STN AnaVist
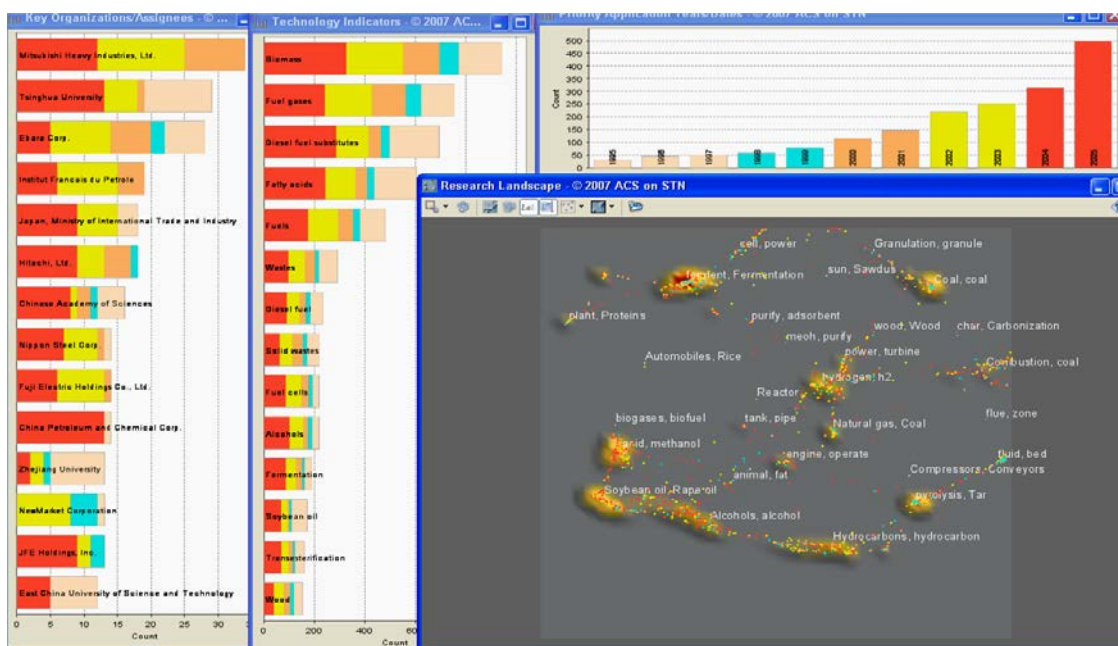
Text/data mining and visualization tool
Guide for studying analyzed landscapes

1.12.2015

1.   Loginids, software, cost

STN LOGINID
- **Full STN Service:** €52 a year. Account setup order form
  http://www.stn-international.de/fileadmin/be_user/STN/pdf/forms/tecone.pdf
- **Login IDs for Shared Projects:** Cost-free loginids added to full-access STN loginids. For landscape investigations, sub-visualizations, displaying references. Not for STN searches or new visualisations. Billed with the associated, full-access STN account. More information: http://www.stn-international.de/stninterfaces/stnanavist/shared.html

STN ANAVIST SOFTWARE
- Free-of-charge. Downloadable on page http://www.stn-international.com/stn_anavist.html. STN Loginid needed.

COSTS INVOLVED IN STUDYING FINISHED LANDSCAPES
- Document Display (euros per document): CAplus 2,96, WPINDEX 7,72, EPFULL 1,37, PCTFULL 1,47, USPATFULL and USPAT2 2,36 (Free for Fixed-Fee customers)
- Having visualization projects in STN Anavist costs €1.62 per saved visualization project per month. Free for the first 30 days. Delete the project in AnaVist, when you don't need it for a while. You can always open up the original.
  (The first visualization did cost €248– €873 depending on the documents included. Subvisualization is free-of-charge)

APPLICATIONS FOR PATENT LANDSCAPES
- Technology field studies
  - Main players, technology sectors, geographic areas, trends
  - Emerging technologies, weak signals, white space
  - For planning and at the start of research programs and projects
  - For background material in foresight
  - For evaluating your own technology portfolio
  - For partner, licensees, and competitor look-up
- Company/organization evaluations
  - Technologies, trends, key researchers, research groups, cooperation partners, patenting strategies, trends
- Patent portfolio comparisons
  - For finding common areas for collaboration
  - For attracting interest in the meeting
  - Before mergers and aquisitions

2.   Opening the visualization project

1. **When you open the visualization project for the first time =>**
   STN AnaVist: File/Open. Field extension of the file is SHX
2. **When you already have opened the project on you loginid =>**
   STN Anavist: Click the project name in the projects explorer on the left

File/Open => Opening a project copy for the first time

Add a chart => Making new charts

Highlight Color Selector

File/Visualize Subset for .. => making subvisualizations

Matrix

Documents corresponding the highlighted parts of charts or research landscape

Projects on your loginid and their information

Changing the window sizes

Bar chart

Research Landscape = Map created by text mining

Here you get the Research Landscape, Documents, Bar Charts, and Matrix Charts back to the screen if you have minimized them.

