# Mailsteward Pro Table of Contents

# Introduction:

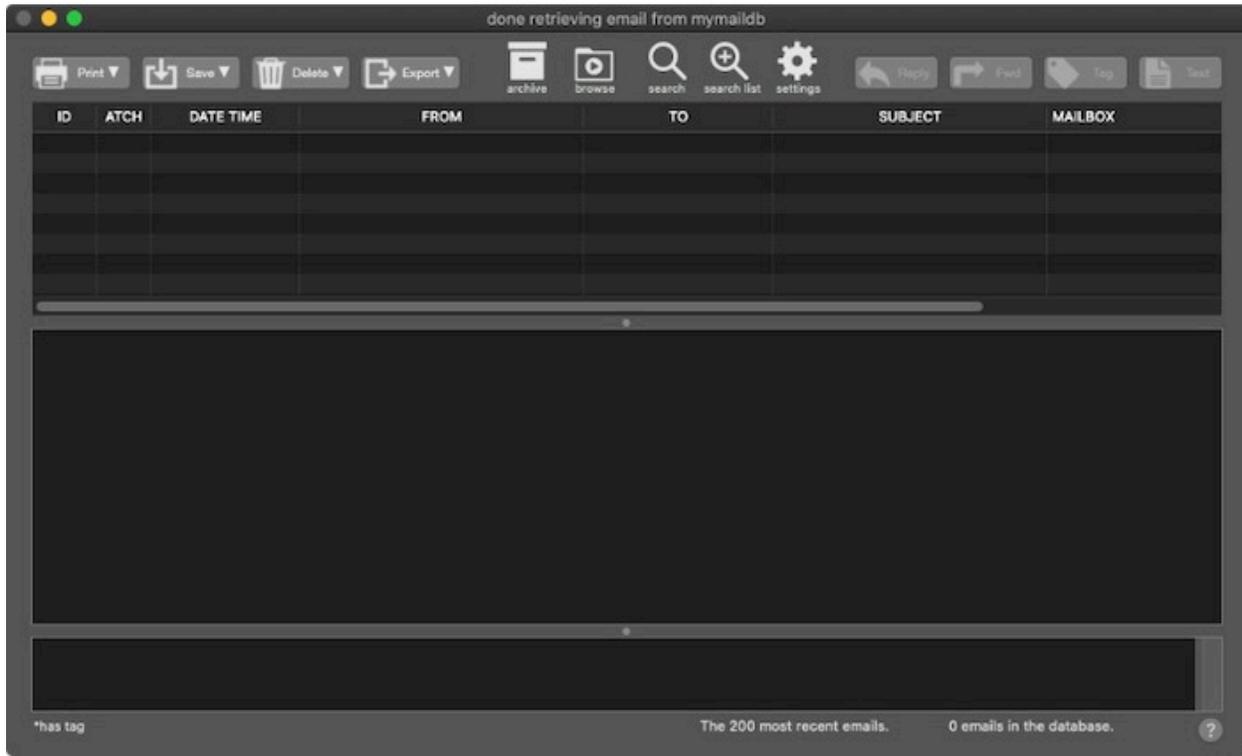# MailSteward Pro™

### Safely archive thousands of emails

### Access your email with all the power of a relational database

Have you ever wished you could find all those emails between you and your client, Joe, during August and September of last year, that mention the word 'contract'? Now you can. And you can sort them, print them, save them, and export them in several standard formats. MailSteward Pro elegantly solves your email archiving, accessing, and management problems.

Email clients, like the Apple OS X Mail application and Gmail, are very good at sending and receiving email, and doing simple searches, but they are not really designed to efficiently and safely archive and do sophisticated searches on tens of thousands of emails.Email has become a vital part of many professional and personal lives. For many, it is not unusual to send and receive thousands of emails every month. Businesses and individuals with large amounts of important email need to be able to:

- safely archive email text and attachments so that none of it is ever lost.

- easily and effectively find particular emails, by any combination of sender, recipient, date range, keywords, and tags.

- export email in standard formats to prevent data obsolescence.

The first time you launch MailSteward Pro, after connecting to the MySQL server, this is what you will see:



By default MailSteward Pro will automatically select all of your Apple OS X Mail application email accounts to be archived, and create an empty MySQL database named "myemaildb". All you have to do is click on **Archive** button, and MailSteward Pro will begin copying your email into the database.

Or if you use Gmail instead of Apple Mail, you can periodically download your email from your online Gmail account and import it into your MailSteward Pro database and thereby have not only the peace of mind of having a local backup of all of your Gmail but also access to all of MailSteward's sophisticated search, tagging and other capabilities.

Any of the default settings can be changed by clicking on the **Settings** button.

You don't have to worry about doing anything to your email files. They are left untouched.

You don't have to worry about duplicates. If an email is already in the database and you archive it again, MailSteward Pro will skip it rather than add a new entry.

Once they have all been copied into the database, you can delete all or most of the email from your In and Sent boxes, if you wish. MailSteward Pro will archive the attachments, HTML, enriched text, and the original raw source of your email, as well as the plain text.

Then, whenever you need to find an email, you can use MailSteward Pro.

Once your email is in a database, it can be retrieved by clicking on the **search** button and specifying any combination of:

- A range of beginning and ending dates.
- keywords or phrases in the From address.
- keywords or phrases in the To address.
- keywords or phrases in the Subject line.
- keywords or phrases in the Body text.
- text strings in the Mailbox name.
- text strings in an attachment file name.
- Text inside attachments that contain text.
- Tags - category, keywords, notes, and/or priority.

Or, if you know SQL, by editing the generated SQL statement.

And you can sort the retrieved emails by:

- Date
- From
- To
- Subject
- Mailbox
- Or by the unique ID that is assigned to each email

**Features:**

- Works seamlessly with the Mac OS X Mail application to archive all your email in a relational database.
- Will import most mbox format files exported from Gmail and other email clients such as Microsoft Entourage X and Outlook.
- Works with all locally stored POP and IMAP email accounts.
- Select emails from archive by date range and keywords in the To, From, Subject, Mailbox, or Body fields.
- Sort by date, To, From, Subject, or unique ID.
- Print email list, or individual email, or all emails in a list.
- Save email list, or individual email, or all emails to a text file.
- Save all attachments of selected emails to separate files.
- Reply to or forward individual emails.
- Add your own tags to email.
- Search attachments, such as word processing documents, that contain any text.
- Schedule MailSteward Pro to archive your email automatically.
- Export emails to a tab-delimited text file, an mbox file, or an SQL file.
- All Mail email and folders are left undisturbed.
- Options to store all attachments, attachments less than a given size, or no attachments.
- Keeps a copy of the raw source of the email.
- Native Cocoa application that supports OS X 10.15 or greater (Catalina, Big Sur, Monterey, Ventura, Sequoia, Tahoe).
- The free version of MailSteward Pro has full functionality, but is limited to a capacity of 15,000 emails.

## Installing MySQL on your local computer:

To install MySQL database server software on a Mac running OS X 10.15 or higher (Catalina, Big Sur, Monterey, Ventura, Sequoia, Tahoe), click on this download link. Then choose to download either the macOS 15 (ARM, 64-bit), DMG Archive or the macOS 15 (x86, 64-bit), DMG Archive. This will download a dmg containing a package file. Open the .dmg file and double click on the .pkg file to install the MySQL server and to also install the MySQL system preference pane, which you can use to start and stop the MySQL server.

During the installation process, if given the option, make sure you choose <strong>Use Legacy Password Encryption</strong>. Do NOT choose <strong>Use Strong Password Encryption</strong>.

The password you set for the MySQL server software is for the default user named 'root'. Note that this has nothing to do with your computer's 'root' user.  It is entirely separate. This is not your system root user. It is just the MySQL server root user.

## Upgrading to MailSteward Pro from MailSteward:

If you are upgrading to MailSteward Pro from MailSteward, you can move all of your archived email over to the Pro version by following these steps:

1. In MailSteward, do a **Browse** to list all of the email in your database.

2. Choose **SQL file...** from the **Export** drop-down.

3. Choose a name for the MySQL database that will either be created or added to, and enter a beginning ID number if different than the default of 1. If you are adding email to an existing database, you will need to make sure that the beginning ID is greater than the highest ID number in the existing database.

4. In MailSteward Pro, choose **Import MailSteward SQL File...** from the File menu, and select the SQL file that you just exported from MailSteward.

All of the email that you exported from MailSteward will now be in the MySQL database with the name you chose for the database when exporting the SQL file. Enter this database name in the text box in the MailSteward Pro General Settings, and click on Save Settings.

There is an excellent open source Mac Cocoa MySQL management program called Sequel Ace, which can be obtained here. You can use this software to view and edit, export and import any MySQL database, including a MailSteward Pro MySQL database.

