Windows MBox Viewer
User Manual 1.0.3.0

Table of Contents

1 Modification History

Revision	Date	Comments

1.0	February 28, 2018	Initial Release
1.1	March 12, 2018	Described new layout of the header in the Message Window. Described new global options settable via GUI.
1.2	April 9, 2018	Enhanced search scope to include from, to, subject fields, message text and text attachments. Eliminated false negative searches by first decoding base64 and quoted-printable content blocks. Enhanced mboxview index file to keep track of text content blocks to optimize message and attachments search performance. Deprecated searching of RAW mail data.
1.3	April 16, 2018	Added Next/Previous search options to Find dialog. Optimized message text search performance and significantly reduced number of cases of false positive search results.
1.4	May 5, 2018	Added Picture Viewer dialog to preview attachments with the png, jpg, jpeg, jpe, gif, bmp, ico, tif, tiff, jfif, emf, wmf, dib suffixes. The Picture Viewer is enabled by default by it can be disabled on the fly via fly via File->Options dialog.
1.0.2.6	October 8, 2018	Synchronized the version number of this document with the release number. Added context menu to the mail archive under Mail Tree, summary mail in the Summary window and attachments. Added new options to the File and View main menus. Context menus enable user to print single, group or all mails to CSV, Text or HTML files, sort mails by date, from, to, subject, size and conversation groups, find and highlight all occurrences of the searched text. This release resolves the text encoding issues in the summary window, i.e. text is now shown correctly. Added image cache to properly handle inline images within an email.
1.0.2.7	November 6, 2018	Fixed picture orientation in Picture Viewer. Added mail message retrieval state in the status bar. Improved performance of Picture Viewer to reduce flicker. Added zoom slider and image dragging using mouse to Picture Viewer.
1.0.2.8	December 14, 2018	- Version specific changes are tracked as shown in this line so they can be more easily identified by the user. - Added handling of embedded images declared incorrectly as non inline attachments in the mail. - Fixed incorrect text alignment in some cases when printing group of mails to HTML; - Added html2text conversion to print mails with only HTML block and no plain text block. - Added progress bar when printing mail archive to Text or HTML or CSV files. The html2tewxt conversion is quite slow

		and it was necessary to introduce the progress bar. - Fixed race condition (introduced in 1.0.2.7) that could result in message and mail summary out of sync.
1.0.3.0	February 26, 2019	See what is new and what changed section.

2 What is new and what changed in version 1.0.3.0

2.1 What is new

1. Added mail list editing capability to enable users to compose mail list by merging results of multiple searches and/or by merging one or more user selected mails. See 6.16.
2. Added capability to archive search results to the archive file.
3. Added capability to archive the mail list composed by a user to the archive file.
4. Added capability to reload mail list composed by users from the archive file.
5. Added capability to select one or more mails and print, remove and/or copy.
6. Added option to directly print mails to user selected printer.
7. Added Advanced Find/Search capability. See 6.13.2.
8. Added option to set Message Window position to Bottom, Right or Left.
9. Added option to standard Find dialog to find all matching mails.
10. Added option to configure unique file name for printing a mail to a file.

2.2 What changed

1. Updated status bar to display the number of the selected mail and the total number of mails.
2. Added "Find all occurrences" to the Find dialog.
3. Changed folder to house images embedded into mails from C:\Users\USER_NAME\ AppData\Local\Temp\mboxview to FolderHousingMailArchives/ImageCache. This is to make sure folder persists reliably across computer restarts.
4. Added FolderHousingMailArchives/PrintCache to save printed mails.

3 Feedback

To help to improve MBox Viewer, please post reviews what works and what doesn't, create bug reports and request for enhancements. Provide as many details as possible, such as country, screenshots, etc.

4 Overview

MBox Viewer (or mboxview) is Windows GUI based program to view mbox files such as Thunderbird Archives, Google mail archives or simple Eml files.

The mbox viewer is a simple but quite powerful email viewer that supports the following features:

1. large file support > 4Gb
2. fast parsing of mbox archives
3. quick access to all attachments
4. preview picture attachments
5. zoom in/out a picture
6. export of single mail in Eml
7. print all mails to CSV or Text or HTML files
8. print single mail to Text or HTML file or send to printer
9. group all related mails as conversations
10. print related mails/mail group to Text or HTML file
11. open single mail or group of related mails in a browser
12. find user defined text in mail's message and highlight all occurrences
13. search the date, subject, sender, message text and text appendix
14. sort by date, from, to, subject, size and conversation groups
15. support for mail's header fields and body encoded with different character sets
16. support for mail list editing capability to enable users to compose mail list by merging results of multiple searches and/or by merging one or more user selected mails.
17. support to set Message Window position to Bottom, Right or Left.

5 Installation

The executable and the source code can be downloaded from Sourceforge or Github.

https://sourceforge.net/projects/mbox-viewer/files/

https://github.com/eneam/mboxviewer/releases

Download the executable package, the latest mbox-viewer.exe-v1.0.3.0.zip, to the working directory and unzip. This will create the mbox-viewer.exe-v1.0.3.0 directory and the stand-alone mboxview.exe executable and User Guide in that directory. No administrator privileges are required.

6 Running the MBox viewer

The mboxview program can be executed by double clicking the executable from the explorer window or from the command line by typing the command name and argument list to it.

6.1 Argument List Summary

The mboxview accept the following command line options.

-FOLDER=folderPath – the full path to the folder containing one or more mbox or eml files. Persists in the registry across multiple runs.

-MAIL_FILE=fileName – full file path or just file name of mbox/eml file to load. If the full path is not specified, the full path is created from the folderPath and the fileName. Doesn't persist in the registry across multiple runs.

-EXPORT_EML=y|n – enables or disables automatic export of eml files generated from mbox archive. Improves traversing performance of mail if set to 'n". Persists in the registry across multiple runs.

-PROGRESS_BAR_DELAY=seconds – search progress bar is activated when the search duration lasts longer than the value set for PROGRESS_BAR_DELAY. If set to **-1**, the progress bar is disables. Default value is set to **1** seconds. Persists in the registry across multiple runs.

If desired, instead of typing directly desired command line options, a simple .cmd or .bat file can be created for convenience and run from the explorer.

6.2 Setting Options from GUI

The **EXPORT_EML** and **PROGRESS_BAR_DELAY** values can be changed on the fly at any time from GUI.

Click on the "File" to open the drop menu and then select the "Options" option. The below dialog will be presented. Set the desired values followed by OK button.

Note that if exporting of EML files is disabled, you can still export the eml file for the selected mail by selecting "View EML" under the "View" drop menu.

Two options, "**Show Charsets**" and "**Set Character Sets for Header Fields**", can help to properly display header fields in the Message Window. See 6.15.1.1 for additional details.

The "**Picture Viewer**" check box enables/disables the dialog option to preview the picture attachments, see 6.9 for additional details.

The "**Time**" option allows to display time as Local or GMT.
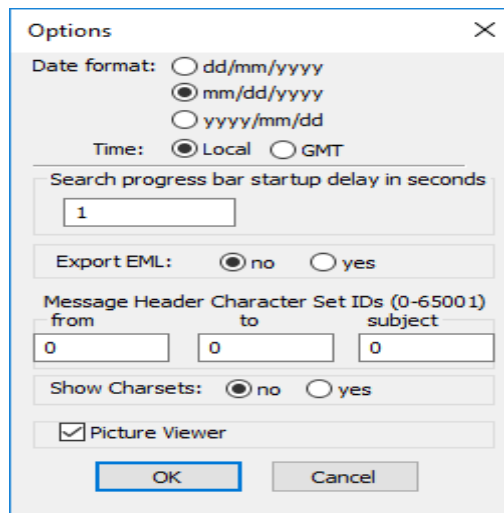
6.3 Basic Use Case

Double click of the mboxview to start the viewer. The picture below shows the screen created by the mboxview after few steps performed by a user. Mail Archive, Summary and Message windows are initially blank after start-up. Steps to load a mail archive and display the content are described next.

