



TAGSPACES

Free your health data
from the tracking apps and devices!

(or how to use your files system as a database)

by Ilian Sapundshiev @ilianste

Munich QS Meetup at [20140320]



TABLE OF CONTENT

- Motivation ↴
- Envisioned Solution ↴
- What is TagSpaces? ↴
- My "Health Data" Workflow ↴
- Supported platforms ↴



MOTIVATION

Issues with health / quantified self data:

- many apps on many devices (smartphones, tablets, laptops)
- many intelligent devices (smart watches, bluetooth scales, wristbands)
- many health web portals
- all this leads to a segmentation of your data
- your data is mostly vendor locked
- and you don't really know how your data is used



ENVISIONED SOLUTION

What I really needed:

- Universal hub for health data management
- Cross device sync and portable data
- Abilities for visualization and analysis
- No Backend -> No Login -> No Cloud







WHAT IS TAGSPACES ?

- it is open source and extensible platform for personal data management
- it let you organize, tag and browse your local files, photos and documents on many platforms.
- project initiated in 2013 by me
- official website: tagspaces.org
- source hosted on github.com/uggrock/tagspaces
- build with HTML5, JS, Cordova, Node-Webkit



USE CASES - FILE MANAGEMENT

- create files (plain text, html, markdown)
- create directories
- rename files
- move files (drag&drop)
- delete files



USE CASES - FILE PREVIEW

- TagSpaces can open over 50 different file types such as:
- Images (PNG, BMP, JPG, GIF), Video



OK, WE WERE HERE ALREADY ...

```
mc [na@nemesis]:~/Dropbox/TagSpaces/sandbox
```

Left	File	Command	Options	Right
<	~/Dropbox/TagSpaces/sandbox	.	[^]>	Information
'n	Name	Size	Modify time	Midnight Commander 4.8.5
*asdsd	[oz~bb].txt	28	Jan 3 13:14	File: sdad asdfa sdsa[20131110].txt
*asdüdfg	[~10].txt	23	Jan 19 11:14	Location: 19h:105463h
*asfsa	[as~ok].txt	28	Jan 8 19:45	Mode: -rwxr-xr-x (0755)
*bi3h2	[test].txt	41	Dez 29 10:58	Links: 1
*doc	[low].pdf	1526620	Aug 29 2013	Owner: na/na
*drawing	[~ok].svg	126162	Dez 27 10:56	Size: 33 (24 blocks)
*file	[6.8~k].tiff	6229666	Aug 9 2013	Changed: Feb 4 15:49
*html	tex~um].txt	6184	Sep 16 2013	Modified: Nov 10 15:48
*ilia	(copy).txt	55	Feb 20 18:55	Accessed: Mär 19 21:33
*new note	~9].html	140101	Dez 17 16:33	Filesystem: /home/na
ohm2013	.odp	891575	Mär 11 16:04	Device: /home/na/.Private
*open-sea	~er].zip	79964K	Sep 16 2013	Type: ecryptfs
sd	[sd2].md	60	Feb 6 17:27	Free space: 1705M/34G (4%)
*sdad	asd~10].txt	33	Nov 10 15:48	Free nodes: 1570142/2240224 (70%)
sofica	[2~y).html	8502	Feb 27 11:49	
*sdad	asdfa sdsa[20131110].txt			

Hint: Do you want lynx-style navigation? Set it in the Configuration dialog.
na@nemesis:~/Dropbox/TagSpaces/sandbox\$ [^]

```
1 Help 2 Menu 3 View 4 Edit 5 Copy 6 RenMov 7 Mkdir 8 Delete 9 PullDn 10 Quit
```



USE CASES - FILE TAGGING

- TagSpaces uses the file name for saving the tags
- tags are saved after the following schema:
- file title [tag1 tag2 tag3].extension
- example: img_2343 [USA beach miami].jpg
- example: meeting [bmw 20140214 john].html

File Ext.	Title	Tags
<input type="checkbox"/> JPG	img_2343	USA beach miami
<input type="checkbox"/> HTML	meeting	bmw 20140214 john



