ClusterView Application Help

ClusterView is a program which allows a MS-Windows user to browse through individual files and groups of files (named clusters). The files can have any size as they are never entirely stored in main memory and they can be search with approximative patern and/or regular expressions.

ClusterView has been written by Yves Roumazeilles and is available as shareware. You are invited to read now the user license.

To learn how to use help, press F1.

Basic operations:

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Common questions and features

I would like to take the occasion to thank those who have been providing help (willingly or not) to the development of this application.

First, thanks to those who have been testing both ClusterView and the YGrep Search Engine, like Christian Lescuyer (who easily won his free life-long license for it by asking for approximative search and testing it).

Then, thanks to Microsoft for its excellent Visual C++ tools and Martin Heller for his nice "Programming for Windows" book. If you are serious about Windows programming, you need both.

Last but not least, thanks to those who brought the approximative search concept (and algorithm) which is central to today's ClusterView features: Ricardo Baeza-Yates and Gaston H. Gonnet who published the clear and innovative paper "A new approach to text searching" which was the basis of the YGrep Search Engine.

FTP availability

ClusterView is available through FTP (Internet file download). The reference storage is on the famous SimTel server:

     ftp.coast.net   directory: SimTel/win3/txtutil   file: clust203.zip

However, SimTel is a rather famous location and people tend to overwhelm the capacity of the machine there. In consequence, you may have to wait a lot during download operation. I suggest that you use one of the mirror sites (they keep a full copy of the original site among other things). Here are some of my preferred mirror sites:

     src.doc.ic.ac.uk (155.198.1.40)   directory: /computing/systems/ibmpc/simtel-win3/txtutil

     nic.switch.ch (130.59.1.40)   directory: /mirror/simtel/win3/txtutil

     ftp.unicamp.br 143.106.10.54)   directory: /pub/simtel/win3/txtutil

     plaza.aarnet.edu.au (139.130.23.2)   directory: /micros/pc/SimTel/win3/txtutil

     romulus.ucs.uoknor.edu (129.15.10.20) directory: /mirrors/Simtel/win3/txtutil

     micros.hensa.ac.uk (194.80.32.51)   directory: /mirrors/simtel/win3/txtutil

     ftp.jussieu.fr (134.157.0.130)   directory: /pub7/pc/Simtel/win3/txtutil

Of course, you can also make an Archie search if you have access to it. And you will easily find the most appropriate file server near to you.

Requirements

ClusterView is an <u>MS-Windows</u> program. Consequently, it requires a computer which can run Microsoft Windows version 3.1 or higher. This includes the following general conditions:

> an 80386 (or higher level) processor. However, a 80486 is highly recommended for <u>MS-Windows</u> version 3.1.

> at least 2 megabyte of RAM. 4 megabytes are recommended for better operation. Many people think that running <u>MS-Windows</u> with less than 4 megabytes is crippling it. ClusterView does not need all of these, but you will appreciate to have them anyway if you're serious about using MS-Windows.

> at least 1 megabyte of free disk space to install ClusterView and its support files. This can be reduced to 500 kilobytes if you really need it.

> a screen monitor compatible with <u>MS-Windows</u>. Most standard screens meet this condition (Hercules, EGA, VGA, most SVGA resolutions, XGA, TIGA, etc.); check with your hardware manufacturer or consult the <u>MS-Windows</u> compatibility list provided by Microsoft upon request.

If you use Windows for WorkGroups, you will find ClusterView is compatible with this one, too.

Previous versions of ClusterView were not tested against <u>MS-Windows NT</u>. This is no longer the case, ClusterView is positively compatible with <u>MS-Windows NT</u>.

Furthermore, if you got the Windows 95 version of the ClusterView package, you have the 32-bits version of ClusterView. It has been tested under Windows 95. As announced, it has been available only a few days after full availability of the official release from Microsoft. This Windows 95 is still backward compatible with Windows 3.1 if you provide the additonal WIN32S package from Microsoft. This way, you can still profit from the 32-bits executable by installing (or having already installed) WIN32S on your <u>MS-Windows</u> machine. I suggest you avoid installing the v1.1 of WIN32S which proved riddled with bugs but can still be found almost everywhere (ClusterView can live with it, but...) and try and get WIN32S v1.30 or higher.

Note: In a few months, ClusterView will only be available as a 32-bits program: the 16-bits program will be removed and the 32-bits one will be the only one left.

New Features in ClusterView v2.03

New features in versions 2.02 and 2.03

Performance was improved by about 30% in all fields when switching to true 32-bit programming. This means also that the same executable is usable in one of the following configurations : Windows 3.1 (with WIN32S extensions), Windows 95, Windows NT.

A number of improvements where added to the on-line Help file.

Addition of a new support address through Compuserve.

New features in version 2.01

Version added because of potential problems with a buggy 2.00 version which may be left on some servers.

New features in version 2.00

Handling of [Intl] section of the WIN.INI file for file info dialog box.

Minor code improvements.

On-line help minor extensions (mainly to Common Questions and Features).

Addition of the Edit menu to copy parts of the documents.

Search is now able to optionally wrap lines (at a small performance cost).

Users found 5 bugs, and (at my surprise :-) I could correct them.

Small improvements in the Help file.

Features in the future releases

You can ask.

Exiting ClusterView

To exit ClusterView, you can select the Exit option in the File menu or the Close option in the System menu.

Either way, in a dialog box, you will have to confirm that you indeed want to exit, and whether you want to save the currently open cluster (if there is one) and whether you want to save the <u>configuration</u> to the initialization file. The proposed default checked options take into account whether there is a need to save anything.

If you accept to save the present configuration, ClusterView will automatically go back to it next time you run it.

Notes

When there is no need to confirm quitting the ClusterView application (when the cluster and the configuration are already saved), the dialog box may not be displayed at all before quitting if the QuietQuit option is set to TRUE in the <u>CLUSTER.INI</u> file.

To save the current cluster under another name than the one offered automatically by ClusterView, click on the Cancel button and then call the Cluster/Save As... menu option.

The selected set of options is dependent on the need to make the save. E.g. if the current cluster is modified but not saved, you will be automatically proposed to save it. Similarly, if some configuration or preferences (either internal or external) has been modified, the corresponding button will be crossed to propose a saving. You can select any other combination than the proposed one.

Cluster File Format

Cluster files are standard text files with a structure similar to Windows initialization files (see also help about the ClusterView initialization file <u>CLUSTER.INI</u>). However, some sections and entries are used or necessary for such a file to qualify for a Cluster file. Its file format is described here. However, remember that ClusterView is the best tool to generate legal Cluster files (using its create/edit/save capability).

A Cluster file is a special ASCII file that contains entry-value pairs representing run-time options for the applications.

The format of the file is following the general rule:

```
[section]
entry=value
   ...
```

Example

The following is the content of an example CLUSTER.INI file as it may be provided on the ClusterView distribution disk.

```
[Information]
Creator=ClusterView
Description=Any kind of text is welcome here.
Check=OK

[Contents]
Number of files=2
File1=DOC1.TXT
File2=C:\USER\JOHN\DOC2.DOC
```

Explanation

Each of the entries shown above will be now described.

`[Information]`   `Creator=`**<string>**

This entry is necessary for ClusterView to recognize that this is a Cluster file. The exact <string> is left to application and user choice, but it must not be empty. ClusterView fills it automatically on Cluster creation with a string beginning with "ClusterView". Any file not containing this entry is automatically refused as non cluster.

If you manually create a cluster (using a text editor like Notepad), you are advised to insert a line similar to: `Creator=MyName`

`[Information]`   `Description=`**<string>**

This entry is not necessary for ClusterView to recognize that this is a Cluster file. The <string> value can be any string. It is used as the description string of the Cluster. There is no checking done by ClusterView on this string, but ClusterView let you edit it.

The use of this field is left to the user (or another application) appreciation.

`[Information]`   `Check=`**<OK|string>**

This entry is not necessary for ClusterView to recognize that this is a Cluster file. The value must be different from "OK" if the creator has a reason to believe that the Cluster file format is corrupted for some reason. This may be the consequence of a writing error detected by ClusterView when saving the Cluster. In this case, the value is set to "KO". However, this is not necessarily recognized by tools reading the cluster.

`[Contents]   Number of files=`**<number>**

This entry is not necessary for ClusterView to recognize that this is a Cluster file. The value must be a valid integer describing the number of available file entries shown next. ClusterView will accept Cluster files with invalid values there. However, to insure that other applications work well with it, ClusterView fills this field with the correct value when saving a Cluster.

`[Contents]   File1=`**<file_name>**

This entry is necessary for ClusterView to recognize that this is a Cluster file. Only empty cluster can have no `File1` entry.

The document list of the Cluster is built from the list of `File<i>` entries. If there are N documents, all entries from `File1` to `FileN` must be present. E.g. for three documents all `File1`, `File2`, and `File3` entries must be present (even if they are not in numeric order).