- Move to another window by clicking on the title bar or choose from the list of minimized windows at the bottom of the landscape window
- Most things can be made in many alternative ways
- Right-clicking is an easy way for making selections. Each window also has icons of it's own.
- By Ctrl-Click you can add other things to your selection (also from different windows)

3.   Highlighting

Colors are very useful for marking different things in the landscape.
In order not to get mixed-up, mark only things in the same window.

When you click on the bar or choose an area in the map, the
corresponding parts in all windows become similarly colored.
The color used is the one shown in the **Highlight Color Selector**.
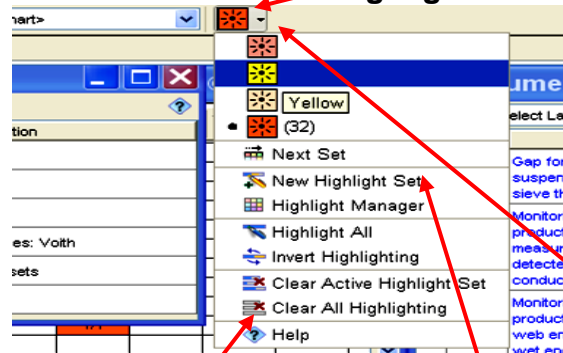


More colors (max 8 at the same time)
- Colors already added can be chosen by clicking the down-arrow
- New colors can be added from **New Highlight Set**

Deleting all color sets
- Click on **Clear All Highlighting**. This is an often needed and very useful
  function. Use it also if you get mixed-up with your markings, and
  make new highlighting

Modifying color sets with Highlight Manager
- Changing highlight color => Click on the down-arrow beside the color
  and choose another color. The colors with check marks are in use
- Changing the location of the color set => Click on the up/down-arrow
  in the **Highlight column.**
- The colors will appear in the bars in order given here from top to
  bottom
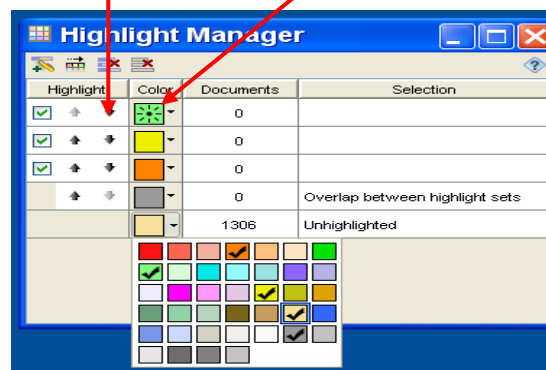
4. Map (Research Landscape)

The text mining part of STN Anavist:
STN Anavist gathers similar patent documents into clusters. The similarity is decided on how many similar terms are used in the documents. The two words next to each cluster show the two most frequent words in the documents. Colors indicate the size of the cluster: the redder the color the bigger the cluster and the closer two clusters/ documents are located the more similar the contents of them are.

You can choose different themes in **Tools/Preferences/Visualization Workspace** => Chart colours/**Theme**. This manual was made with **Lava peaks**

Tools for changing and editing the map

Right-click on the map or use the icons in the top part of the map.

Which words are included in the documents?

- Peaks are named by the two most frequent words in the documents located in it
- When you place the cursor above the peak, you see ten most frequent words. The numbers indicate how many times the word appears in the documents. (It is not the number of documents)
- What is shown? Original words (**Labels**), user names (**Annotations**), both: **Hide Labels/Show Labels** and **Hide Annotations/Show Annotations**. On/Off.
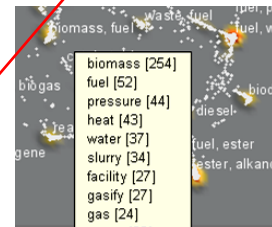
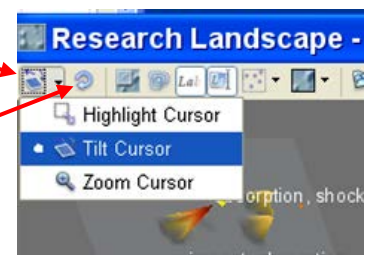## Which documents are shown in the map?

