



# User Guide

**FOOKES® Software Ltd**  
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<b>1. Introduction</b>	<b>7</b>
<b>2. What's new in Aid4Mail 5?</b>	<b>9</b>
<b>3. Aid4Mail editions</b>	<b>12</b>
<b>4. Trial mode</b>	<b>15</b>
<b>5. System requirements</b>	<b>16</b>
<b>6. Supported formats</b>	<b>18</b>
<b>7. Getting started with Aid4Mail</b>	<b>21</b>
<b>8. Converting mail</b>	<b>24</b>
<b>9. Choosing the right format</b>	<b>32</b>
9.1 Choosing the right format: Gmail .....	33
9.2 Choosing the right format: Outlook 365 .....	38
9.3 Choosing the right format: PST and MSG .....	42
<b>10. Searching and filtering</b>	<b>45</b>
10.1 Filter order .....	48
10.2 Search terms .....	50
10.2.1 Rules .....	52
10.2.2 Wildcards .....	54
10.2.2.1 Character wildcards .....	55
10.2.2.2 HTML entity wildcards .....	57
10.2.2.3 Word wildcards .....	58
10.2.2.4 Character vs word wildcards .....	60
10.2.2.5 Chaining wildcards .....	61
10.2.3 Punctuation .....	62
10.2.4 Regular expressions .....	65
10.2.5 Search operators .....	66
10.2.5.1 Folder search operators .....	68
10.2.5.2 Sender/Recipient search operators .....	70
10.2.5.3 Date/Time search operators .....	71
10.2.5.4 Email section search operators .....	75
10.2.5.5 Email attribute search operators .....	78
10.2.5.6 Email ID search operators .....	81
10.2.6 Boolean operators .....	82
10.3 Tutorial: Search and filter basics .....	85
10.4 Proximity searching .....	90

10.4.1	Proximity searching within a sentence .....	91
10.4.2	Proximity searching within a paragraph .....	93
10.4.3	Proximity searching within a specified distance .....	95
10.4.4	Word order in proximity searches .....	97
10.4.5	Chaining proximity searches .....	99
<b>10.5</b>	<b>Deduplication .....</b>	<b>100</b>
<b>10.6</b>	<b>Searching unpurged mail .....</b>	<b>102</b>
<b>10.7</b>	<b>Searching personal mail .....</b>	<b>104</b>
<b>10.8</b>	<b>Word lists .....</b>	<b>107</b>
<b>10.9</b>	<b>Native filtering .....</b>	<b>110</b>
10.9.1	Gmail and KQL syntax overview .....	112
<b>11.</b>	<b>Optimizing performance .....</b>	<b>115</b>
<b>12.</b>	<b>Activating your Aid4Mail license .....</b>	<b>118</b>
12.1	Activating with an activation code .....	119
12.2	Activating with a key file .....	123
<b>13.</b>	<b>User interface .....</b>	<b>124</b>
<b>13.1</b>	<b>Menu .....</b>	<b>126</b>
13.1.1	File menu .....	127
13.1.2	View menu .....	128
13.1.3	Session menu .....	129
13.1.4	Settings menu .....	132
13.1.5	Tools menu .....	133
13.1.6	Help menu .....	134
<b>13.2</b>	<b>Button bar .....</b>	<b>135</b>
<b>13.3</b>	<b>Session list .....</b>	<b>137</b>
<b>13.4</b>	<b>Session information .....</b>	<b>139</b>
13.4.1	Session settings .....	141
13.4.1.1	Session settings: Source .....	143
13.4.1.2	Session settings: Target .....	148
13.4.1.3	Session settings: Filter .....	158
13.4.2	Progress .....	165
13.4.3	Progress log .....	170
13.4.4	Error log .....	172
<b>13.5</b>	<b>Task bar .....</b>	<b>174</b>
<b>13.6</b>	<b>Project settings .....</b>	<b>175</b>
13.6.1	Project settings: Project .....	176
13.6.2	Project settings: Case .....	177

13.6.3	Project settings: Bates .....	179
13.6.4	Project settings: PDF .....	181
<b>13.7</b>	<b>Options .....</b>	<b>185</b>
13.7.1	Options: App .....	186
13.7.2	Options: Projects .....	188
13.7.3	Options: Sessions .....	190
13.7.4	Options: Filters .....	195
13.7.5	Options: PDF .....	198
13.7.6	Options: Advanced .....	202
<b>13.8</b>	<b>Activate license .....</b>	<b>206</b>
<b>13.9</b>	<b>Aid4Mail Authenticator .....</b>	<b>208</b>
13.9.1	Setting up Google API credentials .....	212
<b>13.10</b>	<b>Aid4Mail Remote Authenticator .....</b>	<b>224</b>
<b>13.11</b>	<b>IMAP Configuration Editor .....</b>	<b>226</b>
13.11.1	Common IMAP configurations .....	230
<b>13.12</b>	<b>Keyboard shortcuts .....</b>	<b>231</b>
<b>13.13</b>	<b>Session settings file .....</b>	<b>234</b>
<b>14.</b>	<b>Command-line interface (CLI) .....</b>	<b>235</b>
<b>15.</b>	<b>Adding header metadata .....</b>	<b>239</b>
<b>16.</b>	<b>Processing archival formats .....</b>	<b>242</b>
<b>17.</b>	<b>Multiple sessions .....</b>	<b>243</b>
<b>18.</b>	<b>Duplicating sessions .....</b>	<b>248</b>
18.1	Duplicating sessions: Example 1 .....	251
18.2	Duplicating sessions: Example 2 .....	253
18.3	Duplicating sessions: Example 3 .....	255
<b>19.</b>	<b>Bates numbering .....</b>	<b>257</b>
<b>20.</b>	<b>Templates .....</b>	<b>260</b>
20.1	Folder structure templates .....	261
20.2	File name templates .....	264
20.3	Combining templates .....	266
20.4	Template tokens .....	267
20.5	Text inside template tokens .....	273
20.5.1	Refining the {EmailAccount} token .....	275

20.5.2	Formatting date tokens .....	278
<b>21.</b>	<b>Python scripts</b>	<b>281</b>
21.1	Python filter scripts .....	283
21.2	Python modifier scripts .....	287
<b>22.</b>	<b>Customizing Aid4Mail</b>	<b>290</b>
<b>23.</b>	<b>Glossary</b>	<b>292</b>
<b>24.</b>	<b>Known issues</b>	<b>304</b>
<b>25.</b>	<b>Technical support</b>	<b>306</b>
<b>26.</b>	<b>Company information</b>	<b>307</b>
<b>27.</b>	<b>EULA</b>	<b>309</b>
	<b>Index</b>	<b>310</b>

## 1 Introduction



Aid4Mail is a fast and accurate email search and conversion application for use in digital forensics, eDiscovery, mail migration and archiving. Its proprietary engine quickly processes large volumes of email data while preserving crucial metadata and content.

Aid4Mail supports over 40 different email programs and mail formats ([see the full list](#)) in addition to most popular webmail services. It can run on a virtual machine (VM) and can access mail files from any local storage device including external drives, CD/DVD media, USB devices, attached networks and remote accounts. In most cases it can process files and folders that are disconnected (unmounted) from their email program.

### Read more about Aid4Mail

- [What's new in Aid4Mail 5?](#)
- [Aid4Mail editions](#)
- [Trial mode](#)
- [System requirements](#)
- [Supported formats](#)

### Once you're ready to use Aid4Mail

- [Getting started with Aid4Mail](#)
- [Converting mail](#)
- [Choosing the right format](#)
- [Searching and filtering](#)
- [Optimizing performance](#)
- [Activating your Aid4Mail license](#)

### A description of every setting

- [User interface](#)
- [Command-line interface \(CLI\)](#)

## Detailed information on more complex topics

- [Adding header metadata](#)
- [Processing archival formats](#)
- [Multiple sessions](#)
- [Duplicating sessions](#)
- [Bates numbering](#)
- [Templates](#)
- [Python scripts](#)
- [Customizing Aid4Mail](#)

## Looking for more help?

- [Glossary](#)
- [Known issues](#)
- [Technical support](#)

## About the company

- [Company information](#)

## Legal

- Trademarks and copyright
- [End User License Agreement \(EULA\)](#)

For more information about Aid4Mail and how it can facilitate your email-related tasks, please visit [www.aid4mail.com](http://www.aid4mail.com).

## 2 What's new in Aid4Mail 5?

Aid4Mail 5 has been reworked from the ground up with many improvements and new features including:

- **Completely new user interface**

A simple and intuitive [user interface](#) makes it easy to set up your mail processing tasks.

- **Faster than ever**

Aid4Mail 5 is up to six times faster than the previous version without sacrificing accuracy! And version 4 was already one of the fastest email converters on the market. Speed gains obviously depend on your selected mail format and settings.

- **Multiple sessions**

Set up and run [multiple sessions](#) directly in the main interface. You no longer need to run the Console version of Aid4Mail or the Console Launcher to do this. Multiple concurrent sessions are available in [Aid4Mail Enterprise](#) and [Investigator](#). In [Aid4Mail Converter](#) you can set up multiple sessions but they can only run one at a time.

- **More mail formats**

Aid4Mail has always supported an impressive number of mail formats—over 40 in total in addition to most web and [IMAP](#) services. Aid4Mail 5 maintains most of these except for some outdated and obsolete formats. It also adds some important new formats like OST and OLM, as well as HTML, XML, TSV and SeaMonkey. In Aid4Mail 5, all Outlook file formats can be processed with or without Outlook installed. And Mimecast, Proofpoint and Google Vault archives can now be processed directly and reorganized per account if necessary.

- **Convert between any combination of formats, including PST to PST**

There are no restrictions on source and target format combinations, even between Outlook formats. PST to PST is now possible. You can even [share the same source or target PST file](#) between multiple concurrent [sessions](#). The same applies to many other formats too.

- **Improved search and filter feature**

A simple-to-use but very powerful [search and filter](#) feature:

- Enter [search terms](#) into a simple [search field](#) like those used by most search engines,
- Simple [syntax](#) that will be familiar to Gmail and Outlook users,
- A [search assistant](#) to help you build your search terms,
- A multitude of [search operators](#) to focus your search\*,
- Search [inside attachments](#) and [files they contain](#)\*

- Construct complex search terms with [Boolean operators](#),
- Use [wildcards](#) and [regular expressions](#) to refine your search terms,
- [Proximity searching](#),
- Write your own filters with [Python scripts\\*](#),
- Bundled with ready-made search terms and filter scripts\*.

\* [Aid4Mail Converter](#) is limited to searching and filtering folders. [Aid4Mail Enterprise](#) and [Investigator](#) extend this capability to individual emails, attachments and [files they contain](#), and the use of [Python filter scripts](#).

- **Python scripting**

Use the popular Python programming language to create [powerful scripts](#) to [search](#) and [customize the output](#) created by Aid4Mail. Available in [Aid4Mail Enterprise](#) and [Investigator](#).

- **Filename templates**

Completely [customize the email filenames](#) created by Aid4Mail.

- **Folder structure templates**

[Define](#) exactly how you want your target mailboxes to be structured.

- **Email header configuration**

[Specify the header fields](#) to display in archival mail formats like PDF and HTML.

- **Column and content configuration**

Define which [columns](#) appear in CSV and TSV files and the [content](#) for XML files.

- **Better statistics**

Greatly improved feedback of Aid4Mail's progress through your mail. Includes [real-time statistics](#) of emails analyzed, completed and filtered, and any errors that occurred.

- **Sophisticated incremental processing**

It's now even easier to continue a prior conversion where you left off or to capture new mail received since last time. Aid4Mail 5's incremental processing is up to 100x faster than in version 4! It's also easier to use: Turn incremental processing on or off using a [simple checkbox](#). No need to deal with the log file directly, it's all done for you, intelligently and simply.

- **Projects**

Separate your work into [projects](#) that can contain any number of Aid4Mail [sessions](#). Switch between different projects or cases quickly and easily with no loss of work.

We're constantly improving Aid4Mail with new features and functionality. With our subscription licenses, you always have access to the latest version and regular updates.

### 3 Aid4Mail editions

#### Commercial editions

There are three commercial editions of Aid4Mail:

- [Aid4Mail Converter](#)
- [Aid4Mail Investigator](#)
- [Aid4Mail Enterprise](#)

For a detailed feature comparison, please see the [comparison chart](#) on our website. You can also download a copy of the [End User License Agreement \(EULA\)](#).

#### Aid4Mail Converter

Specialized in converting mail from one format to another, Aid4Mail Converter is extremely fast and accurate, ensuring that converted mail is identical to the original. It's an ideal solution for preparing mail for ingestion into archiving, eDiscovery and forensic tools and can process unlimited mail stores (in-house or from external sources).

Aid4Mail Converter supports [over 40 email programs and mail formats](#). These include Outlook formats (with or without Outlook installed), non proprietary formats like EML and mbox, many popular email applications like Thunderbird, and useful export formats like PDF, HTML, CSV and XML. It offers secure [IMAP](#) access to cloud-based services (webmail) and can access Gmail and Outlook 365 accounts through their native [APIs](#), the most secure and efficient method.

A [remote authentication tool](#) is included that can be downloaded by any third party under investigation, or whose mail account you are processing on their behalf. It enables the account owner to grant Aid4Mail secure, temporary access to a cloud-based email service or IMAP account without providing their full login credentials and without having a copy of Aid4Mail.

Other Aid4Mail Converter features include:

- Reliably download large IMAP accounts through effective error recovery protocol.
- Secure access to Gmail, Office 365, Outlook.com and [IMAP](#) through [OAuth 2](#).
- Accurately [restore the folder structure](#), including Google Takeout files.
- Export emails as searchable PDFs with linked attachments.
- Convert to HTML and display emails in a browser with the included viewer.
- Plain text, CSV, TSV and XML target formats.
- Extract email attachments.
- Flexible template-based [folder](#) and [file naming](#) with support for [Bates numbering](#).

- Support for long file names exceeding 255 characters.
- Detailed [progress information](#), conversion statistics and logs.
- Works seamlessly with both 32-bit and 64-bit Outlook.
- Modern [user interface](#) with full Unicode support.

### **Aid4Mail Investigator**

The same powerful conversion engine as [Aid4Mail Converter](#) with the addition of advanced features for forensic and eDiscovery professionals.

Aid4Mail Investigator's powerful [search and filter](#) features allow you to use the same [search operators](#) as Gmail and Office 365. You can search any part of an email including deeply embedded content, attachments and files contained within attachments. For example, text in a PDF file that's contained within a ZIP archive, attached to an email that is itself the attachment of another email, can be found! You can even search for file metadata like EXIF and IPTC information contained in pictures.

Built-in filters allow you to cull redundant and irrelevant emails before review: You can [skip duplicates](#) and target [personal mail](#), excluding emails from mailing lists, bulk mail and notifications. Forensic professionals also have the ability to [search unurged mail](#).

[Native filtering](#) for Gmail, Office 365 and [IMAP](#) accounts is also supported. These filters are sent directly to the mail server software to carry out a pre-acquisition search server-side. This can significantly increase performance because Aid4Mail will only download and process emails that match the search results rather than the whole account.

Aid4Mail Investigator's support for [Python filter scripts](#) gives you even more control. Extract and search text from images using Python OCR modules or use Python image analysis to detect nudity in photos. You can also use Python scripts to [modify](#) email content, for example obfuscating sensitive information.

[Concurrent processing](#) enables you to run multiple Aid4Mail sessions simultaneously. These can be totally independent conversions or share the same source, target or both. For example, you can merge emails from multiple sources into a single PST file or split a single source file into multiple target files. Alternatively, apply multiple search criteria to a single mail store, saving the results in different folders within the same PST, all at the same time.

Other features:

- Reorganize emails [by account](#).
- Configurable [Bates number](#) and [Bates stamp](#).
- [Add missing metadata](#) to target emails.
- Access [public and shared folders](#) and [delegate accounts](#).
- Use [word proximity](#) operators, [wildcards](#), and [regular expressions](#) in your searches.

- Customize target folder and file names using [Python scripts](#).

### **Aid4Mail Enterprise**

The ultimate Aid4Mail. It contains every feature in [Aid4Mail Investigator](#) and [Converter](#) plus a [command-line interface \(CLI\)](#) and additional [mail formats](#) for large-scale archival and migration projects.

Archival [source formats](#):

- Google Vault (zipped MBOX files)
- Mimecast (zipped EML SJF files)
- Proofpoint (zipped EML files)

Cloud-based [target formats](#):

- Office 365 and MS Exchange (via [MAPI](#))
- Gmail (via Google [APIs](#) or [IMAP](#))
- Dovecot, Courier, Zimbra, ... (via [IMAP](#))

The [command-line interface \(CLI\)](#) enables you to seamlessly integrate Aid4Mail Enterprise into your work flow. Run it from scripts or batch files to automate email processing, or create your own user interface to customize the features available to end users.

With flexible, multi-user licensing options, Aid4Mail Enterprise is well suited to large-scale email processing in medium to large organizations. The license is tied to a computer, server, or USB drive rather than a seat, making it available to any number of users in your company. You can run it from a server or networked computer or from a shareable USB flash drive or SSD. This makes it an ideal portable solution in the field or the lab.

### **Trial mode**

A full-featured trial mode is available in each Aid4Mail edition. When Aid4Mail is used in trial mode, it works on a modified **copy** of your mail. Rest assured that Aid4Mail will not alter your actual mail so you can safely run as many tests as you need. Please refer to the [Trial mode](#) topic for details.

### **Free edition**

A free edition, *Aid4Mail Converter Light*, is available on our [website](#). It has the same feature set as [Aid4Mail Converter](#) but is limited to processing EML and mbox mail formats only.

## 4 Trial mode

A full-featured trial mode is available for each [Aid4Mail edition](#).

In trial mode, Aid4Mail will create a modified **copy** of your mail. Rest assured that Aid4Mail will not alter your actual mail so you can safely run as many tests as you need.

In trial mode, Aid4Mail makes three modifications to emails during conversion:

1. Subject lines are truncated to 20 characters and the following text is added: *[Created with trial version of Aid4Mail]*
2. The *From* email address is replaced with: *trial-mode@aid4mail.com*
3. Attachments, and sometimes embedded contents, are removed from emails that exceed 1 MB ([Aid4Mail Enterprise](#) and [Investigator](#)) or 10 MB ([Aid4Mail Converter](#)).

Note that search filters used in trial mode will be applied to the modified copies of your emails, not to the originals. In some cases this may produce unexpected results. For example, searching for `From:jane@aid4mail.com` will not find any emails in trial mode because the *From* addresses have all been changed to *trial-mode@aid4mail.com*.

**Data produced by Aid4Mail during trial mode is for evaluation purposes only and must be deleted once you finish testing the software.**

When you purchase a license and [activate Aid4Mail](#), you will be able to process your mail without the modifications and limitations of trial mode.

## 5 System requirements

### Minimum Hardware Requirements

- Pentium (or compatible) processor
- 2 GB of RAM
- 50 MB of disk space to install Aid4Mail plus additional space for your [target mail](#).

An Internet connection is required for online license activation, validation and re-activation. Offline activation is available for certain licenses.

### Operating Systems

Fully supported:

- Windows 10
- Windows 8.1
- Windows 8
- Windows Server 2019
- Windows Server 2016
- Windows Server 2012

Supported if .NET 4.5 has been installed:

- Windows 7 (with Service Pack 1)
- Windows Vista (with Service Pack 2)
- Windows Server 2008 (with Service Pack 2, or R2 with Service Pack 1)

Partially supported when used with Wine:

- macOS / OS X / Mac OS X (10.6 or later)
- Linux

Note:

- Both 64 and 32-bit versions (where available) of the above operating systems are supported.
- Apple computers running macOS 10.15 Catalina, or a later version, are not able to run 32-bit applications. If you are using one of these, you should select the *Prioritize memory access (64-bit engine)* option under [Optimization](#) in Aid4Mail's [Advanced options](#).
- Outlook/Exchange source and target formats are not available when running Aid4Mail on non-Windows operating systems.

## Python scripts

To use Python scripts in Aid4Mail, you will need Python 3 or a later version installed on the same computer. Please refer to the [Python installation](#) section of the [Python scripts](#) topic for details.

## 6 Supported formats

### Mail formats

#### Source mail formats

Only in [Aid4Mail Enterprise](#):

- Google Vault (zipped mbox files)
- Mimecast (zipped EML SJF files)
- Proofpoint (password-protected zipped EML files)

In [all commercial editions](#):

- Gmail (via Google [API](#))
- Outlook 365 (via Graph [API](#))
- Outlook profile
- Outlook PST file (via [MAPI](#) or independently of Outlook)
- Outlook OST file
- Outlook OLM file
- Outlook MSG files (via [MAPI](#) or independently of Outlook)
- [IMAP](#) (including Gmail, Outlook.com, Yahoo! Mail, AOL, ...)
- EML files
- Mbox files
- Thunderbird
- SeaMonkey
- Maildir
- Google Takeout
- Apple Mail EMLX files
- More to come...

#### Target mail formats

Only in [Aid4Mail Enterprise](#):

- Gmail (via Google [API](#))
- [IMAP](#) (including Gmail, Outlook.com, Yahoo! Mail, AOL, ...)
- Outlook profile

In [all commercial editions](#):

- Outlook PST file (via [MAPI](#) or independently of Outlook)
- Outlook MSG files (via [MAPI](#) or independently of Outlook)
- EML files

- Mbox files (generic mailbox)
- Thunderbird
- SeaMonkey
- PDF
- HTML
- Plain text
- CSV
- TSV
- XML
- More to come...

## **Attachment/file types that can be searched** (only in [Aid4Mail Enterprise](#) and [Investigator](#))

### **Microsoft Office**

- docx
- docm
- xlsx
- xlsx
- pptx
- pptm

### **OpenDocument (OpenOffice, LibreOffice)**

- odt
- ott
- ods
- ots
- odp
- otp

### **Other document formats**

- rtf
- pdf

### **MIME (email)**

- eml
- mht
- mhtml

### **XML**

- xml
- xslt
- fodt
- xsd
- manifest
- fods
- xsl
- abw
- fodp

**Web**

- asp
- cfm
- dhtml
- hta
- htm
- html
- htt
- php
- php3
- php4
- php5
- php6
- php7
- phtml
- shtml
- xhtml

**IFilter plugins**

- doc
- xls
- ppt
- dot
- pot
- pps
- xlt

**Plain text**

- asm
- bat
- c
- cc
- cfg
- clb
- cmd
- cod
- cpp
- cs
- csproj
- css
- csv
- curl
- cxx
- def
- diff
- dpr
- dsp
- dsw
- h
- hpp
- hxx
- htaccess
- i
- ics
- idl
- inc
- inf
- ini
- inl
- java
- js
- json
- latex
- log
- lst
- lua
- mak
- mk
- odl
- otl
- pas
- pl
- ps
- py
- rc
- rc2
- rct
- reg
- res
- rexx
- rgs
- s
- sol
- sql
- sqlite
- tab
- tcsh
- tex
- text
- tlh
- tli
- tsv
- txt
- url
- user
- utf8
- utxt
- vb
- vbproj
- vbs
- vcf
- vcs
- zsh

**Compressed archives**

- 7z
- bz2
- bzip2
- cab
- dar
- gz
- gzip
- lzma
- rar
- tar
- tbz2
- tgz
- tlz
- Z
- zip

## 7 Getting started with Aid4Mail

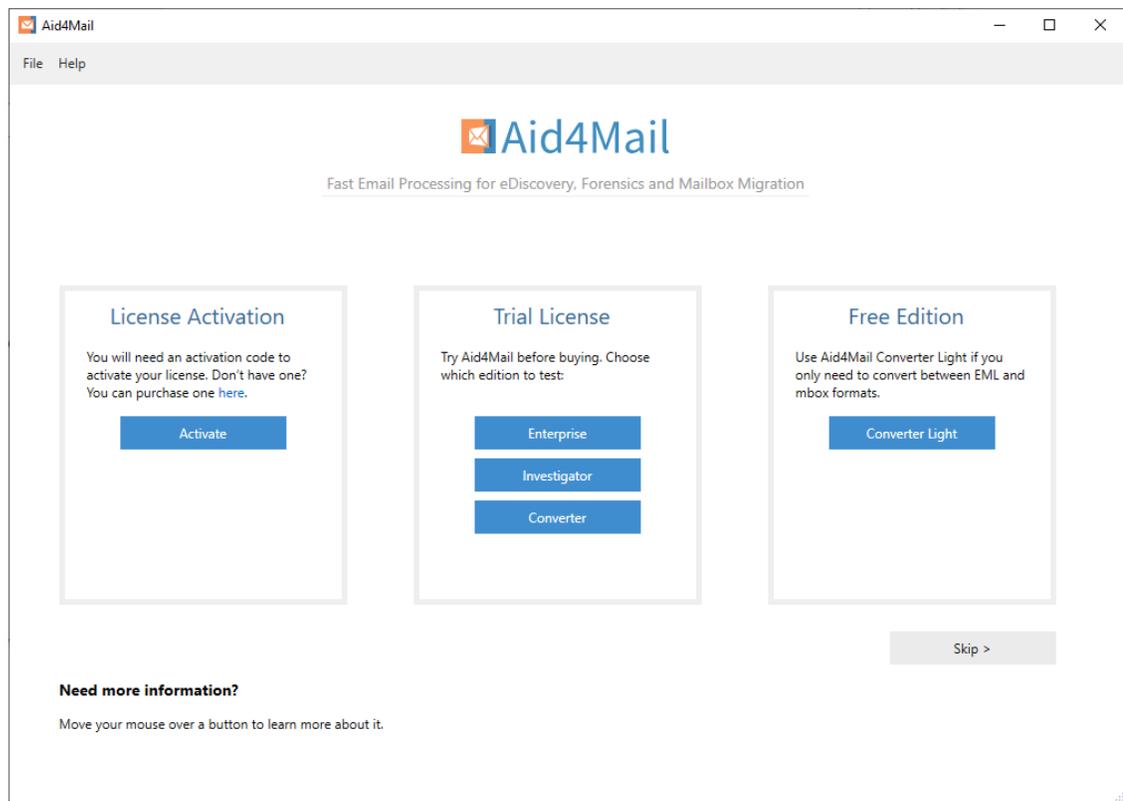
When you first open Aid4Mail, you are presented with the [Start screen](#).

### Start screen

On the start screen there are three boxes with the following titles:

- [License activation](#)
- [Trial license](#)
- [Free edition](#)

Each box contains one or more options as shown in the following screenshot and explained below:



*Start screen*

## License activation

If you have already purchased an Aid4Mail license, and received an activation code or key file by email, select *Activate*. Then follow the instructions in the [Activating your Aid4Mail license](#) topic.

## Trial license

If you'd like to test Aid4Mail before purchasing, select the Aid4Mail edition you'd like to try:

- [Enterprise](#)
- [Investigator](#)
- [Converter](#)

For more information about the different editions of Aid4Mail, please see the [comparison chart](#) on our website.

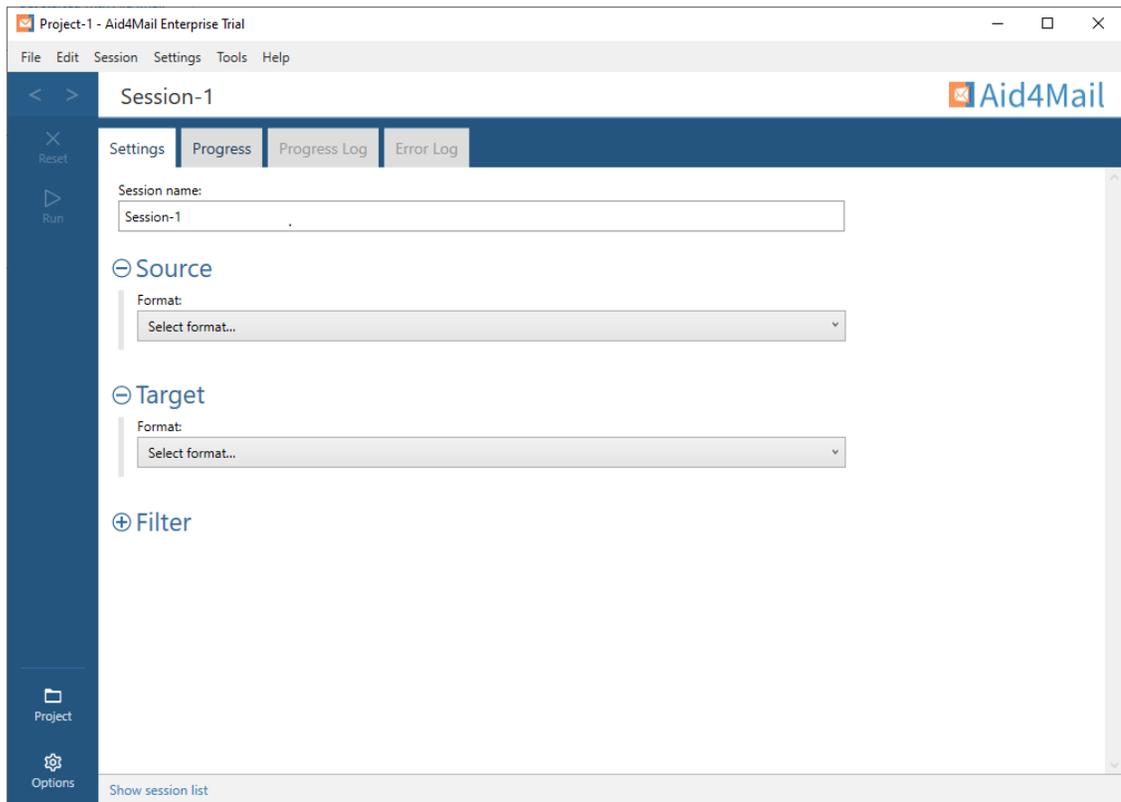
In trial mode, Aid4Mail works on a modified **copy** of your mail. Rest assured that Aid4Mail will not alter your actual mail so you can safely run as many tests as you need. Please refer to the [Trial mode](#) topic for details.

## Free edition

Select *Converter Light* to use our free edition. Converter Light is 100% free to use but is limited to converting between EML and mbox mail formats.

## What's next?

Once you have activated your Aid4Mail license or chosen a trial or free edition, the main [user interface](#) will open with the [Settings](#) displayed. It looks like this:



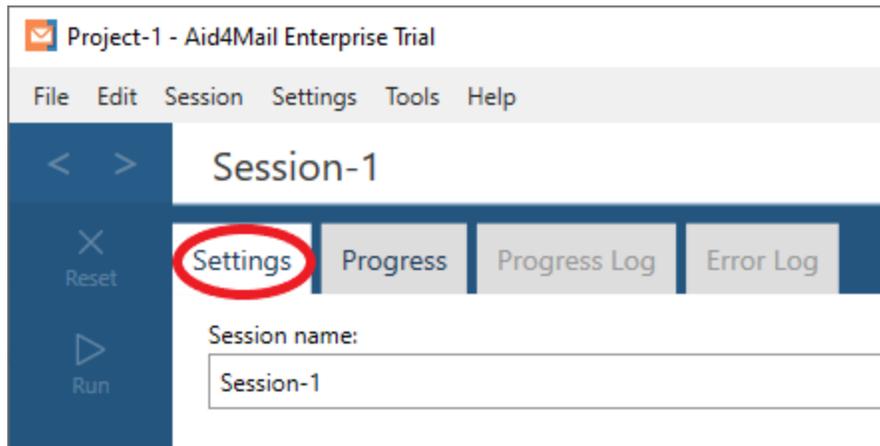
*Main screen (Aid4Mail Enterprise)*

Next, learn how to [convert mail](#).

## 8 Converting mail

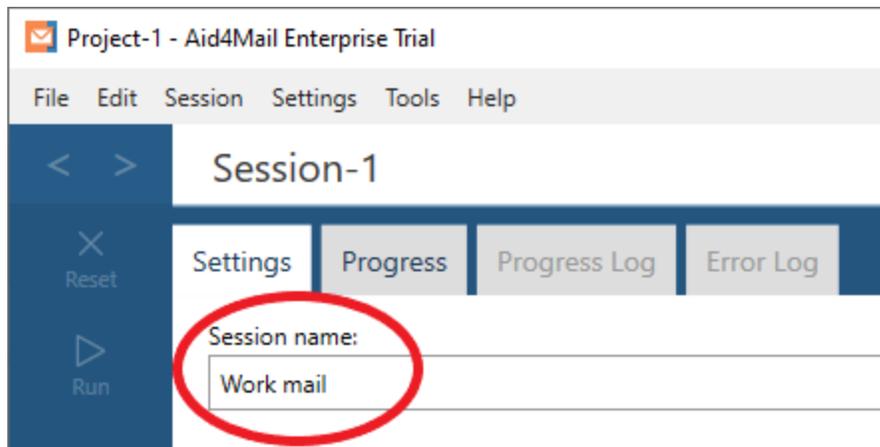
Converting mail with Aid4Mail is very simple. Here are the steps:

1. Select the *Settings* tab to display the [Settings](#) screen:



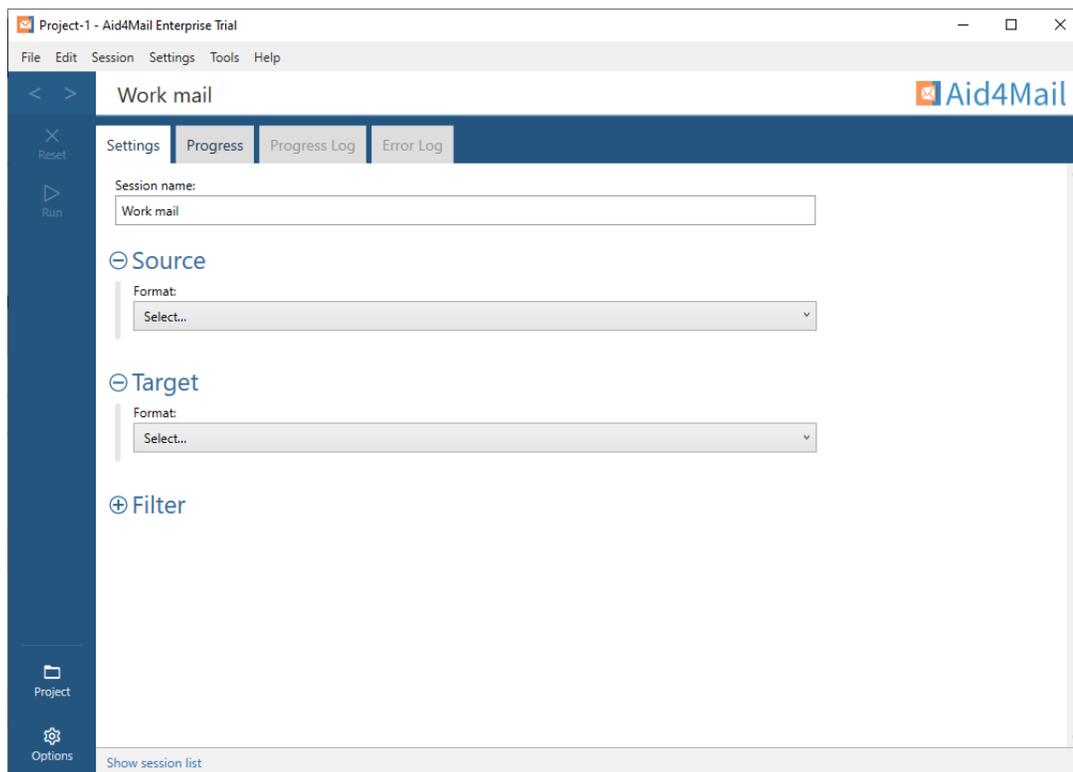
*Select the Settings tab*

2. Change the [Session name](#) to something more descriptive:



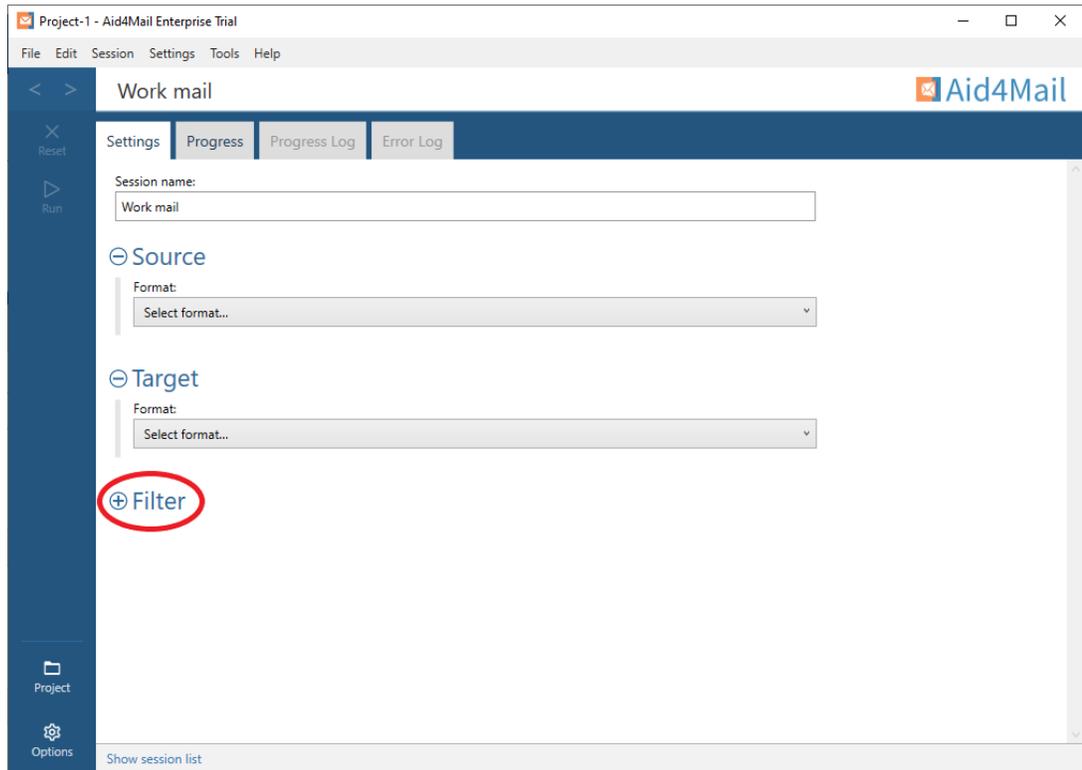
*Change the session name to something more descriptive*

3. Ensure that the [Source](#) and [Target](#) sections are open as shown below. When you first run Aid4Mail, the *Source* and *Target* sections are open by default and the *Filter* section is closed.