The value for a `FileX` entry must be a valid file name. If it is not, the Cluster cannot be recognized properly. The only exception is when you want to build **dynamic clusters**. You will then use file names including either of the MS DOS wild characters (***** or **?**). The following is an exemple of a dynamic cluster designed to include all TXT files as documents.

```
[Information]
Creator=Manual
Description=Test of a dynamic cluster

[Contents]
Number of files=1
File1=C:\DOCS\NEW\*.TXT
```

Note

It is generally considered harmless to build your own Cluster files by hand. However, it is often easier to use the ClusterView application and its Cluster Edit capability. But, please notice that building **dynamic clusters** is not possible with ClusterView (you must use a separate text editor).

For more about the Cluster file format, you can have a look at the examples which are on the distribution disk. Often, looking at an example gives you more useful information than any reference documentation. Don't miss the opportunity. It will save you many minutes looking for those silly little problems.

Even more to the point, or if you don't have the examples in the distribution disk you got from your BBS (in case of a partial distribution), you can write static clusters using the cluster create/edit/save capability of ClusterView. It will automatically create static cluster files which are following the building rules as strictly as possible.

For dynamic clusters, you can easily modify a static cluster with a text editor (e.g. MS Windows Notepad editor).

Non-text Files

Non-text files are files which contains not only standard printable characters. They can be data files, non-ASCII files, non-Windows files, etc.

MS-Windows

MS-Windows is a trademark of Microsoft Corporation.

MS DOS wild characters

Two characters have a special meaning when inserted in a file name (two wild characters):

 The asterisk (*****) represents a whole word or a group of characters.

 The question mark (**?**) represents a single character.

For more, read your MS DOS manual ("Using wildcards" or "wild characters definition").

Single User Registration Fee

Yes! We remind you the single user license fee is only a mere 95FF or US$20.

Registering ClusterView

ClusterView is distributed as ShareWare. It is not free or public domain. This means you may copy and distribute it freely but should you find it useful and use it beyond an initial evaluation period of 30 days you are both legally and morally obliged to pay the registration fee or license fee.

Registrations should be sent to the author. Registered users will be sent a registration number and the ClusterView Professionnal edition, and will be informed of upgrades.

Yes, I want to register now!

Yves Roumazeilles - the author	France - money transfers / no credit cards
Public (Software) Library	US - credit card orders
Compuserve SWREG registration	Worldwide - CIS customers

What you get when registering

This is the important question. Here is the list:

- updated ClusterView application (the latest version anyhow) with single user license.

- an immediate notice when a new release is ready on the market.

- sample Cluster files with sample data.

- a registration number to identify yourself when contacting us.

- support through fax, phone and Email.

- access to our database of bug reports between releases. No release is done while this database contains even a single bug. I do not ship products I know contain bugs. But after shipping, users may discover ugly things in my code, and I trace them while I hunt them.

Remember that you can also ask for source licenses which will include full C++ source code for the Microsoft Foundation Classes, with full resources, definition files (everything you need to rebuild the ClusterView application from scratch). I cannot give more. Well! May be not "give", because you pay for it. But, it's a bargain you could discuss with me if you need this.

Acknowledgments

I will be pleased to receive any comments, bugs reports or suggestions for future releases.

I would like to thank the following people whose help has been invaluable during the development of ClusterView:

Christian Lescuyer provided the original idea and a large amount of time for product testing (even in alpha version).

Daniel Missud provided additional ideas and most of the beta testing effort.

Kalou was obviously my best beta-tester ever. Smack!

Martin Heller for his excellent book "Advanced Windows Programming" published by John Wiley & Sons. This is the most useful book about Windows programming I ever found. If you intend to do Windows programming, you NEED it.

The whole WIN3-L@UICVM.BITNET Internet mailing list who provided help when I was stopped in the development process. Not all the subscribers (more than 2000) provided help, but a dozen of them are very proficient and helpful. I can remember and thank Walter Knopf, Yossi Oren, Yoav Chernobroda and

Vance Gloster, and many others... It's a pity this list is no longer in operation. The next best thing to it is the WIN95-L sequel.

Registration form

Yves Roumazeilles - author

Select "File-Print Topic" from the menu bar to print this form. You will then be able to fill it. You can accompany you order with check. Credit cards are NOT accepted. You can order by phone or fax. But these numbers are for placing an order only!

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         Single user license ($20 or 95 French Francs)   _____
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BitList Engine
         Single user license ($20 or 95 French Francs)   _____
         Developer kit license ($295 or 1410 French Francs)   _____

ClusterView Application
         Single user license ($20 or 95 French Francs)   _____

Shipping/Handling to Europe ($4 or 20 French Francs)   _____

Shipping/Handling outside of Europe ($6 or 30 French Francs)   _____

==========

                                    Sub-Total....   _____

European residents, apply VAT/TVA 18.6% (on sub-total)   _____

==========

                                    Total..........   _____

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Mail to:

Yves Roumazeilles
63 rue des Moines
75017 PARIS
    (FRANCE)

This address is also the place where you can get information of various kinds (about the status of the shipment of the order, registration options, product details, technical support, volume discounts, dealer pricing, site licenses etc).

Phone: +33-1-42.28.74.51
Fax: +33-1-30.73.24.40
Email: Roumazeilles@SAGEM.fr
Compuserve ID: 101233,1032

Registration form

Public (Software) Library - registration service

Select "File-Print Topic" from the menu bar to print this form. You will then be able to fill it.

You can order with MC, Visa, Amex, or Discovery from the Public (Software) Library by callingYou can accompany you order with check. Credit cards are NOT accepted. You can order by phone or fax. But these numbers are for placing an order only!

Please use the form when ordering by mail.

NAME: _____

COMPANY: _____

ADDRESS: _____

_____

_____

TOWN: _____

CITY: _____

POSTCODE: _____ COUNTRY/STATE: _____

TELEPHONE: _____

FAX: _____

EMAIL: _____

YGrep Search Engine (item/product #11244)
    Single user license ($20)   _____
    Developer kit license ($295)   _____

BitList Engine (item/product #11245)
    Single user license ($20)   _____
    Developer kit license ($295)   _____

ClusterView Application (item/product #11246)
    Single user license ($20)   _____

Shipping/Handling to Europe ($4)   per license   _____

Shipping/Handling outside of Europe ($6) per license   _____

                                            ==========

                        Sub-Total....   _____

                                            ==========

                        Total..........   _____

Contact one of the following:

by phone: **800-2424-PsL** or Intl+1+**713-524-6394**

or by FAX: Intl+1+**713-524-6398**

or by **CIS/Compuserve** Email to **71355,470**

or send by mail to:
PsL
P.O. Box 35705
Houston, TX 77235-5705
        (United States of America)

Remember! **The above numbers are for orders only**. You cannot expect any kind of support through them. If you call there, not only will you be left without an appropriate answer, but I will have to pay for the useless call. PLEASE, if you do not like the long distance calls involved with my address in France, do prefer sending a Fax (it won't hang your phone too long), sending an Internet Email (it won't cost too much, and Compuserve, BIX, AOL, etc. all have Internet gateways for your mail - I know you are paying for that, I won't overuse it, but any Email with the product name in its subject field gets a very high priority).

Any questions about the status of the shipment of the order, registration options, product details, technical support, volume discounts, dealer pricing, site licenses etc, must be directed to:

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63 rue des Moines
75017 PARIS
        (FRANCE)
Phone: +33-1-42.28.74.51
Fax: +33-1-30.73.24.40
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Compuserve ID: 101233,1032

To insure that you get the latest version, PsL will notify us the day of your order and we will ship the product directly to you.

Registration instructions

Compuserve SWREG - registration service

Not implemented at the time of building this version. Ask the author through Compuserve E-mail at 101233,1032.

This is the on-line registration service for Compuserve customers. It allows on-line, immediate, direct registration.

You should GO SWREG, to join the Shareware Registration Forum. You will then be asked the reference of the software product you want to get. Take it from the following list:

YGrep Search Engine (item/product #)
    Single user license ($20)   no Id# yet
    Developer kit license ($295)   no Id# yet

BitList Engine (item/product #)
    Single user license ($20)   no Id# yet
    Developer kit license ($295)   no Id# yet

ClusterView Application (item/product #)
    Single user license ($20)   no Id# yet

Shipping/Handling to Europe ($4)   per license   no Id# yet

Shipping/Handling outside of Europe ($6) per license   no Id# yet

Any questions about the status of the shipment of the order, registration options, product details, technical support, volume discounts, dealer pricing, site licenses etc, must be directed to:

    Yves Roumazeilles
    63 rue des Moines
    75017 PARIS
        (FRANCE)
    Phone: +33-1-42.28.74.51
    Fax: +33-1-30.73.24.40
    Email: Roumazeilles@SAGEM.fr
    Compuserve ID: 101233,1032

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Registration Fee

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Please make checks payable in French Francs (or in U.S. dollars) to Yves Roumazeilles. Other currencies require excessive bank charges.