**Connect to MySQL© Server:**
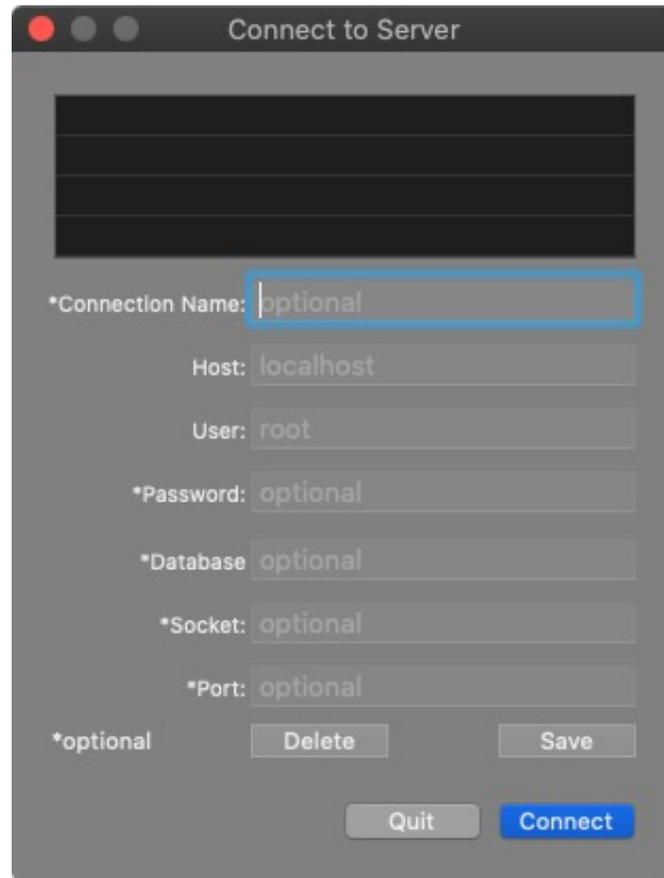
When MailSteward Pro is launched, before archiving, searching, or browsing can be done, a connection to a MySQL server must be established.

To connect to a server, fill in the host, by default 'localhost', user, by default 'root', and password, if you have assigned a password, and click on the **Connect** button. You can also specify a socket and port if necessary. If no socket is entered, the default is assumed to be at /tmp/mysql.sock. If you are running the Mac OS X Server system, which has MySQL already installed, the standard location for the socket will be /var/mysql/mysql.sock.

Normally you will connect as the MySQL 'root' user, but if you have created other MySQL users, you can use them instead.  If you have not assigned a password to the root user, leave the password box blank.
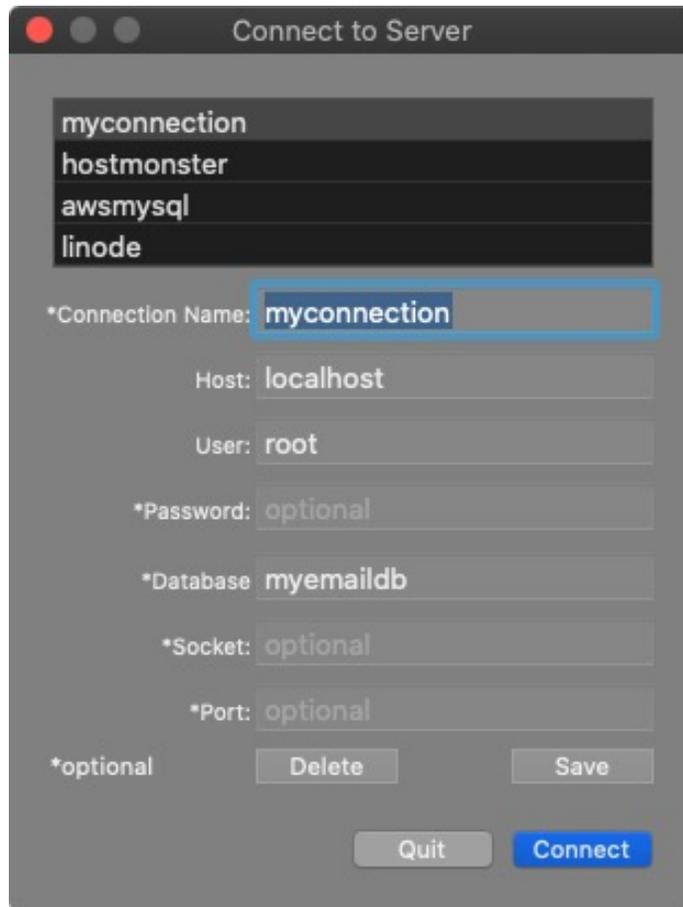
Specifying a particular database is optional. You can do that later in the **Settings** window. If no database is specified, the database which is set in **Settings** will be used.  If MailSteward Pro is being launched for the first time, and no database is specified, a default database named 'myemaildb' will be created.  A connection name can be given to the connection and the connection information can be saved by clicking on the **Save** button. Saved connections can be deleted by clicking on the **Delete** button. Once you have created a saved connection, it will automatically be filled in whenever you launch MailSteward Pro.

## Connect to MySql on an AWS RDS MySQL database Insance:

Once the database instance is set up and available, something called the "endpoint" will be displayed. Here is an example of what the endpoint will look like:

**myemaildb-cluster.cluster-cenpsqh3jxdq.us-east-1.rds.amazonaws.com**

This will be what you use as the host when connecting MailSteward Pro to the database instance. The port you will use is 3306. The user and password and database name will be whatever you specified when creating the database instance. Your MailSteward Pro Connect to Server window will look something like this:
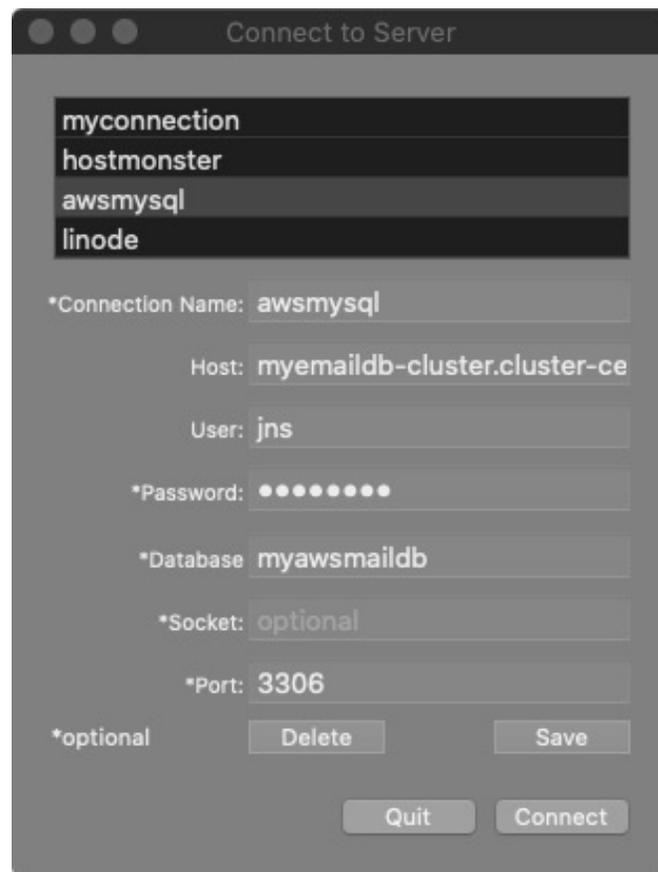
## Connect to MySql on an OS X Server Machine:

If you are running the MySQL server on an OS X Server machine, and wish to connect to it from anywhere on your local area network, you will need to grant privileges to everyone on the LAN. You can do this with the 'mysql' utility. First type the following on the command line in a terminal window:

```
mysql -u root -p
```

Enter your password when prompted and then enter the following (all on one line):

```
mysql> GRANT ALL PRIVILEGES ON *.* TO 'root'@'10.0.1.%'
IDENTIFIED BY "password" WITH GRANT OPTION
```

You will need to substitute the appropriate IP address and password. The "%" is a wildcard which is used to allow connection from any host on the LAN. Your local IP addresses may be different. For example they might all begin with "192.168.0." rather than "10.0.1.".

Your connection to the MySQL server will then look something like this:
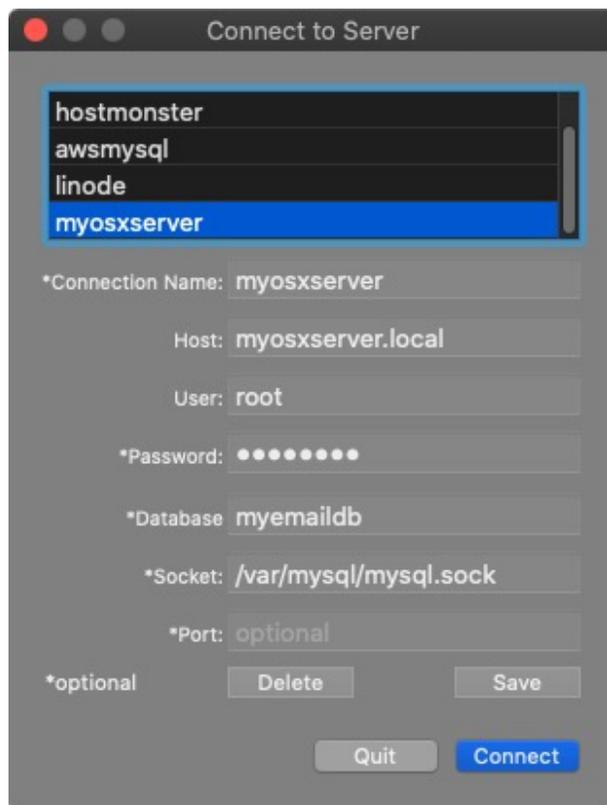


You will find the hostname of your OS X Server by clicking on Sharing in System Preferences on the server.

## Meeting Federal Legal Requirements:

On April 12, 2006 the United States Supreme Court laid down new rules that require companies, government agencies, and public school districts to have systems for retrieving email and other electronic data that might be needed for evidence in a court case. The new rules were updated later that year in December. What this means is that, if you are in charge of a school district's, or company's information technology, you are legally required to set up and maintain a system for archiving email, and for enabling quick and easy access to it.

There are a few products and services available for accomplishing this responsibility. According to an excellent article in Education Week's *Digital Directions* magazine, a school district in New Jersey spent about $50,000 on a system for archiving their email.

For smaller school districts and companies the available solutions are likely to be too expensive and complicated for them to implement. MailSteward Pro is a Macintosh-based solution that is easy to set up and maintain, providing automatic archiving and sophisticated searching of large volumes of email.

