

#SWAGTUSK

DevOrganizer

User Manual

Comp 450, Software Engineering

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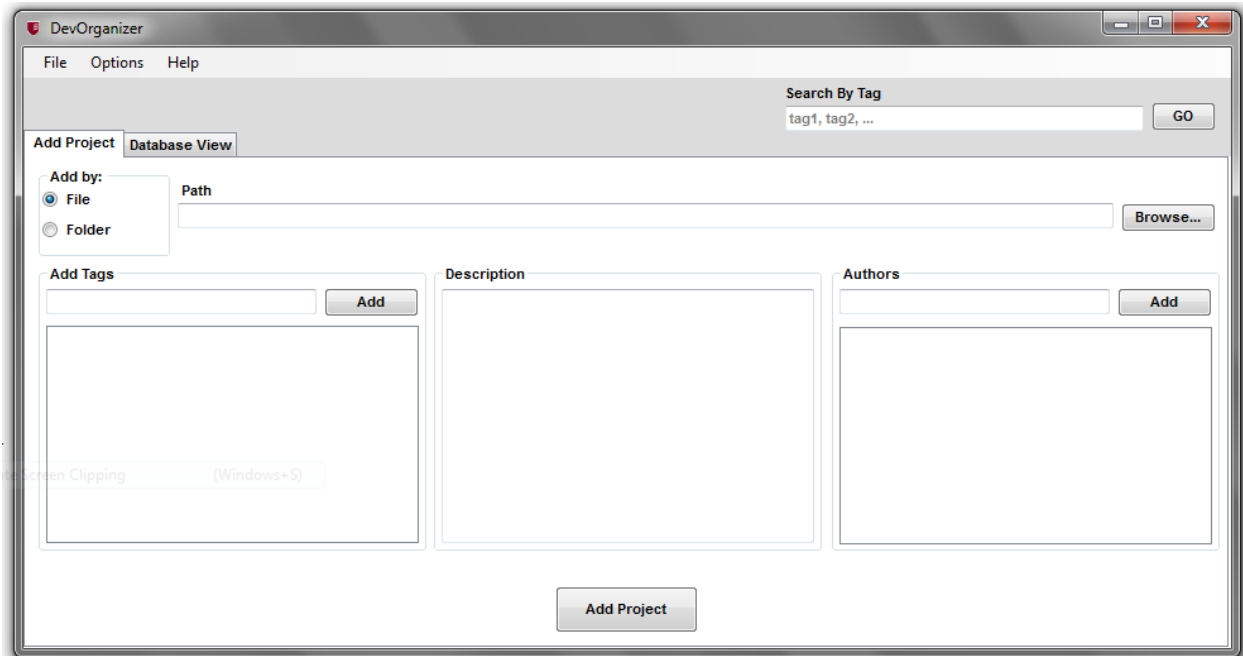
1.0 - Introduction to DevOrganizer

Welcome to DevOrganizer! This intuitive and lightweight project organizer is essential for any developer who desires efficient organization and possesses an abundance of projects and directories. DevOrganizer allows developers to store file paths to their various projects and directories in a compact and lightweight database, which allows for quick access and response. DevOrganizer's unique tagging system allows users to attach keywords to their stored projects, providing creators with the ability to quickly query by specific tags or combinations of tags, in order to find specific items. DevOrganizer allows the user to also record descriptions and a list of authors for each individual entry. We hope that DevOrganizer increases the productivity of your projects and saves you valuable time and effort when searching through your numerous files and projects!

2.0 - Operation Manual

2.1 - Using DevOrganizer:

DevOrganizer has two primary views, the Add Project View and the Database View. These views can be toggled back and forth by clicking on their respective tabs, located near the top of the DevOrganizer window.



2.1.1 - The Add Projects View

This is the Add Projects Tab, where the user is able to create entries in the local database. This view allows the user to specify the path to the folder or directory, the specific tags he wishes to attach to the entry, an optional description, and an optional list of authors of the project.