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Author Address

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Yves Roumazeilles
63 rue des Moines
75017 PARIS (FRANCE)
Phone: +33 1-42.28.74.51
Fax: +33 1-30.73.24.40
Email: Roumazeilles@SAGEM.fr
Compuserve ID: 101233,1032

For comments, suggestions and bug reports, Email is available at:

Yves.Roumazeilles@SAGEM.fr
Roumazeilles@SAGEM.fr
101233.1032@compuserve.com
101233,1032 (Compuserve account ID)

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Shareware is not free, Shareware is not public domain, but Shareware is not expensive.

Remember! The fee is small because the distribution is simple, but the user (YOU) must honestly pay the registration fee. This will allow future releases to hit the market as we have been able to do for a few years now.

File Operations

ClusterView can deal with clusters, but it also accepts any kind of files (even <u>non-text files</u>).

How to...

<u>Open an existing file</u>

<u>Get information about an open file</u>

Opening an Existing File

To open a file:

1   From the File menu, choose Open... .

2   Type or select the filename.

3   Select the OK button.

The document file can be of any kind (text files or <u>non-text files</u>). However, <u>non-text files</u> may be displayed with some characters replaced with the special Û sign.

Getting Information about an Open File

To get the full name, the size (in bytes), the last modification date and time of the currently open file:

1   From the File menu, choose File Info.

2   Select the OK button when finished.

The dialog box displays the requested information. You can close it pressing the OK button.

Cluster Operations

ClusterView is written to handle clusters and documents.

A cluster is a group of files which are handled simultaneously by ClusterView. These files can be shown to the user with ClusterView. You can manipulate them as a group (browsing into them, searching a word into them, etc.)

How to...

Open an existing cluster

Find a text in a cluster

Create a cluster

Modify an existing cluster

Copy an existing cluster

Browse in a cluster

Opening an Existing Cluster

To open a cluster:

1   From the Cluster menu, choose Open... .

2   Type or select the filename.

3   Select the OK button.

The selected file must have the appropriate format for a cluster file or it will be refused and a message box will pop open. The easiest way to create a valid cluster file, is to use the <u>cluster edit capability</u> of the ClusterView application.

Creating a Cluster

To create a cluster

1	First, create an empty cluster choosing New... from the Cluster menu.

2	Second, edit the cluster using the Edit... from the Cluster menu.

Modifying an Existing Cluster

To modify an existing cluster, you first need to open one (see "Opening an existing cluster"). Then, you can modify it, choosing Edit... from the Cluster menu.

The dialog boxe displays the name of the cluster (Cluster Name field - which can be modified directly or using the Save As... button), the description string (Cluster Description field - which may be filled or not, and is modified directly), and the List of Documents.

- To empty the cluster under scrutiny, choose the New button.

- To start modifying another cluster, choose the Open... button.

- To save the modified cluster, choose the Save button (if the Cluster Name is appropriate), or the Save As... button (to change the Cluster Name before saving).

- To exit the Cluster Edit dialog box, choose the Exit button.

Changing the List of Documents

- To add one file to the List of Documents, select the position where you want to insert the new file in the List (if the List is empty this step is unnecessary), choose the Add File... button, then select the file in the file dialog box.

- To remove a file from the List of Documents, select the file to remove in the List, then choose the Remove File button.

- To move up or down a file in the List of Documents, select it in the List, then choose either the Up button, or the Down button according to your will. The list is immediately updated according to the choice you made.

Related topics

The Cluster menu contains some commands which allow to trigger the equivalent commands shown in the Cluster Edit dialog box. This is most interesting to apply commands to cluster you don't want to modify as when you want to copy a cluster.

See also copying a cluster.

Copying a Cluster

To copy a cluster without modifying its contents:

1   From the Cluster menu, choose Open... .

2   Type or select the filename.

3   Select the OK button.

4   From the Cluster menu, choose Save As... .

5   Type or select the new filename.

6   Select the OK button.

The new cluster will have the same contents (the same document list) as the original cluster, but is stored under a different name.

Browsing in a Cluster

You can browse in a cluster (i.e. jump from one file to another) using one of the four available commands.

Going to the first file

Going to the previous file

Going to the next file

Going to the last file

Going to First File

This allows to jump back to the first file in the document list of the cluster.

This command is available both in the File menu (choose First File) and in the Cluster menu (choose First File).

See also Going to previous file, Going to next file, Going to last file.

Going to Previous File

This allows to jump back to the previous file in the document list of the cluster. Using repetitively this command you can reach the first file of the cluster.

This command is available both in the File menu (choose Previous File) and in the Cluster menu (choose Previous File).

See also Going to first file, Going to next file, Going to last file.

Going to Next File

This allows to jump forth to the next file in the document list of the cluster. Using repetitively this command you can reach the last file of the cluster.

This command is available both in the File menu (choose Next File) and in the Cluster menu (choose Next File).

See also Going to first file, Going to previous file, Going to last file.

Going to Last File

This allows to jump forth to the last file in the document list of the cluster.

This command is available both in the File menu (choose Last File) and in the Cluster menu (choose Last File).

See also Going to first file, Going to previous file, Going to next file.

Find/Search Operations

ClusterView is intended to allow easy searching in the documents and the clusters of documents. In the find dialog box all the useful options are grouped and available to the user.

The following information can be entered:

Find What:

Provide the text to search (usually described as the <pattern). If the **Regular Expression** item is checked, the pattern is interpreted as a <u>Regular Expression</u> string.

Forward/Backward Search:

Select the direction of the search. Forward means from the top to the end of the documents. Backward means from the end to the beginning of the documents.

Begin at First Line, First File:

Forces ClusterView to start search as indicated and NOT at the current viewing location.

Search Whole Cluster:

Forces ClusterView to jump over the documents limits. Allowing to search a whole cluster rather than a single document.

Wrap Search Over Line:

For hyphened text, allows to search a pattern which may be cut between two lines.

Regular Expression:

Forces ClusterView to use the <u>Regular Expression Search</u> language in the pattern to describe the search. This is incompatible with the <u>Approximative Search</u>.

Match Case:

Forces a search with exact case match (the pattern Case will match the text Case , but neither the text case nor <CASE).

Search For Lines Which Do NOT Match the Pattern:

Self explicit.

Approximation Errors:

When set with a value different of 0, will allow an <u>Approximative Search</u> with the specified number of tolerated errors.

The following buttons can be pressed:

OK:

To accept the changes. They will be preserved in the <u>CLUSTER.INI</u> initialization file only when quitting the application.

Cancel:

To abandon the changes.

Help:

To jump to the text youre just reading now.

How to...

Finding Text in a Cluster

It is possible to use ClusterView to look for a character, word, or group of words (or a specific pattern) into all the files of a cluster. Two basic commands can be used.

To find text

1   Position the window at the place you want to start your search.

2   From the Find menu, choose Find.

3   In the Find dialog box, type the search text.

4   To search the whole cluster (and not only the currently open file), select the Search Whole Cluster check box.

5   To search forward or backward from the cursor position, select the appropriate radio button.

6   To force the search to take into acocunt the exact casing of letters, select the Check Upper/Lower Case button.

7   Select an error level for approximative search (0 is exact search).

7   To start the search operation, choose the OK button.

8   To close the Find dialog box without searching, choose the Cancel button.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Find! menu (or to press Ctrl+F).

To search without the Find dialog box

1   Use the Find command, as in the preceeding procedure, to find the first occurence of the search text.

2   To find the next occurrence of the search text, choose Again from the Find menu.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Again! menu (or to press F3).

To search with the mouse

When you double-click on a word in the displayed text, ClusterView immediately starts a search for that word using the others conditions as they were left by the previous search (e.g. if you were searching across a whole cluster, double-clicking will select a new pattern/text to search, but also across the whole cluster).

To cancel a search while it is running

If you decide that a long search operation must be cancelled (e.g. when searching something in a very large Cluster), you can press the ESC key. The search is stopped and a message box gives a confirmation of the cancellation.

Fundamentals of Text Searching in ClusterView

ClusterView is using a specific set of search operation whose fundamentals are most interesting for large search applications as it is often the case with large Clusters of Documents.

It is based on two different techniques: Approximative Search (also called YGREP search) and on Regular Expression Search.

For more information about these and the YGREP Dynamic Link Library used internally by ClusterView, select the topics in the preceeding paragraph.

Keyboard Shortcuts

The following table shows the keyboard shortcuts and their corresponding menu and options. To help you remember them, the shortcuts are shown on the right part of the pull-down menus (when appropriate).

Shortcut	Menu	Option
F1	Help	Help
Ctrl+F2		Read Profile (CLUSTER.INI file) information
Ctrl+Shift+F2		Write Profile (CLUSTER.INI file) information
Alt+F3	Find	Find...
Alt+F3	Find!	
F3	Find	Repeat Last Find
F3	Again!	
-	File	Previous File
+	File	Next File
Home	File	First File
End	File	Last File

Mouse Operation

Double clicking on a word, trigger an automatic find forward operation for the word which was under the cursor.