1. Click on the "File" to open the drop menu and then select the "Select folder..." option. Browse to the folder containing one or more mbox and/or eml mail archive files and select it. All valid mail archive files will appear in the Mail Archive Tree window.

mboxview

File   Edit   View   Help

Select folder...	F2	○ Find Mails	○ User Selected Mails	Help
Refresh	F5			
Options...		from	to	subject	size(KB)
Print Config...					
Print To	>				

Select folder...   F2
Refresh   F5
Options...
Print Config...
Print To   >
1 C:\Users\tata\Documents\Mails
2 C:\Users\tata\Documents\Mail
Exit

| from	to	subject	size(KB)
shirish शिरीष	users	newbie subversion questions	7
René_Hjortskov_...	Daniel Shahaf	Re: svnserve with corrupt...	8
张凡	users	svn: REPORT request failed...	13
Péter_SZABADY	users@subversi...	merge error	19
webster.brent	Subversion Users	My mixed revision working ...	18
Ryan Schmidt	webster.brent	Re: My mixed revision work...	7
webster.brent	Ryan Schmidt	Re: My mixed revision work...	21
Johan Corveleyn	webster.brent	Re: My mixed revision work...	10
Rainer Senn	users	TortoiseSVN RepoBrowser: ...	7
Torsten Krah	users	Re: TortoiseSVN RepoBrows...	7
Daniel Shahaf	Rainer Senn	Re: TortoiseSVN RepoBrows...	5
Johan Corveleyn	Daniel Shahaf	Re: TortoiseSVN RepoBrows...	7
Daniel Shahaf	announce	[ANNOUNCE] Apache Subver..	7
Vincent Lefevre	users	Re: Error E160016 "... is not..	4
Nico Kadel-Garcia	Branko_Čibej	Re: svn diff non-temporary ...	6
Thorsten_Schöning	users	Does svn client binary ho...	6
Ignacio_González...	users	Not so cheap moves	8

Subject: Re: svnserve with corrupt timestamps and malformed text representation
Date: 04/01/2011 06:08   From: René_Hjortskov_Nielsen <rene@hjortskov.dk>   To: "Daniel Shahaf" <d.

Thanks for your input.

I ended up debugging the subversion and apr code and found the solution.

I corrected the timestamps by making some typecasts in
subversion-1.6.13/apr/time/unix/time.c:
"
APR_DECLARE(apr_time_t) apr_time_now(void)
{
struct timeval tv;
gettimeofday(&tv, NULL);
// RHN: Need to typecast these in order to preserve 8 byte result,
otherwise it gets treated as 4 bytes.
return tv.tv_sec * (long long)APR_USEC_PER_SEC + (long long)tv.tv_usec;
// return tv.tv_sec * APR_USEC_PER_SEC + tv.tv_usec;
}
"

Since we are multiplying with 1000000 here, we get a huge number for
instance
apr_time_t = 1294141942240251 as long long and with my typecasts
binary : 100 10011001 00000011 11100110 11000001 10010011
11111011
apr_time_t : -423521285 without typecasts, apparently represented as a 4
byte type which can hold 4294967295 as the largest positive number.
4294967295 = 11111111 11111111 11111111 11111111

Hence it should be safe to add the above typecasts to the trunk in the apr
code, because the needed size of the timestamp will be the same on a 32-bit
machine aswell on a 64-bit machine.

Select folder containing mails   Mail Retrieval Complete   Mail 2 of 17

2. Click on one of the archive files to load all mails within the archive. Progress bar will
appear and automatically close after the selected archive is fully processed. Mail header
information of each email will appear in the Summary window.

Note that parsing of very large archive file may take some time since the mail archives are
text files and every character has to be examine one by one. However, subsequent loading
of mails is done from the index file created by the mboxview during the initial parsing of the
archive file. The created index file contains the header information, content meta data of
each mail in the archive file and the position of each mail within the mail file for quick
access to the mail message/body. Loading from the index file is much faster. The index files
have the .mboxview suffix.
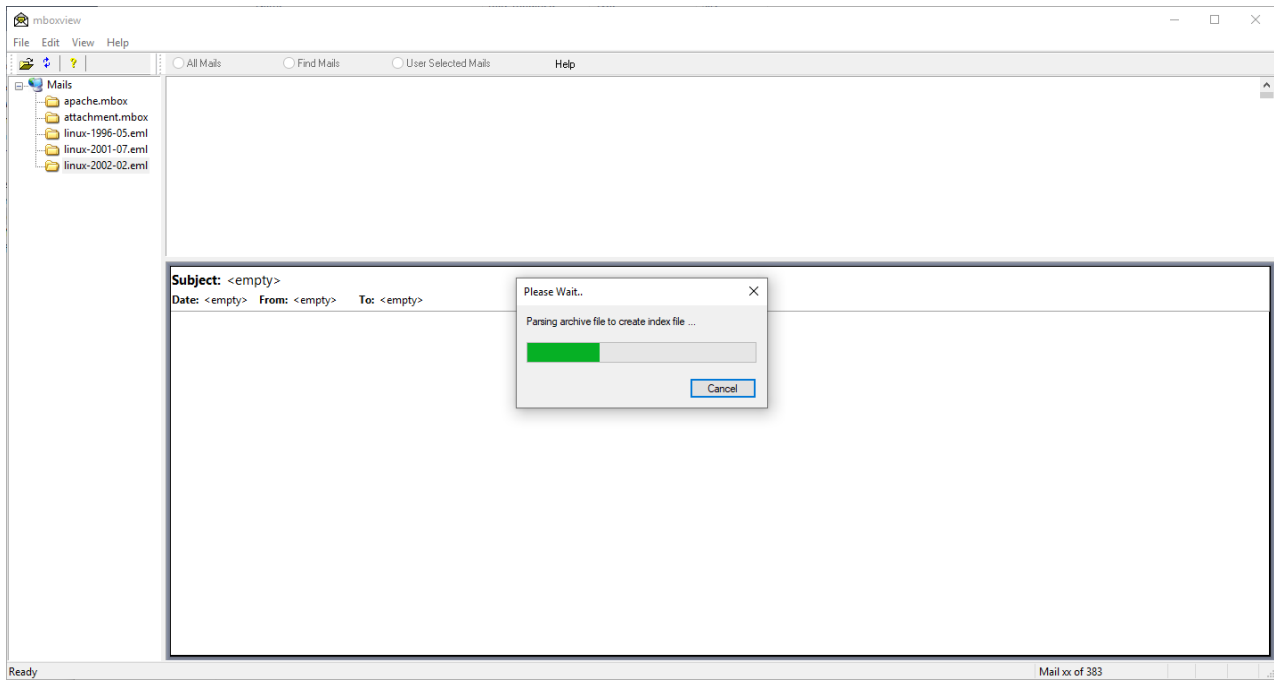
3. Left Click on one of the mails in the Summary window to show the Message/Body of that email in the Message window. The mail retrieval state is shown on the status bar.   Opening a link within an external browser is recommended since running Java or scripts or ActiveX controls is disabled in the internal browser to improve security.

6.4 Message Window Position

Message Window position can be set to Bottom, Right or Left via View → Message Window option. After setting new position, mbox viewer needs to be restarted for the change to take effect.

When position is set to Right or Left, the mail address format will change to show mail name only or mail address if the name is missing.

By default Message Window position is set to Bottom.
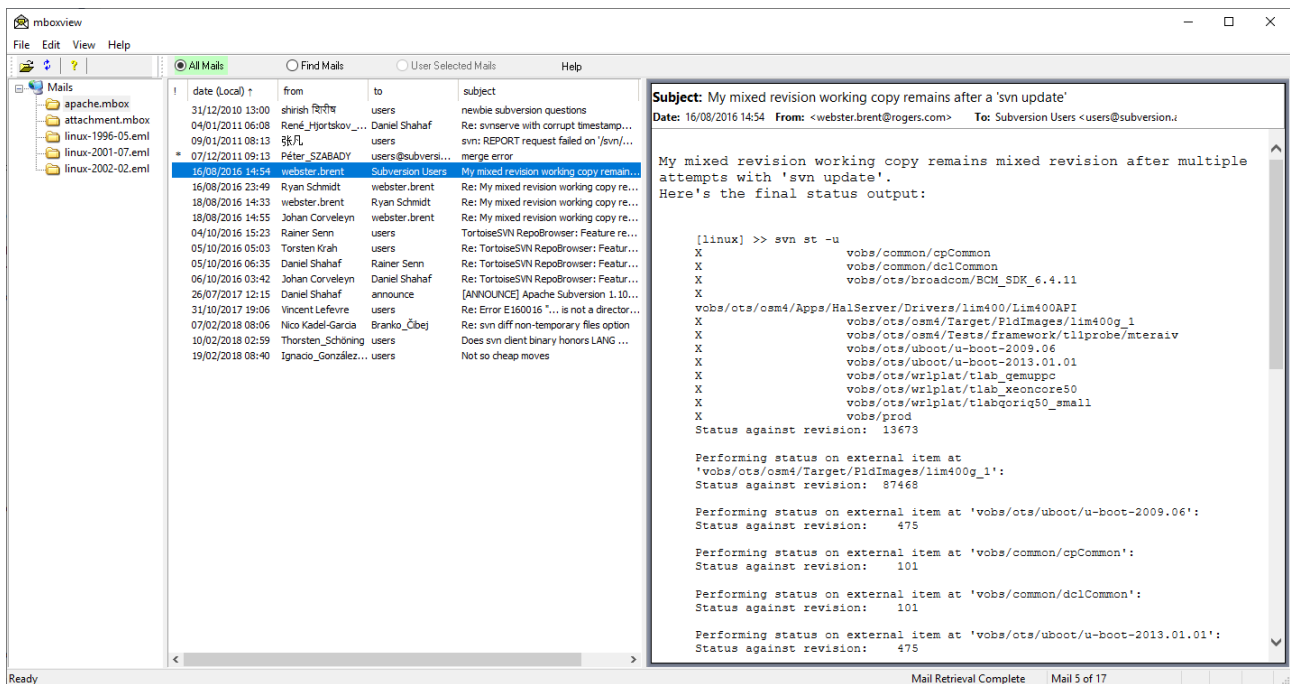
6.5 Mail Context Menu

Right Click on a selected email in the Summary Window to open the context menu as shown below.