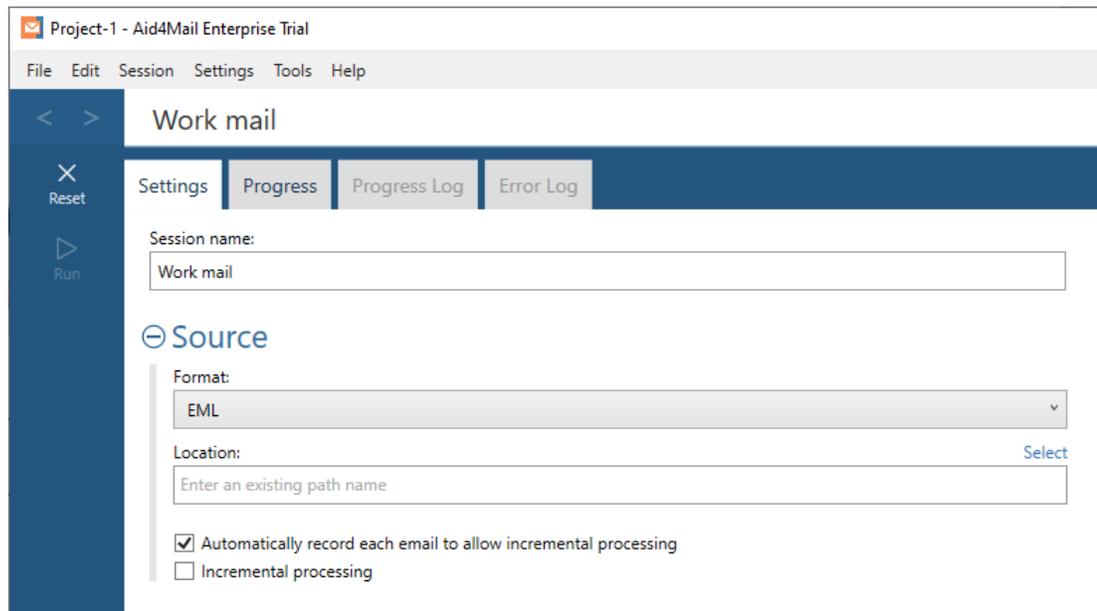
*Settings screen with the Source and Target sections expanded.*

To open a section, select its heading text or the “+” symbol to the left of it. Once open, the “+” symbol changes to a “-” symbol. Selecting it again closes the section.

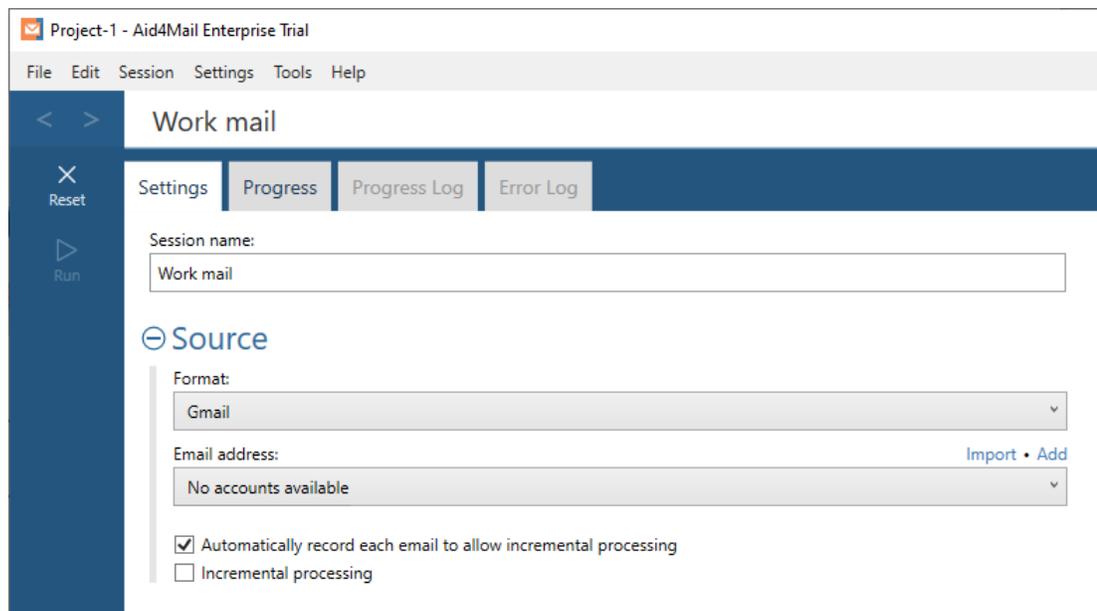


Click on the "+" symbol to open a section. Click on the "-" section to close a section.

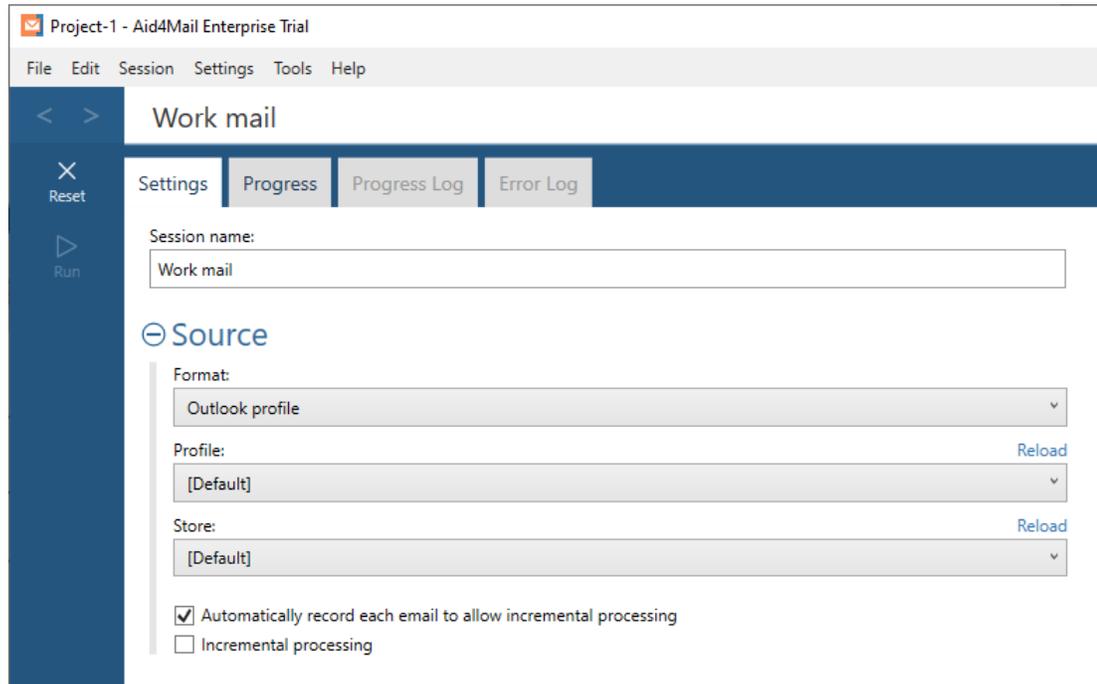
4. In the [Source](#) section, select a source mail [Format](#) from the list. This is the email format you are converting from. Once selected, additional options related to your chosen format will be displayed. For example, if you select *EML* as your source format then the [Location](#) field will appear. If you select *Gmail* as your source format then the [Email address](#) field will be displayed instead. If you select *Outlook profile* then the [Profile](#) and [Store](#) fields will appear, and so on.



*Select EML as your source format and the Location field becomes available.*



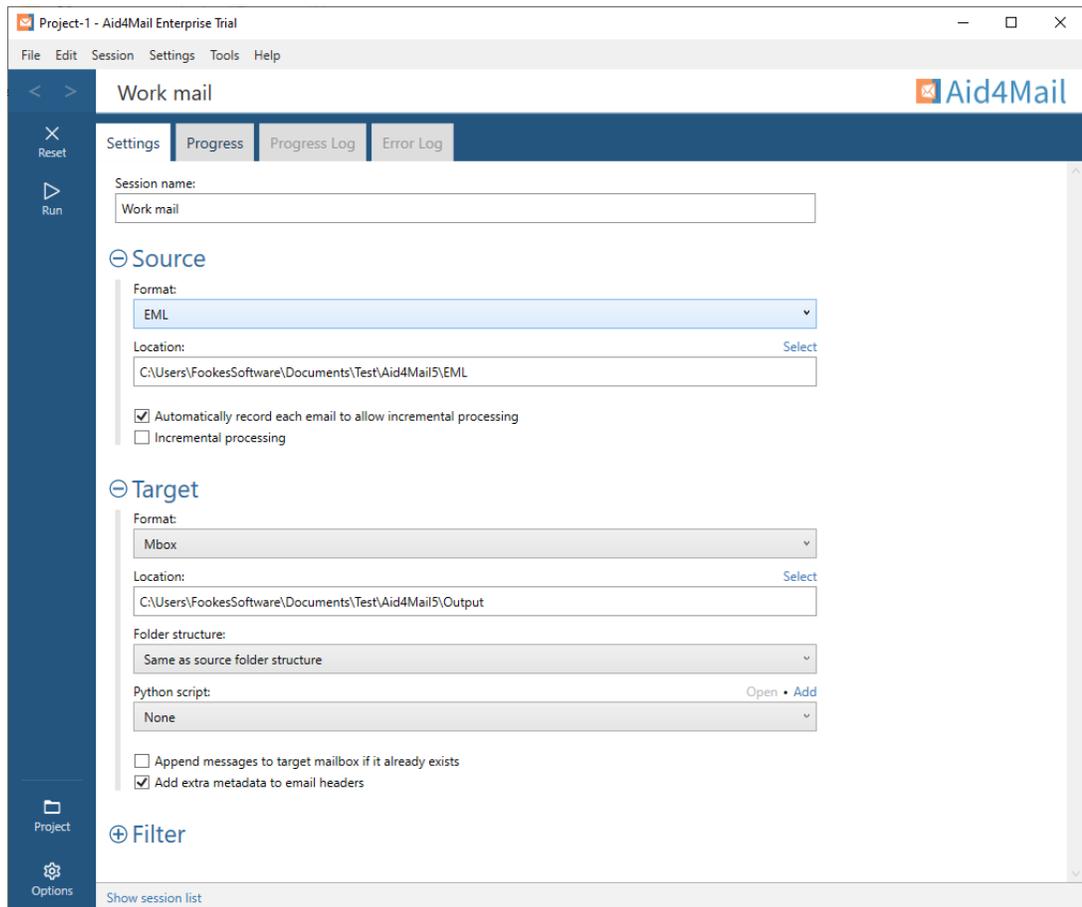
*Select Gmail as your source format and the Email address field becomes available.*



*Select Outlook profile as your source format and the Profile and Store fields become available.*

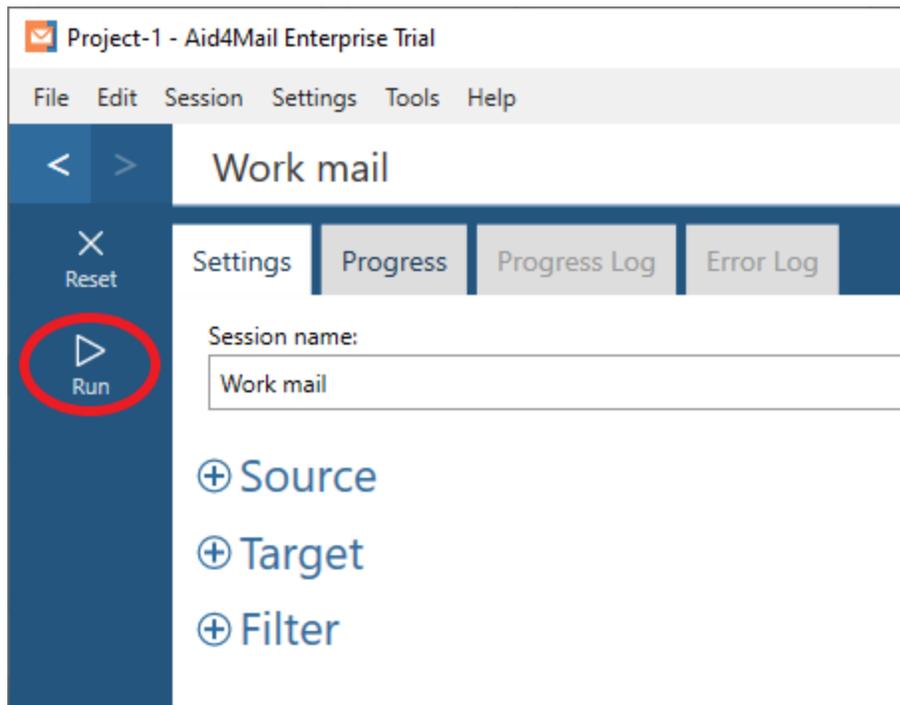
5. Still in the [Source](#) section, complete either [Location](#), [Email address](#), [IMAP account](#), [PST file](#), or both [Profile](#) and [Store](#), depending on your chosen source format. These are the only mandatory source settings and must be filled in before Aid4Mail can process your mail.
6. Fill in any remaining [source settings](#) settings you require. They are optional, with default values, so you can safely ignore them if you are unsure of what to choose.
7. In the [Target](#) section, select a target mail [Format](#) from the list. This is the email format you are converting to. Once selected, additional options related to your chosen format will become available.
8. In the [Target](#) section, complete either [Location](#), [Email address](#), [IMAP account](#), [PST file](#), or both [Profile](#) and [Store](#), depending on your chosen target format. These are the only mandatory target settings and must be filled in before Aid4Mail can process your mail.

Notice that the [Run](#) button will now become available in the [button bar](#) on the left.



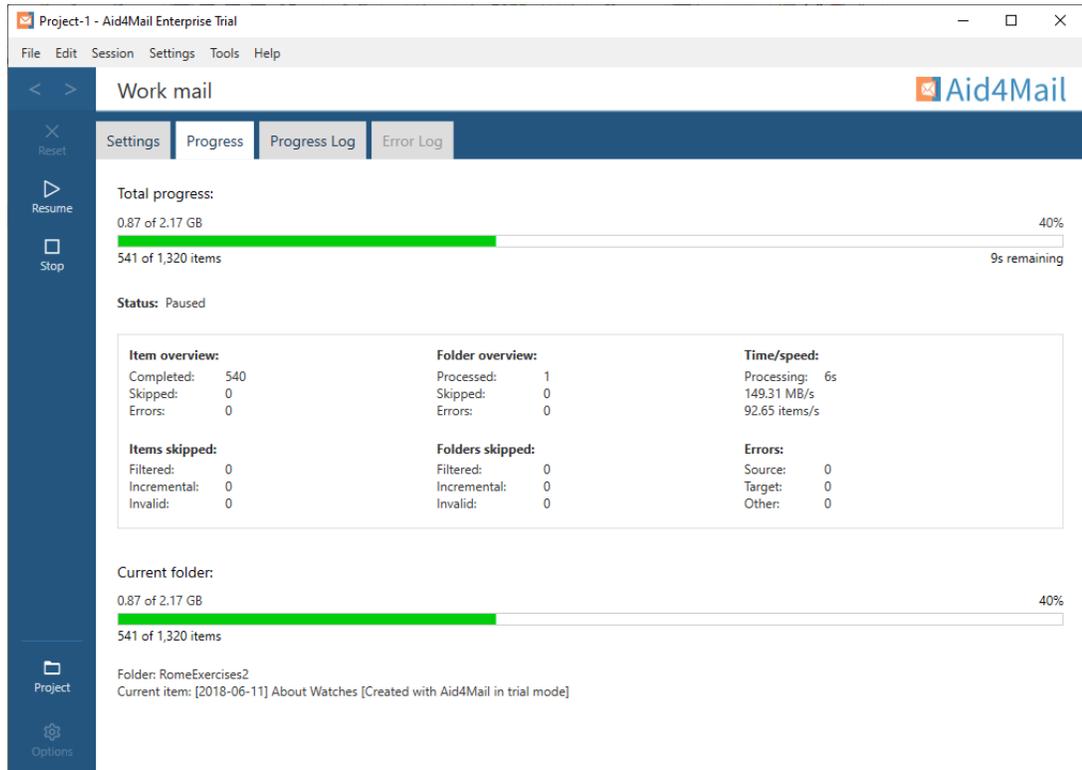
*Once the mandatory source and target fields are complete, the Run button becomes available.*

9. Fill in any remaining [target settings](#) settings you require. They are optional, with default values, so you can safely ignore them if you are unsure of what to choose.
10. If you require Aid4Mail to filter your mail during the conversion process, open (if necessary) and complete the optional [Filter](#) section.
11. Once you have finished adjusting the settings, select [Run](#) and Aid4Mail will start processing your mail:



Select Run

The [Progress](#) screen will automatically open and display statistics:



*Progress screen*

## 9 Choosing the right format

For most mail formats, it's clear which source and target formats to choose in Aid4Mail because there's only one relevant option available for each. For example, if you're migrating from Thunderbird to PDF, selecting *Thunderbird* as your [source format](#) and *PDF* as the [target format](#) is the only way to do it.

However, some mail formats can be accessed in multiple ways and it isn't always clear which one to choose. This section is intended to clarify the options available, listing their advantages and disadvantages, and help you choose the best option.

The following mail formats are covered:

- [Gmail](#)
- [Outlook 365](#)
- [PST and MSG](#)

## 9.1 Choosing the right format: Gmail

Gmail accounts can be processed by Aid4Mail in four different ways, using the following [source](#) or [target format](#) options:

- [Gmail \(via Google API\)](#)
- [IMAP](#)
- [Google Vault](#)
- [Google Takeout](#)

To help you choose the most appropriate option for your requirements, the advantages and disadvantages of each are discussed below.

### Gmail (via Google API)

Available as a [source format](#) in all [Aid4Mail editions](#) and as a [target format](#) in [Aid4Mail Enterprise](#).

When you use *Gmail (via Google API)* as your source or target format, Aid4Mail will connect directly to your Gmail account using Google [APIs](#). The connection is made through [OAuth 2.0](#) and is secure. If this is your source format, Aid4Mail will download emails that match your [search criteria](#) or [native filter](#) and migrate them. If it's your target format, Aid4Mail will upload emails to your Gmail account.

This is the recommended option if you want Aid4Mail to collect Gmail from the server or if Gmail is your target format.

The following table presents the advantages and disadvantages of using the *Gmail (via Google API)* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Secure connection using <a href="#">OAuth 2.0</a>.</li> <li>• <a href="#">Native filtering</a> can be used to significantly reduce the amount of mail downloaded and processed by Aid4Mail.</li> <li>• Emails with multiple <a href="#">labels</a> will only be downloaded once each, speeding up the collection process.</li> </ul>	<ul style="list-style-type: none"> <li>• Slow processing due to the remote connection. This is dependent on your internet connection and available bandwidth but can be mitigated by clever use of <a href="#">native filtering</a>.</li> <li>• Subject to <a href="#">Google's bandwidth limitations</a>. These are less limited than with <a href="#">IMAP</a> access.</li> <li>• Requires <a href="#">Google API credentials</a> to be set up.</li> </ul>

## IMAP

Available as a [source format](#) in all [Aid4Mail editions](#) and as a [target format](#) in [Aid4Mail Enterprise](#).

When you use *IMAP* as your source or target format, Aid4Mail will connect directly to your Gmail account using the [IMAP](#) protocol. The connection can be made either through secure [OAuth 2.0](#) or, simply but less securely, using your Gmail credentials and app-specific password. If this is your source format, Aid4Mail will download emails that match your [search criteria](#) and migrate them. If it's your target format, Aid4Mail will upload emails to your Gmail account.

There's really only one scenario where the *IMAP* option would be preferable to *Gmail (via Google API)*: That is when you don't want to set up [Google API credentials](#) and you don't mind a less secure connection to the server.

The following table presents the advantages and disadvantages of using the *IMAP* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Secure connection using <a href="#">OAuth 2.0</a> is available.</li> <li>• Does not require <a href="#">Google API credentials</a> to be set up but only if a less secure connection is used.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Native filtering</a> cannot be used to reduce the amount of mail collected.</li> <li>• Gmail <a href="#">labels</a> will automatically be converted to <a href="#">folders</a> by the <a href="#">IMAP</a> protocol. This means that emails with multiple <a href="#">labels</a> will be duplicated, increasing the volume of mail to be collected.</li> <li>• Multiple settings must be <a href="#">configured in Gmail</a> to allow <a href="#">IMAP</a> access.</li> <li>• Slow processing due to the remote connection. This is dependent on your internet connection and available bandwidth.</li> <li>• Subject to <a href="#">Google's bandwidth limitations</a>. These are more limited than with Google <a href="#">API</a> access.</li> <li>• Requires <a href="#">Google API credentials</a> to be set up if a secure <a href="#">OAuth 2.0</a> connection is used.</li> <li>• Connection is less secure if <a href="#">OAuth 2.0</a> is not used.</li> </ul>

## Google Vault

Available as a [source format](#) in [Aid4Mail Enterprise](#).

The *Google Vault* option requires a two-step process: First, in Google Vault, create an archive and download it to your computer. Then process the archive with Aid4Mail.

If you need to process multiple accounts or large volumes of mail, this is the recommended option.

For a detailed walk-through of processing Google Vault files with Aid4Mail, see the [video demo](#) on our website. Don't forget to include the .xml, .csv and .md5 files along with the .zip file(s) as shown in the video.

The following table presents the advantages and disadvantages of using the *Google Vault* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Processing with Aid4Mail is fast because the mail is stored locally. Downloading of the Google Vault archive is obviously still dependent on your internet connection.</li> <li>• Not subject to Google's bandwidth limitations.</li> <li>• You can use Gmail's filters to only include relevant emails in the Google Vault archive. This will speed up the downloading of the archive and Aid4Mail's processing of it.</li> <li>• Emails with multiple <a href="#">labels</a> will not be duplicated in the archive. This reduces the need for <a href="#">deduplication</a> in Aid4Mail, increasing processing speed.</li> </ul>	<ul style="list-style-type: none"> <li>• Two-step process: You have to create the Google Vault archive before Aid4Mail can process it.</li> <li>• Email metadata is stored in a separate .xml file that must be placed in the same folder as the .zip file(s) as shown in the <a href="#">video demo</a>.</li> <li>• Google Vault is only available with a Google Workspace subscription.</li> </ul>

## Google Takeout

Available as a [source format](#) in all [Aid4Mail editions](#).

The *Google Takeout* option requires a two-step process: First, in Gmail, create a Google Takeout archive and download it to your computer. Then process the archive with Aid4Mail.

If you have large volumes of mail to process, and don't have [Aid4Mail Enterprise](#) or access to Google Vault, this is the recommended option.

The following table presents the advantages and disadvantages of using the *Google Takeout* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Processing with Aid4Mail is fast because the mail is stored locally. Downloading of the Google Takeout archive is obviously still dependent on your internet connection.</li> <li>• Not subject to Google's bandwidth limitations.</li> <li>• Emails with multiple <a href="#">labels</a> will not be duplicated in the archive. This reduces the need for <a href="#">deduplication</a> in Aid4Mail, increasing processing speed.</li> <li>• Unlike Google Vault, email metadata is stored directly in the mailboxes so there's no additional files to download.</li> <li>• Google Takeout is available to all Gmail users.</li> </ul>	<ul style="list-style-type: none"> <li>• Two-step process: You have to create the Google Takeout archive before Aid4Mail can process it.</li> <li>• Unlike Google Vault, you cannot use Gmail's filters to selectively include mail. You can select which labels are included. Nevertheless, the ability to reduce the size of the collection is more limited. This usually results in a larger download and slower processing with Aid4Mail.</li> </ul>

## 9.2 Choosing the right format: Outlook 365

Outlook 365 can be processed by Aid4Mail in three different ways, using the following [source](#) or [target format](#) options:

- [Outlook 365 \(via Graph API\)](#)
- [IMAP](#)
- [Outlook profile](#)

To help you choose the most appropriate option for your requirements, the advantages and disadvantages of each are discussed below.

### Outlook 365

Available as a [source format](#) in all [Aid4Mail editions](#).

When you use *Outlook 365 (via Graph API)* as your source, Aid4Mail will connect directly to your Office 365 account using Microsoft's Graph [API](#). The connection is made through [OAuth 2.0](#) and is secure. Aid4Mail will download emails that match your [search criteria](#) or [native filter](#) and migrate them.

This is the recommended option if you want Aid4Mail to collect Outlook mail from the server and don't have Outlook installed.

The following table presents the advantages and disadvantages of using the *Outlook 365 (via Graph API)* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Secure connection using <a href="#">OAuth 2.0</a>.</li> <li>• <a href="#">Native filtering</a> can be used to significantly reduce the amount of mail downloaded and processed by Aid4Mail.</li> <li>• Does not require Outlook to be installed.</li> </ul>	<ul style="list-style-type: none"> <li>• Not available as a target format. This is a limitation of the Graph <a href="#">API</a>.</li> <li>• Slow processing due to the remote connection. This is dependent on your internet connection and available bandwidth but can be mitigated by clever use of <a href="#">native filtering</a>.</li> <li>• Subject to <a href="#">Office 365 user throttling</a>.</li> </ul>

## IMAP

Available as a [source format](#) in all [Aid4Mail editions](#) and as a [target format](#) in [Aid4Mail Enterprise](#).

When you use *IMAP* as your source or target format, Aid4Mail will connect directly to your Office 365 account using the [IMAP](#) protocol. The connection can be made either through secure [OAuth 2.0](#) or, simply but less securely, using your Outlook username and password. If this is your source format, Aid4Mail will download emails that match your [search criteria](#) and migrate them. If it's your target format, Aid4Mail will upload emails to your Office 365 account.

This is the recommended option if you want to migrate mail to Outlook 365 but don't have Outlook installed. We also recommend you use the more secure [OAuth 2.0](#) method of [authentication](#).

The following table presents the advantages and disadvantages of using the *IMAP* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Available as <a href="#">source</a> and <a href="#">target</a> formats in <a href="#">Aid4Mail Enterprise</a>.</li> <li>• Secure connection using <a href="#">OAuth 2.0</a> is available.</li> <li>• Does not require Outlook to be installed.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Native filtering</a> cannot be used to reduce the amount of mail collected.</li> <li>• Slow processing due to the remote connection. This is dependent on your internet connection and available bandwidth.</li> <li>• Subject to <a href="#">Office 365 user throttling</a>.</li> <li>• Connection is less secure if <a href="#">OAuth 2.0</a> is not used.</li> </ul>

## Outlook profile

Available as a [source format](#) in all [Aid4Mail editions](#) and as a [target format](#) in [Aid4Mail Enterprise](#).

When you use *Outlook profile* as your source or target format, Aid4Mail will connect directly to your Office 365 account and/or cached Outlook files using Outlook's underlying technology, [MAPI](#). This means that Outlook will do the work of accessing or creating emails and other items (calendars, tasks, notes, etc.) as instructed by Aid4Mail. MAPI's methods are further optimized by our own in-house technology, developed over 20+ years of email processing!

This is the recommended option for accessing Outlook 365 mail, as source or target, if you have Outlook installed.

The following table presents the advantages and disadvantages of using the *Outlook profile* option:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Available as <a href="#">source</a> and <a href="#">target</a> formats in <a href="#">Aid4Mail Enterprise</a>.</li> <li>• Uses Outlook's own engine (<a href="#">MAPI</a>) for processing, ensuring the highest quality results.</li> <li>• Further optimized by our in-house technology, developed over 20+ years.</li> <li>• Non-email items (calendars, tasks, notes, etc.) can be processed (but only if both source and target are formats that use <a href="#">MAPI</a>).</li> <li>• Additional metadata can be included.</li> <li>• Not subject to Office 365 user throttling.</li> <li>• Processes cached emails when it's determined that they're up to date, avoiding server access.</li> <li>• Does not require <a href="#">authentication</a> of your email account credentials.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Native filtering</a> cannot be used to reduce the amount of mail collected.</li> <li>• When cached emails are not up to date, server access is necessary. This results in slow processing due to the remote connection. It's dependent on your internet connection and available bandwidth.</li> <li>• Requires Outlook to be installed on the same machine as Aid4Mail.</li> </ul>

### 9.3 Choosing the right format: PST and MSG

PST and MSG files can be processed by Aid4Mail in two different ways. In both cases, *PST file* or *MSG files* is selected as the [source](#) or [target format](#). The difference depends on whether the [Process using Outlook](#) option is turned [on](#) or [off](#).

To help you choose the most appropriate configuration for your requirements, the advantages and disadvantages of each are discussed below.

#### Process using Outlook: On

Available when *PST file* or *MSG files* is selected as a [source](#) or [target format](#) in all [Aid4Mail editions](#).

When [Process using Outlook](#) is turned *on*, Aid4Mail will access PST or MSG files using Outlook's underlying technology, [MAPI](#). This means that Outlook will do the work of accessing or creating emails and other items (calendars, tasks, notes, etc.) as instructed by Aid4Mail. MAPI's methods are further optimized by our own in-house technology, developed over 20+ years of email processing!

This is the recommended method of processing PST and MSG files when Outlook is installed.

The following table presents the advantages and disadvantages of turning [Process using Outlook](#) *on*:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Processing is very fast.</li> <li>• All metadata is processed.</li> <li>• Uses Outlook's own engine (<a href="#">MAPI</a>) for processing, ensuring the highest quality results.</li> <li>• Further optimized by our own in-house technology, developed over 20+ years.</li> <li>• More hidden data is available when <a href="#">Include hidden folders</a> is turned on in <a href="#">Aid4Mail Enterprise</a> and <a href="#">Investigator</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires Outlook to be installed on the same machine as Aid4Mail.</li> <li>• Outlook modifies source PST files every time it accesses them. However, we have developed a work-around whereby Aid4Mail creates a temporary copy of the file, leaving the original unaltered. Please refer to the <a href="#">Protect from changes by Outlook</a> option for further details.</li> </ul>

## Process using Outlook: Off

Available when *PST file* or *MSG files* is selected as a [source](#) or [target format](#) in all [Aid4Mail editions](#).

When [Process using Outlook](#) is turned *off*, Aid4Mail will access PST and MSG files using a stand-alone engine.

This is the recommended method of processing PST and MSG files when Outlook is not installed.

The following table presents the advantages and disadvantages of turning [Process using Outlook](#) *off*:

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Does not require Outlook to be installed.</li><li>• PST files are not altered when accessed.</li></ul>	<ul style="list-style-type: none"><li>• Processing is significantly slower.</li><li>• Some metadata, notably status information (Read, Replied, Forwarded, etc.), will not be included.</li><li>• Less hidden data is available when <a href="#">Include hidden folders</a> is turned on in <a href="#">Aid4Mail Enterprise</a> and <a href="#">Investigator</a>.</li></ul>

## 10 Searching and filtering

Aid4Mail's powerful search and filter features allow you to include or exclude emails, non-email items or whole folders from your target mailbox based on specific search criteria.

Note that, in trial mode, Aid4Mail works on modified copies of your mail which may, in turn, impact your filter results. For more details see the [Trial mode](#) topic.

### Filter types

All [Aid4Mail editions](#) can search and filter folders. [Aid4Mail Enterprise](#) and [Investigator](#) extend search and filter capabilities to individual emails (and non-email items), their attachments and even files contained within attachments. They can also perform [native searches](#) and enable you to write your own filters with [Python filter scripts](#).

### Filter order

Aid4Mail applies filters in the order they appear in the [Filter](#) section of the [Settings](#) screen: First the folder or native filter, next the item filter and finally any Python filter script that is set. For details, please refer to the [Filter order](#) topic.

### Search terms

Aid4Mail filters consist of one or more [search terms](#) (except Python filter scripts which use a different [syntax](#)). During processing, items that match your search terms will be included in your target mail. Those that don't will be excluded.

Search terms must adhere to specific [rules](#) and can include:

- [Wildcards](#)
- [Punctuation](#)
- [Regular expressions](#)
- [Search operators](#)
- [Boolean operators](#)

For more information, please refer to the [Search terms](#) topic.

## Tutorial: Search and filter basics

Learn the basics of searching and filtering in Aid4Mail by working through a simple, practical example in the [Tutorial: Search and filter basics](#) topic.

## Proximity searching

A proximity search finds words or characters that are located close to one another. Proximity searches can be very powerful, using context to enable precise filtering. For details, see the [Proximity searching](#) topic.

## Deduplication

Deduplication is the process of eliminating identical copies of emails (or non-email items), ensuring there is only one of each in your target mail. Aid4Mail makes deduplication very easy through a simple [search term](#), `NOT Type:Duplicate`. Please refer to the [Deduplication](#) topic for more information.

## Searching unpurged mail

Unpurged mail refers to hidden copies of emails that have been deleted or moved to another location. [Aid4Mail Enterprise](#) and [Investigator](#) allow you to search for, process and even restore unpurged mail. For details, please refer to [Searching unpurged mail](#).

## Searching personal mail

Aid4Mail classifies an email as *personal* if it meets all three of the following conditions:

1. It is sent from an individual person,
2. It shows no evidence of being part of a campaign, message list or mailing list,
3. It shows no evidence of being a bulk email, advertisement, notification or [journaled email](#).

[Aid4Mail Enterprise](#) and [Investigator](#) allow you to include or exclude personal mail using the [Type:Personal](#) operator. For further details, see [Searching personal mail](#).

## Native filtering

Certain mail servers allow a pre-acquisition search to be carried out server-side (only supported by [Aid4Mail Enterprise](#) and [Investigator](#)). There are many benefits to this, especially when combined with an [item filter](#) that uses Aid4Mail's own, often more powerful, [search capabilities](#). Unfortunately, each mail service provider can have its own syntax. The [Native filters](#) topic provides more information.

## Python filter scripts

Create your own custom filters using Python scripts (only in [Aid4Mail Enterprise](#) and [Investigator](#)). For detailed information, please refer to the [Python scripts](#) topic and its [Python filter scripts](#) sub-topic.

## 10.1 Filter order

Aid4Mail applies filters in the order they appear in the [Filter](#) section of the [Settings](#) screen:

### 1. Folder or native filter

The [folder or native filter](#) (you can have either a folder filter or a native filter but not both) is the first to be applied, before any mail has been read. When your source mail is in the cloud, the filter is applied before any mail has even been collected. This can significantly reduce the amount of emails Aid4Mail needs to process and greatly improves performance.

### 2. Item filter

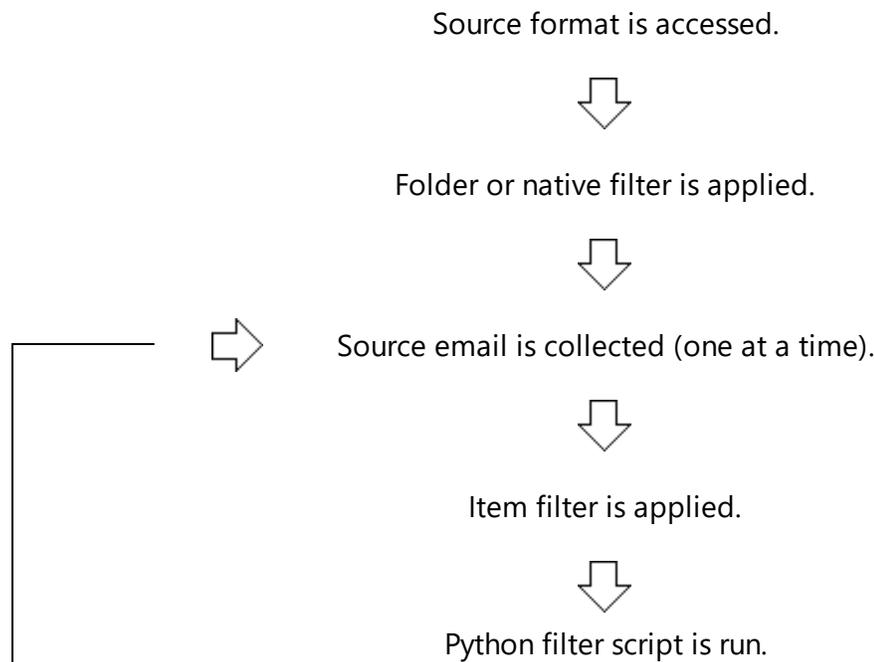
The [item filter](#) is the next to be applied. This happens during mail processing, after Aid4Mail has read a source email but before it is saved to the target format.

