

Improving Storms User Experience

I believe that reducing the cognitive load on the user is key for a good user experience. We want to create a state of flow, where the users mind is only challenged within its comfort zone. Clearly this comfort zone is different for every user. But the general rule of the "Magical Number 7, plus or minus two" is a good starting point. As of now, Storm requires the user to remember the context of the page she is on. This context is created from previous actions, which can be hard to remember.

The reader may object that programmers usually have a lot more short term memory for variables and thus for context. This is true, but this memory is hopefully already allocated when working and we don't want to waste it on non-productive tasks. By non-productive, I mean anything that can not be billed to the client.

In this sense every user action in Storm is non-productive (albeit necessary) work, because it can not be billed without alienating the customer. This paper intends to help cut down on this waste by making suggestions for improvement in Storms user interface.

Areas of Work

I believe there is work needed in these areas:

- Provide more context to the user
- Reduce inconsistencies
- Speed up navigation

These recommendations are based on the demo at <http://drupal6storm.beta-web.co.uk/>, I'm not sure, which of the identified issues are actually caused by Storm Modules or by the demos configuration. But improving the modules and improving the demo would both serve to help acquire more users for Storm.

Screen Types

There are basically four screen types in Storm.

- Dashboard
- Node List
- Node Detail
- Node Edit/Add

Dashboard

When visiting the frontpage, the user is greeted with a dashboard of icons providing links to the respective content lists (see: Image 1).

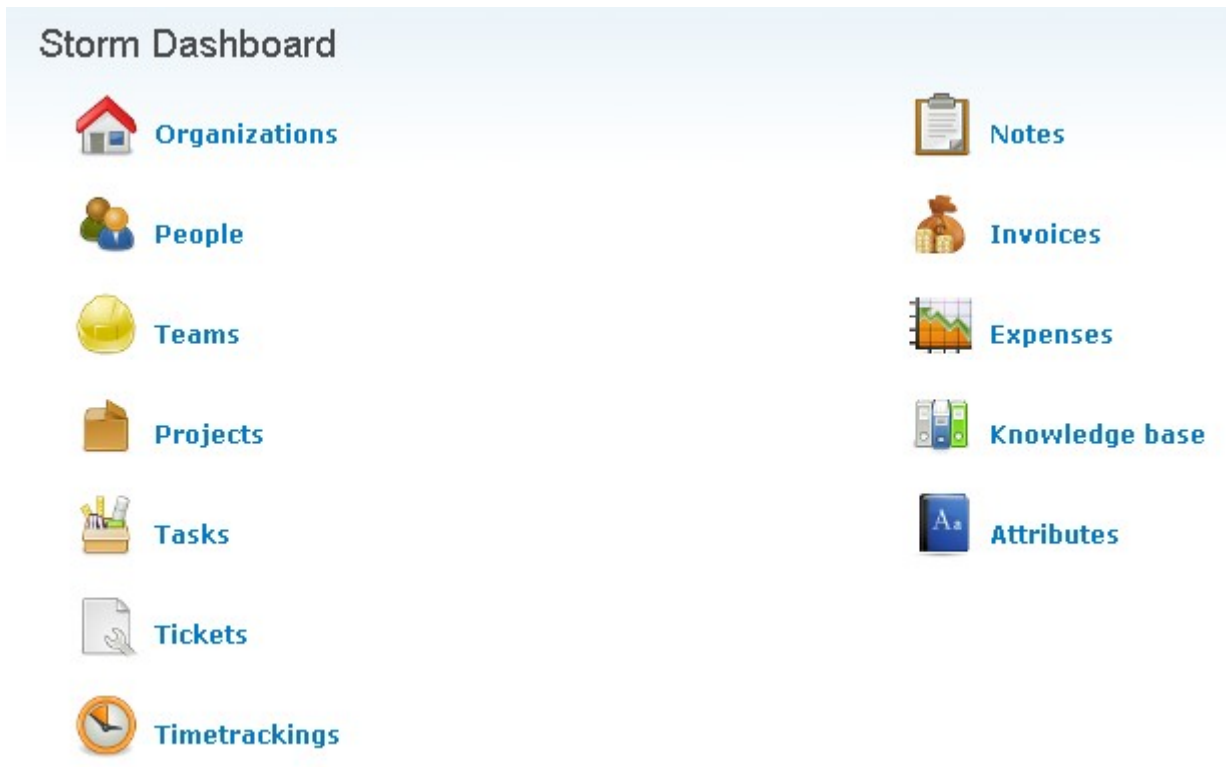


Image 1: Dashboard of Storm Demo Site

The user would have expected more information from a dashboard, but this is not within the scope of this paper. The way it is, it is nice and clean.