The "Print" context menu allows to print the selected email or group of emails (conversations) to Text or HTML files, send to the user selected printer or to open in the external default application.

The "Find" option allows to find user defined text and highlight all occurrences in the Message windows.

The "Find Advanced" options will start the advanced search dialog and pre-populate From, To and Subject fields from the mail.

6.5.1   File Names

User can configure file name pattern to apply when printing single mail by selecting File -> Print Config dialog. Pattern is composed from Date, Time, From, To, Subject and Unique Id fields. Only alpha numeric characters are selected from the Subject, other characters will be replaced with the underscore. These files will be saved in the FolderHousingMailArchives/PrintCache/XX folder, where XX matches corresponding archive file name.

User must enter target file name manually when printing to printer, i.e. when selecting Print to → printer mail option or when printing mail to pdf file from the browser. Alternatively, user can open file location and cut and paste created corresponding *.htm file name.

Print Config dialog allows users to configure the maximum length of created file. The maximum file path length supported by Windows is 260 characters on non Unicode applications. Therefore the

file name will be limited to (260 – length of FolderHousingMailArchives/PrintCache/XX) path. User should set wanted file name length limit and the mbox viewer will adjust the configured length if needed.

When printing multiple selected mails, the name of the created file will be created based on the archive file name with the .txt or .html suffix in the FolderHousingMailArchives/PrintCache/XX, where XX matches the archive file name.
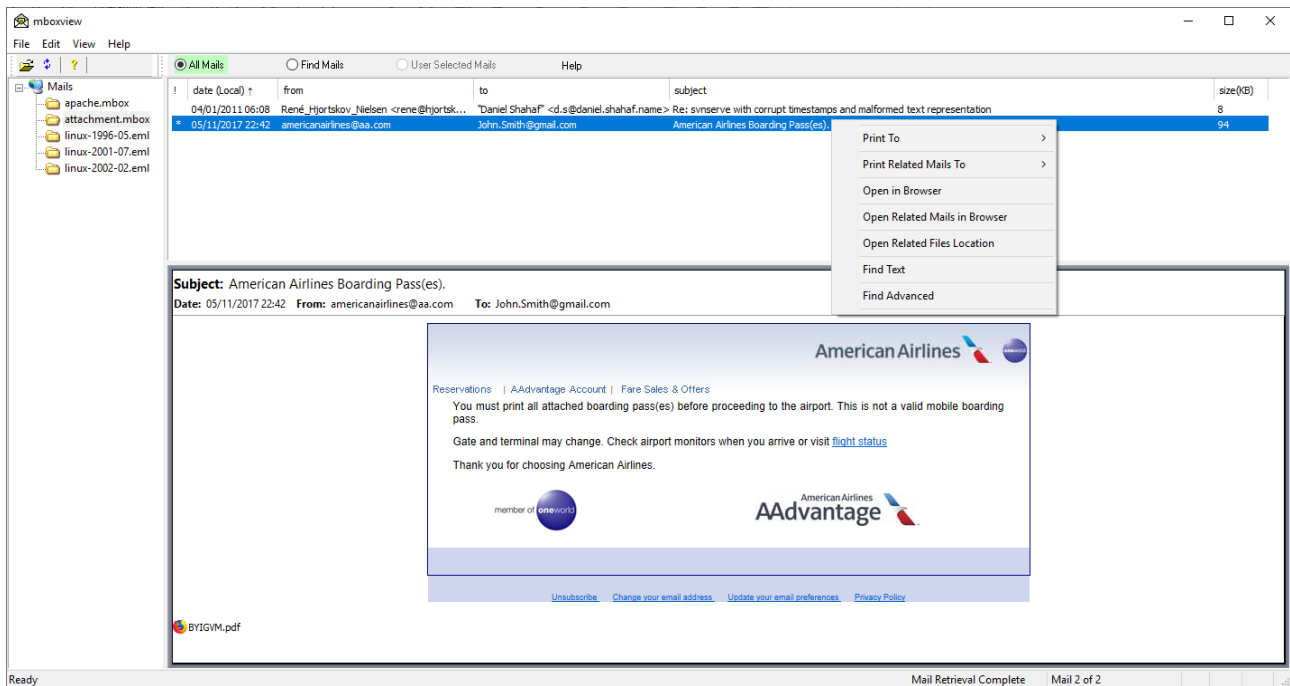
6.6 Mail Archive Context menu

Right click on the active mail archive under the Mail Archive Tree Window to open the context menu as shown below.
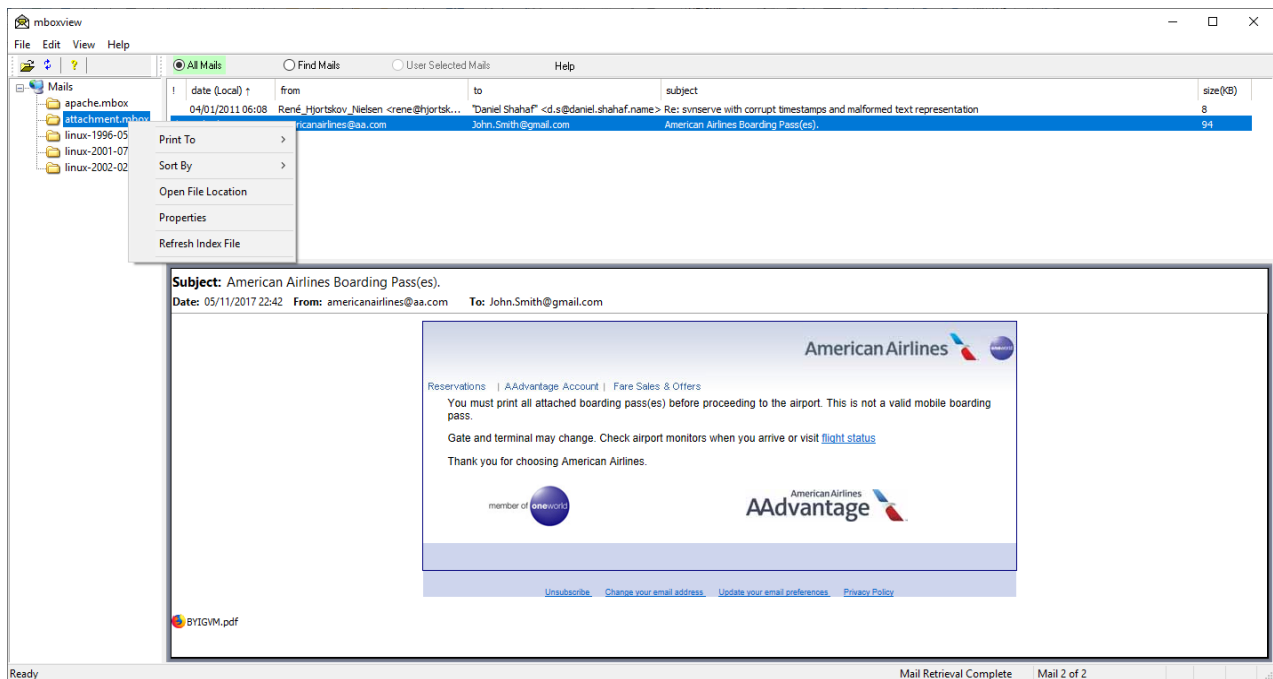
The context menu allows to print all email to CSV or Text or HTML files. The name of the created file will be created based on the archive file name with the .csv or .txt or .html suffix in the directory housing the archive file. NOTE that mails will be printed according to the sort order in the summary window.

Size of HTML file can be very large and opening in some browsers can be problematic. Microsoft Edge and Google Chrome browser seem to perform best as far as handling large HTML files.

HTML to Text conversion was added in 1.0.2.8 to handle mails with HTML text block and no Plain text. Conversion is quite slow and print time could increase significantly compared to 1.0.2.7 in case a large number of conversions is required. Progress bar was added to indicate progress, possibly slow progress.

All mails of the active archive can be sorted by date, from, to subject, size and conversations in the Summary Window. This feature is the same as the left click on the selected column in the Summary Window.

The "Properties" option shows the archive file location, size and email count

The "Refresh Index File" option will perform fresh parse of the archive file if needed.

6.6.1 Print to CSV File Dialog

When printing selected mail archive to CSV file, user can select what fields to export and the date format.