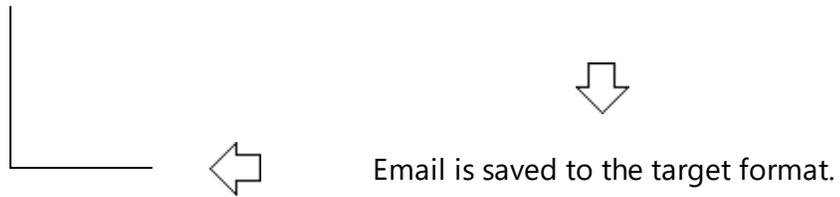
### 3. Python filter script

If a [Python filter script](#) has been set, it will run immediately after the item filter but still before the email is saved to the target format.

Folder/native filters, item filters and python scripts are all optional. If a filter or script has not been set, that step in the process will simply be skipped.

The whole processing sequence is as follows:





Taking advantage of the filter order described above can significantly improve Aid4Mail's performance. Likewise, the order of search terms within a filter is important to consider too. For guidance, please refer to the [Optimize your filters](#) section of the [Optimizing performance](#) topic.

## 10.2 Search terms

Aid4Mail filters consist of one or more *search terms* (except Python filter scripts which use a different [syntax](#)).

A search term is a word or phrase to be searched for in folders, email messages or non-email items (contacts, calendars, etc). During processing, items that match your search terms will be included in your target mail. Those that don't will be excluded.

Search terms must adhere to specific [rules](#). They can be refined by [wildcards](#), [punctuation](#) and [regular expressions](#), and targeted with [search operators](#). In addition, search terms can be combined using [Boolean operators](#).

### Search term rules

There are general rules that apply to all search terms as well as specific rules for [folder search terms](#) and [item search terms](#). For details, please refer to the [Search term rules](#) topic.

### Wildcards

A *wildcard* is a special token that stands in for one or more [characters](#), [HTML entities](#) or whole [words](#). Some wildcards operate within a single word. Others span a [sentence](#) or [paragraph](#), or a specified number of words, to offer [proximity searching](#). Please refer to the [Wildcards](#) topic for details.

### Punctuation

Quotes, parentheses, brackets and braces have special meaning in Aid4Mail's filter syntax. Please refer to the [Punctuation](#) topic for details.

### Regular expressions

A *regular expression* (also known as *regex*) is an extremely powerful search pattern (with a cryptic syntax) that enables searches that would not otherwise be possible. Aid4Mail supports [Perl Compatible Regular Expressions \(PCRE\)](#) as search terms. Please refer to the [Regular expressions](#) topic for details.

## Search operators

Search operators allow you to narrow down a search by specifying exactly which items should be included in the target mailbox. Aid4Mail supports most Gmail, Google Vault and Microsoft Office search operators and many more. Please refer to the [Search operators](#) topic for details.

## Boolean operators

Boolean operators, also known as logical operators, allow you to negate search terms or combine them to build sophisticated filters. Please refer to the [Boolean operators](#) topic for details.

## Example

An example of search terms that use case, punctuation, wildcards, a search operator and a Boolean operator would be:

```
"Smith's Shelter" (cat* OR dog*) foldername:inbox
```

These search terms would find any emails in the Inbox that contain the exact phrase *Smith's Shelter* (case sensitivity depends on [Smart case detection for item search terms](#)), as long as they also contain one or more words (case-insensitive) starting with *cat* or *dog*. So an Inbox email containing this sentence would be found: *At Smith's Shelter, we never put cats in the doghouse!*

For a more detailed example, please refer to the [Tutorial: Search and filter basics](#) topic.

### 10.2.1 Rules

#### General rules for all search terms

1. You can have any number of search terms.
2. Multiple search terms must be separated by spaces. For example: `apple banana pear`.
3. A line return is treated as a single space. This means that all search terms are on the same line (although the line may wrap and appear as multiple lines when displayed, depending on the number of search terms and the size of Aid4Mail's window). Note that when you use the *Enter* key in one Aid4Mail's search boxes ([Folder search terms](#), [Native search terms](#) or [Item search terms](#)), a space will automatically be inserted instead of a line return.
4. Search terms and [Boolean operators](#) must also be separated by spaces unless you're using the symbol versions of these operators ([+](#), [|](#), [^](#), or [-](#)). For example: `cat AND dog` requires spaces but `cat+dog` does not.
5. When there is no [Boolean operator](#) between two search terms, the [AND](#) operator will be used implicitly. For example, `cat dog` is the same as `cat AND dog`. Both will search for all items that contain both words *cat* and *dog*.
6. Only whole words that match a search term are found. Matches with partial words are not included (unless [wildcards](#) are used). For example, if your search term is `cat`, Aid4Mail will search for all items that contain the whole word *cat*. It will not find *cats*, *wildcat* or *scatt* or any other words that begin with, contain or end with *cat*. To search for those you would need to use [wildcards](#).
7. Typographic quotes and apostrophes (" " and ' ') will be treated the same as straight ones (" " and ' '). This means that you can simply use straight quotes and apostrophes in your search terms and these will also match the corresponding typographic characters.

#### Additional rules for folder search terms

1. Folder searches are always case-insensitive. For example, searching for `Inbox` will give the same results as searching for `inbox`.
2. When no search operator is applied to a folder search term, the [FolderName](#) operator is automatically applied. So the folder search term `inbox` is identical to `FolderName:Inbox`.

3. [Folder search operators](#) are the only search operators that can be applied to folder search terms.

## Additional rules for item search terms

Note that item search terms are only available in [Aid4Mail Enterprise](#) and [Investigator](#).

1. Case sensitivity in item searches depends on whether [Smart case detection for item search terms](#) is *on* or *off*. By default it's *off* and searches are case-insensitive. If it's *on* then searches for terms that contain one or more uppercase characters are case-sensitive, and searches for terms that contain only lowercase characters are case-insensitive.

Example: A case-sensitive search for the search term `cat` will not find *Cat* or *CAT*. It will only find the exact match, *cat*. When the search is case-insensitive, any of those words would match.

Note that search terms enclosed in [braces](#) have their own case sensitivity rules and are not affected by [Smart case detection for item search terms](#).

2. When no search operator is applied to an item search term, Aid4Mail will search both the message header and message body of each email (or non-email item) for that term. It may also search attachments, files contained within attachments and file metadata, depending on the [attachment options](#) you have selected. This only applies to search terms that don't have search operators applied.
3. Any [search operator](#) can be applied to an item search term. However it is usually more efficient to avoid [folder search operators](#) in an item search, unless there's a specific reason for using them. This is because item searches are carried out while emails (and non-email items) are being read, whereas folder searches happen beforehand and so can avoid large quantities of emails being read unnecessarily. Please refer to the [Filter order](#) topic for additional information, and the [Optimize your filters](#) section of the [Optimizing performance](#) topic for tips.

### 10.2.2 Wildcards

A *wildcard* is a special token that stands in for one or more [characters](#), [HTML entities](#) or whole [words](#). Some wildcards operate within a single word. Others span a [sentence](#) or [paragraph](#), or a specified number of words, to offer [proximity searching](#).

Wildcards are divided into three categories:

- [Character wildcards](#)
- [HTML entity wildcards](#)
- [Word wildcards](#)

This topic also discusses:

- [Character wildcards vs word wildcards](#)
- [Chaining wildcards](#)

## 10.2.2.1 Character wildcards

Wildcards that represent individual [characters](#).

Wildcard	Description
~	<p>Matches zero or one <a href="#">character</a> in a single <a href="#">word</a>.</p> <p>Example: jo~</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Jo</i></li> <li>• <i>job</i></li> <li>• <i>jot</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>John</i></li> <li>• <i>Jody</i></li> <li>• <i>joint</i></li> </ul>
?	<p>Matches exactly one <a href="#">character</a> in a single <a href="#">word</a>.</p> <p>Example: jo?</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>job</i></li> <li>• <i>jot</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Jo</i></li> <li>• <i>John</i></li> <li>• <i>Jody</i></li> <li>• <i>joint</i></li> </ul>
*	<p>Matches zero or more <a href="#">characters</a> in a single <a href="#">word</a>.</p> <p>Example: ca*t</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>cat</i></li> <li>• <i>cart</i></li> <li>• <i>carrot</i></li> <li>• <i>can't</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>cats</i></li> <li>• <i>catch</i></li> </ul>
~*	<p>Matches zero or more <a href="#">characters</a> in the same <a href="#">sentence</a>.</p> <p>Example: click~*link</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>click link</i></li> <li>• <i>click on link</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>click on links</i></li> </ul>

Wildcard	Description
	<ul style="list-style-type: none"> <li>• <i>clicking on link</i></li> <li>• <i>Click on this link</i></li> </ul> <ul style="list-style-type: none"> <li>• <i>Click here for more. Alternatively use this link.</i></li> <li>• <i>Click here for more. Alternatively use this link.</i></li> </ul>
**	<p>Matches zero or more <a href="#">characters</a> in the same <a href="#">paragraph</a>.</p> <p>Example: <code>click**link</code></p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>click link</i></li> <li>• <i>click on link</i></li> <li>• <i>clicking on link</i></li> <li>• <i>Click on this link</i></li> <li>• <i>Click here for more. Alternatively use this link.</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>click on links</i></li> <li>• <i>Click here for more. Alternatively use this link.</i></li> </ul>

## 10.2.2.2 HTML entity wildcards

Wildcards that represent individual [characters](#) or [HTML entities](#). Note that HTML entities will only be present in text to be searched when you use the [Raw](#) search operator.

Wildcard	Description
&	<p>Matches exactly one <a href="#">character</a> or <a href="#">HTML entities</a> in a single <a href="#">word</a>.</p> <p>Example: Raw: na&amp;ve</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>naive</i></li> <li>• <i>naïve</i></li> <li>• <i>na&amp;iuml;ve</i></li> <li>• <i>na&amp;#239;ve.</i></li> </ul> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>naivete</i></li> <li>• <i>naïveté</i></li> <li>• <i>na&amp;iuml;vet&amp;eacute;</i></li> <li>• <i>na&amp;#239;vet&amp;#233;</i></li> </ul> <p>Note that the <i>&amp;iuml;</i> and <i>&amp;#239;</i> entities both represent the <i>ï</i> character. The <i>&amp;eacute;</i> and <i>&amp;#233;</i> entities both represent the <i>é</i> character.</p>
#	<p>Matches zero or more <a href="#">characters</a> or <a href="#">HTML entities</a> in a single <a href="#">word</a>.</p> <p>Example: Raw: na#</p> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>naive</i></li> <li>• <i>naïve</i></li> <li>• <i>na&amp;iuml;ve</i></li> <li>• <i>na&amp;#239;ve.</i></li> <li>• <i>naivete</i></li> <li>• <i>naïveté</i></li> <li>• <i>na&amp;iuml;vet&amp;eacute;</i></li> <li>• <i>na&amp;#239;vet&amp;#233;</i></li> </ul> <p>Note that the <i>&amp;iuml;</i> and <i>&amp;#239;</i> entities both represent the <i>ï</i> character. The <i>&amp;eacute;</i> and <i>&amp;#233;</i> entities both represent the <i>é</i> character.</p>

### 10.2.2.3 Word wildcards

Wildcards that represent whole [words](#).

Wildcard	Description				
<n>	<p>Matches up to <i>n</i> <a href="#">words</a>, where <i>n</i> is any number between 0 and 99. The words do not have to be in the same <a href="#">sentence</a> or <a href="#">paragraph</a>.</p> <p>Example: <code>robin&lt;2&gt;hood</code></p> <table border="0"> <tr> <td> <p>Matches up to 2 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> </ul> </td> <td> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul> </td> </tr> </table> <p>Example: <code>robin&lt;3&gt;hood</code></p> <table border="0"> <tr> <td> <p>Matches up to 3 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul> </td> <td> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul> </td> </tr> </table> <p>This wildcard enables traditional <a href="#">proximity searching</a> while respecting word order. In this respect, it is similar to <a href="#">Google's AROUND operator</a> (when used with quotes) and <a href="#">Outlook's ONEAR operator</a>. For further information, please refer to <a href="#">Proximity searching within a specified distance</a>.</p>	<p>Matches up to 2 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>	<p>Matches up to 3 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>
<p>Matches up to 2 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>				
<p>Matches up to 3 words:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>				
<.>	<p>Matches zero or more <a href="#">words</a> in the same <a href="#">sentence</a>.</p> <p>Example: <code>robin&lt;.&gt;hood</code></p> <table border="0"> <tr> <td> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> </ul> </td> <td> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> </ul> </td> </tr> </table>	<p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> </ul>		
<p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> </ul>				

Wildcard	Description		
	<ul style="list-style-type: none"> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul> <p>This wildcard enables <a href="#">proximity searching</a> with respect to the grammatical context of the search terms. For further information, please refer to <a href="#">Proximity searching within a sentence</a>.</p>		
<*>	<p>Matches zero or more <a href="#">words</a> in the same <a href="#">paragraph</a>.</p> <p>Example: <code>robin&lt;*&gt;hood</code></p> <table border="0"> <tr> <td> <p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul> </td> <td> <p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul> </td> </tr> </table> <p>This wildcard enables <a href="#">proximity searching</a> with respect to the grammatical context of the search terms. For further information, please refer to <a href="#">Proximity searching within a paragraph</a>.</p>	<p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>
<p>Matches:</p> <ul style="list-style-type: none"> <li>• <i>Robin Hood</i></li> <li>• <i>Robin wears his hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> </ul>	<p>Does not match:</p> <ul style="list-style-type: none"> <li>• <i>Robin's old green hood</i></li> <li>• <i>Robin was stealthy. His hood partially masked his face.</i></li> <li>• <i>A hood covered the face of Robin.</i></li> </ul>		

#### 10.2.2.4 Character vs word wildcards

Certain [character wildcards](#) and [word wildcards](#) may initially appear to be very similar: The [~\\* character wildcard](#) and [<.> word wildcard](#) both span sentences, and the [\\*\\* character wildcard](#) and [<\\*> word wildcard](#) both span paragraphs. However, there are subtle differences in their behavior. To demonstrate, consider how they would perform in the following examples.

##### Example 1

`robin~*hood` and `robin**hood` use [character wildcards](#) and would both match:

*Robin's old green hood.*

However, using [word wildcards](#) instead, `robin<.>hood` and `robin<*>hood` would not find a match. This is because the 's' in *Robin's* is accepted as two individual characters by the character wildcards but is rejected by the word wildcards for not being a whole word.

##### Example 2

`joseph**smith` and `joseph<*>smith` would match both of these sentences:

- *Joseph Smith*
- *Joseph walked to town. He is the most athletic member of the Smith family.*

However only `joseph**smith` would match:

- *Josephine went to the Aerosmith concert.*

This is because the *ine* in *Josephine* and the *Aero* in *Aerosmith* are acceptable as sequences of individual characters but not as whole words.

### 10.2.2.5 Chaining wildcards

Multiple wildcards can be used within the same search term.

#### Example 1

The following example combines two [\\* wildcards](#) in the same search term to match any variation at the end of words:

```
"robin* hood*"
```

This search term would find any of the following:

- *Robin Hood*
- *Robin's hood*
- *Robin's hoods*
- *Robin Hood's*

#### Example 2

The following example combines multiple [character wildcards](#) in the same search term:

```
robin~*hood**bow~*arrow
```

It will find any text with *robin* and *hood* in the same sentence, *hood* and *bow* in the same paragraph, and *bow* and *arrow* in the same sentence, all in the order specified. It would find all three of these texts:

- *Robin Hood took his bow and arrow.*
- *Robin Hood was the finest archer. He handled a bow and arrow better than anyone.*
- *Robin's hoodie had a bow and arrow logo.*

However it would not find the following because *Robin* and *hood* are not in the same sentence:

- *Robin looked everywhere. He eventually found his hood, bow and arrow under a bush.*

#### More examples

For more examples, please refer to [Chaining proximity searches](#).

## 10.2.3 Punctuation

Quotes, parentheses, brackets and braces have special meaning in Aid4Mail's filter syntax. The following list details the punctuation available in Aid4Mail:

Punctuation	Description
"	<p>Enclose search terms in quotes to search for an exact phrase that includes a space. Wildcards can be used as long as an <a href="#">* character wildcard</a> is present.</p> <p>Examples:</p> <pre>thanksgiving Mom "pecan pie"</pre> <p>Matches <i>At Thanksgiving, Mom makes great pecan pie</i></p> <pre>"good dog*"</pre> <p>Matches <i>good dogs</i> and <i>good doggies</i> but not <i>good little dog</i>.</p>
()	<p>Enclose search terms in parentheses to group operations. Nested parentheses are permitted.</p> <p>In some cases, parentheses are not required due to the <a href="#">order of precedence of Boolean operators</a> although their presence often increases clarity.</p> <p>Examples:</p> <pre>vacation AND (Bahamas OR Seychelles) from: (john@aid4mail.com OR mary@aid4mail.com) apple XOR (orange AND (lemon OR lime))</pre>
[]	<p>Search terms enclosed in square brackets must be exact. They are case-sensitive and cannot use <a href="#">wildcards</a>.</p> <p>Example:</p> <pre>[Uncle Sam]</pre>
{}	<p>Braces allow you to specify a single search term, or a list of search terms separated by <a href="#"> (vertical bar) operators</a>, along with optional modifiers. When a list is specified, emails containing any or all of the search terms will be included.</p> <p>Example 1:</p> <pre>{wolf dingo hyena "african wild dog"}</pre> <p>The following optional modifiers can be applied to the search term(s):</p>

Punctuation	Description
	<p>C = Case-sensitive            F = Whole field            I = Case-insensitive            L = Literal            P = Partial words            R = Regular expression            W = Wildcards</p> <p>The modifiers can be applied individually, or combined, by placing one or more of them in square brackets, followed by an equal sign, before the search terms as shown in the following examples.</p> <p>Example 2:  <code>{[C]=wolf dingo hyena "african wild dog"}</code></p> <p>Example 3:  <code>{[IP]=Harry}</code></p> <p>Example 4:  <code>{[R]=(?s)&lt;a.+?href\s*?=\s*?"(.*)"}</code></p> <p>Example 1 has no modifiers so the search works as usual: case-insensitive due to the lowercase characters. Wildcards can be used as long as an <a href="#">* character wildcard</a> is present.</p> <p>Example 2 uses [C] as the modifier meaning the search for each term in the list is case-sensitive.</p> <p>Example 3 uses [IP] as modifiers so the search is case-insensitive and partial word matches are included.</p> <p>Example 4 uses the [R] modifier to tell Aid4Mail that the search term is a Regular Expression.</p> <p>Two additional modifiers, <code>Exact</code> and <code>WordList</code>, are available but cannot be combined with those listed previously and so are not placed inside square brackets.</p> <p>The <code>Exact</code> modifier uses a faster search algorithm and is ideal for searching for text that has no possible variants like User IDs or MD5 hash codes. For example:</p>

Punctuation	Description
	<p>Uid:{Exact=397670}            Uid:{Exact=397670 397671}            MD5:{Exact=7b7e8488d0b11ff6dd30064fa5ff79c1}</p> <p>It can also be used to search a list of exact terms in an external file:</p> <p>Uid:{Exact=C:\Temp\UidList.txt}            List:{Exact="C:\Temp\Mailing List.txt"}</p> <p>The <code>WordList</code> modifier allows you to put any search terms in an external file. For example:</p> <p>{WordList=C:\Temp\SearchTerms.txt}            Subject:{WordList=C:\Temp\Subjects.txt}</p> <p>The external file should contain one search term per line. By default, Aid4Mail will search for any of these terms, i.e. an <a href="#">OR</a> operator will automatically be applied to the search terms. You can explicitly tell Aid4Mail to apply an <a href="#">OR</a> operator or an <a href="#">AND</a> operator as follows:</p> <p>{WordList [OR]=C:\Temp\SearchTerms.txt}            {WordList [AND]=C:\Temp\SearchTerms.txt}</p> <p>If you have a legacy word list file from Aid4Mail 4, that uses '+' and '-' characters at the start of each line, you can tell Aid4Mail 5 to process this too using <code>WordList [Mixed]</code> as follows:</p> <p>{WordList [Mixed]=C:\Temp\SearchTerms.txt}</p>

## 10.2.4 Regular expressions

### Definition

A *regular expression* (also known as *regex*) is an extremely powerful search pattern (with a cryptic syntax) that enables searches that would not otherwise be possible. Aid4Mail's supports [Perl Compatible Regular Expressions \(PCRE\)](#) as [search terms](#).

Regular expression syntax is beyond the scope of this manual. However, the PCRE website contains a [syntax reference](#) as well as information on [pattern matching](#).

### Using regular expressions in Aid4Mail search terms

You can tell Aid4Mail that your search term is a regular expression by enclosing it in [braces](#) and using the [R] modifier, as explained in the [Punctuation](#) topic:

```
{ [R]=SearchTerm }
```

For example, imagine you want to find a sentence containing the words *cat* and *dog*, in that order, located near each other but not necessarily next to each other in the sentence. For this example, let's say "near each other" is being within 10 words of each other. So *the cat loves the dog* should be found but *the cat chases the mouse and is then scared away by the dog* should not be found. Neither should *the dog loves the cat* be found because the order of *cat* and *dog* is reversed.

This is an example of [proximity searching](#) and can be done much more simply using the [<n> wildcard](#). However, to illustrate this example, let's use a regular expression instead.

The regular expression to perform this search is:

```
\bcat\W+(?:\w+\W+){0,10}?dog\b
```

To specify the regular expression as a search term in Aid4Mail, enclose it in braces and use the [R] modifier:

```
{ [R]=\bcat\W+(?:\w+\W+){0,10}?dog\b }
```

Aid4Mail will now know that this search term is a regular expression and treat it accordingly.

### 10.2.5 Search operators

Search operators allow you to narrow down a search by specifying exactly which items should be included in the target mailbox. Aid4Mail supports most Gmail, Google Vault and Microsoft Office search operators and many more. They are grouped in the following categories:

- [Folder search operators](#)
- [Sender/Recipient search operators](#)
- [Date/Time search operators](#)
- [Email section search operators](#)
- [Email attribute search operators](#)
- [Email ID search operators](#)

### Using search operators

Search operators make your search terms more specific. For example, the search term `cat` will search for the word `cat` anywhere in the message header or body of the email. However, if you only want to search for emails that have `cat` in the message subject, you can specify `Subject:cat`.

Note that search operators are case-insensitive so it doesn't matter if you write `Subject`, `subject` or `SUBJECT`. They all do the same thing. In this document, we use the first option.

In most cases a colon is used to separate the search operator from the word(s) being searched, as in the example above. However, sometimes comparison operators provide more clarity or additional functionality.

### Comparison operators

Comparison operators are used by certain search operators to compare one value with another. For example, the [Size](#) operator can be used to compare an email message's size with a given value. The message is then included in, or excluded from, the target mail depending on the results of the comparison. For example, `Size<=25M` will include email messages whose size is no more than 25 MB. Messages larger than 25 MB will be excluded.

To improve clarity, the [equality comparison operator](#) can be used instead of a colon to separate the search operator from its parameter. For example, `Size=25M` is the same as `Size:25M` but, arguably, easier to read.

Similarly, the [inequality comparison operator](#) can be used instead of negating a whole search term with the [NOT Boolean operator](#) or [minus \(-\) Boolean operator](#). For example, `Size<>25M` is the same as `NOT Size=25M`. In fact all of the following are identical:

```
Size<>25M
NOT Size=25M
NOT Size:25M
-Size=25M
-Size:25M
```

The following comparison operators can be used in Aid4Mail:

Operator	Description
=	Equal to.
<>	Not equal to.
>	Greater than.
<	Less than.
>=	At least (greater than or equal to).
<=	At most (less than or equal to).

## 10.2.5.1 Folder search operators

Search operator	Searches for																		
FolderName	<p>Messages in a certain folder. Example: <code>FolderName:vacation</code></p> <p>You can also specify a subfolder by using a backslash character. Example: <code>FolderName:vacation\2019</code></p>																		
Label	Same as <a href="#">FolderName</a> , using Gmail / Google Vault syntax.																		
In	<p>Messages in a specific type of folder.</p> <p>Options:</p> <table border="0"> <tr> <td>In:Inbox</td> <td>In:Starred</td> <td>In:Journal</td> </tr> <tr> <td>In:Sent</td> <td>In:Important</td> <td>In:Notes</td> </tr> <tr> <td>In:Drafts</td> <td>In:Archive</td> <td>In:Tasks</td> </tr> <tr> <td>In:Outbox</td> <td>In:Calendar</td> <td>In:Chats</td> </tr> <tr> <td>In:Spam</td> <td>In:Contacts</td> <td>In:RssFeeds</td> </tr> <tr> <td>In:Trash</td> <td></td> <td></td> </tr> </table> <p>Note that these options represent folder categories rather than folder names. So using <code>In:Inbox</code> will also search for the following alternative or localized folder names:</p> <ul style="list-style-type: none"> <li>• boîte de réception</li> <li>• in</li> <li>• posteingang</li> <li>• εισερχόμενα</li> <li>• входящие</li> <li>• 收件箱</li> <li>• ...and many more</li> </ul> <p>The same also applies to the other options. For a full list of all the variations supported, please refer to the file <i>FolderNames.dat</i> in the <i>Data</i> subfolder of your Aid4Mail <a href="#">program folder</a>. Note that you can edit this file to add (or remove) your own folder names.</p> <p>However this means that <code>In:</code> cannot be used to search for custom folders as it can with Gmail. To search for a custom folder use <a href="#">FolderName</a> instead.</p> <p>You can list multiple folder types to search using the <a href="#"> (vertical bar) operator</a>:</p> <p><code>In:Inbox Sent Drafts</code></p>	In:Inbox	In:Starred	In:Journal	In:Sent	In:Important	In:Notes	In:Drafts	In:Archive	In:Tasks	In:Outbox	In:Calendar	In:Chats	In:Spam	In:Contacts	In:RssFeeds	In:Trash		
In:Inbox	In:Starred	In:Journal																	
In:Sent	In:Important	In:Notes																	
In:Drafts	In:Archive	In:Tasks																	
In:Outbox	In:Calendar	In:Chats																	
In:Spam	In:Contacts	In:RssFeeds																	
In:Trash																			

Search operator	Searches for
Category	<p>Messages in a certain category.</p> <p>Options:</p> <pre>Category:Social Category:Promotions Category:Updates Category:Forums Category:Blue Category:Green Category:Orange Category:Purple Category:Red Category:Yellow</pre> <p>You can list multiple categories to search using the <a href="#"> (vertical bar) operator</a>:</p> <pre>Category:Social Promotions Updates Forums</pre>

## 10.2.5.2 Sender/Recipient search operators

Search operator	Searches for
From	Email sender in the message header From field. Example: <code>From:john@aid4mail.com</code>
To	Email recipient in the message header To field. Example: <code>To:mary@aid4mail.com</code>
CC	Email recipient in the message header CC field. Example: <code>CC:jane@aid4mail.com</code>
Bcc	Email recipient in the message header BCC field. Example: <code>Bcc:tom@aid4mail.com</code>
ReplyTo	Email sender in the message header Reply-To field. Example: <code>ReplyTo:john@aid4mail.com</code>
Sender	Email sender in the message header From, Sender or Reply-To fields. Example: <code>Sender:Sally</code>
Recipients	Email recipient in the message header To, CC or BCC fields. Example: <code>Recipients:Fookes</code>
Participants	Email sender or recipient in the message header From, To, CC or BCC fields. Example: <code>Participants:Fookes</code>
DeliveredTo	Messages delivered to a given email address, from the message header Delivered-To field. Example: <code>DeliveredTo:john@aid4mail.com</code>
List	A mailing list the message was sent from or to. Example: <code>List:info@aid4mail.com</code>
ListID	Same as <a href="#">List</a> , using Google Vault syntax.

### 10.2.5.3 Date/Time search operators

Email messages contain multiple dates. The sent and received dates are often the most useful. However many, but not all, messages contain additional dates representing when the message was stored, modified or deleted.

#### Date/Time format

Dates in Aid4Mail use a subset of the [International date format](#). When dates are used with search operators, quotes must be used if the date includes a time due to the presence of the space character. For example:

```
YYYY
YYYY-MM
YYYY-MM-DD
"YYYY-MM-DD hh"
"YYYY-MM-DD hh:mm"
"YYYY-MM-DD hh:mm:ss"
```

Note that when the hour (hh) is specified it must use the 24-hour clock.

If an invalid date is specified (for example 8018-18-80) then Aid4Mail will ignore it. However, if you want to search for emails with invalid dates, use zero or the word *Bad* as the date value.

#### Examples:

2018	The year 2018
2018-03	March 2018
2018-03-10	March 10, 2018
"2018-03-10 19"	March 10, 2018 at 7pm
"2018-03-10 19:25:"	March 10, 2018 at 7:25pm
"2018-03-10 19:25:30"	March 10, 2018 at 7:25pm and 30 seconds
0	Invalid date
Bad	Invalid date

## Operators

Search operator	Searches for
Sent	Messages sent relative to a certain date, specified using <a href="#">comparison operators</a> (>, <, =, <>, >=, <=).

Search operator	Searches for
	<p>If there is no <i>Sent</i> date, Aid4Mail will use the <a href="#">Received</a>, <a href="#">Modified</a> or <a href="#">Stored</a> date instead (in that order, whichever is found first). This makes <i>Sent</i> the most trustworthy date operator to use.</p> <p>Examples:            Sent&gt;2018-02            Sent&lt;"2018-03-10 19:30"            Sent=0</p>
Received	<p>Messages received relative to a certain date, specified using <a href="#">comparison operators</a> (&gt;, &lt;, =, &lt;&gt;, &gt;=, &lt;=).</p> <p>Note that outbound mail will not contain a <i>Received</i> date.</p> <p>Examples:            Received=2017-01-31            Received&lt;="2010-04-03 12:15"            Received=0</p>
Stored	<p>Messages stored on disk relative to a certain date, specified using <a href="#">comparison operators</a> (&gt;, &lt;, =, &lt;&gt;, &gt;=, &lt;=).</p> <p>Examples:            Stored&lt;2015            Stored&lt;&gt;2018-01-01            Stored=0</p>
Modified	<p>Messages modified relative to a certain date, specified using <a href="#">comparison operators</a> (&gt;, &lt;, =, &lt;&gt;, &gt;=, &lt;=).</p> <p>Examples:            Modified&gt;=2018-01-01            Modified&lt;"2015-03-03 10:00"            Modified=0</p>
Deleted	<p>Messages deleted relative to a certain date, specified using <a href="#">comparison operators</a> (&gt;, &lt;, =, &lt;&gt;, &gt;=, &lt;=).</p> <p>Examples:            Deleted=2018-05-05            Deleted&lt;&gt;2018-05-04            Deleted=0</p>
OlderThan	<p>Messages older than a given amount of time, relative to today and specified using <i>d</i>, <i>m</i> or <i>y</i> for day, month or year.</p>

Search operator	Searches for
	<p>Examples:</p> <p>OlderThan:6m</p>
NewerThan	<p>Messages newer than a given amount of time, relative to today and specified using <code>d</code>, <code>m</code> or <code>y</code> for day, month or year.</p> <p>Examples:</p> <p>NewerThan:7d</p>
SentBefore	<p>Messages sent before a given date. This is the same as using <a href="#">Sent</a> with the <a href="#">&lt; operator</a>.</p> <p>Example:</p> <p>SentBefore:"2018-03-10 19:30"</p>
SentAfter	<p>Messages sent after a given date. This is the same as using <a href="#">Sent</a> with the <a href="#">&gt; operator</a>.</p> <p>Example:</p> <p>SentAfter:2018-02</p>
ReceivedBefore	<p>Messages received before a given date. This is the same as using <a href="#">Received</a> with the <a href="#">&lt; operator</a>.</p> <p>Example:</p> <p>ReceivedBefore:"2016-09-09 09:30:00"</p>
ReceivedAfter	<p>Messages received after a given date. This is the same as using <a href="#">Received</a> with the <a href="#">&gt; operator</a>.</p> <p>Example:</p> <p>ReceivedAfter:2017</p>
Sent_Before	Same as <a href="#">SentBefore</a> , using Google Vault syntax.
Before	Same as <a href="#">SentBefore</a> , using Gmail syntax.
Older	Same as <a href="#">SentBefore</a> , using Gmail syntax.
Sent_After	Same as <a href="#">SentAfter</a> , using Google Vault syntax.
After	Same as <a href="#">SentAfter</a> , using Gmail syntax.
Newer	Same as <a href="#">SentAfter</a> , using Gmail syntax.
Received_Before	Same as <a href="#">ReceivedBefore</a> , using Google Vault syntax.

Search operator	Searches for
Received_After	Same as <a href="#">ReceivedAfter</a> , using Google Vault syntax.
Older_Than	Same as <a href="#">OlderThan</a> , using Gmail / Google Vault syntax.
Newer_Than	Same as <a href="#">NewerThan</a> , using Gmail / Google Vault syntax.

## Which date operator should I use?

If you're not sure which date operator to use, then use [Sent](#). This is for two reasons:

1. The [Sent](#) date is the most likely to contain a value. Unless the message is a draft, it will have a [Sent](#) date whereas [Received](#) dates are missing in all outbound mail.
2. If the [Sent](#) date is missing then Aid4Mail will automatically use the [Received](#), [Modified](#) or [Stored](#) date instead (in that order, whichever is found first).

This makes [Sent](#) the most trustworthy date operator. It's the one we recommend unless you have specific reasons for using another date operator.

Note that email clients are not consistent in displaying dates. The *Date* field in the email header is usually the [Sent](#) date. However, some email programs choose to display one of the other dates instead which can be confusing.