2.1.1.1 - Adding a Project

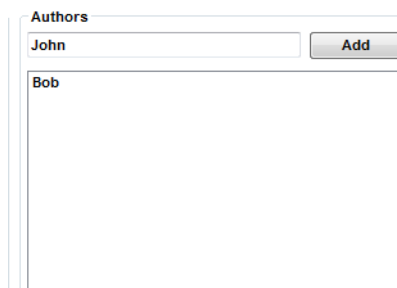
To add a project, the user must first select whether he wishes to add a project (file), or directory (folder). This is decided by selecting one of the radio buttons on the left side of the view. Then, the user may either type in the full path to the project or directory, or click the browse button. This button opens a dialog box, allowing the user to browse through an explorer window to the specific project file or directory. When the correct file has been selected, simply click Ok.



Next, the user can add tags to the project through the Add Tags module. At least one tag must be specified per added project. Once a tag has been typed into the field, click the Add button. The tag will then be listed in the white space below the button. Adding subsequent tags will list them chronologically below. To remove an added tag from the list, right click on the specified tag and click Delete.



The user is also able to add optional authors to the project entry, in a similar manner to adding tags. Enter the authors into the text box on the right side of the screen, and click Add to add the author to the project. Deleting an author from the list is the same as deleting a tag, simply right click on the author name and click Delete.



An optional description can be added to the entry as well. Enter the description into the Description Box.

Description

Here is a description.

Once all the required fields have been filled, click the Add Project button at the bottom of the view. If everything has been entered correctly, a dialog box will pop up, displaying “Project Added!” The project entry has now been successfully added to the database.

Add

Description

Here is a description.

Authors

John

Bob

Add Project

2.1.2 - The Database View

This view contains all the current entries in the database. Upon clicking the Database View tab, the table will be updated and displayed to the window. The database is broken into four columns: filepath, tags, author, and description. These four columns correspond to their respective entries in the Add Projects View (See: Adding a Project).