Option to normalize content encoding is also available. Default encoding is set to UTF-8 and should not be changed except possibly in special cases.
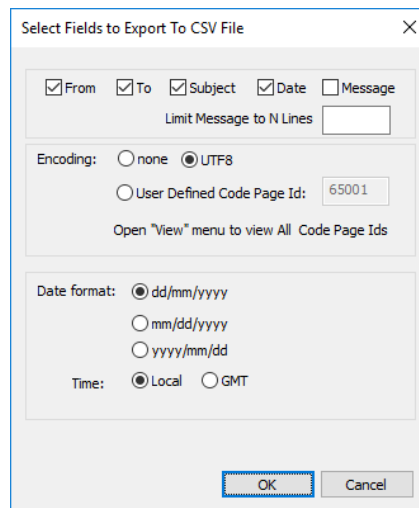
6.7 Mail Attachments

Mail attachments are shown at the bottom of the Message window. Note that the "*' character may appear in the first column for the associated mail to indicate presence of associated attachments. To open location of attachments, double click on the mail in the Summary window or select "View"→"ViewEML" menu option. Temporary folder will open containing all attachments for the email. Use standard Windows applications to view attachments.

You can also double left click to view attachments. Picture attachments will be viewed in the Picture Viewer (if configured in the global Options) and other file types will be viewed by the associated default Windows applications.
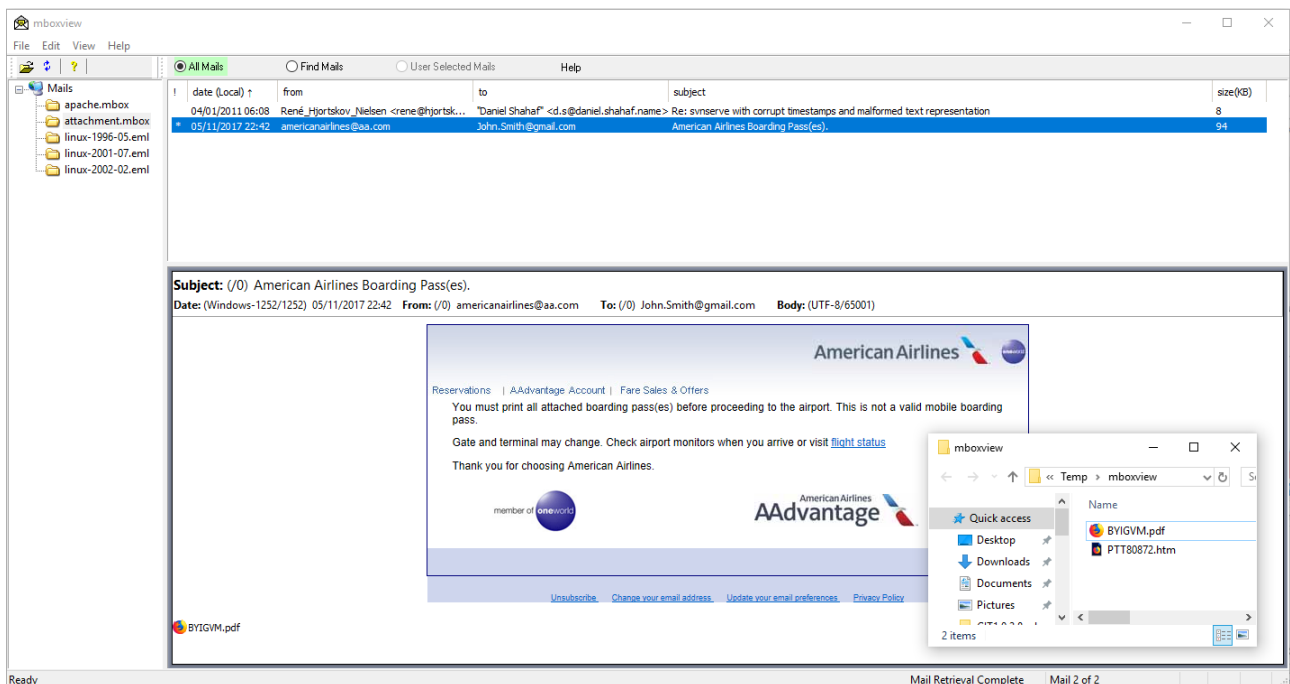
6.7.1   Attachment context menu

Right click on the selected attachment to open the context menu. The context menu allows to open or print the attachment by the associated default application. You can also open the folder housing the attachment. The selected attachment will be highlighted in the folder.
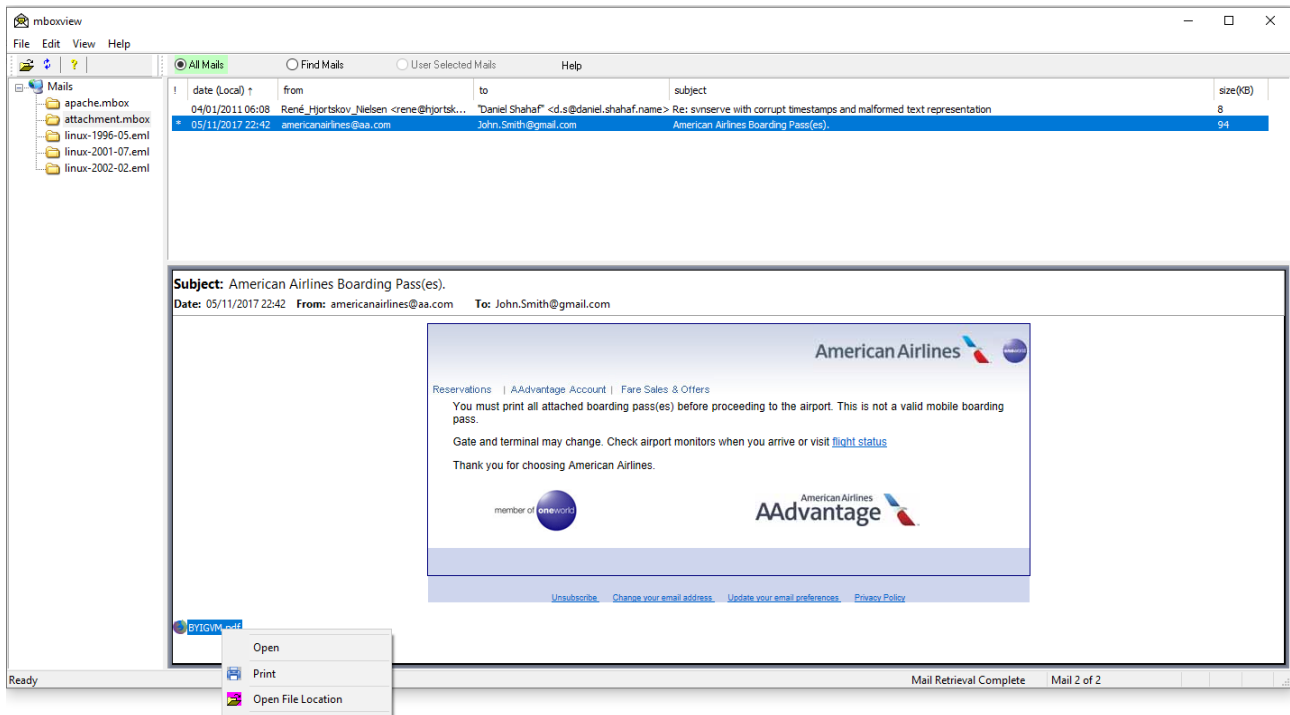

6.8 Inline Image Cache

The mboxview will create the cache of inline images to support images embedded directly into the mail body/message. The cache is created during the initial parsing of the mail archive file. Separate cache folder is created per each archive file (assuming at least one inline image was found) in the FolderHousingMailArchives/ImageCache folder. If the inline image cache is missing for any reason, try to refresh the index file by selecting "Refresh Index File" context option on the respective file archive.

