported file formats.

These file formats are currently supported:

- HTML - files in HTML format, used for notes in rich text format
- MD - markdown files
- TXT - plain text files

Edit Location

Type Local AWS S3 Object Storage

Location Name *

Chronique

Location Path

/ [REDACTED] /Chronique 

Startup location

Open this location in read-only mode

Enable full text search for TXT, MD and HTML files (BETA)

Switch to manual index creation with persisted search index

Watch for external changes in this location

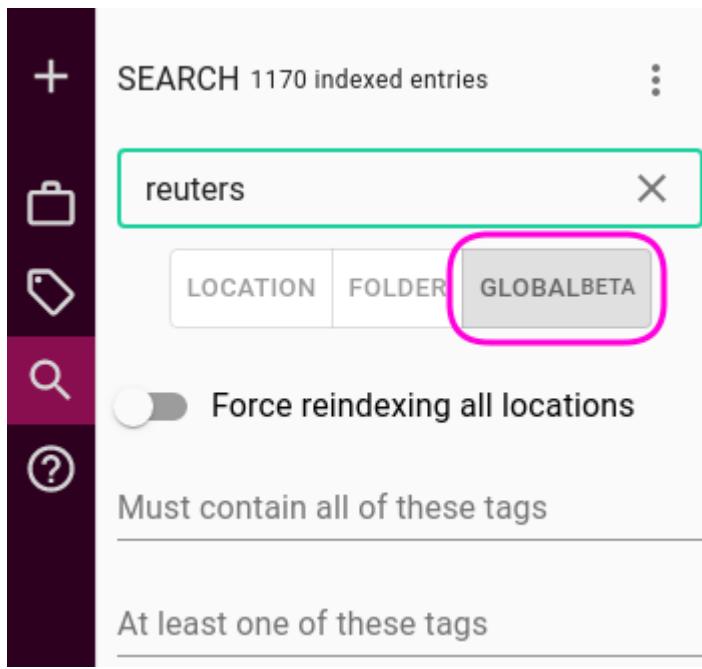
[CANCEL](#) [OK](#)

Options for searching by last modified date

Note: This feature is still in beta state and could lead to performance issues if you are dealing with many and/or big text files.

Global search

Starting with version 3.5, TagSpaces Pro offers searching in all locations. We call this feature "Global search". It works on local and remote S3 based locations. The feature can be activated by clicking the *Global*-button in the search area, as seen in the following screenshot.



Search globally in all locations

Once in *Global search*-mode you will see one additional search options called "Force re-indexing all locations". Activating this checkbox will force TagSpaces to create a new index for every location before in searches in it. This options will deliver most accurate search result but can take more time, especially re-indexing remote locations or locations containing many files.

All other search related settings should work as known from the single location search. The [search result limit](#) is applying here, so once reached TagSpaces will stop the search and will no go in the remaining un-searched locations.

Note: *Global search* should be considered as a feature in Beta status. There could be some edge cases which are not functioning correctly. Please share any glitches with us, we will try to fix them.

Saved searches

Work in progress

Viewing Files

File preview

The application supports previewing of many file types without the need of external viewer. It comes with the following viewer extensions:

- [Audio Video Player](#)
- [HTML Reader](#)
- [Image Viewer](#)
- [Link Opener](#)
- [Markdown Reader](#)
- [MHTML Reader](#)
- [PDF Viewer](#)
- [Text Reader](#)
- [Simple Viewer](#)
- [ZIP Opener](#)

TagSpaces is designed with extensibility in mind so any other kind of file viewers can be easily developed and integrated.

Source code browser and editor The text editor supports source code highlighting for many common programming languages. This in combination with the build in [JSON editor](#) makes the application a good source code navigator with basic editing capabilities. The intention here is not to make TagSpaces your next IDE, but rather to give you a quick overview of source code repositories.

Assigning file viewer to file extensions

Options

The screenshot shows the 'FILE TYPES' tab of the TagSpaces Options dialog. A dropdown menu is open for the 'haxe' entry, listing several options: 'Text Editor' (selected), 'File Opener', 'HTML Editor', 'HTML Viewer', 'JSON Viewer', and 'Text Editor'. The 'HTML Editor' option is highlighted. The menu has a white background with rounded corners and a thin gray border. The list items are in a standard black font.

File Ext.	File Opener	File Editor
haxe	Text Editor	Text Editor
htm	HTML Viewer	HTML Editor (highlighted)
html	HTML Viewer	HTML Editor
ico	Image Viewer	JSON Viewer
java	Text Editor	Text Editor
jpeg	Image Viewer	File Editor
jpg	Image Viewer	File Editor
js	Text Editor	Text Editor
		File Editor

At the bottom left, there is a button labeled 'ADD NEW FILE TYPE' with a red circle containing the number '4'. At the bottom right, there is a button labeled 'CLOSE'.

Supported file formats

The following table lists the supported files types for viewing and editing of files in TagSpaces.

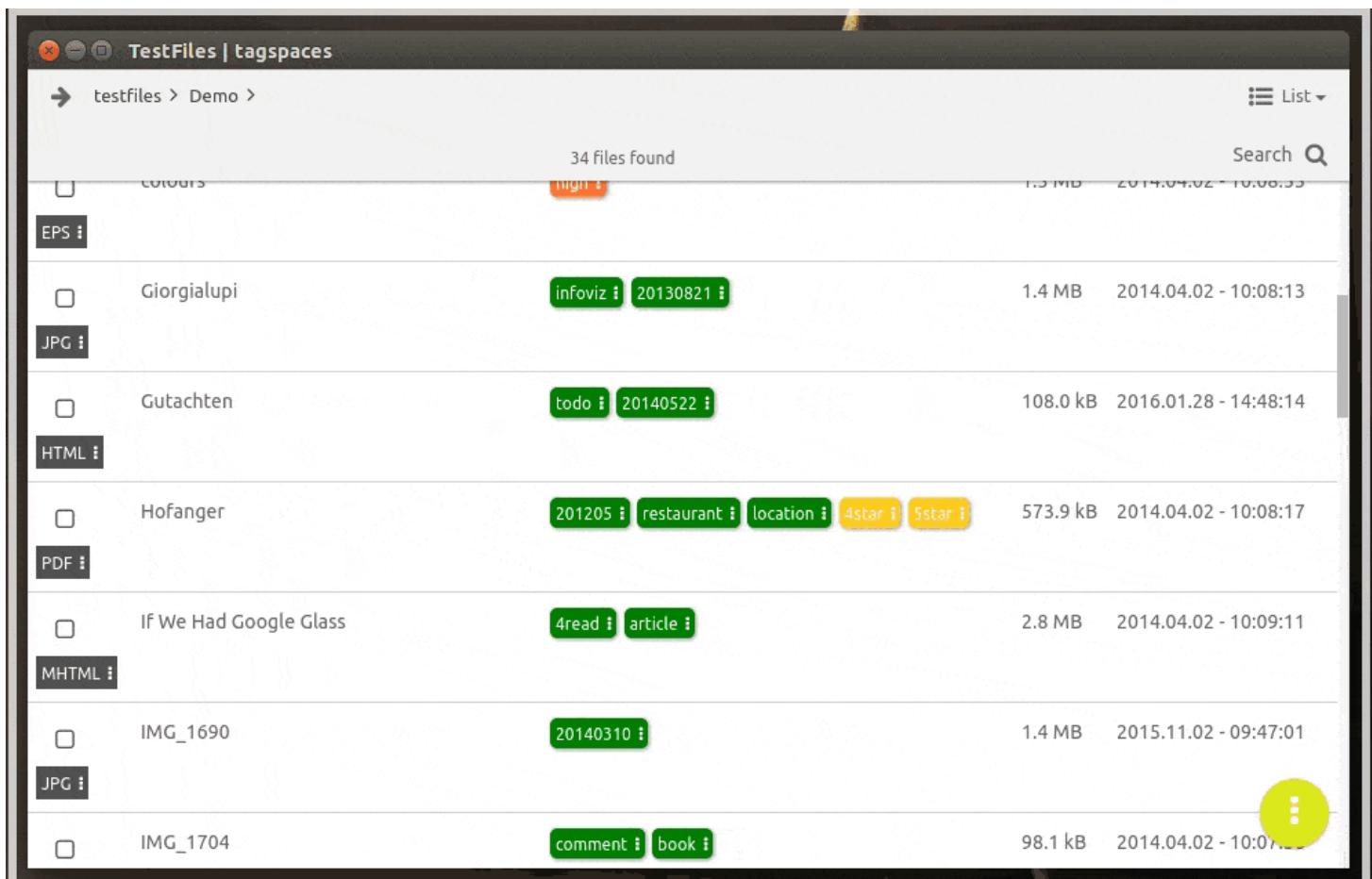
File type extension	Windows, Mac OS & Linux desktop apps	Self hosting version	Android app
PNG	view	view	view
JPG/JPEG	view	view	view
GIF	view	view	view
BMP	view	view	view
ICO	view	view	view
WEBP	view	view	view
SVG	view	view	view
PDF	view	view	view
HTML	edit	edit	edit
MHT/MHTML	view	view	view
MD/MARKDOWN	edit	edit	edit
TXT	edit	edit	edit
XML	edit	edit	edit
JS	edit	edit	edit
JSON	edit	edit	edit
CSS	edit	edit	edit
H	edit	edit	edit
CLJ	edit	edit	edit
COFFEE	edit	edit	edit
CPP	edit	edit	edit
CS	edit	edit	edit
GROOVY	edit	edit	edit

File type extension	Windows, Mac OS & Linux desktop apps	Self hosting version	Android app
HAXE	edit	edit	edit
JAVA	edit	edit	edit
JSM	edit	edit	edit
LESS	edit	edit	edit
LUA	edit	edit	edit
ML	edit	edit	edit
MLI	edit	edit	edit
PL	edit	edit	edit
PHP	edit	edit	edit
PY	edit	edit	edit
RB	edit	edit	edit
SH	edit	edit	edit
SQL	edit	edit	edit
FLAC	play	play	planned
OGG	play	play	play
OGV	play	play	play
OGA	play	play	play
OGX	play	play	play
SPX	not supported	play	play
OPUS	not supported	play	play
WEBM	play	play	play
TIFF	view	view	view

File type extension	Windows, Mac OS & Linux desktop apps	Self hosting version	Android app
PSD	view	view	view
DOCX	view	view	view
EPUB (v.1)	planned	planned	planned
ZIP	view	view	view
RTF	view	view	view
MKV	view	view	view

Printing files

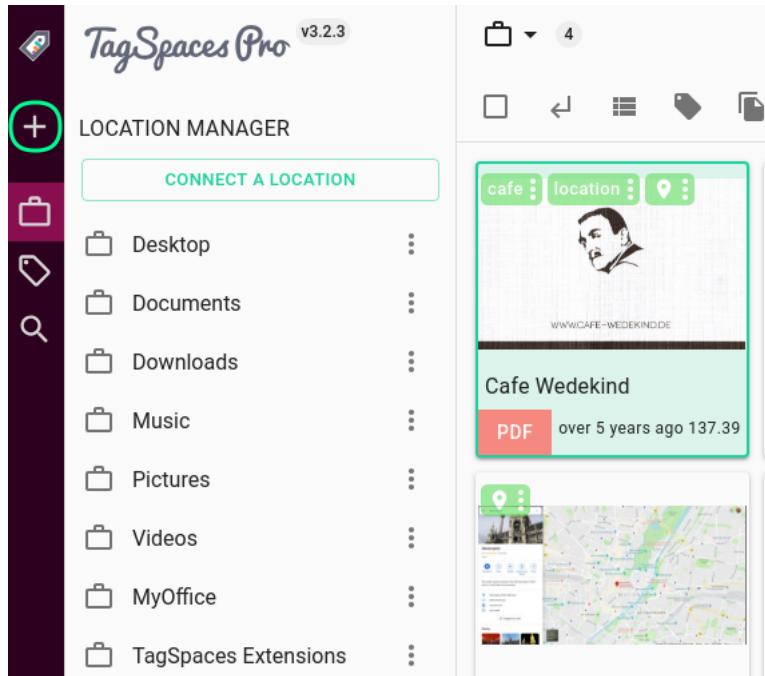
The majority of the viewer extensions has the ability to print the opened files, thanks to the build in print functionality. In the following short video, you can see how you can start the printing.



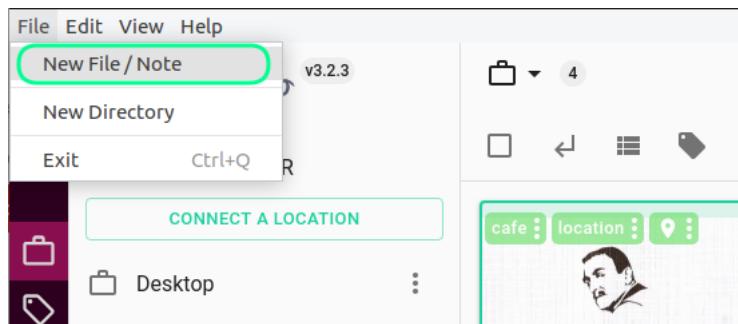
Creating Files

Besides opening and previewing various file types, TagSpaces can also create new files of some text-based formats. File creation is a functionality that allows TagSpaces to become an effective note-taking application.

To create a new file in TagSpaces you have many options. The easiest one is from the button with plus icon, which almost always visible in the application

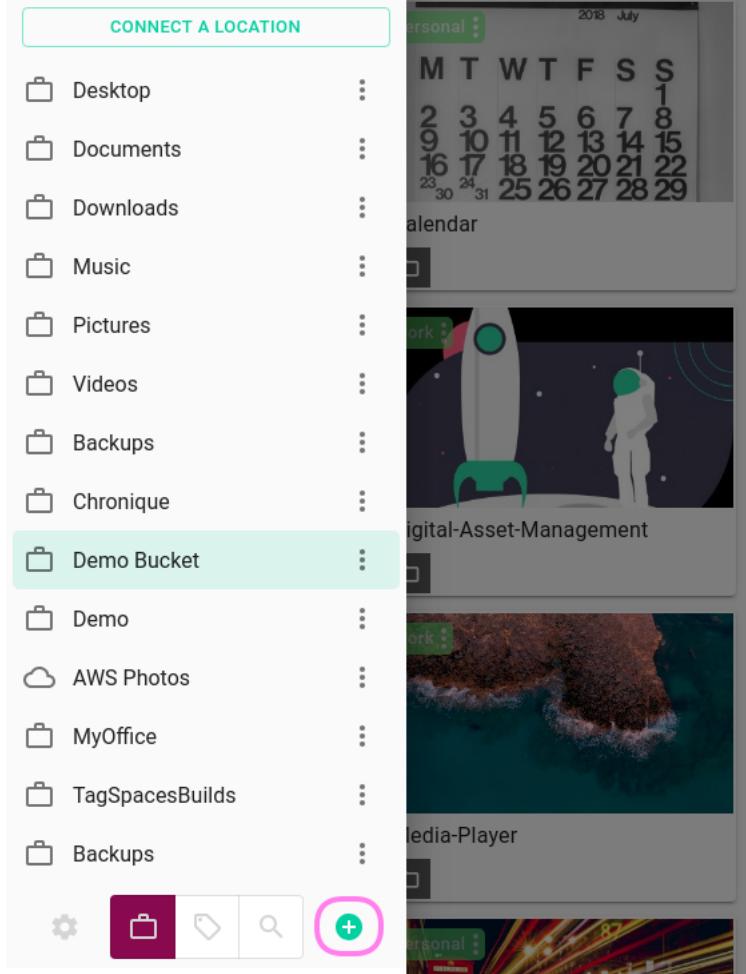


On the desktop version of the app you can also use the *File menu* from the *Main menu*. If the main menu is not visible you can open it by pressing the ALT keyboard key.



In mobile mode the file creation dialog can be started from the plus button marked in the next screenshot.

LOCATION MANAGER



The triggering of the file creation action will open a *Create new content* dialog, where you can choose one of the following actions:

- **Create Note** - will create a HTML which can contain rich text content, with *.html* file extension.
- **Create MarkDown File** - will create a *markdown*, with *.md* file extension.
- **Create Text File** - will create a plain text file, with *.txt* file extension.
- **Add File** - will give you the possibility to import a single file in the app. See more in the [importing files](#) section.

Create new content

CREATE NOTE CREATE TEXT FILE

CREATE MARKDOWN FILE ADD FILE

CLOSE

The name of the create files will be *note[20191113~164613].md* (or *.html* or *.txt*). Learn more for the timestamp tag in next section.

Timestamp as default tag

When you create a new file in TagSpaces, a time-stamp in the format of YYYYMMDD~hhmmss will be automatically added as a tag, where

- `YYYY` means the current year
- `MM` - the current month
- `DD` - the day
- `hh` - the hour
- `mm` - the minute
- `ss` - the second

when the file was created. For example a file created on the 17th of January in 2017, at 10:30 (and 32 seconds) would be tagged with timestamp like `20170117-133032`.

Using these timestamp-tags ensures the uniqueness of the automatically generated file name of the file created by the app.

Importing files

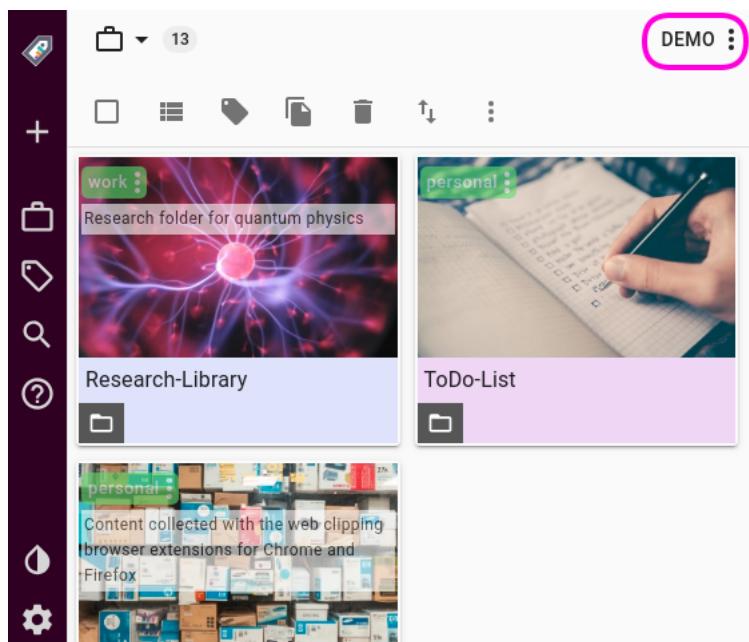
In TagSpaces files can be imported in many ways. After a successful import the imported file should be copied in the current folder from the current location.

Import from the create content dialog

See how this dialogs looks like in the [creating files](#) section.

Import from the folder menu

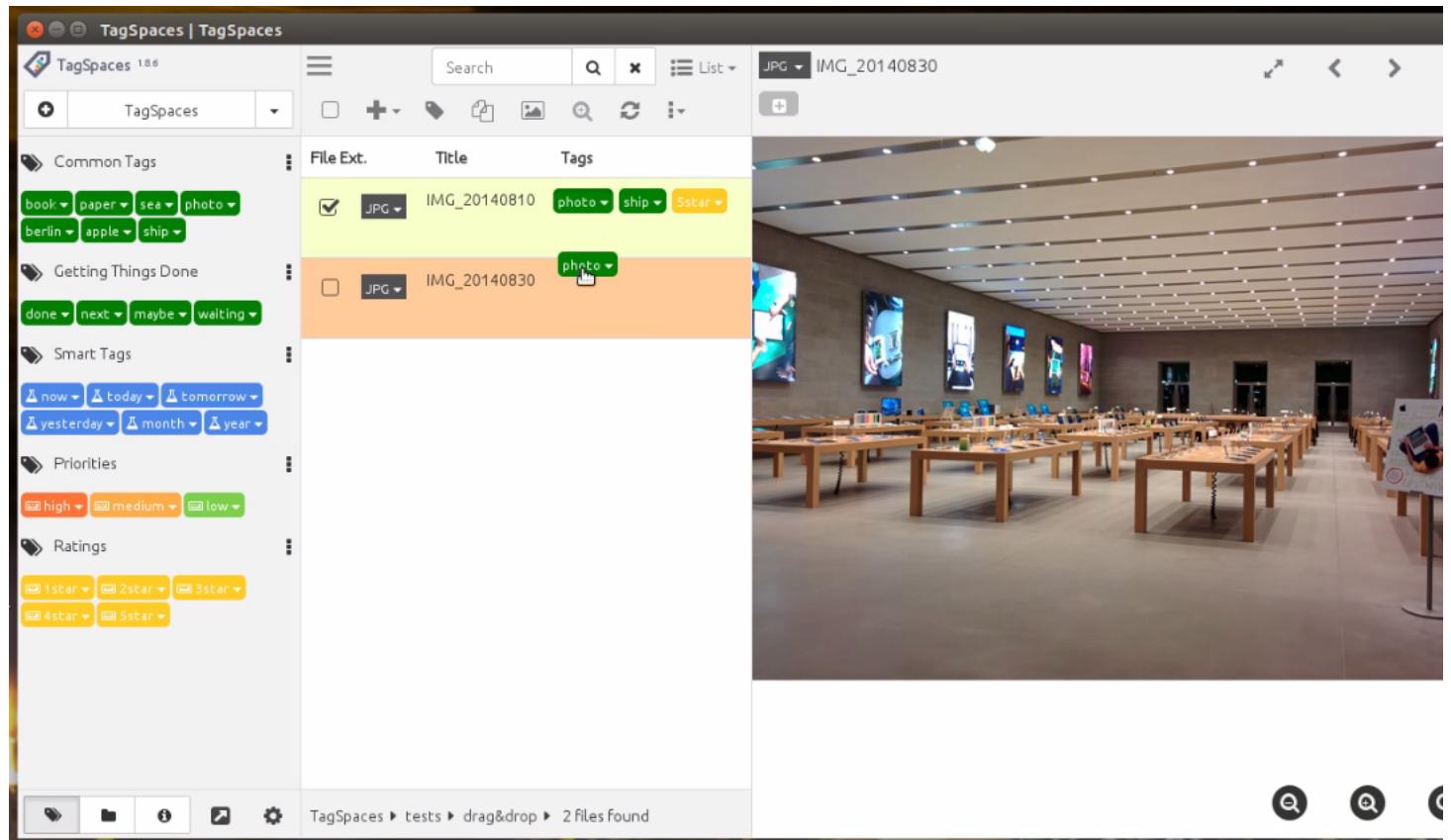
The importing of a file can be initiated also from the folder menu, which can be opened by clicking on the area marked in the next screenshot.



In the menu which will appear, choose the *Add existing file* options.

Import with drag and drop from the desktop

And finally, files can be imported also by simple dragging one from your desktop or the default file manager of your operating system and drop it in the app.