DevOrganizer

File Options Help

Search By Tag

tag1, tag2, ... GO

Add Project Database View

Reload View

Check Data Validity

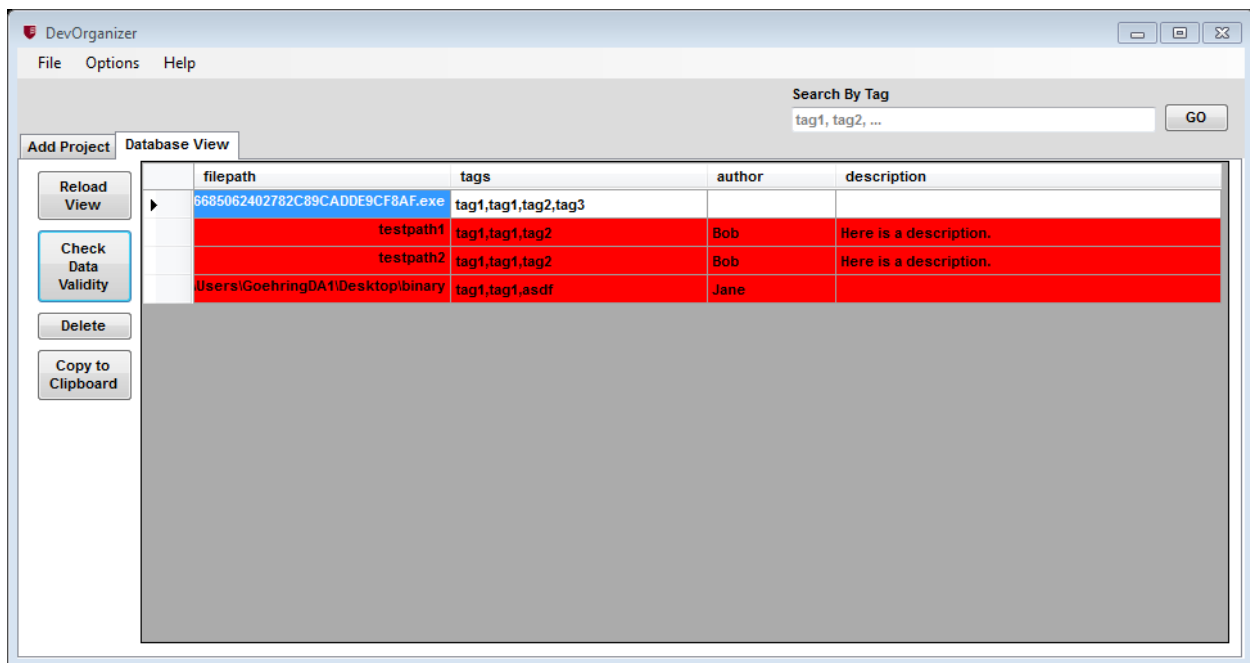
Delete

Copy to Clipboard

filepath	tags	author	description
6685062402782C89CADDE9CF8AF.exe	tag1,tag1,tag2,tag3		
testpath1	tag1,tag1,tag2	Bob	Here is a description.
testpath2	tag1,tag1,tag2	Bob	Here is a description.
Users\GoehringDA1\Desktop\binary	tag1,tag1,asdf	Jane	

The Reload View button forces DevOrganizer to request the database again, and reload the database view window. If any changes have been made to the database since the view was last updated, this will visually update the view and display all entries currently in the database.

DevOrganizer keeps track of whether or not the current file paths entered into the database are actually valid. By clicking the Check Data Validity button, DevOrganizer will check each file path to verify whether or not the path is valid. If DevOrganizer finds an invalid path, the row is colored red.



2.1.2.1 – Deleting a Project

To remove a specific entry from DevOrganizer's database, simply select the entire row of the entry you wish to delete. Then, click the Delete button. This will remove the selected entry from DevOrganizer's database.

2.1.2.2 – Copying File Paths to the Clipboard

DevOrganizer allows the user to copy file paths to the clipboard. Simply select the cell(s) to be copied, and click the Copy to Clipboard button. If the copy is successful, the word 'Copied' will appear below the button, and slowly fade. The user can then paste a comma-separated list of the contents of the cells he copied to wherever he desires, in the same manner as copying a normal text string.

2.1.2.3 – Opening Files/Directories

Projects and directories can be opened from within DevOrganizer. Double-clicking on any valid filepath entry will result in the project or directory being opened in a separate window.

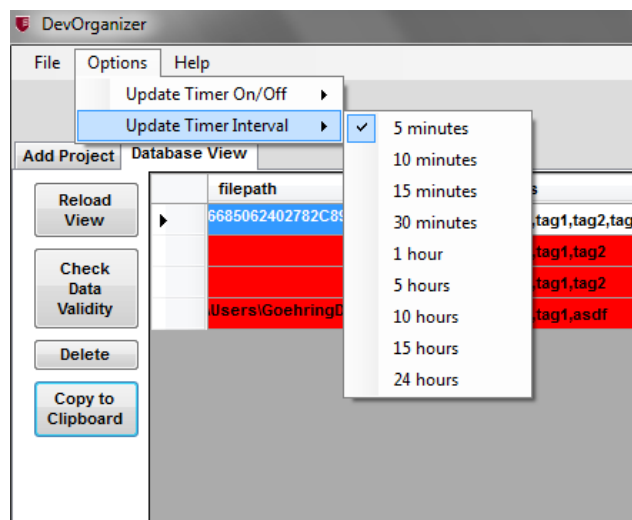
2.1.2.4 – Editing a Project

Tags, authors, or descriptions can be edited directly in the database view. Double-click on the specific entry you wish to change, and edit the field. Clicking outside of the field will save the entry. NOTE: Tags must be listed in comma-separated order to be properly searched by DevOrganizer.