## 10.2.5.4 Email section search operators

Search operator	Searches for
Header	Words in any part of the message header. This is the same as using <a href="#">Header[All]</a> . Example: <code>Header:john@aid4mail.com</code>
Header[Field]	Words in a specific field of the message header. Example: <code>Header[x-mailer]:"Apple Mail"</code>  You can also use <i>All</i> as a parameter to search all fields in the header: Example: <code>Header[All]:helpdesk@aid4mail.com</code>
References	References to other emails in the same thread as this one. Example: <code>References:&lt;41F653C3.3234.14AD858@localhost&gt;</code>
Subject	Words in the message subject line. Example: <code>Subject:(vacation bahamas)</code>
Text	Text in any part of the message body. HTML tags in the text are stripped before searching with this operator so, for example, <code>&lt;em&gt;small&lt;/em&gt; dog</code> becomes <code>small dog</code> in the text to search. Example: <code>Text:(apples OR oranges)</code>
Raw	Content in any part of the email in its raw MIME format. This is useful if you want to search for specific content types or words within known HTML tags. Examples: <code>Raw:"Content-Type: multipart/mixed"</code> <code>Raw:&lt;del&gt;red&lt;/del&gt;</code>
FileText	Text in an attachment, or in a file inside an attachment (for example a Word file inside a ZIP attachment). It also includes text in EXIF, IPTC and XMP metadata in JPEG, TIFF and PSD images but excludes all other metadata.  This operator is only available in <a href="#">Aid4Mail Enterprise</a> and <a href="#">Investigator</a> and is not affected by the <a href="#">attachment options</a> in the <a href="#">Filter settings</a> . Most common <a href="#">file types are supported</a> .  Examples: <code>FileText:(apples OR oranges)</code> <code>FileText:"artist:*doisneau"</code>

Search operator	Searches for																		
	<p>If you know what type of document contains the search terms, you can speed up the search by specifying the document type in square brackets following the operator name.</p> <p><b>Examples:</b>  <code>FileText[Pdf]:(apples OR oranges)</code>  <code>FileText[Image]:"artist:*doisneau"</code></p> <p>The following document types are supported:</p> <table border="0"> <tr> <td>Audio</td> <td>Jpeg</td> <td>Spreadsheet</td> </tr> <tr> <td>Database</td> <td>Multimedia</td> <td>Tiff</td> </tr> <tr> <td>Document</td> <td>Pdf</td> <td>Video</td> </tr> <tr> <td>Email</td> <td>Powerpoint</td> <td>Website</td> </tr> <tr> <td>Excel</td> <td>Presentation</td> <td>Word</td> </tr> <tr> <td>Image</td> <td>SourceCode</td> <td></td> </tr> </table> <p>Several document types can be specified in a list using the <a href="#"> (vertical bar) operator</a>:</p> <code>FileText [Pdf Word Excel] : (apples oranges)</code> <p>Document types can be excluded by starting the list with the <a href="#">-(minus) operator</a>. All document types will then be searched except those in the list. For example:</p> <code>FileText [-Multimedia Database] : (apples oranges)</code> <p>The more you narrow down the document type in your search script, the faster Aid4Mail will run.</p>	Audio	Jpeg	Spreadsheet	Database	Multimedia	Tiff	Document	Pdf	Video	Email	Powerpoint	Website	Excel	Presentation	Word	Image	SourceCode	
Audio	Jpeg	Spreadsheet																	
Database	Multimedia	Tiff																	
Document	Pdf	Video																	
Email	Powerpoint	Website																	
Excel	Presentation	Word																	
Image	SourceCode																		
FileMetadata	<p>Metadata in attachments, and in files contained inside attachments, from a wide range of file formats. Note that collecting metadata requires considerable system resources and can impact Aid4Mail's performance.</p> <p>This operator is only available <a href="#">Aid4Mail Enterprise</a> and <a href="#">Investigator</a> and is not affected by the <a href="#">attachment options</a> in the <a href="#">Filter settings</a>.</p> <p><b>Example:</b>  <code>FileMetadata:Fookes</code></p> <p>If you know the type of document containing the search terms, you can speed up the search by specifying the document type in square brackets after the operator name.</p>																		

Search operator	Searches for																		
	<p>Example: FileMetadata [Pdf] :Fookes</p> <p>The following document types are supported:</p> <table border="0"> <tr> <td>Audio</td> <td>Jpeg</td> <td>Spreadsheet</td> </tr> <tr> <td>Database</td> <td>Multimedia</td> <td>Tiff</td> </tr> <tr> <td>Document</td> <td>Pdf</td> <td>Video</td> </tr> <tr> <td>Email</td> <td>Powerpoint</td> <td>Website</td> </tr> <tr> <td>Excel</td> <td>Presentation</td> <td>Word</td> </tr> <tr> <td>Image</td> <td>SourceCode</td> <td></td> </tr> </table> <p>Several document types can be specified in a list using the <a href="#">  (vertical bar) operator</a>: FileMetadata [Pdf   Word   Excel] :Fookes</p> <p>Document types can be excluded by starting the list with the <a href="#">- (minus) operator</a>. All document types will then be searched except those in the list. For example: FileMetadata [-Multimedia   Database] :Fookes</p> <p>The more you narrow down the document type in your search script, t</p>	Audio	Jpeg	Spreadsheet	Database	Multimedia	Tiff	Document	Pdf	Video	Email	Powerpoint	Website	Excel	Presentation	Word	Image	SourceCode	
Audio	Jpeg	Spreadsheet																	
Database	Multimedia	Tiff																	
Document	Pdf	Video																	
Email	Powerpoint	Website																	
Excel	Presentation	Word																	
Image	SourceCode																		
AttachmentNames	<p>Messages that contain attachments with a given filename or extension. Does not include files contained inside attachments.</p> <p>Examples: AttachmentNames : JanuaryReport .pdf AttachmentNames : pdf</p>																		
FileNames	<p>Messages that contain files with a given filename or extension. Includes both attachments and any files contained within them.</p> <p>Examples: FileNames : JanuaryReport .pdf FileNames : pdf</p>																		
FileName	<p>Same as <a href="#">AttachmentNames</a>, using Gmail / Google Vault / MS Office syntax.</p>																		

## 10.2.5.5 Email attribute search operators

Search operator	Searches for																																	
Importance	<p>The importance of an email message, if specified.</p> <p>Options:            Importance: Highest            Importance: High            Importance: Medium            Importance: Low            Importance: Lowest</p> <p>You can list multiple alternatives to search using the <a href="#"> (vertical bar) operator</a>:            Importance: Highest   High</p>																																	
Type	<p>Messages that are of a certain type.</p> <p>Options:</p> <table border="0"> <tr> <td>Type: Calendar</td> <td>Type: Journalled</td> <td>Type: Redirected</td> </tr> <tr> <td>Type: Chat</td> <td>Type: List</td> <td>Type: Replied</td> </tr> <tr> <td>Type: Contact</td> <td>Type: News</td> <td>Type: Sent</td> </tr> <tr> <td>Type: Deleted</td> <td>Type: Note</td> <td>Type: Spam</td> </tr> <tr> <td>Type: Draft</td> <td>Type: Notification</td> <td>Type: Starred</td> </tr> <tr> <td>Type: Duplicate</td> <td>Type: Notify</td> <td>Type: Task</td> </tr> <tr> <td>Type: Encrypted</td> <td>Type: Offline</td> <td>Type: Unpurged</td> </tr> <tr> <td>Type: Filtered</td> <td>Type: Partial</td> <td>Type: Unread</td> </tr> <tr> <td>Type: Forwarded</td> <td>Type: Personal</td> <td>Type: Unsent</td> </tr> <tr> <td>Type: Important</td> <td>Type: Read</td> <td></td> </tr> <tr> <td>Type: Journal</td> <td>Type: Received</td> <td></td> </tr> </table> <p>You can list multiple types to search using the <a href="#"> (vertical bar) operator</a>:            Type: Deleted   Unpurged</p> <p>The <a href="#">Glossary</a> contains definitions for the following types:</p> <ul style="list-style-type: none"> <li>• <a href="#">Duplicate</a></li> <li>• <a href="#">Encrypted</a></li> <li>• <a href="#">Journal</a></li> <li>• <a href="#">Journalled</a></li> <li>• <a href="#">Offline</a></li> <li>• <a href="#">Partial</a></li> <li>• <a href="#">Personal</a></li> <li>• <a href="#">Unpurged</a></li> </ul>	Type: Calendar	Type: Journalled	Type: Redirected	Type: Chat	Type: List	Type: Replied	Type: Contact	Type: News	Type: Sent	Type: Deleted	Type: Note	Type: Spam	Type: Draft	Type: Notification	Type: Starred	Type: Duplicate	Type: Notify	Type: Task	Type: Encrypted	Type: Offline	Type: Unpurged	Type: Filtered	Type: Partial	Type: Unread	Type: Forwarded	Type: Personal	Type: Unsent	Type: Important	Type: Read		Type: Journal	Type: Received	
Type: Calendar	Type: Journalled	Type: Redirected																																
Type: Chat	Type: List	Type: Replied																																
Type: Contact	Type: News	Type: Sent																																
Type: Deleted	Type: Note	Type: Spam																																
Type: Draft	Type: Notification	Type: Starred																																
Type: Duplicate	Type: Notify	Type: Task																																
Type: Encrypted	Type: Offline	Type: Unpurged																																
Type: Filtered	Type: Partial	Type: Unread																																
Type: Forwarded	Type: Personal	Type: Unsent																																
Type: Important	Type: Read																																	
Type: Journal	Type: Received																																	
Content	<p>Messages that include an attached or embedded file of a certain type.</p>																																	

Search operator	Searches for																		
	<p>Options:</p> <table border="0"> <tr> <td>Content:Archive</td> <td>Content:Excel</td> <td>Content:Presentation</td> </tr> <tr> <td>Content:Attachment</td> <td>Content:Image</td> <td>Content:SourceCode</td> </tr> <tr> <td>Content:Audio</td> <td>Content:Jpeg</td> <td>Content:Spreadsheet</td> </tr> <tr> <td>Content:Database</td> <td>Content:Multimedia</td> <td>Content:Video</td> </tr> <tr> <td>Content:Document</td> <td>Content:Pdf</td> <td>Content:Word</td> </tr> <tr> <td>Content:Email</td> <td>Content:Powerpoint</td> <td></td> </tr> </table> <p>You can search for multiple options using the <a href="#">  (vertical bar) operator</a>: Content:Pdf Word</p>	Content:Archive	Content:Excel	Content:Presentation	Content:Attachment	Content:Image	Content:SourceCode	Content:Audio	Content:Jpeg	Content:Spreadsheet	Content:Database	Content:Multimedia	Content:Video	Content:Document	Content:Pdf	Content:Word	Content:Email	Content:Powerpoint	
Content:Archive	Content:Excel	Content:Presentation																	
Content:Attachment	Content:Image	Content:SourceCode																	
Content:Audio	Content:Jpeg	Content:Spreadsheet																	
Content:Database	Content:Multimedia	Content:Video																	
Content:Document	Content:Pdf	Content:Word																	
Content:Email	Content:Powerpoint																		
Size	<p>Messages with a certain size, specified using <a href="#">comparison operators</a> (&gt;, &lt;, =, &lt;&gt;, &gt;=, &lt;=). Size units are specified using B, K, M, or G (for bytes, KB, MB and GB, respectively).</p> <p>Examples: Size&lt;=25M Size&gt;25B</p>																		
Larger	<p>Messages that are larger than a certain size. This is the same as using <a href="#">Size</a> with the <a href="#">&gt; operator</a>. Size units are specified using B, K, M, or G (for bytes, KB, MB and GB, respectively).</p> <p>Example: Larger:100B (same as Size&gt;100B)</p>																		
Smaller	<p>Messages that are smaller than a certain size. This is the same as using <a href="#">Size</a> with the <a href="#">&lt; operator</a>. Size units are specified using B, K, M, or G (for bytes, KB, MB and GB, respectively).</p> <p>Example: Smaller:20M (same as Size&lt;20M)</p>																		
Is	Same as <a href="#">Type</a> , using Gmail / Google Vault syntax.																		
IsRead	<p>Same as <a href="#">Type:Read</a>, using MS Office syntax.</p> <p>Options: IsRead:True (same as Type:Read) IsRead:False (same as NOT Type:Read)</p>																		
Has	Same as <a href="#">Content</a> : but using Gmail / Google Vault syntax.																		
HasAttachment	Same as <a href="#">Content:Attachment</a> , using MS Office syntax.																		

Search operator	Searches for
	Options: HasAttachment:True (same as Content:Attachment) HasAttachment:False (same as NOT Content:Attachment)

## 10.2.5.6 Email ID search operators

Search operator	Searches for
MessageId	<p>Unique message ID as specified in the <a href="#">RFC 822 standard</a>. If the application that created and sent the message did not add a message ID, it is sometimes added by servers that the message passes through. However, some messages don't contain any message ID at all.</p> <p>Example:  <code>MessageId:&lt;000000000000615e100583c436d4@google.com&gt;</code></p>
Uid	<p>Message with a specific Unique ID from an <a href="#">IMAP</a> server.</p> <p>You can specify a single UID to search for, or a file that contains a list of UIDs (use the <a href="#">Exact</a> modifier for faster processing of the list).</p> <p>Examples:  <code>Uid:397670</code>  <code>Uid:397670 397671</code>  <code>Uid:{exact=C:\Temp\UID.txt}</code></p>
Md5	<p>Messages with specific MD5 signatures. An MD5 signature is a unique identifier created from an email message ID or, if that doesn't exist, from various fields in the message header. An MD5 signature can be created for any email.</p> <p>You can specify a single MD5 signature to search for, or a file that contains a list of MD5 signatures (use the <a href="#">Exact</a> modifier for faster processing of the list).</p> <p>Examples:  <code>Md5:7b7e8488d0b11ff6dd30064fa5ff79c1</code>  <code>Md5:{exact=C:\Temp\MD5.txt}</code></p>
Rfc822MsgId	Same as <a href="#">MessageId</a> , with Gmail / Google Vault syntax.

## 10.2.6 Boolean operators

Boolean operators, also known as logical operators, allow you to negate search terms or combine them to build sophisticated filters.

Boolean operator	Description
AND	<p>Searches for messages that include both the term before and the term after the operator. Must be separated from other terms and operators by a space.</p> <p>Examples:  <code>vacation AND bahamas</code>                      Finds messages that contain both the word <i>vacation</i> and the word <i>bahamas</i>.</p> <p><code>from:john@aid4mail.com AND to:mary@aid4mail.com</code>                      Finds messages sent from John to Mary.</p>
OR	<p>Searches for messages that include either the term before or the term after the operator, or both. Must be separated from other terms and operators by a space.</p> <p>Examples:  <code>vacation OR bahamas</code>                      Finds messages that contain either the word <i>vacation</i> or the word <i>bahamas</i> or both.</p> <p><code>from:john@aid4mail.com OR to:mary@aid4mail.com</code>                      Finds messages sent from John, or messages sent to Mary, including messages sent from John to Mary.</p>
XOR	<p>Searches for messages that include either the term before or the term after the operator, but not both. Must be separated from other terms and operators by a space.</p> <p>Examples:  <code>vacation XOR bahamas</code>                      Finds messages that contain either the word <i>vacation</i> or the word <i>bahamas</i> but rejects those that contain both words.</p> <p><code>from:john@aid4mail.com XOR to:mary@aid4mail.com</code>                      Finds messages sent from John, or messages sent to Mary, but rejects messages sent from John to Mary.</p>

Boolean operator	Description
NOT	<p>Searches for messages that do not include the term after the operator. Must be separated from other terms and operators by a space.</p> <p>Examples:  <code>NOT vacation</code>                      Finds messages that do not contain the word <i>vacation</i>.</p> <p><code>(NOT from:john@aid4mail.com) AND to:mary@aid4mail.com</code>                      Finds messages that were sent to Mary except those sent by John.</p>
+	<p>Same meaning as <a href="#">AND</a> but does not use a space to separate it from other terms or operators.</p> <p>Example: <code>vacation+bahamas</code></p>
	<p>Same meaning as <a href="#">OR</a> but does not use a space to separate it from other terms or operators.</p> <p>Example: <code>vacation bahamas</code></p>
^	<p>Same meaning as <a href="#">XOR</a> but does not use a space to separate it from other terms or operators.</p> <p>Example: <code>vacation^bahamas</code></p>
-	<p>Same meaning as <a href="#">NOT</a> but does not use a space to separate it from other terms or operators.</p> <p>Example: <code>-vacation</code></p>

Boolean operators do not have to be capitalized. So `vacation` and `bahamas` is the same as `vacation AND bahamas`. However, capitalizing Boolean operators increases readability and is recommended in most cases.

If no Boolean operator is specified between search terms, the AND operator will be used. So `vacation bahamas` is the same as `vacation AND bahamas`.

[Parentheses](#) are useful to group operations. For example:

```
vacation AND (bahamas OR seychelles)
from:(john@aid4mail.com OR mary@aid4mail.com)
apple XOR (orange AND (lemon OR lime))
```

## Order of precedence

The order of precedence of Boolean operators is:

() > NOT > AND > XOR > OR

That is, Parenthesis are processed before NOT operators, which take precedence over AND operators, which in turn take precedence over XOR. OR operators are processed last. Note that this is different to the order of precedence in Gmail.

### 10.3 Tutorial: Search and filter basics

The example below walks you through the basics of searching and filtering with Aid4Mail. It uses [Aid4Mail Investigator](#) which, along with [Aid4Mail Enterprise](#), has access to all of the search and filter capabilities ([Aid4Mail Converter](#) is limited to searching and filtering folders).

If you don't have a license for Aid4Mail Investigator, you can still follow this example by running Aid4Mail Investigator in trial mode. The trial is totally free and will not affect any other Aid4Mail license you may have. To do this, select [File > Change edition > Aid4Mail Investigator Trial](#) from the main menu. Once you've finished testing Aid4Mail Investigator, you can use the same menu option to change the edition back again.

Note that in trial mode, Aid4Mail works on modified copies of your mail which may impact your filter results. For more details see the [Trial mode](#) topic.

#### Example requirements

Let's say you only want to process emails sent to *john@aid4mail.com* in the first quarter of 2018, that include either the keywords *vacation* or *Bahamas* (or both) and the phrase *travel agent*, and are still in the *Inbox* folder. Breaking this down into its constituent parts, the targeted emails must match the following criteria:

1. Sent to *john@aid4mail.com*.
2. Sent in first quarter of 2018.
3. Include the word *vacation* or *Bahamas* or both.
4. Include the phrase *travel agent*.
5. Are still in the *Inbox* folder.

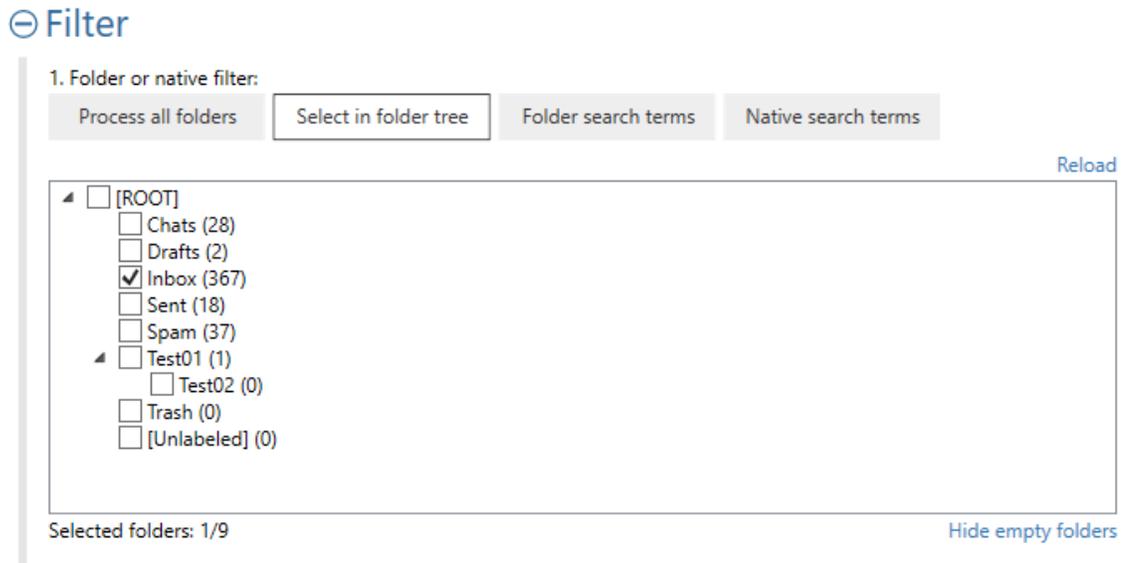
The [ordering of filters](#) is important so, first, you need to know what is being searched for at the folder level and what is at the item (email) level. Looking through the requirements, number 5 is the only [folder search](#) and the rest are all [item searches](#).

#### Folder search

There's a couple of ways to approach a folder search: You can either [select the required folder\(s\) in the folder tree](#) or [use folder search terms](#).

## Select folders in the folder tree

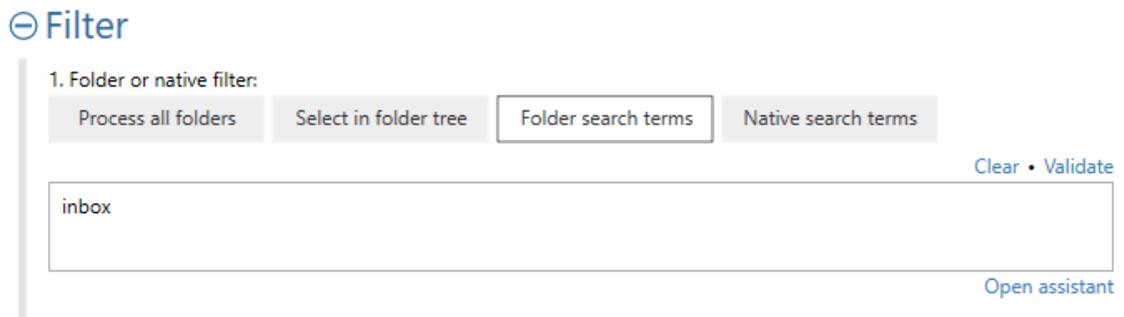
In the [Folder or native filter](#) section of the [Filter settings](#), choose the [Select in folder tree](#) option. Aid4Mail will display your folder tree with everything selected. Click the topmost folder to deselect all folders. Then select only the *Inbox* folder.



Select in folder tree

## Use folder search terms

You can accomplish the same thing using [Folder search terms](#). Select this option and then in the search box write `inbox` as shown below:



Folder search terms

The search term you just created tells Aid4Mail to only include emails that are in the *Inbox* folder. All other folders will be excluded.

Folder searches are case-insensitive so it doesn't matter if you write `inbox` or `Inbox`. And when a folder search term has no search operator applied to it, the `foldername` operator is automatically applied. So the search term `inbox` is identical to `foldername:inbox`.

If you had written `NOT inbox` instead, or more concisely `-inbox`, then all folders except the Inbox would have been included in your target mail. The Inbox would have been excluded because the [Boolean NOT operator](#) inverts the result.

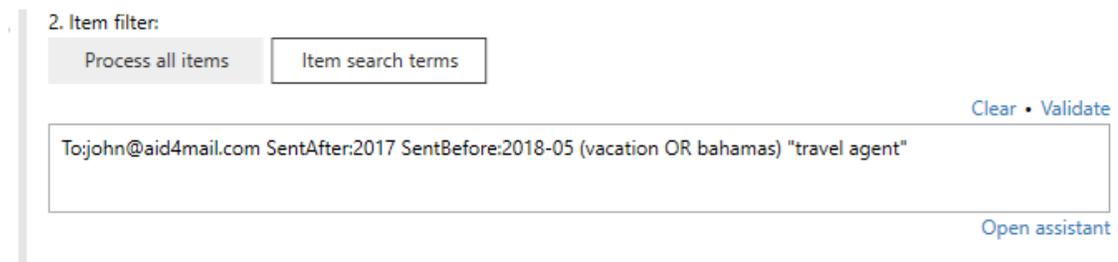
You can also search for custom folders. For example, if John had a folder called *Vacation*, you could have searched for it in the same way: `vacation`. Or you could add it to the initial search by writing `inbox OR vacation`, or more concisely `inbox|vacation`. The [Boolean OR operator](#) between the search terms will result in a match of either one of them or both. Note that `inbox AND vacation` would not be appropriate as it would only include emails that exist in both folders.

For simple examples like this it's easy to write your search terms directly in the search field. For more complex terms you can use the [search assistant](#) to construct them. However, once you become familiar with the various [search operators](#) and [Boolean operators](#), you'll probably find it quicker to continue writing your search terms directly.

## Item search

In the [Item search terms](#) field, enter the following:

```
To:john@aid4mail.com SentAfter:2017 SentBefore:2018-05 (vacation OR bahamas) "travel agent"
```



*Item search terms*

Again, you can write the search terms directly or use the [search assistant](#).

Any space between search terms, where no Boolean operator is specified, uses an *AND* operator by default. So this search is equivalent to:

```
To:john@aid4mail.com AND SentAfter:2017 AND SentBefore:2018-05 AND  
(vacation OR bahamas) AND "travel agent"
```

Let's go through the search terms one by one.

### **To:john@aid4mail.com**

This tells Aid4Mail to only include emails sent to the address *john@aid4mail.com*.

Note that search operators are case-insensitive. So writing `To` or `to` makes no difference.

If you wanted to include Mary's emails too, you would write `To: (john@aid4mail.com OR mary@aid4mail.com)` or, alternatively, `To:john@aid4mail.com|mary@aid4mail.com`.

If you wanted to search for mail sent to anyone at the company, you would use a [wildcard](#). For example, using the [\\* character wildcard](#) to make the search term `To:*@aid4mail.com`, would find emails sent to any address within the aid4mail.com domain.

### **SentAfter:2017**

Aid4Mail will only include emails sent after the date specified. In this example, only the year has been specified. The month could have been added too, `SentAfter:2017-12`, and the day, `SentAfter:2017-12-31`, but they aren't required in this case.

Note that the date is specified in the [International date format](#): YYYY-MM-DD.

### **SentBefore:2018-05**

This time specifying the month is necessary to get the correct results.

### **(vacation OR bahamas)**

This is a case where the Boolean operator must be explicitly specified. If there had just been a space between the two keywords, `(vacation bahamas)`, an *AND* operator would automatically be applied, `(vacation AND bahamas)`, which is not what is wanted. The requirements state that emails containing either of those words (or both) are to be included so the *OR* is necessary.

Note that the two keywords are written lowercase. Case only makes a difference when [Smart case detection for item search terms](#) is turned *on*. It's *off* by default, making the search case-insensitive, but let's assume that for this example it's *on*. Then using uppercase letters in a keyword makes the search for that word case-sensitive. So if the keyword had been written as `Bahamas`, only that exact word would be found. Any variation, such as `BAHAMAS` or `bahamas`, would be excluded from the results. Specifying the keyword in

lowercase makes the search case-insensitive, so *bahamas*, *Bahamas*, *BAHAMAS*, *bAhAmAs* or any other variation in case would be included in the results. Turning [Smart case detection for item search terms](#) *off* also makes the search case-insensitive, and for all search terms.

[Parentheses](#) are required here due to the [order of precedence of Boolean operators](#) whereby *AND* operators take precedence over *OR* operators. As parentheses take precedence over all Boolean operators, their presence ensures that `(vacation OR bahamas)` will be treated as a group.

### **"travel agent"**

The quotes here tell Aid4Mail to look for an exact phrase. So only these two words together will be found, in this order, as they're written. Emails with the phrase *travel and transport agent*, for example, would be excluded. Case sensitivity again depends on [Smart case detection for item search terms](#).

If the quotes were removed, the search term would become *travel agent* which is the same as *travel AND agent* (because a space with no operator automatically becomes an *AND* operator). This would then include emails containing *travel and transport agent* and even *agent for travel*. In fact it would include any email that contains both of the words, no matter their order, location in the email or proximity to each other, which is not what is wanted in this example.

## **Conclusion**

Hopefully this has given you an overview of Aid4Mail's powerful search and filter capabilities. There's much more you can do that has not been covered here, like [proximity searching](#), [deduplicating](#) and [searching unpurged mail](#). For more information on all the available [search operators](#) and other syntactic details, please refer to the [Search terms](#) topic. And if you are interested in searching and filtering with Python scripts, which are extremely powerful but more advanced, please refer to the [Python scripts](#) topic.

## 10.4 Proximity searching

A proximity search finds words or characters that are located close to one another. Proximity searches can be very powerful, using context to enable precise searching and filtering.

Most proximity search engines are limited to finding words within a specified distance of one another, where distance is the number of intermediate words. Aid4Mail can do this too but goes further, beyond traditional proximity searching. It enables you to search within the grammatical structures that naturally exist in most text—[sentences](#) and [paragraphs](#)—regardless of the number of intermediary words.

This topic covers all three categories of proximity searching supported by Aid4Mail:

- [Proximity searching within a sentence](#)
- [Proximity searching within a paragraph](#)
- [Proximity searching within a specified distance](#)

It also addresses two subjects that affect all proximity searches:

- [Word order in proximity searches](#)
- [Chaining proximity searches](#)

### 10.4.1 Proximity searching within a sentence

Aid4Mail provides proximity searching within a sentence through the [~\\* character wildcard](#) and the [<.> word wildcard](#).

#### Matching characters within a sentence

The [~\\* character wildcard](#) will match zero or more characters, including white space characters, as long as the [search term](#) is found within a single [sentence](#). In other words, as long as no period (full stop) or tab character has been encountered.

For example, searching for `jim~*sand` will find both of these sentences:

1. *Jim played in the sand.*
2. *Jimmy was sinking in quicksand.*

It will not find the following because the [search term](#) spans more than one sentence in both cases:

3. *Jim played all day. He had the most fun in the sand.*
4. *Jimmy didn't read the sign. He was sinking in quicksand.*

#### Matching words within a sentence

The [<.> word wildcard](#) will match zero or more whole words, rather than individual characters, within a single sentence. This gives slightly different results. Searching for `jim<.>sand` will find:

1. *Jim played in the sand.*

However it will not find:

2. *Jimmy was sinking in quicksand.*
3. *Jim played all day. He had the most fun in the sand.*
4. *Jimmy didn't read the sign. He was sinking in quicksand.*

Sentence 2 will not be found because the *my* at the end of *Jimmy*, and the *quick* at the beginning of *quicksand*, are not whole words and so are not matched by the [<.> wildcard](#).

Sentences 3 and 4 will not be found because the [search term](#) spans more than one sentence in both cases.

## Matching both characters and words within a sentence

In order to find sentence 2 in the examples above using the [<.> word wildcard](#), you could add additional [character wildcards](#) to match the partial words.

For example, the [\\* character wildcard](#) matches zero or more characters within the same word. Adding a [\\* character wildcard](#) at the end of `jim` would match the *my* at the end of *Jimmy*. Adding another [\\* character wildcard](#) before `sand` would match the *quick* at the start of *quicksand*. The [<.> wildcard](#) would continue to match the intermediate words between *Jimmy* and *quicksand*. The search term would then become `jim*<.>*sand` and would produce identical results to `jim~*sand`, both finding sentence 2.

## Table cells are treated as sentences

When searching text in tables, Aid4Mail treats table cells as if they were sentences and rows as paragraphs.

### 10.4.2 Proximity searching within a paragraph

Aid4Mail provides proximity searching within a paragraph through the [\\*\\* character wildcard](#) and the [<\\*> word wildcard](#).

#### Matching characters within a paragraph

The [\\*\\* character wildcard](#) will match zero or more characters, including white space characters, as long as the [search term](#) is found within a single [paragraph](#). In other words, as long as no [new line](#) has been encountered.

For example, searching for `jim**sand` will find all of these texts:

1. *Jim played in the sand.*
2. *Jimmy was sinking in quicksand.*
3. *Jim played all day. He had the most fun in the sand.*
4. *Jimmy didn't read the sign. He was sinking in quicksand.*

However it will not find the following as the search term spans more than one paragraph. In other words, one (or more) of the intermediary characters is a [new line](#):

5. *Jim played all day at the beach.  
The next day he returned to the sand dunes to search for shells.*

#### Matching words within a paragraph

The [<\\*> word wildcard](#) will match zero or more whole words, rather than individual characters, within a single paragraph. This gives slightly different results. Searching for `jim<*>sand` will find:

1. *Jim played in the sand.*
3. *Jim played all day. He had the most fun in the sand.*

However it will not find:

2. *Jimmy was sinking in quicksand.*
4. *Jimmy didn't read the sign. He was sinking in quicksand.*
5. *Jim played all day at the beach.  
The next day he returned to the sand dunes to search for shells.*

Sentences 2 and 4 will not be found because the *my* at the end of *Jimmy*, and the *quick* at the beginning of *quicksand*, are not whole words and so are not matched by the [<\\*> wildcard](#).

Sentence 5 will not be found because the [search term](#) spans more than one paragraph.

## Matching both characters and words within a paragraph

In order to find sentences 2 and 4 in the examples above using the [<\\*> word wildcard](#), you could add additional [character wildcards](#) to match the partial words.

For example, the [\\* character wildcard](#) matches zero or more characters within the same word. Adding a [\\* character wildcard](#) at the end of `jim` would match the *my* at the end of *Jimmy*. Adding another [\\* character wildcard](#) before `sand` would match the *quick* at the start of *quicksand*. The [<\\*> word wildcard](#) would continue to match the intermediate words between *Jimmy* and *quicksand*. The search term would then become `jim*<*>*sand` and would produce identical results to `jim**sand`, both finding sentences 2 and 4.

## Table rows are treated as paragraphs

When searching text in tables, Aid4Mail treats table cells as if they were sentences and rows as paragraphs.

### 10.4.3 Proximity searching within a specified distance

Aid4Mail provides proximity searching within a specified distance through the [<n> wildcard](#). Distance is measured as the number of intermediate words (n).

#### Specifying distance between words

The [<n> wildcard](#) matches a specified maximum number of intermediate words. Replace the letter *n* with a value between 0 and 99 corresponding to the number of whole words to match. For example, the following search term will match up to 12 words between *cat* and *dog*:

```
cat<12>dog
```

This search term will find all of the following:

- *cat, dog*
- *cat and dog*
- *I love my cat and my dog.*
- *A cat chases mice and other small creatures. It will only go after a dog if threatened.*
- *A cat chases mice and other small creatures.  
It will only go after a dog if threatened.*

Notice that the words *cat* and *dog* don't have to be in the same sentence. They don't even have to be in the same paragraph. As long as they appear in the text in the order specified, and within 13 words of each other (i.e. 12 intermediary words), they will be found.

#### Word variation

The search term `cat<12>dog` will not find the following:

*I have two cats and four dogs.*

This is because *cat* in the search term will not match *cats* (plural) in the text. Likewise, *dog* will not match *dogs*. In addition, the [<n> wildcard](#) only matches whole words and so will not match the *s* on the end of *cats*.

Additional [character wildcards](#) at the end of *cat* and *dog* are necessary to match plurals. We could use the [~ wildcard](#) if we only want to cater for one additional character (the *s* at the end of the words). However, let's use the [\\* wildcard](#) as it gives more flexibility and will match more than one additional character. This allows the matching of *doggy* and *doggies*, for example. The search terms have now become:

```
cat*<12>dog*
```

These search terms will now match every example text, above, as well as all of the following:

- *Are you a cat or dog person?*
- *Are cats or dogs your favorite?*
- *My cats are very dog-like.*
- *This is her Royal Catness. She rules over the doggies.*

#### 10.4.4 Word order in proximity searches

### Word order is important

The order of words in a proximity search term is important. For example, the search term `jim<5>sand` will find the following sentence:

*Jim played in the sand.*

However it will not find:

*Sand is where Jim likes to play.*

This is because the order of the words, *Sand* and *Jim*, in the second sentence does not match the order specified in the search term. To find the second sentence the search term would need to be reversed: `sand<5>jim`. In this respect, the [<n> wildcard](#) is similar to [Google's AROUND operator](#) (when used with quotes) and [Outlook's ONEAR operator](#).

The same applies to all proximity search terms. In the following list, the first two search terms use [proximity searching within a sentence](#), the next two use [proximity searching within a paragraph](#), and the last one uses [proximity searching within a specified distance](#). All will find the first sentence, above, but not the second:

```
jim~*sand
jim<.>sand
jim**sand
jim<*>sand
jim<5>sand
```

Their inverses will find the second sentence but not the first:

```
sand~*jim
sand<.>jim
sand**jim
sand<*>jim
sand<5>jim
```

### Ignoring word order

What if you don't care about word order? To find *jim* and *sand* in the same sentence, irrespective of their order, you'd need to specify both the original search term and its inverse, separated by an [Boolean OR operator](#):

```
jim<5>sand OR sand<5>jim
```

Likewise for all the proximity search terms:

```
jim~*sand OR sand~*jim  
jim<.>sand OR sand<.>jim  
jim**sand OR sand**jim  
jim<*>sand OR sand<*>jim  
jim<5>sand OR sand<5>jim
```

All of the above search terms will now find both sentences:

*Jim played in the sand.*  
*Sand is where Jim likes to play.*

### 10.4.5 Chaining proximity searches

[As with all wildcards](#), you can specify more than one in the same search term.

#### Example 1

```
cat<8>dog<8>horse
```

The above search term will match text that has *dog* within 9 words of *cat* (8 intermediary words) and also *horse* within 9 words of *dog*. All three words must be present and in the order specified. An example match would be:

*I own a cat called Fluffy and a dog called Rex but my favorite pet is my horse, Blossom.*

#### Example 2

Different categories of proximity wildcards can even be mixed in the same search term:

```
jim<.>sand<*>sea
```

The above search term will find text with *jim* and *sand* in the same sentence, and *sand* and *sea* in the same paragraph, in that order. An example match would be:

*Jim played all day in the sand. He only came in when the sea got too cold.*

## 10.5 Deduplication

### Definitions

Duplicates are emails that are identical to each other as determined by the [rules below](#).

Deduplication is the process of eliminating duplicate emails, ensuring there is only one of each in your target mail.

### How do duplicates occur?

There are a variety of situations that could result in duplicate emails. For example:

- When an email client downloads mail from a POP mail server, and is set to leave mail on the server, the next time it fetches the mail it will be duplicated.
- Duplicates can result from copy/paste actions in a mailbox or in a folder of individual messages files (like EML or MSG files).
- Many mail clients organize email in folders but connect to mail services, like Gmail, that use the concept of [labels](#) rather than folders. As a single email can have multiple labels attached to it, after downloading it may be copied to multiple folders in the mail client.

### How to deduplicate in Aid4Mail

#### Skip duplicates in the Filter settings

If skipping duplicates and/or [unpurged mail](#) are the **only** item filters you require, the simplest way to do this is through the [Skip items](#) section of the [Filter settings](#). However, if you require additional search terms, you'll need to [skip duplicates using a search term](#).

#### Skip duplicates using a search term

Aid4Mail makes deduplication very easy through a simple [search term](#) that uses the [Type](#) search operator:

```
NOT Type:Duplicate
```

The same search term can be written more concisely as:

```
-Type:Duplicate
```

Both these search terms are identical in functionality and will eliminate all duplicates from your target mailbox. You only need to use one of them, placing it in the the [Item search term](#) field in Aid4Mail. You can either write it in the field directly or use the [Assistant](#) to insert it for you (once the assistant is open, *Select > Common search terms > Skip duplicates*).

### Understanding the deduplication search term

The [Type](#) operator finds emails that are of a certain type so `Type:Duplicate` finds duplicates. However, as is, this search term would result in your target mail consisting only of duplicate emails, the opposite of deduplication!

To eliminate duplicates, the search term needs to be negated using the [Boolean NOT operator](#) or its more concise version, the [minus \(-\) operator](#). This results in either `NOT Type:Duplicate` or `-Type:Duplicate`. Both are identical in functionality.

### Deduplication scope

By default, Aid4Mail only identifies duplicates that are in the same source folder. However you can widen the scope to detect duplicates wherever they are located. This is done through [Duplicates detection scope](#) in the [Filter](#) section of the [Options](#) screen.

### How does Aid4Mail determine duplicates?

To determine if two emails are identical, Aid4Mail compares characteristics of their headers. The exact method used depends on the [Generate hash value from](#) option, under the [Session](#) section of the [Options](#) screen.

- If [Generate hash value from](#) is set to *Original SMTP header* then the headers of both emails must match in their entirety for them to be considered duplicates.
- If [Generate hash value from](#) is set to *Message-ID header* field, only the *Message-ID* fields need to match for the emails to qualify as duplicates. In cases where the *Message-ID* is empty or missing, as is often the case in outbound messages, Aid4Mail compares the *From*, *Date* and *Subject* header fields instead.

## 10.6 Searching unpurged mail

### What is unpurged mail?

Unpurged mail refers to hidden copies of emails that have been deleted or moved to another location.

When you delete an email, or move it from one folder to another in your email client, the process is more complex than it initially seems. A copy of the message is placed in the destination folder but the original message is not deleted immediately. Instead it is flagged as *DELETED* and hidden from display. It is only deleted permanently when the folder containing it is *purged* (or *compacted* or *expunged*, depending on the terminology used).

The reason for this behavior is to optimize the delete and move processes by not having to reorganize a mailbox every time. As mailboxes can become very large, and emails can usually be moved around or deleted without limitation, this provides a considerable time-saving. However, it also means that mailboxes can contain considerable amounts of unpurged mail.

### How does Aid4Mail treat unpurged mail?

Generally, unpurged mail is not wanted. After all, it's remnants of emails that have been deleted or moved. However, it can be of interest to those doing investigative work and used as evidence in legal situations. For this reason, it is handled differently by the various Aid4Mail editions.