Importing files on mobile devices

TBD



6

MEDIA



2015



2016



2017



2018



2019



Archive



Choose an action



Camera



Camcorder

Voice
Recorder

Files



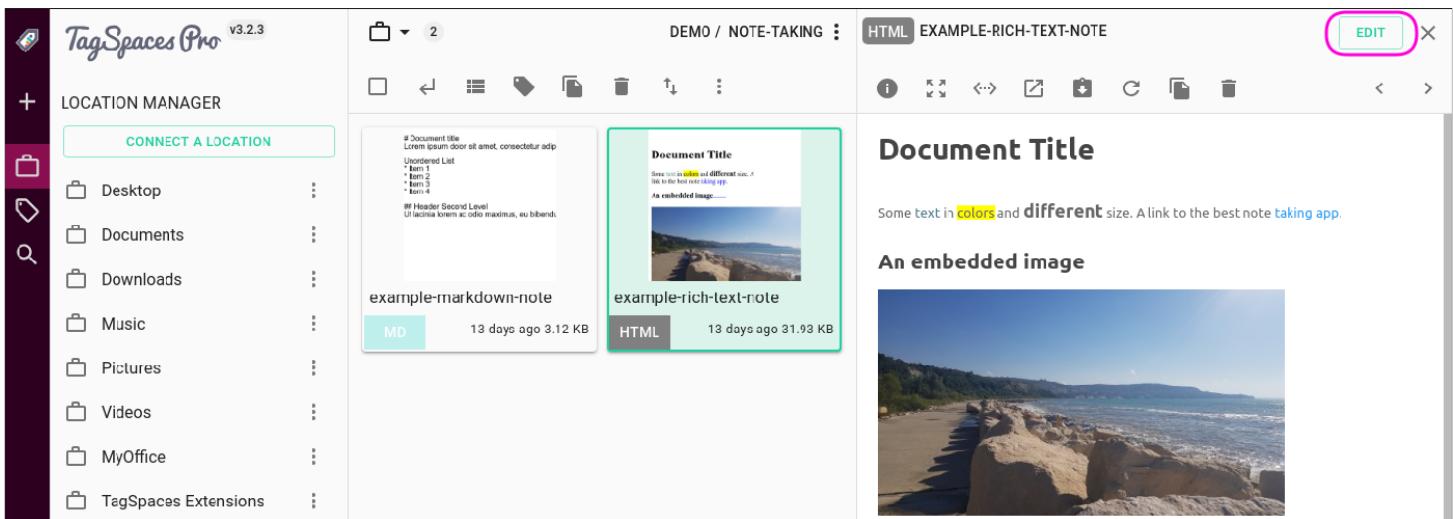
Editing Files

Editing files

Besides opening and viewing files, TagSpaces can also edit specific file formats. Just like [File Browser Perspectives](#), and [File Preview extensions](#), the different types of **File Editors** are also **modular extensions**, making TagSpaces' file editing capabilities extendable. Currently three editor extensions ship bundled with the application:

- **HTML Editor** - `HTML` files serve a specific purpose in TagSpaces. They are treated as RichText documents, that can not only be previewed, but visually edited in a full-featured **WYSIWYG editor**.
- **Text Editor** - This editor opens all other text-based file formats, and unknown file types alike. For `.txt` and miscellaneous files, it behaves as a simple editor, with added syntax highlighting capabilities for common programming languages and a preview for **MarkDown**. (`.md`)
- **JSON Editor** - An interactive visual editor for editing and manipulating `JSON` files.

If the file format of the currently opened files is supported for editing the **EDIT button** will appear in the top right corner of the application. Clicking on this button will activate the edit mode for this file.



Once in the edit mode the **edit button** will disappear and on its place two new buttons will be visible. Pressing on button (1) will save the current changes. This can be done in the most cases also with the **CTRL+S** key combination. Pressing the button (2) will activate the preview mode by leaving the edit mode. If the changes were not saved, the app will ask you to save them.

Increasing your workspace

All of the above editors, will initially open on the right pane of the main area. You can expand your workspace to be able to see and edit more of the document, in two ways:

- **Expand** the editor to fill the whole width of the TagSpaces UI, by pressing the **Expand button** (2) as shown in the next screenshot.
- Pressing the **Fullscreen button** (1) will open only the area of the editor in full screen mode. To exit fullscreen mode, press the (X) button located at the top right or just press the **ESC** key on your keyboard.

HTML EXAMPLE-RICH-TEXT-NOTE

Document Title

Some text in **colors** and **different** size. A link to the best note taking app.

An embedded image

A small task list

- Task 1
- Task 2
- Task 3
- Task 4

An example table

Header 1	Header 2	Header 3	Header 4	Header 5
	Cell 1	Cell 2	Cell 3	

Distraction free editing

By using the fullscreen button you can edit documents in the so called **distraction free mode**. This will expand the editor area to fill the entire screen area, with no window decorations, or other UI elements, while any applicable **formatting toolbars** and the **Floating Action Button** will still be shown.

HTML Editor

HTML files are treated like RichText documents in TagSpaces. When you edit a `.html` document, the fully formatted preview of the file will be replaced by a **WYSIWYG** (**What You See Is What You Get**) HTML editor.

In editor mode the HTML document will keep its formatting, but you are now able to edit the text, making the HTML editor behave like a RichText editor. On the top of the view, you will find a formatting toolbar, with which you can fully control the appearance of the document



Browsing Your Files

When you navigate to a folder in your active location, the files contained in the selected folder will be displayed on the main file browsing area of the user interface. TagSpaces offers flexible views to display your files. These views are called **perspectives**.

Perspectives overview

Perspectives are not an integral part of TagSpaces, but exist as modular extensions. This modular approach allows for more flexibility, easier development, and customizability of each separate perspective. By default, there are four perspective extensions included in TagSpaces, which are:

- [List Perspective](#) - Presenting your files as list, optimized for simple file management.
- [Grid Perspective](#) - Presenting your files as grid of cards, with file-preview thumbnails if enabled. Unlike the List Perspective, the grid can also display folders.
- [ImageSwiper Perspective](#) - A perspective optimized for browsing and viewing image files. Best used with folders containing photos or images.
- [FolderViz Perspective](#) - This is an experimental perspective which applies some information visualization concepts to presenting your folder and file structures.

List perspective

The most common way of presenting files in a folder is in a list format, which can be found in most file-browsing applications. In the [List Perspective](#) files are represented as rows of a list.

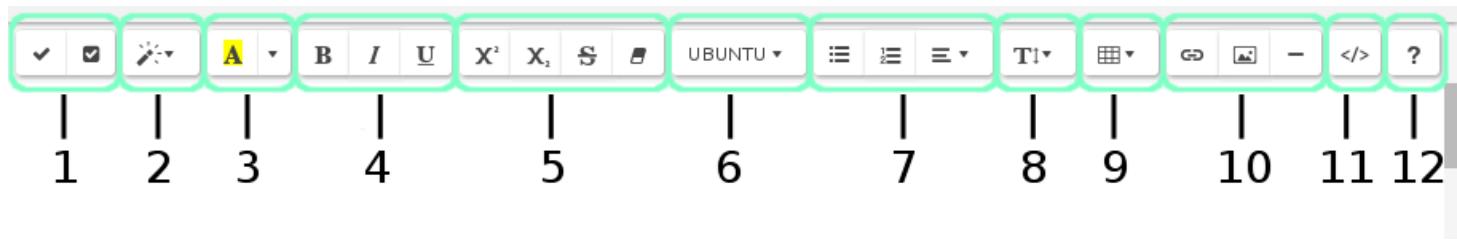
Each row of the list consists of columns, which give specific information about the files. The column names can be found in the header row, at



The formatting toolbar offers some common features, you can find in any RichText or WYSIWYG HTML editor, with some features specific to TagSpaces. The overflow menu options from the [HTML viewer](#) are not implemented in the HTML Editor.

Toolbar Buttons

The toolbar buttons are grouped together based on similar behavior or functionality. The major groups are illustrated below

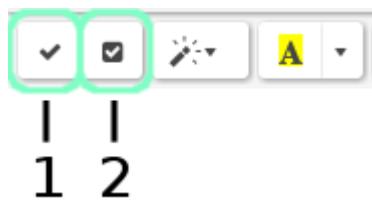


- **Manage Checkboxes (1)**
- **Paragraph Style (2)**
- **Color (3)**
- **Font Styles (4 and 5)**
- **Font Family (6)**
- **Lists, and Alignment (7)**
- **Line Height (8)**
- **Insert Table (9)**
- **Insert Link, Image and Horizontal Ruler (10)**
- **Code View (11)**
- **Help (12)**

Manage Checkboxes

This is a compound button, consisting of two parts:

- **Add checkbox (1)**
- **Toggle all checkboxes (2)**



Pressing **Add checkbox** will insert an interactive, clickable checkbox into your document, which can be used to create e.g. ToDo lists. To learn more about this feature, scroll down to the [Creating ToDo Lists](#) section.

Pressing the **Toggle all checkboxes** button will select or deselect all the checkboxes present in the HTML document, regardless of their location

Hint: when some checkboxes are manually selected, while others are deselected, the ***Toggle all checkboxes** will check all the unchecked ones. Pressing the button again will only un-check the ones that have been checked via the button. the ones that were manually checked will remain unchanged.

[Back to button group list](#)

Paragraph Style

This button will open a drop down menu, from which you can select a paragraph style to apply. When selecting an option, the chosen style will be applied to the entire current paragraph (where the cursor is located), without having to make a selection first. If you do select some text first, the style will only be applied to the current selection.



Available styles are:

- **p** represents the `<p>` HTML tag (normal paragraph). It can also be used to remove other styles. The hotkey `Ctrl+0` is assigned to this action.
- **blockquote** will enclose the current paragraph into `<blockquote>` tags.
- **pre** will enclose the current paragraph into `<pre>` (preformatted text) tags.

- **H1** to **H6** mean different heading levels from **1** (largest) to **6** (smallest). Selection one of these options will enclose the entire paragraph into `<h1>` to `<h6>` tags. Hotkeys `Ctrl+1` to `Ctrl+6` can also be used to set headings, where the number reflects the level of the desired heading.

[Back to button group list](#)

Color

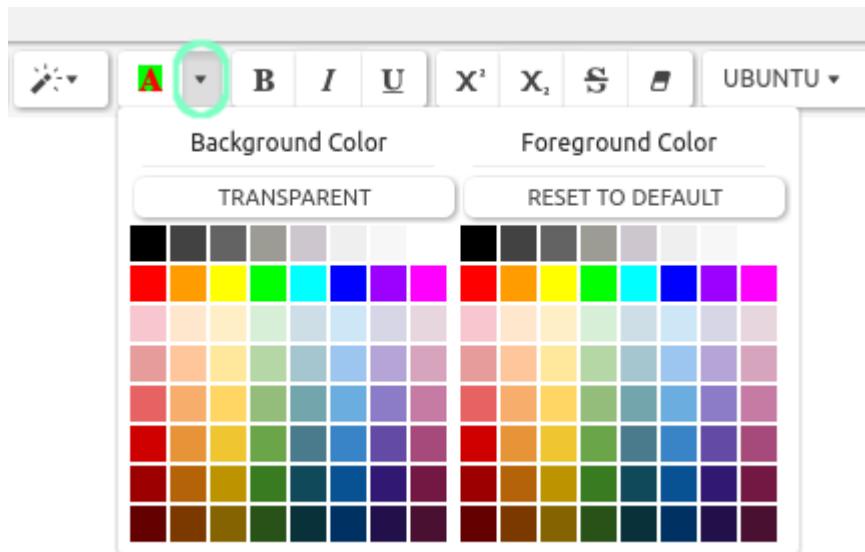
This is a compound button, which has two parts



The left part **Recent color** will apply the last used background and foreground color on the text. The applicable background and foreground colors are reflected on the button itself



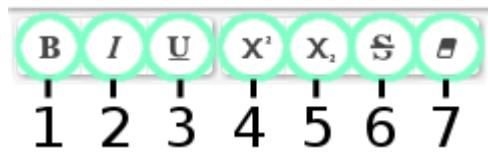
The right part **More Color** will open a dropdown menu, from which you can choose both background and foreground colors to apply, while the default color values can be reset with their respective buttons.



[Back to button group list](#)

Font Styles

The following groups represent font styles, that can be applied to either a selection, or as a toggle, to mark any text to be written with the given style, until the toggle is switched off.



Bold (1), **Italic (2)**, and **Underline (3)** will mark either the selected text, or the text that follows as **bold**, *italic* or underlined, respectively. These three buttons also have hotkeys assigned. `Ctrl+b` will toggle **bold**, `Ctrl+i` toggles *italic*, while `Ctrl+u` toggles underline.

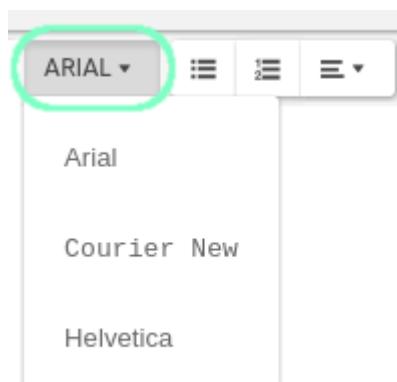
Superscript (4), and **Subscript (5)** will mark either the selection or the text that follows to be ^{superscript} or _{subscript} respectively. **Strikethrough (6)** will create ~~strikethrough~~ text, and **Remove Font Style (7)** will remove all formatting. (This last option is only applicable to selections.)

From this group, only two options have hotkeys assigned. **Strikethrough** can be toggled with `Ctrl+Shift+s`, while the **Remove Font Style** hotkey is `Ctrl+\`

[Back to button group list](#)

Font Family

This is the last of the font style buttons. It can set the selection or the text that follows to a specific font family.

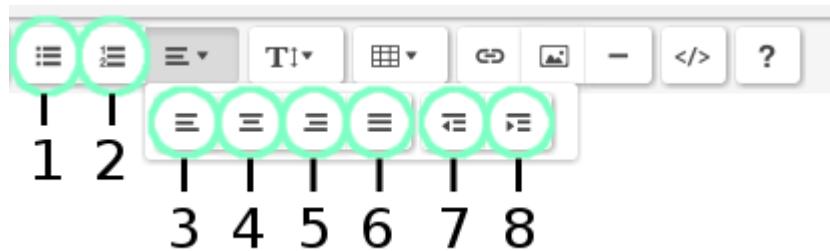


Hint: The options presented here might depend on your operating system and the fonts installed

[Back to button group list](#)

Lists, and alignment

This is a compound group, which offers different options, that all work on the currently active paragraph, as a toggle, without the need to make a selection first.



The first two buttons offer toggles for **Unordered List (1)**, and **Ordered List (2)**. The last button in the group will open a dropdown menu which offers four standard alignment options **Left (3)**, **Center (4)**, **Right (5)**, and **Full Justify (6)**; and also the option to **Decrease Indent (7)**, or **Increase Indent (8)**.

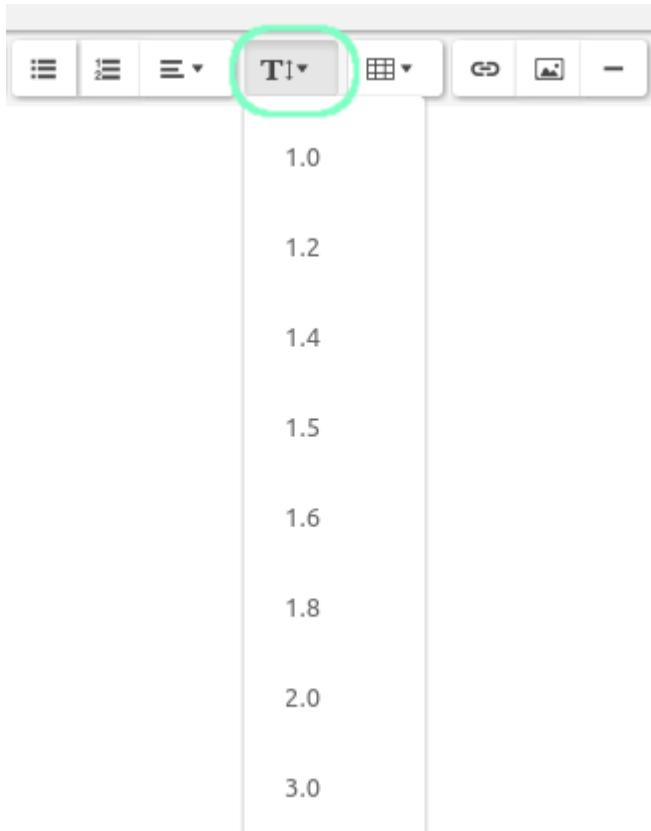
The hotkeys for these operations are:

- **Unordered List** - `Ctrl+Shift+7`
- **Ordered List** - `Ctrl+Shift+8`
- **Left align** - `Ctrl+Shift+L`
- **Center align** - `Ctrl+Shift+E`
- **Right align** - `Ctrl+Shift+R`
- **Justify full** - `Ctrl+Shift+J`
- **Decrease indent** - `Ctrl+Shift+Tab`
- **Increase indent** - `Ctrl+Tab`

[Back to button group list](#)

Line Height

Offers a dropdown menu that allows you to set the line-height of either the active paragraph or the currently selected paragraphs between **1.0** and **3.0** by increments of **1.0, 1.2, 1.4, 1.5, 1.8, 2.0, and 3.0**

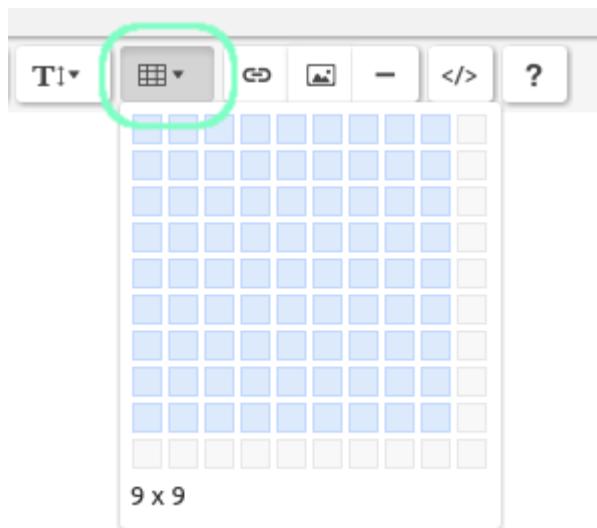


Hint: When you make a selection, you do not need to select the entire paragraph. The selection's edges will mark active paragraphs. The line height adjustment will be performed on all full paragraphs, starting with the one inside which the selection starts, and ending with the one, inside which the selection ends.

[Back to button group list](#)

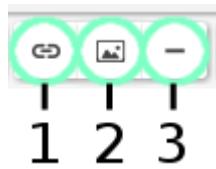
Insert Table

This button will open a drop down graphical menu for drawing a table grid, with a maximum size of **10x10**, that can be easily inserted into the document



[Back to button group list](#)

Insert Link, Image, and Horizontal Ruler



This group has the following three buttons

- **Insert Link (1)**
- **Insert Image (2)**
- **Insert Horizontal Ruler (3)**

Insert Link

The first button will open a dialog, which allows you to add a hyperlink to the text. The dialog allows for specifying the text to display, and the link to follow, when clicked, with a checkbox allowing to set the link to be opened in a new tab or window. The dialog can also be invoked by pressing **Ctrl+K**

Insert Link

To what URL should this link go?

Open in new window

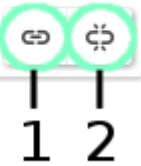
INSERT LINK

If you select some text to apply the link to, before pressing the button, the selection will automatically populate the *Text to display* field. If you made no selection, you will need to specify a text to be displayed. If you leave the field empty and start typing a URL, it will automatically populate the text to display field, which you can later modify.

To edit or remove links, you can just click inside the link, and use the buttons that appear on the popup.

<https://www.tagspaces.org/>

<https://www.tagspaces.org/>

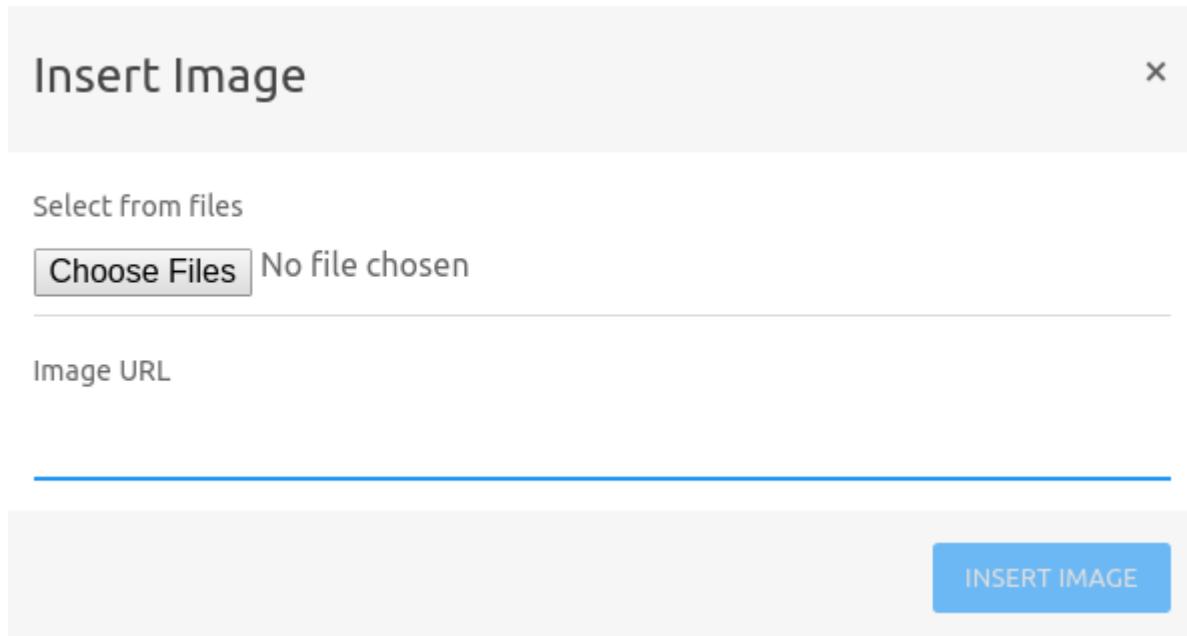


The first button (**1**) will allow you to edit the link, while second (**2**) will remove it.

Hint: Links can also be added to the documents by typing the URL, and pressing enter. A well formed URL will automatically turn into a link.

Insert Image

The second button in the group will also open a dialog, which lets you insert a picture from either your computer, or from a URL.



Insert Horizontal Ruler

The last button will insert a simple horizontal ruler, (a HTML `<hr/>` tag) at the point where the cursor is currently located. The hotkey to quickly insert a horizontal ruler is `Ctrl+Enter`.

Hint This button does not respect paragraph endings. If you press this button at the middle of a paragraph, it will break the paragraph at that point.

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Code view



This is a toggle to show plain HTML code on a dark background, where the formatting buttons are disabled, and you can edit the HTML code directly.

```
<p><span style="color: rgb(68, 68, 68); font-family: inherit; font-size: 56px; letter-spacing: 0.1px;">Browsing Your Files</span><br></p>
<p>When you navigate to a folder in your active location, the files contained in the selected folder will be displayed on the main file browsing area of the user interface. TagSpaces offers flexible views to display your files. These views are called <strong>perspectives</strong>.</p>
<h2>Perspectives overview</h2>
<p>Perspectives are not an integral part of TagSpaces, but exist as modular extensions. This modular approach allows for more flexibility, easier development, and customizability of each separate perspective. By default, there are four perspective extensions included in TagSpaces, which are:</p><ul>
<li><a href="http://extensions/perspectiveList.html">List Perspective</a> - Presenting your files as list, optimized for simple file management.</li>
<li><a href="http://extensions/perspectiveGrid.html">Grid Perspective</a> - Presenting your files as grid of cards, with file-preview thumbnails if enabled. Unlike the List Perspective, the grid can also display folders.</li>
<li><a href="http://extensions/perspectiveImageSwiper.html">ImageSwiper Perspective</a> - A perspective optimized for browsing and viewing image files. Best used with folders containing photos or images.</li>
<li><a href="http://extensions/perspectiveGraph.html">FolderViz Perspective</a> - This is an experimental perspective which applies some information visualization concepts to presenting your folder and file structures.</li>
</ul>
```

Pressing the button again, will return to the WYSIWYG mode.

Hint: Code highlighting for the HTML view is not currently implemented.

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Help



The last button will display a summary of all the keybindings. If you prefer to use hotkeys, you will find a quick reference here.

Help

X

ENTER	Insert Paragraph
CTRL+Z	Undoes the last command
CTRL+Y	Redoes the last command
TAB	Tab
SHIFT+TAB	Untab
CTRL+B	Set a bold style
CTRL+I	Set a italic style
CTRL+U	Set a underline style
CTRL+SHIFT+S	Set a strikethrough style

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Creating ToDo Lists

The recently added feature of interactive checkboxes makes TagSpaces ideal for creating simple, yet flexible **ToDo lists**. Pressing the [Add Checkbox Button](#) button will insert a checkbox anywhere in the text.

For **ToDo Lists**, you would ideally want the checkbox to be the very first character of a list, although you are not limited by placement. To make your list multi-level (i.e. sub-items under list items), you can use the **Increase Indent** feature (see [Toolbar Buttons -> Lists and Alignment](#)) on the desired line, by either pressing its button or using its hotkey (`Ctrl+Tab` to increase indent, `Ctrl+Shift+Tab` to decrease intent).

The screenshot shows the CKEditor toolbar at the top with various buttons for text styling (bold, italic, underline, etc.) and document structure (list item, another list item, checked list item, etc.). Below the toolbar is a list of checkboxes. Some checkboxes are checked (blue checked box), while others are empty (grey outline). A blue circle highlights the first checkbox in the list.