Mouse Options

Not implemented... And may never be.

By choosing the Options menu, then selecting the Mouse... option, you access to a dialog box which allows to specify the exact meaning of the mouse clicks (both single and double). The user may be able to select its preferred operation for the use of the mouse in ClusterView.

The available options are the following:

Find! opens the find dialog box to start finding after selecting a set of options.

Again! search again with the already choosen find options.

(Nothing) no action is associated with this mouse operation.

To modify the associated mouse action, make the convenient set of selections, and choose the OK button.

To exit without changing the options, choose the Cancel button.

YGREP

The YGrep Search Engine (YGREP.DLL) is the name of a Dynamic Library built for MS-Windows by Yves Roumazeilles and which can be found bundled with some applications like *ClusterView*.

The YGrep Search Engine hosts Approximative Search. The notion has been brought to light - at least mine - by Ricardo Baeza-Yates and Gaston H.Gonnet under the name of Shift-Or (or Shift-Add) search method. To my knowledge, the name of **agrep** (the YGrep Search Engine was first known as the AGrep Search Engine) was originally adopted by Sun Wu and Udi Manber for a Unix utility implementing a similar algorithm.

On the other hand, Regular Expression Search is based on old work by many researchers on automaton logic. Many implementations have already been found on Unix systems (under the application names of **ed**(1) and **grep**(1)) and others including Vax-VMS, DOS, CP/M, etc. They often differ from the original one from Unix, but most power users now recognize easily the common syntax and appreciate its powerful capabilities.

I added some extensions which were not in the original Unix version. In that I was following the interface specification of various authors including David Conroy (original author of the superb MicroEmacs editor which I advise you to use in its more recent version by Daniel Lawrence for your MS Windows editing tasks), Ozan S. Yigit and Karl Hoorsfish. To that I had to add my own salt and pepper to get a working interface.

I apologize for omitting many of the other sources of my little knowledge in the field of programming.

Approximative Search

The approximative search is allowing you to find a text without knowing the exact form of what you are looking for. For example, you can look for text without taking into account the case of the letters (without making a difference between uppercase and lowercase letters).

The operation is centered on the fact that in most cases you know a text string which is "approximately" what you are looking for in your files. Additionaly, you are able to say that you expect this text string to have a certain number of errors.

For example, the string 'East' is approximately identical to 'West', but there are 2 errors (the first two letters of the words) and 2 matches (the last two letters of both words: 's' and 't').

Basic Operations

Searching for non-cased text

Searching for Approximative Text

The YGrep Search Engine offers to search for text even if the pattern you give is not exactly what you look for (you only have a faint idea of the exact spelling of the text). YGREP allows you to select an error level (the maximum number of errors you can accept when looking for the pattern in the text).

For example, you want the strings to look for are 'EAST', 'CAST' and 'FAST', but the following strings must not be matched: 'WEST', 'EMIT', 'COST'. This can be solved by increasing the number of errors accepted. Just propose the pattern 'EAST' with an error level of 1.

Operation

1   Position the window at the place you want to start your search.

2   From the Find menu, choose Find.

3   In the Find dialog box, type the pattern ('EAST').

4   To search the whole cluster (and not only the currently open file), select the Search Whole Cluster check box.

5   To search forward or backward from the cursor position, select the appropriate radio button.

7   To avoid the program taking into account the difference between upper and lower case letters, unselect the Check Upper/Lower Case button.

6   Ensure that the error level is 1, either by typing this value in the error level window or by selecting it in the pull down menu at the right of the number little window.

7   To avoid the program taking into account the difference between upper and lower case letters, unselect the Check Upper/Lower Case button.

8   To start the search operation, choose the OK button.

9   To close the Find dialog box without searching, choose the Cancel button.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Find! menu (or to press Ctrl+F).

To search without the Find dialog box

1   Use the Find command, as in the preceeding procedure, to find the first occurence of the search text.

2   To find the next occurrence of the search text, choose Again from the Find menu.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Again! menu (or to press F3).

Searching for Non-Cased Text

The YGrep Search Engine is limited in the maximum number of errors is accepts.

You can overcome this <u>limitations</u> (and use a lower error level) if you know that most of the errors will be in lettercase mismatch between the pattern and the text.

For example, you want to look for the strings 'West', 'WEST' and 'west', but the following strings must not be matched: 'East', 'east', 'EAST'. This cannot be solved by increasing the number of errors accepted. Just propose the pattern 'west' with an error level of 0 and do not check for upper/lower case.

During the search, the program do not take into account differences between an upper case letter ('A') and its lower case equivalent ('a').

Operation

1   Position the window at the place you want to start your search.

2   From the Find menu, choose Find.

3   In the Find dialog box, type the pattern ('west').

4   To search the whole cluster (and not only the currently open file), select the Search Whole Cluster check box.

5   To search forward or backward from the cursor position, select the appropriate radio button.

6   Ensure that the error level is 0.

7   To avoid the program taking into account the difference between upper and lower case letters, unselect the Check Upper/Lower Case button.

8   To start the search operation, choose the OK button.

9   To close the Find dialog box without searching, choose the Cancel button.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Find! menu (or to press Ctrl+F).

To search without the Find dialog box

1   Use the Find command, as in the preceeding procedure, to find the first occurence of the search text.

2   To find the next occurrence of the search text, choose Again from the Find menu.

For the users who want a command as short as possible, it is also possible to avoid using even the Find menu, and to go to the Again! menu (or to press F3).

Regular expression search

The regular expression search is allowing you to find a text based on a description which will help you be more precise than with Approximative Search, but also more difficult to handle before you get used to it.

To give you a first look at what can be done (without going too far into the regular expressions syntax), here are a few of the possibilities.

You can search for pattern in the beginning (or in the end) of the lines, ignoring the similar patterns which appears in the middle. You can search for telephone numbers (XXX-X-XXX-XXXX), dates (XX/XX/XX), times (XX:XX), three-figure-numbers (XXX), or any other strictly formed field of numbers. but you can also look for patterns a little more evasive like: four letter-words containing no figures, but beginning with an S letter either in lower- or uppercase and in the end of a line (that is defined by the pattern '`\<[Ss][^0-9_][^0-9_][^0-9_]\>$`').

For an extended specification of the regular expression used, see also Regular Expressions

YGrep Search Engine regular expressions

The YGrep Search Engine regular expression routines support the full range of Unix regular expressions as defined in **ed(1)** and in **grep(1)**.

Specification

^   A circumflex as the first character of the pattern forces matches to beginning of lines.

$ A dollar as the last character of the pattern forces matches to end of lines.

.   A period anywhere in the string matches any single character.

*   An expression followed by a asterisk matches zero or more occurrences of that expression.

+   An expression followed by a plus sign matches one or more occurrences of that expression.

-      An expression followed by a minus sign optionally matches that expression.

[]   A string enclosed in square brackets matches any character in that string, but no others. If the first character of the string is a circumflex the expression matches any character except the characters in the string. A range of characters may be specified by two characters separated by a -.

\<   A backslash followed by an opening < matches the beginning of a word.

\>   A backslash followed by a closing > matches the end of a word.

\   A backslash folowed by any other character quotes that character. This allows a search for a character that is usually a regular expression specifier.

Examples

^Windows	matches all lines starting with *Windows*
Grep$	matches all lines ending with *Grep*
H..p	matches all lines containing *Help*, *Hoop*, *Harp*, etc.
^W.n	matches all lines starting with *Win*, *Won*, etc.
\$	matches a dollar sign
fo*	matches *f*, *fo*, *foo*, etc.
fo+	matches *fo*, *foo*, etc.
[xyz]	matches *x*, *y* and *z*
a[^xyz]c	matches *abc*, *arc* and *aXb* but not *axb*
([0-9])	matches *(0)*, *(1)*, *(2)*, *(3)*, *(4)*, *(5)*, *(6)*, *(7)*, *(8)* and *(9)*
([0-9]*)	matches *()*, *(0)*, *(123)*, *(2512)*, etc.
\<[Aa].*\>	matches any non-empty word beginning with either *a* or *A*

YGrep Search Engine Limitations

The YGrep Search Engine is limited in both the length of the pattern it can manage and in the maximum number of errors it accepts.

The length of the pattern is limited to 512 letters maximum.

The number of errors is limited to 256 maximum.

Both of them are limited by the following formula:

$$\text{length\_of\_pattern} <= 512 / (\log2(\text{number\_of\_errors}) + 1)$$

The simple meaning of this formula is that if you have a long pattern, you cannot have a large number of errors. For example, with a 256 character pattern you must limit yourself to 1 error only. In most cases, this is not too limiting, but it should be noticed.

To partly overcome that constraint it is also possible to use the non-cased text search fonctionality.

Should you need to have a limitation placed higher or lower, please, contact the author for a customized version (this is not much more expensive than a standard package) or a source code license.