- [Aid4Mail Enterprise](#) and [Investigator](#) automatically process unpurged mail and restore it by removing the *DELETED* status flag. However, you can still skip, or even target it specifically, using one of the [methods described below](#). Note that unpurged mail is not accessible in PST files or Outlook profile message stores.
- [Aid4Mail Converter](#) automatically skips unpurged mail.

If unpurged mail is to be skipped, whether intentionally or automatically, we recommend you purge/compact/expunge your source mailboxes or accounts before running Aid4Mail. This potentially reduces the amount of mail Aid4Mail has to process and speeds up your migration.

## Skip or target unpurged mail in Aid4Mail Enterprise/Investigator

### Skip unpurged mail in the Filter settings

If skipping unpurged mail and/or [duplicates](#) are the **only** item filters you require, the simplest way to do this is through the [Skip items](#) section of the [Filter settings](#). However, if you require additional search terms, you'll need to [skip unpurged mail using a search term](#).

### Include only unpurged mail using a search term

What if you want your target mail to consist only of unpurged mail? [Aid4Mail Enterprise](#) and [Investigator](#) make this easy through a simple [search term](#) that uses the [Type](#) search operator:

```
Type:Unpurged
```

This search term should be placed in the [Item search term](#) field in Aid4Mail. You can either write it in the field directly or use the [Assistant](#) to insert it for you (once the assistant is open, *Select > Common search terms > Include only unpurged mail*).

This will not work in [Aid4Mail Converter](#) because unpurged mail is automatically skipped, as explained in the previous paragraph.

### Skip unpurged mail using a search term

In [Aid4Mail Enterprise](#) and [Investigator](#), it is still possible to skip all unpurged mail. As this task is the opposite of [including only unpurged mail](#), simply negate the search term above using using the [Boolean NOT operator](#):

```
NOT Type:Unpurged
```

Alternatively, use its more concise version, the [minus \(-\) operator](#):

```
-Type:Unpurged
```

Both these search terms are identical in functionality and will eliminate all unpurged mail from your target mailbox. You only need to use one of them, placing it in the the [Item search term](#) field in Aid4Mail. You can either write it in the field directly or use the [Assistant](#) to insert it for you (once the assistant is open, *Select > Common search terms > Skip unpurged mail*).

In [Aid4Mail Converter](#), this process is not necessary as it skips unpurged mail automatically, as mentioned previously. You don't have to do anything to enable this.

## 10.7 Searching personal mail

### What is personal mail?

Aid4Mail classifies an email as *personal* if it meets all three of the following conditions:

1. It is sent from an individual person,
2. It shows no evidence of being part of a campaign, message list or mailing list,
3. It shows no evidence of being a bulk email, advertisement, notification or [journaled email](#).

For technical details, see [How does Aid4Mail determine an email is personal?](#), below.

### Including only personal mail

[Aid4Mail Enterprise](#) and [Investigator](#) enable you to target personal mail through a simple [search term](#) that uses the [Type](#) search operator:

```
Type:Personal
```

This search term should be placed in the [Item search term](#) field in Aid4Mail. You can either write it in the field directly or use the [Assistant](#) to insert it for you (once the assistant is open, *Select > Email attributes > Type* and then select *is* and *Personal* from the drop down lists).

### Skipping personal mail

Similarly, you can filter out any personal mail in [Aid4Mail Enterprise](#) and [Investigator](#). As this task is the opposite of [including only personal mail](#), simply negate the search term above using the [Boolean NOT operator](#):

```
NOT Type:Personal
```

Alternatively, use its more concise version, the [minus \(-\) operator](#):

```
-Type:Personal
```

Both these search terms are identical in functionality and will eliminate all personal mail from your target mailbox. You only need to use one of them, placing it in the the [Item search term](#) field in Aid4Mail. You can either write it in the field directly or use the [Assistant](#) to insert it for you (once the assistant is open, *Select > Email attributes > Type* and then select *is not* and *Personal* from the drop down lists).

## How does Aid4Mail determine an email is personal?

Aid4Mail designates an email to be personal if, after scanning its header, all of the following are all true:

- The [Type](#) of the email is not:
  - [Journaled](#)
  - *List*
  - *News*
  - *Notification*.
- The email is not sent from an impersonal address (for example: *postmaster@*, *mailer-daemon@*, *noreply@*, *no-reply@*, etc.)
- The email header does not contain any of following fields:
  - *Precedence*
  - *X-Campaign*
  - *X-Report-Abuse*
- If the email header contains the *Auto-Submitted* field, its value is not *no*.
- If the email header contains the *Return-Path* field, its value is not <>.
- The email header does not contain any of the fields listed in file *SMTP-Impersonal.dat* (located in your [Data folder](#)). These fields are:
  - *Bounces-to*
  - *TenantHeader*
  - *X-AMAZON-MAIL-RELAY-TYPE*
  - *X-Bounce*
  - *X-Bounceld*
  - *X-Complaints-To*
  - *X-CSA-Complaints*
  - *X-DynectEmail-Msg-Key*
  - *X-elqPod*
  - *X-elqSiteID*
  - *X-EMID*
  - *X-EMV-MemberId*
  - *X-EnvId*
  - *X-ICPINFO*
  - *x-job*
  - *X-LyrisMailingID*
  - *X-MA-Reference*

- *X-Mailgun-Sid*
- *X-Mandrill-User*
- *X-MarketID*
- *X-Match*
- *X-MC-User*
- *X-PHP-Originating-Script*
- *X-PHP-Script*
- *X-PM-Message-Id*
- *X-rext*
- *X-Roving-ID*
- *X-SFDC-User*
- *X-SG-EID*
- *X-SMFBL*
- *X-SMTPCOM-Tracking-Number*
- *X-XN-UUID*

Note:

1. The lists above are not exhaustive as some of the techniques we use are confidential.
2. The content of file *SMTP-Impersonal.dat* is a [regular expression](#). As with all files in the Data folder, you can edit it. This enables you to customize, to a certain extent, how Aid4Mail determines personal email.

## 10.8 Word lists

When a filter requires a lot of [search terms](#), it can be convenient to store them as a list in an external [file](#). This makes it easier to reuse them later or share them between [multiple sessions](#).

### WordList modifier

In a [folder search term](#) or [item search term](#), use the `WordList` modifier inside [braces](#) to tell Aid4Mail where to find the file. For example:

```
{WordList=C:\Temp\Search terms.txt}
```

This can be a stand-alone search term, as above, or part of a more complex search term:

```
Subject:{WordList=C:\Temp\Subjects.txt}
```

It can also be combined with other search terms:

```
car AND {WordList=C:\Temp\CarModels.txt}
```

Including those containing other word lists:

```
{wordlist=C:\Temp\Include.txt} AND NOT {wordlist=C:\Temp\Exclude.txt}
```

The last example will find emails that contain any of the search terms listed in file *Include.txt* and don't contain any in *Exclude.txt*.

By default, Aid4Mail will search for any of the search terms in a [word list file](#), i.e. an [OR](#) operator will automatically be applied between the search terms in the file. You can explicitly tell Aid4Mail to apply an [OR](#) operator or an [AND](#) operator as follows:

```
{WordList[OR]=C:\Temp\SearchTerms.txt}
```

```
{WordList[AND]=C:\Temp\SearchTerms.txt}
```

If you have a legacy word list file from Aid4Mail 4, that uses '+' and '-' characters at the start of each line, you can tell Aid4Mail 5 to process this too using `WordList[Mixed]` as follows:

```
{WordList[Mixed]=C:\Temp\SearchTerms.txt}
```

## Word list file

### Content

A word list file should contain one [search term](#) per line. For example:

```
cat
dog
pet store
fox<.>hen
fred@aid4mail.com
*@aid4mail.com
```

Aid4Mail will process each search term in the order it appears in the file. The longer the list, the longer it will take Aid4Mail to filter each email.

If you're using `WordList[OR]`, or simply `WordList`, you can improve performance by placing the most common search terms at the beginning of the list. If you're using `WordList[AND]`, the most common terms should be placed at the end of the list.

Note that:

- Case sensitivity [rules](#) are unchanged. This means that word lists are case-insensitive when used in folder searches. In item searches, case sensitivity depends on the the [Smart case detection for item search terms](#) option in the *Filter* section of the *Options* screen.
- [Wildcards](#) (including [proximity search](#) wildcards) and [regular expressions](#) can be used in word list search terms, depending on the [search term type](#) used.
- [Punctuation](#), [search operators](#) and [Boolean operators](#) are not supported in word list search terms.

### Search term type

For each line in the word list, you can specify whether it's a *normal*, *wildcard* or *regular-expression* search term. To do this, prefix the search term with either `N=`, `W=` or `R=`, respectively. If no prefix is used then it's treated as a wildcard search term if it contains any [wildcard](#) characters (`* ? # & ~ < >`), otherwise it's treated as a normal search term.

For example:

```
N=cat*
W=cat*
R=cat (.*)
cat*
```

The first line, above, is a *normal* search term. This means that the asterisk is treated as a regular character and not as a wildcard or part of a regular expression. This search term will find the literal word *cat\** but that's all.

The second line is a *wildcard* search term. The asterisk character is treated as a [\\* wildcard](#) that matches zero or more characters. This search term will match the words *cat*, *cats*, *catnip*, *cathartic*, etc.

The third line a *regular-expression* search term. It's actually identical in functionality to the second line but is specified as a regular expression. (Normally you wouldn't want multiple search terms with the same functionality so this is just for demonstration purposes.)

The fourth line has no prefix but contains the [\\* wildcard](#) so it is treated as a *wildcard* search term, identical to the second line. (Again, normally you wouldn't want multiple, identical search terms.) If it had not contained a wildcard, it would have been treated as a *normal* search term.

Note that the syntax for specifying the search term's type in a word list, as described here, is a little different to the syntax used directly in a [folder search term](#) or [item search term](#) which requires [braces and a modifier](#).

## 10.9 Native filtering

Aid4Mail supports the use of [native search terms](#) that are sent directly to the mail server software to carry out a pre-acquisition search server-side. This can significantly increase performance because Aid4Mail will only download and process emails that match the search results rather than the whole account. As [native search terms](#) can relate not just to folders but to individual items too, a well-crafted native filter will minimize the number of individual items that Aid4Mail has to process and maximize performance.

Note, however, that Aid4Mail's [item filter](#) can search deeper than the native filter of most mail servers and so can find data that they may miss. For example, words in documents that are nested inside ZIP archive attachments. In such cases, using both [native search terms](#) and [item search terms](#) together is the optimal approach.

Unfortunately each mail service provider can have its own syntax. A brief overview of the most common, [Gmail](#), [Office 365](#) and [IMAP](#), follows.

### Gmail

Gmail's native filter syntax is exactly the same as that used in the Gmail web and mobile applications. It is similar to [Aid4Mail's syntax](#) and to Office 365's [KQL](#).

Please refer to the [Gmail and KQL syntax overview](#) for basic information. For a more complete reference, visit the [Gmail search operators](#) page on the Google website.

### Office 365

Office 365 supports two different protocols: [KQL](#) and [OData](#).

#### KQL

KQL (Keyword Query Language) is the simpler of the two with a syntax similar to both [Aid4Mail](#) and [Gmail](#).

Please refer to the [Gmail and KQL syntax overview](#) for basic information. For a more complete reference, visit the [KQL search operators](#) page on Microsoft's website.

#### OData

OData syntax as used by Office 365 is beyond the scope of this document. However, full details can be found at the [OData protocol](#) page on the OASIS (Organization for the Advancement of Structured Information Standards) website.

To use an OData expression in Aid4Mail, simply prefix it with *filter=*. This tells Aid4Mail to interpret the line as an OData expression rather than a [KQL](#) expression. For example:

```
filter=from/emailAddress/address eq 'jane@aid4mail.com'
```

## IMAP

Every [IMAP](#) server can potentially have its own proprietary syntax. However there is a common core that is generally supported by most IMAP servers, containing a standard and extended syntax. Please refer to the following pages on the Internet Engineering Task Force (IETF) website for details:

- [Standard IMAP search syntax](#)
- [Extended IMAP search syntax](#)

### 10.9.1 Gmail and KQL syntax overview

Note that this section is provided only as a light introduction. For detailed information, please consult the documentation for each mail service in the links below:

- [Gmail search operators](#)
- [KQL search operators](#)

## Search terms

Gmail's native filter syntax and Office 365's KQL are very similar to Aid4Mail's [search terms](#). They can all be used without search operators to search every part of an email. For example, to find emails containing the word *education* you would simply write this in Aid4Mail's [Native search terms](#) field:

```
education
```

To find emails with both the words *education* and *conference* you would write:

```
education conference
```

Note that:

- All search terms must be written in one line.
- Gmail and KQL syntaxes are both case-insensitive.

## Boolean operators

Both Gmail and KQL support the Boolean operators *AND*, *OR* and *NOT*, using the same syntax as [Aid4Mail's Boolean operators](#). For example, to find emails with both the words *education* and *conference* (as in the example above) you could explicitly use the *AND* operator:

```
education AND conference
```

As in [Aid4Mail's syntax](#), when no Boolean operator is specified, the *AND* operator is automatically used.

To find emails containing either *education* or *conference* or both, you would use the *OR* operator:

```
education OR conference
```

To find emails containing *education* but not *conference*, you would write:

```
education AND NOT conference
```

Note that when using multiple Boolean operators without parentheses, both Aid4Mail and KQL give precedence to *AND* operators over *OR* operators. Gmail does the opposite, giving *OR* precedence over *AND*. Take the following search terms for example:

```
education AND conference OR test
```

Aid4Mail and KQL will interpret them as:

```
(education AND conference) OR test
```

Gmail will interpret them as:

```
education AND (conference OR test)
```

The use of parentheses is recommended to avoid such confusion.

## Wildcards

Gmail will find substrings within a larger word. For example, the search term `cat` will find the words *Cathy* and *Meercat*.

This is not the case for KQL which, like Aid4Mail, requires wildcards to do this. However, unlike Aid4Mail that supports a [variety of wildcards](#) placed anywhere in the search term, KQL only supports the [asterisk \(\\*\) wildcard](#) and only at the end of a search term. This means that in KQL, `cat*` will find *Cathy* but `*cat` will not find *Meercat*.

## Search operators

You can refine your native filter with search operators, many of which are the same as [Aid4Mail's search operators](#).

For example, to find emails sent from John to Sally with the word *salary* in the subject line, using either Gmail's native syntax or Office 365's KQL, you would write:

```
from:john to:sally subject:salary
```

However, there are differences between Gmail and KQL search operators. For example, to refine the above search to only include emails sent after June 2019, there would be a difference in syntax between the two:

```
from:john to:sally subject:salary after:06/30/2019 (Gmail)
from:john to:sally subject:salary sent>06/30/2019 (KQL)
```

Note too the difference in the date formatting, both of which are different from the [International date format](#) (2019-06-30) that Aid4Mail uses.

Gmail has many more search operators than KQL and so offers greater flexibility. For detailed information on the operators available and how they should be used, please refer to their respective documentation:

- [Gmail search operators](#)
- [KQL search operators](#)

## 11 Optimizing performance

Here are some tips for optimizing Aid4Mail's performance.

### Speed up on-premise processing

1. Use a machine with a fast processor and at least four cores. For example, Intel i7, i9 or better (or their AMD equivalents).
2. Use a dedicated GPU.
3. Use a fast SSD or RAM drive, at least for [cache and temporary files](#). Avoid NAS drives as they can significantly diminish processing speed.
4. If your source or target is an Outlook profile, PST, MSG or Exchange, make sure you have the latest Outlook updates installed.
5. Reboot your computer and close any unnecessary programs, including mail applications.
6. Disable any anti-virus, file monitoring or file indexing tools that may operate on the source and target folders.
7. Disable Outlook plugins if you are processing Outlook mailboxes.
8. Disable Windows sleep, hibernation and automatic updates.

### Speed up remote processing (for IMAP and cloud-based services)

1. Connect locally using an Ethernet cable rather than Wi-Fi.
2. Ensure your network drivers are up-to-date.
3. Choose a time of day that ensures the highest possible Internet speed.
4. Close any programs or tasks that may reduce the available Internet bandwidth (streaming services, software updates, offsite file backups, etc).

5. Avoid migrating mail directly from one remote location to another to reduce the risk of bottlenecks. Instead, migrate from the remote source location to a local *mbox* file. Then migrate the *mbox* to the remote target location.

## Optimize your Aid4Mail settings

1. Whenever possible, [prioritize Aid4Mail's 32-bit processing engine](#) over its 64-bit engine. In general, 32-bit applications are faster than their 64-bit counterparts except for tasks that involve advanced mathematical modeling.
2. Unless required, turn *off* [incremental processing](#) and its [recording of emails](#).
3. Use a [folder filter](#) to skip any folders you don't need, or a [native filter](#) if supported by your source mail service.
4. Use an [item filter](#) to skip emails based on their header content, message body text and attachments, in that order.
5. Unless required, avoid searching [files contained within attachments](#).
6. Unless required, avoid searching [file metadata](#).
7. Set the highest reasonable [image size limit for metadata searches](#).
8. Unless required, avoid using [Python scripts](#) as they may significantly impact performance.

## Optimize your filters

1. Use a [folder filter](#) to exclude folders before individual emails are processed, or a [native filter](#) if supported by your source mail service. Please refer to the [Filter order](#) topic for additional information.
2. Be attentive to the order of search terms:
  - a. If you have two search terms separated by an [AND](#) operator, if the first term is not found then Aid4Mail doesn't need to search for the second term. For example, if you're searching for `cat AND dog`, and `cat` is not found then Aid4Mail doesn't need

- to search for *dog*. To optimize performance when you're using an *AND* operator, put the search term that's least likely to be found on the left side of the statement.
- b. If you have two search terms separated by an [OR](#) operator, if the first term is found then Aid4Mail doesn't need to search for the second term. For example, if you're searching for `ham OR cheese`, and *ham* has been found then Aid4Mail doesn't need to search for *cheese*. To optimize performance when you're using an *OR* operator, put the search term that's most likely to be found on the left side of the statement.
  - c. If you have search terms to [eliminate duplicates](#) (`NOT Is:Duplicate`) or to [eliminate unpurged mail](#) (`NOT Is:Unpurged`), place them before any other search terms. As Aid4Mail searches for each term in the order it appears, this will greatly reduce the number of emails processed.
  - d. Place search terms that scan attachments or metadata, notably those that use the [FileText](#) or [FileMetadata](#) operators, after other search terms. Then scanning of these potentially large files is done last and on the smallest number of emails.
3. Use the search term `Is:Personal` to eliminate bulk and automated mail, newsletters and mailing lists, bounced emails and any other non-personal items from your target mail. Please refer to the [Searching personal mail](#) topic for details.

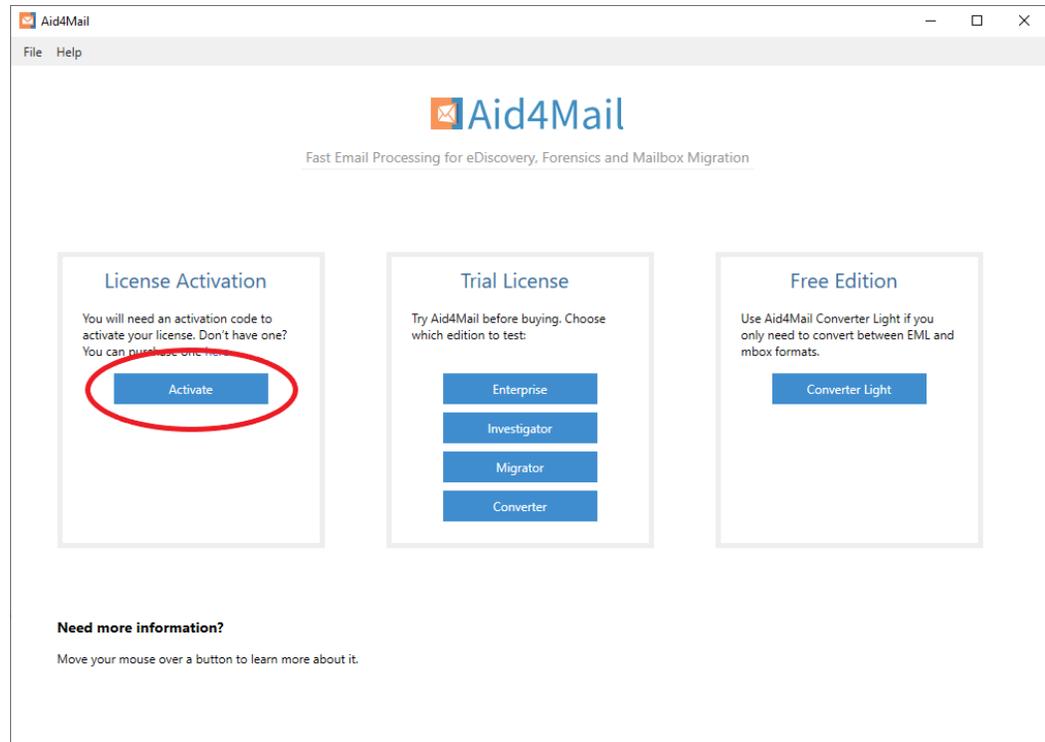
## 12 Activating your Aid4Mail license

Once you have purchased Aid4Mail, you will be sent an activation code or key file by email. This section provides step-by-step instructions on how to:

- [Activating with an activation code](#)
- [Activating with a key file](#)

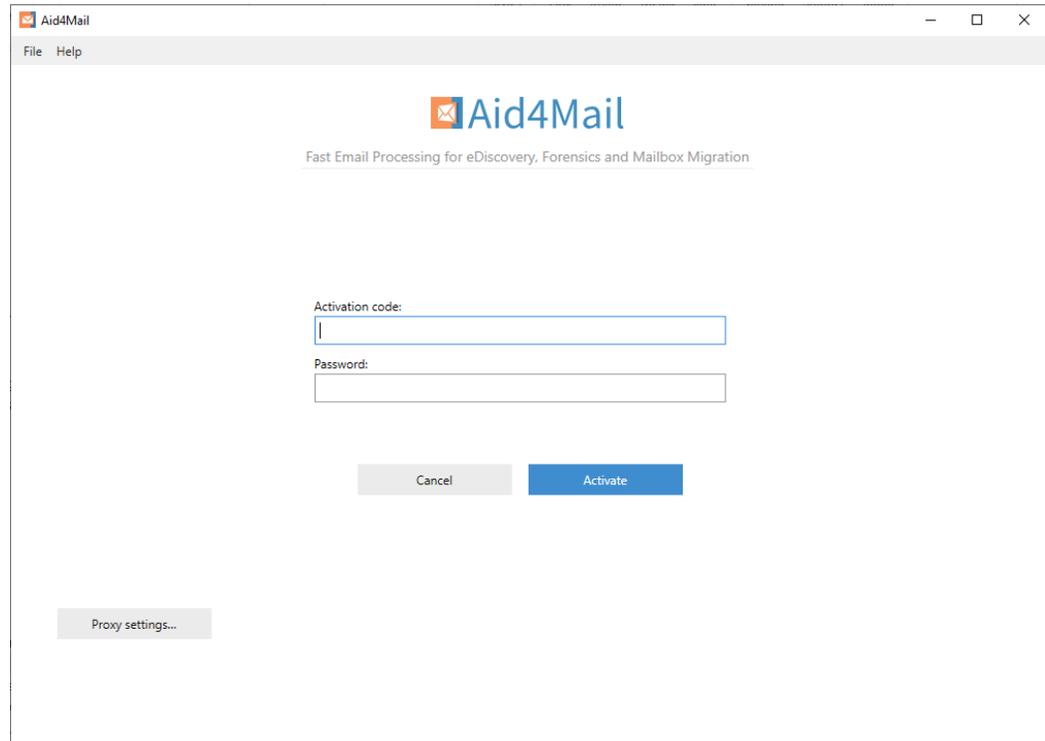
## 12.1 Activating with an activation code

1. Open the [Activate license](#) screen. This can be done in 3 different ways:
  - a. When you run Aid4Mail for the first time, you will see the [Start screen](#). Select *Activate* under the *License Activation* heading as shown below:



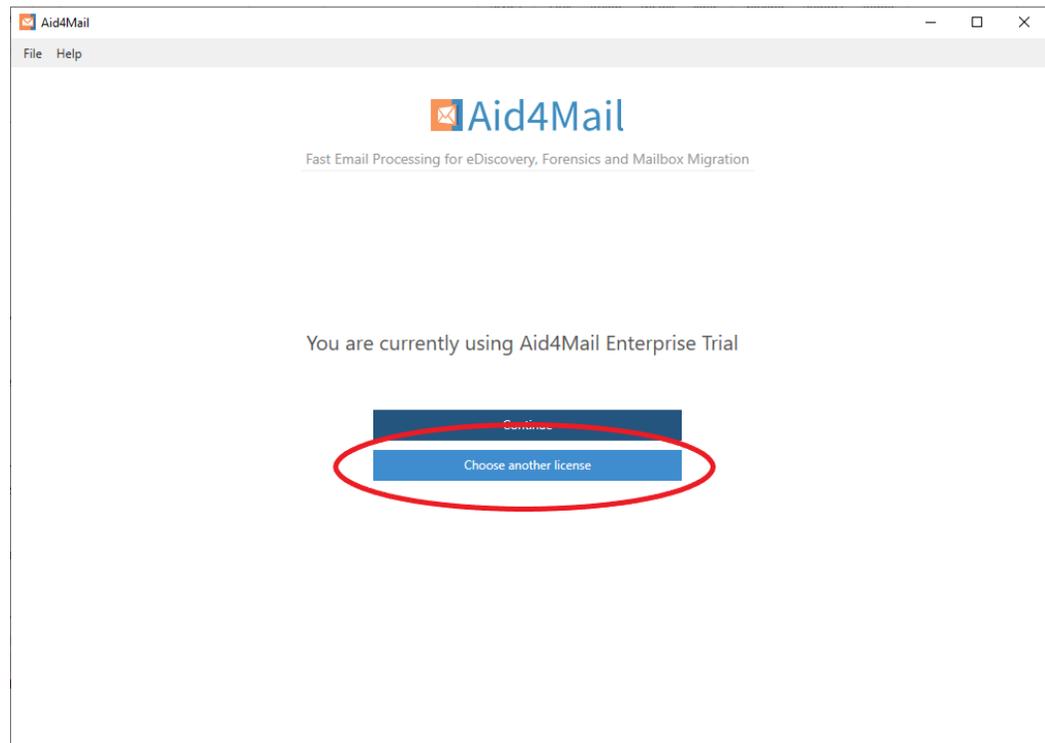
*"Activate" button on the Start screen*

The [Activate license](#) screen will then appear:



*Activate license screen when opened from the Start screen*

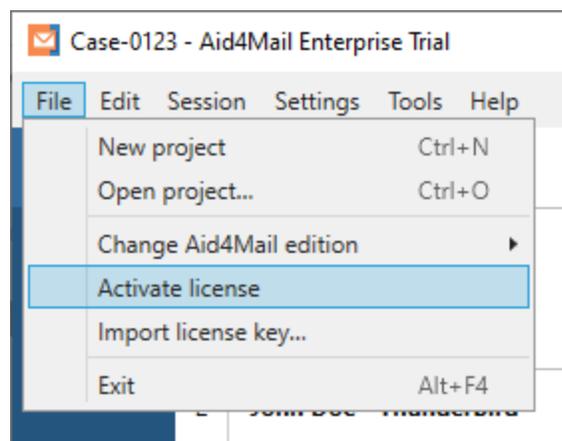
- b. When you run Aid4Mail and have previously been using a trial license or the Converter Light edition, you will be presented with the following screen. Select *Choose another license*:



"Choose another license" button

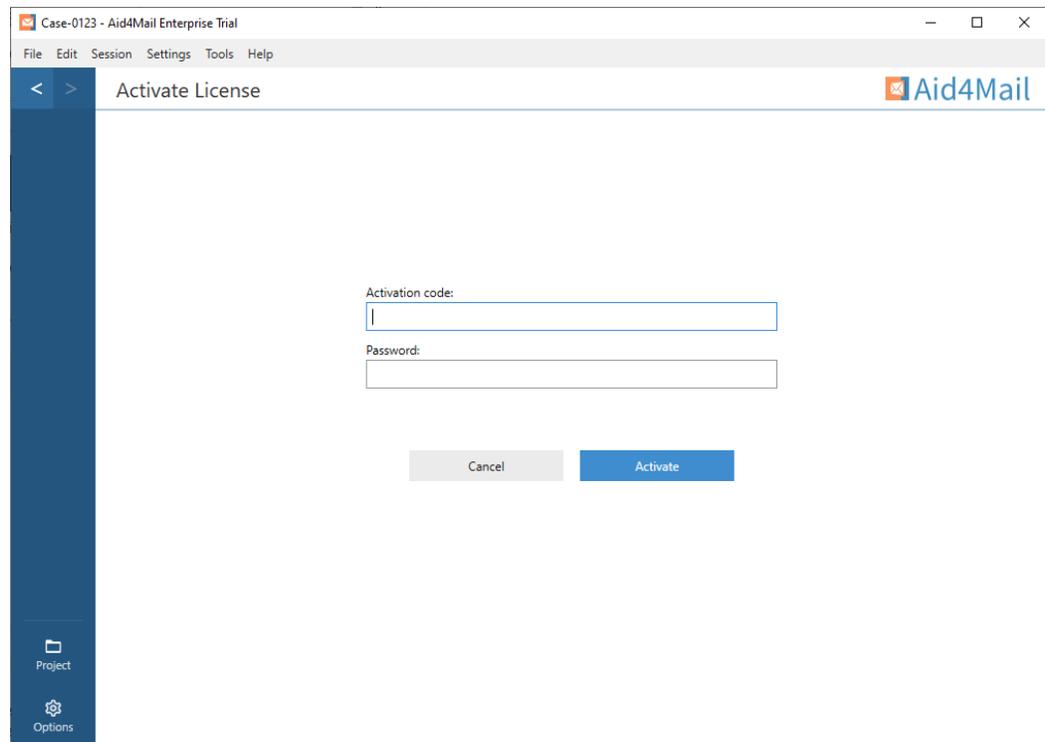
The [Start screen](#) will then appear and you can follow the instructions in [a.](#) above, selecting *Activate* under *License Activation*.

- c. If Aid4Mail is already running, you can open the [Activate license](#) screen by selecting [File > Activate license](#) from the menu.



File > Activate license

When opened from here, the [Activate license](#) screen looks different but contains the same fields:



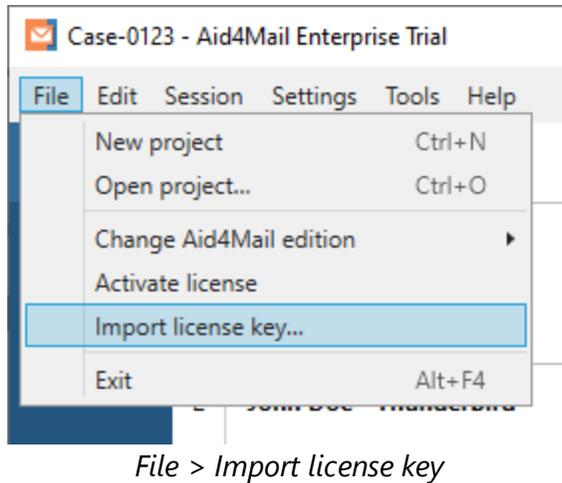
*Activate license screen when opened from the File menu*

2. On the [Activate license](#) screen, enter the activation code you were sent by email into the [Activation code](#) field.
3. Create a new password and enter it in the [Password](#) field. If you are re-activating Aid4Mail, note that the password you create must be different to all the passwords you have previously used with this activation code.
4. Select [Activate](#).

Once you have activated Aid4Mail, you shouldn't have to do it again until your license expires. Aid4Mail will remember your activation details and, next time, will open with the [Settings](#) screen displayed.

## 12.2 Activating with a key file

1. Upon receiving your Aid4Mail key file, save it to your computer's hard drive in any location.
2. In Aid4Mail, from select [File > Import license key](#) from the main menu:



3. In the *Open* file dialog, browse for and select the key file from step 1 and then select *Open*. The key file will be installed automatically.

Once you have activated Aid4Mail, you shouldn't have to do it again until your license expires. Aid4Mail will remember your activation details and, next time, will open with the [Settings](#) screen displayed.

## 13 User interface

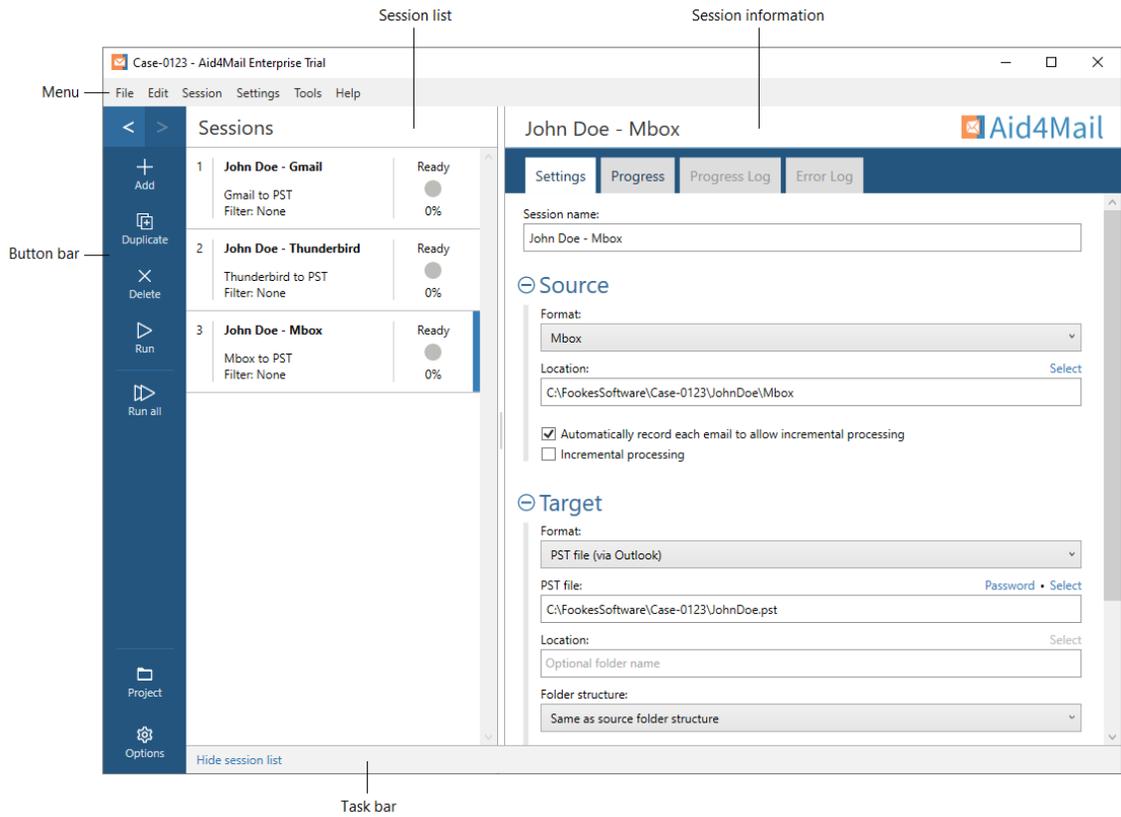
Aid4Mail's main user interface is comprised of 5 main elements that can be seen in the screenshot below:

- [Menu](#)
- [Button bar](#)
- [Session list](#)
- [Session information](#)
- [Task bar](#)

When you run Aid4Mail for the first time, the [session list](#) is closed by default. It can be opened and closed by selecting [View > Show/Hide session list](#) from the menu or [Show/Hide session list](#) in the task bar.

This section also contains information on user interface components that are not immediately visible but available in certain situations:

- [Project settings](#)
- [Options](#)
- [Activate license](#)
- [Aid4Mail Authenticator](#)
- [Aid4Mail Remote Authenticator](#)
- [IMAP Configuration Editor](#)
- [Keyboard shortcuts](#)



Aid4Mail user interface

## 13.1 Menu

Aid4Mail's main menu is found at the top-left of the window:



*Menu*

The menu contains 5 items:

- [File menu](#)
- [View menu](#)
- [Session menu](#)
- [Settings menu](#)
- [Tools menu](#)
- [Help menu](#)

### 13.1.1 File menu

#### **New project**

Create a new project with one new session. The new session will have default values except for the following fields which will be blank:

- Source [Format](#)
- Source [Location](#) or [Email address](#) or [IMAP account](#) (depending on the selected source format)
- Target [Format](#)
- Target [Location](#) or [Email address](#) or [IMAP account](#) (depending on the selected source format)

#### **Open project**

Open an existing project using the Windows *Open* dialog. Browse to your chosen project file (with extension .project.ini) in the dialog and then select *Open*.

#### **Recent projects**

Open a recent project by selecting it in the list or select *Clear list* to empty it.

#### **Change Aid4Mail edition**

Try a different [Aid4Mail edition](#) by selecting it from the submenu. The selected edition will run in trial mode unless you have purchased a license and [activated](#) that edition, or you selected the free version with limited features (*Aid4Mail Converter Light*).

#### **Activate license**

Open the [Activate license](#) screen for activating Aid4Mail with an activation code. Please follow the instructions in [Activating with an activation code](#).

#### **Import license key**

Open the Windows *Open* dialog to allow you to select a license key file. Please follow the instructions in [Activating with a key file](#).

#### **Exit**

Exit the application.

### 13.1.2 View menu

#### **Show/Hide session list**

Show or hide the [session list](#). When the session list is visible, additional options appear in the [button bar](#) and [session menu](#). Please refer to the [Multiple sessions](#) topic for details.