- List item
- Another list item
- Checked list item
- Another checked list item
- List item with sub items
 - Indented list item
 - Another indented list item
 - Checked indented list item
 - Another indented list itemIndented list item with sub-item
 - Double indented list item
 - Double indented list item with sub-item
 - Triple indented list item, checked



Hint The interactive checkboxes only work in editor mode. When in HTML preview mode, you can see the current state of the box, but cannot change it. To make a list interactive, switch to editor mode, by pressing the little pencil icon at the top of the preview.

Key bindings

Below you can find a summary of all the hotkeys you can use in the HTML Editor

Hint: Mac users should use the `Cmd` key, where `Ctrl` is mentioned

- `Ctrl+Z` - Undo the last command
- `Ctrl+Y` - Redo the last command
- `Tab` - Insert Tab
- `Shift+Tab` - Remove tab
- `Ctrl+B` - Set a bold style

- `Ctrl+I` - Set an italic style
- `Ctrl+U` - Set an underline style
- `Ctrl+Shift+S` - Set a strikethrough style
- `Ctrl+\` - Clear all styles
- `Ctrl+Shift+L` - Set left align
- `Ctrl+Shift+E` - Set center align
- `Ctrl+Shift+R` - Set right align
- `Ctrl+Shift+J` - Set full align
- `Ctrl+Shift+7` - Toggle unordered list
- `Ctrl+Shift+8` - Toggle ordered list
- `Ctrl+Tab` - Indent on current paragraph
- `Ctrl+Shift+Tab` - Outdent on current paragraph
- `Ctrl+0` - Change current paragraph's style to plain paragraph (`<p>` tag)
- `Ctrl+1` - Change current paragraph's style to H1
- `Ctrl+2` - Change current paragraph's style to H2
- `Ctrl+3` - Change current paragraph's style to H3
- `Ctrl+4` - Change current paragraph's style to H4
- `Ctrl+5` - Change current paragraph's style to H5
- `Ctrl+6` - Change current paragraph's style to H6
- `Ctrl+Enter` - Insert horizontal rule
- `Ctrl+K` - Show Link Dialog

Text Editor

When you edit a plain text file, or any unsupported file format that displays the edit button, the simple text editor will open.

1 This is a random text file, with no meaningful content.
2
3 Its sole purpose is to demonstrate the workings of the plain text editor.
4
5 When it's not fulfilling its purpose, it just sits there on the hard drive, pondering the
meaninglessness of existence.
6
7 Then it gets deleted. Forever. Nobody will even remember it.



The only extra the text editor offers is basic code highlighting for some common programming languages, and numbered lines.

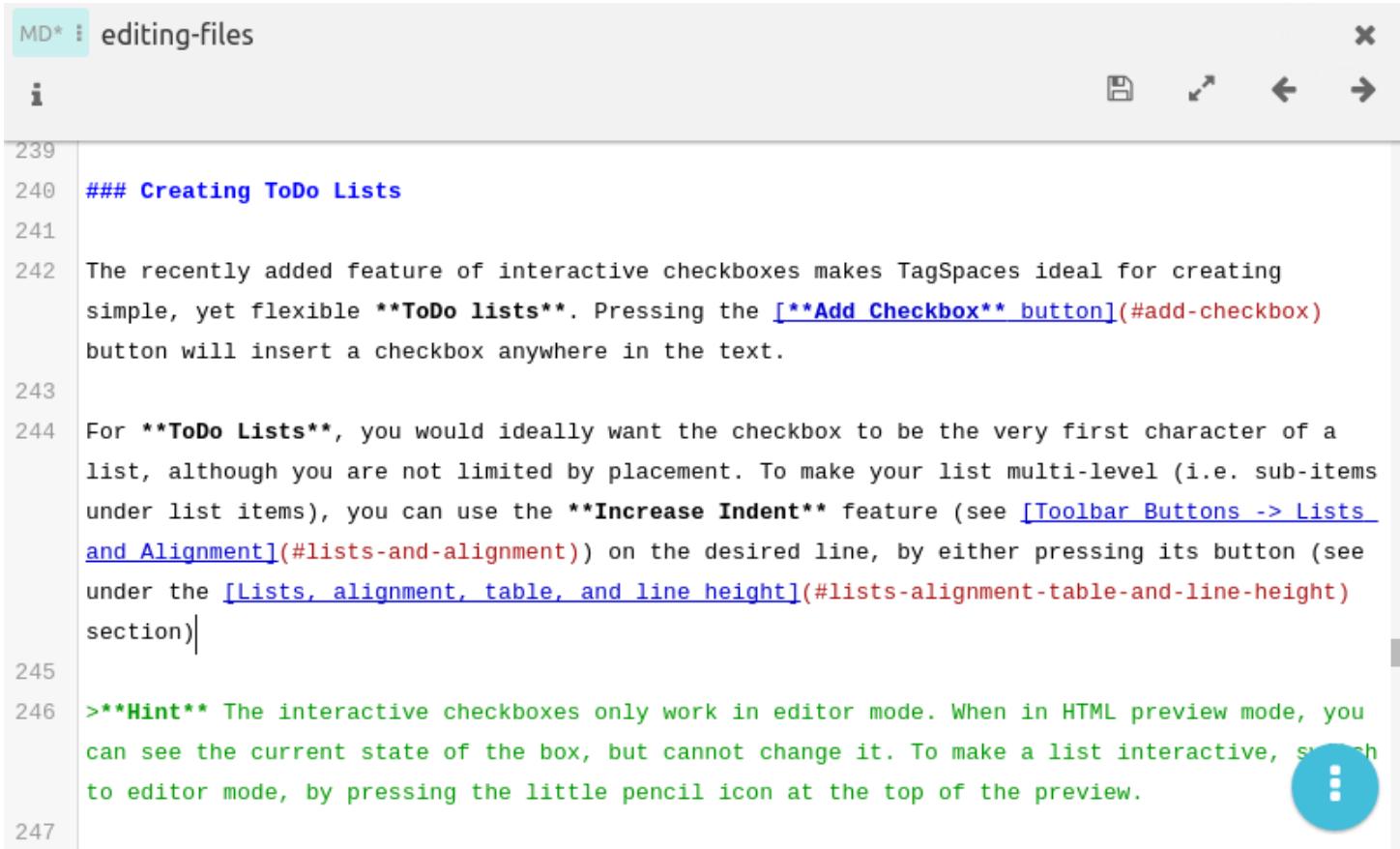
```
1 d3 = function() {  
2     var d3 = {  
3         version: "3.2.0"  
4     };  
5     if (!Date.now) Date.now = function() {  
6         return +new Date();  
7     };  
8     var d3_document = document, d3.documentElement = d3_document.documentElement, d3_window =  
window;  
9     try {  
10         d3_document.createElement("div").style.setProperty("opacity", 0, "");  
11     } catch (error) {  
12         var d3_style_prototype = d3_window.CSSStyleDeclaration.prototype, d3_style_setProperty =  
d3_style_prototype.setProperty;  
13         d3_style_prototype.setProperty = function(name, value, priority) {  
14             d3_style_setProperty.call(this, name, value + "", priority);  
15         };  
16     }  
17     d3ascending = function(a, b) {  
18         return a < b ? -1 : a > b ? 1 : a >= b ? 0 : NaN;  
19     };
```



The text editor will keep the option to print from the plain text viewer.

MarkDown Editor

When you open a MarkDown file for editing from the [MarkDown Viewer](#), it will be opened with the same **Text Editor**, any plain text file would, offering inline highlighting of Markdown syntax.



The screenshot shows a code editor window titled "MD* :: editing-files". The content is a MarkDown file with the following text:

```
239
240 ### Creating ToDo Lists
241
242 The recently added feature of interactive checkboxes makes TagSpaces ideal for creating simple, yet flexible **ToDo lists**. Pressing the \[\*\*Add Checkbox\*\* button\]\(#add-checkbox\) button will insert a checkbox anywhere in the text.
243
244 For **ToDo Lists**, you would ideally want the checkbox to be the very first character of a list, although you are not limited by placement. To make your list multi-level (i.e. sub-items under list items), you can use the **Increase Indent** feature (see \[Toolbar Buttons -> Lists and Alignment\]\(#lists-and-alignment\)) on the desired line, by either pressing its button (see under the \[Lists, alignment, table, and line height\]\(#lists-alignment-table-and-line-height\) section)
245
246 >**Hint** The interactive checkboxes only work in editor mode. When in HTML preview mode, you can see the current state of the box, but cannot change it. To make a list interactive, switch to editor mode, by pressing the little pencil icon at the top of the preview.
247
```

A blue circular FAB (Floating Action Button) with three vertical dots is located in the bottom right corner of the editor area.

The difference between MarkDown and plain text editors is the two additional functions in its **FAB Overflow Menu**: *MarkDown Preview (1)*, or *MarkDown Help (2)*.



239
240 **### Creating ToDo Lists**
241
242 The recently added feature of interactive checkboxes makes TagSpaces ideal for creating simple, yet flexible **ToDo lists**. Pressing the [\[**Add Checkbox** button\]\(#add-checkbox\)](#) button will insert a checkbox anywhere in the text.
243
244 For **ToDo Lists**, you would ideally want the checkbox to be the very first character of a list, although you are not limited by placement. To make your list more readable under list items), you can use the **Increase Indent** feature (see [\[I and Alignment\]\(#lists-and-alignment\)](#)) on the desired line, by either increasing the indent under the [\[Lists, alignment, table, and line height\]\(#lists-alignment\)](#) section)
245
246 >**Hint** The interactive checkboxes only work in editor mode. When in preview mode, you can see the current state of the box, but cannot change it. To make a change, switch back to editor mode, by pressing the little pencil icon at the top of the window.
247

Print

Markdown Preview 1

MarkDown Help 2

About

The first option will open a popup window, presenting a formatted preview of the MarkDown file, similar to what you would see in the MarkDown viewer

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Creating ToDo Lists

The recently added feature of interactive checkboxes makes TagSpaces ideal for creating simple, yet flexible **ToDo lists**. Pressing the [Add Checkbox button](#) button will insert a checkbox anywhere in the text.

For **ToDo Lists**, you would ideally want the checkbox to be the very first character of a list, although you are not limited by placement. To make your list multi-level (i.e. sub-items under list items), you can use the [Increase Indent](#) feature (see [Toolbar Buttons -> Lists and Alignment](#)) on the desired line, by either pressing its button (see under the [Lists, alignment, table, and line height](#) section)

Hint The interactive checkboxes only work in editor mode. When in HTML preview mode, you can see the current state of the box, but cannot change it. To make a list interactive, switch to editor mode, by pressing the little pencil icon at the top of the preview.



The second option will offer some basic help about MarkDown syntax and formatting

MarkDown Syntax Reference



Bold	**bold**
<i>Italics</i>	<i>*italics*</i>
Strikethrough	~~strikethrough~~
Header	# H1 ## H2 ### H3
• item	* item
Blockquote	> blockquote
Link	[title](http://)
Image	![alt](http://)
code	`code` var code = "formatted"; `` `(for line break click shift+enter)` var code = "formatted";



Linking local files and images

Markdown editor will also allow you to **link local files and images**, from within your connected location, using a path, relative to your currently active folder. **Linked local images** will be shown embedded in the current markdown preview, while **linked files** will open in the default external application, defined by your operating system.

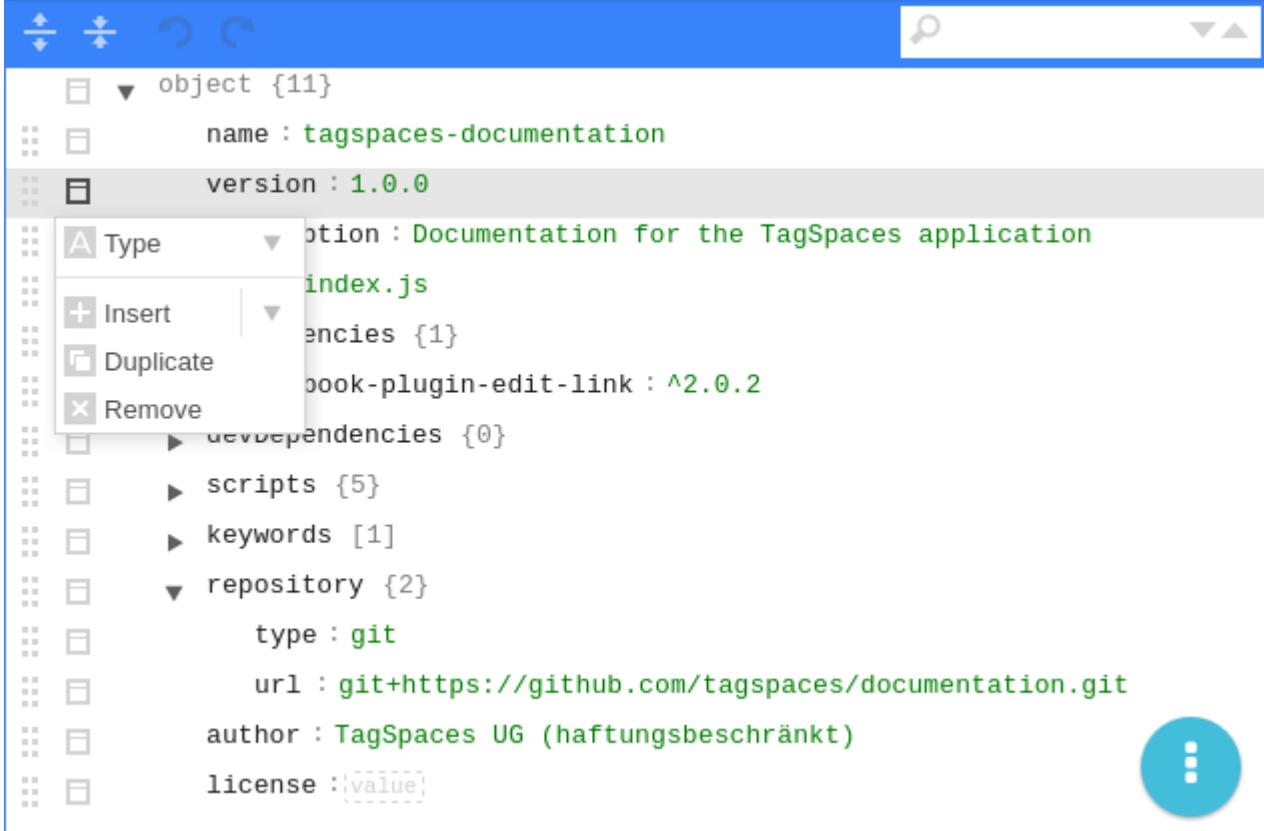
For example he link [link text](images/picture.jpg) will show the file named picture.jpg (located in the images subfolder of the folder your file is located) in the markdown viewer; while [link text](files/more_files/example.pdf) will open the file named example.pdf (located in the more_files subfolder of the files folder, located in the current folder) in an external PDF viewer.

To enter a relative path, you can usually use UNIX style slashes (/) in paths, e.g. path/to/file/filename.ext , as node.js upon which TagSpaces is built, will handle them properly even on Windows. This allows for interoperability across different Operating Systems. If you only use Windows however, you can use a backslash (\), e.g. path\to\file\filename.ext , if you prefer to, but such paths will not be understood on any other system, including Android.

Hint TagSpaces only understands relative paths. You cannot reference any level above your current folder, or the root of your connected location, but might only link files located in the currently active folder, or an subfolders within.

JSON Editor

Editing `JSON` files will build upon the functionality you've already seen in the **JSON Preview mode**.

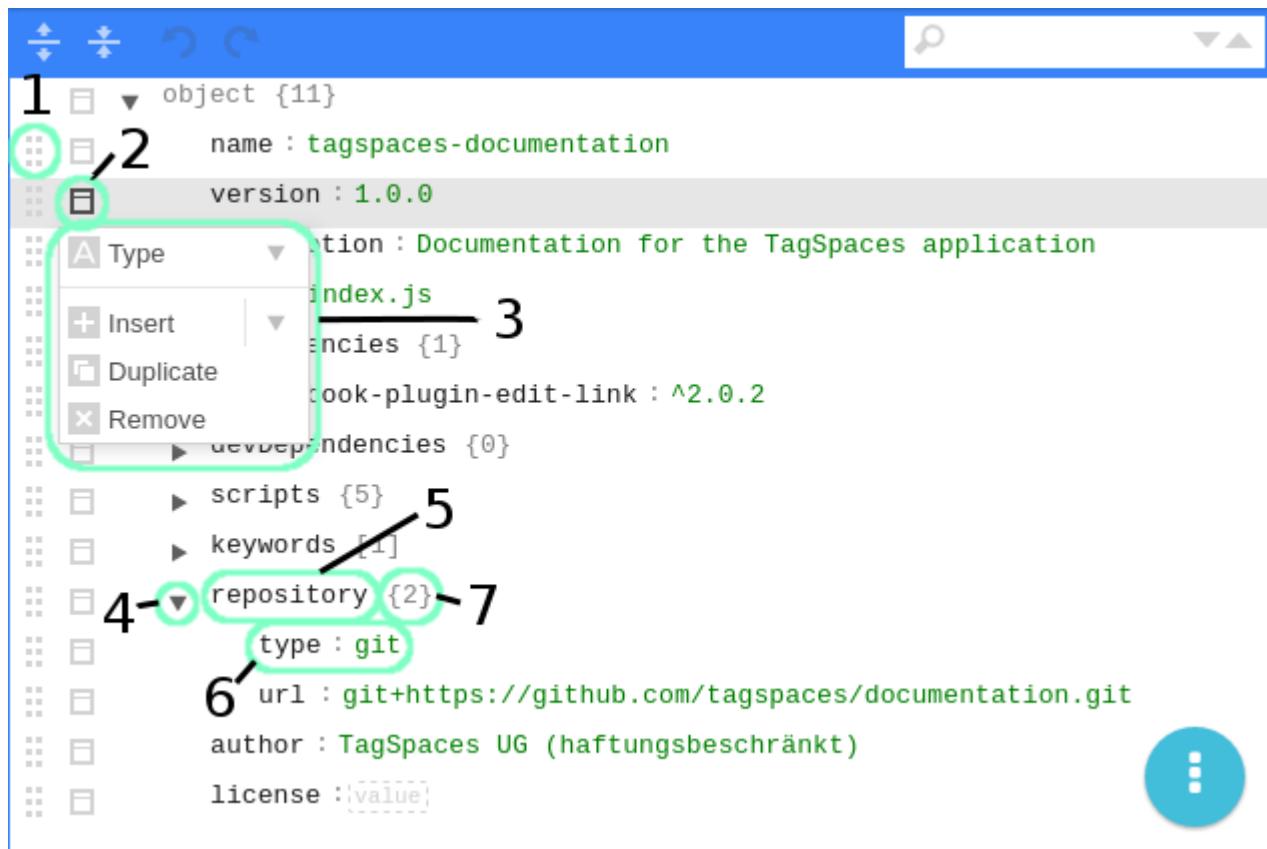


```
object {11}
  name : tagspaces-documentation
  version : 1.0.0
  Type : Documentation for the TagSpaces application
  index.js
  dependencies {1}
    book-plugin-edit-link : ^2.0.2
  devDependencies {0}
  scripts {5}
  keywords [1]
  repository {2}
    type : git
    url : git+https://github.com/tagspaces/documentation.git
    author : TagSpaces UG (haftungsbeschränkt)
  license :[value]
```

The top row of the editor will offer a basic toolbar, with some common actions such as **Expand all fields (1)**, **Collapse all fields (2)**, **Undo** and **Redo (3)** and a search box (4)



Each field has some useful controls that can help manipulate and rearrange `JSON` files easily.



- On the left edge, there is a drag handle, allowing for easy movement of each row. **(1)**
- Next to the drag handle there is an **Action Menu Button** **(2)**, which opens the **Action Menu** **(3)**, offering useful actions on each field, such as:
 - You can choose or change the **Type** of the field, choosing from *Auto*, *Object*, *Array*, or *String*
 - You can **Insert** an *Array*, *Object*, or *String* inside any field. (There is also an *Auto* mode for insertion). Inserting will place the new field **before** the selected field.
 - When selecting the **Action menu** on the last member of an *Object* or *Array*, you can also **Append** the same categories, which will place the new field **after** the last item.
 - Objects* and *Arrays* will also allow for **Sorting**, as either *Ascending* or *Descending**
 - Finally you can **Duplicate** or **Remove** any field from the hierarchy, (apart from the root)
- To the right of the Action menu button, there is an **Open/Close chevron** **(4)**, which can expand or collapse each field.
- Finally you have the field itself, with one **(5)** (for arrays and objects) or two editable sections **(6)** (for string type), and an optional, read only information field **(7)**, that

displays the number of sub-fields, in either curly brackets { } (for objects), or square brackets [] () for arrays.

The **FAB Overflow Menu** will offer to either **Print** the file, or display a **JSON Help** menu, which gives a summary of the numerous key combinations that can be used to work on JSON files even faster.

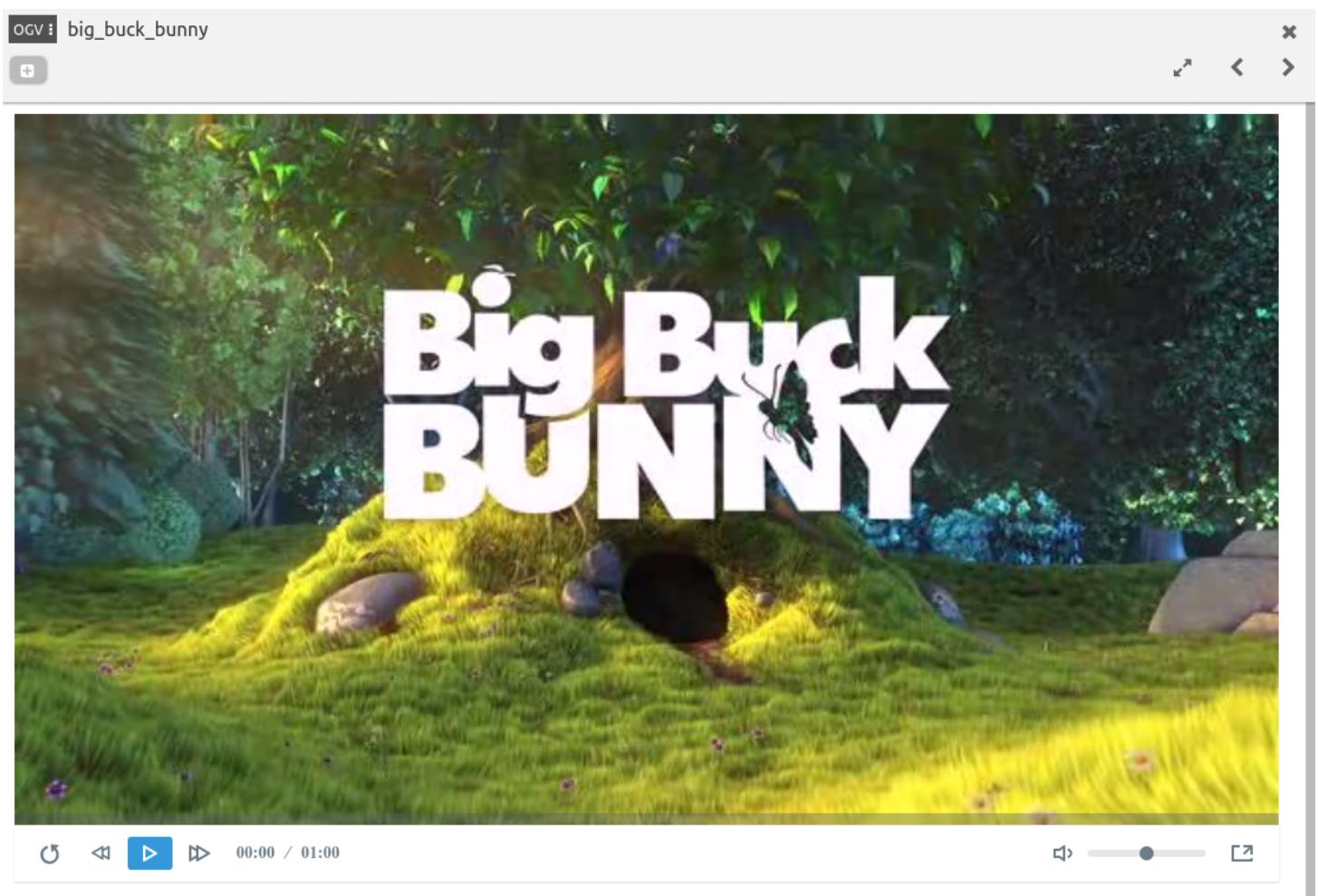
viewerAudioVideo

Audio Video Player for TagSpaces

A TagSpaces extension allowing playing of audio and video files.

