

VYM
—
View Your Mind

©Uwe Drechsel

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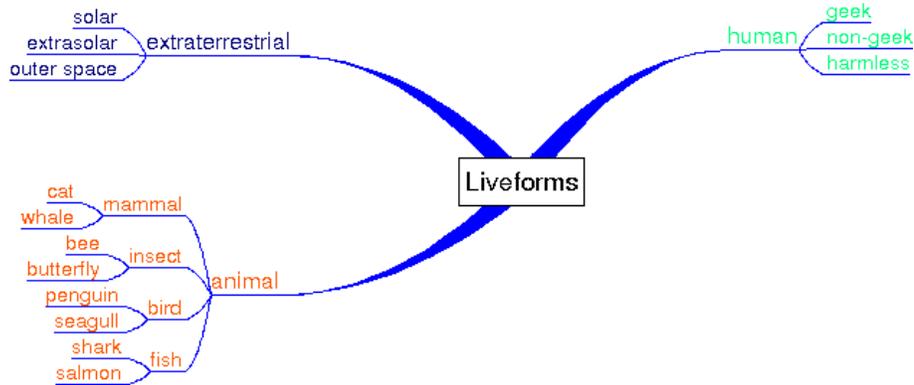
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1 Introduction

1.1 What is a VYM map?

A VYM map (in short words *map*) is a tree like structure:



Such maps can be drawn by hand on paper or a flip chart and help to structure your thoughts. While a tree like structure like above can be drawn by hand or any drawing software VYM offers much more features to work with such maps. VYM is not another drawing software, but a tool to store and modify information in an intuitive way. For example you can reorder parts of the map by pressing a key or add various information like a complete email by a simple mouse click.

1.2 Why should I use maps? Time, Space and your Brain.

Space

A map can concentrate a very complex content on little space e.g. a piece of paper. It helps to use both sides of your brain: the logical side and also your creative side (e.g. by using pictures, colors and keywords in a map, so called *anchors*). It is a technique to organize the way you think: It can help you by developing, sorting and memorizing your thoughts.

Time

Because you just use keywords and drawings, it is much faster than good old fashioned notes. Your brain memorizes things by associating them to other things – a map makes use of those connections and stimulates new associations.

Your Brain

In 1960 the Prof. ROGER SPERRY discovered that both hemispheres of the human brain have different tasks (of course both of them basically *can* do the same):

Left side	Right side
<ul style="list-style-type: none"> • verbal speech and writing • numbers • logical thinking • analyzing and details • science • linear thinking • concept of time 	<ul style="list-style-type: none"> • body language • visual thinking, day dreams • intuition and emotion • overview of things • creativity • art, music, dancing • non-linear thinking, connecting things • spatial awareness

In our science oriented society we have learned to mainly rely on our left side of the brain, the "rational" one. In other cultures, especially like the native americans and other "old" cultures, the right side is much more important. maps are just one way to stimulate the other side and make use of additional ressources we all have.

1.3 Where could I use a map?

Here are some examples, how you can use those maps

- to prepare articles, papers, books, talks, ...
- to sort complex data
- to memorize facts, persons, vocabulary, ...
- to sort emails, files and bookmarks on your computer
- to moderate conferences

1.4 What you shouldn't do with a map...

A map drawn by somebody shows the way the author thinks. There is no right or wrong in the way it is drawn, so there is no way to criticize it. "It is, what it is" (F. LEHMANN).

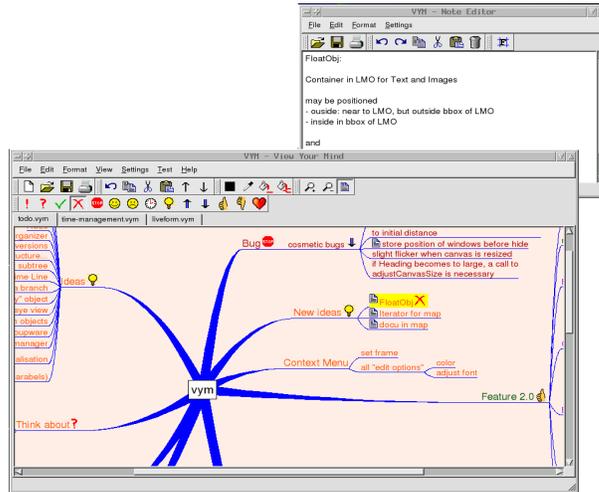
1.5 Internet Ressources

A good starting point to learn more about maps in general is Wikipedia:

- English: http://en.wikipedia.org/wiki/Mind_map
- German: <http://de.wikipedia.org/wiki/Mindmap>

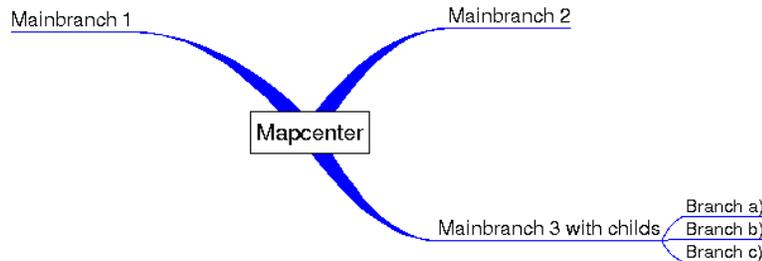
1.6 Concept of VYM

VYM uses two windows: an editor for the map itself and another one for notes, which are part of the map. Let's call them *mapeditor* and *noteeditor*:



Usually you will work in the *mapeditor* by just adding new branches, moving around and reordering them. The various ways to do this will be explained in 2. You can store additional information e.g. the content of an email easily in a *branch*: Just type or copy&paste it into the *noteeditor*. Working with notes is explained in 3

The map itself has always a *mapcenter*. The mapcenter has *branches* just like the trunk of a tree. Each branch in turn may have branches again.



We will call a branch directly connected to the mapcenter a *mainbranch*, because it determines the position of all its child branches.

The mapcenter and the branches all have a *heading*. This is the text you see in the mapeditor. Usually it should just be one or a few words, so that one can easily keep track of the whole map.

In the toolbar above the mapeditor you see various symbols.



These are called *flags* and can be used to mark branches in the map, e.g. if something is important or questionable. There are also more flags set by VYM automatically to show additional information, e.g. when a exists for a particular branch.

By default some of these flags are set exclusively e.g. when the 'thumb-up' flag is set, then the 'thumb down' is unset and vice versa. You can change this default behaviour in the settings menu.

2 Mapeditor

2.1 Start a new map

After VYM is started two windows will open: the mapeditor and the noteditor. Usually you will work in both windows, but at the moment we will just need the mapeditor.

Select the mapcenter "New map" in the middle of the mapeditor by left-clicking with the mouse. It will turn yellow to show that is selected. There are several ways to add a new branch to the center:

- Using the mouse: Open the context menu by clicking with the right mouse button (CTRL-Click on Mac) onto the mapcenter and choose Add →Add as child
- Press [Ins] or [A]

A new branch will appear and you will be able to type the heading of the branch. Finish adding the new branch by pressing [Enter]. Sometimes it comes handy to add a new branch above or below the current one. Use [Ins] together with [Shift] or [Ctrl]. It is also possible to add a branch in such a way, that the current selection becomes the child of the new branch, which is like inserting it *before* the selection. This can be done using the context menu.

2.2 Navigate through a map

Select branches

To select branches you can use the left button of your mouse or also the arrow keys. Depending on the *orientation* of a branch type [←] or [→] to get nearer to the mapcenter or deeper down into the branches. Within a set of branches, let's call them a *subtree*, you can use [↑] and [↓] to go up and down. You can also use [Pos1] and [End] to select the first and last branch.

Zoom a map

While adding more and more branches the size of the map may become bigger than the mapeditor window. You can use the scrollbars on the right and the bottom of your mapeditor window to scroll, but it is easier to just scroll using the left mouse button: Click onto the *canvas* itself, the empty space somewhere between the branches. The mouse pointer will change from an arrow to a hand, now move the visible part of the map to show the desired part.

If you select branches using the arrow keys, the map will scroll to ensure that the selected branch is always visible.