Initialization File and ClusterView Configuration

The CLUSTER.INI file is used by ClusterView to optimize its operation in various fields. It is a special ASCII file that contains entry-value pairs representing run-time options for the ClusterView application.

The format of the file is following the rule of the other MS-Windows INI files:

```
[section]
entry=value
    ...
```

Various <u>sections</u> (and <u>entries</u> in each section) are defined for ClusterView.

Example

The following is the content of an example CLUSTER.INI file as it may be provided on the ClusterView distribution disk.

```
[ClusterView]
Yield=16
TabSize=8
DisplayStatusBar=TRUE

[Font]
Name=Arial
Size=12

[Directories]
Documents Init=C:\usr\cluster
Clusters Init=C:\usr\cluster
```

Initialization Sections

The definable sections are the following:

[ClusterView]

[Font]

[Directories]

[Preprocess Display]

[Drag and Drop]

If other sections are defined, they are ignored by ClusterView during its operation.

Initialization Entries

The definable entries (with their corresponding sections) are the following:

CursorWait	in [ClusterView]
Yield	in [ClusterView]
TabSize	in [ClusterView]
QuietQuit	in [ClusterView]
Editor	in [ClusterView]
LicenseNumber	in [ClusterView]
DisplayStatusBar	in [ClusterView]
Name	in [Font]
Size	in [Font]
Documents Init	in [Directories]
Clusters Init	in [Directories]
In Char	in [Preprocess Display]
Out Char	in [Preprocess Display]
Filter At Start	in [Preprocess Display]
Filter At End	in [Preprocess Display]
Wrap Lines on Search	in [Preprocess Display]
TryAsClusterWhenSingleDrop	in [Drag and Drop]
AddFilesToCurrentClusterWhenDropped	in [Drag and Drop]

If other entries are defined or if these ones are defined in another section, they are ignored by ClusterView during its operation.

[ClusterView] Section

This section allows to optimize the performance of the ClusterView application in various fields.

The definable entries are:

CursorWait

Yield

TabSize

DisplayStatusBar

QuietQuit

LicenseNumber

Editor

If other entries are defined, they are ignored by ClusterView during its operation.

[Font] Section

This section allows to modify the display font which is used by ClusterView when showing the contents of a Document in its main window.

The definable entries are:

<u>Name</u>

<u>Size</u>

If other entries are defined, they are ignored by ClusterView during its operation.

[Directories] Section

This section allows to modify the operation of ClusterView when the application needs to access files on disk.

The definable entries are:

Documents Init

Clusters Init

If other entries are defined, they are ignored by ClusterView during its operation.

[Preprocess Display] Section

This section allows to configure the filtering/preprocessing options of the document display.

The definable entries are:

In Char

Out Char

Filter At Start

Filter At End

Wrap Lines On Search

If other entries are defined, they are ignored by ClusterView during its operation.

[Drag and Drop] Section

This section allows to optimize the behaviour of the ClusterView application in Drag and Drop operation.

The definable entries are:

TryAsClusterWhenSingleDrop

AddFilesToCurrentClusterWhenDropped

If other entries are defined, they are ignored by ClusterView during its operation.

Yield Entry - in [ClusterView] section

When ClusterView is executing a long operation (e.g. a search operation in a whole cluster), it may lock the system until the end of the operation. To reduce the inconvenience, ClusterView tries to allow other MS-Windows application get control of the machine at internally defined times. This is called cooperative multitasking.

The Yield entry allows the user to modify the default yield value in order to increase ClusterView performance (increasing the Yield value) or the MS-Windows performance (decreasing the Yield value).

Minimum value is 1, maximal value is 32767. Default value is 64.

Small values are advisable for systems with low-powered CPU (like an 80286) or with small available memory.

Example

To set the Yield value to a "very cooperative" level:

```
[ClusterView]
Yield=4
```

This allows other applications to get access to the processor at very frequent intervals.

CursorWait Entry - in [ClusterView] section

When ClusterView is executing a long operation (e.g. a search operation in a whole cluster), it may lock the system until the end of the operation. To allow the user (you!) to know that it is still working, the cursor is changed to a changing image cursor.

The CursorWait entry allows the user to modify the waiting time between changes of the cursor in terms of explored lines.

Minimum value is 1, maximal value is 32767. Default value is 4.

Small values are advisable for systems with low-powered CPU (like an 80286) or with small available memory.

Example

To set the Yield value to a "very cooperative" level:

```
[ClusterView]
CursorWait=4
```

This allows fast redisplay of the changing cursor.

QuietQuit Entry - in [ClusterView] section

When quitting ClusterView, if there is no need to ask the user for a confirmation, and this entry is set to TRUE, the quit dialog box is not displayed.

Default value is FALSE.

Example

To allow a "fast quit" procedure:

```
[ClusterView]
QuietQuit=TRUE
```

Editor Entry - in [ClusterView] section

Describes the default editor to be used by the ClusterView application when calling the <u>visual</u> command.

There is no default value.

Example

To direct calling the standard MS-DOS editor (with version 5.0 or higher):

```
[ClusterView]
Editor=EDIT
```

LicenseNumber Entry - in [ClusterView] section

This entry is a text entry for storing the user license number. This should not be modified. Pleaase use the dialog box at program start up to enter this license number when prompted.

There is no default value.

TabSize Entry - in [ClusterView] section

For displaying of the Tab charcater (or ASCII 0x09), ClusterView is able to handle various tabulation sizes. They are specified in number of middle-sized characters. The default is 8 (for 8 characters wide tabulations).

Minimum value is 1, maximal value is 32767. Default value is 8.

Values of 2, 3, 4 or 8 are advised in most cases.

Example

To set the TabSize value to a usual non-default value:

```
[ClusterView]
TabSize=4
```

DisplayStatusBar Entry - in [ClusterView] section

ClusterView allows to display a status bar at the bottom of the main window. It will show the positon of various indicators as "CapsLock", "NumLock", etc. This profile entry allows to select the presence of this bar.

Value can be either TRUE or FALSE. Default value is FALSE.

Example

To force display of the built-in status bar:

```
[ClusterView]
DisplayStatusBar=TRUE
```

Name and Size entries - in [Font] section

When ClusterView displays the contents of a Document in the main window of the application, it uses a specific font which can be customized with these entries.

The Name entry is the alphanumeric name of an existing font (even True-Type fonts are allowed).

The Size entry is the numeric value of the point size of the display font. The allowed values depend on the selected font.

Example

To change the display font to a MS-Windows True-Type font like "Times New Roman" in 12 points:

```
[Font]
Name=Times New Roman
Size=12
```

Documents Init Entry - in [Directories] section

When ClusterView opens a dialog box to get access to a Document stored on disk, it uses this entry to select the default directory to search for Documents.

The Documents Init entry must be the alphanumeric name of a valid disk directory.

Default value is the directory where ClusterView was run from.

This entry can be changed at run time (between opening of each dialog box).

Example

To set the default initial directory for Documents to C:\ directory:

```
[Directories]
Documents Init=C:\
```

See also

Clusters Init

Clusters Init Entry - in [Directories] section

When ClusterView opens a dialog box to get access to a Cluster stored on disk, it uses this entry to select the default directory to search for Clusters.

The Clusters Init entry must be the alphanumeric name of a valid disk directory.

Default value is the directory where ClusterView was run from.

This entry can be changed at run time (between opening of each dialog box).

Example

To set the default initial directory for Documents to E:\cluster directory:

```
[Directories]
Clusters Init=E:\cluster
```

See also

Documents Init

In Char Entry - in [Preprocess Display] section

ClusterView will be able to modify the appearance of the displayed documents. Any characters defined in the In Char entry and conveniently described in the other entries of the [Preprocess Display] will be replaced with a character given by the Out Char entry.

The In Char entry must be a single character.

There is no default value.

Example

```
[Preprocess Display]
In Char=+
```

See also

Out Char

Out Char Entry - in [Preprocess Display] section

ClusterView will be able to modify the appearance of the displayed documents. Any characters defined in the <u>In Char</u> entry and conveniently described in the other entries of the <u>[Preprocess Display]</u> will be replaced with a character given by the Out Char entry.

The Out Char entry must be a single character.

There is no default value.

Example

```
[Preprocess Display]
Out Char=-
```

See also

<u>In Char</u>

Filter At Start Entry - in [Preprocess Display] section

The filtering/preprocessing feature of ClusterView can occur at the start/beginning of all lines if this entry is set to TRUE.

The Filter At Start entry must be either TRUE or FALSE.

Default value is FALSE.

Example

```
[Preprocess Display]
Filter At Start=TRUE
```

See also

Filter At End

Filter At End Entry - in [Preprocess Display] section

The filtering/preprocessing feature of ClusterView can occur at the end of all lines if this entry is set to TRUE.

The Filter At Start entry must be either TRUE or FALSE.

Default value is FALSE.

Example

```
[Preprocess Display]
Filter At End=TRUE
```

See also

Filter At Start

Wrap Lines On Search Entry - in [Preprocess Display] section

ClusterView can search over the end of line characters, when this entry is set to TRUE.