Features

- Playing audio and video files
- Fullscreen mode
- This extension will trigger the opening of the next file in the current folder on finishing playback, allowing you for example to listen many audio files one after another like in a regular music player.



The supported audio and video formats depend on the underlaying browser platform.

Used libraries

This extension thankfully relays on the following great libraries:

- [plyr](#)

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on
github.com/tagspaces/viewerAudioVideo

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerBrowser

General Viewer for TagSpaces

A TagSpaces extension allowing to open files in the embedded browser.

Features

- opens various file format supported in the underlborwser

Used libraries

no dependencies

Installation

This extensios is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on
github.com/tagspaces/viewerBrowser

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

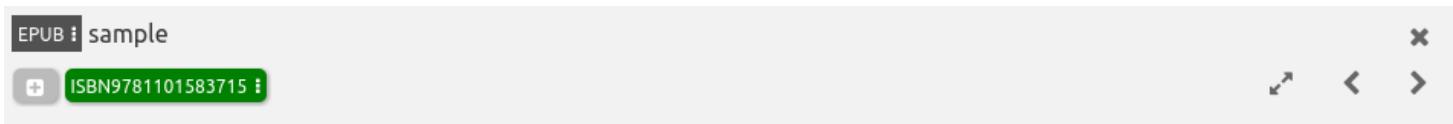
viewerEPUB

EPUB Viewer for TagSpaces

A TagSpaces extension allowing you to open ebooks in EPUB format.

Features

- Previewing ebooks in EPUB format



It's stunning how much news is now driven by such releases—reputable or otherwise. A LexisNexis search of major newspapers for the words “in a press release” brings back so many results that the service actually attempts to warn you against trying, saying, “This search has been interrupted because it will return more than 3,000 results. If you continue with this search it may take some time to return this information.” Same goes for the phrase “announced today” and “told reporters.” In other words, newspapers depended on marketing spam literally too many times to count in the last year.

A Google blog search for “said in a press release” (meaning they quoted directly from a release) brings back 307,000 results for the same period as the LexisNexis search, and more than 4 million for all time. “Announced today” brings up more than 32,000 articles for a single week. If you get specific, an internal search of *TechCrunch* brings up more than 5,000 articles using “announced today” and 7,000 attributed citations to press releases. This pales in comparison to the *Huffington Post*, whose bloggers have written the words “announced today” more than 50,000 times and cited press

releases more than 200,000 times. And, of course, there is also talkingpointsmemo.com, whose name unintentionally reveals what most blogs and newspapers carelessly pass on to their readers: prewritten talking points from the powers that be.

Anyone can now be that power. Anyone can give blogs their talking points. To call it a sellers’ market is an understatement. But it’s the only thing I can think of that comes close to describing a medium in which dominant personalities like tech blogger Robert Scoble can nostalgically repost things on his Google+ account like the “original pitch” for publicity that the iPad start-up Flipboard had sent him.³ It’s a great time to be a media manipulator when your marks actually love receiving PR pitches.

NOT EVEN NEEDING TO BE THE SOURCE

Bloggers are under incredible pressure to produce, leaving little time for research or verification, let alone for speaking to sources. In

Used libraries

This extension thankfully relays on the following great libraries:

- [viewerEPUB](#)

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on [github.com/tagspaces/viewerEPUB](#)

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerHTML

HTML Viewer for TagSpaces

A TagSpaces extension allowing opening of HTML files.

Features

Here is a list of the key features offered by this extension.

- Offers different themes for displaying of the documents
- Zoom in and zoom out capabilities
- Printing the document
- Search for text in the current document
- Reader mode

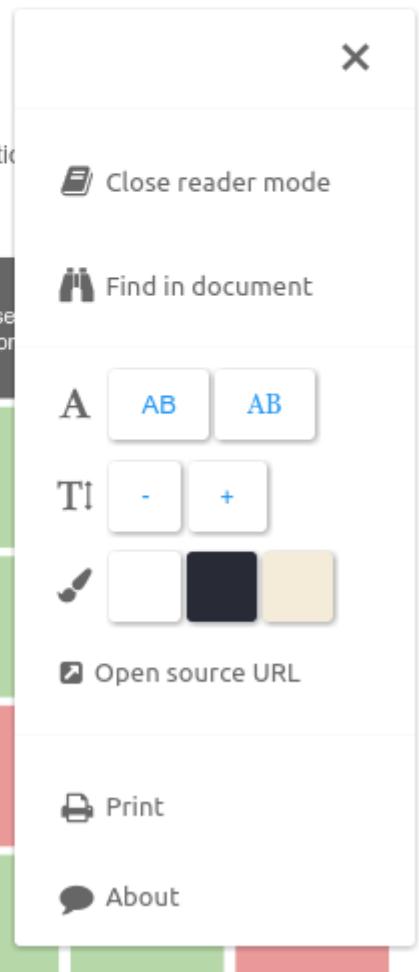
##1 Introduction

Dealing with Callback proliferation in Javascript while maintaining code quality (and mental sanity) is usually one of the most difficult aspects that a Javascript platform developer must face. In this article we will explore different types of solutions that will help you emerge victorious from your fight with "Callback Hell".

##2 Overview of Async Javascript Libraries

If you are anything like me you want a quick answer to this question. So here is a beautiful matrix:

Library	Overall Strategy	Parallelism	Eliminates Callbacks	Browser Support
Async	Traditional Library	Yes	No	Yes
Step	Traditional Library	Yes	No	Yes
Node Fibers	Kernel hack to implement threads on Node.js	Yes	Yes	No
Syncify	Language hack to halt and resume execution arbitrarily	Yes	Yes	Yes



Meta-Data

The TagSpaces [Firefox](#) and [Chrome](#) web clippers are saving the date and time of the clipping and also the url from which the webpage is saved. If this information is available in the current HTML file, the menu item [Open source URL](#) will be displayed in extension main menu, allowing you to open the URL in a external browser.

Used libraries

This extension thankfully relays on the following great libraries:

- [markdown-css](#)

- readability

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on
github.com/tagspaces/viewerHTML

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerImage

Image Viewer for TagSpaces

A TagSpaces extension allowing you to open different kinds of image formats

Features

- Opening of the following image formats: JPG, PNG, GIF, SVG, BMP, WEBP, ICO, PSD, TIFF
- Zooming, flipping and rotating of the current image
- Different background colors of the viewer for better contrast
- For JPG files it features an integrated Exif and IPTC reader with auto rotation of photos according to the Exif information
- Support image printing
- Grayscale filter



Used libraries

This extension thankfully relays on the following great libraries:

- [viewer.js](#)
- [exif.js](#)

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on
github.com/tagspaces/viewerImage

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerMD

Markdown Viewer for TagSpaces

A TagSpaces extension allowing opening of markdown files

Features

- Offers different themes for displaying of the documents
- Zoom in and zoom out capabilities
- Finding text in the current document
- Document printing

Install bower package manager

```
$ npm install -g bower
```

Get the TagSpaces source code by cloning its repository:

```
$ git clone https://github.com/tagspaces/tagspaces.git
```

Go to the data folder and install the TagSpaces extensions with bower:

```
$ cd tagspaces && cd data  
$ bower install
```

Run the native Windows, Linux or Mac OS X application with NW.js

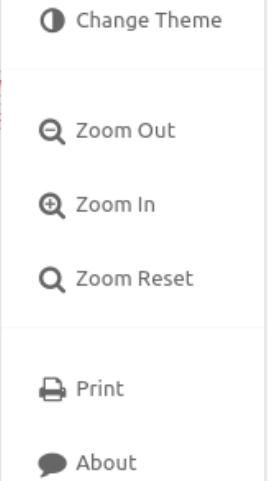
- Download [nw.js](#) prebuilt binaries for your system environment.
 - For Windows: copy `nw.exe`, `nw.pak`, `icudt.dll`, `ffmpegsumo.dll` to `tagspaces\data\node-webkit\app`
 - For Linux: copy `nw`, `nw.pak`, `icudtl.dat`, `libffmpegsumo.so` to `tagspaces\data\node-webkit\app`. If you experience issue related to libudev.so.0 read the following [article](#).
 - For Mac OS X: copy `node-webkit.app` to `tagspaces\data\node-webkit` directory.
- Run the `nw` executable file.

Run the native Windows, Linux or Mac OS X application with Electron

- Install the `electron-prebuilt` package with this command: `npm install -g electron-prebuilt`
- Goto the folder: `cd tagspaces\data\`
- Execute one of the following commands `electron .` or `npm start`

Run the Chrome/Chromium extension

- Go to the chrome `Settings` and then to `Extension`



Used libraries

This extension thankfully relays on the following great project(s):

- [marked](#)
- [markdown-css](#)

Installation

This extension is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/viewerMD

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerMHTML

MHTML Viewer for TagSpaces

A TagSpaces extension allowing you to open MHTML and EML files.

Features

- Viewing of MHTML/MHT files - MHTML is [file format](#) for saving web pages with all the images and styling information in one single file. Saving in MHTML format is natively supported by [Chrome™](#), Internet Explorer™ and Firefox™ (with the help of the [MAFF addon](#)) browsers.
- Viewing of EML files - EML is file format for saving emails. It is the default export email format of the Thunderbird email client. The *show original* email functionality in Gmail™ also exports the email in this format.
- Readability mode - for easy reading of the text content, with support for *serif* and *sans serif* font, different font size and background colors.
- Showing the creation date of the file
- Opening the source url of a MHTML file
- Finding text in the current file
- File printing

Preview of the document saved on Sun, 3 May 2014 23:32:59 +0200

jrsoftware.org // jordan russell's software

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Inno Setup Frequently Asked Questions

The Inno Setup Frequently Asked Questions contains supplemental documentation or the Knowledge Base.

Functionality

- Translating Inno Setup's Text
- Does it support MBCS (multi-byte character sets)?
- Will it support Windows Installer in the future?
- How do I change the icon of Setup.exe?
- Can Inno Setup do a conditional installation - for example, p exists? 
- Is it possible to do a silent install without using the /SILENT parameters?
- Can Setup use the value of a registry entry as the default dir

Problems

- Compiler says "Mismatched or misplaced quotes on parameter"
- My application can't find any of its files when it is started from the command line, but it works fine when I double-click the application's EXE file. 

Used libraries

This extension thankfully relays on the following great project(s):

- mailparser
- readability

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on
github.com/tagspaces/viewerMHTML

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerPDF

PDF Viewer for TagSpaces

A TagSpaces extension allowing opening, searching and navigating thought PDF files.

Features

- Opening PDF documents
- Rotating and zooming of pages
- Finding text in PDF documents
- Printing PDF documents

PDF bitmessage

high paper

Page: 3 of 5 Automatic Zoom

```

graph TD
    1[1] --> 2[2]
    1 --> 3[3]
    2 --> 4[4]
    2 --> 5[5]
    3 --> 6[6]
    3 --> 7[7]
  
```

A Bitmessage client should use a negligible amount of hard drive space and processing power. Once it starts exceeding comfortable thresholds, new addresses should be created in child streams and the nodes creating those addresses should consider themselves to be members of that stream and behave as such. From then on, if the node has no active addresses in the parent stream, they need only maintain connections with peers which are also members of this child stream. With the exception of nodes in stream 1, the root stream, nodes should occasionally connect to peers in their parent stream in order to advertise their existence. Each node should maintain a list of peers in their stream and in the two child streams. Additionally, nodes should each maintain a short list of peers in stream 1. In order to send a message, a node must first connect to the stream encoded in the Bitmessage address. If it is not aware of any peers in the destination stream, it connects to the closest parent stream for which it is aware of peers and then downloads lists of peers which are themselves in the two child streams. It can now connect to the child stream and continue this process until it arrives at the destination stream. After sending the message and listening for an acknowledgement, it can disconnect from the peers of that stream. If the user replies to the message, their Bitmessage client repeats the same process to connect to the original sender's stream. After this process has been carried out once, connecting to the destination stream a second time would be trivial as the sending node would now already have a list of nodes that are in the destination stream saved. The formulas to calculate a stream's parent and children are simple:

$$\text{Parent of } n = \begin{cases} \left\lceil \frac{n}{2} \right\rceil & \text{if } n > 1 \\ \text{null} & \text{if } n \leq 1 \end{cases}$$

$$\text{Children of } n = [n \cdot 2, (n \cdot 2) + 1]$$

5. Broadcasts

Used libraries

This extension thankfully relays on the following great project(s):

- pdf.js

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/viewerPDF

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerRTF

RTF Viewer for TagSpaces

A TagSpaces extension allowing opening of RTF files.

Used libraries

This extension thankfully relays on the following great libraries:

- [rtf.js](#)

Installation

This extensions is packaged by default with TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/viewerRTF

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

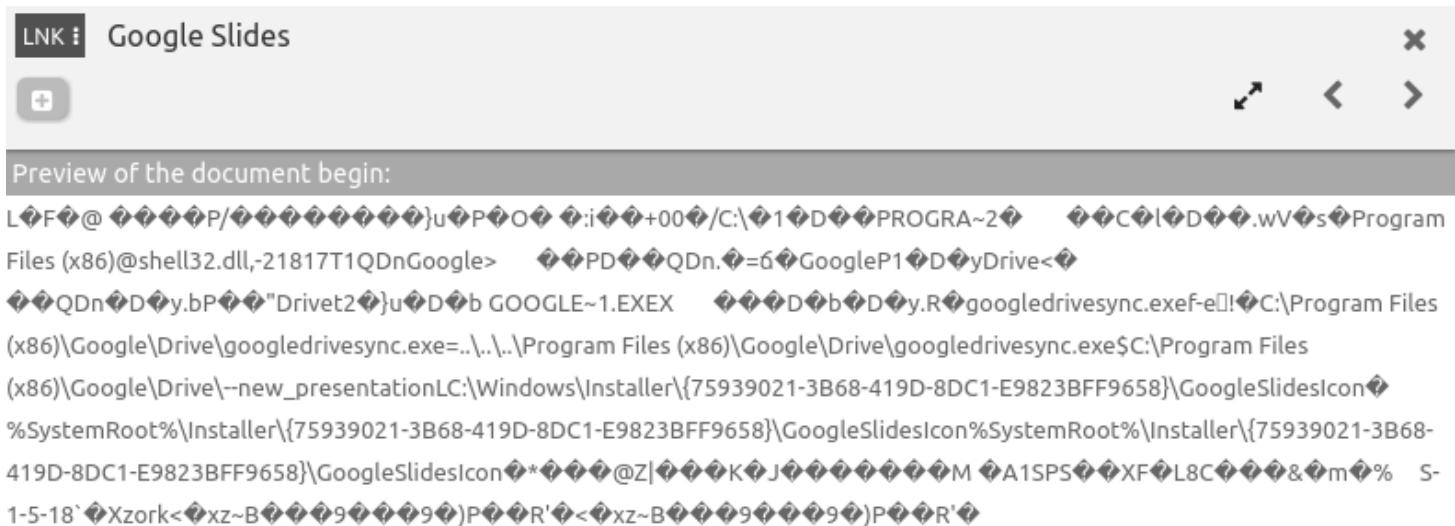
viewerText

Text Viewer for TagSpaces

A TagSpaces extension allowing you to open plain text files

Features

- Displaying the content of files as plain text



Used libraries

This extension has no external dependencies

Installation

This extension is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/viewerText

Development

If you want to extend this extension, please follow our general [extension development guide](#)

License

[MIT](#)

viewerURL

URL Viewer for TagSpaces

A TagSpaces extension allowing you to open url files created from web-browsers or bookmark managers

Features

- Enables TagSpaces to be used as bookmark management application
- Opening the links from Ubuntu's `.desktop` files, created for example by dragging URLs from the Chrome browser
- Opening the links from Window's `.url` files, created for example by Favorite Manager of Internet Explorer
- Opening the links from Ubuntu's `.website` files
- With this extensions it possible to use TagSpaces as a bookmark manager with support of tagging.



<https://seeing-theory.brown.edu/basic-probability/index.html>

[OPEN URL](#)

Chapter 1: Basic Probability

Roll the Die

Roll 100 times

Change the distribution of the different faces of the die (thus making the die biased or "unfair") by adjusting the blue bars below and observe how this changes the expectation.

Variance

Whereas expectation provides a measure of centrality, the variance of a random variable quantifies the spread of that random variable's distribution. The variance is the average value of the squared difference between the random variable and its expectation.

(Math Processing Error)

Draw cards randomly from a deck of ten cards. As you continue drawing cards, observe that the running average of squared differences (in green) begins to resemble the true variance (in blue).

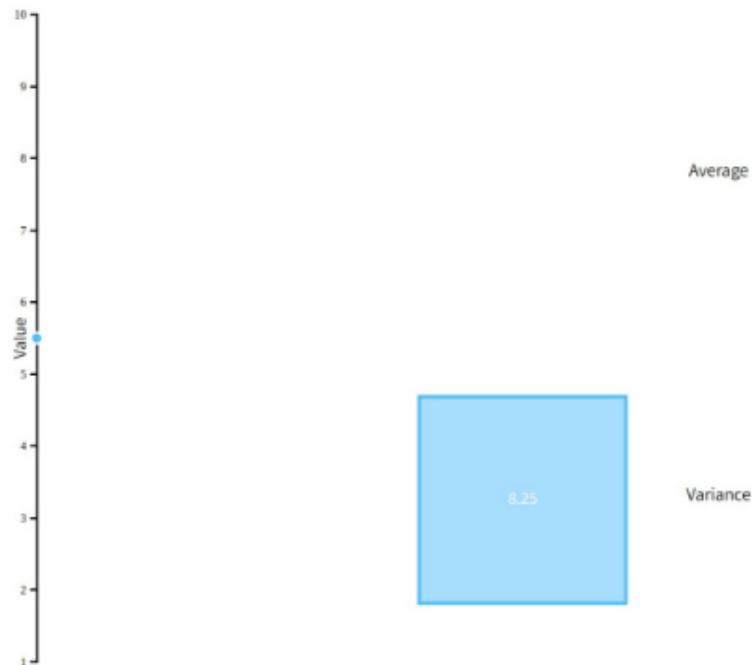
Draw a Card

Draw 100 times

Toggle which cards you want to include in the deck by clicking on them below.

1	2	3	4	5
6	7	8	9	10

Download Share



Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/viewerURL

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

viewerZIP

ZIP Preview for TagSpaces

A TagSpaces extension allowing you to preview the content of ZIP files.

Features

- Listing the content of ZIP files
- Previewing the content of the files in the ZIP container

The screenshot shows a window titled "ZIP : TestData-DirectoryMeta". At the top left is a "ZIP:" button, followed by the file name "TestData-DirectoryMeta", and a close button "X". To the right are three navigation icons: a double-headed arrow, a left arrow, and a right arrow. Below the title bar, the text "Contents of file /tmp/TestData-DirectoryMeta.zip" is displayed. The main area lists the contents of the ZIP file, which include various image and text files from different directories like "034-IMG_29263", "20090714 ES Soller", and "201410".

Contents of file /tmp/TestData-DirectoryMeta.zip

TestData-DirectoryMeta/.ts/034-IMG_29263[5star 20130809].jpg.png
TestData-DirectoryMeta/.ts/034-IMG_29263[5star 20130809].jpg.txt
TestData-DirectoryMeta/.ts/tsm.json
TestData-DirectoryMeta/034-IMG_29263[5star 20130809].jpg
TestData-DirectoryMeta/20090714 ES Soller/.ts/IMG_1523[boat sailing tipped].jpg.png
TestData-DirectoryMeta/20090714 ES Soller/.ts/IMG_1523[boat sailing tipped].jpg.txt
TestData-DirectoryMeta/20090714 ES Soller/.ts/IMG_1590[20150627].jpg.png
TestData-DirectoryMeta/20090714 ES Soller/.ts/IMG_1590[20150627].jpg.txt
TestData-DirectoryMeta/20090714 ES Soller/.ts/tsm.json
TestData-DirectoryMeta/20090714 ES Soller/IMG_1523[boat sailing tipped].jpg
TestData-DirectoryMeta/20090714 ES Soller/IMG_1590[20150627].jpg
TestData-DirectoryMeta/201410/.ts/Screenshot [wired 20140407].png.png
TestData-DirectoryMeta/201410/.ts/tsm.json
TestData-DirectoryMeta/201410/201510/.ts/Screenshot [wired 20140407].png.png
TestData-DirectoryMeta/201410/201510/.ts/tsm.json
TestData-DirectoryMeta/201410/201510/Screenshot [wired 20140407].png
TestData-DirectoryMeta/201410/Screenshot [wired 20140407].png
TestData-DirectoryMeta/Cafe Wedekind[201208 restaurant 5star].pdf
TestData-DirectoryMeta/[20141114-223749].html

Used libraries

This extension thankfully relays on the following great project(s):

- [jszip](#)

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on [github.com/tagspaces/viewerZIP](#)

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

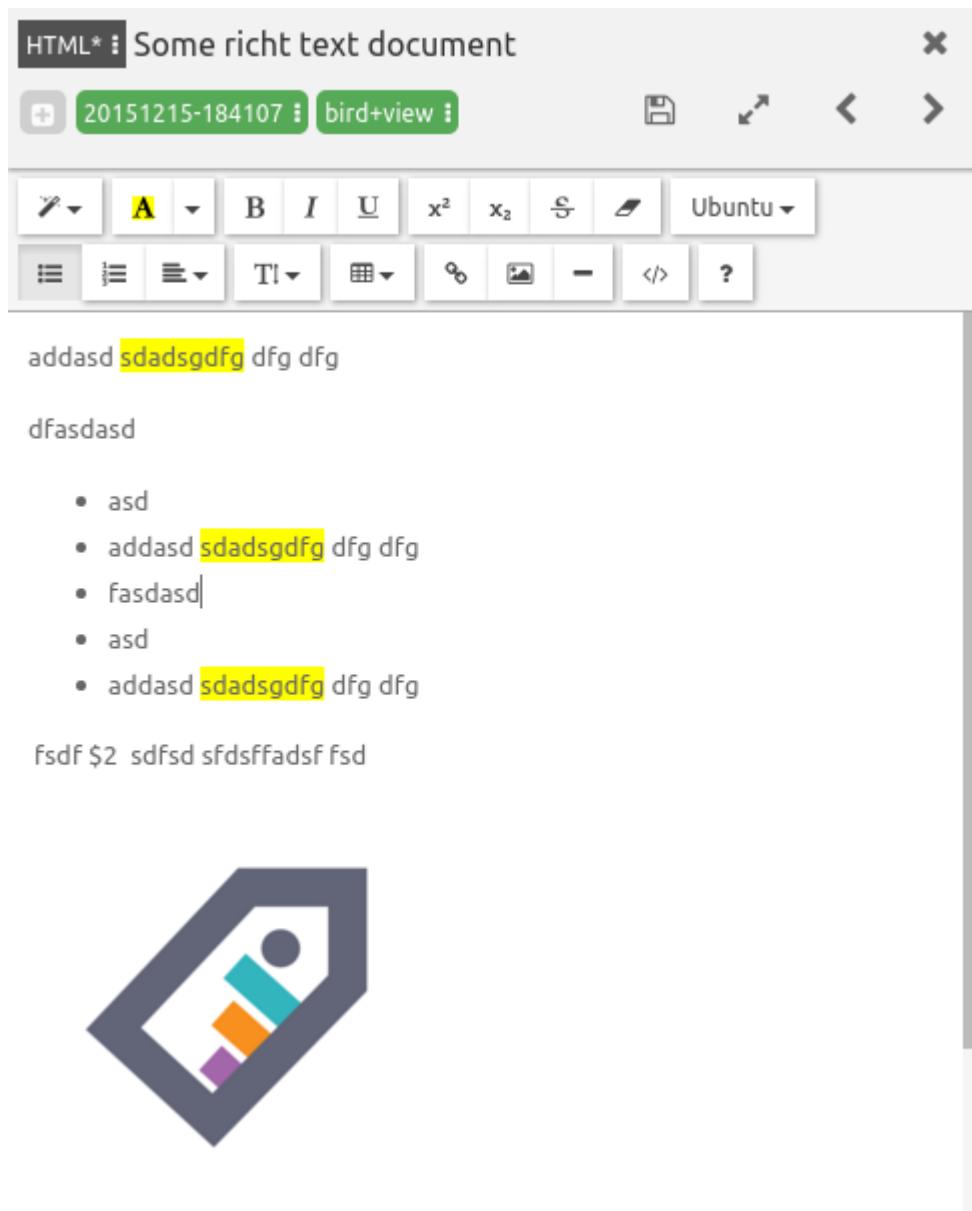
editorHTML

HTML Editor for TagSpaces

A TagSpaces extension allowing editing of HTML documents.