Working with huge maps, the *zoom*-function comes in handy: You can use

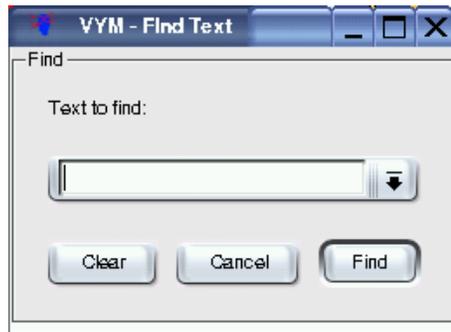
- from the menu View →Zoom
- the toolbar buttons



The crossed magnifying lens resets the zoomed view to its original size.

Find Function

With huge maps there is the need to have a find function. Choose Edit →Find to open the Find Window:



The text you enter here will be searched in all the headings and also in notes. Everytime you press the "Find"-button it will look for the next occurrence, which then will be selected automatically. If the search fails, there will appear a short message "Nothing found" or a few seconds in the *statusbar* on the bottom of the mapeditor.

Scroll a part of the map

A very big subtree of a map e.g. a branch with hundreds of childs makes it very hard to keep an overview over the whole map. You can hide all the childs of a branch by *scrolling* it – this function is also often called *folding*. Think of the whole subtree as painted onto a big newspaper. You can scroll the paper to a small roll, leaving just the headline readable.

To scroll or unscroll a branch and its childs, press the

- [Scroll] key or [S]
- press the middle-mouse button or
- choose the little scroll from the toolbar.

If you select parts of a scrolled branch e.g. using the find function or by using the arrow-keys, it will unscroll temporary. This is shown as a scroll with a little hour glass. If the temporary unscrolled part is not longer needed, it will be hidden again automatically. It is also possible to unscroll all branches using "Edit→Unscroll all scrolled branches".

2.3 Modify and move branches

Modify the heading of a branch

You can edit the heading by selecting the branch and then

- pressing [Enter]
- double-clicking with left mouse.

Just type the new heading (or edit the old one) and press [Enter].

Move a branch

The easiest way to move a branch is to select it with left-mouse and drag it to the destination while keeping the mouse button pressed. Depending on the branch it will be

- moved to the destination or

- *linked* to a new *parent* (mapcenter or branch)

If you drag the branch over another one or over the mapcenter, you will notice that the link connecting it to the old parent will be changed to lead to the new parent which is now under your mousepointer. If you release the button now, the branch will be relinked.

If you release the button in the middle of nowhere, the result will depend on the type of branch you are releasing:

- A mainbranch is directly connected to the mapcenter. It will stay on its new position.
- An ordinary branch will "jump" back to its original position.

Thus you can easily rearrange the layout of the mainbranches to avoid overlapping of their subtrees. There is another convenient way to move branches, especially if you want to *reorder* a subtree: You can move a branch up or down in a subtree by

- pressing [↑] and [↓]
- selecting Edit → Move branch
- clicking on the toolbar buttons:



There is yet another way to move branches: If you press [Shift] or [Ctrl] while moving with the mouse, the branch will be added above or below the one the mouse pointer is over. This helps also to reorder a map.

2.4 The right side of your brain - colors and images

Change color of a heading

You can also use colors to put more information into a map, e.g. use red, green and more colors to prioritize tasks. Again you can

- use the menu and choose e.g Format 'Set Color
- use the toolbar



The first button (black in the graphic above) shows the actual color. Clicking on it let's you choose another color. You can also "pick" another color by selecting a branch with the desired color and using the "pick color" button. Both of the buttons showing a bucket actually put the current color to the selected branch. While the first one just colors the heading of the selection, the last one also colors all the childs of the selected branch.

A very useful function is the "copy color" using the mouse: Select the branch which should get the new color, then press [Ctrl] and simultaneously click with left-mouse on another branch to copy its color to the first one. Here the childs of the selection also will get the new color, if you just want to color the selection itself, additionally press [Shift].

Use flags

VYM provides various flags. You see them in the toolbar on top of the mapeditor window. (Note: Like all toolbars you can also move them to the left or the right side of the window or even detach them. Just grab the very left "dotted" part of the toolbar with your left-mouse button.)