2.1.3 – Other Features

2.1.3.1 – Update Timer

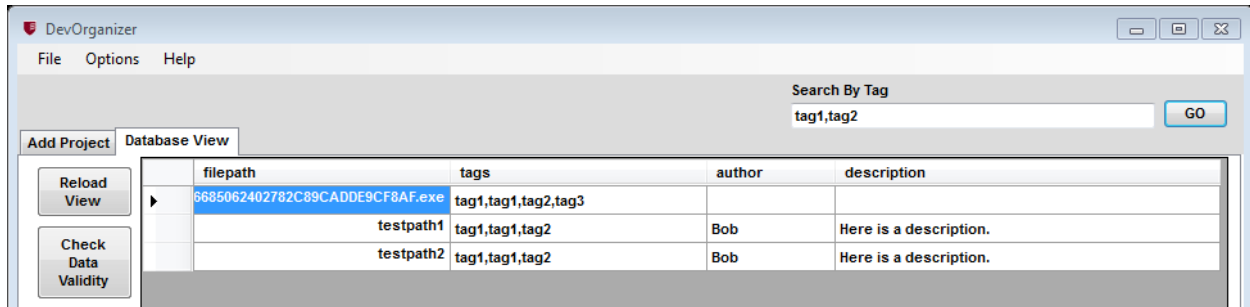
Apart from the Check Data Validity button, DevOrganizer can be set to automatically check the integrity of saved file paths on a timer. On the dropdown menu at the top of the window, select Options. Here, the user is able to turn the timer on or off, and set the time interval with which DevOrganizer will check the path integrity.



2.1.3.2 - Searching in DevOrganizer

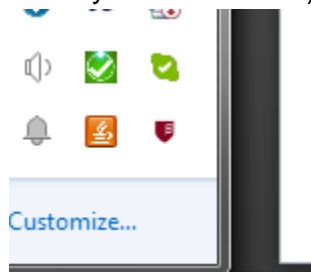
DevOrganizer's primary feature is the ability to search for projects. It is able to search up to three tags at once, and displays the results in the database view window. As seen from the grey text written in the field located at the top-right corner of the window, tags must be listed as a comma-separated list. Any tag after the third tag will be omitted from the search. Once the tags have been entered, click the Go button. DevOrganizer will automatically switch to the Database

View tab, and display the results of the search in the database view window. To display the entire database again, click the Reload View button.



2.1.4 – Miscellaneous Information

DevOrganizer is designed to also run in the background as a tray icon. To enable this feature, click File, then Hide to System Tray. DevOrganizer will run in the tray, and is able to be re-opened by clicking on the tray icon (denoted by the Red Shield).



If at any point the user wishes to view the documentation of DevOrganizer, he must simply click Help, then click the ReadMe button. This will open DevOrganizer's ReadMe file.

3.0 - Maintenance Manual

DevOrganizer is almost completely self-maintaining, however it is essential to the operation of the software that **DevOrganizer.exe** is kept in the same folder as **DevOrgDB**. Otherwise DevOrganizer will not be able to run correctly and an error will appear upon execution of the program. Instead of moving **DevOrganizer.exe**, it is recommended that the user create shortcuts and place them in locations that are convenient for them.

4.0 - Reference Section

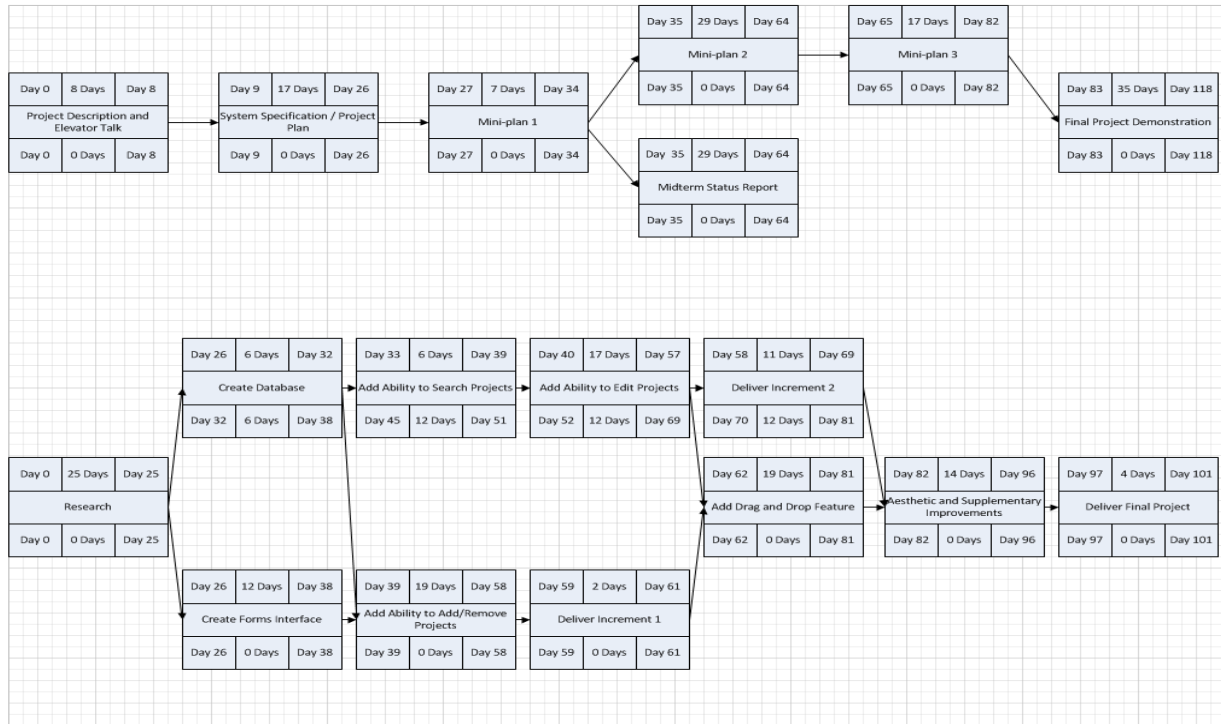
In today's world of large collections of electronic files, document organization software is a necessity. Because organization is such a large issue, many pieces of software are already on the market for document organization. Although they have specific foci, each software package provides similar elements. PaperPort, while geared toward scanning, storing, and sorting hard-copies of documents, includes a search tool that is "great for finding something in a long