- Make selection from the third icon from the right **Show Document Points**
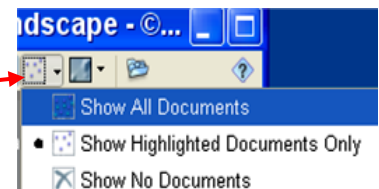
Tilting the map

The **Select Cursor** icon on the far left => **Tilt Cursor**)

- Hide the documents since they would look like clouds above the tilted map

Reset Map (The second icon from the left)

Choosing an area in the map

- Choose the icon in the far left (Select Cursor => Highlight Cursor) and highlight the area of interest. Show all documents in order to be better able to make selections.
- If you cannot get all interesting parts inside the same area, keep the Ctrl key down and add more areas by clicking. You can also remove areas from selection by highlighting and clicking.
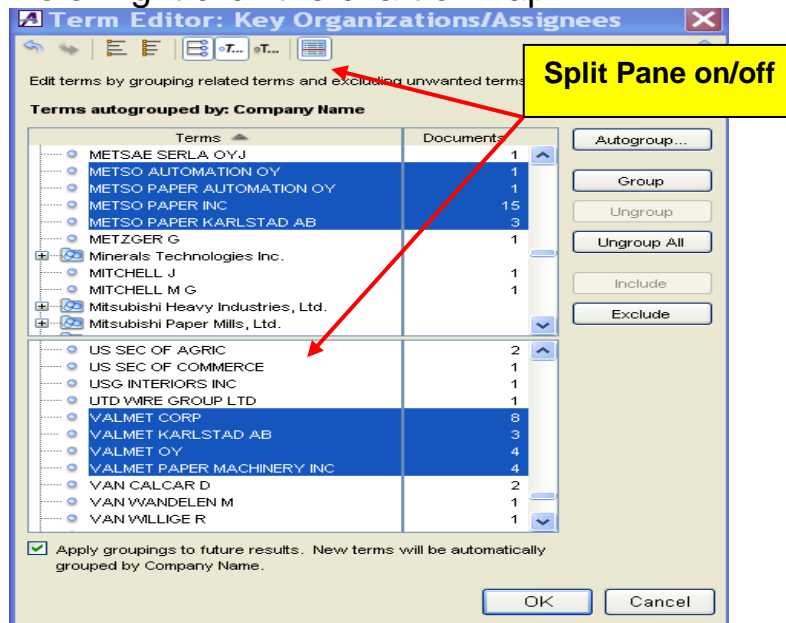
Saving => use a screen capture software or right-click + save as PNG

5. Editing charts and map (Edit Terms)

STN AnaVist is designed to produce clean data, but you can purify and modify the data yourself further by
- combining relevant terms (**Group/Ungroup**)
- renaming term groups (**Rename**)
- deleting terms (**Exclude/Include**)

Choose **Edit Terms** or right click the chart or map

- Groupings made by AnaVist have + sign in front
- Term order: **Documents** => by document count
                           Terms => alphabetically
- Editing: **Autogroup, Group , Ungroup, Include** ja **Exclude**
  - **Group**: Choose first the name that is preserved, then the one that should be combined with it. Press Ctrl and click.
  - **Exclude**: Deleted terms become italics
  - **Rename**: Right click the term. Group it first if it is not yet grouped
  - Note that **Ungroup removes the name you have given**, even though **Apply groupings to future results** is not checked and even though you delete the whole diagram and create a new one. **Beware of Ungroup All!!!**
  - With **Autogroup** you can choose how many digits of IPC and Derwent classes are taken into account. The names you have given are preserved.
- Use **Show Split Pane** => Two identical term lists. Useful when the terms to be combined are far from each other in the list.
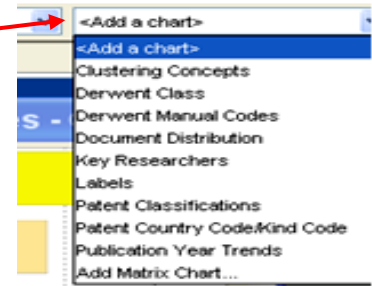
Check the **Apply groupings to future results** down in the left corner so that the groupings will be automatically used in future visualisations.

6.   Charts and matrices

a) The already created charts, if not on the screen => Click the icon at the bottom ⬛ Research Landscape · Documents · Bar Charts · ▲ Key Organizatio
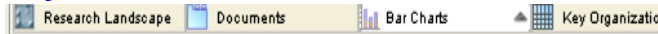
b) Making new ones => Add a Chart

BAR CHARTS
Who?

Key Organizations/Assignees	Organizations/Companies
Key Researchers	Authors/Inventors

When?

Priority Application Years/Dates	Year of filing of first family member
Publication Year Trends	1,5 years after the first filing

What?