If you have a branch selected, you can set any number of flags by clicking them in the toolbar. The toolbar buttons change their state and always reflect the flags set in the selected branch.

Presently VYM uses two kinds of flags: *System Flags* and *Standard Flags*. The standard flags are those shown in the toolbar. System flags are set by VYM to indicate e.g. that there is additional information in a note (more on this in 3). Later versions of VYM may have another kind of flags, which may be edited by the user.

Images

The easiest way to add an image to a branch is by dragging it e.g. from a webbrowser to the mapeditor while a branch is selected there.

You can also add a image to a branch by opening the context menu of the branch choose "Add Image". A dialog window lets you choose the image to load. ¹ While an image is selected in the dialog, you can see a preview of the image.

You can position the image anywhere you want, just drag it with left mouse. To relink it to another branch, press [Shift] while moving it. To delete it, press [Del].

If you right-click onto an image, a context menu will open which let's you first choose one of several image formats. Then a file dialog opens to save the image. Hint: This is used to "export" the image, it will be saved anyway in the map itself! You can also cut and copy images, but it is not possible to add objects to an image²

The option '**Use for export**' controls the output of exports e.g. to HTML: If set to no, the image won't appear in the *text* part of the output. This is useful for large images or if images are used as a kind of frame e.g. the famous cloud symbol around a part of the map. Those shouldn't appear in the middle of the text.

At the moment image support is preliminary: Images will be saved together with all the other data of a map in the .vym-file. Later versions will include more functionality like resizing the images, changing its z-value (put it into background) etc.

Frames

A frame can be added to a branch by clicking with the right-mouse button. A context menu will open, where you can choose the frame. At the moment just a rectangle resp. "No Frame" will be offered, nevertheless you can use images as frames. Have a look at the demo map `todo.vym` as an example, where the mapcenter is a cloud. You can use an external drawing program like `gimp` to create an image, preferable with an transparency channel, so that you can design frames which don't use a rectangular borderline, just like the cloud.

¹Supported image types are: PNG, BMP, XBM, XPM and PNM. It may also support JPEG, MNG and GIF, if specially configured during compilation (as done when VYM is part of SUSE LINUX).

² Images are regarded as "extra feature". It would make working with the map much more complex if e.g. images could be linked to images.

2.5 Background design

The design of the background of a map and also of the links connecting various parts of the map can be changed by

- Selecting Format from the menu
- Right clicking onto the canvas, which will open a context menu

Background color

The color is set (and also displayed) as "Set background color".

Link color

Links connecting branches can be colored in one of the following ways:

- use the color of the heading of the branch the links is
- use *one* color for all links. The default color is blue. leading to.

The latter can be set with "Set link color". Check or uncheck the "Use color of heading for link" option to choose one of the two designs for your map.

Link style

VYM offers four different styles for the appearances of links:

- Line
- Parabel
- Thick Line
- Thick Parabel

The "thick" styles only draw links starting at mapcenter thick, the rest of the map is always painted "thin".

2.6 Link to other documents

Presently VYM supports two kind of links:

- Document, which will be opened in an external webbrowser
- VYM map, which will be opened in VYM itself

Webbrowser

Modern Webrowsers like **konqueror** are able to display various types of files, both local or in the internet. To enter the URL of any document, right-click onto a branch or use the Edit Menu and choose "Edit URL". Enter the path to your document (or copy and paste it from your browser). Examples for valid paths are:

```
http://www.insilmaril.de/vym/index.html
file:/usr/share/doc/packages/vym/doc/vym.pdf
```

If an URL was entered, a little globe will appear in the branch. By clicking on the globe in the toolbar or the context menu an external browser³ will be started.

³ The browser can be changed in the Settings Menu.



If you want to keep bookmarks in a map, select a branch where you want to add the bookmark, then simply drag the URL from your browser to the map. Also you could use an existing heading as URL: Right click onto the branch and select "Use heading for URL".