Node List Pages

Clicking an icon on the dashboard opens a Node List Page. In this case the user choose Projects (see: Image 2):

Projects				
— ▷ Not filtered 10 items per page				
	Organization	Title	Status	Priority
	Example Organization	Example Project	●	■
	Example Organization	Secret Project	●	■
	Example Organization	eee	●	■
	Example Organization	Test Project	●	■
	Magnity Webdesign	Merging	●	■
	Generous Firm	Generous Project	●	■
	Papanatas Corp	Papa	●	■

Image 2: Projects Node List Page

The icons from the dashboard disappeared and a new one is introduced. Clicking an organisation name lands the user on to this organizations Node Detail Page (see Image 3).

Example Organization

Thu, 11/19/2009 - 21:05 — admin

Fullname:
Address:
City:
Province / State:
Country: US
Zip:
Phone:
WWW:
Email:
Currency: USD
Language: English
Tax ID:
Note:

- Expenses
- Invoices
- Notes
- People
- Projects
- Tasks
- Tickets
- Timetrackings

Image 3: Node Detail Page for Example Organization

On Node Detail Pages, the icons from the dashboard reappear on the left side, and provide links to the respective content list – filtered by the context of the node you are looking at. The user will later find out, that this is the case on the dashboard as well.

Second Level Node List Pages

But the screen that gets rendered after clicking, doesn't provide this context in an easy to grasp way (see Image 4).

Projects

— ▷ Filtered by Organization | 10 items per page

	Organization ▲	Title	Status	Priority	+
	Example Organization	Test Project <i>new</i>	●	■	
	Example Organization	eee <i>new</i>	●	■	
	Example Organization	Secret Project <i>new</i>	●	■	
	Example Organization	Example Project <i>new</i>	●	■	

Image 4: Projects Node List Page for Example Organization

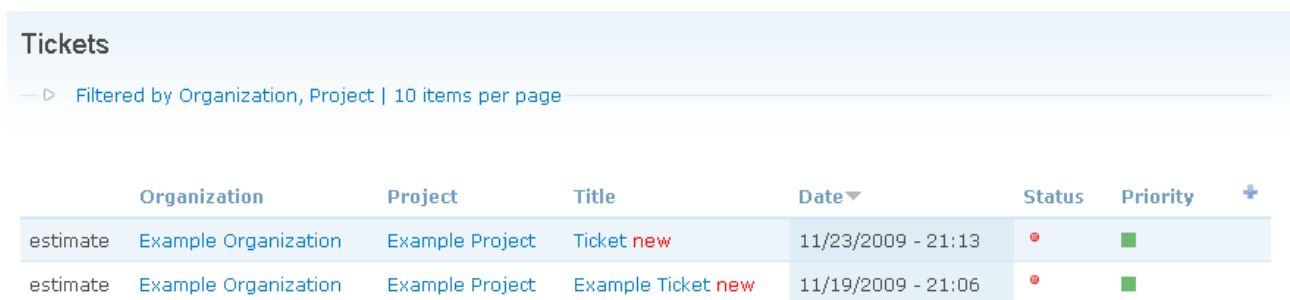
For the user to understand that this has been filtered by the organization “Example Organisation,” she must remember that she came from this organizations Node Detail page. Although the only organisation shown here is “Example Organisation”, she cannot be sure whether this is just coincidence.

When her working memory fails after a distraction of any kind, she has to check the following: Is this screen filtered by organization? Yes. Then the list tells her which organization, because all the values in the first column are identical.