Patent Classifications	International patent Classification
Technology Indicators	Index terms in CAplus
Labels (made by user)	Composed by landscape creator
Clustering terms	Terms used for making the map
Derwent Class	Broad classification by Derwent
Derwent Manual Codes	In-dept classification by Derwent

Where?
    Patent Countries
Document types

Document Distribution	Patents - non-patents
Patent Country Code/Kind Code	Codes for applications/patents

MATRICES (The same information can be retrieved by investigating the bars when the bars in another chart are colored with different colors)
Year trends of main players
     Key Organizations/Priority tai Publication Years
Focus areas of main players
     Key Organizations/Technology Indicators tai IPC etc
Year trends of focus areas
     Technology Indicators or IPC etc/Priority or Publication Years

Year charts should always be sorted
- Right-click => **Vertical Bars**
- Most recent year on the right => **Sort Ascending by Bar Label**

Changing the size of the bars => Slide bars

Exporting to Excel => right-click + save as CSV
Saving as picture => use a screen capture software or right-click => PNG

EXPLANATIONS TO PATENT CLASSIFICATIONS

At start, STN AnaVist only contains the codes to patent classifications (IPC, Derwent Manual Codes and Derwent Class), no explanations. You must add them yourself if you want. **Note that Ungroup made in Edit Terms removes the explanations you gave but Autogroup does not. Therefore you can vary how many digits will be shown in charts.**

1)   Explanations to IPC (International Patent Classification)
- Open windows for STN AnaVist and and IPC classifications page http://www.vtt.fi/service/inf/Patent_classifications.jsp side by side on the screen. Remember to check **Apply groupings to future results**.
- In STN AnaVist
  - Open the IPC-diagramm and **Edit Terms** in it
  - Click **Autogroup** and choose the suitable digit number to the classification. Don't use the most exact class.
  - If you changed the difits, close **Edit Terms** and open it again.
  - Go through the most common classifications
  - Find it from the **Edit Term** list and right-click
  - Choose **Rename Group**
  - Copy the classification Ctrl-C
- On the WIPO page
  - Paste the classification to **Current Symbol** box Ctrl-V
  - Copy it's explanation Ctrl-V
- In STN AnaVist
  - Copy th eexplanation after the code in **Edit Terms** window Ctrl-V

2)   Explanations to Derwent classification and Manual Codes

- When you have chosen the most precise class, you can get the explations by right clicking the bar. Choose **Label Description.**
  Direct link http://www.vtt.fi/service/inf/Patent_classifications.jsp
- Copy the code explanations the same way as shown for IPC codes on the previous page. Before being able to **Rename** the code you must group the code first **Group**.
  Remember to check: **Apply groupings to future results**.