6.9 Picture Viewer

Double left Click on any attachment to start Picture Viewer dialog, example below.
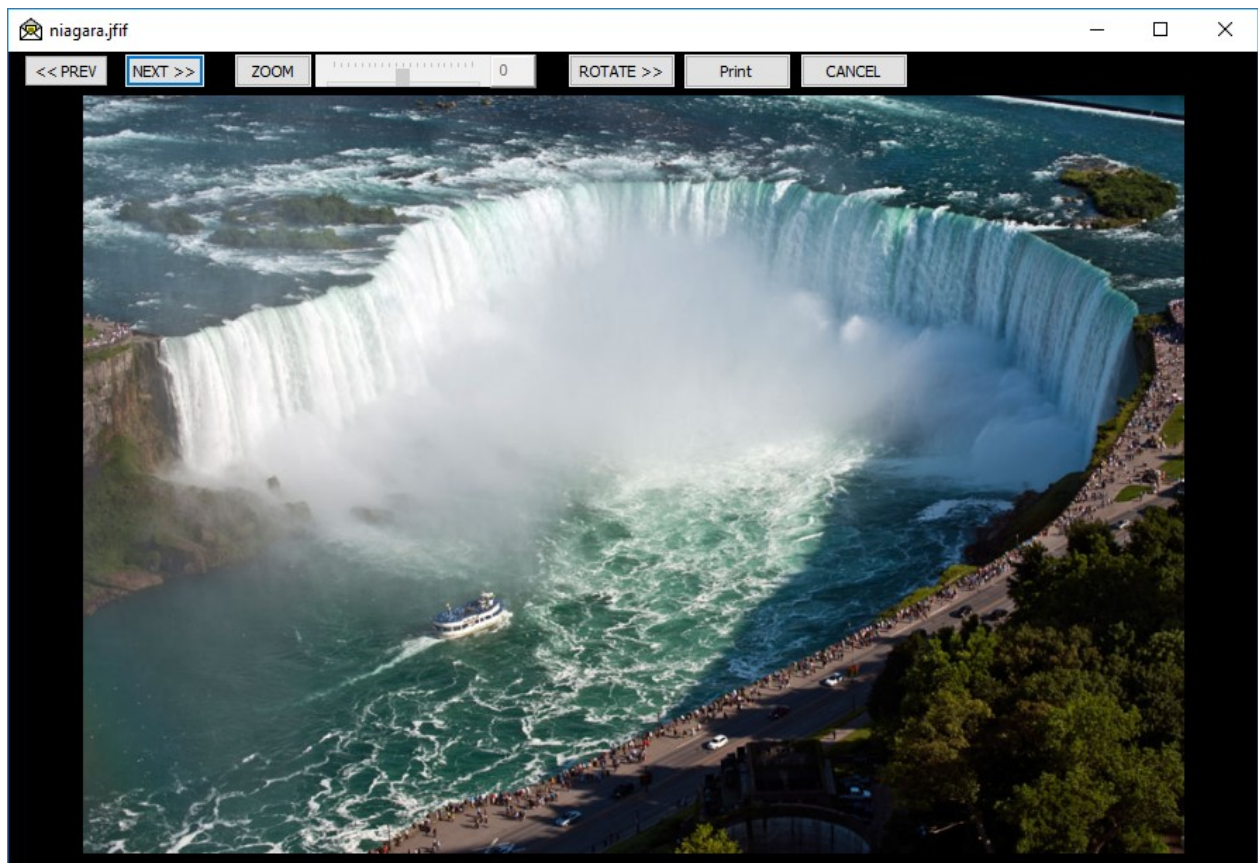
The Picture Viewer supports files with the png, jpg, jpeg, jpe, gif, bmp, ico, tif, tiff, jfif, emf, wmf, dib suffixes.

The NEXT and PREV controls enable user to browse all picture/image attachments associated with the selected email. You can select specific attachment to be displayed. You can later browse through all picture attachments.

The ROTATE control allow to rotate clockwise the current/visible picture.

The ZOOM control allows to zoom in/out picture. Click on ZOOM to enable/disable zooming. Slide to right to enlarge an image, slide to left to shrink. Enlarged image can be dragged using the left and scroll buttons of the mouse. Click ZOOM to disable zooming and reset the image to original size.

The PRINT control allow to print via default application.

The Picture Viewer is enabled by default but it can be disabled via FILE → Options dialog. Setting persists in the Registry across multiple runs.

All attachments are also accessible by double clicking on the selected mail in the Summary window or by selecting "View" → "ViewEML" menu option.

6.10   Mail Navigation

Click on a specific mail in the Summary window and use **UP, DOWN** keys to move to the next or

previous mail respectively.

Use **HOME** key to jump to the first mail. Use **END** key to jump to the last mail.

6.11   Mail Sorting

The Summary window is divided into 6 columns: attachment indicator, date, from, to, subject and mail size. Each column can be sorted by clicking on the column title. Subsequent click on the same column title will reverse the sorting rule. By clicking on the attachment indicator title, emails are sorted by conversations and mark by different colour as shown below.

Mail can also be sorted via the mail archive context menu or by selecting "File"->"Sort By" menu option.
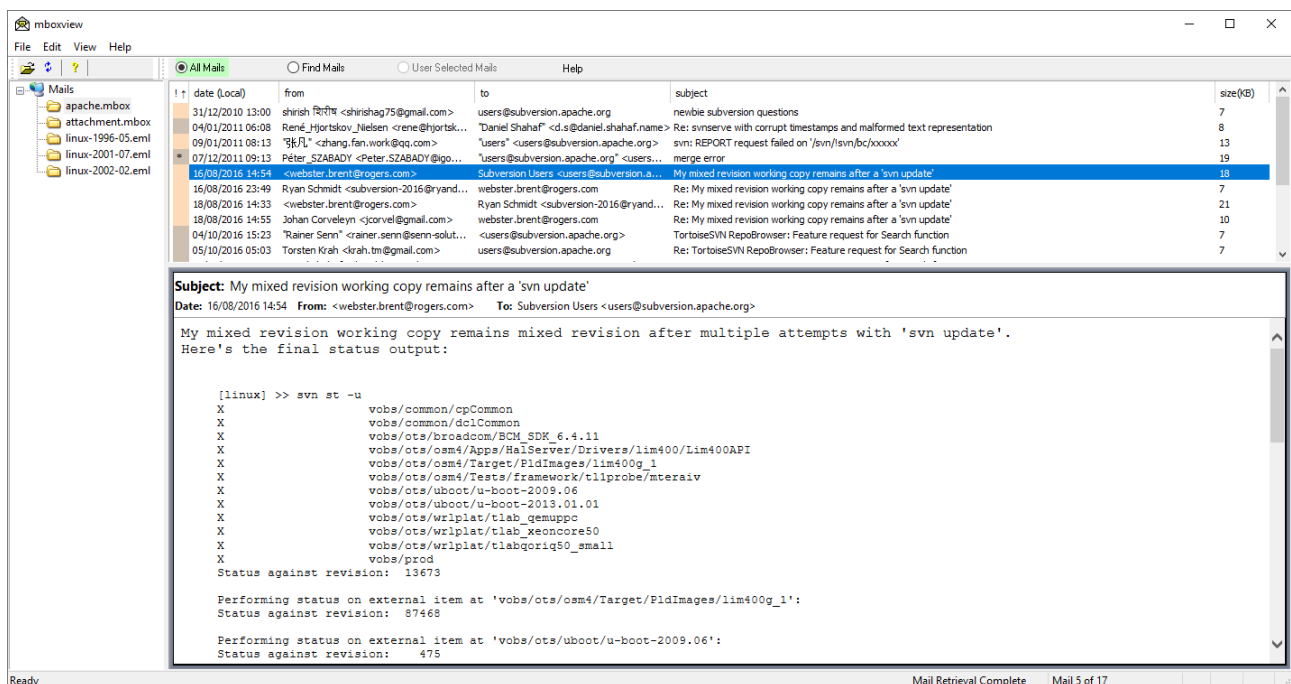
6.12   Dynamic Column Resize

Columns in the Summary windows are automatically resized when the window is resized.

However, if columns are resized manually, some of the columns may no longer be present in visible area/window.

You may need to use the scroll bar to see missing columns, otherwise maximize and then restore the window to see all columns within the Summary window again.

6.13   Mail Searching

Mbox viewer supports two search options, i.e. basic Find and advanced Find.

The basic Find option allows users to specify single keyword for searching across header fields, mail text and attachments.

The advanced Find option allows user to specify keyword per each header field, mail text and attachments.

6.13.1 Basic Find

The basic Find option allows users to specify single keyword/string for searching across header fields, mail text and attachments

Users can configure the search scope by selecting all or subset of the from, to, subject, message and text attachments options.

Click the "Edit" drop menu and select "Find" option to configure and start the search. Alternatively the CTRL+F will also present the search dialog.

The search dialog box allows user to specify the search string, whether to match the whole word, whether the search is case sensitive, configure the search scope, the start and end dates to consider for filtering, the Next/Previous search direction and whether to highlight all occurrences of the matched text.

Note that the Next search start with the oldest email while the Previous search starts with the latest.

The search logic simple, i.e. mail is considered a match if the search string is found in any of the checked fields I that mail.


To repeat the search in order to find the next matching mail, click the "Edit" drop menu and select "Find again" option, or select F3 key.

If "Find again" or F3 key is selected without prior "Find" or CTRL+F, the search dialog box will be presented to a user.

6.13.1.1   Find All Occurrences Option

User can check "Find all occurrences" to find all matching mails. Highlighting of all keyword occurrences is not supported in this case. Matched mails will be displayed under the Find Mails List and the corresponding button in the dialog bar will be highlighted. User can left click on All Mails button to switch mail list back to All Mails.