For organizations that are running their own mail server, MailSteward Pro can be set up to automatically archive all incoming and outgoing email. If the mail server is configured to put copies of all email coming in or going out, into a particular directory, MailSteward Pro can then be configured in the Settings to always import any email that exists in that directory. Simply check the box that says "Import email from this folder", and then click on "Choose..." to enter the path to the directory containing the copies of the email. If there are subdirectories, MailSteward Pro will also archive any email that they contain.

For organizations that are not running their own mail server, each individual in the organization can have a copy of MailSteward Pro that is set up to automatically, on a schedule, archive their email into a central MySQL database on a network server.

**Settings:**
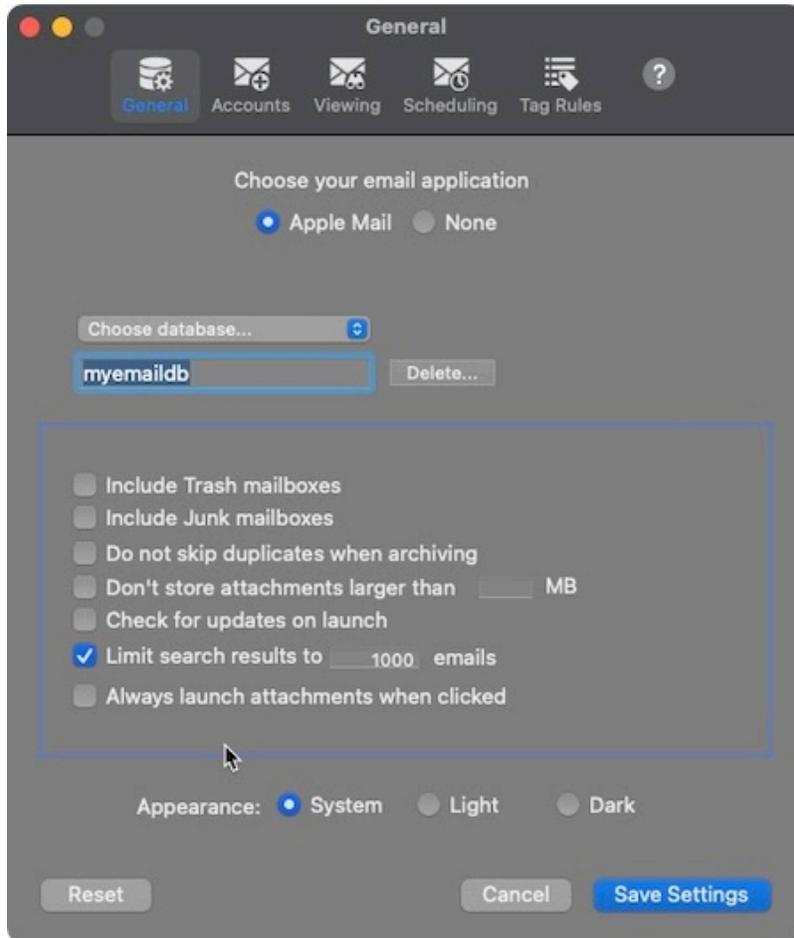


Clicking on Settings brings up the Settings window. When you first launch MailSteward Pro the default Settings are in place. MailSteward Pro will create a MySQL database'myemaildb'. If you click on Archive, MailSteward Pro will archive the email in all of the email accounts that you have in the OS X Mail application. There are also default settings for a number of other options. Settings are assocated with a database. Each database, if you have more than one, has its own settings. There are several different panels in the Settings window, which are described below. When any of the Settings have been changed, click on the Save Settings button to save the changes. You can also reset all of the Settings back to the defaults by clicking on the Reset button.

The General Settings panel is where you can choose between the Apple Mail email client or no email client, and where you can open an existing database, or create a new one, by choosing a database from the drop-down menu, or by entering the name of a new database into the text box and saving the settings. The name of the current database is shown in the text box. There is an option to limit the size of archived attachments to some number of megabytes. There are also options to specify whether or not to include Trash and Junk mailboxes. Duplicate emails that are already in the database are skipped when archiving. If you don't wish to skip duplicates, you can

check the box that says, "Do not skip duplicates when archiving". You can also choose to set an upper limit on the number of emails retrieved by searching or browsing, and you can choose to always launch attachments when they are clicked on instead of being asked whether to launch them or save them as files. By default, MailSteward Pro will automatically check for new versions. By default MailSteward will use the light/dark appearance defined in the System Preferences, but you can optionally choose an appearance that will be used regardless of the system setting.
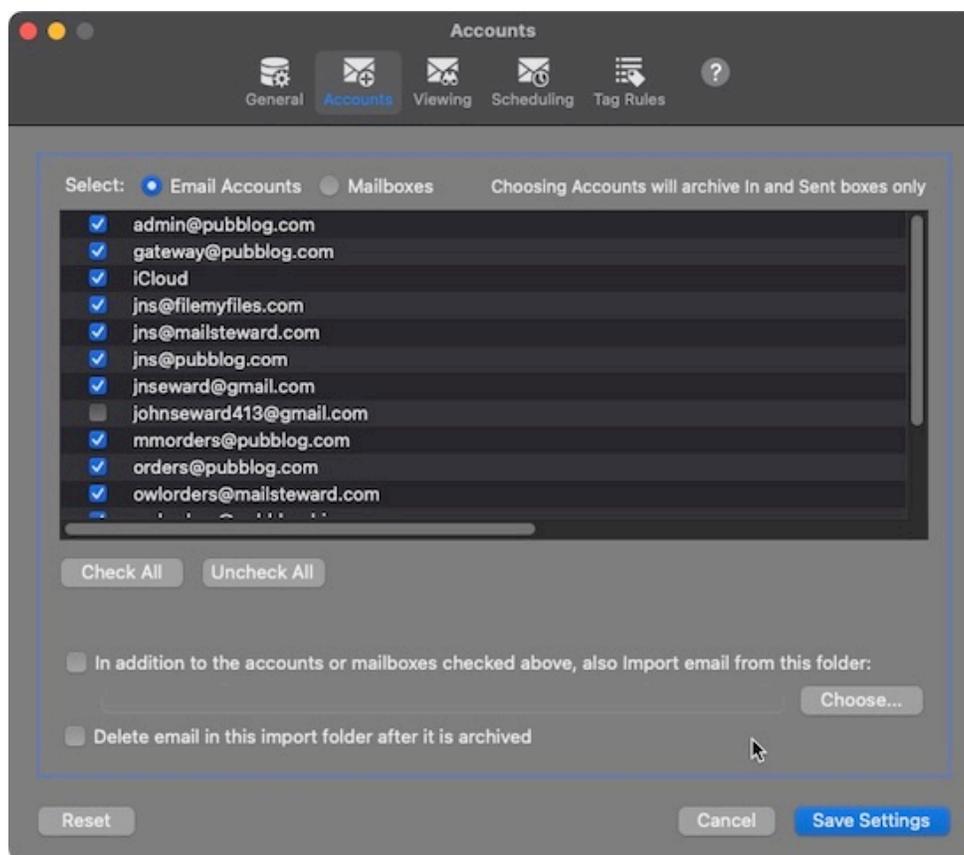


This panel allows you to select the email accounts or mailboxes that you wish to archive. By default all email accounts are selected. You can choose whether to select accounts or select mailboxes. You select an account or mailbox by clicking on the checkbox next to it. You may have to select mailboxes instead of accounts in the MailSteward settings to make sure you are archiving email that may have been moved into mailboxes other than In and Sent. This is especially true of some gmail accounts, which are handled differently by Apple Mail.
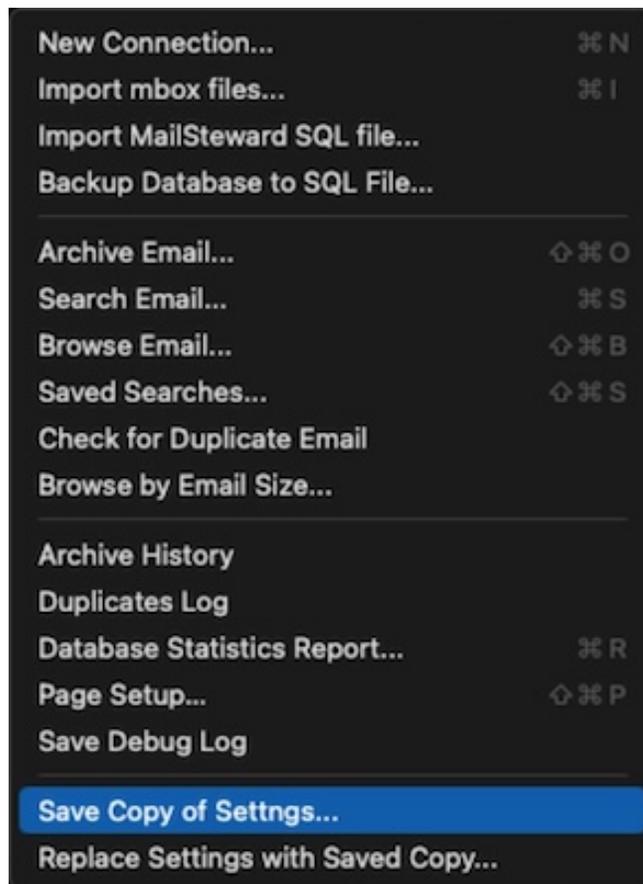
You can also tell MailSteward Pro to always archive any email mbox files that are in a particular folder. MailSteward Pro will then look for email files in the specified folder and all of its subfolders and archive them in addition to the email in the selected accounts or mailboxes. If the box is checked to "Delete email in this folder after it is archived", then the email files in the designated import folder will be deleted once they have been archived. This only applies to email in this special folder. MailSteward Pro never deletes email from the Apple Mail application.
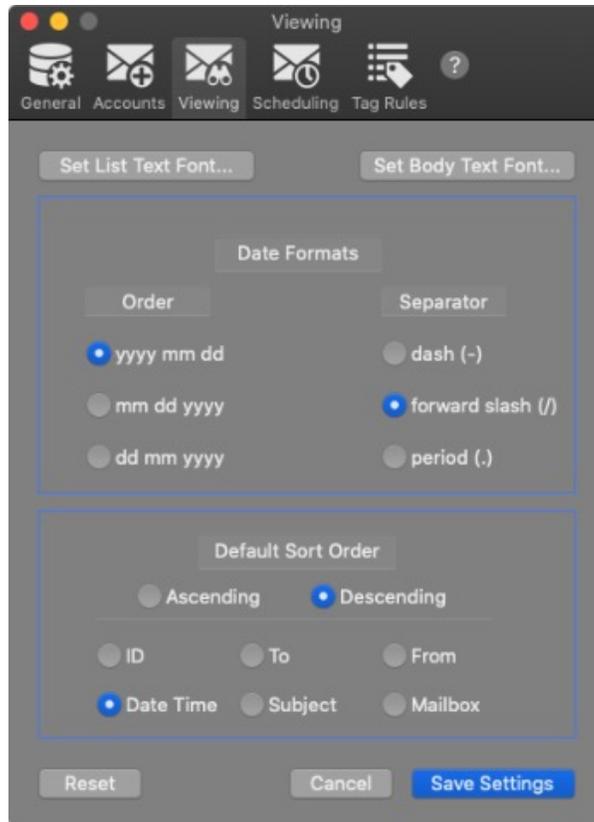
The Viewing panel lets you set the font and the date format to be used when displaying email text. Any combination of year, month, day order and separator character (-, /, .) can be chosen for the date format. You can also choose the default sorting order for Browse and Search results. Choose any of the fields to sort by, and whether the sort should be ascending or descending.