Features

- The standard feature set of the [summernote](#) javascript library
- Content cleaning and sanitizing
- Directly pasting images from the clipboard
- Saving all the images as dataurl in the one HTML file.



Used libraries

This extension thankfully relays on the following great libraries:

- [summernote](#) - a JavaScript library for HTML editing

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/editorHTML

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

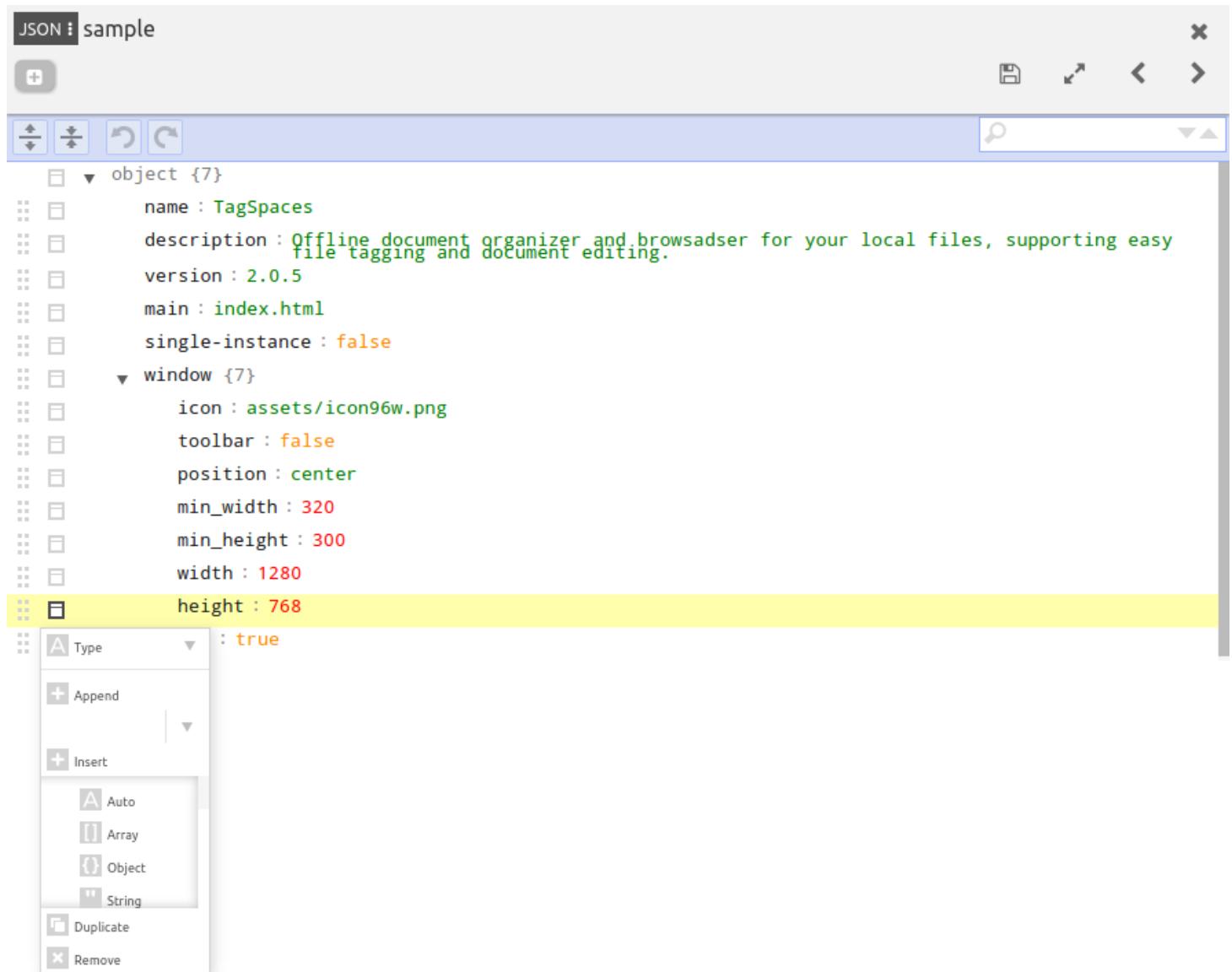
editorJSON

JSON Editor for TagSpaces

A TagSpaces extension allowing viewing and editing of JSON documents.

Features

- Open and edit JSON documents graphically



Used libraries

This extension thankfully relays on the following great libraries:

- [jsoneditor](#)

Installation

This extensions is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/editorJSON

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

editorText

Text Editor for TagSpaces

A TagSpaces extension allowing editing of text based documents.

Features

- Opening and editing of text documents
- Syntax highlighting for the following file types: h, c, clj, coffee, coldfusion, cpp, cs, css, groovy, haxe, htm, html, java, js, jsm, json, latex, less, ly, lily, lua, markdown, md, mdown","mdwn, mkd, ml, mli, pl, php, powershell, py, rb, scad, scala, scss, sh, sql, svg, textile, txt, xml

MD :: README

20140328



```
1 ! [tagspaces logo]
2 (https://raw.github.com/uggrock/tagspaces/master/data/assets/icon96.png)
3 ## Introduction
4
5 'TagSpaces' is a open source application for managing of your local files.
6 You can find more information about it on its website \[tagspaces.org\]
7 (http://tagspaces.org/). For a quick TagSpaces introduction please see this
8 \[video\] (https://www.youtube.com/embed/CJ2hYU6U-C8) on youtube.
9
10 - \[TagSpaces blog\] (http://tagspaces.org/blog/) for any news about tagspaces
11 - \[the issues tracker\] (https://github.com/uggrock/tagspaces/issues) for
12 developer support requests
13 - \[the TagSpaces wiki\] (https://github.com/uggrock/tagspaces/wiki) for end-
14 users and implementors (currently not really used)
15
16 To get updates you can:
17
18 - Subscribe to GitHub updates by clicking the "watch"
19 of this page.
20 - Subscribe to RSS feed updates for the \[master branch\]
21 (https://github.com/uggrock/tagspaces/commits/master)
22
23 ! [Built with Grunt] (https://cdn.gruntjs.com/builtwith)
24 (http://gruntjs.com/)
25
26 ## Repository Directory Structure
27
28 /data
29     -- see the next lines
```

Markdown preview

This text editor has an extended support for editing markdown files. It offers a preview of the currently edited markdown document and a short markdown syntax documentation. The markdown preview can be started from the menu item `Markdown Preview` of extensions main menu.

Previewing Markdown



Introduction

[TagSpaces](#) is an open source application for managing of your local files. You can find more information about it on its website tagspaces.org. For a quick TagSpaces introduction please see this [video](#) on youtube.

- [TagSpaces blog](#) for any news about tagspaces
- [the issues tracker](#) for developer support requests
- [the TagSpaces wiki](#) for end-users and implementors (currently not really used)

To get updates you can:

- Subscribe to GitHub updates by clicking the "watch" button up the top right of this page.
- Subscribe to RSS feed updates for the [master branch](#)

BUILT WITH GRUNT

Used libraries

This extension thankfully relays on the following great libraries:

- [codemirror](#)

Installation

This extension is packaged with any new version of TagSpaces

Source code

The source code of this extension is freely available on github.com/tagspaces/editorText

Development

If you want to extend this extensions, please follow our general [extension development guide](#)

License

[MIT](#)

Web clipping - collect everything online

Introduction

In order to provide an easy way to collect web content such as web pages, articles, PDF-documents, bookmarks, places and screenshots, we have created the TagSpaces Web Clipper browser extension.

Basic features

The browser extensions are available for [Chrome](#) and [Firefox](#). Both extensions have the following functionalities:

- Saving the current webpage as a single file including the embedded images and styling information in HTML format. Here the extension supports two modes. The default one is called **simplified**, where TagSpaces uses a [library](#) for automatic extraction of the webpage's main content without any clutter of adds or navigation. This is very useful clipping articles for example. The second one is called **full**. Here the extension tries to save all the original text and image content of the webpage.
- On Chrome we support an additional file format called MHTML, which is preserving the original look and feel of the web page as much as possible.
- Saving the a selected part of the current webpages as HTML file. TagSpaces tries to embed the contained images as data-urls in the HTML file.
- Saving a screenshot of the visible area of the current web page as a PNG file.
- Saving an URL file containing the url of the current web page. This is useful if you don't want to save the whole page, but only to make a bookmark to it.
- Saving currently opened PDF-document locally.

Before the creation of any file, the user has the ability to change the title of file and to add tags to its file name.



[Fibre](#) is a WebGL application for visualizing and coding 3d vector fields and dynamical systems. A number of presets with well-known or interesting dynamical systems are provided as below (click to launch). New vector fields can be authored in the code editor, and shared via an HTML link with the embedded code.



1 Edit file title

fibre: WebGL 3d dynamical systems visualization

2 Add tags

javascript, webdev

Multiple tags should be separated with comma. Tags should have a minimum length of 2 characters and should not contain special characters such as spaces, #, / or \.

3 Choose the saving action

SAVE EDITABLE PAGE

SAVE COMPLETE PAGE

CLIP SELECTION

TAKE SCREENSHOT

CREATE BOOKMARK

4 Organize the collected content with the TagSpaces desktop app. It is freely available on [tagspaces.org](#).

A screenshot showing the web clipper in action

The basic functionalities are completely decoupled from the desktop application of TagSpaces and so they can be used with any other application supporting HTML, MHTML, PNG, PDF or URL files.

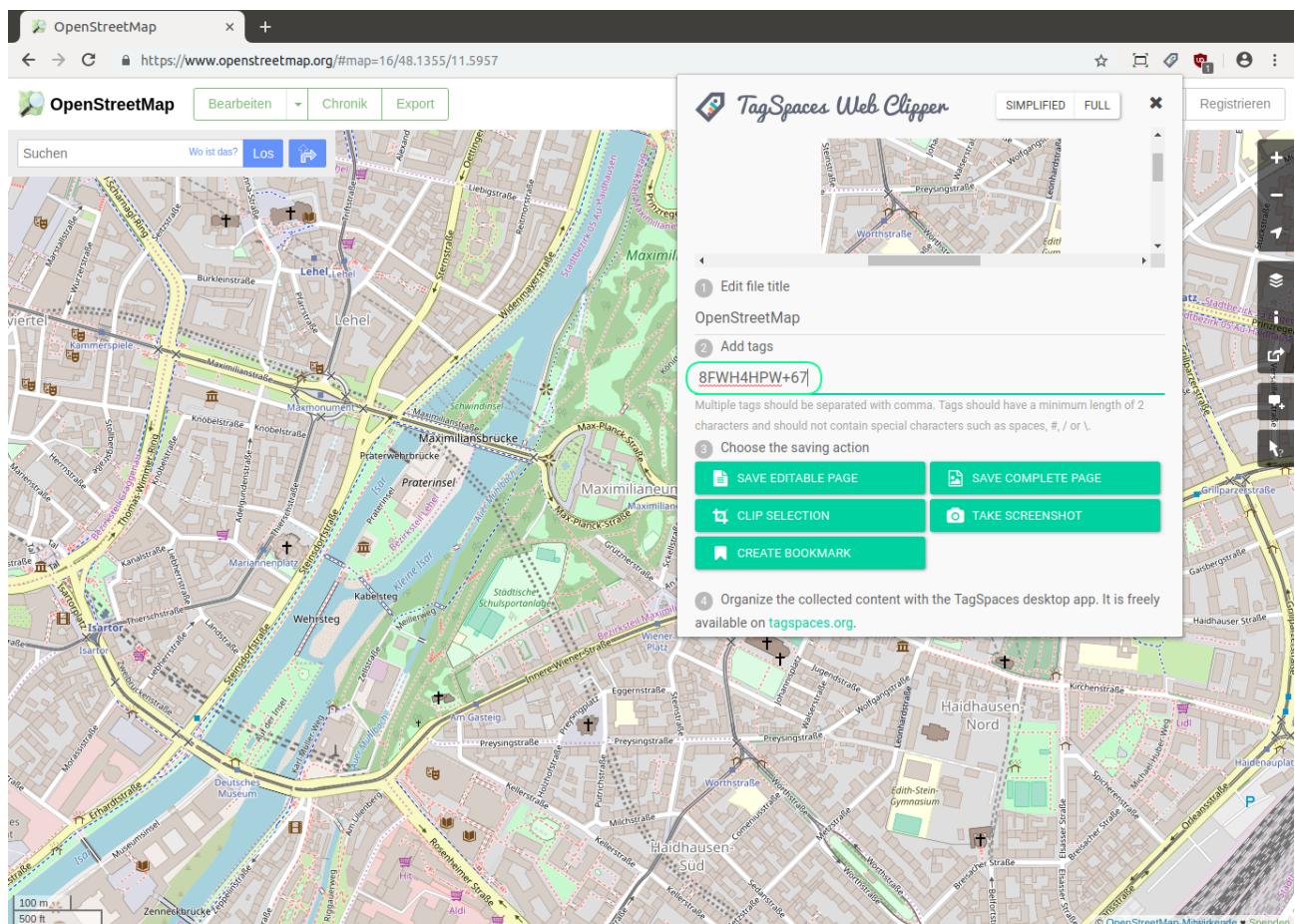
Advanced features

In addition to that we offers some features for more advanced use cases such as the following:

- Embedding the clipping timestamp and the source URL of the currently scraped web page in the HTML file. This information can be used later by previewing the file in

TagSpaces for navigation to the original URL of the clipped page.

- Integration of a screenshot of the visible part of the web site in the created HTML and URL files. If you open the URL for example is opened in the desktop app, the screenshot is extracted and shown in the file preview area. It is also used for the creation of the thumbnail for this file. In addition to that the screenshot is useful for archiving purposes, it displays the web page in the exact way you have opened it in the browser. Everybody knows that some pages change or completely disappear very often. This feature makes TagSpaces a perfect visual bookmarking tool.
- Extracting the geo coordinates from the URLs of mapping services such as OpenStreetMap and Google Maps. This information is converted to a geo tag and embedded in the name of the created file.
- The extension can create the geo tag in [Open Location Code](#) or OLC for short used as [plus codes](#) in Google Maps for example. The plus codes have the advantage that they represent the geo coordinates in a much simpler and readable way.
- By saving of a screenshot from the current web page, the web clipper adds as tags the domain of this web page, the current date and tag "screenshot". This makes the search later for such screenshots much easier in TagSpaces and other applications.



A screenshot showing the extracted geo location as plus code

The browser extensions are a practical additions to the desktop applications of TagSpaces, allowing a seamless way to collect locally and organize data from the web.

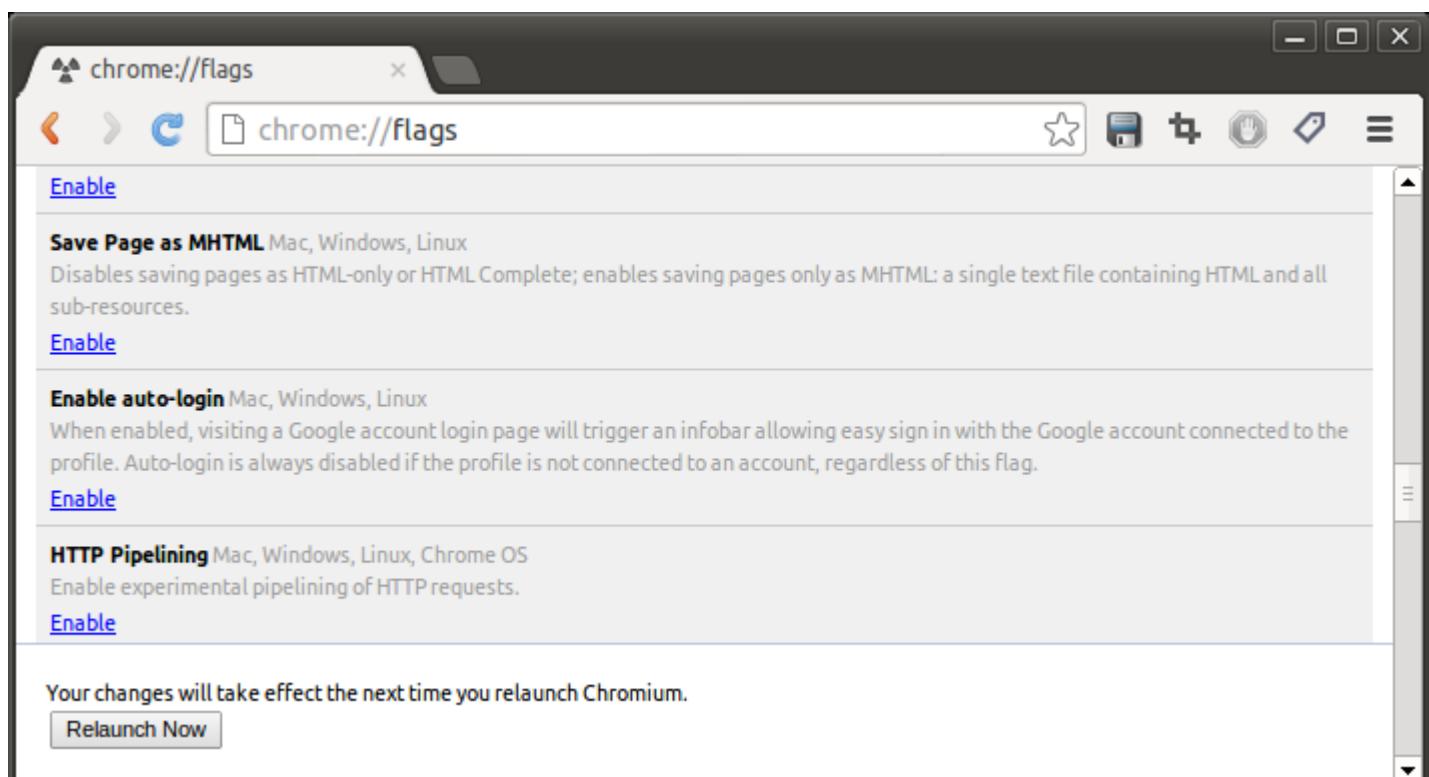
Chrome Fine-tuning

Here you will find some tips and trick for using the TagSpaces extension in the Chrome browser.

Enabling the saving of webpages as MHTML

TagSpaces is a great tool for MHTML file organization on many platforms, because it features an integrated MHTML viewer, but the question here is how you can save web pages as handy MHTML files directly out of the Chrome browser. Here you will find the answer of this question for the both browsers - Chrome and Chromium respectively. And no, you don't have to install the TagSpaces chrome extension to achieve this, but just to execute the following steps:

1. Start the Chrome/Chromium browser
2. Navigate to "chrome://flags"
3. Find the entry "Save Page as MHTML"
4. Click "enable"
5. Restart your browser
6. That's it, now the web pages will be saved by default as MHTML



Note After this activation you will not be able to save website in HTML anymore.

Adding keyboard shortcut to the web clipper in Chrome

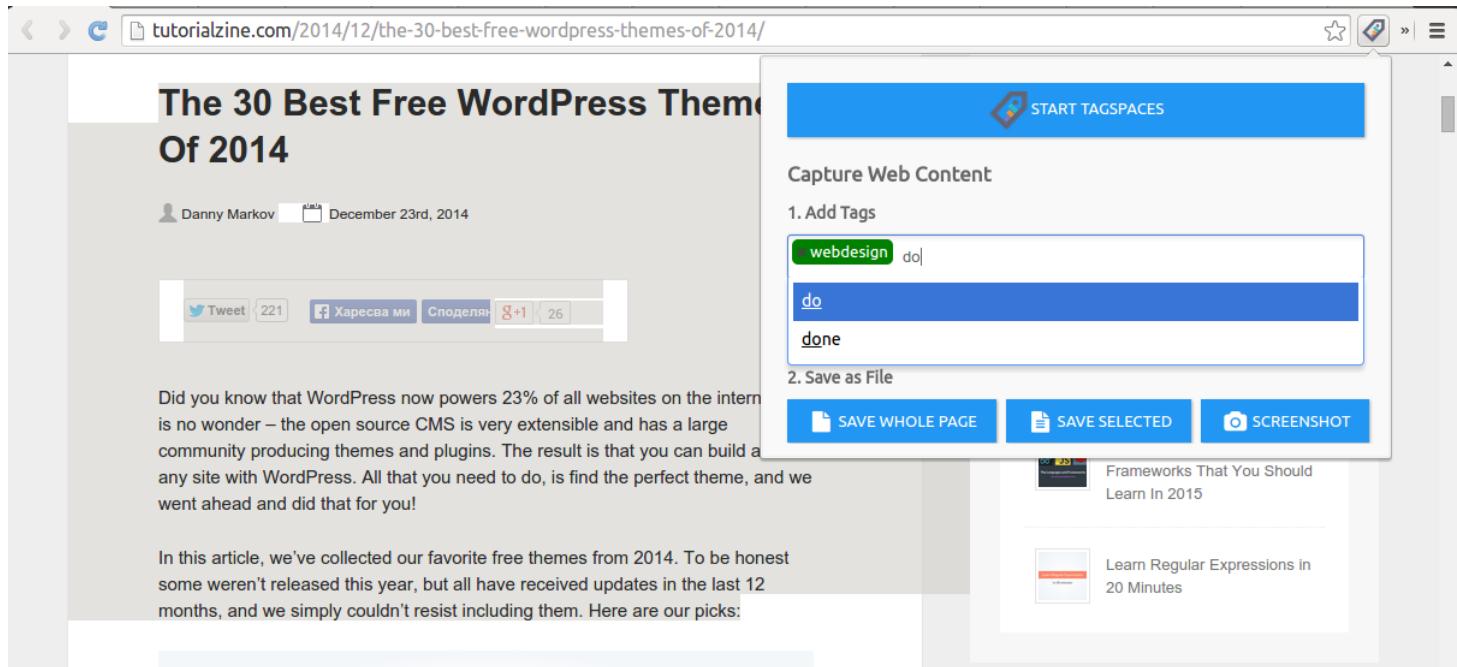
At the bottom of the extension management page in the Chrome browser you will find a link named "Keyboard shortcuts". See the red area of the screenshot below.

The screenshot shows the Chrome Extensions Management page. On the left, there's a sidebar with links for History, Extensions, Settings, and About. The main area lists extensions. The first extension is 'Chrome Apps & Extensions Developer Tool' (version 0.1.18), which is enabled. The second extension is 'Hangouts' (version 2015.204.433.3), also enabled. Both extensions have 'Details' sections showing their IDs and inspect views. Below the extensions is a 'Get more extensions' button. In the bottom right corner of the main area, there is a blue link labeled 'Keyboard shortcuts' which is enclosed in a red rectangular box.

This link opens a dialog where you can set a direct keyboard shortcut, which will open the popup area of an extension. Since currently the main functionality of the this area in TagSpaces is to scrap the current webpage, I choose for myself the shortcut `ctrl+s`, which overwrites the default save as functionality of Chrome browser. You can choose of course any other key combination, like for example `ctrl+shift+s`.

The screenshot shows a 'Keyboard Shortcuts for Extensions and Apps' dialog. It lists two extensions: 'TagSpaces' and 'Mailvelope'. For 'TagSpaces', the 'Activate the extension' dropdown contains 'Ctrl+S', which is highlighted with a red box. For 'Mailvelope', it says 'Not set'. At the bottom right of the dialog is an 'OK' button.

So now I can conveniently save and tags any page by just clicking this shortcut combination.



Download location for web clippings

In order to be asked every time, where you want to save the scraped web content, make sure to activate the checkbox "Ask where to save each file before downloading" in the advanced Chrome settings.