Derwent Manual Codes

Derwent Class

7.   Documents

When you highlight bars in the charts or areas in the map, the corresponding documents appear in the Documents window.
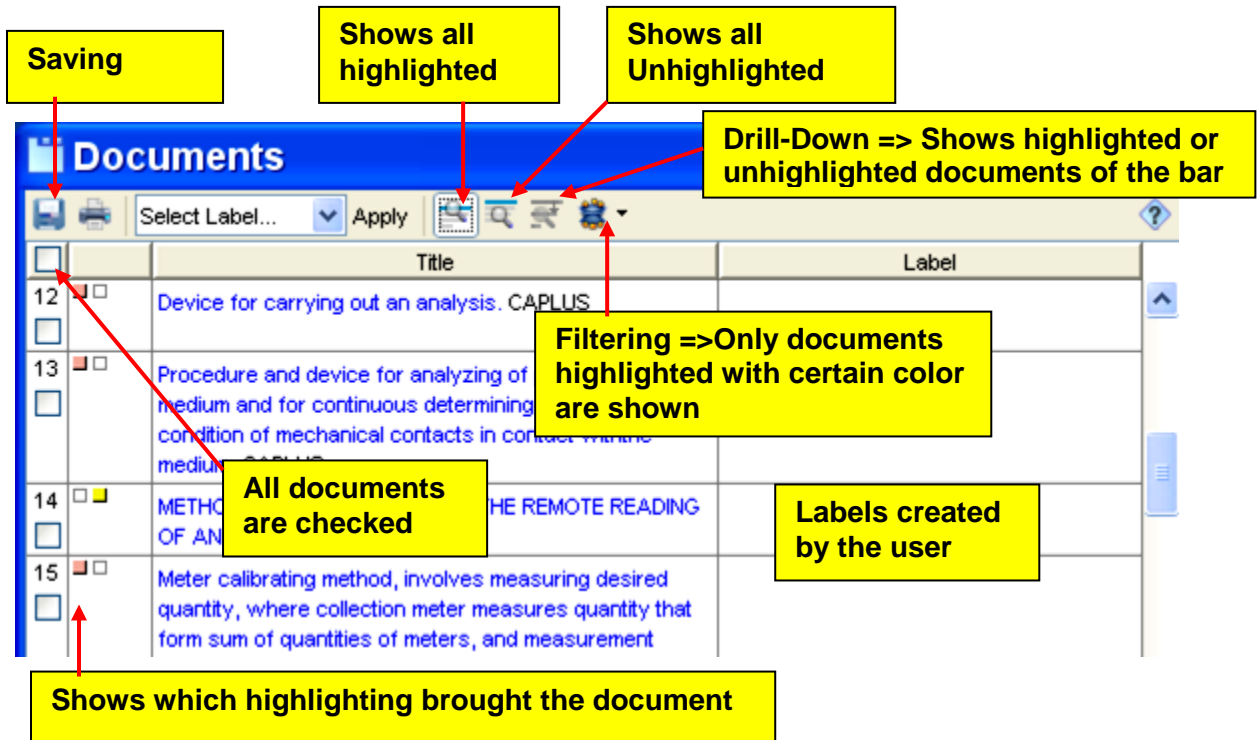
Filter - Only documents highlighted with the selected color are shown
- Useful, e.g. in saving documents
- **Overlap** shows the documents which correspond several criteria
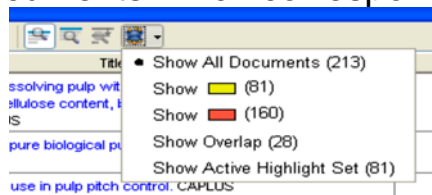
Drill-down - Highlighted or unhighlighted documents of the bar
- Make your highlighting in one of the windows
- Right-click on the bar of interest and choose highlighted or unhighlighted
- Selected documents appear in the **Drill-down** part of **Documents** window
- Remains until you make a new **Drill-down**
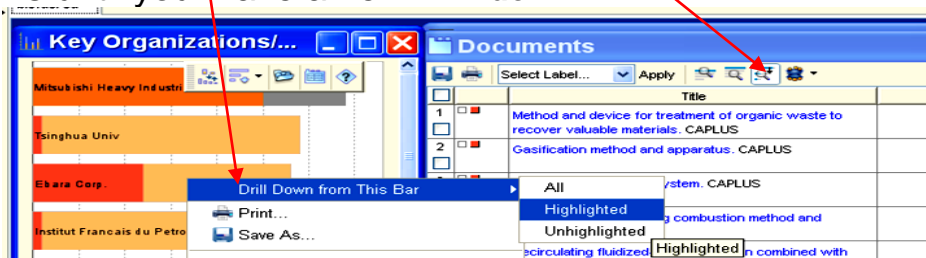
Location of interesting document in the map

- Right-click on the title in the Documents window. Select **Locate on Research Landscape** => A big white sphere appears in the map

SAVING DOCUMENTS

Saving one document by clicking the title

- Each document must be saved separately. New cost warning but the document is only charged once.
- Free-of-charge fulltext via the **ChemPort** window.

Saving several documents at the same time

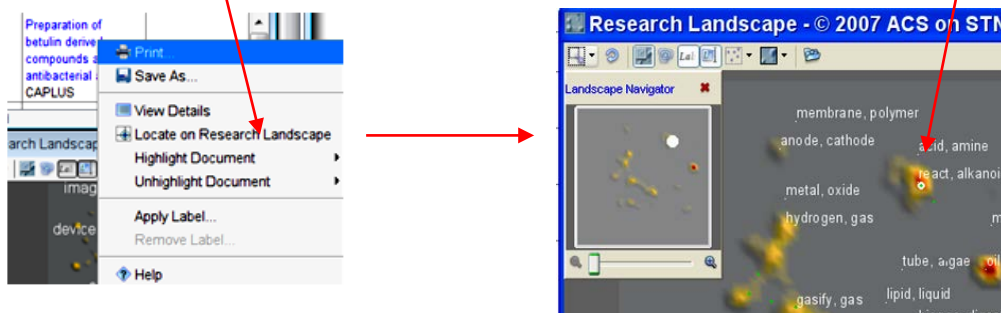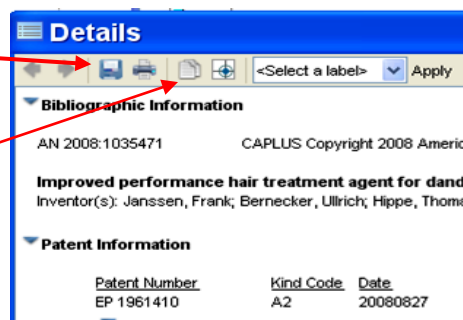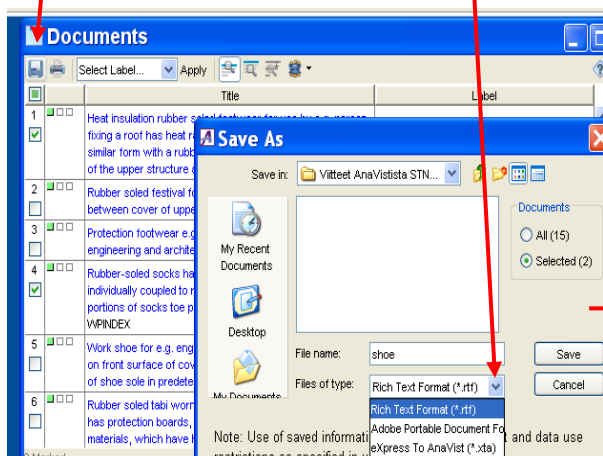- Check the documents of interest.
- Click the Save icon
- Choose folder for saving
- File extension must be RTF