| | |
|---|---|
| New Connection... | ⌘N |
| Import mbox files... | ⌘I |
| Import MailSteward SQL file... | |
| Backup Database to SQL File... | |
| Archive Email... | ⇧⌘O |
| Search Email... | ⌘S |
| Browse Email... | ⇧⌘B |
| Saved Searches... | ⇧⌘S |
| Check for Duplicate Email | |
| Browse by Email Size... | |
| Archive History | |
| Duplicates Log | |
| Database Statistics Report... | ⌘R |
| Page Setup... | ⇧⌘P |
| ✓ Save Debug Log | |
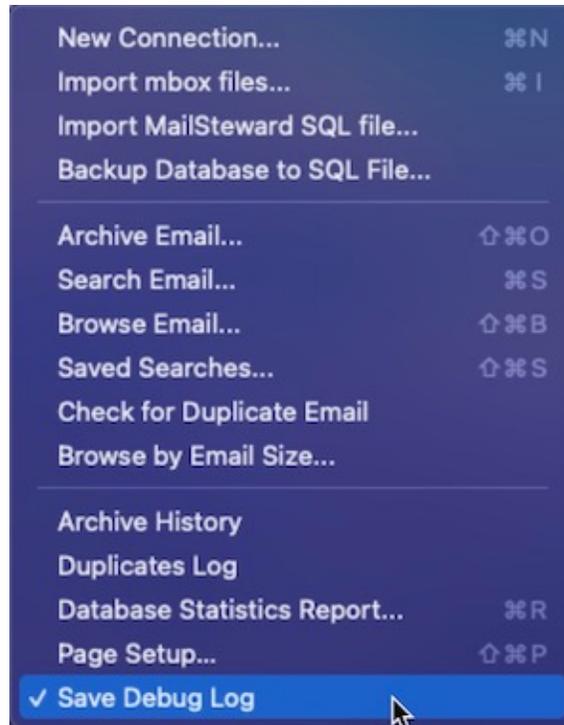
If the Save Debug Log menu item in the File menu is checked, a log file will be saved on your Desktop with the same name as your database and an extension of .log. It will contain a list of the email files that have been processed. If MailSteward Pro should crash or be interrupted for any reason, the last file in the list will be the file that MailSteward Pro was processing at the time it was terminated.

| | |
|---|---|
| New Connection... | ⌘ N |
| Import mbox files... | ⌘ I |
| Import MailSteward SQL file... | |
| Backup Database to SQL File... | |
| | |
| Archive Email... | ⇧⌘ O |
| Search Email... | ⌘ S |
| Browse Email... | ⇧⌘ B |
| Saved Searches... | ⇧⌘ S |
| Check for Duplicate Email | |
| Browse by Email Size... | |
| | |
| Archive History | |
| Duplicates Log | |
| Database Statistics Report... | ⌘ R |
| Page Setup... | ⇧⌘ P |
| Save Debug Log | |
| | |
| **Save Copy of Settngs...** | |
| Replace Settings with Saved Copy... | |

If you have multiple databases with different settings, you can save a copy of your settings and later use it to replace the current settings, allowing you to switch between databases easily. Choose Save Copy of Settings... from the File menu to save a copy of the current settings. Choose Replace Settings with Saved Copy... to replace the current settings with a saved copy. Once the settings have been replaced, MailSteward Pro will quit and you will need to relaunch it for the replaced settings to take effect. Make sure to enter the correct database name in the Connect window when MailSteward Pro relaunches.

The Scheduling Settings are explained in a separate section of this manual, *Schedule Archive*.

## Archive Email:

Clicking on the **Archive** button will bring up this window:
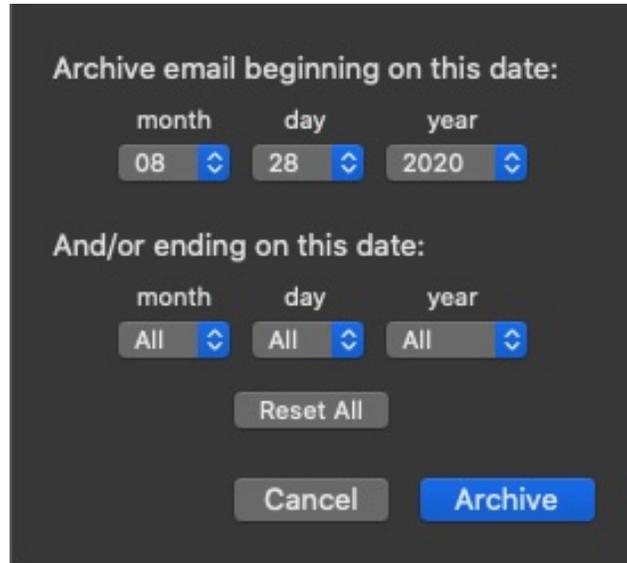


MailSteward Pro will automatically set the beginning date to the date of the most recent email archived in the database. Any email prior to that date will be skipped. This will save time if you have already processed email prior to a given date. Or you can set the date to "All" for month, day, and year, and MailSteward Pro will process all of the email in your account(s). You can also set an ending date. This can be useful if you want to, for example, just store all of the email prior to 2004. Clicking on the **Reset All** button will reset the beginning and ending dates to "All".

Once you have chosen a beginning date and/or ending date, and clicked on the **Archive** button, MailSteward Pro will begin processing your locally stored email and archiving it into the database. If you have a .mac or other imap account, you must set the account options to keep copies of your email on your local computer. MailSteward Pro does not access email on remote servers. Duplicate email is automatically skipped. If an email is already in the database, it is not archived. However, if the mailbox has changed, or the email tags have changed, they will be updated in the database.

While the email is being archived, this sheet provides continuous feedback:
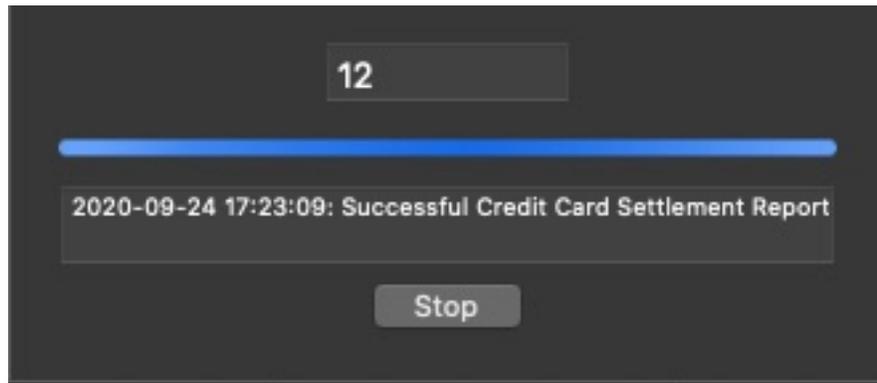


Clicking on the **Stop** button will stop the archiving operation and save all of the email in the database that has been processed so far.If in the middle of processing an email or attachment, it may take a little time for the Stop button to take effect.