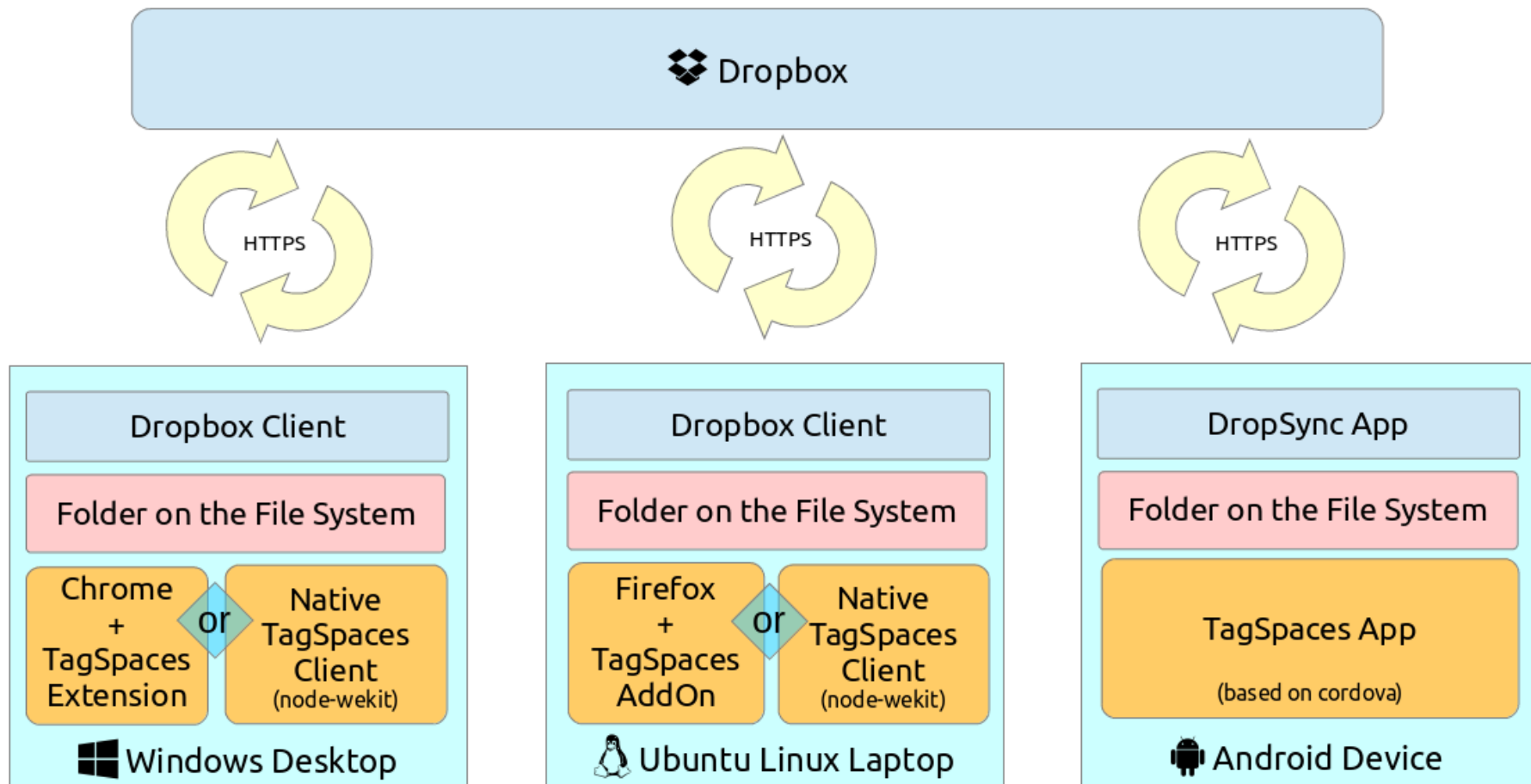
FILE SYSTEM AS A DATABASE

- No database locking
- Findability - with the search capabilities of your operating system
- Easy to synchronize between devices (just work in a dropbox folder)