Bibliographic Information
AN 2002-306448   WPINDEX Copyright 2007
Paper/cardboard web coating applicator applies the coating to the web surface(s) while it is still wet, including an organic component to improve the web surface and its printing properties.

Inventor(s): PFALZER L.
Patent Assignee(s): VOITH PAPER PATENT GMBH.
Patent
Patent Information

Patent Number	Kind Code	Date
EP 1188861	A2	20020320
DE 10046171	A1	20020328
US 20020060010	A1	20020523

Abstract
NOVELTY
To coat a web (12) of paper or cardboard, an applicator (10) applies a liquid or paste coating (24,34,36) to one side of the web while it is still wet. The coating includes at least one organic component (36) which improves the surface quality and the printing properties.
DESCRIPTION
The web coating applicator applies the organic component of the coating as a cellulose suspension and/or paper fibers with a higher freeness value of at least50degrees SR and preferably at least70degrees SR and especially at ……………………………………………… jne

8.   Own classification (Labels)

You can label documents. Labels can be seen in the **Documents** window in the **Label** column. One document can have several labels. Applications:
- Label organizations or years
- Study the whole map through area by area and label documents
  - *delete* for those you want to delete by sub-visualization
  - *display* for those you want to display
- Create your own classification for things of your interest, e.g. methods, applications, uses. This way you can dive deeper into the landscape

Labelling
- Diagram: **Tools/Apply Label** or right-click on the bar and choose **Apply Label.** Write a new **Label** or choose one of the existing ones
- Map: Make all documents visible. Choose the area => **Tools/Apply Label** or label only part of the documents in the **Documents** window
- Documents:
  - Minority of the documents selected => Check one by one
  - Majority of the documents selected => Check all, then removals
  - Evaluate first all documents, also the ones on the following pages.
  - In the end, **Select Label** => Write a new Label or choose from the existing ones => **Apply**
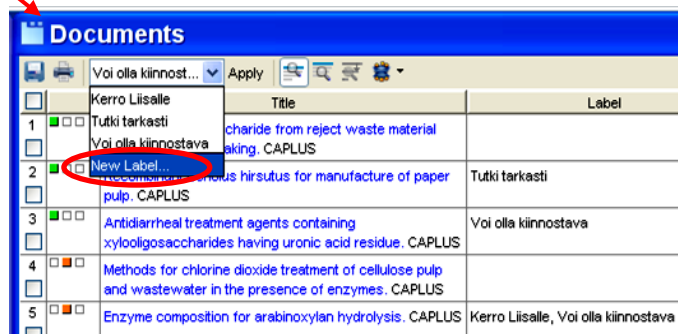
**Labels-diagram** will be created as a result
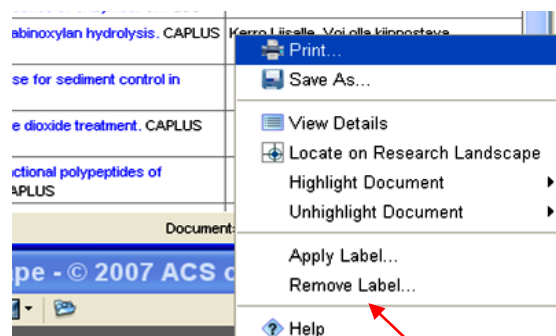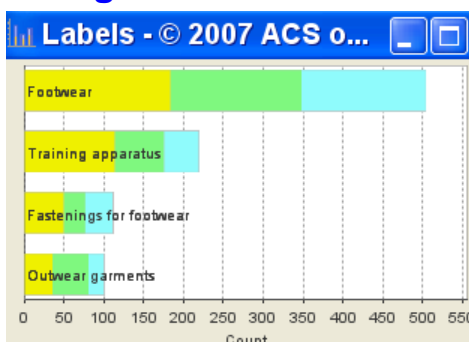
Removing a label
- from one document => right-click the document row => **Remove Label**
- the whole Label => right-click the bar in question in the **Labels**-diagram => **Delete Label**

9.   Sub-visualization

If a part of the landscape is of special interest, you get a better view by sub-visualizing it to a landscape of it's own.