When all of the email has been archived in the database, a window will appear showing MailSteward Pro is done archiving. Information will also be logged in an archive history file. You can view the archive history by choosing "Archive History" from the File menu.
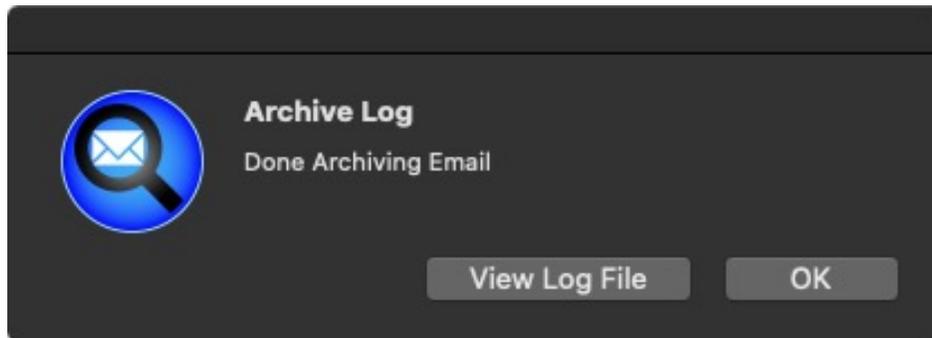


Depending on the options chosen in the Settings window, MailSteward Pro will store the text, the HTML and enriched text versions, the raw source, and, optionally, the attachments. Once MailSteward Pro is done archiving the email, you can:

- Launch or save the attachments of individual emails.
- Add tags to email.
- Reply to an email.
- Forward an email.
- Print the email list.
- Print the individual selected email
- Print all the email in the list.
- Save the email list.
- Save the individual selected email.

- Save all the email in the list.
- Save the raw source of the selected email.
- Save the raw source of all the email in the list.
- Save all attachments of selected emails to separate files.
- Delete the selected email from the list.
- Delete the selected email from the database & the list.
- Delete all of the email in the list, from the database.
- Delete attachments of the selected email in the list, from the database.
- View the raw source of the selected email.
- Export email to a tab-delimited text file, an mbox file, or an SQL file.

If an email has attachments or an HTML or enriched text version that has been saved in the database, a list of the attachments will appear at the bottom of the email text as a blue, underlined link beneath the title **ATTACHMENTS:**. Clicking on the link of an attachment will allow you to launch the attachment using the appropriate application, or save the attachment as a file. The number of attachments for each email appears in the **ATCH** column.



You can view the raw source of the selected email by clicking on the **View Raw Source** item in the Window menu. You can also Search for email in the database by any combination of date range, key words, and tags.

## Search Email:

Once your email is in the database, it can be retrieved by specifying any combination of:

- A range of beginning and ending dates.
- keywords or phrases in the From address.
- keywords or phrases in the To address.
- keywords or phrases in the Subject line.
- keywords or phrases in the Body text.
- text strings in the Mailbox name.
- text strings in an attachment file name.
- text strings in attachment contents, if the attachment contains any text.
- text strings in the raw headings of the email.
- A text string anywhere in the email in any of the fields.
- Tags - category, keywords, priority.
- attachment types, such as graphics, documents, video, etc.

Or, if you know SQL, by editing the SQL statement generated by MailSteward Pro.

If the **only email with attachments** check box is checked, then only email with attachments will be retrieved. If an email has attachments or an HTML or enriched text version that has been saved in the database, a list of the attachments will appear at the bottom of the email text as a blue, underlined link beneath the title **ATTACHMENTS:**. Clicking on the link of an attachment will allow you to launch the attachment using the default application for the type of file, or save the attachment as a file. The number of attachments for each email appears in the **ATCH** column.

Binary attachments, like graphics, sound files, Word documents, or PDF files, are stored in their original binary format. Any attachments that contain text, such as Word documents, can be searched. However, the text in PDF documents is encoded such that it cannot be searched.

Clicking on the drop-down menu next to the mailbox field will display a list of all the unique mailboxes in the database. Clicking on one of the mailboxes in the list will place it in the mailbox search field.

Clicking on the **Reset** button will set all of the search criteria back to the default.

Once the search is done and the email has been retrieved, you can click on the header of any column to sort in ascending or descending order.

If you click on the **Search List** button  you can refine your search by doing a search within the current search results list.

If you click on the **View raw source** button , a separate window will open containing the raw source of the selected email with all of the original header information.
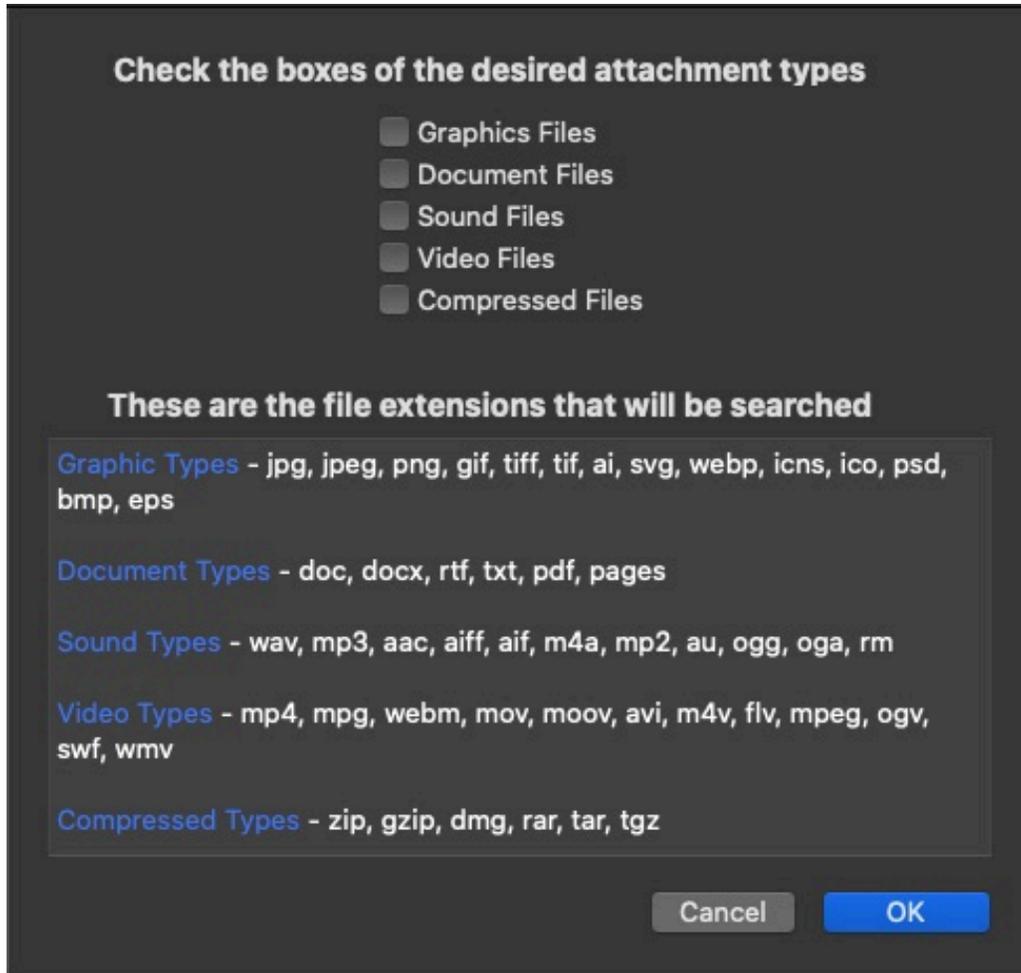
Click on the Reply icon, to reply to the selected email. The OS X Mail application will be launched and an email message window opened, with the From, To, and Subject information filled in, and the text of the message being replied to, inserted in the body.



Each of the field label drop-down buttons can be changed to a different field label. So you can search for multiple keywords or phrases in the same field. You can also drop down the buttons to the left of the field labels to select AND, OR, AND NOT, or OR NOT.

The above search criteria will generate an SQL statement that will return all of the emails either from or to Joe Smith that contain either the word "contract" or "proposal" in the body of the email or the word "contract" in any attached documents. Also only emails with attachments will be retrieved.

If you click on the **choose attachment types to search** button, a sheet will appear where you can choose attachment file types grouped as graphics, documents, sound, video, and/or compressed. If you have tagged some of your email, you can do a search based on your tags, and you can also combine the two and do a search that includes both fields and tags.

You can also search for tags by clicking on the Search Tags tab. In the Tags search window, clicking on the drop-down menu next to the Keywords field will display a list of all the unique Keywords in the database. Clicking on one of the keywords in the list will place it in the Keywords search field.

Clicking on the **Saved Searches** button brings up a window to let you save a set of Search criteria, or execute a previously saved Search.
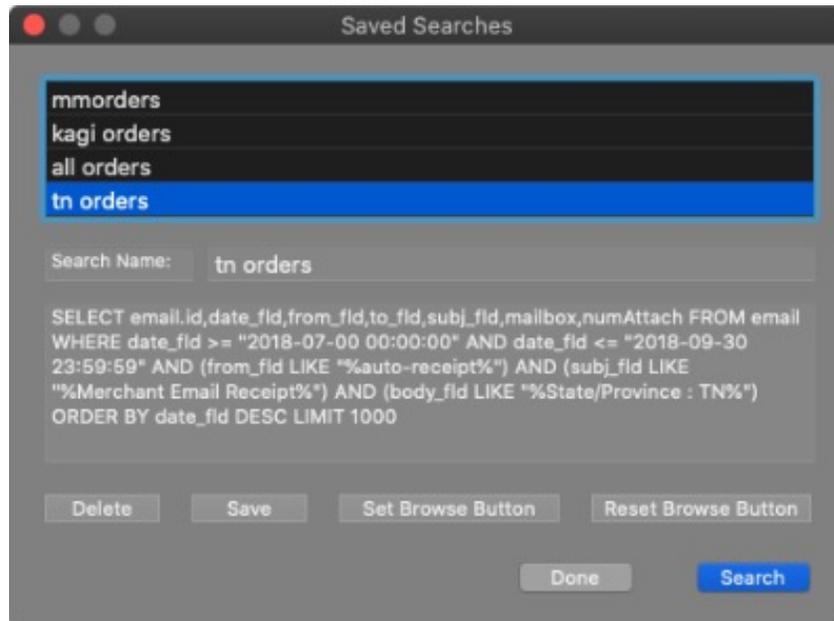


If you click on **Set Browse Button**, the currently selected saved search will be made the default for the Browse  button. Whenever you click on the Browse button, this search will be executed instead of listing all of the email in the database. If you click on **Reset Browse Button**, the default for the Browse button will be reset back to listing all email.