VYM map

To link to to another map right click on a branch or choose "Edit → Enter VYM link". A file dialog opens where you can choose the map. A branch with a link is marked with



Clicking this flag in the toolbar or in the context menu of a branch will open the map in another tab (see 2.7 for working with multiple maps). To delete an existing link, just press the "Cancel" button.

Technical note: Internally VYM uses absolute paths, to avoid opening several tabs containing the same map. When a map is saved, this path is converted to a relative one (e.g. `/home/user/vym.map` might become `./vym.map`). This makes it fairly easy to use multiple maps on different computers or export them to HTML in future.

2.7 Multiple maps

You can work on multiple maps at the same time. Each new map is opened in another *tab*. The available tabs are shown just above the mapeditor. You can use the normal cut/copy/paste functions to copy data from one map to another.

3 Noteeditor

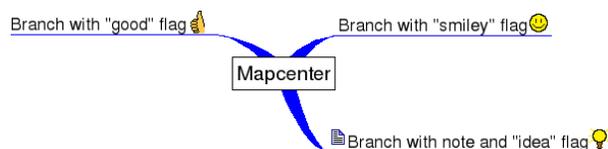
If you want to save more text in a branch e.g. a complete email, a cooking recipe, or the whole source code of a software project, you can use the noteeditor.

3.1 States

Before you can type or paste text into it, you have to select a branch in the mapeditor. Note that the background color of the noteeditor indicates its state:

- black: no branch selected
- grey: no text entered yet
- white: text is already available

To show you in the mapeditor itself that there is a note with more information for a particular branch, a little note flag will appear next to the heading of the branch. See the lower branch on the right side:



3.2 Import and export notes

The note is always saved automatically within the VYM file itself. Nevertheless sometimes it is nice to import a note from an external file or write it. Use "File→ Import" and "File→ Export" to do so.

3.3 Edit and print note

Editing works like in any simple texteditor, including undo and redo functions. You can delete the complete note by clicking the trashcan. Only the note itself is printed by clicking the printer icon.

When pasting into the editor using the X11 copy&paste mechanism, the editor will create a paragraph for each new line. Usually this is not wanted, so there you can convert all paragraphs into linebreaks by using Edit → Remove Paragraphs or [ALT-X].

3.4 Fonts

The noteeditor is ment to be used for simple notes, not really as full featured text editor. Because of many requests VYM supports now formatted text in the noteeditor⁴ Two default fonts are supported which can be set in the Settings menu. One is a fixed width font, the other has variable width. The fixed font is usually used for emails, source code etc. while the variable font is used for simple notes, where one doesn't need fixed character widths. Both fonts can easily switched using the following symbol from the toolbar:



In the Settings menu both fonts can be set and also which font should be used for default.

Additionally to the default fonts any font installed on your system can be used. Please note, that the chosen font also will be used for HTML exports, so you should only use fonts which are available generally.

3.5 Colors and formatted text

VYM supports formatted text (QT Rich Text) in the noteeditor since version 1.4.7. Colors and text attributes (e.g. italic, bold) can be set with the buttons above the text. The text itself is divided in paragraphs. For each paragraph the format can be set (e.g. centered, right). A paragraph is ended when a [Return] is entered. If you just want to begin a new line, press [CTRL-Return].

3.6 Finding text

The noteeditor itself has no Find function, use Find in the mapeditor, which will also search all notes (see 2.2).

3.7 Pasting text into note editor

Often you will paste text into the editor from another application e.g. an email. Normally VYM will generate a new paragraph for each new line. This usually is not what you want, so you can choose from the menu

⁴ VYM uses the QRichtText format, which is basically a subset of the formatting provided in HTML.

3.8 Advanced actions

3.8.1 Edit → Convert subsections:

This turns subsections in selected text (or all text, if nothing is selected) into linebreaks. This is especially useful for snippets of source code.

3.8.2 Edit → Join Lines:

Tries to format text, so that empty lines are used to delimit paragraphs. This is done for selected text (or all text, if nothing is selected). Especially useful for text like emails, meeting minutes etc.

4 Hello world

VYM can export its maps in various formats and can import data from outside (though import is still limited at the moment). Also parts of a map can be exported.

4.1 Export

The format in which the map will be exported can be chosen with

- File → Export → *format*

VYM offers both HTML and ASCII export.