- Click one or more bars (e.g. a certain organization or patent classification) or highlight a part of the landscape
- **File**/**Visualize Subset** or click on the icon
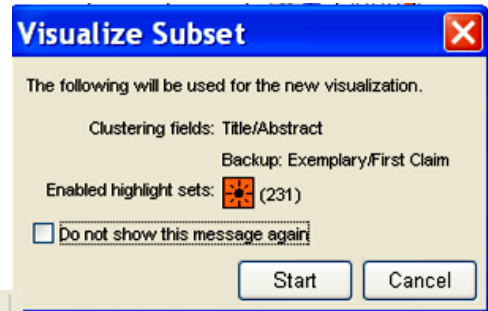
10. Project management, reports and preferences

a) Project management by right-clicking the name of the project

- **Rename**
- **Save a copy**
  - Save the **SHX** file or send by email
  - Opening the copy in AnaVist **File/Open Project Copy**
- **Create Report**
  - Automatic **Summary** and **Detailed Report**
- **Delete**
  - Delete the project in AnaVist, when you don't need. Each project costs €1.62 per month. You can always continue later by opening the original copy or the copy you've made yourself
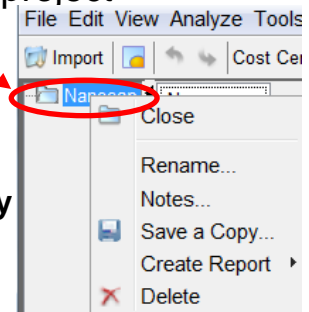
b) Change chart preferences

Tools/Preferences => Charts
- Number of bars displayed => 2000
- Floating Toolbars => Do not show
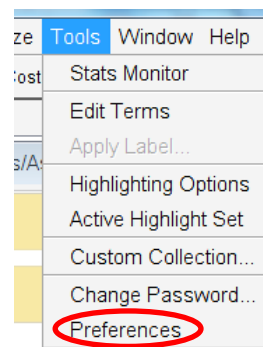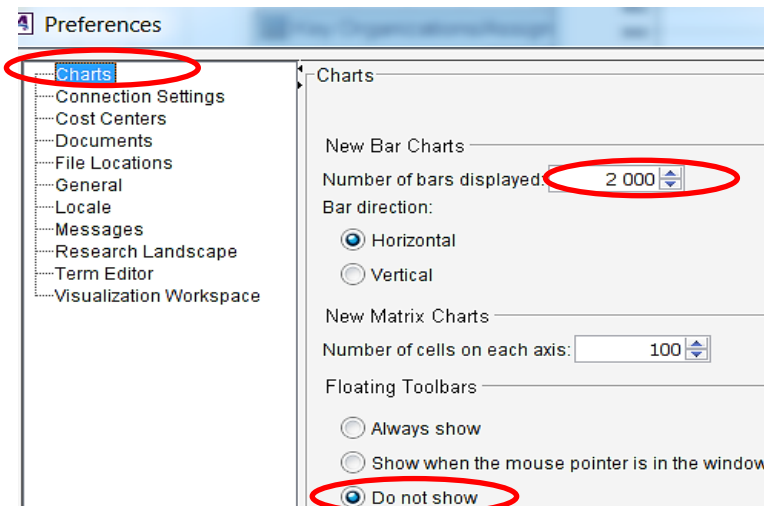
11. How to study the landscape?

PROCEDURE
- Click the bar or mark the map area of interest. Additional selections by keeping the Ctrl button down while highlighting.
- Map, charts and matrices become colored according to the selection and the corresponding documents appear in the **Documents** window.

BEFORE STARTING

In diagrams, all bars have to be included and it must be decided which on them are shown and which order. In the map, it must decided which documents are shown.