Clicking on the **Edit SQL Statement** button will bring up the following window, which allows you to add parentheses or NOTs, or enter your own SQL.
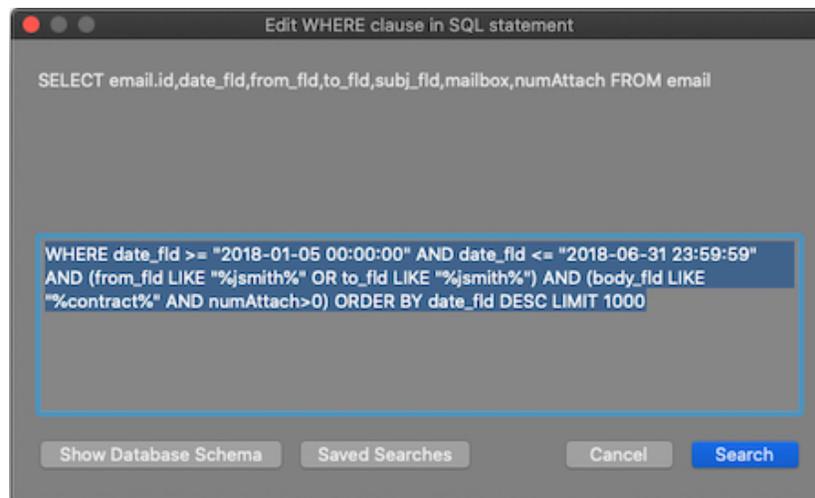


Clicking on the **Show Database Schema** button will display a complete list of the tables and field names in the MailSteward Pro database structure.

## Browse Email:

Clicking on the **Browse** button will retrieve all of the email in the database, sorted by date. It can then be sorted in any order by clicking on the column headers.By default the settings limit the search and browse results to 1,000 emails, in order to speed up the process. However, you can choose to not limit the results, or to limit them by some number other than 1,000.

Click on the Reply button to reply to the selected email. The OS X Mail application will be launched and an email message window opened, with the From, To, and Subject information filled in, and the text of the message being replied to, inserted in the body. Clicking on the Fwd button will also launch the Mail app and open a new forwarded message window.

It is also possible to assign one of the saved Searches to the Browse button. For example, you could specify a Search that begins in the current year, save the Search, and then assign that Search to the Browse button so that when you browse you only see this year's emails rather than all of the email in the database.

You can also browse by email size and get a list of email sorted by the size of the individual emails, in descending order, largest first.  Finding and sorting email by size is somewhat slow, so you may want to set a maximum limit on search results in the MailSteward General Settings.
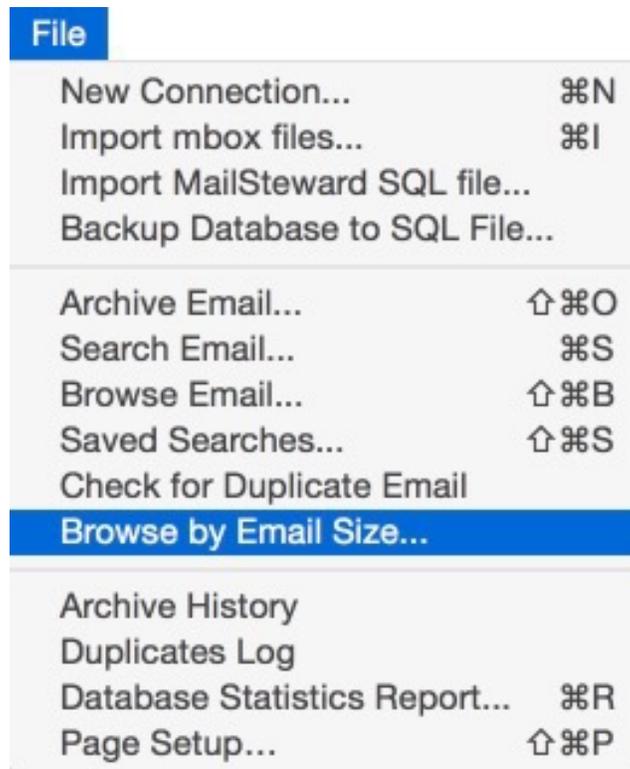
## Backing Up Gmail:

MailSteward is the ultimate backup solution for your Gmail. If you use Apple Mail and have your Gmail accounts set up in Apple Mail, then MailSteward is already archiving your Gmail into your MailSteward database. But if you don't use Apple Mail and Gmail is your main or only email provider, you can still archive all of your Gmail into a MailSteward database and have not only the peace of mind of having a local backup of all of your Gmail but also access to all of MailSteward's sophisticated search and tagging and other capabilities. Here is how to download and import all of your gmail into a MailSteward database:

* Go to takeout.google.com and log in to your gmail account.

*Deselect All to uncheck all the boxes.

*Scroll down to Mail and check the box.

*Click on Next at the bottom of the page.

*Click on Download.

Unzip the downloaded file. This will create a folder in your download folder named Takeout. Inside that folder will be another folder named Mail in which will be two mbox files named Inbox.mbox and Sent.mbox.

Choose the **Import mbox Files...** item from the MailSteward File menu and select those two mbox files to be imported into your MailSteward database.

That's all there is to it.

## Schedule Archiving:

MailSteward Pro can be set to automatically schedule an archive of recent email. If you select the Scheduling panel in the MailSteward Pro Settings, you can specify a schedule for automatically launching MailSteward to do an archive of new email. MailSteward does not need to be already running. In fact it's better if it is not running. The schedule will launch MailSteward Pro, connect to a running MySQL server, archive all email starting on the most recent date in the database, and then it will quit when it is done.
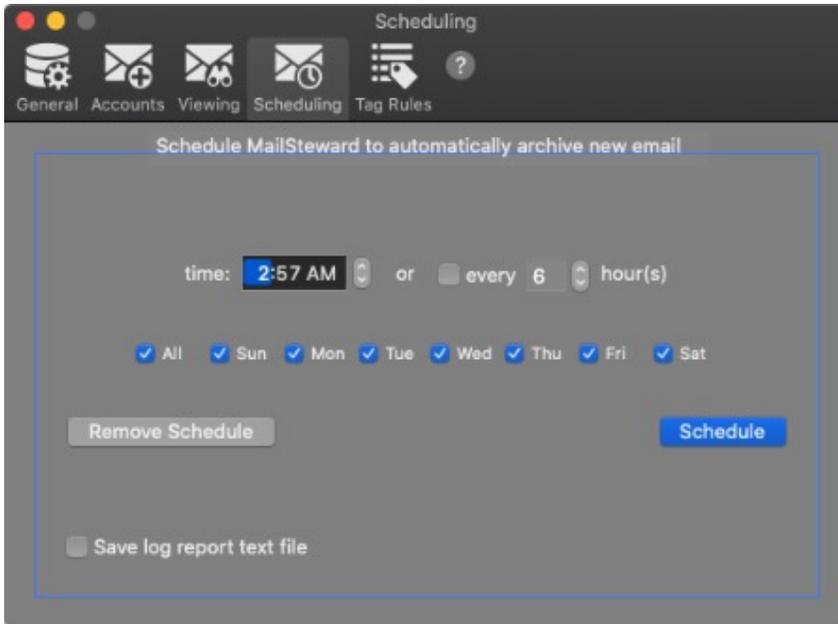
Archives can be scheduled either by days of the week, or by months and days of the month. They can be scheduled for any specific time of day, or for every so many hours. After setting the scheduling options, clicking on the **Schedule** button will put an entry into your crontab file, which will tell the operating system to run MailSteward Pro at the specified time and dates. MailSteward Pro will then automatically archive email beginning on the date of the most recent email in the database file. As always, any duplicates will be skipped.

The scheduling options can be changed at any time. If the box to optionally leave a log file is checked, then a small text file with information about the completed archive will be left on the Desktop, making it easy to see that the archive was done. If you don't want the log file to appear, uncheck this box. You can always look at the archive history by choosing it from the File menu.

Clicking on the **Remove Schedule** button will delete the existing MailSteward Pro schedule.

**Add, Search, & View Tags:**

Clicking on the Tag button in the upper right corner will bring up the **Add/View Tags** window. If the currently selected email has a tag, there will be an asterisk next to the date-time of that email in the DATE TIME column, and the tag for that email will appear in the **Add/View Tags** window. You can then add a tag or edit an existing tag by entering your choices and clicking on the **Tag** button.  If multiple emails are selected, they will all be tagged. You can remove tags, by clearing out the text boxes, setting the priority to "None" and clicking on the **Tag** button.   To see how searching with tags works, go to the Search Email section.