I'd like to suggest to do this differently. The title should be set to something like “Project List for Example Organisation” or in a breadcrumb style “Example Organisation – Projects” and also show the project icon to make visually clear this page is about projects. This icon should be visually differentiated from the icons the user can click on.

Third Level Node List Page

Drilling deeper down into the project, the user encounters a Ticket List Page like this one:



	Organization	Project	Title	Date	Status	Priority	
estimate	Example Organization	Example Project	Ticket new	11/23/2009 - 21:13	•	■	
estimate	Example Organization	Example Project	Example Ticket new	11/19/2009 - 21:06	•	■	

Image 5: Node List Page for Tickets

She sees a ticket title and date, but it is unclear what kind of date this is. Is it the date the ticket was created? And the deeper she gets in the node hierarchy, the less information the Node List Pages give her. Both columns Organization and Projects offer no added value to her - other than providing a shaky sense of context.

In my opinion, the columns Organisation and Project could be completely left out. With a page title in the way already suggested “Example Organisation – Example Project – Tickets” it would be perfectly clear what this page is about. I'd rather not have two columns here that do not add any value. They can be sorted, by there is nothing to sort there because all values are the same. They can be clicked to go to the organization or the Project, but why have these in the table? I'd rather have the two links grouped together somewhere above or below the table (“Go to Example Organisation”, “Go to Example Project”) and remove these Columns. Alternatively the breadcrumb style title elements could be clickable. Removing these two columns would free up space for more valuable information about the tickets in the table.

There is also a first column that the user didn't recognize earlier. Inconsistent to the Project List, in the cell now is some text (“estimated”) instead of an icon. This columns cells should have text in the Project List, too. How does the user know the sort order of icons unless she has memorized the first letter of the information they stand for? But this first column doesn't have a header and thus isn't sortable. This is also inconsistent.

Returning to the dashboard

The dashboard (and node lists) also behave unexpectedly. When the user returns to the dashboard from a page that displayed an organizations project for example, and clicks the dashboard icon “tickets”, the ticket list shown is filtered by organization and project. But nothing told her on the dashboard that the links would have this altered meaning. She has to recognize that the tickets were filtered and how - which is not obvious - and remove the filter.

I wouldn't alter the meaning/destination of the links anyway, because if the user comes from an organisations project list, she wouldn't have to go to the dashboard, if there was a link to this organizations tickets on the project list page.

The user also can get really confused by this. She may even think she returned to the same page, without realising this is a filtered version of it.

To avoid this, links to all related information on each list page - not only on the node detail page - would be helpful. They could be displayed as icons with links, just the way it is now on the node detail page (and change the node detail page to show them in the same place they are in the list page). This would also remove the inconsistency of having those links only on the node detail page.

Tables

The user also encounters an inconsistency with the headers of tables. While clicking on the first four headers sorts the table, the fifth header (+) is behaving differently. In the example screenshot (see Image 4 and 5) this calls a Node Creation Screen for content type project with organisation set to “Example Organisation”, something very different from sorting.

I'd suggest to remove the (+) and put instances of it before and after the table with a caption like this: “+ Create Project for Example Organisation”. Also the generic “Title” caption could be “Project Name”.

In the columns status and priority the user encounters a coloured circle and square. It is not obvious to the user, what these mean. Is a green priority high or low? Does a red status mean its closed or is it not started yet? Hovering over the icon tells her that green status means “1-Low”. But hovering over the Status Icon tells her “inserted”. Is that a synonym for “new and inactive”?

I suggest the following: Let Priority and Status have a text in the cell, which tells exactly what the value is.

Summary

These are the opportunities for improvement I see:

Major:

- Provide page context, i.e. by making the the title of Node List Pages more useful
- Do not (silently) change the meaning of links on the dashboard
- Provide context sensitive links to related nodes on Node List Pages
- Replace columns on List Pages without added value with more useful columns

Minor:

- All Columns should have headers with consistent sorting behaviour
- Cells in Tables should have text and optional icons (maybe except actions like delete or modify, to save space)
- Move (+) for creating nodes from the table header to a better place and rename header of column to “Actions”, where applicable

Let me know what you think.

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