document.”[i] This is a highly desirable feature in any document organization tool and one that our software will implement. Perhaps a more well-known organizer is Evernote, which boasts most proudly in its flexible organization. “Methods of organization can be as individual as a [user]’s needs; Evernote cannot be used incorrectly because it is an extremely flexible tool that can be adapted and tailored to satisfy the needs of any [user].”[ii] Another key feature of Evernote is the tag tool by which the documents are organized and searched. These combined features of tagging, searching, and previewing documents are what make DevOrganizer an efficient and highly useful piece of software for any software developer.[iii][iv]

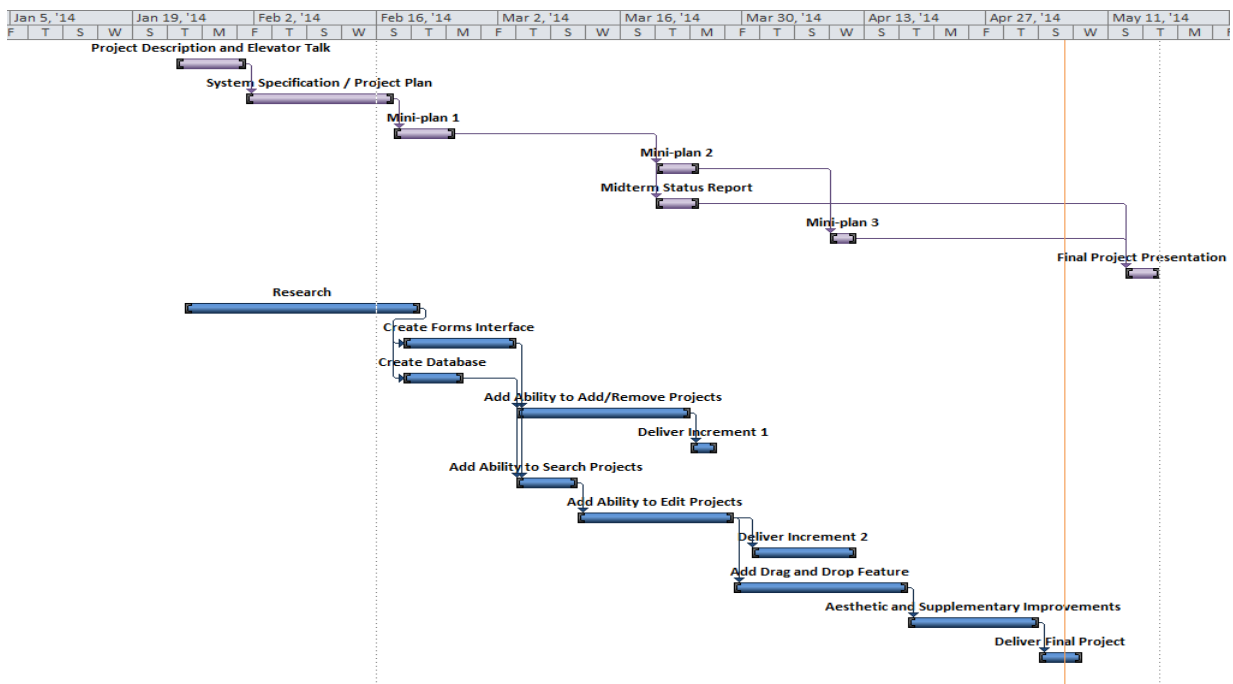
Appendices

Appendix A

PERT



GANTT



In our effort predictions, we predicted that we would spend an overall 111 person-hours of work on DevOrganizer (see above PERT and GANTT charts). This was a gross but expected overestimation of the time required to complete the necessary tasks. We generally stayed true to our original function point estimate of 37 function points. An additional external input was added in order to check the validity of the database information. In the function point analysis, we predicted that we would spend ~75 person-hours over the course of 37 function points. The following table illustrates our estimated time of completion for each component of the software as well as the actual time in man-hours that each task took.

Task	Estimated Time (person-hours)	Actual Time (person-hours)
UI Construction	20	5
Creating Database	6	3
Linking Database to Software	3	3
Adding/Removing Projects	15	4
Searching for Projects	10	14
Editing Projects	12	2
Drag/Drop Feature	12	0 (not implemented)
Total	78	41

Appendix B

DevOrganizer is mostly on par with the requirements set by the system specification. The only exception to this is the omission of the drag and drop feature. This was supposed to allow the user to drag and drop files/directories onto DevOrganizer to add new projects. Due to complications with the database we were not able to devote enough time to this feature and it had to be removed.