The Filter At Start entry must be either TRUE or FALSE.

Default value is FALSE.

Example

```
[Preprocess Display]
Wrap Lines On Search=TRUE
```

TryAsClusterWhenSingleDrop Entry - in [Drag and Drop] section

When a single file is dropped on the ClusterView main window, it can be handled in two ways. The first being to open it as a document in all case, the second being to try opening it as a cluster before using it as a document, this entry allows to choose between these two strategies. One means that you expect the dropped items to be documents, the second that you expect them to be clusters.

The TryAsClusterWhenSingleDrop entry must be either TRUE or FALSE.

Default value is TRUE.

Example

```
[Drag and Drop]
TryAsClusterWhenSingleDrop=FALSE
```

AddFilesToCurrentClusterWhenDropped Entry - in [Drag and Drop] section

When files are dropped on the ClusterView main window, they can be handled either as a documents to create a new cluster, or as an addition to the open cluster. This entry allows to choose between these two behaviours. Setting it to TRUE allows to build a cluster by successively adding files to an open cluster by drag and drop operation. Setting it to FALSE forces to build the cluster in one operation (bringing all its files in a single drop).

The AddFilesToCurrentClusterWhenDropped entry must be either TRUE or FALSE.

Default value is TRUE.

Example

```
[Drag and Drop]
AddFilesToCurrentClusterWhenDropped=FALSE
```

Other Operations

Some of the ClusterView capabilities are less obvious and grouped here.

ClusterView configuration

Registration file

Drag and drop operation

Command line arguments

Furthermore, you can get direct access to the help capabilities either through the Help Contents option of the Help menu (this leads you to the introduction of this help file) or through the Search for Help On... option of the same Help menu (this leads you to the Search command of this help file).

Easter Egg Operation

An easter egg is the traditional name for these non-documented nice/funnny features of an application. It must not be counfounded with undocumented fonctions of the application. These would have some utility. On the contrary, the egg is of no use at all, but is generally either nice or funny but never useful (at least not willingly).

In all cases, the egg is hidden.

Try and find the one in ClusterView. If you EnAbLe it, you may like it.

ClusterView Configuration

ClusterView is configurable both through the use of its <u>initialization file</u> (whose name is <u>CLUSTER.INI</u>) and through the use of the Options menu. This allows you to easily optimize its operation and its performance.

The initialization file interface is more powerful (provides more options to the user) but is more difficult to use than the Options menu. The preferred interface for the user is the Options menu because it is more user friendly and providing all necessary information to avoid confusion.

The modifications made through the Options menu are autmatically saved back to disk into the CLUSTER.INI file at the normal end of the execution of the application (when you choose Exit in the File Menu or in the system menu).

For more information on these, please select either one of the keywords shown here.

Registration File

A default registration file is provided with ClusterView. To install it, follow the procedure:

1   Run the File Manager if it is not already running. To do this, you need to double click on the FileManager icon.

2   Switch to the drive and directory where the registration file is. Normally, you will find it on the distribution disk in the root directory (**A:**).

3   Double click on the **CLUSTER.REG** registration file.

The ClusterView registration data is automatically added to your registration database. Next time you will run File Manager, all file whose suffix is CLU will be considered as ClusterView clusters. By double clicking on them, you will immediately open them with a new ClusterView application.

Drag and Drop Operation

This is an alternative to using the File Open... command and the Cluster Open... command from the application menu followed by the Open dialog box.

ClusterView is a Drag'n Drop client for File Manager. This means that if you take a file from the File Manager (selecting it with the mouse), drag it accross the desktop (keeping the left button pressed while moving the mouse pointer) and drop it on the ClusterView icon or window (when clicking up on the ClusterView main window), then, ClusterView will automatically open the file. If it can recognize a Cluster file, it will be opened as such. If not, the file will be opened as a Document.

ClusterView also allows multiple files to be dropped at the same time. They will be dropped as documents in a cluster to group them.

For more about Drag'n Drop operation, you may consult your Windows 3.1 User's guide and File Manager Help menu. You may also want to consult the help on configuring ClusterView for drag and drop operation with the help of the CLUSTER.INI file.

See also

Cluster File Format

Command Line Arguments

If a file name is found on the command line at start time, ClusterView interpret it as a cluster name to open.

This, with the help of the registration file, allows to open automatically the cluster whose name suffix is CLU. In the File Manager, you only have to double click on the cluster to open it in a new session of ClusterView.

Font Selection

The display font can be choosen by the user through the Font choice in the Options menu. The dialog box allows to choose a character font, if it must be normal, bold or italics, and its point size.

When the description of the font is finished you can click on the OK button. If you want to exit without altering the font currently selected, click on the Cancel button.

Line/Hyphen Options

ClusterView has a specific option for OCR hyphenated texts. It is able to modify automatically at display time the characters inserted at the start or the end of a line. The normal use is to modify the visual aspect of the hyphen which is often an unusual character added by OCR software.

The Line/Hyphen dialog box allows to select the hyphen character position in a line (either at start of line or at end of line), to show the hyphen character used in documents, to select the hyphen character to be used by ClusterView at display time.

Moreover, find operations are able to understand what an hyphen is and consequently it is optionally possible to wrap hyphenated words when searching for a pattern. This is done to allow the recognition of an hyphenated word (split to two different lines) as a single word and to allow an efficient search even in heavily hyphenated texts.

The modification process searches for the "In Character" at the specified position in lines, and replaces it with the "Out Character". The selections in the dialog box are fairly self-explanatory, but you have to remember that the character fields must contain one and only one character each for correct operation.

Common Questions and Features

If you have some problem while using the ClusterView application, it's the right place to look for a solution. The most common problems encountered by users (both end users and developpers) are stored in this unstructured database.

Note 001   I am continuously bothered by this dialog box at starting of Clusterview

Note 002   Clusterview never opens my clusters as clusters (it reads them as documents)

Note 004   ClusterView does not recognizes the changes I put into CLUSTER.INI

Note 005   After the end of a search, I get a "busy" cursor during some time- ClusterView has nothing more to do!

Note 008   I dont know where to get the latest version of ClusterView

Note 009   My portable computer does not have the + and - numeric keys (no numeric keypad)

Note 010   When I try selecting text, nothing appears to be highlighted

Note 011   The Document>Browse menu command appears to select the wrong document when there are several of them with the same name

Note 012   ClusterView sometimes appears not to find the files in the cluster

Note 013   How do I get ClusterView 32-bits program working under MS-Windows 3.1?

If the ordinal numbers of the notes is revealing missing numbers in this list, this means that old bothering events have been removed in the life of the ClusterView application. This is certainly NOT because we are hiding some problems we would prefer not to reveal. This list is containing ALL the technical notes of significance for the current version of ClusterView.

I am continuously bothered by this dialog box at starting of Clusterview

The ClusterView application shareware edition package is distributed for an evaluation period of 30 days. The software helps you remember that you should register to have this dialog box removed.

Clusterview never opens my clusters as clusters (it reads them as documents)

You certainly have built them "by hand" with an external file editor (maybe you tried to build dynamic clusters). In that situation, the most obvious error that we all do is to forget about the `Creator` field. Remember that this is used by ClusterView to differentiate between a document and a cluster. Include the following in your cluster description:

```
[Information]
Creator=Manual
```

The contents of the `Creator` field have no importance. But they must not be empty or absent. Clusters built by ClusterView contain its name in this field in order to recognize easily this origin.

ClusterView does not recognizes the changes I put into CLUSTER.INI

Remember that CLUSTER.INI must be in the same directory as CLUSTER.EXE (the executable file) and not in the Windows directory (e.g. C:\WINDOWS). This was made to avoid cluttering your Windows directory and to help you remove all traces of ClusterView if you need/want to extract it.

Saving the options from ClusterView is safe in that ClusterView always finds its way to the only correct version of CLUSTER.INI.

After the end of a search, I get a "busy" cursor during some time - ClusterView has nothing more to do!

I apologize for the apparent contradiction! ClusterView has still some internal structures to clear. So it needs a little time for that. On most computers you will hardly notice it after hours of use of ClusterView. Most users never do. However, on computers with (simultaneously) low processing power (the older ones) and low memory conditions (enough memory to run but not the amount suggested), you can observe the phenomenon if you ask for approximative search. This is due to the amount of time needed by MS-Windows to clear some of the structures. ClusterView is set waiting during 10 to 100 ms normally (barely noticeable), but can be forced in waiting up to 1 second (80386SX with less than 2 megabytes of RAM).

ClusterView has "memory leaks"

Do not read that one! It has disappeared...

This is only a place-holder. ClusterView has currently not a single memory leak, while some of the previous versions had. It was cumbersome to find. Now, I will avoid that creepy guy coming back on you. I stand by you!

What does that mean?

In certain circumstances, ClusterView manages to eat up MS-Windows memory. This will certainly lead to memory exhaustion if the circumstances are repeated enough times (many hundred times at least).