SYNC TAGGED FILES BETWEEN DEVICES

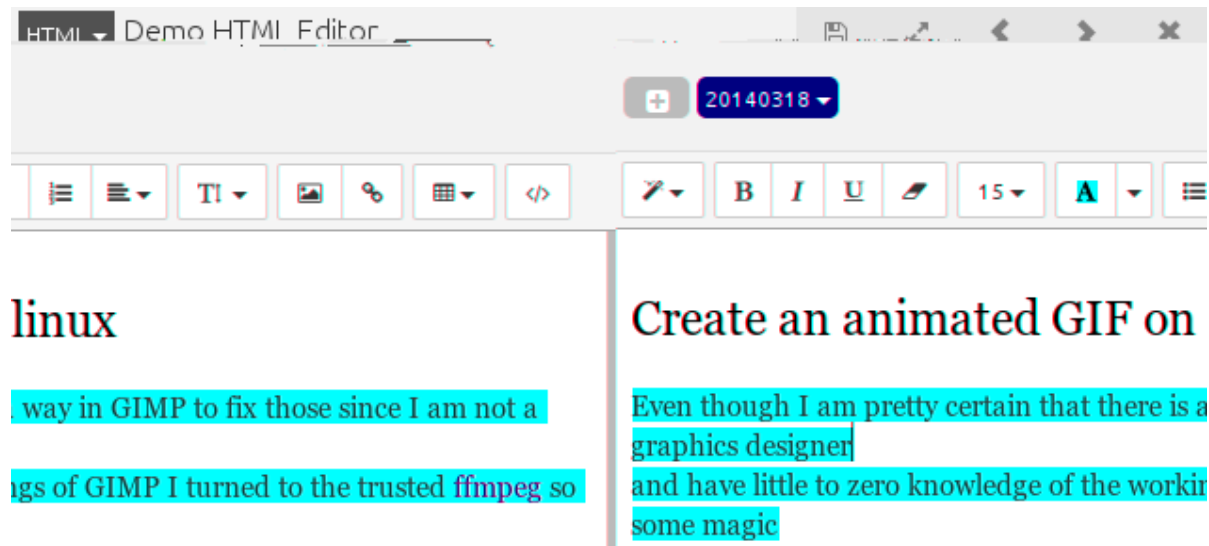
Dropbox offers a great way to sync tagged files across multiple devices





USE CASES - FILE EDITING / NOTE TAKING / EVERNOTE

- TagSpaces can also edit some text file types
- HTML
- Markdown
- Text Files
- Sourcecode (C, Java, C++, Javascript, PHP, Ruby, XML)





TAGSPACES AS OF V1.7

The screenshot displays the TagSpaces application interface. The main window shows a file list with columns for file type, name, and tags. The sidebar on the left contains navigation options for tags and dates. The right pane shows the content of the selected file, which is the README for TagSpaces.

Common Tags: book, paper, tagspaces, location, contact, restaurant

Smart Tags: now, today, tomorrow, yesterday, month, year

File List:

File Type	File Name	Tags
JPG	Infographic-BIG-DATA	healthcare, InFoviz, low
GIF	manhattan-heights	
HTML	Meeting Notes	
HTML	Meeting with Smith	projekt, notes, 20130911-140550
HTML	Meeting with Steve	gespraech
PDF	Mongos	location, restaurant
MHTML	NoBackend Front-End First	
HTML	Note Jordy	nesh, 20140107
MD	README	
HTML	rewrite	next

README Introduction:

TagSpaces is a open source application for managing of your local files. You can find more information about the application on the [TagSpaces website](#), [TagSpaces blog](#), [TagSpaces issues tracker](#) and [TagSpaces wiki](#).

- [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 right of this page. - Subscribe to RSS feed updates for the master branch

BUILT WITH GRUNT

Repository Directory Structure

```
./data.....see the next lines
./data/assets.....contains all the css and images used in the application
./data/ext.....contains the code of tagspaces extensions
./data/js.....contains the javascripts which run the application
./data/libs.....contains external javascript libraries together with the
they are distributed
./data/chrome.....contains some files which are specific for the chrome bro
tension
./data/cordova .....contains files needed for the building of the android app
n which is based on cordova
./data/mozilla.....contains javascript files implementing core functionality
e mozilla extension based on addon sdk
./data/node-webkit...contains files needed for the windows, linux and mac os b
the application
./data/templates.....contains HTML templates needed for the UI
```



MY 'HEALTH DATA' WORKFLOW

- Collecting the data ↴
- Organizing the data ↴
- Live Demo ↴
- Visualizing my weight ↴
- Adding new weight data entry ↴
- Conclusions ↴



COLLECTING THE DATA

- taking screenshots from your after every measurement
- using the export functionality of your device (if available)
- e.g. my scale has usb port so I can export all the data in CSV
- taking photos of the device (if it shows the result of the measurement)



ORGANIZING THE DATA

- Once a week collect all the screenshots / photos
- Organize and tag those screenshots in 10 minutes
- Convert your CSV to tagged files (easy with scripts)