You can also define rules to automatically tag email as it is archived, as explained in the *Set Rules for Tagging* section.
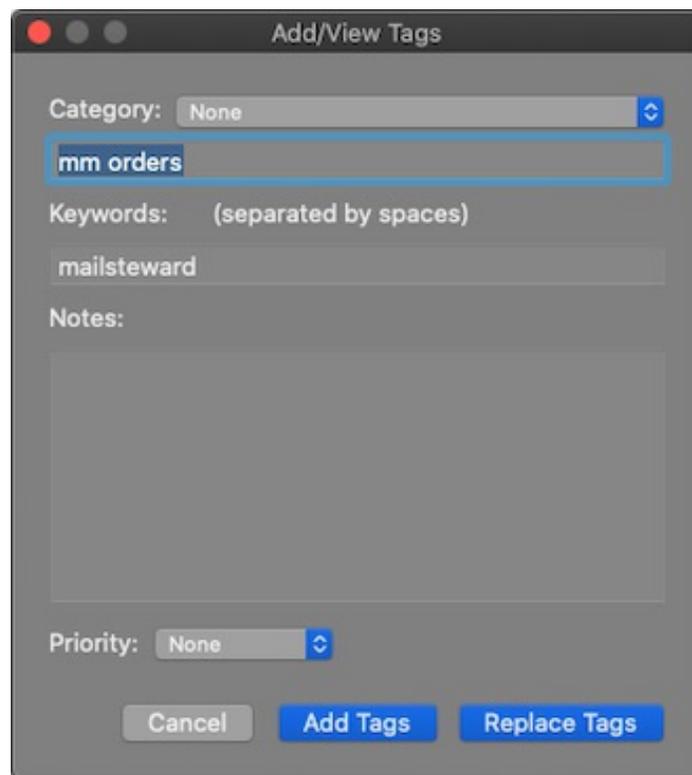
## Set Rules for Tagging or Excluding:
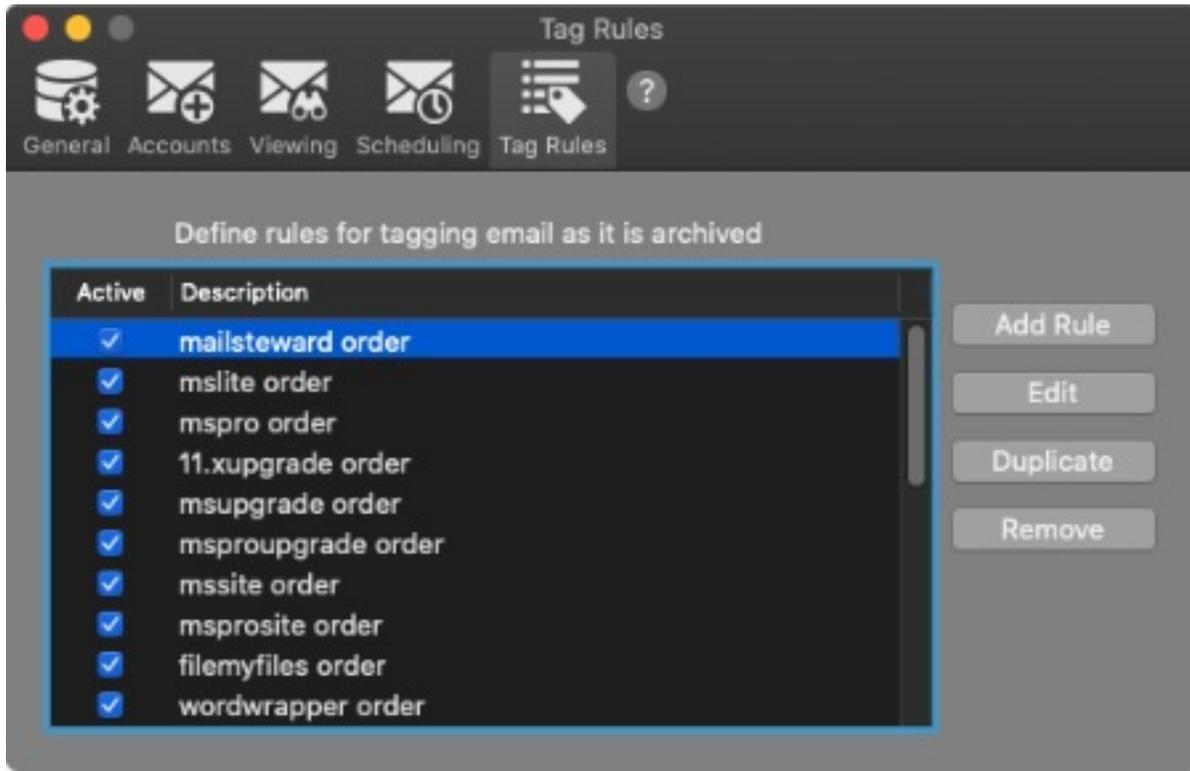


Tags can be added to email in the database at any time, but it is also possible to define rules to automatically tag email as it is archived into the database. You can also define a rule to exclude email from being archived.  Once a rule is defined, it is listed in the Tag Rules Settings and can be enabled or disabled by checking the box next to it.  By clicking on the right hand buttons you can add a new rule, edit an existing rule, duplicate an existing rule, and remove an existing rule.

Clicking on the Add Rule, Edit, or Duplicate buttons will drop down a sheet for defining a rule

Description: | mailsteward order |

If [ all ⌄ ] of the following conditions are met:

| [ from ⌄ ] | [ contains ⌄ ] | store |
| [ to ⌄ ] | [ contains ⌄ ] | mmorders |
| [ subject ⌄ ] | [ contains ⌄ ] | notification |
| [ body ⌄ ] | [ contains ⌄ ] | pb1 |

⦿ Tag this email

◯ Do not archive this email

Tag this email

    Category: [ None ⌄ ]

          mm orders

    Keywords: (separated by spaces)

          mailsteward

    Notes:

    Priority: [ None ⌄ ]

[ Cancel ]   [ **OK** ]

A rule may have up to four conditions. If the text box for a condition is left blank, that condition is ignored. A rule can require all of the conditions to be met, or any one of them to be met, depending on whether "all" or "any" is chosen in the top popup button. Once the conditions have been set, you can choose to either tag email or exclude email from being archived, based on the rule.  If you choose to tag the email, the tag category, keywords, note, and priority can be defined.  Clicking on OK will add the rule to the list. As email is archived into the database, it is checked against all active rules and tagged or excluded accordingly.  As tag rules are checked, tag keywords are added on separated by spaces. The other tags are replaced by subsequent rules.

**Back Up Your Database:**

A MySQL database is not a single file.  It is a collection of files.  As with any files, it is a good idea to maintain a backup of your database.  The MySQL server can be configured to keep its data anywhere, but in a standard OS X MySQL installation, the data is located in the /usr/local/ mysql/data/ directory.  If your database is named 'myemaildb', for example, the files for that database will be located in /usr/local/mysql/data/myemaildb/.  These directories are not normally visible in the OS X Finder.  You have to access them in a terminal window, and you have to be the OS X system 'root' user in order to do it.  Here is a link that explains how to enable the OS X system root user:  http://support.apple.com/kb/HT1528

Using UNIX commands you can navigate to this location and make a copy of your database directory as a backup, but there is an easier way to maintain a backup of your database. Click on the **Backup Database to SQL File...** item in the File menu.  This will export your entire database in an SQL format that you can always import back into a MySQL database by selecting **Import MailSteward SQL File...** from the File menu. This will restore your database, replacing any data that exists in the database, or, if you have deleted the database, it will create a new database with the SQL data. This process uses the mysqldump utility to create the SQL file, and uses the mysql utility to import the SQL file. These two utilities are part of the standard MySQL installation.

Here is a link to some instructions detailing how to move a MySQL database to a different location, such as an external disk drive:  https://pubblog.com/nickstek/2009/05/01/moving-mysql-databases-to-a-different-location/

Here is a link to a discussion of multiple ways to back up a MySQL database: http://www.noupe.com/how-tos/10-ways-to-automatically-manually-backup-mysql-database.html

## Export a Tab or Comma Delimited Text File, an Mbox File, an SQL File, or a list of email addresses:

Any list of stored or retrieved email can be exported to a tab or comma delimited text file, or to an "mbox" format file that can then be imported into most email clients, or to an SQL file that can be imported into a MySQL database. Or a list of all the From, To, or both email addresses can be exported. Just click on the **Export** drop-down button and select the desired export format. A tab or comma delimited text file can then be imported into FileMaker or Benton or other database and spreadsheet applications. An mbox file can then be imported back into OS X Mail or Microsoft Entourage or other email clients, or MailSteward Pro itself. An SQL file can be imported into MySQL. If the tab or comma delimited text file option is chosen, attachments and tags are not exported. Only the plain text portion of the email is exported. If the SQL option is chosen, then everything will be exported, including any attachments and tags and copies of the email raw source. In the case of the mbox format, everything will be exported except for the mailbox and tags. The standard mbox email format does not include the concepts of tags or mailboxes.
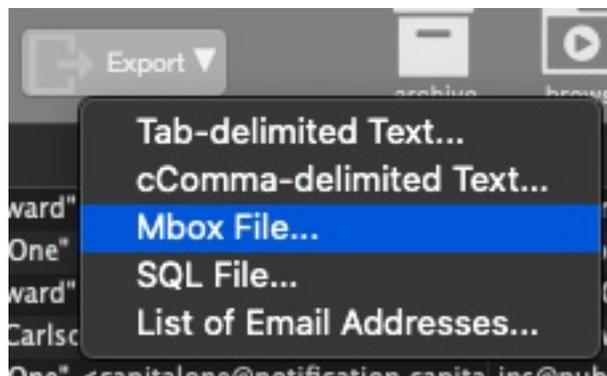


Binary attachments are stored in the original binary format in MailSteward Pro. The SQL generated by MailSteward Pro will also cause the binary attachments to be stored in MySQL as binary blobs.