Image

VYM supports all image formats which are natively supported by the QT toolkit: BMP, JPEG, PBM, PGM, PNG, PPN, XPM, and XBM. For use in websites and for sending images by email PNG is a good recommendation regarding quality and size of the image. VYM uses QTs default options for compressing the images.

ASCII

Exporting an image as text is somewhat experimental at the moment. Later this will probably be done using stylesheets. So the output may change in future versions of VYM .

HTML

Before a map is exported as HTML, it will be first written as XML into a directory (see 4.1). Then the external program `xsltproc`⁵ will be called to process the XML file and generate HTML code. A dialog allows to set various options:

- **Include image:** If set, VYM will create an image map at the top of the HTML output. Clicking on a branch in the map will jump to the corresponding section in the output.
- **Colored headings:** If set to yes, VYM will color the headings in the text part with the same colors like in the map.
- **Show Warnings:** If set to yes, VYM will ask before overwriting data.
- **Show output:** This is useful mainly for debugging. It will show how the processing of the XML file works by calling the external `xsltproc`.

⁵On SUSE Linux `xsltproc` is installed by default.

Additionally the paths to the CSS and XSL stylesheets can be set. By default on SUSE Linux they will be in `/usr/share/vym/styles`.

XML

The map is written into a directory both as an image and as XML. The directory is set in a file dialog. If the directory is not empty, you will be questioned if you risk to overwrite its contents.

It is possible to export different maps into the same directory. Each file generated will have the map's name as prefix, e.g. `todo.vym` becomes `todo.xml`, `todo.png`, `todo-image-1.png` and so on. This is useful if e.g. for a website several combined maps have to be stored in the same directory.

Export a part of a map

Select a branch you want to export together with its childs, then open the context menu and choose *Save Selection*. This will create a file with the postfix `.vyp`, which is an abbreviation for 'vym part'.

4.2 Import

At the moment VYM can read a directory structure. This is mainly for testing VYM e.g. to easily create huge maps used for benchmarks (yes, there is still room to optimize VYM ;-)

Many other applications meanwhile can export their data using XML, so volunteers to write import filters are welcome.

Also parts of a vym map (`.vyp`) can be imported.

4.3 File format

VYM maps usually have the postfix `.vym` and represent a compressed archive of data. If you want to have a closer look into the data structure, just uncompress the map manually using

```
unzip vymfile.vym
```

A directory named `vymfile` will be created containing further directories both for `images` and `flags`. In the `vymfile` directory you will find the map itself, usually named `vymfile.xml`.

This file can be loaded directly into VYM, it does not have to be compressed. If you want to compress all the data yourself, use

```
cd vymfile
zip -r vymfile.vym .
```

Import a part of a map

Select a branch where you want to add a previously save part of a map (`.vyp`), then open the context menu and choose *Add* → *Import*. For the import you can choose between *Import Add* and *Import Replace*: The imported data will be added after the selection resp. replace the selection.

5 Advanced Editing

VYM offers a few shortcuts to let you work more quickly and literally to connect any branches directly.

5.1 Modifier Modes

Modifiers are for example the [Shift]- or the [Alt]-keys. When pressed while doing actions with the mouse, they will cause VYM to use a "modified" action. E.g. you can move branches with mouse. If [Ctrl] or [Alt] is pressed while releasing the branch, it will be added above/below the target, not as child of the target.