The basic Find can also be run while in the Find Mails list and while in User Selected Mails list when the list is enabled.
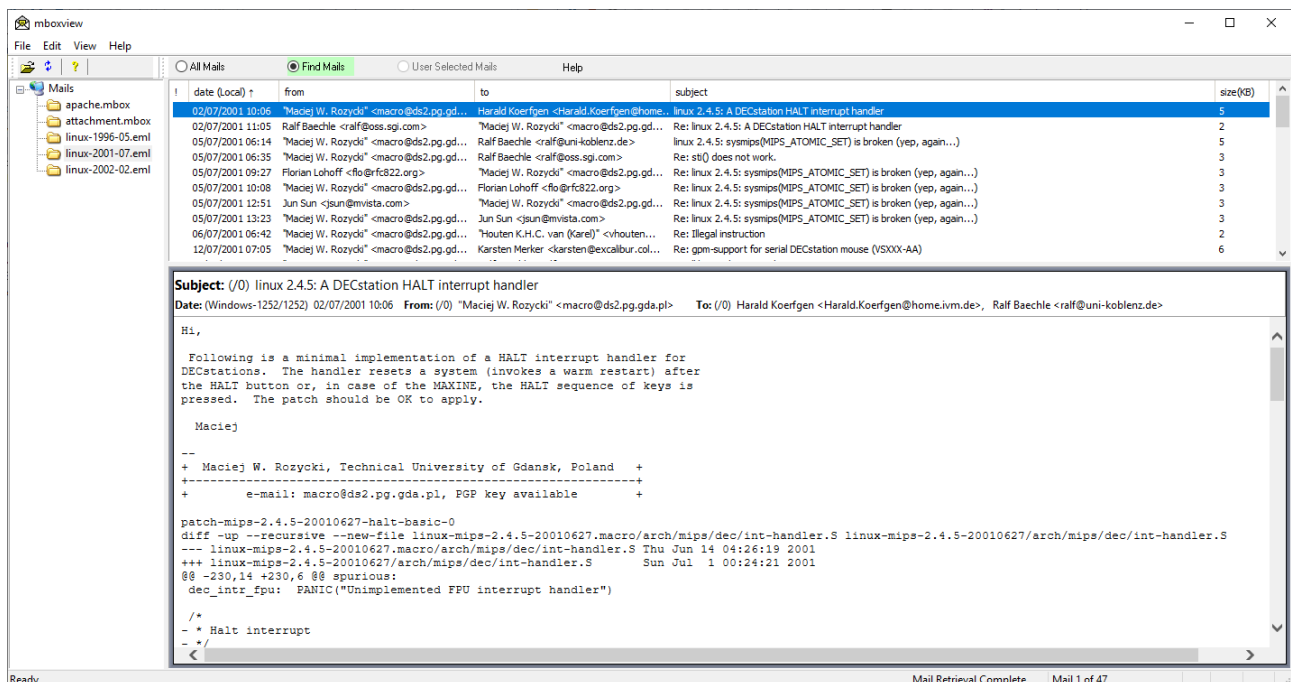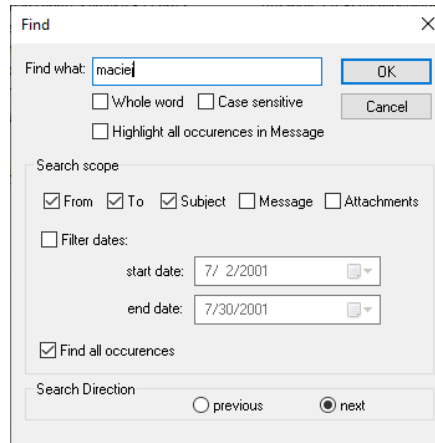
6.13.2   Advanced Find

The advanced Find option allows user to specify keyword per each header field, mail text and attachments.

Users can configure the search scope by selecting all or subset of the from, to, subject, message and

text attachments options.

Click the "Edit" drop menu and select "Find Advanced" option to configure and start the search.

The Find Advanced is also available as menu option for the selected mail. Right click on the mail and select Find Advanced option. Mbox viewer will pre-populate From, To and Subject fields in this case.

Only checked fields are use by matching logic, search strings are ignored if present unless field is checked.

The search logic is hard-coded for most common cases and described in the search dialog.

6.13.3 Search Reliability

Searching may not work as expected in all cases due to different character sets on input and in the mails.

Base64 or "quoted-printable" text content blocks and text attachments are first decoded before the search to eliminate false negative results.

Searching of the header fields is performed on the received raw data.

Raw mail data may contain plain text and/or html text blocks. Both encode the same/similar content. If the mail contains plain text blocks, only plain text will be searched. If the mail doesn't contain any plain text blocks, the html text blocks will be searched.

False positive results may happen when searching text/html content blocks since the html tags are not ignored when searching. The search string may match one of the html tags and result in false positive match.

If possible, use ASCII characters only to compose the search string.

6.13.4   Special Search Key

The single character '*', i.e. the star character can be specified as the search string to enable traversing the subset of mails between the start and end dates.

6.13.5   Search Progress Bar

Search progress bar displays the progress along the configured search string and enables user to cancel the search is so desired. The progress bar is not created unless a given search duration lasts longer than the delay time controlled by -PROGRESS_BAR_DELAY command line option or specified via GUI. Default value is 1 second.

6.13.6   Search Performance

Searching of header fields performs best since all fields reside in the memory.

Searching of messages and text attachments may take some time for very large files, say larger than 10-20 Gbytes. Search requires to read the content blocks from the email file and decode the content when required. Worse case scenario is when the specified search string is not present in the mail archive. When activated, the search progress bar shows the configured search string and enables user to cancel the search is so desired.

Note that when searching of message and text attachments is configured, all mails will be sorted by date first, except when sorted by conversations, to maximize search performance.

6.14   Refreshing Archive Tree Window

If an additional mbox or eml file is placed in the already selected folder, the Archive Tree window needs to be refreshed to see the new additions. This can be done by selecting "Refresh" option under the "File" drop menu or by clicking on the button showed below.
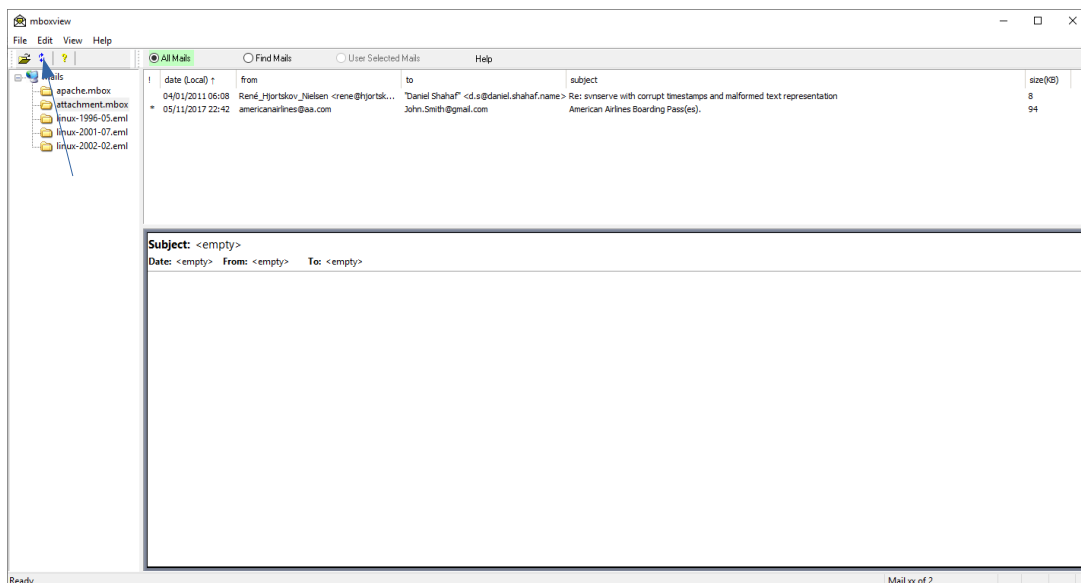
6.15 Language (Character Sets) Support

6.15.1 Message Window

Different languages (character sets) are properly supported in the Message Window. This is thanks to the Microsoft Web Browser emulation/control class integrated into the mboxview. The mboxview generates the htm file from the mail's body and Web Browser displays the generated file in the Message window.

Display may not be correct if the character set for the mail's body is not defined in the mail. To resolve the incorrect display, you can try to apply different encoding by right clicking within the window, selecting "encoding" and "more" options to apply different language.
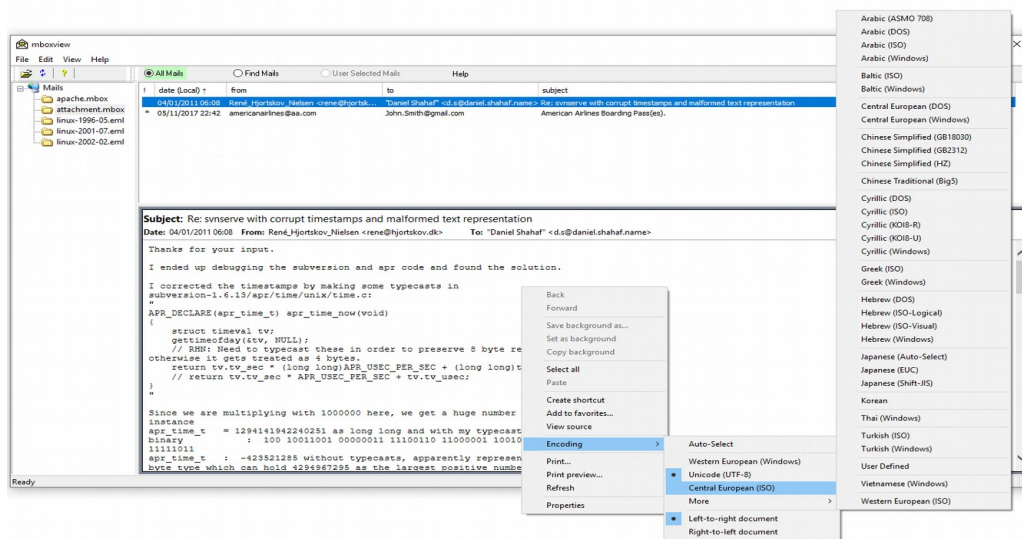
6.15.1.1 Header of Message Window