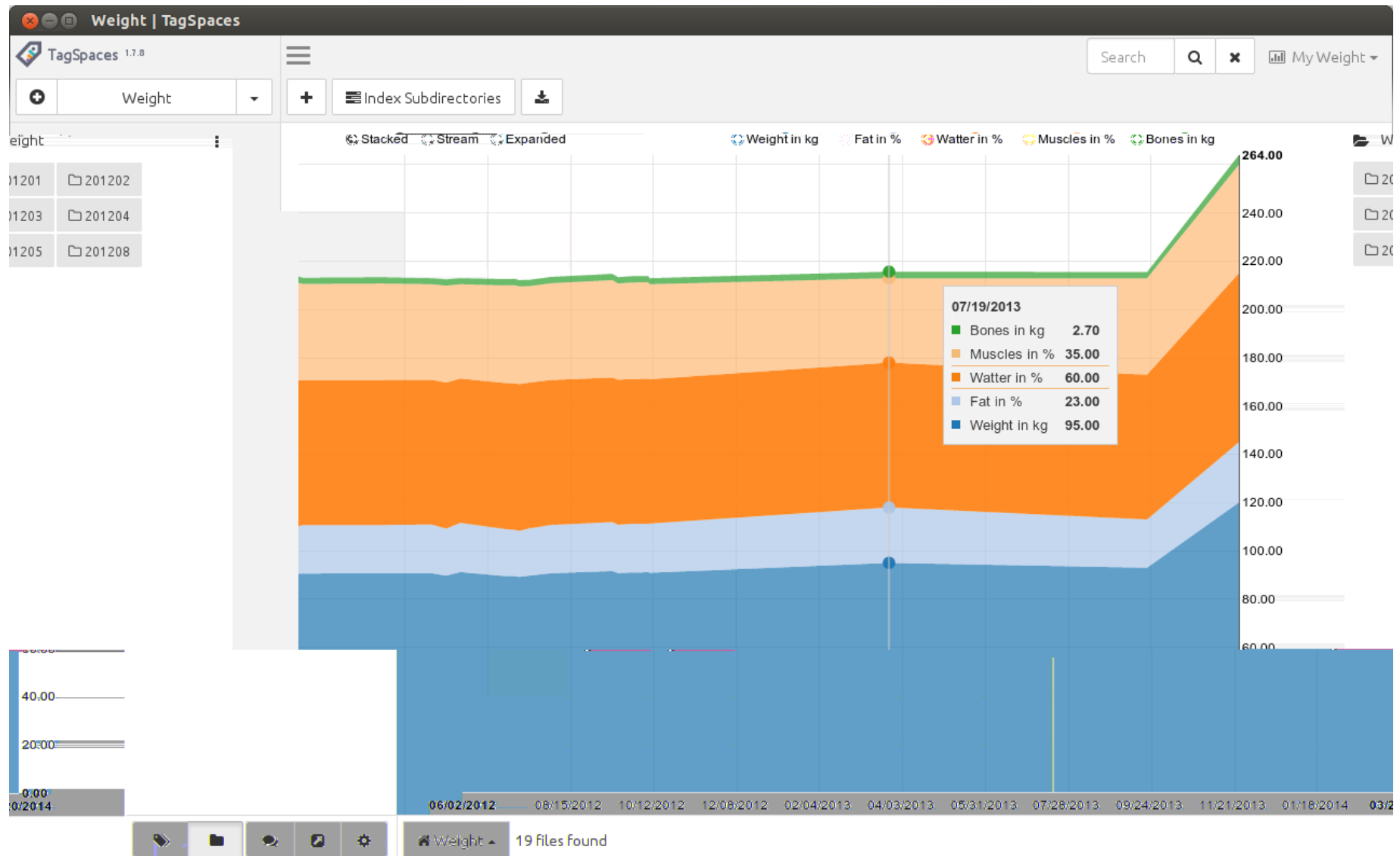


LIVE DEMO



VISUALIZING MY WEIGHT

Feature currently in development





ADDING NEW WEIGHT DATA ENTRY

Feature currently in development

The screenshot displays the TagSpaces 1.7.8 application interface. A central dialog box titled "Create Weight Data Entry" is open, allowing users to input new data. The dialog box contains the following fields:

- Date: 20140320
- Weight in kg: 0.0
- Fat in %: 0.0
- Watter in %: 0.0
- Muscles in %: 0.0
- Bones in kg: 0.0

At the bottom of the dialog box, there are "Cancel" and "Ok" buttons. The background interface shows a sidebar with folders (201201-201208), a search bar, and a stacked area chart showing weight components (Muscles in %, Bones in kg) over time. The chart shows a significant increase in weight components starting around 01/18/2014, reaching 264.00 kg by 03/20/2014.