When does it happen?

It happens when ClusterView is run multiple times. The second and following instances will eat up about XXXX bytes of memory. These can total to a fair amount if you really try and run a lot of ClusterView instances. However, in the most usual situation, the user (you!) will not notice the situation.

What can you do about it?

You cannot do much. It is a programmer's problem to solve. I acknowledge I have not been able to identify it precisely enough to solve the problem. It will certainly be improved in a future release of ClusterView.

For the moment, and if you hit the wall of "not enough memory" you should quit Windows (and run it again to clear if off).

I dont know where to get the latest version of ClusterView

You can register and get it right from me!

Just kidding, but you can do it. Of course!

You can get it from a set of Internet FTP sites and various BBS

Consider the following article:

<u>FTP availability</u>

Many shareware libraries on CD-ROM now hold ClusterView. The SimTel CD-ROM you can get from Walnut Creek is one of these. Walnut Creek address is **4041 Pike Ln Ste D-386, Concord, CA 94520, USA**. You can call at 1-800-786-9907 and +1-510-674-0783 (I try to keep this information up-to-date, but they may be moving some day or another...)

And, many BBS around the word keep updated copies of them (I keep on receiving messages from people telling ClusterView was either downloaded from or uploaded to some obscure (but active) BBS far from Europe.)

My portable computer does not have the + and - numeric keys (no numeric keypad)

Problem

This means that you dont have access to the very nice + (resp. -) commands used to jump from one document to the next (resp. the previous).

Solution

You could force the insertion of these command through the specific personal commands of the ClusterView application, by creating a file named CLUSTER.KEY in the directory where you put the ClusterView executable file (CLUSTER.EXE).

It should contain the following lines:

```
+ next-file
```

```
- previous-file
```

For those of you unsure of the way to do this, the registered version of the ClusterView application contains a PORTABLE.KEY file in the .\OTHERS directory which only needs to be copied up into the ClusterView directory.

When I try selecting text, nothing appears to be highlighted

This only means that the current version of ClusterView does not mark the selection but it is working OK. Just copy it to the clipboard... Sorry!

The Document>Browse menu command appears to select the wrong document when there are several of them with the same name

When the cluster contains two or more documents with the same name, it appears that Document>Browse will always select the first one independently of the actual position in the cluster. This is either a "known bug" or a "feature" depending on the way you look at it. Anyhow, the cause of the problem comes from Windows handling of "ComboBoxes" and I cannot do anything about it for the time going.

ClusterView sometimes appears not to find the files in the cluster

This most certainly comes from the fact you build it (or modified it) without ClusterView. I guess you used a standard text editor. The most common situation appears when you insert relative file names (e.g. `.\file.txt`) instead of absolute file names (e.g. `C:\usr\cluster\samples\file.txt`).

The obvious solution is "rebuild the cluster from the Cluster>Edit menu command" or "use your text editor again to correct the misspelling or so".

How do I get ClusterView 32-bits program running under MS-Windows 3.1?

You need to add to your system the standard Microsoft WIN32S package. Most notably it can be installed (semi-transparently) by many applications which need it. ClusterView shareware package does not include WIN32S in order to reduce redundancy and to reduce the cost of downloading the package through paying channels.

You should install WIN32S v1.1 or higher (prefferably higher, because v1.1 was riddled with bugs even though ClusterView does not stumble over them).

Initial directories dialog box

You have the ability to choose where ClusterView will choose its files (ckusters and documents) from. You can select a default initial directory for each of them. This is not a limitation of your choice, but the location where you are proposed to look when asking for opening either documents of clusters.

You can enter any directory in the text boxes of this dialog box.

The following information can be entered:

Clusters default directory:

The default location opened when the Cluster>Open... dialog box is called.

Documents default directory:

The default location opened when the Document>Open... dialog box is called.

The following buttons can be pressed:

OK:

To accept the changes. They will be preserved in the CLUSTER.INI initialization file only when quitting the application.

Cancel:

To abandon the changes.

Help:

To jump to the text youre reading now.

Line display options dialog box

ClusterView is able to do some minor preprocessing on each line before displaying it. The objective was to allow to replace some characters either in special position (beginning or end of line) or anywhere in the line.

You may give a single character as the hyphen as produced by the OCR software (Text Hyphen field), another single character to replace the hyphen with a more useful (or easy to read) character (Display Char field), and furthermore you can indicate where to search for the hyphen (in the beginning of the line, the end of the line), or you can disable the hyphenation option (nowhere button).

For example, replacing the hyphen text - with the display character * at the end of all lines, will allow the following document line:

> *how surprising this process may be, it co-*

to be displayed as:

> *how surprising this process may be, it co**

The difference is small but may be very useful to some users. Honestly, most will never use this feature, but it is necessary for some.

The following information can be entered:

Text Hyphen:

Character to be found in text and to be replaced by:

Display char:

Replacement character.

Location of the hyphen character:

Select where the text hyphen is to be expected by ClusterView.

The following buttons can be pressed:

OK:

To accept the changes. They will be preserved in the <u>CLUSTER.INI</u> initialization file only when quitting the application.

Cancel:

To abandon the changes.

Help:

To jump to the text youre reading now.

Preferences dialog box

This dialog box is intended to select the options the user may want to modify in order to optimize the operation of the ClusterView application. This is considered as information for the power user. Most users will not find use of this data. Anyhow, both of them will find this dialog box more convenient than modifying by hand the <u>CLUSTER.INI</u> initialization file.

The following information can be entered:

Multitasking priority:

Is the way for the user to interact with machine performance during long operations (mainly search operations). With a low value (e.g. 2), ClusterView will search faster, but the rest of the Windows applications will have less CPU time left for background operations like modem download or background printing. With a high value (e.g. 100), ClusterView will behave more smoothly (and more politely) with other Windows applications.

This is less important for true multitasking environments like Windows NT or OS/2.

Tabulation size:

Is the number of characters used as the default size for the tabulation (Tab or ASCII 0x09) character. The default value of 8 involves using the standard size of the tabulation character as defined in the original character font. It is usually equivalent to 8 medium-sized characters.

Mobile cursor waiting time:

Describes the time between each rotating cursor change. A higher value will reduce the speed of the cursor. The actual unit is a number of explored lines, but you are advised to try different values in order to find the best one for your computer 9and your personal taste).

Display status bar:

When checked, this will allow the display of the status bar at the bottom of the client window of ClusterView.

Try open as cluster:

When checked this button will allow ClusterView to try opening dropped files (or files given on the command line) first as clusters. If the file cannot be recognized as a valid cluster file, it is opened as a normal document.

When not checked, dropped files (and files given on the command line) are always opened as documents.

Add file to current cluster:

When checked, this button allows ClusterView to add dropped documents to the current open cluster rather than simply opening it as a document.

When not checked, dropped files are simply opened as documents rather than adding them to the already open cluster.

The following buttons can be pressed:

OK:

To accept the changes. They will be preserved in the <u>CLUSTER.INI</u> initialization file only when quitting the application.

Cancel:

To abandon the changes.

Save:

To immediately save the changes to the <u>CLUSTER.INI</u> initialization file. If you want to quit the dialog box AND save to the <u>CLUSTER.INI</u> initialization file, you should first save, then press OK.

Help:

To jump to the text youre reading now.

Keyboard operations compatible with the Unix utilities MORE and LESS

History and context

A very common set of tools for viewing files in Unix Operating System on a character terminal is known as MORE and its follower LESS (improving on MORE). They share a common set of keyboard commands and LESS adds some commands which are compatible with what is known in a rather large number of utilities ranging from file viewers to text editors (like Emacs or VI).

While Windows is not specifically keyboard oriented, it allows its use for power users. Therefore, ClusterView has a set of keyboard commands which should be interesting to these users of high expectations in terms of usability and performance.

See also

Keyboard default assignements, List of commands.

Keyboard default assignements

At start time, independently from the possible re-assignement by the user key file, Clusterview has a default table for keyboard commands.

Here is the list of all the commands which are bound to certain keyboard sequences.

<CR>	forw-line
<LF>	forw-line
e	forw-line
j	forw-line
n	forw-line
^E	forw-line
^N	forw-line
k	back-line
y	back-line
^Y	back-line
^K	back-line
^P	back-line
J	forw-line-force
K	back-line-force
Y	back-line-force
d	forw-scroll
^D	forw-scroll
u	back-scroll
^U	back-scroll
,	back-scroll
<Space>	forw-screen
f	forw-screen
^F	forw-screen
^V	forw-screen
b	back-screen
^B	back-screen
<Esc>v	back-screen
z	forw-window
w	back-window
R	repaint
r	repaint
^R	repaint
^L	repaint
g	goto-line

<	goto-line
<Esc><	goto-line
p	percent
%	percent
G	goto-end
<Esc>>	goto-end
>	goto-end
P	goto-end
=	status
^G	status
:f<Ret>	status
/	forw-search
?	back-search
<Esc>/	forw-search-all
<Esc>?	back-search-all
n	repeat-search
N	reverse-search
<Esc>n	repeat-search-all
<Esc>N	reverse-search-all
m	set-mark
'	goto-mark
^X^X	goto-mark
E	examine
:e	examine
^X^V	examine
:n<Ret>	next-file
:p<Ret>	prev-file
:x<Ret>	index-file
-f	font-option
-d	directory-option
-l	line-option
-p	preference-option
-q	exit
-F	font-option
-D	directory-option
-L	line-option
-P	preference-option

-Q   exit

^X^C   exit

v   visual

!   shell

H   help

h   help

V   version

q   exit

Q   exit

:q<Ret>exit

:Q<Ret>   exit

ZZ   exit

<Esc><Esc>   exit

:q!<Ret>   destroy

:Q!<Ret>   destroy

See also

List of ClusterView keyboard commands (alphabetically sorted).