The text of the mail header fields is displayed correctly as long as the corresponding field encoding type is present in the email.
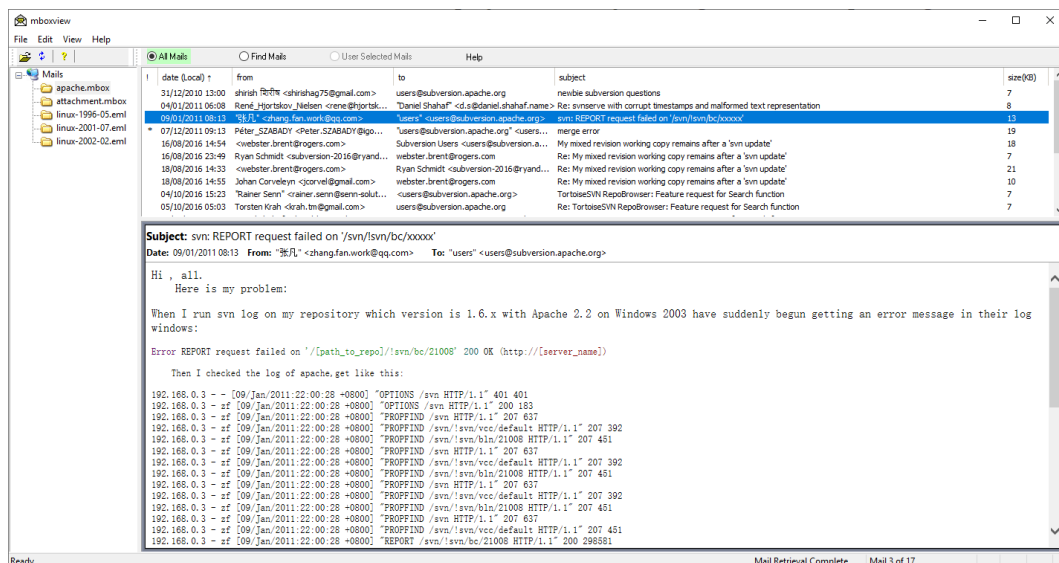
Two global options can be used to address incorrect field presentation in the Message Header in case the field encoding is not present in the email. Missing field encoding type may or may not be a problem. It should not be a problem if the default/local character set installed on your computer matches the original encoding of the header fields. It might be an issue if you are receiving emails from different countries.

As shown below, you can see all encoding/character sets applied to the header fields by enabling "Show Charsets" option. To enable, select "Options" from the "File" drop menu and enable "Show Charsets".
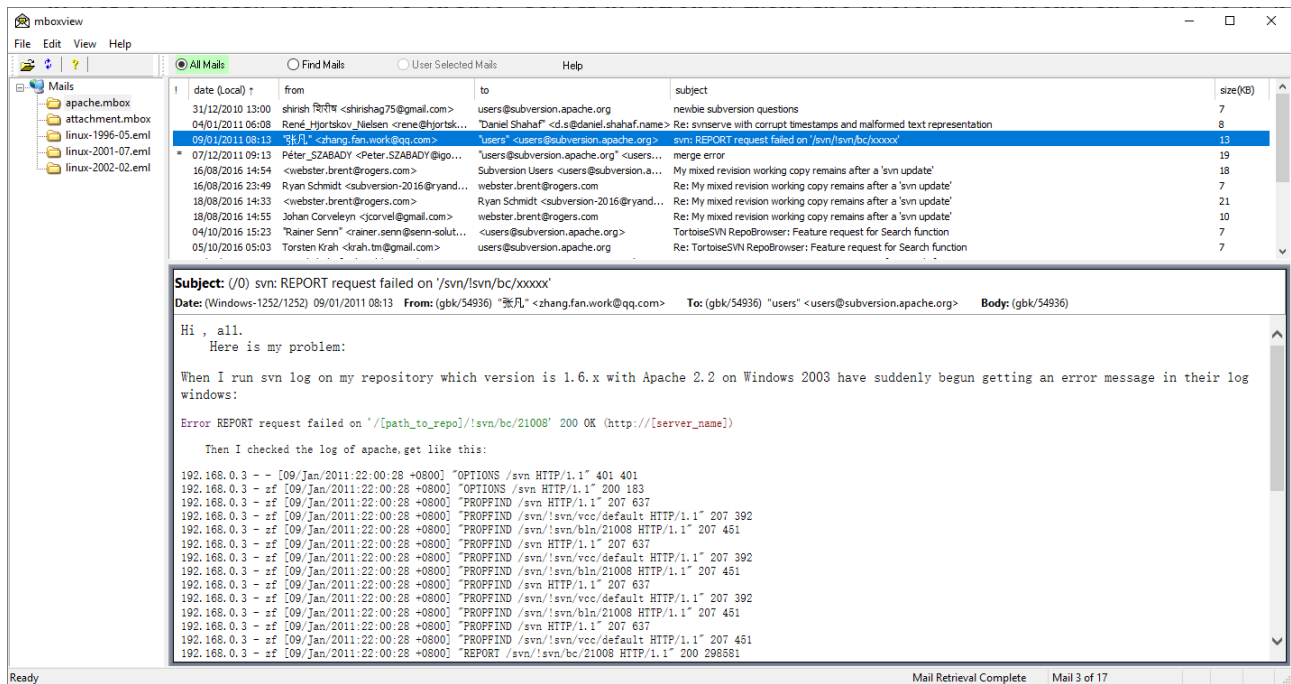

If the field text presentation is not correct, you can try to configure character set (or so called code page according to Microsoft terminology) for the selected header fields and see if that helps. Per field code pages can be configured via Options dialog box. Note that the user provided encoding doesn't override encoding in the email, if present, which is denoted by the code page greater than zero. Code Page set to zero indicates missing or unknown character set.

If you change the code page value(s) in the Options Dialog box, you need to refresh the selected email by going up and down (or down and up).

All Windows supported code pages are listed in chapter 7 or can be viewed in the external Browser by selecting "View"→"View Code Page Ids".

The character set information appears after the field title and is formatted as "(character set name/code page)". The '*' star character is appended after the code page if the user specified code is applied). Example "(UTF-8/65001*)".

The character set information after the "Date:' title shows the local/default character set installed on your computer.

6.15.2   Summary Window

Mail header fields are displayed correctly as long as the corresponding field encoding type is present in the email.

6.16   Mail List Auditing

Mail list auditing capability enables users to compose mail list from all mails by merging results of multiple searches and/or by merging one or more user selected mails.

To support list auditing, the Mbox Viewer maintains 3 internal mail lists:

- All Mails list is populated from the selected archive file under the Mail Tree.
- Find Mails list is populated by the search results. User can run Find Advanced dialog or set the Find All Occurrences option in the Find dialog.
- User Selected Mails list is composed by a user from the mails in the All Mails and Find Mails lists.

Each internal mail list has associated button in the dialog bar located next to the tool bar. When a particular mail list is shown in the Mail Summary Window, associated button is highlighted.

Access to the User Selected Mails list is disabled upon startup and the associated Button gray out. It can be enabled by the user to perform simple list auditing if desired by selecting View->User Selected Mail List to enable/disable.

When User Selected Mails list is enabled, additional mail menu options will also be enabled such as Copy Selected Mails to User Selected Mails.

Content of the User Selected Mails list is controlled by the user. User can merge search results with the content of the User Selected List.

User can run the search multiples time and merge results multiple times with the User Selected List. Search results can be pruned before merging.

In addition, user has an option to select/highlight one or more mails in the Summary Mail Window and copy to the User Selected Mails list.

Standard Windows method is used to select and highlight multiple mails, i.e. Shift+Left Click and CTRL+Left Click.

Merging/copying process will not create duplicate mails in the User Selected List.

User can select and highlight one or more mails in the Summary Mail Window and remove from the active list. Mails can't be removed from the All Mails list.

All Mails list content persists until new mail archive is selected.

Find Mails list content persists until new search or when All Mails list is invalidated.

User Selected Mails list content persists until cleared by the user or when All Mails list is invalidated.

6.16.1 Mail List Archiving

Find Mails list and User Selected Mails list content can be saved to new mbox archive files.

Archive file will be created in the same folder as the All Mails main archive.

Archive file created from the Find Mails list will be created by appending _FIND suffix to the base name of the main archive file name.

The _USER suffix will be appended when creating archive file from the User Selected Mails list.

For example, if the main mbox archive file from gmail is called "All mail Including Spam and Trash.11.09.2018.mbox", then created archive file will be named "All mail Including Spam and Trash.11.09.2018_USER.mbox."