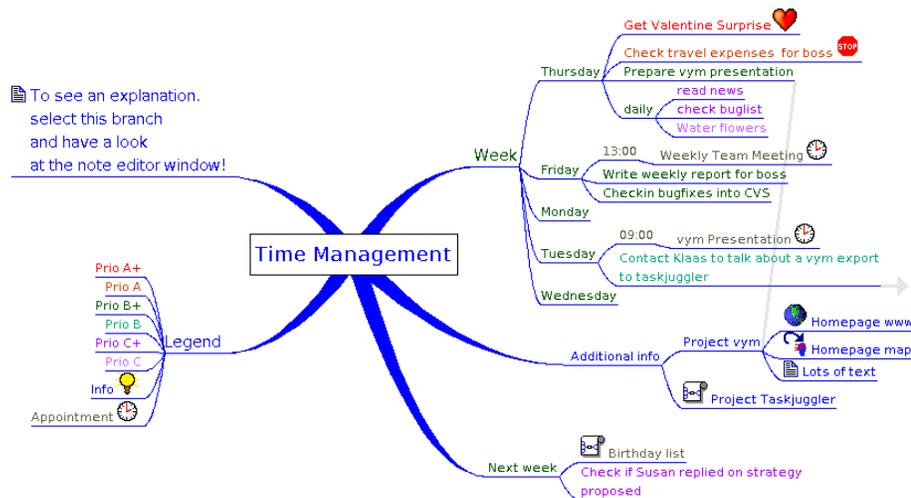
Without a modifier pressed, the first click on a branch just selects it. For the behaviour of the [Ctrl] modifier there are several options, which can be set from the modifier toolbar:



The default is to copy the color from the clicked branch to the already selected branch. In the toolbar shown above the default modifier is selected, namely to copy the color of a branch. The second modifier lets you easily copy a whole branch with a single click. The third modifier lets you create *xLinks*, which will be explained in the next section.

5.2 XLinks

So far all the data in the VYM map has been treelike. Using xLinks you can link one branch to any other, just like attaching a rope between two branches in a real tree. This is especially useful in complex maps, where you want to have crossreferences which don't fit on the same visible area, which fits on your screen. The following example, which is part of the VYM package, still fits on one screen, but shows how data can be crosslinked. In the graphics there is a link from a task (prepare a presentation) to general information:



Note that a xLink which points to a branch that is not visible (because it is scrolled), is just show as a little horizontal arrow. In the screenshot above have a look at the 'Tuesday' branch.

5.2.1 Create a xLink

Choose the link mode from the modifier toolbar (by clicking or pressing [L]). Select the branch, where the xLink should start. Press the modifier key [Ctrl] and simultaneously click on the branch where the link should end. (The link is already drawn before you release the mouse key). If you release the mouse over a branch the xLink becomes permanent.

5.2.2 Modify or delete a xLink

Open the context menu of a branch and select ‘Edit xLink’. A submenu contains all the xLinks of the branch (if there are any). They are named like the branches, where they end. Choose one and the xLink dialogue opens, where you can set color, width and also delete the xLink.

5.2.3 Follow a xLink

In a complex VYM map it sometimes comes handy to jump to the other end of a xLink. You can do this by opening the context menu of the branch and clicking on ‘Goto xLink’ and selecting the xLink you want to follow.

5.3 Adding and removing links

The context menu of a branch shows some more ways to add and delete data e.g. you can delete a branch while keeping its childs. The childs become linked to the parent of the previously removed branch. Similar branches can be inserted into existing maps. For keyboard shortcuts also have a look at the context menu.

6 VYM on Mac OS X

6.1 Overview

Basically there are two ways to run VYM on Macs:

6.1.1 QT Mac Edition:

VYM here provides the well known Mac look and feel. VYM is available as zipped Mac OS X application. It has been compiled and tested in Mac OS 10.3, but should also work on Tiger. It is using the Mac version of Trolltechs QT library.

6.1.2 X11

VYM can also be run using the Linux version, but then menus and handling will also be those of the Linux version e.g. The menu bar will look different.

6.2 Contextmenu and special keys

Most Macs unfortunately just have a single mouse button. In order to show the context menu which usually would be opened with the right mouse button, you can click while pressing the [kommand]-key.

Especially on Laptops some of the keys usually used on PC keyboards seem to be missing. The QT-Mac Edition of VYM has its own keyboard shortcuts. To find the shortcuts just have a look at all the menu entries, the shortcut is visible next to an entry. Toolbar buttons also may have shortcuts, just position the mouse pointer over a button and wait for the little help window to appear.

6.3 Viewing external links

VYM on Mac uses the system call `/usr/bin/open` to view links. Mac OS determines automatically if the link is a pdf or www page and opens the right browser.

6.4 Compiling VYM on Macs

Please refer to the documentation available on the internet:

<http://www.InSilmaril.de/vym/faq.html>