List of ClusterView commands (alphabetically sorted)

back-line

Move backward N lines along the document. When no argument is provided it defaults to one line of movement. This is equivalent to pressing the Up key.

back-line-force

Move backward one line along the document.

back-screen

Move backward N lines along the document. When no argument is provided it defaults to a full window of movement. This is equivalent to pressing the PageUp key (scrolling backward one window long).

back-scroll

Scroll backward N lines, default one half of the screen size. If N is specified, it becomes the new default size for the subsequent commands.

back-search

Search backward in the document for the N-th line containing the pattern. N defaults to 1.

The function calls the Search/Find dialog box with an initialized backward direction of search.

This is equivalent to calling the menu Find>Find... command then forcing the backward direction of search in the documents.

back-search-all

Search backward in the document for the N-th line containing the pattern. N defaults to 1.

The function calls the Search/Find dialog box with an initialized backward direction of search and an initilized Search Whole Cluster field.

back-window

Like **back-screen**, but if an argument is specified, it becomes the new window size (the argument is taken as the visible client area size measured in character lines (excluding the optional status or tool bars).

choose-file

Displays the Choose File dialog box which is also available through the document menu.

cluster-edit

Equivalent to the Cluster>Edit... menu command.

cluster-new

Equivalent to the Cluster>New menu command.

cluster-open

Equivalent to the Cluster>Open... menu command.

cluster-save

Equivalent to the Cluster>Save menu command.

cluster-save-as

Equivalent to the Cluster>SaveAs... menu command.

destroy

Fast exit (without asking confirmation as may be needed). See also **exit**.

directory-option

Equivalent to the Options>Directories... command.

examine

Examine a new file. If several files are given, they are all examined.

As a matter of fact, this is equivalent to executing a new command line, potentially reading more files in the currently open cluster.

exit

Normal exit (asking confirmation as needed).

file-close

Equivalent to the Document>Close menu command.

file-open

Equivalent to the Document>Open... menu command.

file-status

Equivalent to the Document>Status menu command.

first-file

Equivalent to the Document>First menu command.

font-option

Equivalent to the Options>Font... command.

forw-forever

Not yet implemented.

forw-line

Move forward N lines along the document. When no argument is provided it defaults to one line of movement. This is equivalent to pressing the Down key.

forw-line-force

Move forward one line along the document.

forw-screen

Move forward N lines along the document. When no argument is provided it defaults to a full window of movement. This is equivalent to pressing the PageDown key (scrolling forward one window long).

forw-scroll

Scroll forward N lines, default one half of the screen size. If N is specified, it becomes the new default size for the subsequent commands.

forw-search

Search forward in the document for the N-th line containing the pattern. N defaults to 1.

The function calls the Search/Find dialog box with an initialized forward direction of search.

This is equivalent to calling the menu Find>Find... command then forcing the forward direction of search in the documents.

forw-search-all

Search forward in the document for the N-th line containing the pattern. N defaults to 1.

The function calls the Search/Find dialog box with an initialized forward direction of search and an initilized Search Whole Cluster field.

forw-window

Like **forw-screen**, but if an argument is specified, it becomes the new window size (the argument is taken as the visible client area size measured in character lines (excluding the optional status or tool bars).

goto-end

Go to line N in the current document, default to 1 (last/end line of document).

goto-line

Go to line N in the current document, default to 1 (first/beginning line of document).

goto-mark

Followed by a lowercase letter, returns to the position which was previously marked with that letter (using **set-mark**). Followed by a ^, or a $, returns to the beginning or end of the document respectively. The marks are preserved when changing from one document to another inside a cluster (not if you reload a new document). You can then use the **goto-mark** to jump from one document to another.

help

Equivalent to the Help>Contents... command.

help-on

Equivalent to the Help>Search for Help On... command.

help-on-help

Equivalent to the Help>How to use Help... command.

index-file

Examine the first file/document in the cluster. If an argument N is given, examine the Nth document of the cluster.

last-file

Equivalent to the Document>Last menu command.

line-option

Equivalent to the Options>Line/Hyphen... command.

next-file

Equivalent to the Document>Next menu command.

percent

Go to a line near N percent of the total length of the document. This is equivalent to positionning the vertical ruler in the appropriate position. N should be between 0 and 100 (it is a percentage). If ClusterView receives an argument out of these bounds it will limit itself to 0-100%.

prev-file

Equivalent to the Document>Previous menu command.

preferences-option

Equivalent to the Options>Preferences... command.

repaint

Repaint the full screen. This command is only useful as a compatibility with other tools and to go around display bugs of either ClusterView (I dont know of such a bug in ClusterView today) or the Windows Operating System or drivers.

repaint-flush

same as **repaint**.

repeat-search

Repeat previous search, for the N-th line containing the last pattern. The values of the dialog box fields are all kept for this repeated search.

repeat-search-all

Repeat previous search, but crossing the document boundaries around the full cluster. The effect is as if the previous search had selected the Search Whole Cluster option in the dialog box.

reverse-search

Repeat previous search, for the N-th line containing the last pattern, but in the reverse direction. The values of the dialog box fields are all kept for this repeated search except (of course!) the direction of the search operation which is reversed.

reverse-search-all

Repeat previous search, but in the reverse direction and crossing the document boundaries around the full cluster. The effect is as if the previous search had selected the Search Whole Cluster option in the dialog box.

set-mark

Followed by any lowercase letter, marks the current position with that letter. To retrieve the position, you should use the **goto-mark**.

shell

Opens a dialog box asking for a command line to type execute.

Windows applications can be run by giving their name. For example, entering WRITE in the dialog box, then pressing the OK button, will run the default minimal word processor of MS-Windows (MS-Write).

MS-DOS applications can also be run, but by giving their **full** file name. For example, entering COMMAND.COM in the dialog box, then pressing the OK button, will run an MS-DOS session under MS-Windows; Entering WRITE.EXE in the dialog box, then pressing the OK button, will run the default word processing application under MS-Windows. Please, note that it is necessary to enter the **full** file name (including the suffix - .COM or .EXE in the examples).

When no application name is given, a shell program is run. It is selected following the above strategy:

First, the environment variable COMSPEC can provide the name of a shell program (usually COMMAND.COM).

Second, the environment variable SHELL can provide the name of a shell program.

Third, the initialization value (in the CLUSTER.INI file) [ClusterView] Editor can provide the name of a shell program.

By default (if none of the preceeding possibilities are fulfilled), ClusterView will call the Windows Program Manager. The only advantage of using the Windows Program Manager is that is present on virtually any Windows installation in the world. You are however, invited to use one of the other methods to designate a more appropriate shell program (from a simple COMMAND.COM, to a superb shell program like the PharLap Front Runner shell).

status

Displays the File Status dialog box which is also available through the document menu.

version

Displays the About dialog box (including ClusterView and YGrep Search Engine versions, and your registered license number).

visual

Call a visual editor (a text editor) on the document currently displayed. The text editor program is choosen in the following manner:

First, the environment variable EDITOR can provide the name of a text editor name.

Second, the environment variable VISUAL can provide the name of a text editor name.

Third, the initialization value (in the CLUSTER.INI file) [ClusterView] Editor can provide a text editor name.

By default (if none of the preceeding possibilities are fulfilled), ClusterView will call the Windows Notepad. Be warned that if the document is actually a large file, Notepad will be unable to load it (it does not allow more than 64 kbytes documents). The only advantage of using the Windows Notepad is that is present on virtually any Windows installation in the world. You are however, invited to use one of the other methods to designate a more powerful text editor (from a simple VI, Emacs, MS-DOS Edit, EDLIN, Norton Edit to a full fledged text processor like Word for Windows, WordPerfect or AMI WordProcessor).

Shell command dialog box

In this dialog box, you can enter the command string you are ready to apply. For example, typing "write.exe" then pressing the OK button, will start the standard Windows 3.1 minimal word-processor.

If the command string is empty, the default shell is run (Program Manager, by default).

Some characters in the command string may have a special meaning:

The exclamation point (!) put alone on the string will call back the previously run shell command. If this is the first time you run the shell command, it will be equivalent to an empty command.