Downloads

Download location: [Change...](#)

Ask where to save each file before downloading

Syncing files between TagSpaces installations

Using cloud services like:

- Dropbox (TM)
- Google Drive (TM)
- Microsoft One Drive (TM)

or other P2P projects like

- [Syncthink \(TM\)](#)
- [Bittorrentsync \(TM\)](#)

Encrypted:

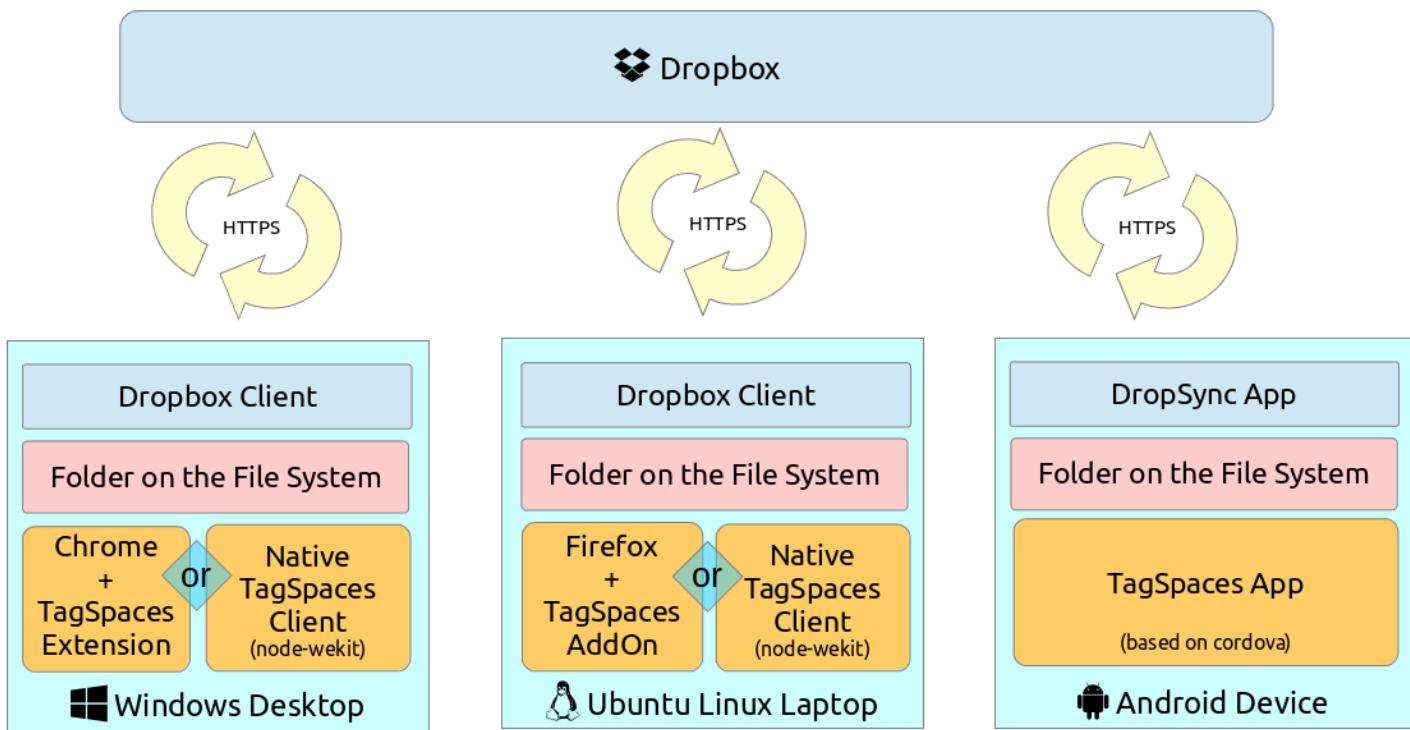
- [Cryptomator](#)

One of the most common questions I receive about TagSpaces, is about the missing files synchronization feature. The concerns of the users are that they spend an hour tagging their files on the laptop, but now they want to get the same results also on their tablet or desktop computer and vice versa. Ok, my opinion here is that TagSpaces does not need sync functionality, because all the tags are saved in the names of the files or in the so called sidecar files, which makes this meta-information extremely portable between devices. You have to just sync files and this problem is already perfectly solved by some many online services. This is one of the main differences between TagSpaces and other applications offering tagging on files. Most of those applications are using some kind of database to store the tags, which makes the transfer of this information challenging. Besides that, your tagging information in this case is locked by the vendor and you cannot migrate to another application or service without significant effort. Saving the tags in the file names make the information stick to your files, and you can find files based on the tags even with simple search functionality supplied with your operating system.

For the synchronization of the tagged files with TagSpaces, you can use any "cloud" service like [Dropbox](#) or projects like [ownCloud](#), which provides sync clients. At present, I personally use Dropbox with its native clients on my Ubuntu laptop and the [Dropsync](#) app on my mobile phone and tablet device. This tool combination works perfectly with TagSpaces and the way it preserves tagged information. And since there are TagSpaces

clients for many platforms (currently Windows, OS X, Linux and Android), your tagged files can be synced and used almost everywhere.

The following diagram shows my current utilization of Dropbox in connection to TagSpaces.



If you are using TagSpaces with any other sync service, please post a comment below. I am always keen to know details on the way you are using TagSpaces.

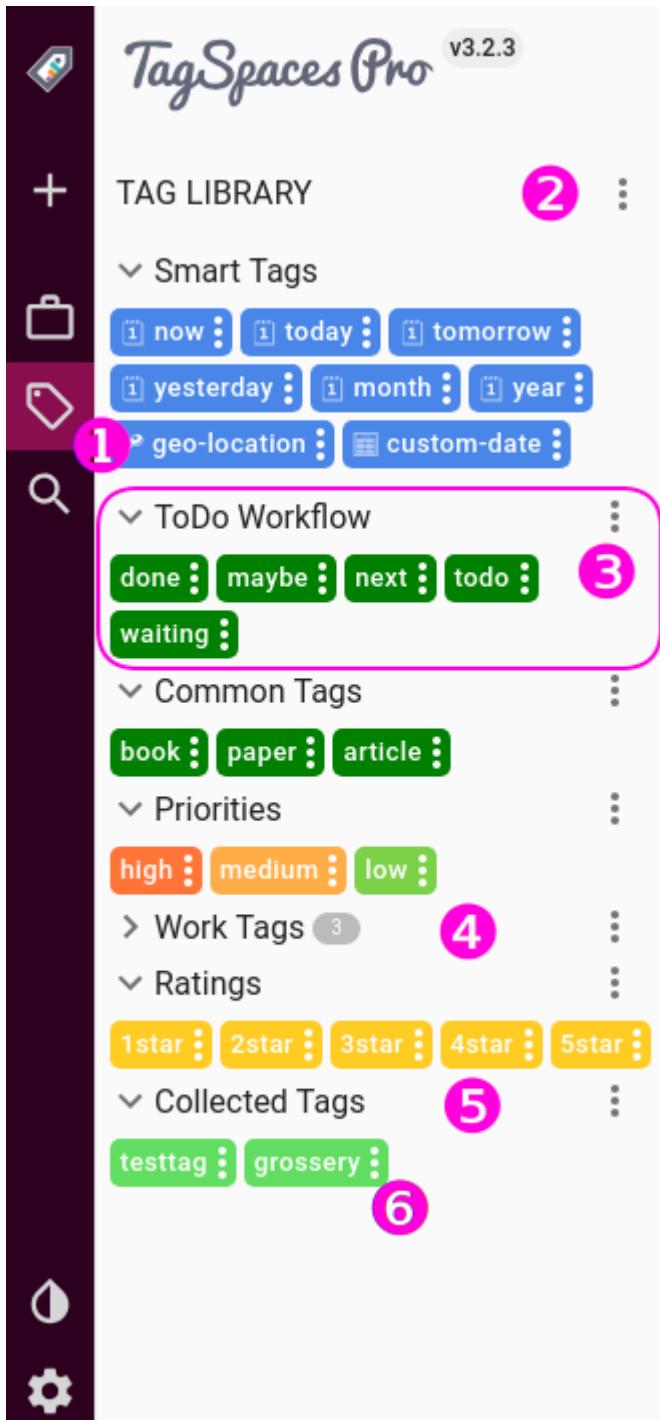
Collaboratively using tags and tag groups

Introduction

A common requirement for many TagSpaces users is sharing tag and tag groups across computer networks and devices. This article runs through the steps required for setting up TagSpaces in order to use a shared tag groups. It will guide you through the process of exporting the tag groups, editing them in externally and re-importing or reusing them in other installations. After understanding how TagSpaces handles tag groups you will be able to achieve the following use cases with our application:

- Sharing tag groups with other TagSpaces users on a shared network drive or shared Dropbox / Google Drive / Syncthing accounts.
- Using the same tag groups in other installation of the application on platforms such as Android

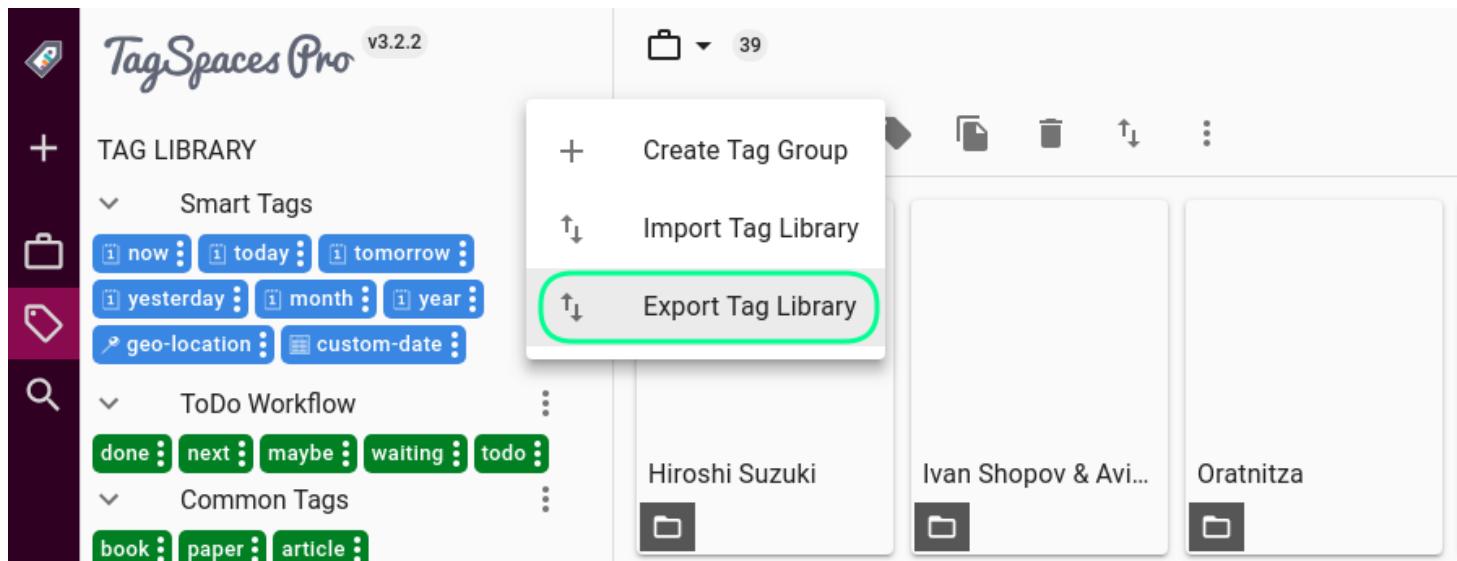
But before we start, let's define some terms from the TagSpaces jargon. **Tag Library** is a collection of tag groups, which can be opened by clicking on the button located in the bottom left corner of the application. A **Tag Group** is a collection of tags (3). For clarification you can see the screenshot bellow.



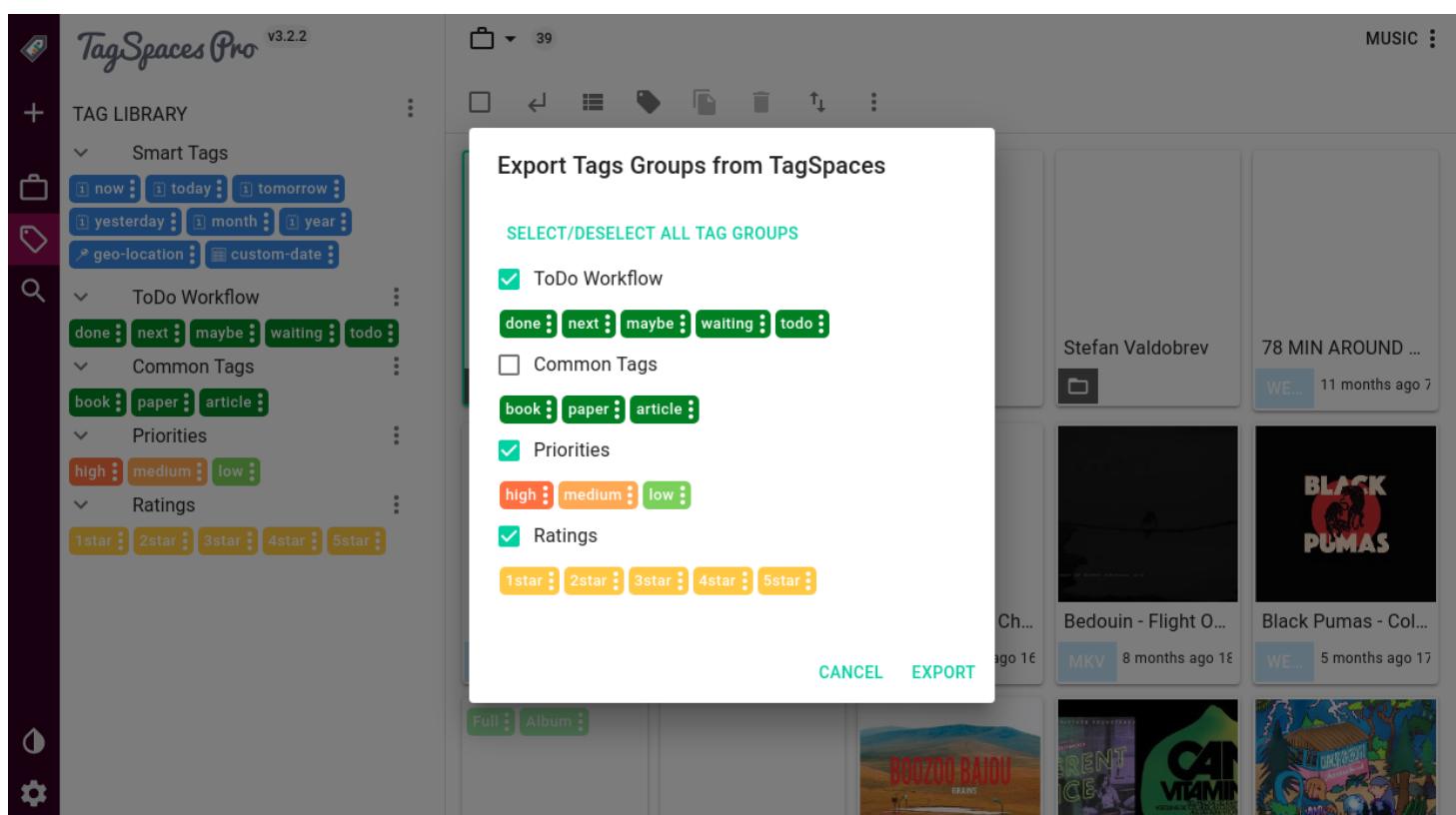
So let's assume you want share the tag groups with the names "TagGroups for Sharing 1" and "TagGroups for Sharing 2" with your colleague which is also using TagSpaces in order to have a common base for tagging on collaborative projects. As a preparation steps you can define these tag groups and put the needed tags in there, with the desired names and colors. Of course you can change them later, but at this point is much easier as you can use the TagSpaces user interface.

Exporting the existing tag groups

After adding all the needed tags and specifying their colors you are now ready to export them. Just click the three dot menu on top right area of the tag library and select "Export Tag Library".



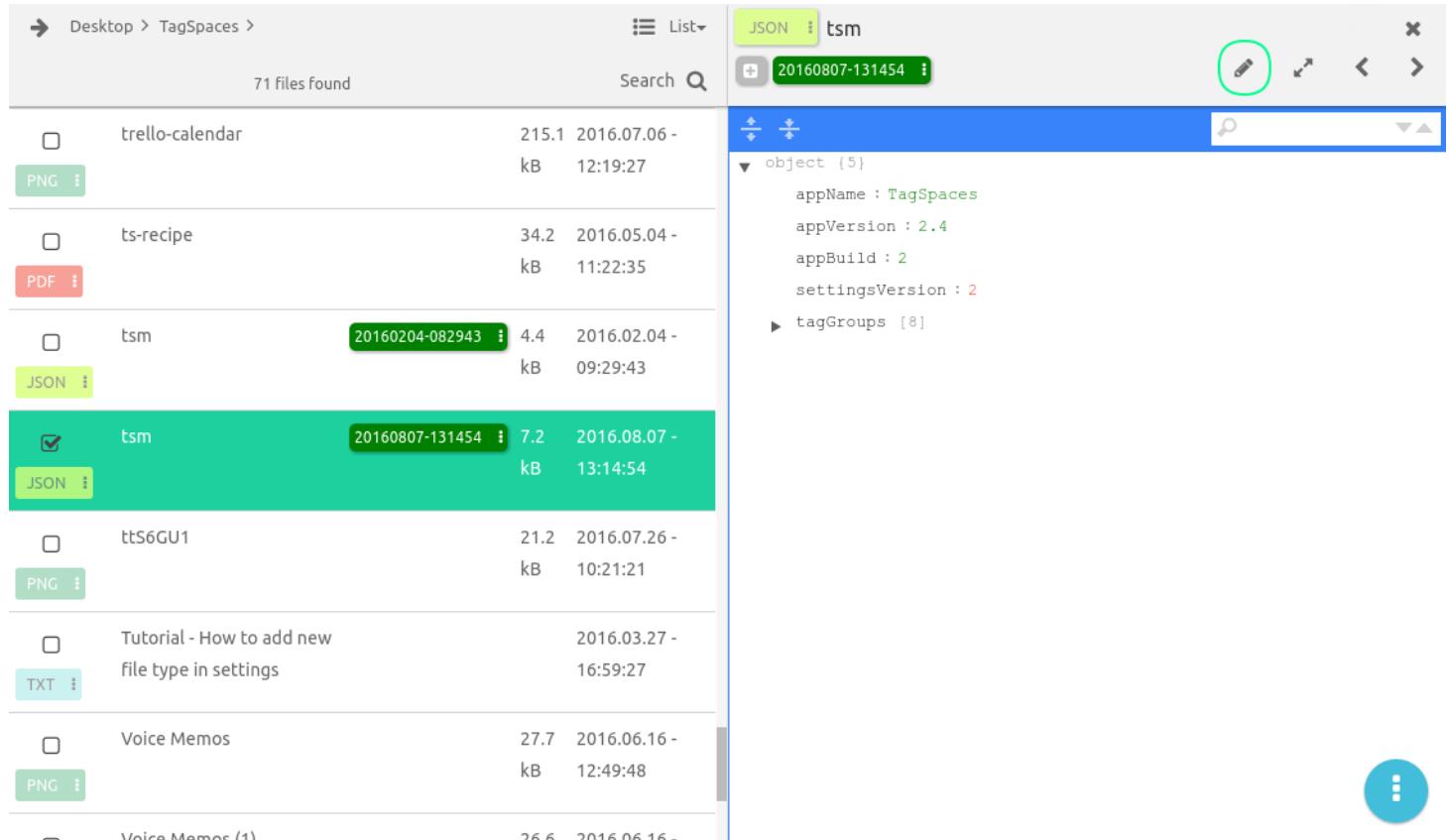
In the following screen you can select which tag group you want to export.



After clicking on the export button, a file saving dialog will appear, asking you to select a location where to save the file with the exported tag groups. This is files a called "tsm[20160807~131454].json", where the date/time stamp in the tags reflects the date and the time of the export. More on the export file format can be found in the [file format specification](#).

Editing and cleaning up the exported library (optional step)

This step can be skipped if you do not need to make changes to the exported tags, otherwise you have to open the json file in some text or json editor and do the changes manually. TagSpaces has a powerful build in json editor, with which you can edit the exported json files. We assume here that we want to share only the two previously mentioned tag groups "TagGroups for Sharing 1" and "TagGroups for Sharing 2". So we will open this file with the json editor in TagSpaces and delete the unneeded tag groups or adjust some tag names. To achieve this you have to open json file with TagSpaces and click on the edit button as shown in the following screenshot.



Then you can navigate to the tag groups element and make some changes there, see the next screenshot for clarification. Following our initial intention, we have to delete all the tag groups located above the "TagGroups for Sharing 1". You can use the menu of the tag groups elements for achieving this steps. Don't forget to click in the save button in order to persist your changes.

The screenshot shows the TagSpaces application interface. On the left, a file list displays various files with their details (name, size, date modified). A specific file, 'tsm', is selected and highlighted in green. On the right, a JSON editor panel shows the file's metadata in a hierarchical tree structure. A context menu is open over the 'children' array of a tag group, with options like 'Type', 'Sort', 'Insert', 'Duplicate', and 'Remove'. The JSON code in the editor pane is as follows:

```

{
  "appVersion": "2.4",
  "appName": "TagSpaces",
  "appBuild": 2,
  "settingsVersion": 2,
  "tagGroups": [
    {
      "expanded": true,
      "children": [
        {
          "type": "plain",
          "title": "tag1",
          "description": "tag1",
          "icon": "value",
          "style": "value"
        },
        {
          "type": "plain",
          "title": "tag2",
          "description": "tag2",
          "icon": "value",
          "style": "value"
        }
      ],
      "title": "TagGroup For Sharing 1",
      "key": 29814
    },
    {
      "type": "plain",
      "title": "tag3",
      "description": "tag3",
      "icon": "value",
      "style": "value"
    },
    {
      "type": "plain",
      "title": "tag4",
      "description": "tag4",
      "icon": "value",
      "style": "value"
    },
    {
      "type": "plain",
      "title": "tag5",
      "description": "tag5",
      "icon": "value",
      "style": "value"
    }
  ]
}

```

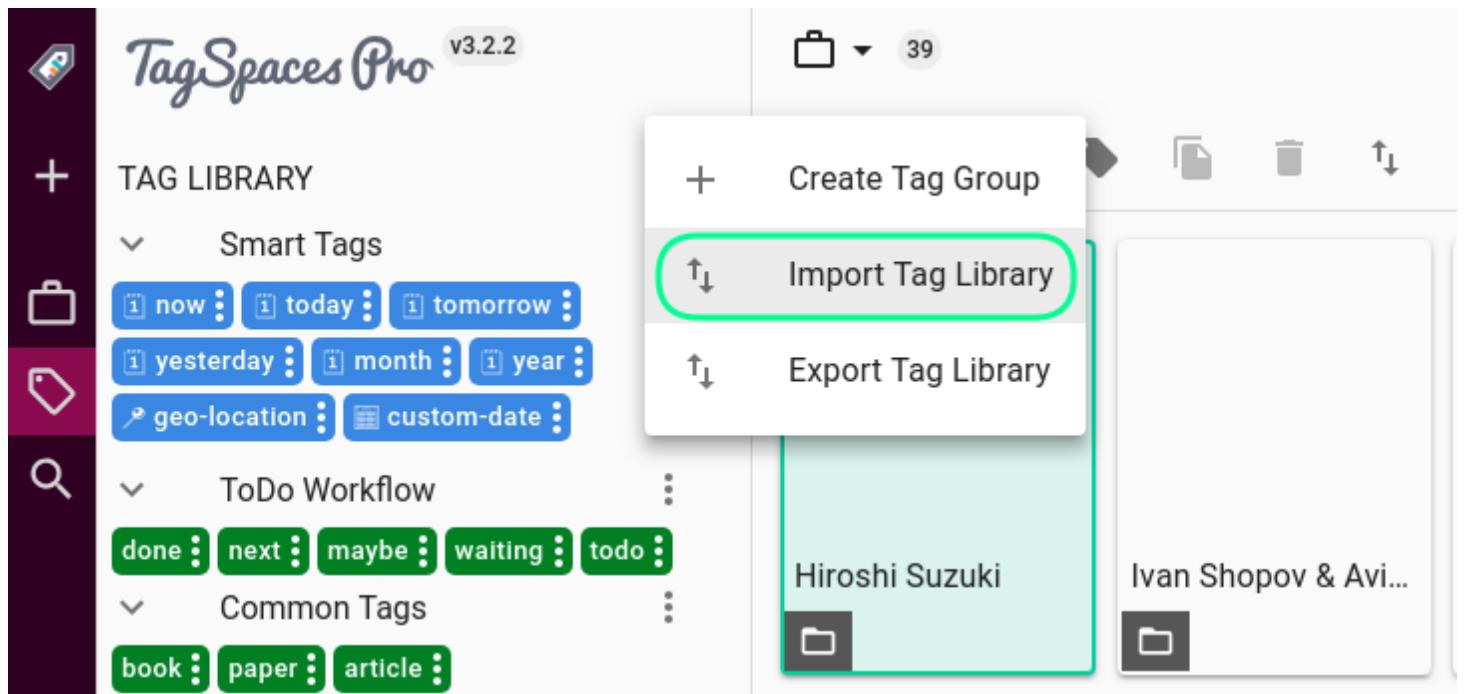
Some other possible operation in the export file are:

- Adding additional tags to an existing tag group
- Duplicating an existing tag group and making changes to the contained tags
- Changing the names of the tags and the tag groups
- Changing the colors of the tags

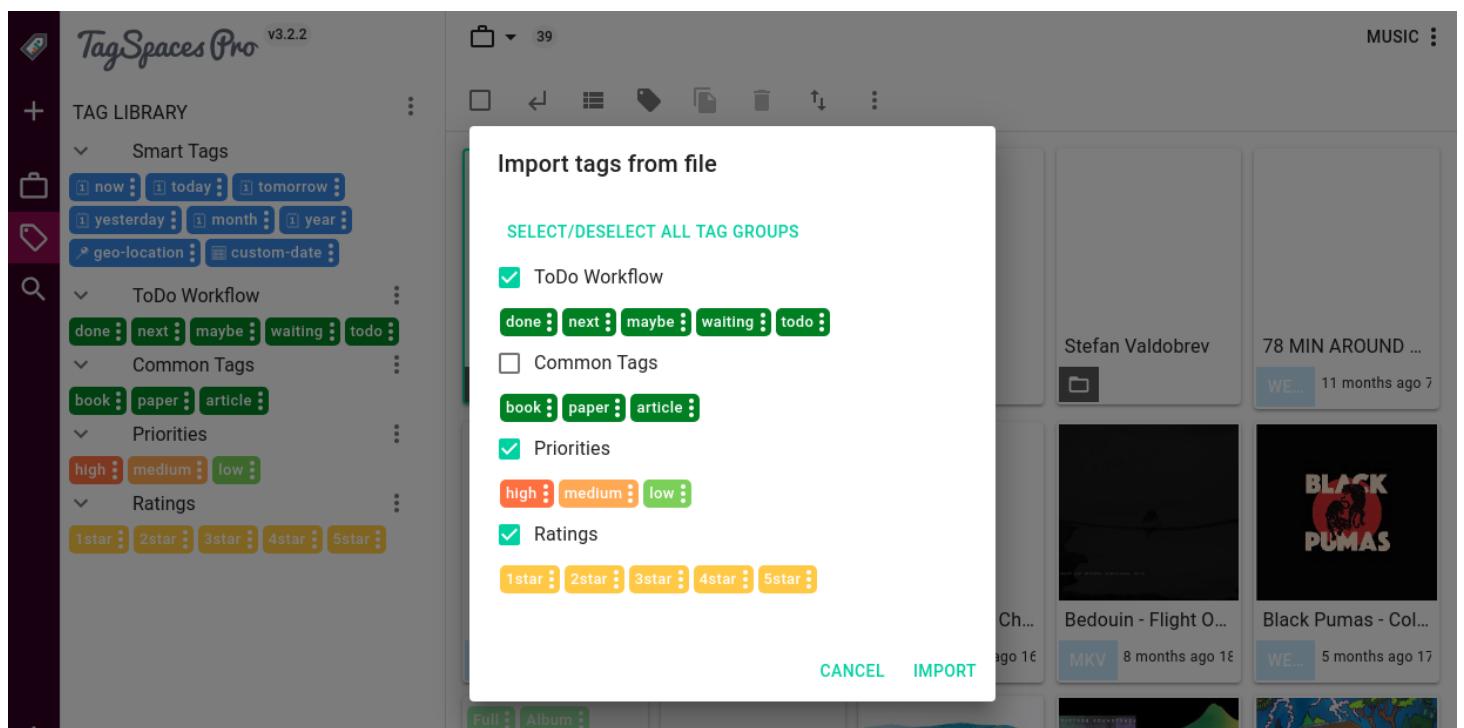
Distributing the library

Direct import in the tag library

In tag area of TagSpaces you will find a button, which once clicked will trigger the tags import functionality of the application.



After selecting the file and clicking the "open" button, a dialogs will appear asking you to choose the json files, which should be imported. This dialog is shown on the next screenshot.



This method has the drawback that once imported in another TagSpaces installation, these tags are disconnected from the source tag library, so any changes done in the source application, will **not** be reflected in the instance where the tags were imported.

Closing remarks

Currently you can not use any of the described methods for transferring **smart tags**, because they rely on a tighter integration in core of the application.

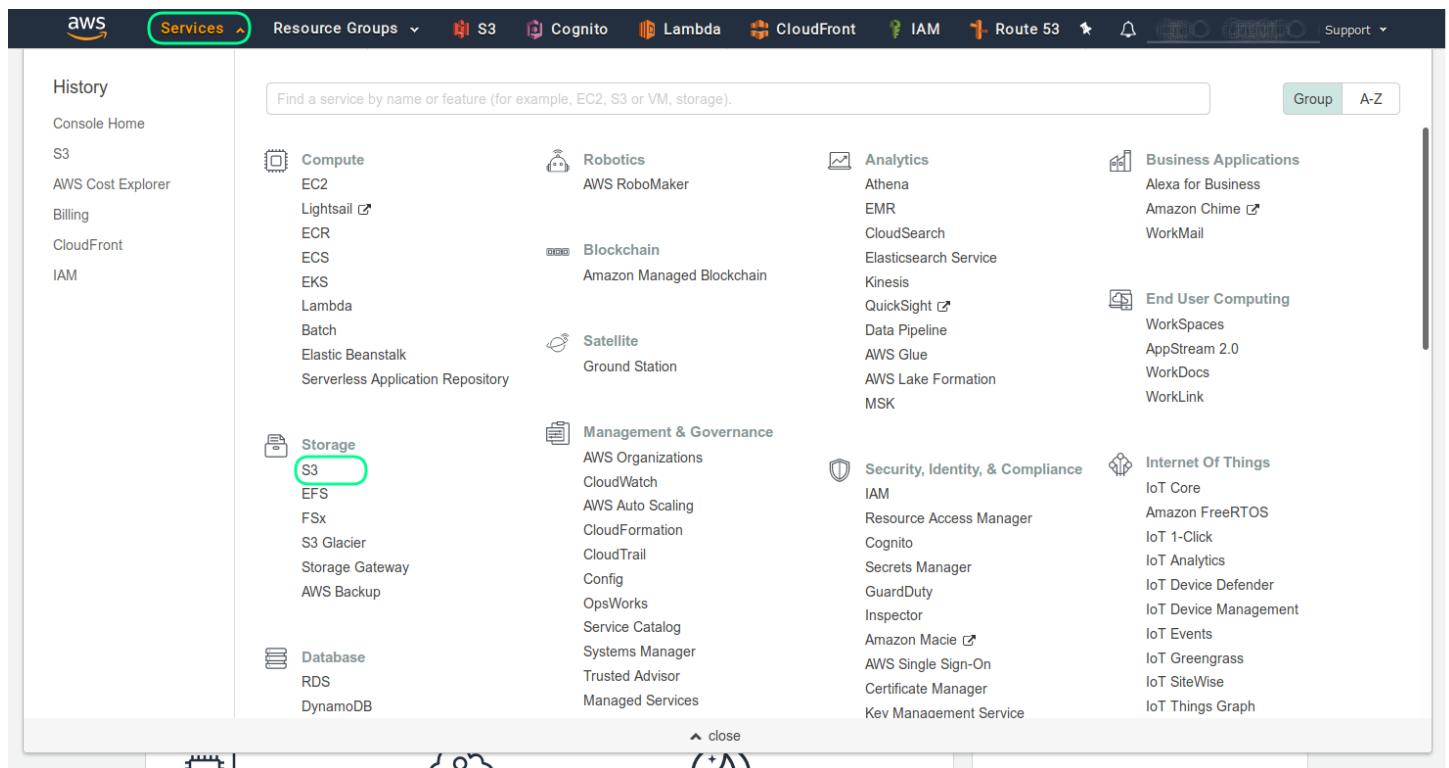
Cloud Locations in TagSpaces PRO based on AWS S3

Motivation

TagSpaces PRO provides the ability to connect AWS S3 compatible buckets as locations. This offers many new capabilities and use cases.

Step 1 - Create a bucket in AWS S3

In order to create a AWS S3 bucket you have to go the Amazon Web Services [website](#) and register an account there. Once you are register and logged in go the services section and choose from there the S3, as shown in the next screenshot



And then in order to create a new bucket choose the *Create Bucket* button.

The screenshot shows the AWS S3 service page. At the top, there's a banner for AWS DataSync. On the left sidebar, 'Amazon S3' is selected under 'Buckets'. The main area is titled 'S3 buckets' with a search bar and a 'Create bucket' button highlighted with a green circle. Below the search bar are filters for 'Bucket name', 'Access', 'Region', and 'Date created'. At the top right, there are links for 'Discover the console' and 'Documentation'.

On the next screen you can choose the name of the bucket and the AWS region for the hosting. Be careful by choosing the name of the bucket, because a later rename is not possible.

This screenshot shows the 'Create bucket' wizard. The first step, 'Name and region', is active. It has four tabs: 'Name and region' (selected), 'Configure options', 'Set permissions', and 'Review'. Under 'Name and region', there are fields for 'Bucket name' (containing 'your-bucket-name') and 'Region' (set to 'EU (Frankfurt)'). A 'Copy settings from an existing bucket' section is present with a dropdown menu showing 'Select bucket (optional) 11 Buckets'. At the bottom are 'Create' and 'Next' buttons.

Activating the encryption is an optional, but recommended step.

Note that this is a server side and not an end to end encryption.

The screenshot shows the 'Create bucket' wizard in the AWS S3 console. The second step, 'Configure options', is active. In the 'Default encryption' section, the 'AES-256' option (using SSE-S3) is selected and highlighted with a green box. Other options like 'AWS-KMS' (using SSE-KMS) are also listed.

Leave the default setting for access.

The screenshot shows the 'Create bucket' wizard in the AWS S3 console. The third step, 'Set permissions', is active. The 'Block public access (bucket settings)' section is highlighted with a green box around the 'Block all public access' checkbox. This checkbox is checked by default.

Review the settings and click the *Create bucket* button.

The screenshot shows the 'Create bucket' wizard in the AWS S3 console. The steps are: Name and region, Configure options, Set permissions, and Review. The 'Review' step is highlighted with a green circle. The 'Bucket name' is set to 'your-bucket-name2' and the 'Region' is 'EU (Frankfurt)'. Under 'Options', 'Versioning' and 'Server access logging' are disabled. Under 'Permissions', 'Block all public access' is set to 'On'. A sub-section shows 'Block public access to buckets and objects granted through new access control lists (ACLs)' is also 'On'. At the bottom right is a blue 'Create bucket' button, which is circled in green.

Once you have successfully created the bucket you should see the following screen.

The screenshot shows the 'Overview' tab for the newly created bucket 'your-bucket-name2'. The top navigation bar includes 'Services', 'Resource Groups', 'S3', 'Cognito', 'Lambda', 'CloudFront', 'IAM', 'Route 53', 'Global', and 'Support'. Below the navigation is a breadcrumb trail: 'Amazon S3 > your-bucket-name2'. The main area has tabs: 'Overview' (selected), 'Properties', 'Permissions', and 'Management'. Below these are buttons for 'Upload', '+ Create folder', 'Download', and 'Actions'. The status 'EU (Frankfurt)' is shown with a refresh icon. The central message says 'This bucket is empty. Upload new objects to get started.' Three call-to-action cards are displayed: 'Upload an object' (with a bucket icon), 'Set object properties' (with a person and plus icon), and 'Set object permissions' (with a database icon). Each card has a 'Learn more' link and a 'Get started' button. The bottom navigation bar includes 'Feedback', 'English (US)', 'Privacy Policy', and 'Terms of Use'.

Step 2 - Set the CORS settings of the bucket

This is an optional step, needed only if you want to access the bucket from [TagSpaces Enterprise](#) edition.

The screenshot shows the AWS S3 console with the 'Permissions' tab selected. Under the 'CORS configuration' section, there is a text area containing XML code. The XML code defines a CORS rule allowing all methods (GET, HEAD, PUT, DELETE) from any origin (*). It also specifies a maximum age of 3000 seconds and allows all headers. The 'Save' button at the bottom right is highlighted with a green circle.

```
<?xml version="1.0" encoding="UTF-8"?>
<corsConfiguration xmlns="http://s3.amazonaws.com/doc/2006-03-01/">
<corsRule>
<allowedOrigin*>/allowedOrigin</allowedOrigin>
<allowedMethod>GET</allowedMethod>
<allowedMethod>HEAD</allowedMethod>
<allowedMethod>PUT</allowedMethod>
<allowedMethod>DELETE</allowedMethod>
<maxAgeSeconds>3000</maxAgeSeconds>
<allowedHeader*>/allowedHeader</allowedHeader>
</corsRule>
</corsConfiguration>
```

The XML config, can be copied from the section bellow.

```
<?xml version="1.0" encoding="UTF-8"?>
<corsConfiguration xmlns="http://s3.amazonaws.com/doc/2006-03-01/">
<corsRule>
<allowedOrigin*>/allowedOrigin</allowedOrigin>
<allowedMethod>GET</allowedMethod>
<allowedMethod>HEAD</allowedMethod>
<allowedMethod>PUT</allowedMethod>
<allowedMethod>DELETE</allowedMethod>
<maxAgeSeconds>3000</maxAgeSeconds>
<allowedHeader*>/allowedHeader</allowedHeader>
</corsRule>
</corsConfiguration>
```

You can remove the *PUT* and *DELETE* lines, if you want to disable the writing and deleting operation from TagSpaces Enterprise.

It is recommended to put in the *AllowedOrigin* line, the domain from which you will access this bucket. E.g.: <https://example.com>

Step 3 - Create user for accessing the bucket.

Accessing the bucket with the credentials from your main account is not recommended. That's in this section we will guide through the process of user creation in the AWS IAM service. After successfully creating the user here, you will be able to use it for accessing the bucket from TagSpaces.

As first step the **AWS IAM** service should be opened.

The screenshot shows the AWS Services dashboard. The 'Services' tab is highlighted with a green border. In the center, there is a grid of service icons and names. The 'IAM' service is located in the 'Management & Governance' section, represented by a shield icon. It is circled in green. Other services visible include Compute (EC2, Lightsail, ECR, ECS, EKS, Lambda, Batch, Elastic Beanstalk, Serverless Application Repository), Storage (S3, EFS, FSx, S3 Glacier, Storage Gateway, AWS Backup), Database (RDS), Robotics (AWS RoboMaker), Blockchain (Amazon Managed Blockchain), Analytics (Athena, EMR, CloudSearch, Elasticsearch Service, Kinesis, QuickSight, Data Pipeline, AWS Glue, AWS Lake Formation, MSK), Business Applications (Alexa for Business, Amazon Chime, WorkMail), End User Computing (WorkSpaces, AppStream 2.0, WorkDocs, WorkLink), Internet Of Things (IoT Core, Amazon FreeRTOS, IoT 1-Click, IoT Analytics, IoT Device Defender, IoT Device Management, IoT Events, IoT Greengrass, IoT SiteWise), and Security, Identity, & Compliance (Resource Access Manager, Cognito, Secrets Manager, GuardDuty, Inspector, Amazon Macie, AWS Single Sign-On, Certificate Manager).

Here you can click on the **Users** section, as shown in the screenshot.

The screenshot shows the 'Welcome to Identity and Access Management' page. On the left, a sidebar menu is open under 'Identity and Access Management (IAM)'. The 'AWS Account' section is expanded, showing 'Dashboard', 'Groups', 'Users', 'Roles', 'Policies', 'Identity providers', 'Account settings', and 'Credential report'. A search bar for 'Search IAM' is also present. The main content area displays 'Welcome to Identity and Access Management' and 'IAM users sign-in link: signin.aws.amazon.com/console'. Below this, 'IAM Resources' are listed: 'Users: 14' (circled in green), 'Groups: 4', and 'Customer Managed Policies: 8'. To the right, 'Security Status' is shown as '5 out of 5 complete.' with a progress bar. A list of security best practices is provided, each with a checked checkbox: 'Delete your root access keys', 'Activate MFA on your root account', 'Create individual IAM users', 'Use groups to assign permissions', and 'Apply an IAM password policy'. On the right side, there is a 'Feature Spotlight' section with a video player titled 'Introduction to AWS IAM' and a 'Additional Information' section with links to 'IAM best practices', 'IAM documentation', 'Web Identity Federation Playground', 'Policy Simulator', and 'Videos, IAM release history and additional resources'.

Then you have to click on the **Add user** button, in order to start the user creation process.

The screenshot shows the AWS IAM service interface. In the top navigation bar, the 'Identity and Access Management (IAM)' option is selected. Below it, under 'AWS Account', there are links for 'Dashboard' and 'Groups'. On the right side of the main content area, there's a search bar with placeholder text 'Find users by username or access key' and a results table with columns: 'User name', 'Groups', 'Access key age', 'Password age', 'Last activity', and 'MFA'. At the bottom of the page, there are links for 'Feedback', 'English (US)', and '2008 - 2019, Amazon Web Services, Inc. or its affiliates. All rights reserved.' followed by 'Privacy Policy' and 'Terms of Use'.

And enter the **name** and select the type of access for this user. In order to use this user for API call, you have to enable the **Programmatic access**.

This screenshot shows the 'Set user details' step of the 'Add user' wizard. It includes a note about adding multiple users with the same access type and permissions. The 'User name' field contains 'my-bucket-user', which is highlighted with a green box. Under 'Access type*', the 'Programmatic access' checkbox is checked and highlighted with a green box. A tooltip for this checkbox states: 'Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools.' Below this, there's another checkbox for 'AWS Management Console access'. At the bottom, there are buttons for '* Required', 'Cancel', and 'Next: Permissions'.

In the next steps you have to set the permission for this user, by creating a custom policy. Please select the **Attach existing policies directly** and then click on the **Create policy** button.

This screenshot shows the 'Set permissions' step of the 'Add user' wizard. It features three options: 'Add user to group', 'Copy permissions from existing user', and 'Attach existing policies directly', with the latter being highlighted with a green box. Below this is a table for filtering policies, showing results like 'AdministratorAccess' and 'AlexaForBusinessDe...'. At the bottom, there are buttons for 'Cancel', 'Previous', and 'Next: Tags'.

In newly opened browser tab with the policy editor, click on the JSON section.

The screenshot shows the AWS IAM 'Create policy' interface. At the top, there are tabs for 'Visual editor' and 'JSON', with 'JSON' being the active tab and highlighted with a green border. Below the tabs is a text area containing placeholder text: 'Copy here the policy in JSON format'. In the bottom right corner of the page, there are two buttons: 'Cancel' and 'Review policy', with 'Review policy' also having a green border around it.

There you can enter and adjust your policies. The following JSON snippet, is a policy for a user who can just list and retrieve objects (read-only user) from the **your-bucket-name** bucket. You should adjust the name of the bucket to suit your setup.

Policy for read-only user:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "s3>ListBucket",
        "s3GetObject"
      ],
      "Resource": [
        "arn:aws:s3:::your-bucket-name",
        "arn:aws:s3:::your-bucket-name/*"
      ]
    },
    {
      "Sid": "VisualEditor1",
      "Effect": "Allow",
      "Action": "s3:GetAccountPublicAccessBlock",
      "Resource": "*"
    }
  ]
}
```

Policy for user with admin/write access:

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Sid": "VisualEditor0",  
            "Effect": "Allow",  
            "Action": [  
                "s3:ReplicateObject",  
                "s3:GetObjectAcl",  
                "s3:GetObjectVersionAcl",  
                "s3:PutObjectTagging",  
                "s3>DeleteObject",  
                "s3:GetBucketWebsite",  
                "s3:GetBucketNotification",  
                "s3:GetReplicationConfiguration",  
                "s3>ListMultipartUploadParts",  
                "s3:PutObject",  
                "s3:GetObject",  
                "s3:RestoreObject",  
                "s3>ListBucket",  
                "s3:GetBucketPolicy",  
                "s3:GetObjectVersionTorrent",  
                "s3:AbortMultipartUpload",  
                "s3:GetBucketRequestPayment",  
                "s3:GetObjectTagging",  
                "s3:GetMetricsConfiguration",  
                "s3:PutObjectAcl",  
                "s3:GetBucketPublicAccessBlock",  
                "s3>ListBucketMultipartUploads",  
                "s3:PutObjectVersionTagging",  
                "s3:GetBucketVersioning",  
                "s3:GetBucketAcl",  
                "s3:PutInventoryConfiguration",  
                "s3:GetObjectTorrent",  
                "s3:GetBucketCORS",  
                "s3:GetBucketLocation",  
                "s3:ReplicateDelete",  
                "s3:GetObjectVersion"  
            ],  
            "Resource": [  
                "arn:aws:s3:::your-bucket-name",  
                "arn:aws:s3:::your-bucket-name/*"  
            ]  
        },  
        {  
            "Sid": "VisualEditor1",  
            "Effect": "Allow",  
            "Action": "s3:GetAccountPublicAccessBlock",  
            "Resource": "*"  
        }  
    ]  
}
```

```
        "Resource": "*"
    }
]
}
```

Note: The list of allowed actions is only a suggestion, the actions can be significantly reduced, to just those which are really needed for your use case.

Once you are ready and have attached the newly created policy to the user, you can finalize the process. On the last screen you will see the **access key ID** and the **secret access key** of the just created user.

The screenshot shows the AWS Management Console with the IAM service selected. A modal window titled 'Add user' is open, indicating a successful creation. It displays the 'Success' message: 'You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.' Below this message, it says 'Users with AWS Management Console access can sign-in at: <https://signin.aws.amazon.com/console>'. At the bottom of the modal, there is a 'Download .csv' button and a table with two columns: 'User' and 'Access key ID'. The table contains one row for 'my-bucket-user', where the 'Access key ID' is 'XIPX47' and the 'Secret access key' is '***** Show'. Both the 'Access key ID' and the 'Show' button are highlighted with green circles. The modal has five numbered tabs at the top: 1, 2, 3, 4, and 5, with tab 5 being the active one. The bottom of the screenshot shows the standard AWS footer with links for Feedback, English (US), Copyright notice (2008-2019), Privacy Policy, and Terms of Use.

Step 4 - Upload files to the bucket

The easiest way to upload files to your bucket is to use the build upload functionality, as seen in the next screenshot. But first you should create a folder in the bucket, which will serve as a root folder. You can name it for example *rootfolder*.

S3 Cognito Lambda CloudFront IAM Route 53 Global Support

Amazon S3 > your-bucket-name2

Overview Properties Permissions Management

Type a prefix and press Enter to search. Press ESC to clear.

Upload + Create folder Download Actions EU (Frankfurt)

Name Last modified Size Storage class

rootfolder

When you create a folder, S3 console creates an object with the above name appended by suffix "/" and that object is displayed as a folder in the S3 console. Choose the encryption setting for the object:

- None (Use bucket settings)
- AES-256
- Use Server-Side Encryption with Amazon S3-Managed Keys (SSE-S3)
- AWS-KMS
- Use Server-Side Encryption with AWS KMS-Managed Keys (SSE-KMS)

Save Cancel

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Now you can upload files using the web interface.

Services Resource Groups S3 Cognito Lambda CloudFront IAM Route 53 Global Support

Amazon S3 Overview Buckets that you own

Upload

① Select files ② Set permissions ③ Set properties ④ Review

To upload a file larger than 160 GB, use the AWS CLI, AWS SDK, or Amazon S3 REST API. Learn more

Drag and drop files and folders here
OR
Add files

Upload Next

Buckets that you own

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Alternatively you can use the AWS CLI (command line tools), with the following command.