As can be seen in the GANTT chart in Appendix A, we allocated much of our time in increment three on making supplementary and aesthetic changes. These changes included file path syncing, opening files and directories from within the application, and copy-to-clipboard functionality. File syncing became an apparent need after discovering an issue with moving file locations after inputting file paths into the DevOrganizer database, while the following two changes were implemented upon the request of Scott Hatfield.

Appendix C

Testing of DevOrganizer was done at periodic intervals throughout the creation and increasingly more thorough as completion neared for quality assurance. Some of the more major and/or frustrating errors encountered throughout the testing period involved syncing and information display. The app struggled on load if the database was completely empty. Including a default database containing a shell project which doesn't exist initially bypassed this problem. Later increments of DevOrganizer uncovered a solution that allows for an empty database so long as it has the data necessary to format its entries.

Sorting the cells while editing them was the source of another error where information overflowed into other project cells overwriting the indigenous data, losing that information. This was worked around and should be taken note of by the user. Initially the DevOrganizer database viewer had a sync column to show whether or not a file-path was legitimate. Issues with the database made it difficult to display the contents of the column on the screen. This column was therefore hidden and projects out of sync now are shaded red.

Querying multiple tags also posed difficulties initially, though a solution was eventually reached by altering the queries sent to the database.

Appendix D

Estimated defect removal efficiency:

Increment Number	Errors Found Before Delivery	Errors Found After Delivery	Defect Removal Efficiency
1	1	2	33%
2	2	2	50%
3	0	N/A	N/A

Endnotes

[i] Allen, Danny. "Latest PaperPort Offers More Robust Features." *PC World* 24.11 (2006): 80 Print.

[ii] McNally, Eileen. "Evernote: A Tool for Educators." *Delta Kappa Gamma Bulletin* 80. 2 (2014): 56 Print.

[iii] Duffy, Jill. "Evernote (Web)." *PCMag* Web. Feb. 16, 2014.
<<http://www.pcmag.com/article2/0,2817,2383054,00.asp#top-header>>

[iv] McCarthy, Mac. "Evernote Review: Organizing Your Life on an iPhone." *Brighthand* April 3, 2012.
Web. Feb 16, 2014. <<http://www.brighthand.com/default.asp?newsID=18765>>