When creating archive file for User Selected Mails list, the mbox viewer will also create file with the list of all mails for that archive, for example "All mail Including Spam and Trash.11.09.2018_USER.mbox.mboxlist."

The mail list file allows user to reload the last archived mail list into the User Select Mails. Reload can be requested at any time including after restart of the mbox viewer.

After mbox viewer is restarted or when User Selected Mails List is empty, User Selected Mails list can be restored when All Mails list is active.

When User Selected Mails list is active, it can be reloaded when List is not empty.

7 Windows Code Page Identifiers

The table below shows the supported character sets/code pages by Windows platform. The list is based on the following link.

https://msdn.microsoft.com/en-us/library/windows/desktop/dd317756(v=vs.85).aspx

CodePage	Name	Display Name
37	IBM037	IBM EBCDIC (US-Canada)
437	IBM437	OEM United States
500	IBM500	IBM EBCDIC (International)
708	ASMO-708	Arabic (ASMO 708)
720	DOS-720	Arabic (DOS)
737	ibm737	Greek (DOS)
775	ibm775	Baltic (DOS)
850	ibm850	Western European (DOS)
852	ibm852	Central European (DOS)
855	IBM855	OEM Cyrillic
857	ibm857	Turkish (DOS)
858	IBM00858	OEM Multilingual Latin I
860	IBM860	Portuguese (DOS)

CodePage	Name	Display Name
861	ibm861	Icelandic (DOS)
862	DOS-862	Hebrew (DOS)
863	IBM863	French Canadian (DOS)
864	IBM864	Arabic (864)
865	IBM865	Nordic (DOS)
866	cp866	Cyrillic (DOS)
869	ibm869	Greek , Modern (DOS)
870	IBM870	IBM EBCDIC (Multilingual Latin-2)
874	windows-874	Thai (Windows)
875	cp875	IBM EBCDIC (Greek Modern)
932	shift_jis	Japanese (Shift-JIS)
936	gb2312	Chinese Simplified (GB2312)
949	ks_c_5601-1987	Korean
950	big5	Chinese Traditional (Big5)
1026	IBM1026	IBM EBCDIC (Turkish Latin-5)
1047	IBM01047	IBM Latin-1
1140	IBM01140	IBM EBCDIC (US-Canada-Euro)
1141	IBM01141	IBM EBCDIC (Germany-Euro)
1142	IBM01142	IBM EBCDIC (Denmark-Norway-Euro)
1143	IBM01143	IBM EBCDIC (Finland-Sweden-Euro)
1144	IBM01144	IBM EBCDIC (Italy-Euro)
1145	IBM01145	IBM EBCDIC (Spain-Euro)
1146	IBM01146	IBM EBCDIC (UK-Euro)
1147	IBM01147	IBM EBCDIC (France-Euro)
1148	IBM01148	IBM EBCDIC (International-Euro)
1149	IBM01149	IBM EBCDIC (Icelandic-Euro)
1200	utf-16	Unicode
1201	unicodeFFFE	Unicode (Big-Endian)
1250	windows-1250	Central European (Windows)
1251	windows-1251	Cyrillic (Windows)
1252	Windows-1252	Western European (Windows)
1253	windows-1253	Greek (Windows)
1254	windows-1254	Turkish (Windows)
1255	windows-1255	Hebrew (Windows)
1256	windows-1256	Arabic (Windows)
1257	windows-1257	Baltic (Windows)
1258	windows-1258	Vietnamese (Windows)
1361	Johab	Korean (Johab)
10000	macintosh	Western European (Mac)

CodePage	Name	Display Name
10001	x-mac-japanese	Japanese (Mac)
10002	x-mac-chinesetrad	Chinese Traditional (Mac)
10003	x-mac-korean	Korean (Mac)
10004	x-mac-arabic	Arabic (Mac)
10005	x-mac-hebrew	Hebrew (Mac)
10006	x-mac-greek	Greek (Mac)
10007	x-mac-cyrillic	Cyrillic (Mac)
10008	x-mac-chinesesimp	Chinese Simplified (Mac)
10010	x-mac-romanian	Romanian (Mac)
10017	x-mac-ukrainian	Ukrainian (Mac)
10021	x-mac-thai	Thai (Mac)
10029	x-mac-ce	Central European (Mac)
10079	x-mac-icelandic	Icelandic (Mac)
10081	x-mac-turkish	Turkish (Mac)
10082	x-mac-croatian	Croatian (Mac)
12000	utf-32	Unicode (UTF-32)
12001	utf-32BE	Unicode (UTF-32 Big-Endian)
20000	x-Chinese-CNS	Chinese Traditional (CNS)
20001	x-cp20001	TCA Taiwan
20002	x-Chinese-Eten	Chinese Traditional (Eten)
20003	x-cp20003	IBM5550 Taiwan
20004	x-cp20004	TeleText Taiwan
20005	x-cp20005	Wang Taiwan
20105	x-IA5	Western European (IA5)
20106	x-IA5-German	German (IA5)
20107	x-IA5-Swedish	Swedish (IA5)
20108	x-IA5-Norwegian	Norwegian (IA5)
20127	us-ascii	US-ASCII
20261	x-cp20261	T.61
20269	x-cp20269	ISO-6937
20273	IBM273	IBM EBCDIC (Germany)
20277	IBM277	IBM EBCDIC (Denmark-Norway)
20278	IBM278	IBM EBCDIC (Finland-Sweden)
20280	IBM280	IBM EBCDIC (Italy)
20284	IBM284	IBM EBCDIC (Spain)
20285	IBM285	IBM EBCDIC (UK)
20290	IBM290	IBM EBCDIC (Japanese katakana)
20297	IBM297	IBM EBCDIC (France)
20420	IBM420	IBM EBCDIC (Arabic)

CodePage	Name	Display Name
20423	IBM423	IBM EBCDIC (Greek)
20424	IBM424	IBM EBCDIC (Hebrew)
20833	x-EBCDIC-KoreanExtended	IBM EBCDIC (Korean Extended)
20838	IBM-Thai	IBM EBCDIC (Thai)
20866	koi8-r	Cyrillic (KOI8-R)
20871	IBM871	IBM EBCDIC (Icelandic)
20880	IBM880	IBM EBCDIC (Cyrillic Russian)
20905	IBM905	IBM EBCDIC (Turkish)
20924	IBM00924	IBM Latin-1
20932	EUC-JP	Japanese (JIS 0208-1990 and 0212-1990)
20936	x-cp20936	Chinese Simplified (GB2312-80)
20949	x-cp20949	Korean Wansung
21025	cp1025	IBM EBCDIC (Cyrillic Serbian-Bulgarian)
21866	koi8-u	Cyrillic (KOI8-U)
28591	iso-8859-1	Western European (ISO)
28592	iso-8859-2	Central European (ISO)
28593	iso-8859-3	Latin 3 (ISO)
28594	iso-8859-4	Baltic (ISO)
28595	iso-8859-5	Cyrillic (ISO)
28596	iso-8859-6	Arabic (ISO)
28597	iso-8859-7	Greek (ISO)
28598	iso-8859-8	Hebrew (ISO-Visual)
28599	iso-8859-9	Turkish (ISO)
28603	iso-8859-13	Estonian (ISO)
28605	iso-8859-15	Latin 9 (ISO)
29001	x-Europa	Europa
38598	iso-8859-8-i	Hebrew (ISO-Logical)
50220	iso-2022-jp	Japanese (JIS)
50221	csISO2022JP	Japanese (JIS-Allow 1 byte Kana)
50222	iso-2022-jp	Japanese (JIS-Allow 1 byte Kana - SO/SI)
50225	iso-2022-kr	Korean (ISO)
50227	x-cp50227	Chinese Simplified (ISO-2022)
51932	euc-jp	Japanese (EUC)
51936	EUC-CN	Chinese Simplified (EUC)
51949	euc-kr	Korean (EUC)
52936	hz-gb-2312	Chinese Simplified (HZ)
54936	GB18030	Chinese Simplified (GB18030)
57002	x-iscii-de	ISCII Devanagari
57003	x-iscii-be	ISCII Bengali

CodePage	Name	Display Name
57004	x-iscii-ta	ISCII Tamil
57005	x-iscii-te	ISCII Telugu
57006	x-iscii-as	ISCII Assamese
57007	x-iscii-or	ISCII Oriya
57008	x-iscii-ka	ISCII Kannada
57009	x-iscii-ma	ISCII Malayalam
57010	x-iscii-gu	ISCII Gujarati
57011	x-iscii-pa	ISCII Punjabi
65000	utf-7	Unicode (UTF-7)
65001	utf-8	Unicode (UTF-8)

7.1 Handling Unknown Code Page Names

In a few cases, mboxview will map unknown code names to the equivalent code names supported by Windows.

Unknown Code Name	Mapped To Code Name
gbk	GB18030
cp1252	Windows-1252
ascii	us-ascii
cp819	iso-8859-1
latin1	iso-8859-1
latin2	iso-8859-2
big-5	big5
SJIS	shift_jis