#### **Navigate backward**

Navigate backwards through recently viewed screens.

#### **Navigate forward**

Navigate forwards through recently viewed screens.

#### **Zoom out**

Progressively zoom out the user interface until it reaches 100%.

#### **Zoom in**

Progressively zoom in the user interface to a maximum of 150%.

### 13.1.3 Session menu

#### **Add**

Only available when the [session list](#) is open.

Add a new session with default values except for the following fields which are blank:

- Source [Format](#)
- Source [Location](#) or [Email address](#) or [IMAP account](#) (depending on the selected source format)
- Target [Format](#)
- Target [Location](#) or [Email address](#) or [IMAP account](#) (depending on the selected source format)

#### **Duplicate**

Only available when the [session list](#) is open.

Create a new session with identical settings (except for the [session name](#)) to the currently selected session. The new session will be created directly below the one it's duplicating in the session list and will become the new selected session.

With certain source formats, you can use wildcards in the source file or folder name to [create multiple duplicate sessions](#) at the same time. For more information, please refer to the [Duplicating sessions](#) topic.

#### **Delete**

Only available when the [session list](#) is open.

Delete the currently selected session from the project. If there's only one session then it cannot be deleted, only [Reset](#).

#### **Reset**

Reset the currently selected session's settings (except for [Session name](#)) to their default values.

#### **Run**

Run the currently selected session. If the session is [paused](#) then selecting Run will resume processing from that point. Otherwise processing will start at the beginning.

**Pause**

Pause the currently selected session. Processing will be temporarily halted but can be resumed again, from the same point, by selecting [Run](#).

**Stop**

Stop the currently selected session. Processing cannot be resumed after a stop. Selecting [Run](#) after a session has been stopped will start processing from the beginning again.

**Run all**

Only available in [Aid4Mail Enterprise](#) and [Investigator](#) when the [session list](#) is open.

[Run](#) all the sessions in the project.

**Pause all**

Only available in [Aid4Mail Enterprise](#) and [Investigator](#) when the [session list](#) is open.

[Pause](#) all sessions in the project.

**Stop all**

Only available in [Aid4Mail Enterprise](#) and [Investigator](#) when the [session list](#) is open.

[Stop](#) all the sessions in the project.

**Select**

Select a session in the [session list](#). The options are:

- *Previous*  
Select the previous session in the list (unless the first session is selected).
- *Next*  
Select the next session in the list (unless the last session is selected).
- *By index*  
Select a session by entering its [index](#) in the session list into the dialog.

**Move**

Only available when the [session list](#) is open.

Move the currently selected session to a different position in the [session list](#). This will change its [index](#) in the list and the indices of any other sessions affected by the move. However, the [names](#) of the sessions will not be affected.

The options for this menu command are:

- *Up*  
Move the currently selected session up the list by one position (unless it's already the first session).
- *Down*  
Move the currently selected session down the list by one position (unless it's already the last session).
- *To top*  
Move the currently selected session to the top of the list (unless it's already the first session).
- *To bottom*  
Move the currently selected session to the bottom of the list (unless it's already the last session).

## 13.1.4 Settings menu

### **Options**

Open the [Options](#) screen.

### **Project**

Open the [Project settings](#) screen.

### **Proxy**

Open the HTTP or [IMAP](#) proxy settings screen.

### 13.1.5 Tools menu

#### Clear cache

Delete temporary cache files created by Aid4Mail:

- *Index data*  
Index files created by Aid4Mail to increase efficiency for operations that share the same source mail.
- *Incremental data*  
A log of every email processed by this session. Used by the [Incremental processing](#) feature.
- *All data*  
Both index data and incremental data.

#### Fix Registry for MAPI

Updates the Windows registry with Outlook information that may be missing. This is useful to do if:

- You installed Outlook after installing Aid4Mail.
- You installed Aid4Mail on a USB drive.
- Errors occurred when running Aid4Mail with *Outlook profile*, *PST file* or *MSG file* as the [source](#) or [target format](#) (or both).

## 13.1.6 Help menu

### **Check for updates**

Check whether a new Aid4Mail update is available.

### **View help**

Open the *Aid4Mail Help Manual* in a separate window.

### **Aid4Mail website**

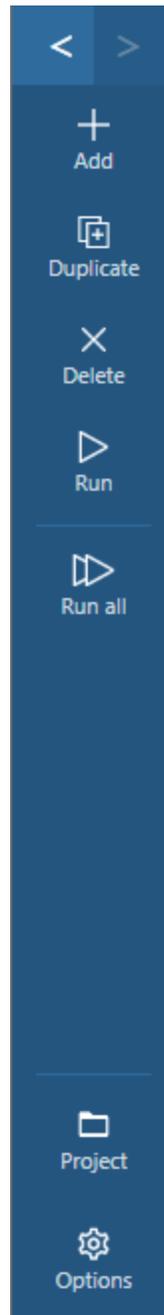
Open the [Aid4Mail website](#) in your browser.

### **About Aid4Mail**

Open a dialog with information about this Aid4Mail version.

## 13.2 Button bar

The *Button bar* is a blue strip at the left of the Aid4Mail window, containing shortcuts to commands in the [View](#), [Session](#) and [Settings](#) menus.



*Button bar*

**< > Navigation**

Select the next or previous session in the [session list](#).

**Add**

Same functionality as the [Add](#) command under the [Session menu](#).

**Duplicate**

Same functionality as the [Duplicate](#) command under the [Session menu](#).

**Delete**

Same functionality as the [Delete](#) command under the [Session menu](#).

**Run**

Same functionality as the [Run](#) command under the [Session menu](#).

**Pause**

Same functionality as the [Pause](#) command under the [Session menu](#).

**Stop**

Same functionality as the [Stop](#) command under the [Session menu](#).

**Run all**

Same functionality as the [Run all](#) command under the [Session menu](#).

**Pause all**

Same functionality as the [Pause all](#) command under the [Session menu](#).

**Stop all**

Same functionality as the [Stop all](#) command under the [Session menu](#).

**Project**

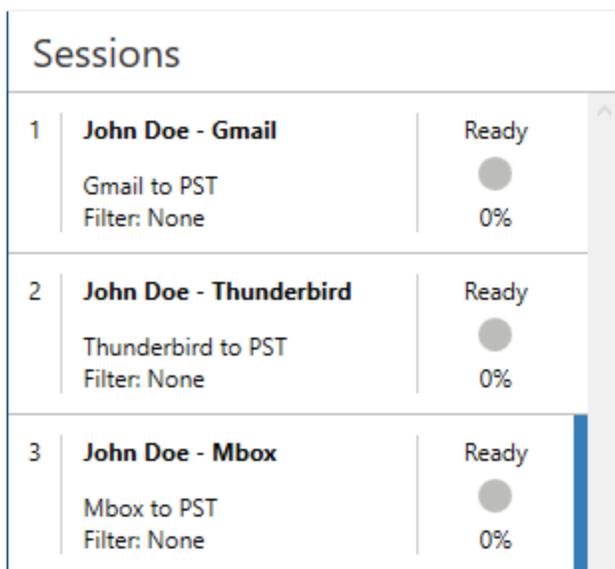
Same functionality as the [Project](#) command under the [Settings menu](#).

**Options**

Same functionality as the [Options](#) command under the [Settings menu](#).

### 13.3 Session list

The *Session list* is an ordered list containing all [sessions](#) that have been [set up](#) in the current [project](#), as shown below:



Sessions		
1	<b>John Doe - Gmail</b> Gmail to PST Filter: None	Ready ● 0%
2	<b>John Doe - Thunderbird</b> Thunderbird to PST Filter: None	Ready ● 0%
3	<b>John Doe - Mbox</b> Mbox to PST Filter: None	Ready ● 0%

*Session list with 3 sessions*

#### Opening and closing the session list

When you run Aid4Mail for the very first time, the session list is closed by default. It can be opened and closed by selecting [View > Show/Hide session list](#) from the menu or [Show/Hide session list](#) in the task bar.

When the session list is open, additional commands appear in the [session menu](#) and [button bar](#), enabling you to [add](#) a new session, [duplicate](#) an existing one, [delete](#) or [reset](#) it and [move](#) sessions around. In [Aid4Mail Enterprise](#) and [Investigator](#), options to [run all](#), [pause all](#) and [stop all](#) sessions also become available.

#### Selecting a session

Selecting a session in the list makes its [session information](#) available for editing. Only one session can be selected at a time and the selected session will display a blue strip at the right as shown in the image above.

## What's in a session list entry?

Each entry in the session list contains 3 parts:

Index	Session information	Progress overview
3	<b>John Doe - Mbox</b> Mbox to PST Filter: None	Ready ● 0%

*The 3 parts of a session list entry*

1. **Index** of the session in the list. This can also be thought of as the row number because the first session's index will always be 1, the second session's index will always be 2. As sessions are [moved](#) around the session list, their indices will change to maintain numerical order (but their [names](#) will not change).
2. **Session information** overview containing the [session name](#), [source](#) and [target](#) formats, and whether or not a [filter](#) has been set.
3. **Progress** overview containing the session's [status](#), and [progress](#) as a percentage.

## 13.4 Session information

This part of the [user interface](#) contains the following information about the currently selected session:

- [Settings](#)
- [Progress](#)
- [Progress Log](#)
- [Error Log](#)

## John Doe - Mbox



Settings Progress Progress Log Error Log

Session name:  
John Doe - Mbox

### Source

Format:  
Mbox

Location: [Select](#)  
C:\FookesSoftware\Case-0123\JohnDoe\Mbox

Automatically record each email to allow incremental processing  
 Incremental processing

### Target

Format:  
PST file (via Outlook)

PST file: [Password](#) • [Select](#)  
C:\FookesSoftware\Case-0123\JohnDoe.pst

Location: [Select](#)  
Optional folder name

Folder structure:  
Same as source folder structure

Python script: [Open](#) • [Add](#)  
None

Limit PST file size:  
No limit

Append messages to target mailbox if it already exists  
 Add extra metadata to email headers

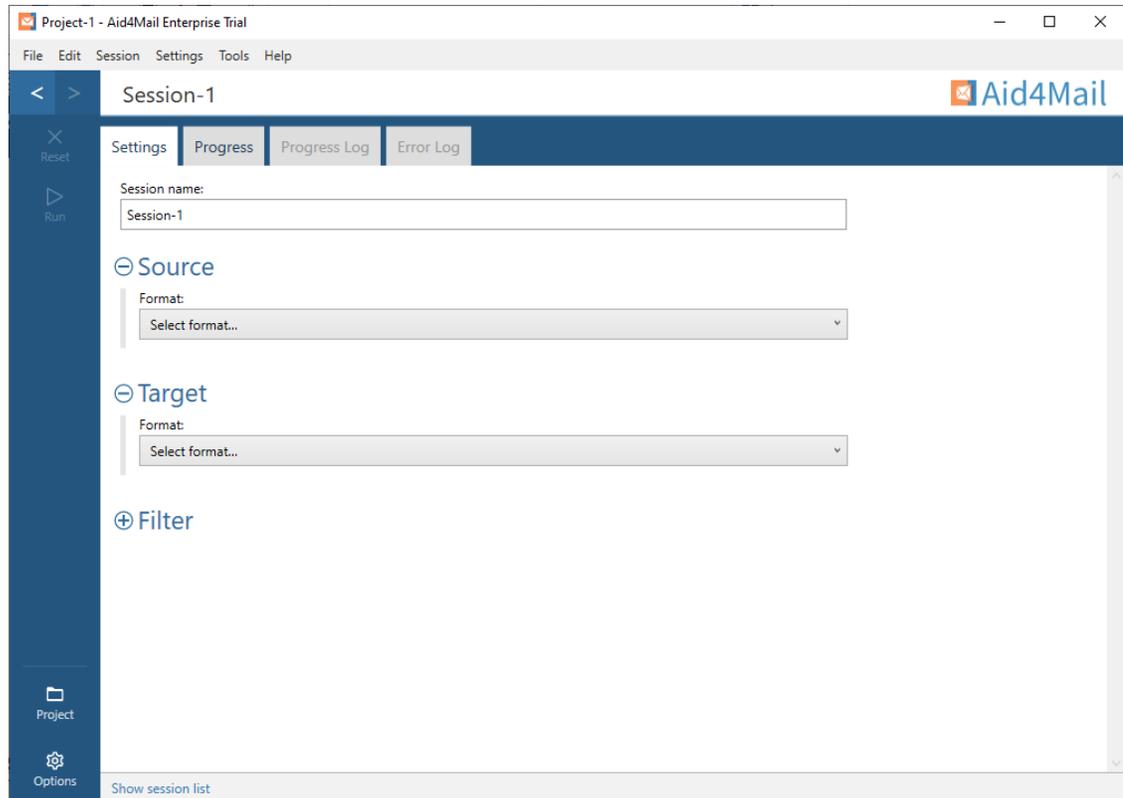
### Filter

*Session information*

### 13.4.1 Session settings

The session *Settings* screen consists of the [Session name](#) followed by 3 collapsible sections:

1. [Source](#)
2. [Target](#)
3. [Filter](#)



*Settings screen before configuration*

#### **Session name (required)**

The name of the selected session. Initially this will show a default name. We recommend you change it to something you can easily identify.

Example: John Doe's email is spread across 3 different source formats which all need to be converted to PDF. One approach would be to set up 3 different sessions, one for each format: The first to convert his Outlook mail, the second for his web mail and the third for his Thunderbird files. Descriptive session names might be:

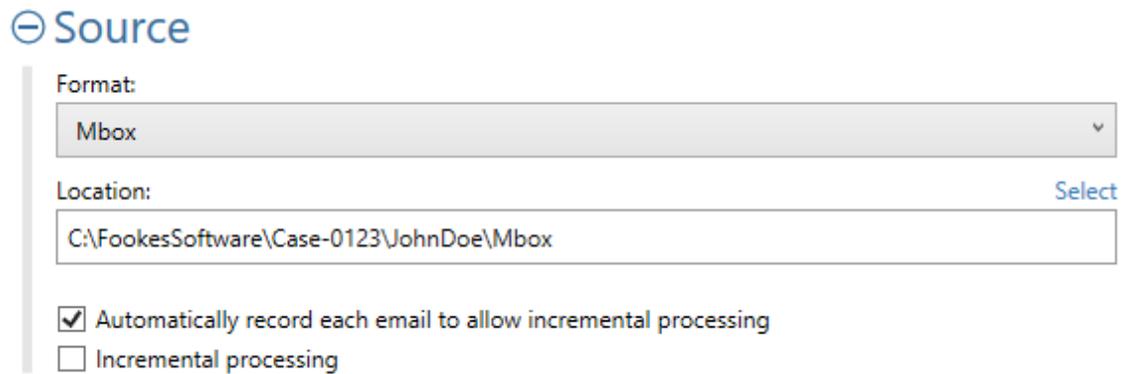
1. John Doe - Outlook
2. John Doe - Webmail

### 3. John Doe - Thunderbird

Note that the session name is also used to name the settings file and log files for this session and so must not contain any [illegal characters](#).

### 13.4.1.1 Session settings: Source

The *Source* section of the [Settings](#) screen contains required and optional settings related to your chosen source format. The fields displayed depend on the value chosen in the [Format](#) field.



Source

Format:  
Mbox

Location: [Select](#)  
C:\FookesSoftware\Case-0123\JohnDoe\Mbox

Automatically record each email to allow incremental processing  
 Incremental processing

*Source settings*

#### **Format (required)**

The email format that Aid4Mail will be reading and importing from. Please refer to the full list of [supported source formats](#).

Some mail files correspond to more than one source format. We recommend you always select the most specific option when faced with a choice.

For example, Thunderbird mailboxes are also mbox files but with additional status information in the headers. If you select *Thunderbird* as your source format, Aid4Mail knows it must read the status information which would be lost if you select *Mbox*.

Similarly, if your mbox files come from Google Vault, select *Google Vault* as the source format to obtain optimal results. Google Vault adds label information to the mbox files which will be lost if you select *Mbox*. When you select *Google Vault*, Aid4Mail knows it must read the proprietary label information to correctly understand the folder structure.

#### **Process using Outlook**

Only available when your source [format](#) is *PST file* or *MSG files*.

When turned *On*, Aid4Mail will use Microsoft Outlook's engine to access your source file(s). This is the recommended option but requires you to have a copy of Outlook installed on the same computer as Aid4Mail.

When turned *Off*, Aid4Mail will access the source file(s) without using Outlook. It does not require Outlook to be installed on the computer. However, some metadata in the email header, like status information, may not be accessible.

Please refer to [Choosing the right format: PST and MSG](#) for additional information.

### **Files downloaded from Mimecast server**

Only available if your source [format](#) is *Mimecast*.

Mimecast archives are delivered in two different formats:

1. A collection of ZIP files downloaded from a Mimecast FTP server with all accounts mixed together.
2. Files organized in folders for each account on an external hard drive.

If you obtained your Mimecast export from a Mimecast FTP server (#1 above) then select this option. It pre-fills many of your [target settings](#) to split your Mimecast archives into multiple EML folders, organized per account. Aid4Mail is possibly the only software on the market that's able to do this and it's a huge time saver. Once you've run this conversion, you can then do a second conversion to convert the EML folders to whichever target [format](#) you require.

### **Location**

Only available if your source [format](#) is *MSG, EML, mbox, Thunderbird, SeaMonkey, Maildir, Google Takeout, Google Vault, Mimecast or Proofpoint*.

The folder or file location on the drive where the source email file(s) are located. You can write the location directly in the field or use *Select* to browse for a location.

If your chosen source [format](#) is *Thunderbird* then you can also use *Find* to automatically locate Thunderbird's mail directory.

With certain source formats, you can use wildcards in this field to [create multiple duplicate sessions](#) at the same time. For more information, please refer to the [Duplicating sessions](#) topic.

**Password**

Only available if your source [format](#) is *Proofpoint*.

The password for the Proofpoint ZIP archive that's specified in the [Location](#) field.

**Email address**

Only available if your source [format](#) is *Gmail* or *Outlook 365*.

Select the email address of the source mail account from the list. If it is not yet in the list, you can use *Add* to launch [Aid4Mail Authenticator](#) and add the account. Alternatively, you can *Import* an existing authentication token (that was created using [Aid4Mail Remote Authenticator](#)).

**Use login credentials to access another account as a delegate**

Only available if your source [format](#) is *Gmail* or *Outlook 365*.

A delegate is an email account that has been authorized to access another account (the delegator's account). If the [Email address](#) field refers to a delegate account, turn this option *on* and enter the email address of the delegator's account it has access to.

**Profile**

Only available if your source [format](#) is *Outlook profile*.

Select which profile you want Aid4Mail to process. The list will automatically be filled with all Outlook profiles available on the computer that Aid4Mail is being run on.

[Default] is the profile that is designated as the default in Outlook. It is the same as one of the other profiles in the list. Choose this option if you want to process the default profile, no matter which one it is set to. Otherwise, select a specific profile from the list.

Use *Reload* to tell Aid4Mail to regenerate the list of profiles provided by Outlook. This is useful if a profile has been added or removed in Outlook since Aid4Mail was last opened or, as can occasionally happen, you notice that Outlook has not provided all of its profiles in the list.

**Store**

Only available if your source [format](#) is *Outlook profile*.

Select which message store you want Aid4Mail to process. The list will automatically be filled with all Outlook stores available for your chosen [profile](#).

[Default] is the store that is designated as the default in Outlook for your chosen [profile](#). It is the same as one of the other stores in the list. Choose this option if you want to process the default store, no matter which one it is set to. Otherwise, select a specific store from the list.

Use *Reload* to tell Aid4Mail to regenerate the list of stores provided by Outlook. This is useful if a store has been added or removed in Outlook since Aid4Mail was last opened or, as can occasionally happen, you notice that Outlook has not provided all of its stores in the list.

### **PST file**

Only available if your source [format](#) is *PST file*.

The location of the PST file on your drive. You can write the location directly in the field or use *Select* to browse for a location. If the PST file is password-protected, use the *Password* button to enter it.

Note that Aid4Mail can only process one source PST file per [session](#). To process multiple PST files, you will need to set up [multiple sessions](#) (one for each PST file). You can use wildcards in the PST file field to [create multiple duplicate sessions](#), one for each PST, as shown in [Duplicate sessions: Example 1](#).

### **IMAP account**

Only available if your source [format](#) is *IMAP*.

Select an [IMAP](#) account from the list, *Edit* it if necessary or *Add* a new account to the list. *Edit* and *Add* both launch the [IMAP Configuration Editor](#). You can also *Import* existing IMAP settings from an *.imap.ini* file.

### **Access email located outside your personal mailbox (e.g. shared mailboxes)**

Only available if your source [format](#) is *IMAP*.

Select this option to allow Aid4Mail to access any shared mailboxes (or other mailboxes outside the direct scope of your personal mailbox) associated with this account.

### **Remove journaling envelope**

A [journalized email](#) includes additional metadata along with the email message. When this option is *on*, Aid4Mail will remove this additional data from any journalized emails that are processed.

**Automatically record each email to allow incremental processing**

When *on*, Aid4Mail will keep a log of every email that has been processed. This option is *on* by default to allow for data recovery in the event of a failure. However, logging every email processed has an impact on performance. If you need Aid4Mail to run faster, try turning this option *off*.

**Incremental processing**

Only available if [Automatically record email email to allow incremental processing](#) is turned *on*.

When incremental processing is *on*, Aid4Mail will ignore any emails in the source [Location](#) that were already processed during a previous run of this same session (i.e. emails that appear in the log created by the [Automatically record email email to allow incremental processing](#)). This allows you to resume processing where you left off if a session is stopped or fails for any reason, or for processing large mailboxes in small increments.

### 13.4.1.2 Session settings: Target

The *Target* section of the [Settings](#) screen contains optional settings related to your chosen target format. The fields displayed depend on the value chosen in the [Format](#) field.

⊖ Target

Format:  
PST file (via Outlook) ▼

PST file: Password • Select  
C:\FookesSoftware\Case-0123\JohnDoe.pst

Base folder (location in PST file): Select  
Optional folder name

Folder structure:  
Same as source folder structure ▼

Python script: Open • Add  
None ▼

Limit PST file size:  
No limit ▼

Append messages to target mailbox if it already exists  
 Add extra metadata to email headers

#### *Target settings*

#### **Format (required)**

The email format that Aid4Mail will be creating and exporting to. Please refer to the full list of [supported target formats](#).

#### **Process using Outlook**

Only available when your target [format](#) is *PST file* or *MSG files*.

When turned *On*, Aid4Mail will use Microsoft Outlook's engine to create your target file(s). This is the recommended option but requires you to have a copy of Outlook installed on the same computer as Aid4Mail.

When turned *Off*, Aid4Mail will create the target file(s) without using Outlook. It does not require Outlook to be installed on the computer. However, some metadata in the email header, like status information, may be missing.

Please refer to [Choosing the right format: PST and MSG](#) for additional information.

### **Email address**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *Gmail* or *Outlook 365*.

Select the email address of the target mail account from the list. If it is not yet in the list, you can use the *Add* to launch [Aid4Mail Authenticator](#) and add the account. Alternatively, you can *Import* an existing authentication token (that was created using [Aid4Mail Remote Authenticator](#)).

### **Use login credentials to access another account as a delegate**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *Gmail* or *Outlook 365*.

A delegate is an email account that has been authorized to access another account (the delegator's account). If the [Email address](#) field refers to a delegate account, turn this option *on* and enter the email address of the delegator's account it has access to.

### **Profile**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *Outlook profile*.

Select a profile to receive your target mail. The list will automatically be filled with all Outlook profiles available on the computer that Aid4Mail is being run on.

[Default] is the profile that is designated as the default in Outlook. It is the same as one of the other profiles in the list. Choose this option if you want to use the default profile, no matter which one it is set to. Otherwise, select a specific profile from the list.

### **Store**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *Outlook profile*.

Select which message store you want to receive your target mail. The list will automatically be filled with all Outlook stores available for your chosen [profile](#).

[Default] is the store that is designated as the default in Outlook for your chosen [profile](#). It is the same as one of the other stores in the list. Choose this option if you want to use the default store, no matter which one it is set to. Otherwise, select a specific store from the list.

**PST file**

Only available when your target [format](#) is *PST file*.

The location of the PST file on your drive. You can write the location directly in the field or use *Select* to browse for a location. If you want the PST file to be password-protected, use the *Password* button to enter it.

**Location in PST file**

Only available when your target [format](#) is *PST file*.

The base folder location inside a PST file where Aid4Mail will create your target emails and/or non-email items.

**IMAP account**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *IMAP*.

Select an [IMAP](#) account from the list, *Edit* it if necessary or *Add* a new account to the list. *Edit* and *Add* both launch the [IMAP Configuration Editor](#). You can also *Import* existing IMAP settings from an *.imap.ini* file.

**Access email located outside your personal mailbox (e.g. shared mailboxes)**

Only available in [Aid4Mail Enterprise](#) when your target [format](#) is *IMAP*.

Select this option to allow Aid4Mail to access any shared mailboxes (or other mailboxes outside the direct scope of your personal mailbox) associated with this account.

**Location**

The location where Aid4Mail will create your target emails and/or non-email items.

If your target [format](#) is *MSG, EML, HTML, PDF* or *XML*, this will be a folder location on your drive.

If your target [format](#) is *mbox, Thunderbird, SeaMonkey, Plain text, CSV* or *TSV*, this will be a folder or file location on your drive.

If your target [format](#) is *Outlook profile, Gmail* or *IMAP*, will this be a folder location inside the mail store.

You can write the location directly in the field or, depending on your target [format](#), use *Select* to browse for a drive location. If your chosen target [format](#) is *Thunderbird* then you can also use *Find* to automatically locate Thunderbird's mail directory.

### Export to a single mbox/mailbox/PDF/text file

Only available when your target [format](#) is *Mbox files*, *Thunderbird*, *Seamonkey*, *PDF* or *Plain text*.

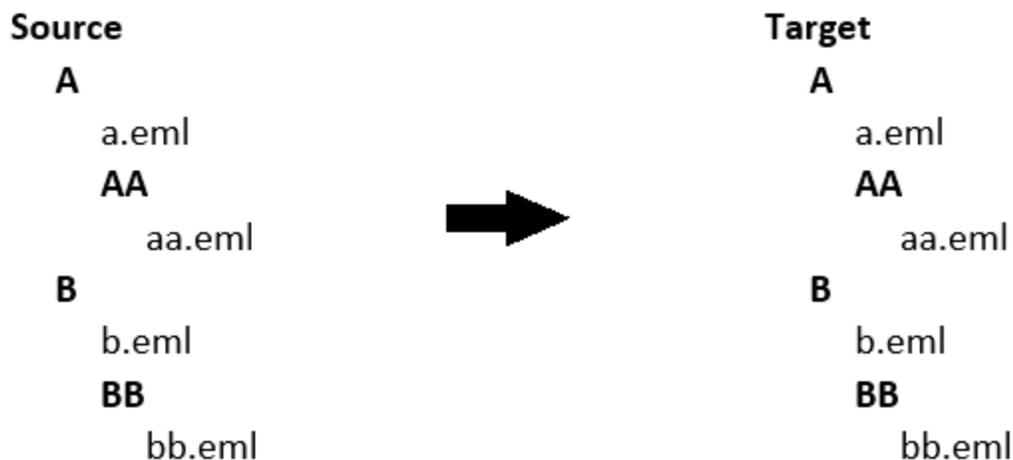
When turned *On*, all emails processed in the [session](#) will be placed in the same target file. When *Off*, each email will be placed in a separate file.

### Folder structure

Determine how Aid4Mail creates the target folder structure. Available options are:

- *Same as source folder structure*

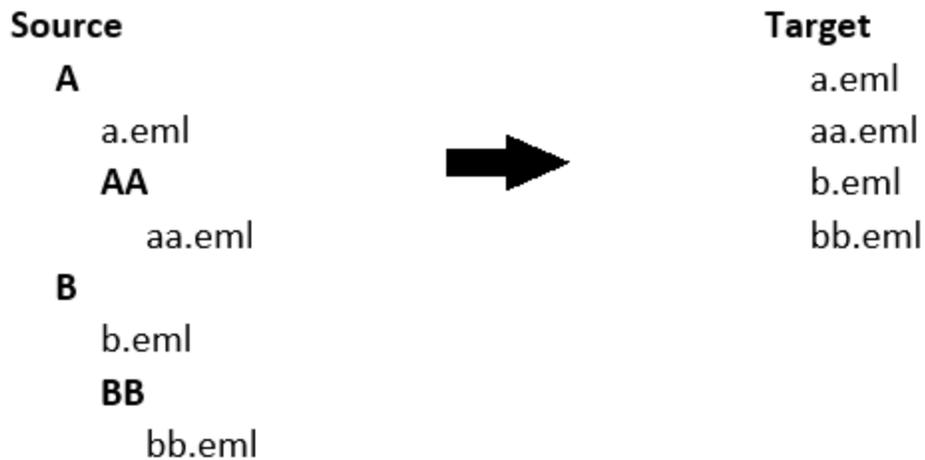
The target folder structure will be exactly the same as the source folder structure, as shown in the image below. This option is selected by default.



*Folder structure: Same as source folder structure*

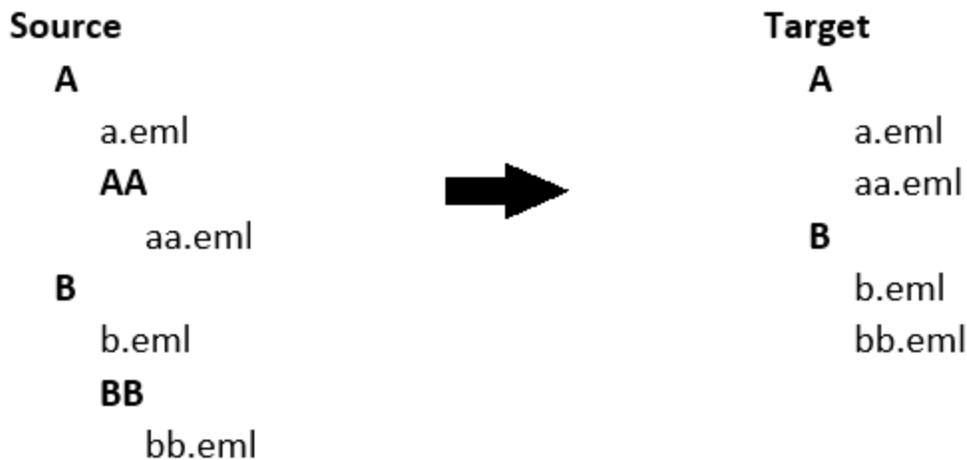
- *Merge all emails into the target folder*

All target emails will be placed at the same level in the target [Location](#). This includes emails that were in subfolders in the source. This means that any folder hierarchy will be lost although the emails themselves will not be lost.



*Folder structure: Merge all emails into the target folder*

- *Merge all emails into the top-level folders*  
All target emails will be placed into the top-level folder(s) of the source folder structure, under the target [Location](#). This means that part of the folder hierarchy may be lost although the emails themselves will not be lost.



*Folder structure: Merge all emails into the top-level folders*

- *Use X-Folder metadata*  
Only available in [Aid4Mail Enterprise](#) and [Investigator](#).  
The folder structure will be read from the email's *X-Folder* header field, if it exists. The *X-Folder* field is a proprietary header field that contains an email's original folder structure and is added to the email header when [Add extra metadata to headers](#) is turned on.

- *Use a template*  
Define a template that will be applied to the target folder structure.

### **Folder structure template**

Only available when *Use a template* is selected in the [Folder structure](#) drop-down list.

Enter your folder structure template in this field. You can use the *Insert* button above the field to insert [template tokens](#). Please refer to the [Folder structure templates](#) topic for details of how to create a template.

### **File name**

Only available when your target [format](#) is *MSG, EML, PDF, HTML, Plain text or XML*.

Determine how Aid4Mail will name each of your target email files. Available options are:

- *Same as source file names*  
Each target file will have the same name as its corresponding source file.
- *Use MD5 signatures*  
Each target filename will be based on an MD5 signature created from the content of the email. This has many benefits, notably that it guarantees all names are unique, of equal length and not too long, and don't contain any [illegal characters](#). A great option for saving to external media.
- *Use SHA-1 signature*  
The same as the MD5 option except it uses an SHA-1 signature instead of MD5.
- *Use FNV-1a signature*  
The same as the MD5 option except it uses a 64-bit FNV-1a signature instead of MD5.
- *Use email UID value*  
Every email has a unique ID associated with it. With this option, an email's ID will be used for the filename.
- *Use a template*  
Define a template that will be used for the target filenames.

Note: For the options that use signatures, the exact method used depends on the [Generate hash value from](#) option, under the [Session](#) section of the [Options](#) screen.

### File name template

Only available when *Use a template* is selected in the [File name](#) drop-down list.

Enter your filename template in this field. You can use the *Insert* button above the field to insert [template tokens](#). Please refer to the [Filename templates](#) topic for details of how to create a template.

### Email header configuration

Only available when your target [format](#) is *HTML*, *PDF* or *Plain text*.

Select a configuration file to specify the email header fields to appear in each target email. Alternatively, *create* a new configuration file or *import* an existing one. You can *edit* any of them. If you don't select anything, an internal default configuration (called *{Default}*) will be used. The default configuration cannot be edited.

New configuration files are saved directly in the Templates/Fields subfolder of your [application data folder](#). Importing an existing file makes a copy of it in this folder. The original will not be moved or deleted.

If you edit an imported configuration file, modifications are only made to the copy. The original will not be altered. Likewise, if you edit one of Aid4Mail's built-in configuration files, you are editing a copy that's also stored in the Templates/Fields subfolder of your [application data folder](#). It won't affect the original that is safely intact in the Templates/Fields subfolder of your [program folder](#).

The built-in configuration files for HTML and PDF are:

- *Append full header*  
The same as *Email with basic header* but with the full email header added to the end of the email. The full header contains all fields present in the source email.
- *Email with basic header*  
A basic email header containing just the essential fields, followed by the email body. Attachments are extracted and deduplicated to a separate folder.
- *Email with reduced header*  
The full header minus non-standard or unimportant SMTP fields, followed by the email body. Attachments are extracted and deduplicated to a separate folder.

### Column configuration

Only available when your target [format](#) is *CSV* or *TSV*.

Select a configuration file to specify the columns to appear in each target CSV/TSV file. Alternatively, *create* a new configuration file or *import* an existing one. You can *edit* any of them. If you don't select anything, an internal default configuration (called *{Default}*) will be used. The default configuration cannot be edited.

New configuration files are saved directly in the Templates/Fields subfolder of your [application data folder](#). Importing an existing file makes a copy of it in this folder. The original will not be moved or deleted.

If you edit an imported configuration file, modifications are only made to the copy. The original will not be altered. Likewise, if you edit one of Aid4Mail's built-in configuration files, you are editing a copy that's also stored in the Templates/Fields subfolder of your [application data folder](#). It won't affect the original that is safely intact in the Templates/Fields subfolder of your [program folder](#).

### **Content configuration**

Only available when your target [format](#) is *XML*.

Select a configuration file to specify the content of each target XML file. Alternatively, *create* a new configuration file or *import* an existing one. You can *edit* any of them. If you don't select anything, an internal default configuration (called *{Default}*) will be used. The default configuration cannot be edited.

New configuration files are saved directly in the Templates/Fields subfolder of your [application data folder](#). Importing an existing file makes a copy of it in this folder. The original will not be moved or deleted.

If you edit an imported configuration file, modifications are only made to the copy. The original will not be altered. Likewise, if you edit one of Aid4Mail's built-in configuration files, you are editing a copy that's also stored in the Templates/Fields subfolder of your [application data folder](#). It won't affect the original that is safely intact in the Templates/Fields subfolder of your [program folder](#).

### **Python modifier script**

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Use a [Python script](#) to customize the target email content or its folder or filename. You can select a script from the drop-down list and use *Open* if you need to view or edit it. You can also *Add* a script to the library to make it available in the list. For further information please refer to the [Python modifier scripts](#) topic.

### Limit PST file size

Only available when your target [format](#) is *PST file*.

Select a size from the drop-down list if you want your target mail to be placed in multiple PST files, each with a fixed file size, instead of one larger PST file. For example, if you have 17 GB of mail and *Limit PST file size* is set to 5 GB, you will end up with four target PST files: The first three will each contain 5 GB of mail with the fourth containing the remaining 2 GB.

The first PST file will have the filename that is set in [PST file](#). The remaining files will have the same name but suffixed with an index. Using the example above, if [PST file](#) is set to Target.pst then Aid4Mail would produce the following four files:

- *Target.pst* (5 GB)
- *Target[001].pst* (5 GB)
- *Target[002].pst* (5 GB)
- *Target[003].pst* (2 GB)

Note that:

- The PST files may slightly exceed the selected size limit. This is because Outlook uses a data cache, adding data to the PST file after Aid4Mail has finished exporting to it. If your size limit must not be exceeded under any circumstances, it is recommended to select a smaller value.
- The *Based on registry* option uses the PST file size limit defined in the Windows registry. If no value is defined, it will use the maximum PST size recommended by Microsoft for the version of Outlook being used:
  - 50 GB for Outlook 2019, 2016, 2013 and 2010
  - 20 GB for Outlook 2007 and 2003
  - 2 GB for earlier versionsFor more information, please refer to [How to configure the size limit for both \(.pst\) and \(.ost\) files in Outlook](#) on Microsoft's website.
- When multiple sessions share the same target PST file, and the *Limit PST file size* option is used, Aid4Mail will only run one session at a time regardless of the value set in [Maximum sessions running concurrently](#). This is because each session is independent and can only control a PST file's size when it is the only session accessing it.
- The default value for the Limit PST file size option is *No limit*.