CONCLUSIONS

- You can experiment with many kind of devices and apps
- While letting you stay not vendor locked
- Not suitable for measurements happening to often
- It is still heavy manual approach
- It needs optimizations, eventually OCR for automatic tagging



SUPPORTED PLATFORMS

Download it from tagspaces.org/downloads for:

- Windows ↴
- Mac OS X ↴
- Linux/Ubuntu ↴
- Android ↴
- Firefox ↴
- Chrome ↴
- iOS ↴

Windows



Extension for Chrome

Mac OS X



Add-On for Firefox

Linux



Android

Debian/Ubuntu



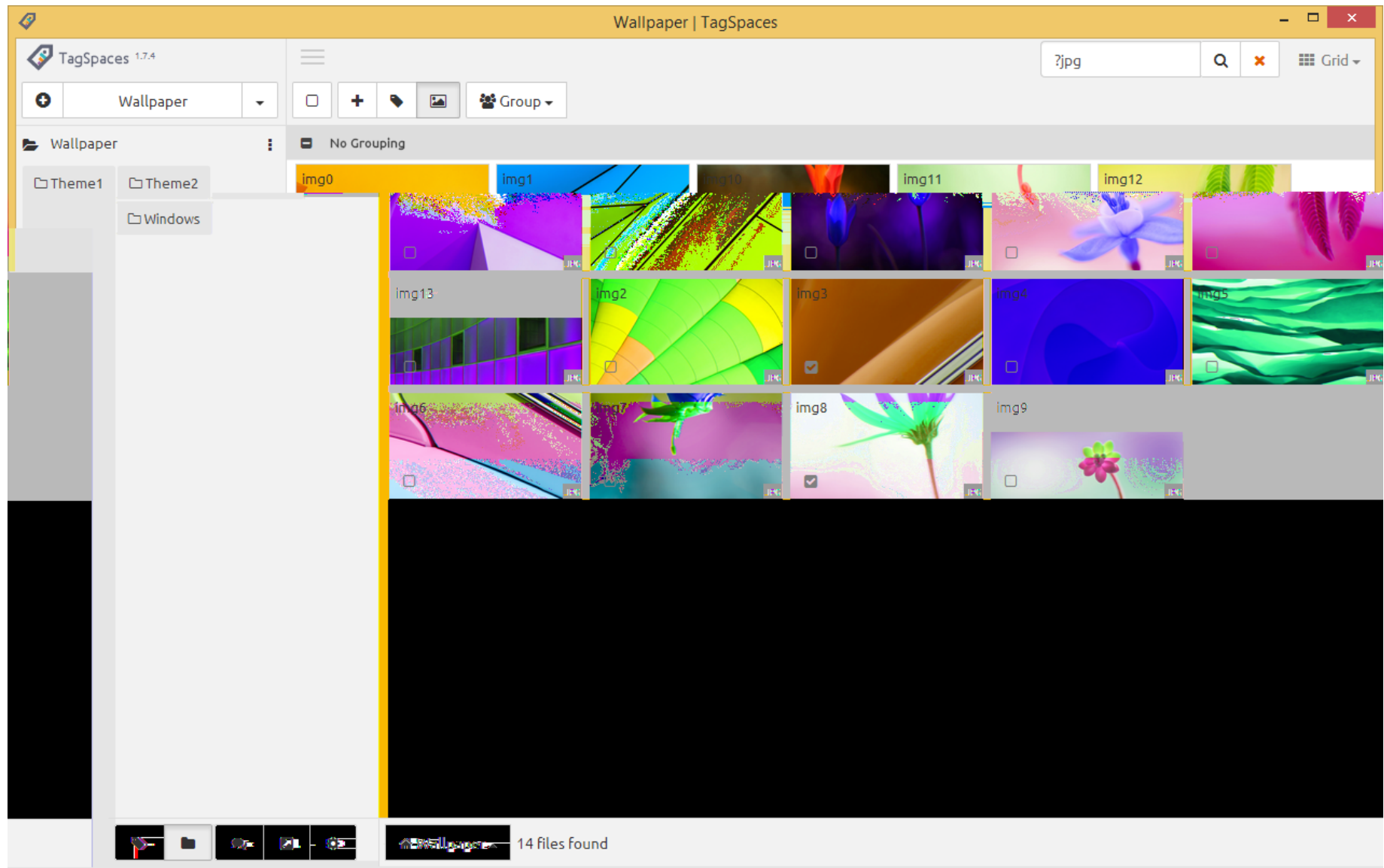
iOS





WINDOWS

Native 32bit Application





MAC OS X

Native 32bit Application

Desktop | TagSpaces

TagSpaces 1.7.4

Search

List

JS settings.default

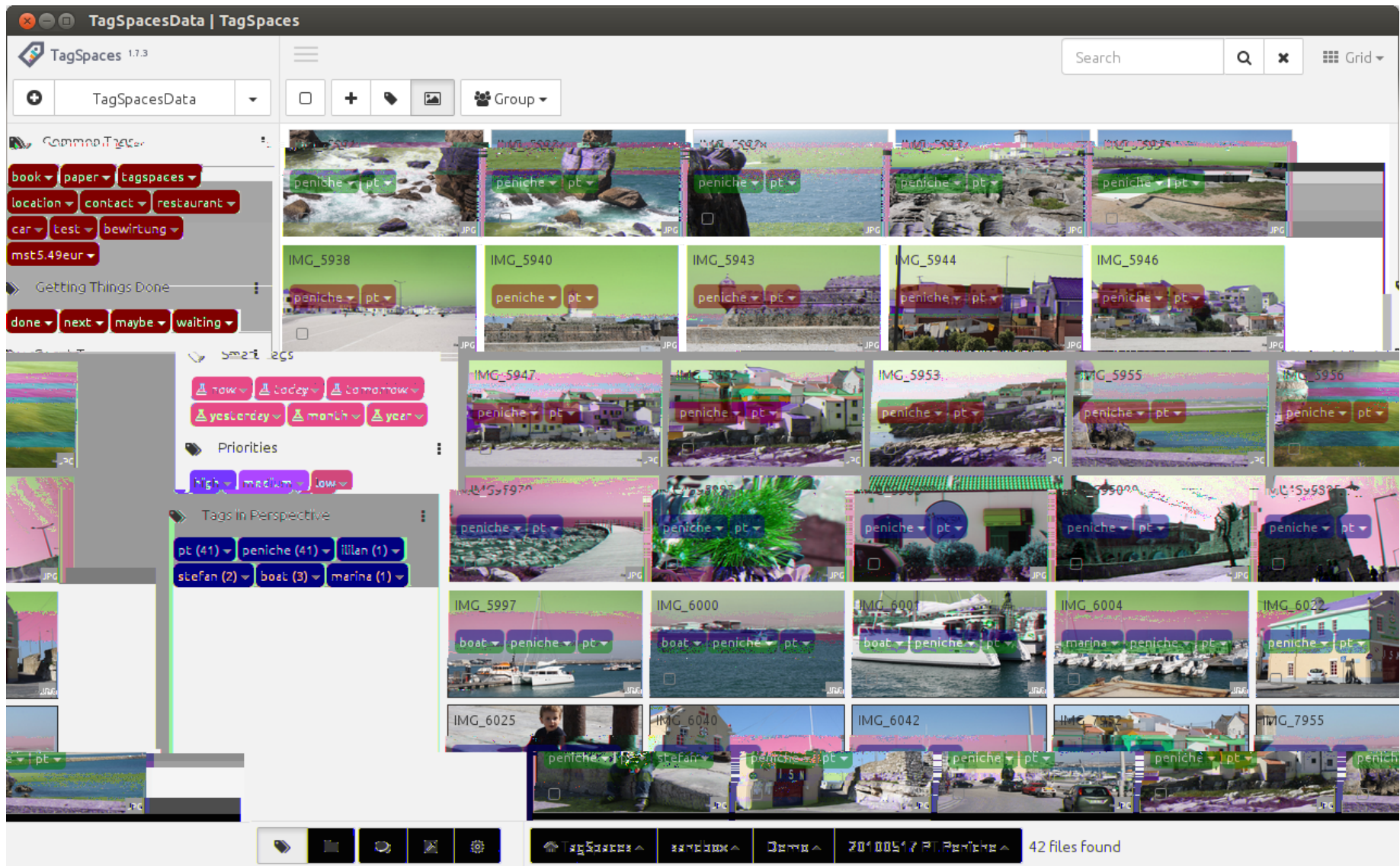
File	Ext	Title	Tags
32		ffmpegsumo.so	
HTML		lkäölää	next
HTML		sample	paper 20140121
JS		settings.default	
MP3		Katy_Perry_7e555a87	
PDF		Chameleon - PureDarwin	20140121 paper
PNG		welcome-screen-1	
TXT		lhkhklkhkhü	paper 20140121
WEBARCHIVE		Chameleon - PureDarwin	20140121
ZIP		test	

```
1 /* Copyright (c) 2012-2014 The TagSpaces Authors. All rights reserved.
2
3 * can be found in the LICENSE file.
4