## Import mbox Files:
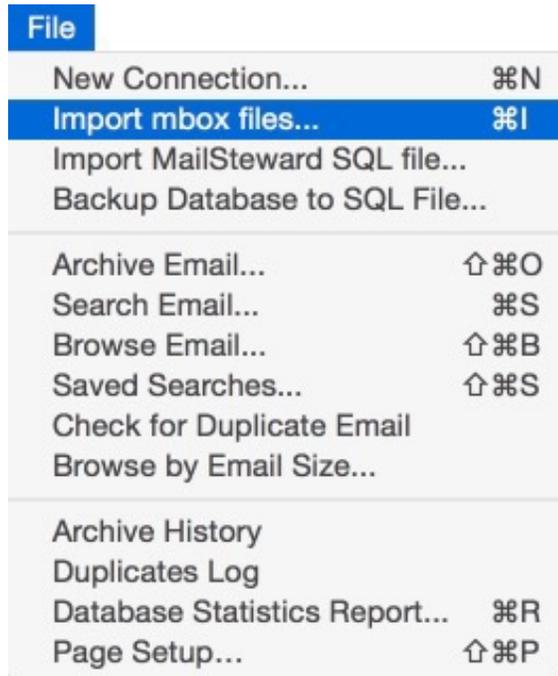
The Microsoft Entourage X email client uses a proprietary database to store email. However if you drag a mailbox from Entourage onto your desktop or into a folder, Entourage will export the dragged mailbox as a standard format UNIX mbox file that MailSteward Pro can understand. Entourage only converts the email at the top level of any folder that you drag. It doesn't convert any email contained in subfolders. Each subfolder has to be dragged individually. Most other email clients also can export mbox files. Mbox files that have been created in this way can be read into your MailSteward Pro email archive by selecting **Import mbox files...** from the File menu. Also, in the MailSteward Pro Settings, you can specify a folder that contains mbox files, that you want to be imported whenever you do an Archive.

To export email from Outlook 2011 in a format that can be imported into MailSteward Pro, perform an Edit -> Select All in the folder or Inbox you wish to Export. Click & hold the mouse until you see the number count come up on the cursor. Then move the cursor over a Finder folder window and release the mouse. Wait while Outlook locks up & churns from exporting the emails. There will be no progress bar. This will fill the folder with .eml files of all the emails. The .eml files can then be imported into MailSteward Pro by selecting **Import mbox files...** from the File menu.

**Import MailSteward SQL File:**

MailSteward will export an SQL file of any list of archived or retrieved email. SQL files that have been created in this way can be read into a MailSteward Pro email archive database by selecting **Import MailSteward SQL file...** from the File menu.
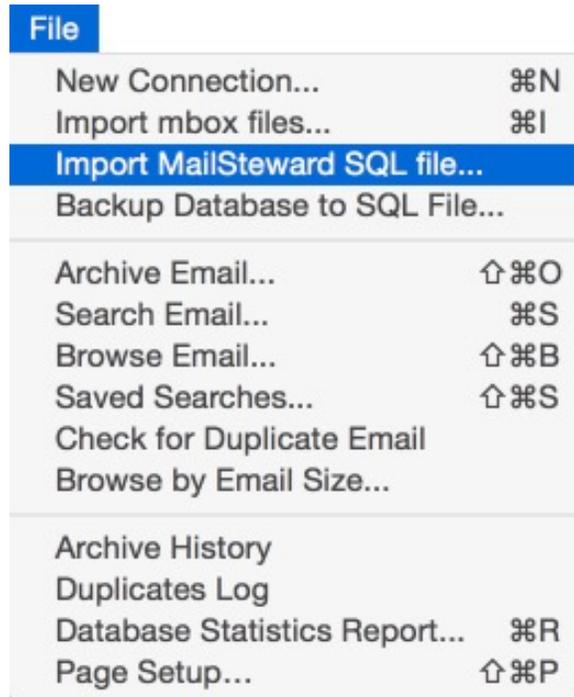
**Check for Duplicate Email:**
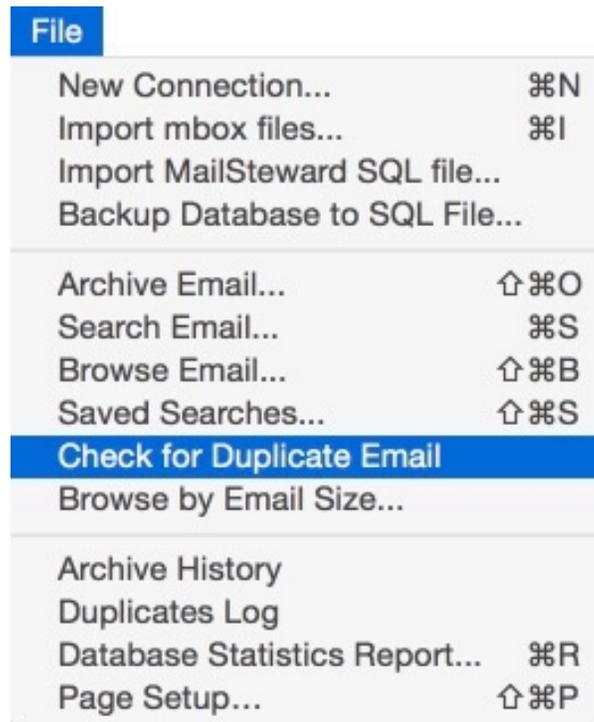


As email is archived into the database, MailSteward Pro will automatically skip duplicates. An email is considered a duplicate if there is an exact match on the From, To, Date and Time, and the first 500 characters of the body, with an email that is already in the database. This will work most of the time, but sometimes a duplicate email will get through. It is also possible that some duplicates may have gotten into the database because of changes in previous versions of MailSteward. Duplicate emails that are skipped during an archive are logged in the Duplicates Log. Click on Duplicates Log in the File menu to view the list of logged duplicates.

You can check for duplicates in the database by clicking on the Check for Duplicate Email item in the File menu. MailSteward Pro will then go through the entire database and look for email that has an exact match on the From, To, Date, minutes, seconds, and Subject. It does not match on the hour in case some email was archived in different time zones, and it does not match on the body, but it does look for a match on the subject.

The duplicate email will then be listed in the Browser window where it can be examined and deleted.

## Database Statistics Report:
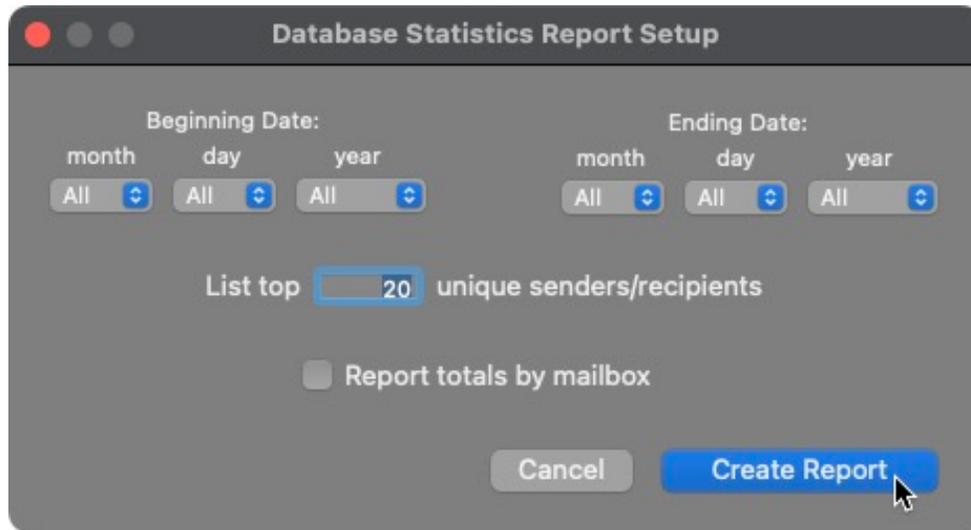


Clicking on the **Database Statistics Report...** item in the File menu will bring up the following Settings window. Clicking on **Create Report** will produce a report like the one below.

```
From 2005-01-01 thru 2009-02-23

Total Number of emails in date range: 10,107

Number of emails with attachments:    1,325

Number of emails with tags:           2,511

Number of mailboxes:                  42

By Year:
    2005:  5,020
    2006:  5,087

Top 20 Senders:
    1,164     RegNow Order Server <automated@regnow.com>
    848       john seward <jns@pubblog.com>
    797       MailSteward <mailstew@mailsteward.com>
        .
        .
        .
```

```
Top 20 Recipients:
     1,164     orders@mailsteward.com <orders@mailsteward.com>
     942       jns@pubblog.com
     654       nickseward@mac.com
          .
          .
          .

By Mailbox:
     2,284     mailstew@mailsteward.com@mail.mailsteward.com/
INBOX
     2,024     jns@pubblog.com@mail.pubblog.com/INBOX
     1,875     Mac-nickseward/INBOX
          .
          .
          .
```

## System Requirements:

The system requirements are simple. You have to have a Macintosh running OS X 10.15 or greater (Catalina, Big Sur, Monterey, Ventura, Sonoma, Sequoia, Tahoe), and you have to be either using the macOS X Mail email client that came with your computer or no email client, in which case MailSteward Pro will automatically list all of your email accounts or mailboxes in the Settings. Or, if you are using Microsoft Entourage X, then you will need to drag your Entourage mailboxes onto your desktop or into a folder, and import the resulting mbox files into MailSteward Pro by selecting the **Import mbox files...** item from MailSteward Pro's File menu. Other email clients also have the ability to export mbox or .eml files. MailSteward Pro supports POP, .Mac, and IMAP email accounts that are stored locally on your computer. The free version of MailSteward Pro has full functionality, but is limited to a capacity of 15,000 emails.

The other requirement for using MailSteward Pro, is that there must be a MySQL database server running for MailSteward Pro to connect to.

If you are running MacOS 10.15 (Catalina) or later, you will need to do this to give MailSteward Pro permission to access the disk:

Open the Privacy and Security system preferences panel.

Click on Full Disk Access.

Click the plus sign, add the MailSteward Pro application, and enable it.

Restart MailSteward Pro.