**Create HTML index file**

Only available when your target [Format](#) is *HTML*.

When *on*, Aid4Mail will create an index for your target HTML files. The index acts as a web viewer, containing a list of all target emails created by the [session](#). The list can be sorted and filtered by keywords to locate specific messages. Any email selected in the list will be displayed in the lower half of the page, allowing you to view and examine it.

The index file, *index.html*, is located in the target [location](#). Simply double-click it to open it in your web browser.

**Append messages to target mailbox if it already exists**

Only available when your target [format](#) is *PST file, mbox, Thunderbird, SeaMonkey, HTML, Plain text, CSV, TSV or XML*.

When this option is turned *on* and Aid4Mail encounters a file that already exists at the target location, it will add the target emails to the end of the existing file. When this option is turned *off*, Aid4Mail will make a back-up copy of any existing file and create a new file at the target location for the target emails.

**Add extra metadata to headers**

When *on*, Aid4Mail will add additional metadata to each email's message header. When *off*, no additional metadata is added. For details, please refer to the [Adding header metadata](#) topic.

### 13.4.1.3 Session settings: Filter

The *Filter* section of the [Settings](#) screen contains options for searching and filtering folders, emails and non-email items.

[Aid4Mail Converter](#) is limited to searching and filtering folders. [Aid4Mail Enterprise](#) and [Investigator](#) extend this capability to individual emails, non-email items and attachments (and any files they contain). They also support both server-side and local searches as well as [wildcards](#), [regular expressions](#) and [Python scripts](#). Please refer to the substantial [Searching and filtering](#) topic, and its numerous sub-topics, for further detailed information.

## ⊖ Filter

1. Folder filter:

Include hidden folders

Process all folders    Select in folder tree    Folder search terms

Clear • Validate

Open assistant

---

2. Item filter:

Process all items    Skip items    Item search terms

Clear • Validate

Open assistant

Search text in attachments and image Exif/IPTC/XMP metadata  
 Include files contained in attachments  
 Include metadata for file types lacking searchable text (slower)

---

3. Python filter script: Open • Add

*Filter settings*

Note that, in trial mode, Aid4Mail works on modified copies of your mail which may, in turn, impact your filter results. For more details see the [Trial mode](#) topic.

Filters are applied in the [order](#) they appear on this screen.

1. [Folder or native filter](#) (or simply [Folder filter](#) if no native option is available).
2. [Item filter](#).
3. [Python script](#).

## Folder or native filter

The folder filter and, if available, native filter are executed before any emails (or non-email items) have been read by Aid4Mail. This allows you to cull down the data that Aid4Mail will process and significantly increase performance. You cannot have both a folder filter and a native filter so can only use one of the following options:

- [Process all folders](#)
- [Select in folder tree](#)
- [Folder search terms](#)
- [Native search terms](#)

Note that only certain cloud-based mail services have the ability to perform a native search. If your selected mail source format is not one of these then the *Native search terms* option will not be displayed and the heading for this section will simply be *Folder filter*.

## Include hidden folders

Only available in [Aid4Mail Enterprise](#) and [Investigator](#) when your [source format](#) is *PST file*, *OST file* or *Outlook profile*.

In some Outlook mail stores, the visible folder tree is only a subset of a larger structure. There are a number of hidden folders that may be of interest in forensic examinations. They can contain deleted data, previous versions of email drafts and other potentially useful information. Turning this option *on* includes these hidden folders. Turning it *off* excludes them.

Note that this option can also be affected by the [Process using Outlook](#) option. When the latter is *on*, there are usually more hidden folders made available than when it's *off*.

## Process all folders

No folder filter or native filter. All folders will be processed.

### Select in folder tree

From the folder tree, select the folders that you want to process. Aid4Mail will only read items in the selected folders. Items in non-selected folders will automatically be excluded.

Note that selecting a parent folder selects all the folders underneath it. Likewise for deselection. You can override this behavior by pressing the Ctrl key while selecting folders. Selecting/deselecting a folder with no children only affects that folder.

Above this field, are options to *Reload* the folder tree and *Export* it to a text file.

### Folder search terms

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Specify [search terms](#) to determine which folders to include or exclude. Aid4Mail will only read items in the folders that result from the search. Items in other folders will automatically be excluded. Whenever possible, Aid4Mail will apply the folder filter server-side (like a native filter) to further optimize the process.

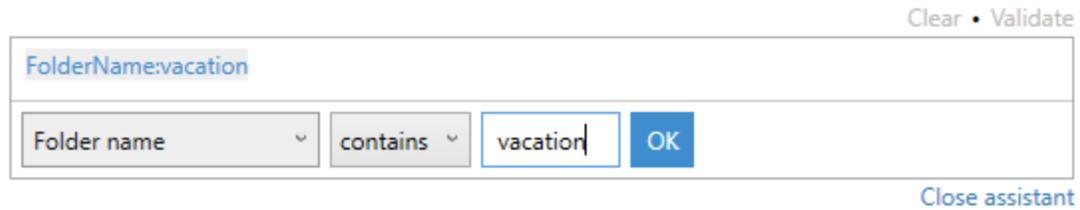
As an example, if you know that the only emails you need to find are in the *Vacation* folder, you can specify `vacation` as your folder search term and only that folder will be processed by Aid4Mail. All other folders will be ignored.

A screenshot of a search input field. The field contains the text "vacation". To the right of the field, there are two links: "Clear" and "Validate". Below the field, there is a link "Open assistant".

*Folder search terms*

Note that folder search terms are always case-insensitive.

You can write your [search terms](#) directly in the search field. Select *Clear* if you need to start over. Alternatively, select *Open assistant* to use the search assistant. The assistant helps you create search terms that use a search operator by laying out the fields you need to fill in. Below is an example using the [FolderName](#) search operator:



The screenshot shows a search assistant interface. At the top right, there are links for 'Clear' and 'Validate'. Below this is a text input field containing 'FolderName:vacation'. Underneath the input field is a row of controls: a dropdown menu labeled 'Folder name', a dropdown menu labeled 'contains', a text input field containing 'vacation', and a blue 'OK' button. At the bottom right of the interface, there is a link labeled 'Close assistant'.

Using the Search assistant to construct a folder search term with the *FolderName* operator

Once you have finished creating your search terms, you can check that they are syntactically correct by selecting *Validate*. A validation message will appear below your search terms. Clicking on your search terms will clear this message. If your search terms are not syntactically valid, the message will be red and will indicate errors. If your search terms are valid, the message will be green and will indicate (using parentheses) how your search terms will be interpreted by Aid4Mail. In this case, double-clicking the validation message will replace your search terms with the validated version.

### Native search terms

Only available in [Aid4Mail Enterprise](#) and [Investigator](#) when your [source format](#) is *Gmail*, *Outlook 365* or *IMAP*.

The native filter in [Aid4Mail Enterprise](#) and [Investigator](#) enables a complete pre-acquisition search to be carried out server-side. This can significantly increase performance because Aid4Mail will only download and process emails that match the search results rather than the whole account. As the native search terms can relate not just to folders but to individual items too, a well-crafted native filter will minimize the number of individual items that Aid4Mail has to process and maximize performance.

Note, however, that Aid4Mail's [item filter](#) can search deeper than the native filter of most mail servers and so can find data that they may miss. For example, words in documents that are nested inside ZIP archive attachments. In such cases, using both a native filter and an [item filter](#) is the optimal approach.

In the *Native search terms* box, specify the search terms to be sent to the mail server as a native filter. Aid4Mail will then process the mail that results from this search. The search terms must use the service provider's syntax which can be different from one system to another. For an overview of the most common server syntaxes, Gmail, Office 365 and IMAP, please refer to the [Native filter syntax](#) topic.

## Item filter

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

The item filter is executed after the [Folder or native filter](#), while the source mail is being read and before exporting to the target format. This filter is for individual email messages or non-email items (calendars, contacts, etc) whose content matches the search terms you specify. Select between the following options:

- [Process all items](#)
- [Skip items](#)
- [Item search terms](#)

You can also adjust [Attachment options](#) in this section.

### Process all items

No item filter. All items will be processed.

### Skip items

Use this section if the **only** item filtering you require is to skip [duplicates](#) and/or [unpurged](#) mail. Select one or both or neither of the two options:

- *Skip duplicates*
- *Skip unpurged mail*

Note that if you select either of these options and then try to add [Item search terms](#), these skip options will be lost. The solution in this scenario is to use item search terms and incorporate `NOT Type:Duplicate` and/or `NOT Type:Unpurged` as appropriate. See the [Deduplication](#) and [Searching unpurged mail](#) topics for details.

### Item search terms

Specify [search terms](#) to tell Aid4Mail which email items (messages) or non-email items (calendars, contacts, etc) to include or exclude.

Case sensitivity depends on whether [Smart case detection for item search terms](#), on the [Filter](#) section of the [Options](#) screen, is turned *on* or *off*. By default this option is *off* and item searches are case-insensitive.

You can write your [search terms](#) directly in the search field. Select *Clear* if you need to start over. Alternatively, select *Open assistant* to use the search assistant. The assistant helps you

create search terms that use a search operator by laying out the fields you need to fill in. Below is an example using the [NewerThan](#) search operator:

The screenshot shows a search assistant interface. At the top right, there are links for 'Clear' and 'Validate'. Below this is a large text input field containing the search term 'NewerThan:1y'. Underneath the input field is a row of controls: a dropdown menu with 'is' selected, another dropdown menu with 'Newer than' selected, a text input field containing '1', a dropdown menu with 'year(s)' selected, and a blue 'OK' button. At the bottom right of the interface, there is a link for 'Close assistant'.

*Using the Search assistant to construct an item search term with the NewerThan operator*

Once you have finished creating your search terms, you can check that they are syntactically correct by selecting *Validate*. A validation message will appear below your search terms. Clicking on your search terms will clear this message. If your search terms are not syntactically valid, the message will be red and will indicate errors. If your search terms are valid, the message will be green and will indicate (using parentheses) how your search terms will be interpreted by Aid4Mail. In this case, double-clicking the validation message will replace your search terms with the validated version.

### Attachment options

By default, Aid4Mail searches the message header and body of each email when looking for [Item search terms](#). This scope can be extended to include attachments, files contained within attachments and file metadata, depending on the settings in this section. Most common [file types are supported](#).

- Search text in attachments and image Exif/IPTC/XMP metadata
- Include files contained in attachments
- Include metadata for file types lacking searchable text (slower)

*Attachment options*

- *Search text in attachments and image Exif/IPTC/XMP metadata*  
When *on*, Aid4Mail will search attachments but not necessarily the files contained within them (see [Include files contained in attachments](#)). It will also search EXIF, IPTC and XMP metadata stored in attached or embedded JPEG, TIFF and PSD images. This option is *on* by default. Turn it *off* for faster processing if you don't need this functionality.

- *Include files contained in attachments*  
Only available if [Search text in attachments and image Exif/IPTC/XMP metadata](#) has been selected. When this option is *on*, Aid4Mail will not only search attachments but also any files contained within attachments. For example, with this option activated, Aid4Mail will be able to find a word located in a PDF file that is contained within a ZIP archive, which is attached to an email that is also an attachment to an email. This option is *on* by default. Turn it *off* for faster processing if you don't need your search to run so deep.
- *Include metadata for file types lacking searchable text (slower)*  
Only available if [Search text in attachments and image Exif/IPTC/XMP metadata](#) has been selected. When this option is *on*, metadata will be extracted from a wide range of image, audio and video file formats. The metadata is then searched by Aid4Mail. This option is *off* by default as it is processor intensive. Turning it *on* may significantly increase processing time.

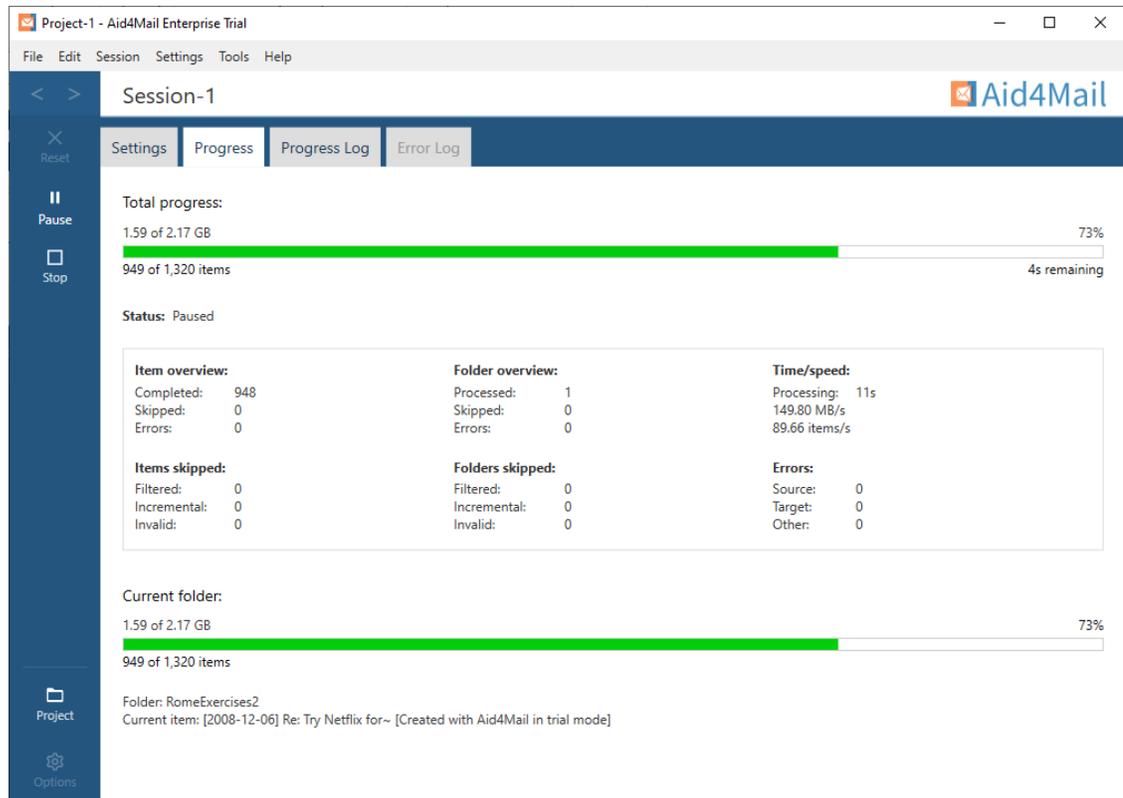
## Python script

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Use a [Python script](#) to determine whether the email currently being processed should be kept or discarded. You can select a script from the drop-down list and use *Open* if you need to view or edit it. You can also *Add* a script to the library to make it available in the list. For detailed information, please refer to the [Python filter scripts](#) topic.

### 13.4.2 Progress

Progress statistics for the currently selected [session](#).



*Progress screen*

## Total Progress

### Progress bar

Visually shows Aid4Mail's total progress for this session. Information includes:

- Amount of data processed in Bytes, KB, GB or TB (whichever is most relevant).
- Number of items processed.
- Progress percentage.
- Time remaining.

Note: If you process a [live email account](#) that continues to receive mail while Aid4Mail is processing, the progress percentage may exceed 100%. This is because Aid4Mail calculates the number of emails to be processed at the start. If new emails arrive later, Aid4Mail will process them too but the final count will be greater than the number calculated at the start.

For example, if your account has 100 emails in it, and 10 new emails arrive while Aid4Mail is processing, the progress percentage at the end will be 110%. A similar situation can arise if you use the same email account or mailbox as both source and target, causing [circular processing](#).

### Status

The session's current status. One of the following will be displayed:

- *Not ready*  
One or more of the required [settings](#) have not been completed.
- *Ready*  
Aid4Mail's [settings](#) are complete but the session has not yet been run.
- *Waiting*  
[Run](#) has been selected but the session is still waiting its turn. This is because other sessions are already running and the [maximum number of sessions running concurrently](#) has been reached. As the [other sessions](#) finish, one by one, this session will move forward in the queue and will automatically start when its turn arrives.
- *Indexing files*  
The session is now running and is indexing the source mail files prior to processing them.
- *Processing*  
Emails (or non-email items) are currently being processed.
- *Paused*  
The session has been paused. If you select *Run* when a session is paused then Aid4Mail will pick up where it left off.
- *Stopped*  
The session has been stopped. If you select *Run* when a session is stopped then Aid4Mail will restart the session from the beginning.
- *Successful*  
The session has ended and successfully processed all mail and non-email items.
- *Completed*  
The session has completed but issues were encountered with some of the emails.

- *Failed At Start*  
The session failed to start. This is usually due to Aid4Mail being unable to find the [Source](#) or [Target](#) location.
- *Failed Midway*  
The session failed while processing. This can be due to a variety of reasons including the loss of a network connection.

### Overview

These statistics show how many emails (or non-email items) were:

- *Completed*  
Aid4Mail was able to open the item and process it.
- *Skipped*  
Aid4Mail ignored the item and skipped it, usually due to your [filter settings](#). Details of skipped items are shown under the [Skipped](#) heading.
- *Errors*  
Indicates the number of items that produced errors during processing. Error details are shown under the [Error](#) heading.
- *Unprocessed*  
The number of items that were not processed and not accounted for in the other statistics. This is calculated once processing finishes.

### Time/Speed

Time-related statistics include:

- *Processing time*  
The time elapsed so far for this session.
- *Bytes per second*  
The amount of data processed per second.
- *Items per second*  
The number of items processed per second.

### Skipped

Details for the *Skipped* statistic under [Overview](#). It shows how many skipped items were:

- *Filtered*  
By any [filter](#) set using Aid4Mail's [search & filter](#) feature.
- *Incremental*  
Items that were already processed during a previous run of the same session with [incremental processing](#) turned *on*.
- *Invalid*  
Items that don't have any data, or don't conform to the file format, are automatically skipped.

### **Error**

Details for the *Error* statistic under [Overview](#). It shows how many errors were:

- *Source errors*  
The number of source emails that produced errors while being read.
- *Target errors*  
The number of target emails that produced errors while being saved.
- *Other errors*  
Errors that occurred but not while reading the source email or saving the target email. For example, emails in Eudora mailboxes contain links to attachments rather than the attachments themselves. If an attachment has been moved from the location the link points to, Aid4Mail will not be able to find it or include it in the target email, generating an error. However the target email is still successfully saved (without the attachment). This kind of error would fall into the *other errors* category.

### **Current Folder**

#### **Progress bar**

Visually shows how far Aid4Mail has progressed through the current folder. Information includes:

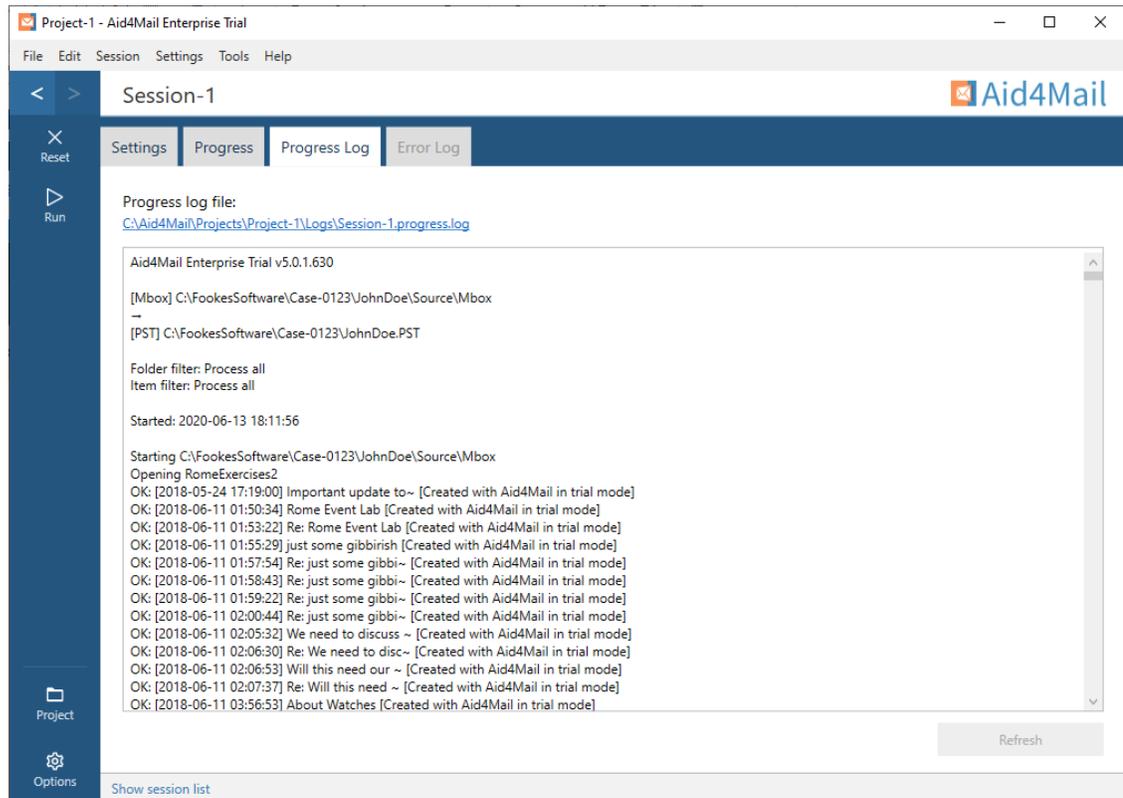
- Amount of data processed in Bytes, KB, GB or TB (whichever is most relevant).
- Number of Items processed.
- Progress percentage.

Details underneath include:

- *Mail store*  
The name of the mail store currently being processed.
- *Folder*  
The name of the folder currently being processed.
- *Current item*  
The name of the email, or non-email item, currently being processed. For emails, this name is taken from the subject line.

### 13.4.3 Progress log

The [location](#) and contents of the session's progress log file. The file is only created once a session has started processing. If the progress log file has not yet been created then this screen is not available.



*Progress log screen*

#### Progress log file

The full path and filename of the progress log file for this session. Clicking on the path will open the file in whatever local application is associated with `.log` files (e.g. Notepad).

Note that a secondary progress log file is created in the same location, with the same filename but a `.tsv` extension instead of `.log`. It contains additional data fields and is in the TSV (Tab Separated Values) format so will open in most spreadsheet applications.

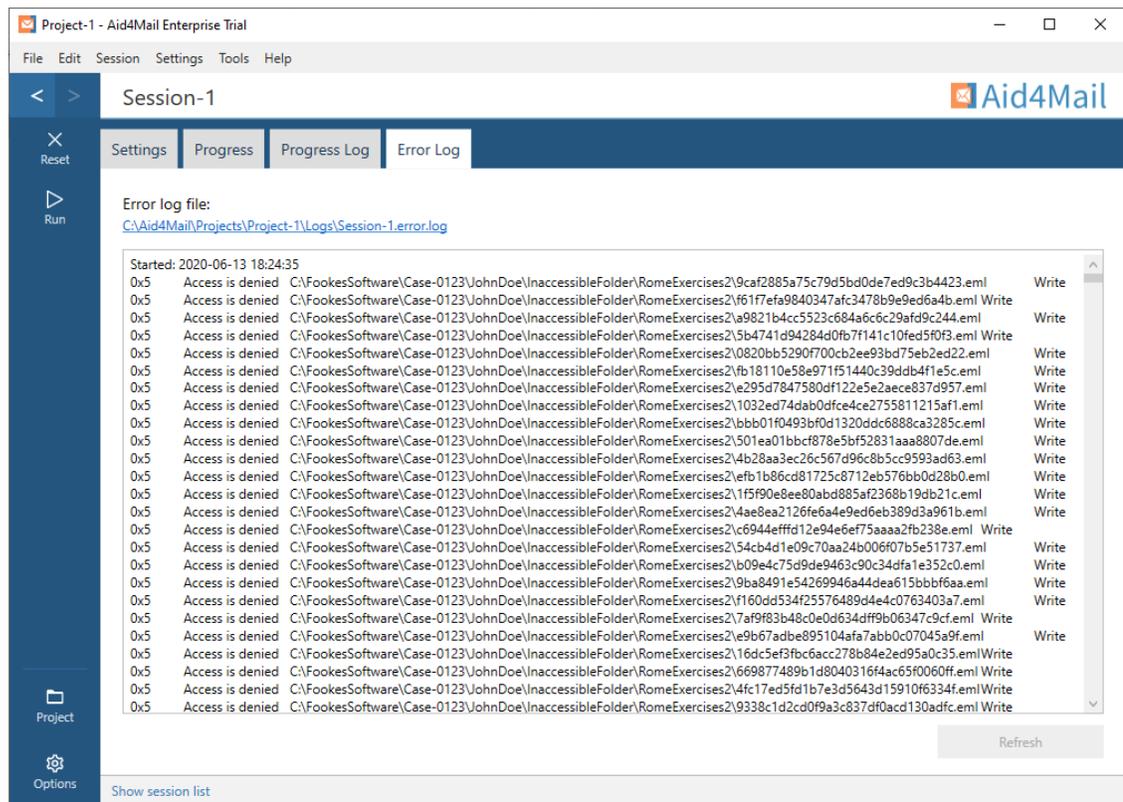
#### Content pane

Displays the content of the `.log` progress log file, line by line. If this screen is accessed while the session is running, the current content of the progress log file will be displayed.

However, it will not automatically be updated until the session has finished. Select *Refresh* to update the content of the file at any time while the session is running.

### 13.4.4 Error log

The [location](#) and contents of the session's error log file. The file is only created if one or more errors were encountered. If there is no error log file then this screen is not available.



Error log screen

#### Error log file

The full path and filename of the error log file for this session. Clicking on the path will open the file in whatever local application is associated with *.log* files (e.g. Notepad).

Note that a secondary error log file is created in the same location, with the same filename but a *.tsv* extension instead of *.log*. It contains additional data fields and is in the TSV (Tab Separated Values) format so will open in most spreadsheet applications.

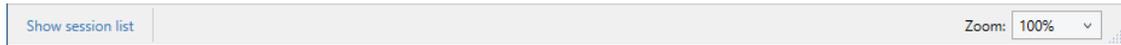
#### Content pane

Displays the content of the error log file, line by line. If this screen is accessed while the session is running, the current content of the error log file will be displayed. However, it will

not automatically be updated until the session has finished. Select *Refresh* to update the content of the file at any time while the session is running.

### 13.5 Task bar

The task bar displays important information relative to the task being performed. It also contains the [Show/Hide session list](#) button and the [Zoom](#) feature.



*Task bar*

#### **Show/Hide multiple sessions**

Same functionality as [Show/Hide session list](#) command under the [View menu](#).

#### **Zoom**

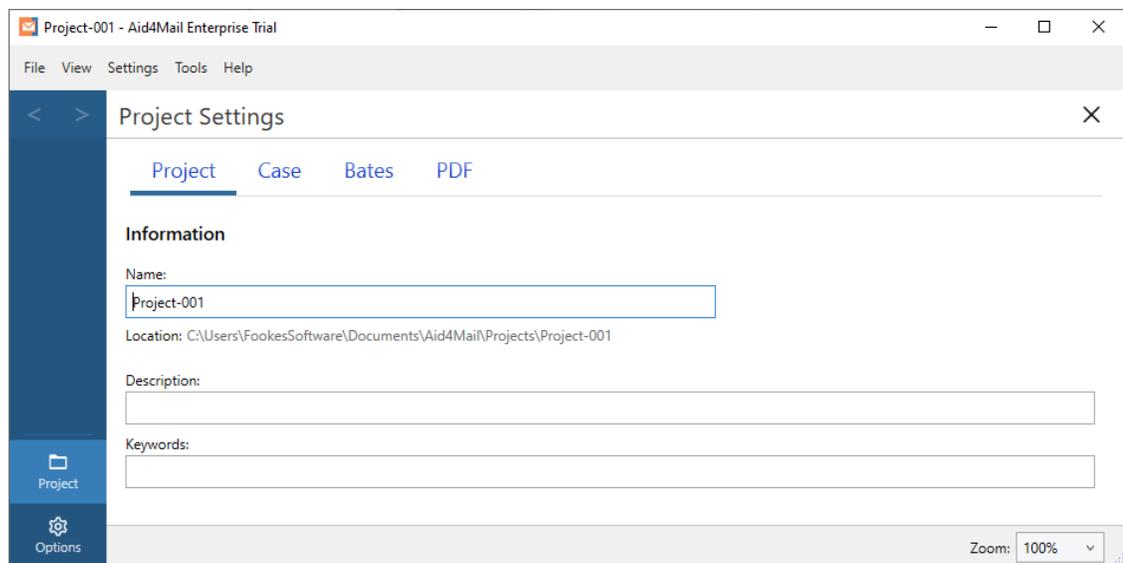
Zoom the user interface between 100% and 150%. This is the equivalent of using [Zoom in](#) or [Zoom out](#) under the [View menu](#).

## 13.6 Project settings

Settings that concern the whole [project](#) rather than individual [sessions](#).

The *Project settings* screen is divided into four sections, each with its own tab. Select a tab to view that section:

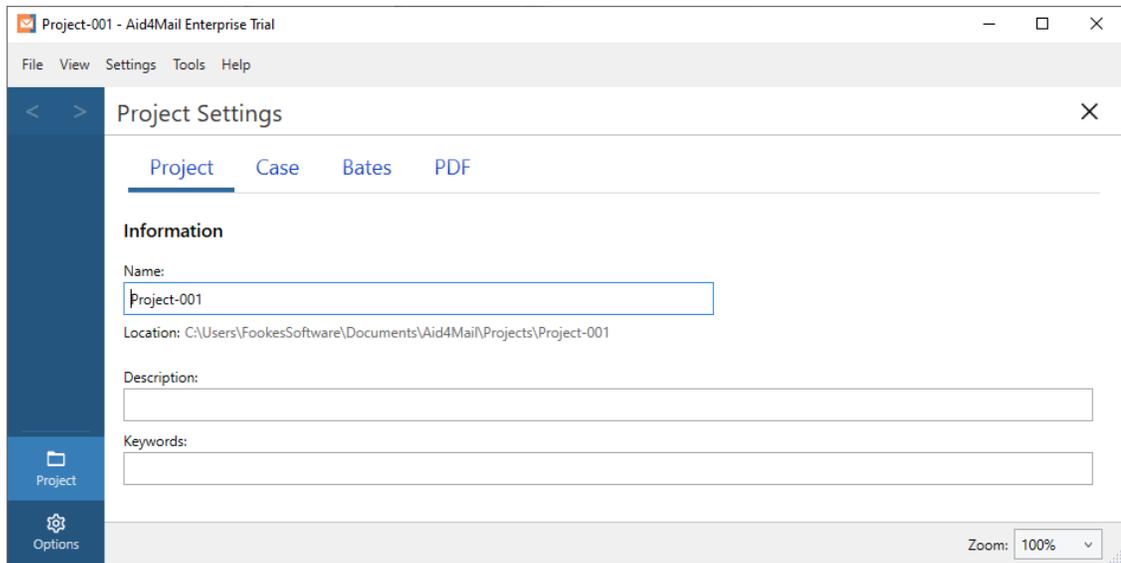
- [Project](#)
- [Case](#)
- [Bates](#)
- [PDF](#)



*Progress settings screen*

### 13.6.1 Project settings: Project

The *Project* section of the [Project settings](#) screen.



*App section of the Options screen.*

## Information

### Name (required)

Name of the current [project](#). This is also used to name the [project folder](#) and its settings file and so must not contain any [illegal characters](#).

### Location

Full path of the folder on disk where the current [project](#) is stored. It is also a hyperlink so, when selected, will open the project folder location in the Windows *File Explorer* app.

### Description

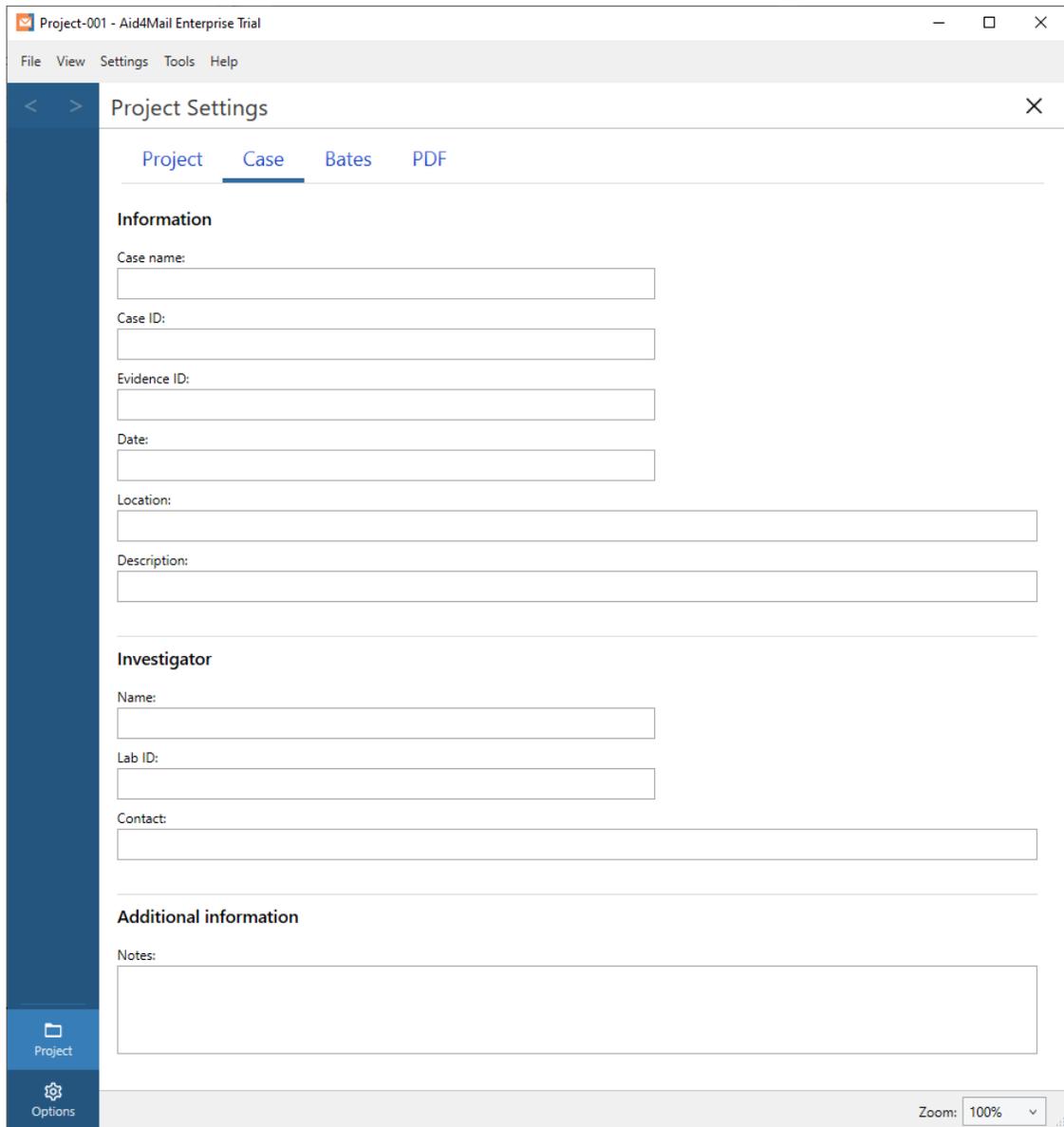
An optional description of the current [project](#).

### Keywords

An optional list of keywords associated with the current [project](#).

### 13.6.2 Project settings: Case

The *Case* section of the [Project settings](#) screen.



The screenshot shows a web application window titled "Project-001 - Aid4Mail Enterprise Trial". The main content area is titled "Project Settings" and has a navigation bar with tabs for "Project", "Case", "Bates", and "PDF". The "Case" tab is selected. The form is organized into three sections:

- Information:** Contains input fields for Case name, Case ID, Evidence ID, Date, Location, and Description.
- Investigator:** Contains input fields for Name, Lab ID, and Contact.
- Additional information:** Contains a large text area for Notes.

At the bottom left, there is a sidebar with "Project" and "Options" icons. At the bottom right, there is a "Zoom: 100%" dropdown menu.

*App section of the Options screen.*

## Information

The following optional case information fields are available. The information entered in these fields determines the values of the [Case template tokens](#).

- *Case name*
- *Case ID*
- *Evidence ID*
- *Date*
- *Location*
- *Description*

## **Investigator**

The following optional investigator/lab information fields are available. The information entered in these fields determines the values of the [Case template tokens](#).