5 define(function(require, exports, module) {
6
7     "use strict";
8
9     exports.defaultSettings = {
10       "appName": "TagSpaces",
11       "appVersion": "1.7",
12       "appBuild": "4",
13       "appBuildID": "201402172130",
14       "settingsVersion": 2,
15       "newTextFileContent": "Text file created with TagSpaces!",
16       "newHTMLFileContent": "<html><head><title>Created with TagSpaces!</title>
17       </head><body>Peel free to change this text...</body></html>",
18       "showHiddenEntries": false,
19       "checkForUpdates": true,
20       "lastOpenedDirectory": "",
21       "tagspacesList": [],
22       "extensionsPath": "ext",
23       "prefixTagContainer": "",
24       "tagDelimiter": " ",
25       "calculateTags": false,
26       "ootbPerspectives": ['perspectiveList', 'perspectiveGrid',
27       'perspectiveGraph'],
28       "ootbViewers": ["viewerBrowser", "viewerMD", "viewerImage", "vi
29       "editorText", "viewerText"],
30       "ootbEditors": ["editorHTML", "editorText"],
31       "perspectives": [
32         { "id": "perspectiveList" }, // ID should be equal to the di
33         where the extension is located
34         { "id": "perspectiveGrid" } // ID should be equal to the dire
35         where the extension is located
36       ],
37       "supportedFileTypes": [
38         { "type": "jpg", "viewer": "viewerImage", "editor": "fa
39         { "type": "jpeg", "viewer": "viewerImage", "editor": "fa
40         { "type": "gif", "viewer": "viewerImage", "editor": "fa
41         { "type": "png", "viewer": "viewerImage", "editor": "fa
42         { "type": "svg", "viewer": "viewerBrowser", "editor": "ed
43         { "type": "pdf", "viewer": "viewerPDF", "editor": "fa
44       ],
45       { "type": "html", "viewer": "viewerBrowser", "editor": "
46       { "type": "htm", "viewer": "viewerBrowser", "editor": "ed
47       { "type": "xhtml", "viewer": "viewerBrowser", "editor": "
48       { "type": "mht", "viewer": "viewerBrowser", "editor": "fa
49       { "type": "mhtml", "viewer": "viewerBrowser", "editor": "
50     ],
51     { "type": "txt", "viewer": "viewerBrowser", "editor": "ed
52     { "type": "xml", "viewer": "editorText", "editor": "ed
53     { "type": "js", "viewer": "editorText", "editor": "ed
54     { "type": "css", "viewer": "editorText", "editor": "ed
55   }
56 }
```