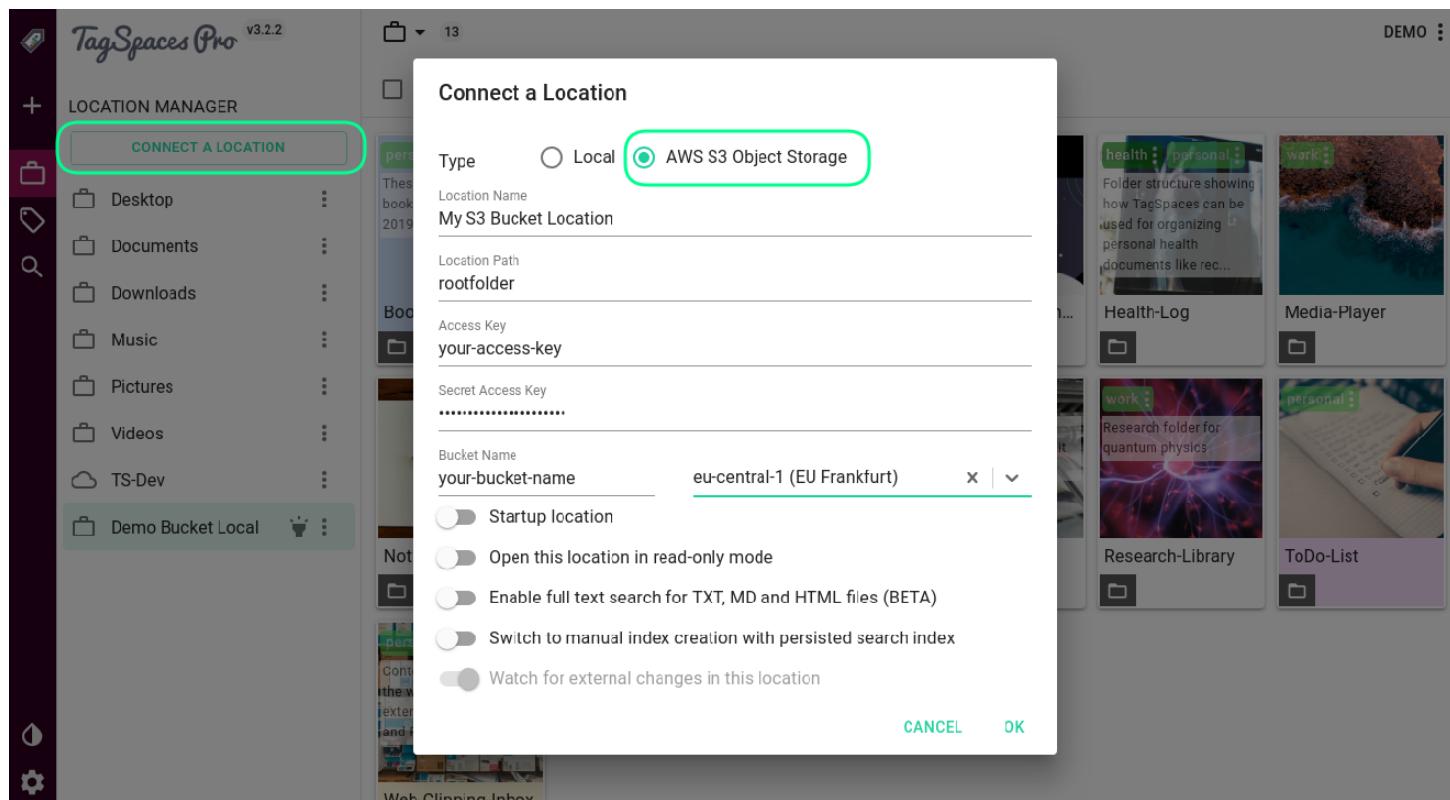
```
aws s3 sync local-bucket-folder s3://your-bucket-name/rootfolder
```

This will sync all files and folder from your local folder called *local-bucket-folder* to the sub folder with the name *rootfolder* in the bucket *your-bucket-name*

You can find out how what is *AWS CLI* and how to install it for your operating system from this [link](#).

Step 5 - Create cloud location in TagSpaces PRO

Start TagSpaces and click on the **Connect a location** button from the locations section. Then you should select the *AES S3 Object Store* radio button, as shown in the following screenshot.



Here you should enter the following parameters:

- **Location Name** - this is a free text with which you will refer your location in this TagSpaces installation
- **Location Path** - is the name of the root folder from the location we have previously create
- **Access Key** - is the key of the IAM user
- **Secret Access Key** - is the secret key of the IAM user
- **Bucket Name** - self explaining ...
- **Region** - is the region of hosting for your bucket

Once you click **OK** the location will be create and its content should be listed in TagSpaces.

There are some advanced settings with can be useful for S3 locations.

- **Open this location in read-only mode** - this will switch the UI interface of TagSpaces in readonly mode. It is particularly useful for location to which the IAM user has only read-only access.
- **Switch to manual index creation with persistent index** - this option will disable the indexing of the location on its opening. Instead it will try to load the previously create index file. This is useful for large locations with many files, where the initial indexing could take a lot of time.

Setup WebDAV version

CAUTION

Deprecated functionality: The here described functionality is not supported actively anymore. For a self hosted web version please use [TagSpaces Enterprise](#)

Introduction

Since a long time, i search for good Option, to save my Notes, Documents and PDF Manuals on my own Server. So far, i used Evernote but as with many other such Services, it comes the day where you think about Security and Privacy. On the other side we get spoiled with the Pleasant for the Users and no one wants live without them. In this respect, the self-hosted Service should have similar features in one form or another.

I have seen various Services for Notes self-hosting, but i found nothing for me, what makes me really happy. With some of them the Installation was really difficult, with others some important features are missing and with the rest of them, the performance on my good old Raspberry Pi2 war horrible.

Then i have found TagSpaces. It looks quite interesting, as far as the feature set is concerned. What at first deterred me, was that there it seems to be no Server Backend. So I wanted to forget TagSpaces, until I noticed that there is probably a server part, even if in some unusual form. On GitHub there is a client that can directly access a WebDAV server, such as NextCloud.

SabreDAV

I had already tested NextCloud but i wasn't happy with it. Its horrible slow and full with unnecessary functions, so that i moved to SabreDAV, since NextCloud is based on an older Version of SabreDAV. SabreDAV runs very fast on my Raspberry Pi2, as opposed to NextCloud, as long as you use a MySQL database as the Backend. There are no performance differences when comparing WebDAV from Nginx and SabreDAV. For example, the transfer of a file with 300kb other NextCloud took 14 to 50 seconds. Using the WebDAV module from Nginx, the same file takes 3 - 5 seconds. With SabreDAV it takes also only 3 - 5 seconds. SabreDAV is set on my Server that it does not use its own authentication, it relies on here with the possibilities of the Webserver. In my case, this is Nginx. The Main Reason for this is that I also use CalDAV and CardDAV over SabreDAV

and Windows 10 Client's can only work with the HTTP Basic method. So you specify the following in the corresponding PHP file:

```
$authBackend = new \Sabre\DAV\Auth\Backend\Apache();
```

This Backend is also chosen if you use a different Webserver than Apache. A little further up in the PHP file you define the path to the files, which should be shared via WebDAV. This path can be defined relatively easily for each different user:

```
$publicDir = '/path_to/webdav_folder/' . $_SERVER['PHP_AUTH_USER'] . '/files';
```

As shown in the example, the global variable contains `\$_SERVER['PHP_AUTH_USER']` username for the currently logged in User. This allows each user to use his own files. A tip: Sharing would be possible with Symlinks in this case as well. The complete PHP File could look like the following:

```
<?php
date_default_timezone_set('Europe/Amsterdam');
$publicDir = '/path_to/webdav/' . $_SERVER['PHP_AUTH_USER'] . '/files';
$tmpDir = '/tmp';

$baseUri = '/dav/';

$pdo = new PDO('mysql:dbname=sabredav;host=127.0.0.1', 'mysqlusername', 'secret');
$pdo->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);

require_once '../vendor/autoload.php';

$authBackend = new \Sabre\DAV\Auth\Backend\Apache();

$nodes = [
    new \Sabre\DAV\FS\Directory($publicDir),
];

$server = new \Sabre\DAV\Server($nodes);
if (isset($baseUri)) $server->setBaseUri($baseUri);

$lockBackend = new \Sabre\DAV\Locks\Backend\File($tmpDir . '/locksdb');

$server->addPlugin(new \Sabre\DAV\Auth\Plugin($authBackend));
$server->addPlugin(new \Sabre\DAV\Browser\Plugin());
$server->addPlugin(new \Sabre\DAV\Locks\Plugin($lockBackend));

$server->exec();
```

In the same PHP file you can of course add other Backend's for CalDAV and CardDAV, which I have omitted in this example, because this is all about WebDAV and TagSpaces.

Nginx

Of course Nginx also needs a small adjustment. I would highly recommend to use WebDAV Sharing only via SSL (free certificates provides for example Let's Encrypt). Additionally we have to adapt the PHP handling for SabreDAV. In my case, I use a corresponding location container for my DAV services. You do not need much, my looks like this:

```
location ~ ^/sabredav/ {
    auth_basic "Secured Area";
    auth_basic_user_file /path_to/.htpasswd;

    location ~ ^(.+\php)(.*)$ {
        try_files $fastcgi_script_name =404;
        fastcgi_split_path_info ^(.+\php)(.*$);
        fastcgi_pass unix:/var/run/php/php7.0-fpm.sock;
        fastcgi_index index.php;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        include fastcgi_params;
        fastcgi_param PATH_INFO $fastcgi_path_info;
        fastcgi_param REMOTE_USER $remote_user;
    }
}
```

With the both auth_basic directives I set the small on Notes which appears on the Login Box in the Browser and the path to the hidden file .htpasswd. We will generate this file later. This file contains the credentials for each individual user. SabreDAV works a lot with path information, so the corresponding lines are enormously important, otherwise SabreDAV does not work as expected. Particularly important is the penultimate line fastcgi_param REMOTE_USER \\$ remote_user; At least for me, this was a stumbling block. As you can see, I use PHP7 from the Jessie-Backports. If you still use PHP5, the location container has to be adapted accordingly.

User Management

Now we have to create the htpasswd file or add Credentials to it if the file already exists. I use apache-utils from Raspbian (Debian), but there are other ways to generate the credentials. Since it is a pure text file, the editing is not too difficult. With the apache-utils you create a new file with the first user as follows:

```
htpasswd -c /path_to/.htpasswd username
```

The program then asks twice for the password to be used and then stores the record in the file. If you want to change an already existing users or add a new user, leave the parameter -c simply away. If you want to delete a user, use the -d switch.

Now its time to Reload the Webserver: systemctl reload nginx

You should now be able to log in to the WebDAV URL with a browser. If this works, you have access to your shared Files. Make sure that all files belong to the Webserver-User. On Debian / Ubuntu this should be www-data. Otherwise, you may not be able to access your files for reading or writing.

TagSpaces

Let's go to TagSpaces. The installation is extremely simple. Change your path to the root directory of your Webserver. Now simply download the archive:

```
wget https://github.com/tagspaces/tagspaces/releases/download/v2.7.0/tagspace
```

Now its time to extract the Archive:

```
unzip tagspaces-2.7.0-web.zip
```

This creates a subdirectory "tagspaces" with all the necessary files. With the Browser, you can now access the TagSpaces directory. There will be no password query, because the server knows nothing about it yet.

Nginx again

You have to take care that not everyone can access your notes. We must now protect this directory with a password. Reopen your Nginx configuration file and add a location container for the TagSpaces directory. For me, this looks something like this:

```
location /tagspaces {  
    auth_basic "Secured Area";  
    auth_basic_user_file /path_to/.htpasswd;  
}
```

As you can see, I use the same `auth_basic` variables as with the SabreDAV location. I use the same Credential File. Since these Credentials are already entered, its enough to save the changes to the Nginx Config and reload the Server: `systemctl reload nginx`

Now please close the browser Window so that the session ends locally. If you reopen the Browser with the URL of TagSpaces, the browser asks for the WebDAV Credentials. Enter the Credentials for WebDAV. Now you can access TagSpaces and add a new Location. In my case this is a subdirectory of the WebDAV Share. In my case `sabredav/files/Notes`. If you enter this Location, TagSpaces will nit ask again for Credentials since you have already established a corresponding session. From now on, you can manage your notes online via TagSpaces.

If you want, there are TagSpaces Clients for the Desktop or your Mobile Devices. Thanks to WebDAV Protocol, the files can be synchronized with any program. On Android, I use FolderSync, at Windows you can have the WebDAV share directly connected as a drive (there also exist special sync clients) and with Linux, a WebDAV Share can be seamlessly integrated into your directory structure.

Specification of the meta file formats

In comparison to many other tools, TagSpaces uses external text files for saving the meta information for folders and files, instead of a database. Here you will find the specification of the formats used by these files and also some other useful information concerning these files.

File meta description format

This file should be located in a folder called `.ts` located in the folder, where the tagged file is placed. The meta file should have exactly the same name as the tagged file, but in addition it should have the `.json` file extension. So at the end you should have similar structure as the following:

```
~ some TagSpaces location folder
    └── subfolder_1
        ├── .ts
        │   ├── file1.jpg.json
        │   └── file2.pdf.json
        ├── file1.jpg
        └── file2.pdf
    └── .ts
        ├── file3.png.json
        └── file4.docx.json
    ├── file3.png
    └── file4.docx
```

The meta information is saved in JSON format, which has the following format:

```
{
  "tags": [ // A set containing the tags
    {
      "title": "tag1", // The name of the tag
      "type": "sidecar", // The type of the tag
      "style": "color: #ffffff !important; background-color: #FFCC24 !impo
    },
    {
      "title": "tag2",
      "type": "sidecar",
```

```

        "style": "color: #ffffff !important; background-color: #FFCC24 !impo
    }
],
"appVersionCreated": "2.4.1", // optional element, containing the version
"appName": "TagSpaces", // optional element, containing the name of the
"appVersionUpdated": "2.4.1", // optional element, containing the version
"lastUpdated": "2016-06-24T12:22:38.560Z" // optional element
}

```

Folder meta description format

In the PRO version of the application you can add tags and description to every folder managed in TagSpaces. This meta information is persisted in a file called **tsm.json** located in `.ts` folder of the tagged folder. The following is an example folder structure of a tagged folder with one tagged subfolder.

```

~ some TagSpaces location folder
├── subfolder_2
│   ├── .ts
│   │   ├── tsm.json // a file containing the meta info for subfolder_2
│   │   └── file2.pdf.json
│   └── file2.pdf
└── .ts
    ├── tsm.json
    └── file4.docx.json
└── file4.docx

```

The meta information is saved in JSON format, which has the following format:

```

{
  "appName": "TagSpaces", // optional element, containing the name of the
  "tags": [ // the tags with which the folder is tagged
    {
      "title": "tag1",
      "type": "plain"
    }
  ],
  "tagGroups": [ // optional list used when the folder is selected as a lo
    {
      "title": "TagGroup Name",
      "key": "29814",
      "expanded": true, // if false the tag group will be shown closed, hi
      "children": [ // the list containing the tags of the tag group
        {
          "title": "Tag Group Item 1"
        },
        {
          "title": "Tag Group Item 2"
        }
      ]
    }
  ]
}

```

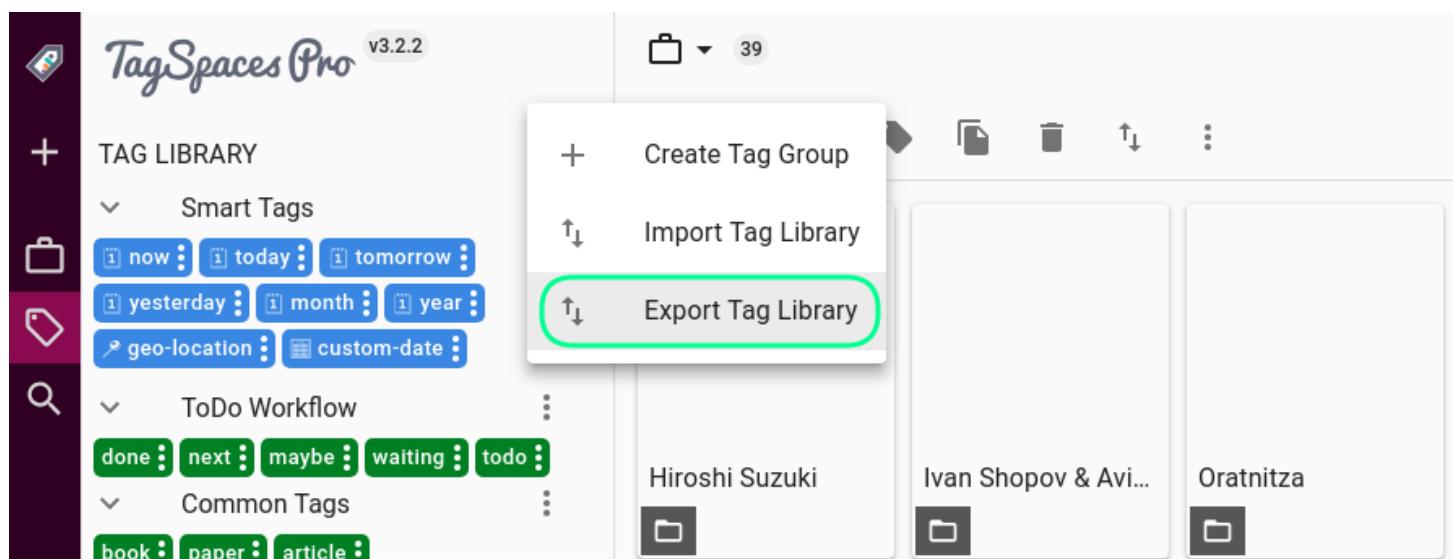
```

    },
    "type": "plain", // the type of the tag
    "title": "tag1", // the name of the tag
    "description": "tag1", // not supported element
    "icon": "", // the name of the icon class from font-awesome
    "style": "" // css styling information for the tag
  },
]
},
],
"appVersionUpdated": "2.4.1", // optional element, containing the version
"lastUpdated": "2016-04-05T17:12:02.237Z", // the late date and time, when the application was last updated
"description": "Some folder description '\n' can be used for adding a new line"
}

```

Exported tags description format

All tag groups and tags can be exported from the settings of the application, as shown in the next screenshot.



The meta information is persisted in JSON format, which has the following format:

```

{
  "appName": "TagSpaces",
  "appVersion": "2.4",
  "appBuild": "2",
  "settingsVersion": 2,
  "tagGroups": [ // A list of all tag groups exported from the application
    {
      "title": "Common Tags", // the name of the tag group
      "isFolder": "true",
      "key": "OTB", // the key of the tag group
      "tags": [
        {
          "name": "book"
        },
        {
          "name": "paper"
        },
        {
          "name": "article"
        }
      ]
    }
  ]
}

```

```

"expanded": "true", // if false the tag group will be shown closed,
"children": [ the list containing the tags of the tag group
{
    "type": "plain", // the type of the tag
    "title": "book", // the name of the tag
    "description": "tag1", // not supported element
    "icon": "", // the name of the icon class from font-awesome
    "style": "" // css styling information for the tag
},
{
    "title": "paper",
    "type": "plain",
    "description": "paper",
    "icon": "",
    "style": ""
}
],
},
{
    "title": "Getting Things Done",
    "isFolder": "true",
    "key": "GTD",
    "expanded": "true",
    "children": [...] // tags removed
},
{
    "title": "Smart Tags",
    "key": "SMR",
    "expanded": true,
    "children": [...] // tags removed
},
{
    "title": "Priorities",
    "key": "PRI",
    "expanded": true,
    "children": [...] // tags removed
}
]
}

```

Note In the JSON examples above, you will find sometimes a description after the these characters `//`. Please note that this is not part of the format and is used only for clarification purposes.

Extension development guide

This is an initial version of a guide intended to clarify the process of extension development for TagSpaces.

Prerequisites

Cloning the TagSpaces repository from Github

```
git clone https://github.com/tagspaces/tagspaces.git
```

Setting up the development environment

Using the script `checkoutextensions.sh` or `checkoutextensions.cmd` respectively for Linux and Windows.

For Windows users, please open your Command Prompt and execute the following command: `checkoutextensions.cmd` For Linux users, please open your Terminal and execute the following command: `sh checkoutextensions.sh`

Directory structure

After running the checkout script your dev environment should have the following directory structure:

```
~ tagspaces-github-location
  └── data
    ├── assets
    │   └── ubuntu-font
    ├── chromium
    ├── cordova
    │   └── fastclick
    ├── electron - Electron framework core
    └── ext
```

```
|   └── editorHTML -> tagspaces-github-location/extensions/editorHTML
|   ├── ...
|   ├── perspectiveGraph -> tagspaces-github-location/extensions/perspectiveGraph
|   ├── ...
|   ├── viewerAudioVideo -> tagspaces-github-location/extensions/viewerAudioVideo
|   └── ...
|
├── js
├── libs
│   ├── bootstrap
│   ├── ...
│   └── underscore
|
├── locales
│   ├── de
│   ├── ...
│   └── zh_TW
|
├── _locales
│   ├── de
│   ├── ..
│   └── zh_TW
|
├── mozilla
|
├── node_modules
│   └── fs-extra
|
├── node-webkit
│   ├── locales
│   └── node_modules
│       ├── fs-extra
│       └── trash
|
└── docs
|
└── extensions
    ├── editorHTML
    ├── ...
    ├── perspectiveGraph
    ├── ...
    ├── viewerAudioVideo
    └── ...
|
└── node_modules
```

Please note that after running the script all extension folders in `data/ext` are connected by symlinks to the extensions in the `extensions`. In this folder you will find cloned the repositories of all supported TagSpaces extension. This way you can make changes in for e.g. `extensions/viewerImage`, which will be immediately testable after running the application, because of the symlink.

Extension initialization

On application loading TagSpaces is scanning the extension folder (e.g. `data/ext`) for available extensions. So basically it is searching every sub folder for a bower file. From the bower file TagSpaces is extracting the id and the name of the extension, which are needed later. Currently on Firefox and Chrome the available extensions are fixed in settings and not resolved at runtime.

When a given extension is needed, TagSpaces is loading a file called `extension.js` from the folder of the extension. So this file is mandatory for every extension. It loads later with `requirejs` further javascript, css or other types of files if needed.

In the most extensions like [viewerImage] or [viewerMD] the `extension.js` is creating dynamically a new IFRAME elements which loads a file called `index.html`, where the image or markdown content is displayed or manipulated.

Messaging API

In order the extension to communicate with TagSpaces the *Messaging API* can be used. It is currently in definition phase and can be found under [data/js/ext.api.js](#)

Structure of the extension

The following is the structure of a typical extension.

```
.  
├── bower.json - A mandatory file  
├── .bowerrc - An optional file for specifying the location of the libraries (   
├── extension.css  
├── extension.js - the app is searching on extension loading js file with this  
├── main.js -  
└── index.html  
└── libs  
    ├── exif-js  
    │   ├── bower.json  
    │   ├── ...  
    │   └── exif.js  
    ├── jquery  
    │   ├── bower.json  
    │   ├── dist  
    │   │   ├── jquery.js  
    │   │   └── jquery.min.js  
    │   └── MIT-LICENSE.txt  
    └── jquery.panzoom
```

```
    └── bower.json
    └── ...
    └── dist
        ├── ...
        └── jquery.panzoom.min.js
└── LICENSE.txt
└── locales - location of the translated files from Transifex
    ├── de_DE
    │   └── ns.viewerImage.json
    ├── ...
    └── en_US
        └── ns.viewerImage.json
└── README.md
```

Recommended structure of the bower.json

TagSpaces uses Bower as a management tool for its extension. In this section you will find out how the mandatory bower.json should look like.

```
{
  "name": "The Cool Name", <- The name of the extension, can contain spaces
  "id": "viewerHTML", <- The id of the extension, should be the same as the folder name
  "description": "A TagSpaces extension for ...", <- Short description of your extension
  "type": "viewer", <- The type of your extension, could be: viewer, editor, etc.
  "version": "1.0.0", <- The version of the extension
  "dependencies": {
    "jquery.panzoom": "~2.0.5"
  },
  "devDependencies": {},
  "authors": [
    "Your Name Here - http://your-optional-website-or-email.com"
  ],
  "keywords": [
    "html",
    "viewer"
  ],
  "license": "MIT",
  "main": [
    "extension.js"
  ],
  "ignore": [
    "Gruntfile.js"
  ],
}
```

```
    "private": true  
}
```

Internationalization

For the internationalization of the extensions we use [Transifex](#). For some extension we have already created translation file, like for [viewerImage](#)