1) Include all bars
- Right-click on the chart => **Properties/View** => Number of bars to maximum
- By default, only 50 most common bars are shown. If you don't change this setting, you will miss the less common ones, even though they were important in the area you are studying. The default value can be enlarged in **Tools/Preferences/Charts** but very big values might make the analysis slower. Value 2000 is still ok.
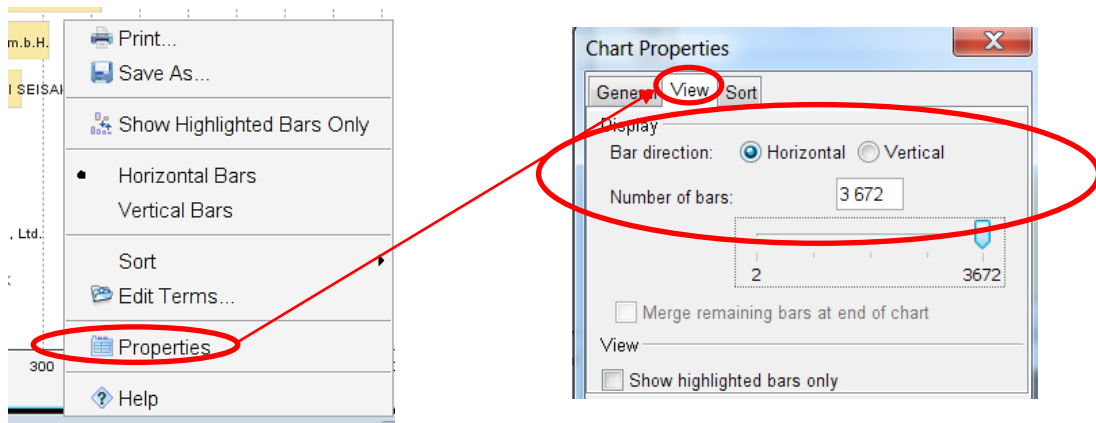
2) Define which bars you want to see
- Right-click on the chart =>
  - **Show all bars**
  - **Show highlighted bars only**
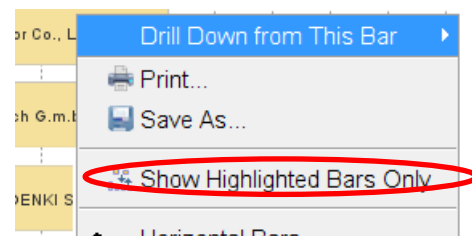
3) Define how the bars should be sorted

- Right-click on the chart => **Sort** =>
  - **Descending by Document Count** => Normal setting with most important bars on top
  - **Descending by Highlighted Document Count** => The most important bars corresponding to your selection on top
  - **Ascending by Bar Label** => Alphabetic order for searching for a specific bar

```
    Print...
    Save As...

    Show Highlighted Bars Only

•   Horizontal Bars
    Vertical Bars

    Sort                              ►     Sort Ascending by Document Count
    Edit Terms...                         ✓ Sort Descending by Document Count
                                            Sort Ascending by Highlighted Count
    Properties                              Sort Descending by Highlighted Count
                                            Sort Ascending by Bar Label
    Help                                    Sort Descending by Bar Label
                                            Sort Ascending by Highlight Set Position
                                            Sort Descending by Highlight Set Position
                                            Sort Ascending by Unhighlighted Count
                                            Sort Descending by Unhighlighted Count
```
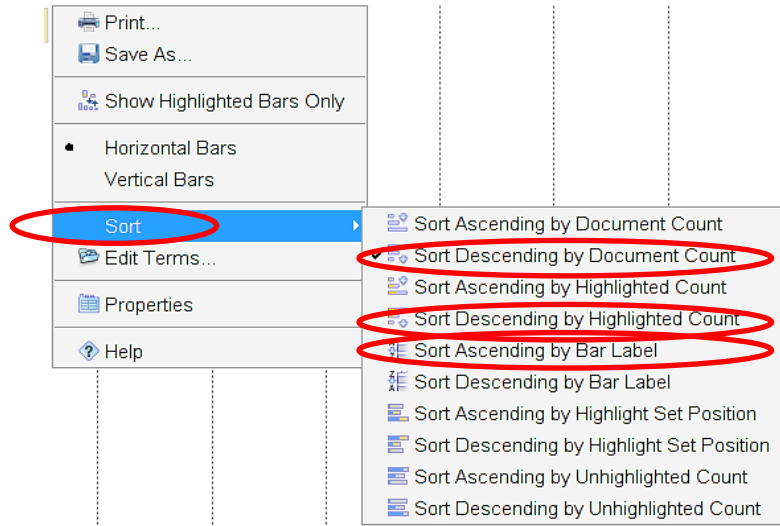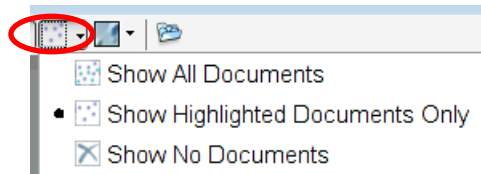
4) Define which documents you want to see in the map?

- In the top part of the map, click on the third icon from right and make your selection

```
        Show All Documents
    •   Show Highlighted Documents Only
        Show No Documents
```

Example: What has a certain organization patented and where?