LINUX/UBUNTU

Native 32bit and 64bit Applications





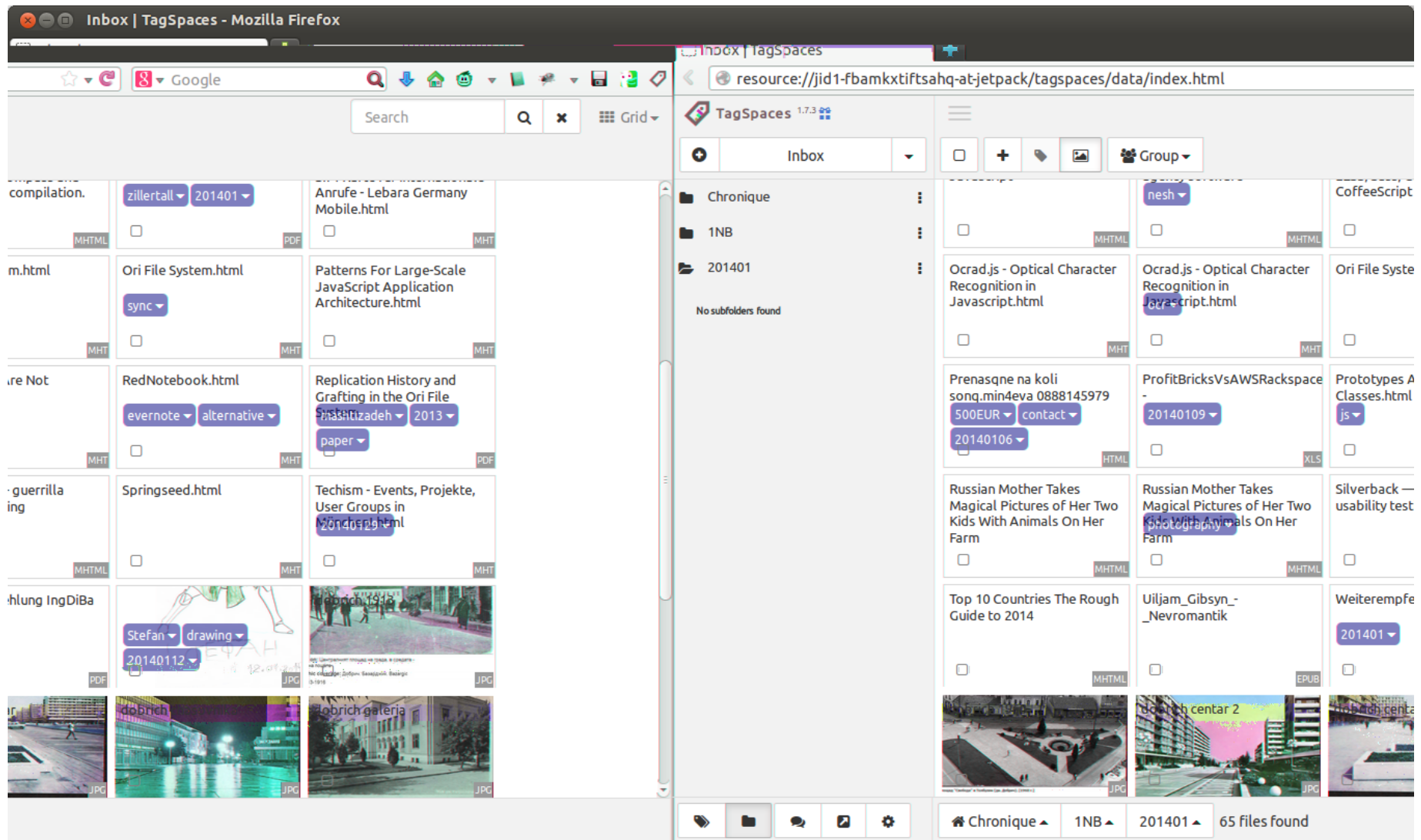
ANDROID

App available in the [Google's Play Store](#)



FIREFOX

Available as Add On





CHROME

Available as Extension

The screenshot displays the TagSpaces 1.7.3 interface within a Chrome browser. The address bar shows the URL `chrome-extension://ldalmgifdgpiaideccbcjojjeanhjk/index.html`. The interface is divided into several sections:

- Left Sidebar:** Contains a file tree with folders: TagSpaces, sandbox, and mediatests. Below the folders, it states "No subfolders found".
- Main File List:** A list of files with their formats and names:
 - 3GP - sample
 - AVI - FileSearch
 - M2V - sample_mpeg2
 - M4A - Memo
 - M4V - sample_iPod
 - MOV - sample_sorenson
 - MOV - sample_itunes
 - MP3 - Disco Partizani (with a green "Shantel" tag)
 - MP4 - sample_mpeg4
 - OGV - big_buck_bunny (highlighted in yellow)
 - WEBM - big_buck_bunny
- Right Panel:** A video player showing a scene from the movie "Big Buck Bunny" with the title "Big Buck BUNNY" overlaid. The video progress is at 0:00.
- Context Menu:** A menu is open over the video player, showing options: "Cast this tab to..." (with a "BETA" badge), "ChromecastSAP", "Options", "Send feedback...", and "Help".
- Bottom Bar:** Shows navigation icons and a status bar with "TagSpaces", "sandbox", "mediatests", and "13 files found".



THE END

THANK YOU! QUESTIONS?

Ilian Sapundshiev @ilianste

Powered by [Mindslide](#) for [Freeplane](#), using [Reveal.js](#)