- *Investigator name*
- *Lab ID*
- *Contact*

## **Additional information**

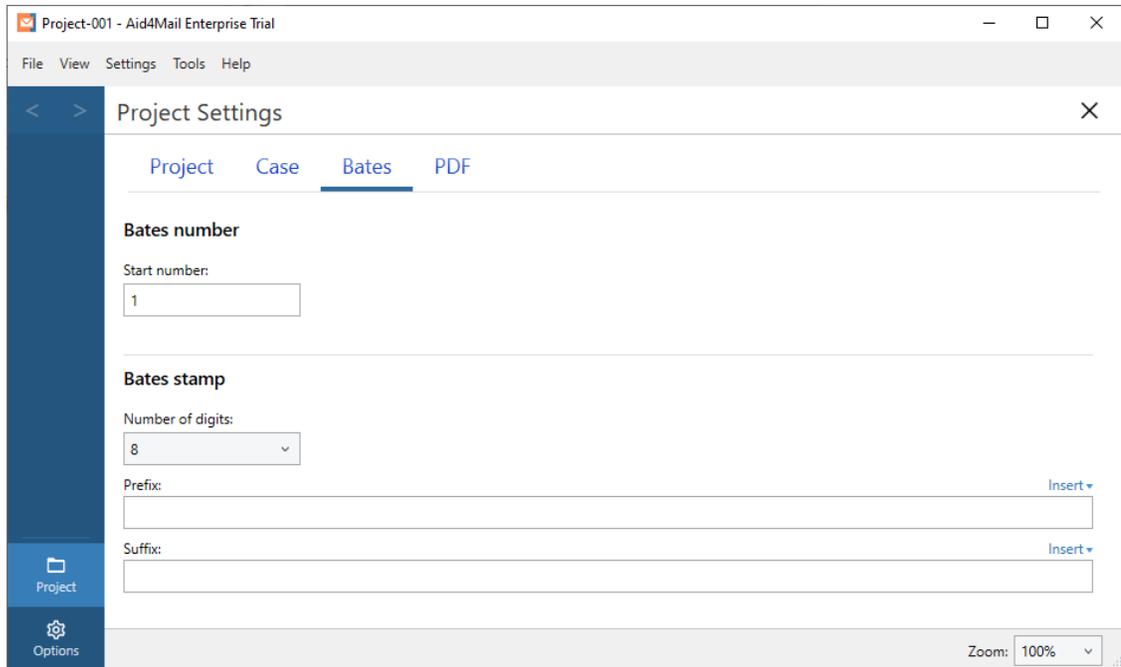
The following optional field is available:

- *Notes*

### 13.6.3 Project settings: Bates

The *Bates* section of the [Project settings](#) screen.

This section is only available in [Aid4Mail Enterprise](#) and [Investigator](#). In [Aid4Mail Converter](#), default values are used: The [start number](#) is automatically set to 1, the [number of digits](#) to 8, and there is no [prefix](#) or [suffix](#).



*App section of the Options screen.*

## Bates number

### Start number

The starting value for the [Bates number](#), for each new session or project, when the [Bates numbering scope](#) is set to *Session* or *Project*.

## Bates stamp

### Number of digits

The number of digits used for the formatted [Bates number](#) in the [Bates stamp](#). For example if the Bates number is currently 12 and the number of digits is set to 8, then the numerical part of the Bates stamp will be:

*00000012*

### Prefix

The prefix to the formatted [Bates number](#) in the [Bates stamp](#). It can be text, a [template token](#) or a combination of both.

For example, when running a session named *JohnDoe-Gmail*, if the [Bates number](#) is currently 135, the [number of digits](#) is 6 and the prefix is *{SessionName}-* (the [{SessionName}](#) token followed by a hyphen), then the Bates stamp will be:

*JohnDoe-Gmail-000135.*

### Suffix

The suffix following the formatted [Bates number](#) in the [Bates stamp](#). It can be text, a [template token](#) or a combination of both.

For example, when running a session named *JohnDoe-Gmail*, if the [Bates number](#) is currently 270, the [number of digits](#) is 8, the prefix is *FS-* and the suffix is *-{SessionName}* (a hyphen followed by the [{SessionName}](#) token), then the Bates stamp will be:

*FS-00000270-JohnDoe-Gmail*

### 13.6.4 Project settings: PDF

The *PDF* section of the [Project settings](#) screen.

The screenshot shows a web application window titled "Project-001 - Aid4Mail Enterprise Trial". The main content area is titled "Project Settings" and has a navigation bar with tabs for "Project", "Case", "Bates", and "PDF". The "PDF" tab is selected. The settings are organized into several sections:

- Document information:** Includes input fields for Author, Title, Subject, and Keywords, each with an "Insert" button.
- Page header:** Includes input fields for Left side and Right side, each with an "Insert" button.
- Page footer:** Includes input fields for Left side and Right side, each with an "Insert" button.
- Remote contents:** Includes a checked checkbox for "Download and render (slow)".
- Security features:** Includes three checked checkboxes for "Allow printing", "Allow copying", and "Allow editing". It also has input fields for "Permissions password" and "Document open password".

At the bottom of the window, there is a "Zoom" control set to "100%". A sidebar on the left contains "Project" and "Options" buttons.

*App section of the Options screen.*

## Document information

The information in these optional fields is included in the PDF document's metadata. You can view it in Adobe Reader, for example, by right-clicking a document and selecting *Document properties*.

You can use text, [template tokens](#) or a combination of both in these fields. Template tokens can be typed manually or inserted by selecting a token from the drop-down *Insert* list, located above the field on the right.

For example, if you enter `{InvestigatorName}` in the *Author* field, the value of that token will be used. The content for the token is taken from the investigator [Name](#) field in the [Case](#) section of the project settings. So, entering `Anne Appleby` as the investigator's name, and `{InvestigatorName}` as the PDF *Author*, will result in Anne Appleby being the author of the PDF.

### Author

The author of the PDF document.

### Title

The title of the PDF document.

### Subject

The subject of the PDF document.

### Keywords

A list of keywords that describe the PDF document.

## Page header

The page header appears at the top of every page of the PDF document. You can specify any text to be displayed on the left or right side (or both) of the header.

You can use text, [template tokens](#) or a combination of both in these fields. Template tokens can be typed manually or inserted by selecting a token from the drop-down *Insert* list, located above the field on the right.

For example, entering `{CaseID}`, `{CaseDate}` in the *Left side* field will insert the case ID and date, separated by a comma, into the left side of the page header. The content for

these particular tokens is taken from the [Case](#) section of the project settings. Entering `{BatesStamp}` in the *Right side* field will insert a unique [Bates stamp](#) into the right side of the header.

Note that header text is limited to one line. If the text on the left or right side is too long, they may overlap. For this reason, we recommend that you keep both the left and right sides of the header shorter than half of the width of the page.

### **Left side**

The text to be displayed on the left side of the page header.

### **Right side**

The text to be displayed on the right side of the page header.

## **Page footer**

The page footer appears at the bottom of every page of the PDF document. You can specify any text to be displayed on the left or right side (or both) of the footer.

You can use text, [template tokens](#) or a combination of both in these fields. Template tokens can be typed manually or inserted by selecting a token from the drop-down *Insert* list, located above the field on the right.

For example, entering `Lab ID: {LabID}` in the *Left side* field will insert the lab ID into the left side of the page footer. The content for this particular token is taken from the [Case](#) section of the project settings. Entering `Page {PageNumber} of {PageCount}` in the *Right side* field will insert page numbering into the right side of the footer.

Note that footer text is limited to one line. If the text on the left or right side is too long, they may overlap. For this reason, we recommend that you keep both the left and right sides of the footer shorter than half of the width of the page.

### **Left side**

The text to be displayed on the left side of the page footer.

### **Right side**

The text to be displayed on the right side of the page footer.

## Remote content

### Download and render (slow)

When *On*, remote content linked to by emails will be downloaded and rendered in the PDF document. This can significantly increase processing time, especially if your internet connection is slow. When *Off*, remote content will be absent from the PDF document.

## Security features

By default, PDF documents created by Aid4Mail are printable and editable, and their content can be copied. You can turn off any, or all, of these capabilities by deselecting *Allow printing*, *Allow copying* or *Allow editing*. However, a *Permissions password* or a *Document open password* (or both) is required for these changes to take effect.

### Allow printing

When *On*, the PDF document's printing capabilities are enabled. When *Off*, and one of the passwords is set, printing is disabled.

### Allow copying

When *On*, copying of the PDF document's content is enabled. When *Off*, and one of the passwords is set, copying is disabled.

### Allow editing

When *On*, the PDF document's editing capabilities are enabled. When *Off*, and one of the passwords is set, editing is disabled.

### Permissions password

This password only controls the print/copy/edit capabilities of a PDF document.

### Document open password

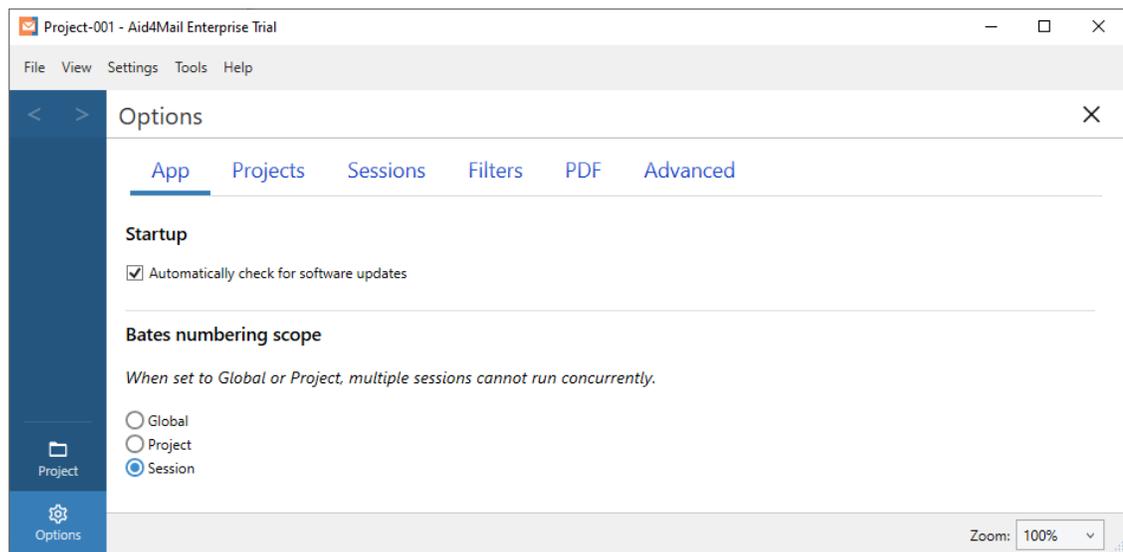
Protects a PDF document with a password that's required to open the document. This password will also control print/copy/edit capabilities if the *Permissions password* is absent. When both passwords are present, the *Permissions password* controls the print/copy/edit capabilities and the *Document open password* is required to open the document. For maximum security, ensure the two passwords are different.

## 13.7 Options

Options that apply to the app as a whole or to all [sessions](#) and [projects](#).

The *Options* screen is divided into six sections, each with its own tab. Select a tab to view that section:

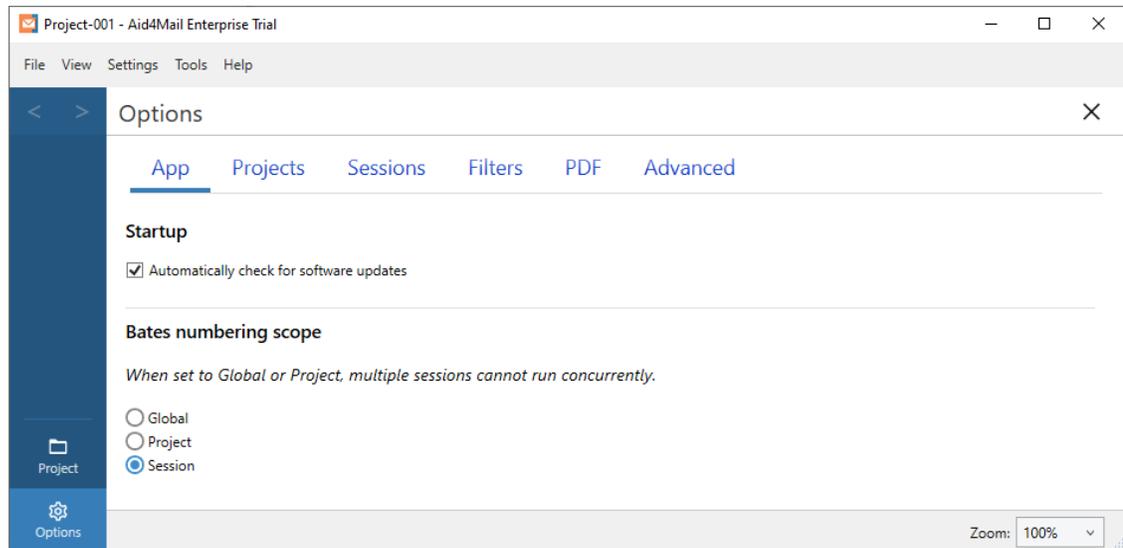
1. [App](#)
2. [Projects](#)
3. [Sessions](#)
4. [Filters](#)
5. [PDF](#)
6. [Advanced](#)



*Progress settings screen*

### 13.7.1 Options: App

The *App* section of the [Options](#) screen.



*App section of the Options screen.*

## Startup

### Automatically check for software updates

When *on*, Aid4Mail will check for updates each time it is opened. This option is *on* by default. We recommend you always use the latest version of Aid4Mail.

## Bates numbering scope

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Set the [Bates numbering](#) scope to one of three options:

- *Global*  
The [Bates number](#) increments across all sessions in all projects. When this option is selected, only [consecutive processing](#) is available.
- *Project*  
The [Bates number](#) will be set to 1 at the start of each new project but will increment

across all sessions in the project. When this option is selected, only [consecutive processing](#) is available.

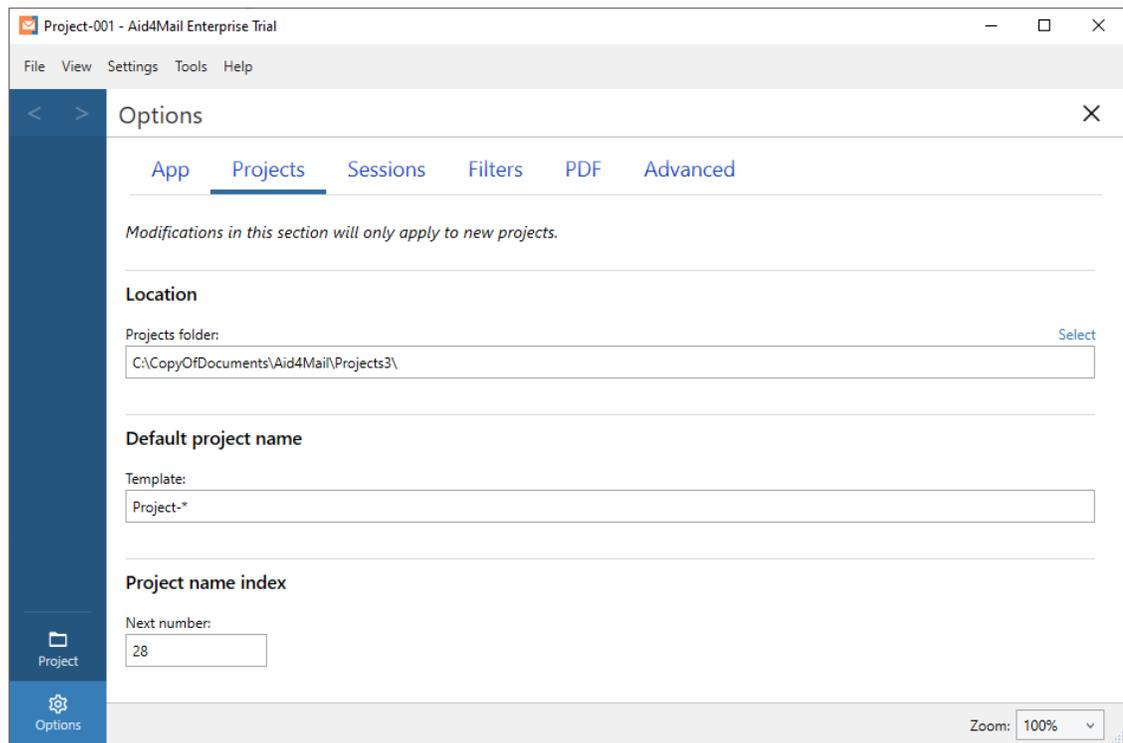
- *Session*

The [Bates number](#) will be set to 1 for each new session. This allows for either [consecutive or concurrent processing](#).

In [Aid4Mail Converter](#), the scope is automatically set to *Session*.

### 13.7.2 Options: Projects

The *Projects* section of the [Options](#) screen. Note that modifications in this section will only apply to new projects. They won't apply to existing projects including the current one.



*Projects section of the Options screen.*

## Location

### Projects folder

The location where new [projects](#) are created. It will not have any effect on existing projects.

### Default project name

#### Template

A template that defines the default name for each new [project](#). It will not have any effect on existing projects or the current one. Note that after a project has been created, its name can be changed in the [project settings](#).

This field is a template that accepts a combination of text and the following tokens:

- \* The [project name index](#), formatted to display 3 digits.
- : The current date (without the time) in the [International date format](#), YYYY-MM-DD.

Examples (assuming the [next value](#) for the project name index is set to 1):

`Project-*`

Produces the following project names:

*Project-001*

*Project-002*

*Project-003*

: `Project-*`

Produces the following project names (assuming the current date is January 25, 2020):

*2020-01-25 Project-001*

*2020-01-25 Project-002*

*2020-01-25 Project-003*

Note that the [project name](#) is also used to name the [project folder](#) and settings file and so must not contain any [illegal characters](#).

## Project name index

### Next value

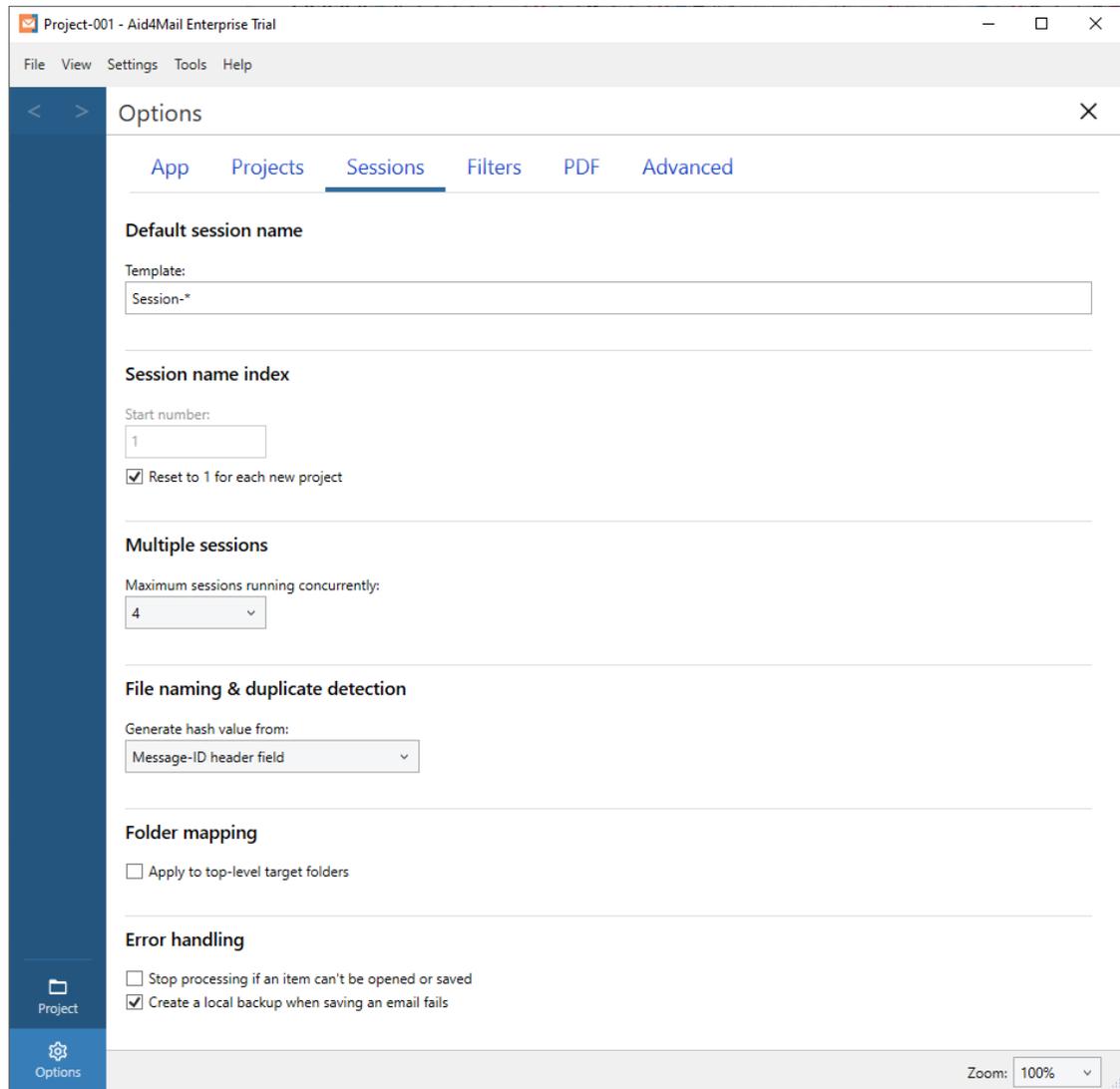
The next value for the index that's used in the [default project name](#). The index is incremented by 1 every time you create a new project.

When you first install Aid4Mail, the index is zero and *Next value* is 1. This means that the next project you create will be the first. Similarly, if you're working on the 10th project then *Next value* will be 11 (unless it has been modified).

You can change *Next value*. This will not have any effect on the current project but will affect subsequent projects. For example, if your first three projects were used for testing Aid4Mail and now you want a fresh start, you can set *Next value* to 1.

### 13.7.3 Options: Sessions

The *Sessions* section of the [Options](#) screen.



*Sessions section of the Options screen.*

## Default session name

### Template

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

A template that defines the default name for each new session. Note that after a session has been created, its name can be changed in the session [settings](#).

This field is a template that accepts a combination of text and the following tokens:

- \* The [session name index](#), formatted to display 3 digits.
- : The current date (without the time) in the [International date format](#), YYYY-MM-DD.
- ? The [project name](#).

Examples (assuming the [starting value](#) of the session name index is set to 1):

`Session-*`

Produces the following session names:

*Session-001*  
*Session-002*  
*Session-003*

`Session : #*`

Produces the following session names (assuming the current date is January 25, 2020):

*Session 2020-01-25 #001*  
*Session 2020-01-25 #002*  
*Session 2020-01-25 #003*

`?-S*`

Produces the following session names (assuming the project name is Project5):

*Project5-S001*  
*Project5-S002*  
*Project5-S003*

Note that the [session name](#) is also used to name the settings file and log files for this session and so must not contain any [illegal characters](#).

## Session name index

### Starting value

Only available in [Aid4Mail Enterprise](#) and [Investigator](#), and only editable when [Reset to 1 for each new project](#) is *off*.

The starting value for the index used in the [default session name](#). The index is incremented by 1 every time you create a new session. However, if sessions are deleted, those numbers will be reused again.

### Reset to 1 for each new project

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

If *on*, the session name index is automatically set to 1 when a new project is created and the [starting value](#) field is not available. This option is *on* by default.

## Multiple sessions

### Maximum sessions running concurrently

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

The number of Aid4Mail sessions that can be run at the same time. It does not limit the number of sessions you can set up, only the number that will run concurrently.

The default value should work well for the average computer. With higher values, more sessions will be processed at the same time and, if your computer has the available resources, the faster your project will run. However, if your computer is older or lower-end, a smaller value will perform better. If you're undertaking a large-scale migration, we recommend you test a variety of values to find the optimal number for your hardware, available internet bandwidth and mail account set up.

Note that if your source or target format is an Outlook profile then the maximum number of sessions running concurrently is limited to 8.

For more information on running multiple sessions, please refer to the [Multiple sessions](#) topic.

## File naming & duplicate detection

### Generate hash value from

Hash values are used in Aid4Mail for some [filenames](#) and in the [detection of duplicates](#). This field allows you to select the data that the hash function uses. Select from:

- *Message-ID header field*  
This is a unique ID field in the email header. Many emails contain this field but not all do. It is notably missing in outbound emails. In cases where the Message-ID is blank or missing, Aid4Mail uses a combination of the From, Date and Subject header fields instead.
- *Original SMTP header*  
The whole email header with all its fields (To, From, Subject, etc.).

## Folder mapping

### Apply to top-level target folders

Only available in [Aid4Mail Enterprise](#).

Unfortunately, email clients are not consistent in their naming of folders. For example, *Inbox* in one application may be called *In* in another. The *Sent* folder might be *Sent Mail* or *Sent Items*. *Spam* may be called *Junk*. Language settings can also affect folder names. In French, Outlook's *Inbox* becomes *Boîte de réception*.

When this option is *on*, Aid4Mail maps between folders that have different names for the same concept, in order to place your target mail in the intended location. This process is only necessary in the top-level of the folder structure.

For example, when converting from Gmail to PST with this option turned *on*, emails from Gmail's *Sent* folder will be placed in the PST file's *Sent Items* folder. If this option is *off*, the target emails will be placed in a newly created *Sent* folder in the PST, resulting in two separate folders for sent mail: *Sent* (the newly created folder) and *Sent Items* (that all PST files have by default).

This option is *off* by default.

The complete list of folder names recognized by Aid4Mail, for each folder category, is stored in file *FolderNames.dat*, in your [Data folder](#). You can add to this list if you have an email client that uses folder names that are not listed.

The file *FolderMapping.dat* enables you to override Aid4Mail's default mapping by specifying a target folder name to use for each folder category. By default, this file has no effect because each line in it starts with a semicolon character (;), indicating that it's a *comment* and will not be read by Aid4Mail. Removing the semicolon causes Aid4Mail to use the mapping specified in that line. You can also edit the folder name (after the equal sign in each line) if necessary.

## Error handling

### Stop processing if an item can't be opened or saved

When *on*, Aid4Mail will stop processing the session if an email or non-email item is unable to be read or saved. When *off*, Aid4Mail will continue processing after the error, moving on to the next item. This option is *off* by default.

**Create a local backup when saving an email fails**

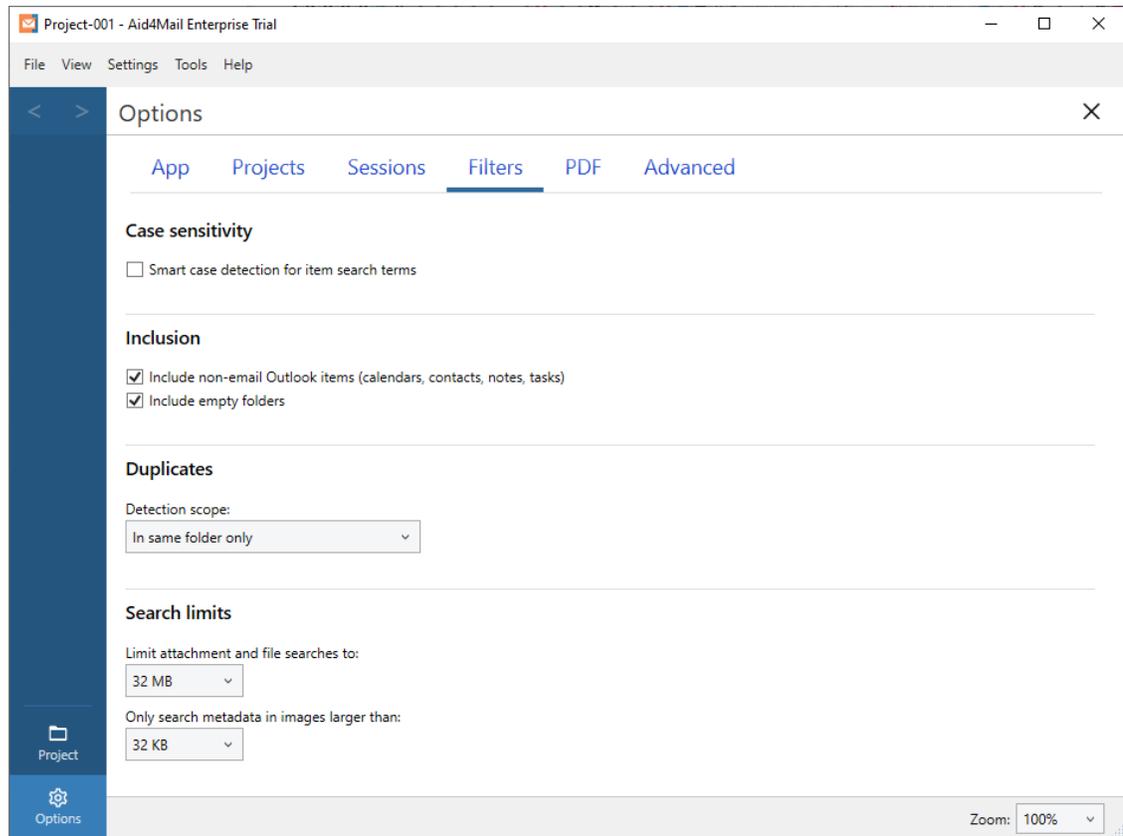
For certain [target formats](#), Aid4Mail is dependent on a third-party to save an email. For example, if your [target format](#) is an *Outlook profile*, *PST* file or *MSG* file, Aid4Mail uses Outlook's [MAPI](#) to save each email. If your [target format](#) is a cloud-based format like *Gmail* or *Outlook 365*, or an *IMAP* account, then Aid4Mail is dependent on the mail server for this task. In turn, the mail server is dependent on the bandwidth available and your internet connection.

Occasionally these third-parties are not be able to save a target email. For example, if an email's size, number of recipients or number of attachments exceeds the server's limit, it may fail. When this happens, and you have this option turned *on*, Aid4Mail will save a backup copy of the email. It will be saved with an MD5 filename, and its folder structure intact, in the *Backup* subfolder of your [project folder](#). The email will be saved in the *EML* format unless your [source format](#) was an *Outlook profile*, *PST* file or *MSG* file in which case the email will be saved as an *MSG* file.

This option is *on* by default.

### 13.7.4 Options: Filters

The *Filters* section of the [Options](#) screen.



*Filters section of the Options screen.*

## Case sensitivity

### Smart case detection for item search terms

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

When *on*, [item searches](#) for [search terms](#) that contain one or more uppercase characters will be case-sensitive, and searches for terms that contain only lowercase characters will be case-insensitive. When this option is *off*, all item searches will be case-insensitive. It is *off* by default.

## Inclusion

### Include non-email Outlook items (calendars, contacts, notes, tasks)

Outlook mail stores (*Outlook profile*, *PST* files and *MSG* files) may contain items that are not email messages like calendars, contacts, notes or tasks. When this option is turned *on*, Aid4Mail will include non-email items in its processing. When *off*, these items will be skipped. This option is *on* by default.

Note that:

- Non-email items cannot be filtered.
- If your [target format](#) is not an Outlook mail store then a non-email item will be treated as if it were an email message. This will not generate an error but it will not convert to an equivalent calendar/contact/note/task in a non-Outlook format. So using this option only makes sense if both your [source format](#) and [target format](#) are Outlook mail stores, for example converting from an Outlook profile to a PST file, in which case non-email items will remain intact.

### Include empty folders

When turned *on*, Aid4Mail will process empty folders and include them in your target mail. When *off*, empty folders will be ignored and will not appear in your target mail. This option is *on* by default.

## Duplicates

### Detection scope

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Aid4Mail detects duplicates so they can be used in filters or scripts. Here you can choose the scope of what is considered a duplicate:

- *Across all folders*  
Any email that is identical to another email in any folder will be flagged as a duplicate.
- *In same folder only*  
An email that's identical to another email will only be flagged as a duplicate if both are located in the same folder.

You can read more about how Aid4Mail handles duplicates in the [Deduplication](#) topic.

## Search limits

### Limit attachment and file searches to

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Determines how far Aid4Mail will search through large attachments and files contained within attachments. The smaller the value, the faster the search but the greater the chance of missing a search term. For example, if the value set is 32 MB then Aid4Mail will only search the first 32 MB of a file before moving on to the next one.

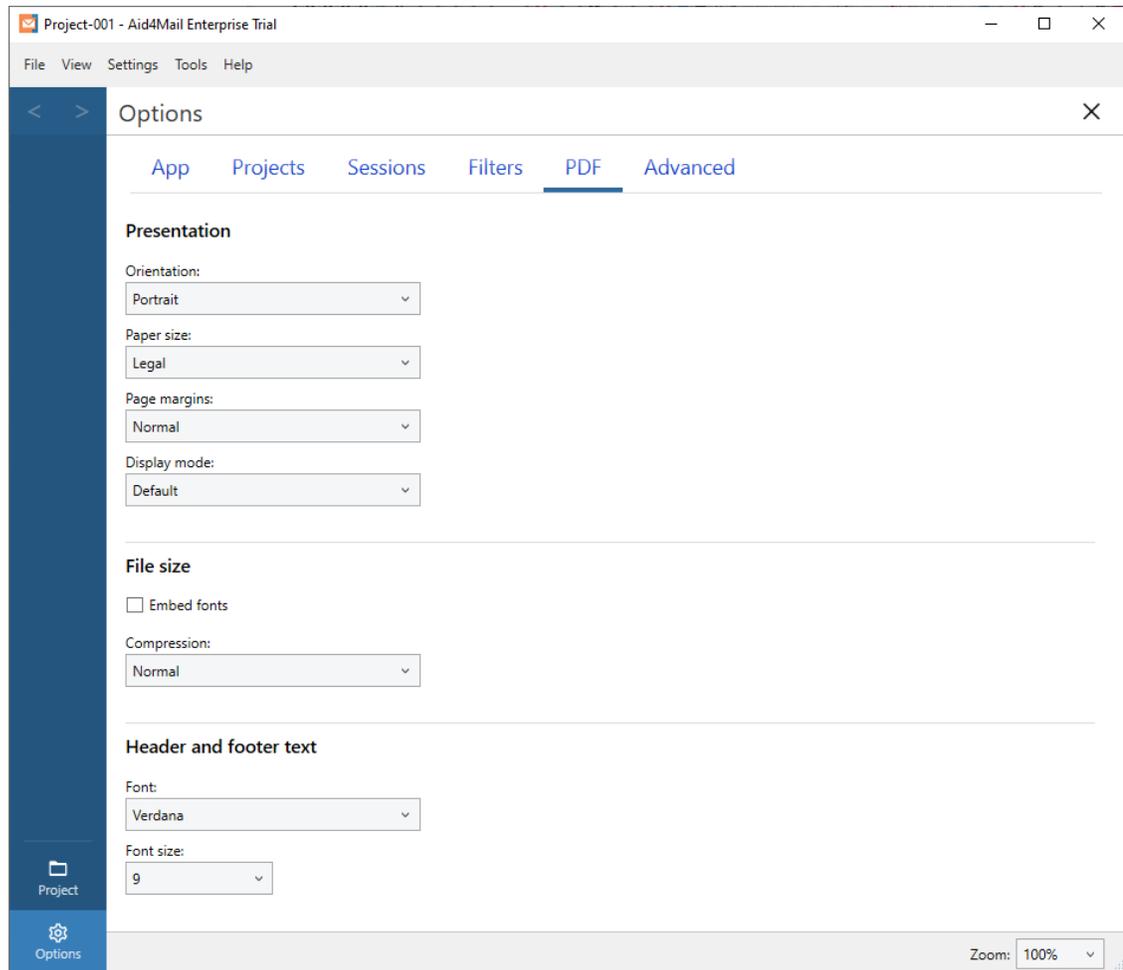
### Only search metadata in images larger than

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

Emails can contain small images for display purposes that offer no useful metadata to search. Aid4Mail can skip these images to improve performance. Use this option to set the threshold.

### 13.7.5 Options: PDF

The *PDF* section of the [Options](#) screen.



*Advanced section of the Options screen.*

## Presentation

### Orientation

The orientation of each page in a PDF document. Choose between:

- *Portrait*  
The document height is greater than its width.
- *Landscape*  
The document width is greater than its height.

**Paper size**

The size of paper used to in the PDF document. Select one of the following:

- *A4*
- *Folio*
- *Legal*
- *Letter*

**Page margins**

The amount of space between the edge of the page and its content. Choose between:

- *None*  
Left, right, top and bottom margins are all set to zero.
- *Normal*  
Left, right, top and bottom margins are all set to 1 inch (2.54 cm).
- *Narrow*  
Left, right, top and bottom margins are all set to 0.5 inches (1.27 cm).
- *Moderate*  
Left and right margins are set to 0.75 inches (1.905 cm). Top and bottom margins are set to 1 inch (2.54 cm).
- *Wide*  
Left and right margins are set to 2 inches (5.08 cm). Top and bottom margins are set to 1 inch (2.54 cm).

When margins are set to *None*, any page headers and footers are placed directly above and below the page content. When margins are set to any other value, headers and footers are placed in the space occupied by the margins.

**Display mode**

Configures the PDF reader that's displaying the document. Well-known PDF readers like Adobe Reader will respond to these settings. However, others may not if their developers have not implemented this feature.

Select one of the following:

- *Default*  
Use the default settings of the PDF reader that's displaying the document.

- *Outlines*  
Instruct the PDF reader to display the outline feature when opening the document.
- *Thumbnails*  
Instruct the PDF reader to display thumbnails of the document when it's opened.
- *Full screen*  
Instruct the PDF reader to display the document full-screen.

## File size

### Embed fonts

When *On*, any fonts used in the document will be embedded into the PDF file. This ensures the document will always appear as intended in any PDF reader. However, if the document uses a lot of fonts, it can significantly increase the file size.

When this option is *Off*, fonts are not embedded into the file. This ensures the file size is as small as possible. However, fonts not found on the computer that's displaying the PDF document will be replaced with alternatives and the document may not appear as intended.

### Compression

The amount of compression applied to the document. Generally, higher amounts of compression lead to smaller file sizes and reduced document quality. The options are:

- *None*  
No compression is applied to the document. This will result in the largest file size and maintains 100% document quality.
- *Maximum*  
Maximum compression is applied to the document. This will result in the smallest file size but with the greatest impact to document quality.
- *Normal*  
This default setting is a good balance between the extremes, applying some compression without too much loss of quality.

## Header and footer text

### Font

Select which font is used in the header and footer text:

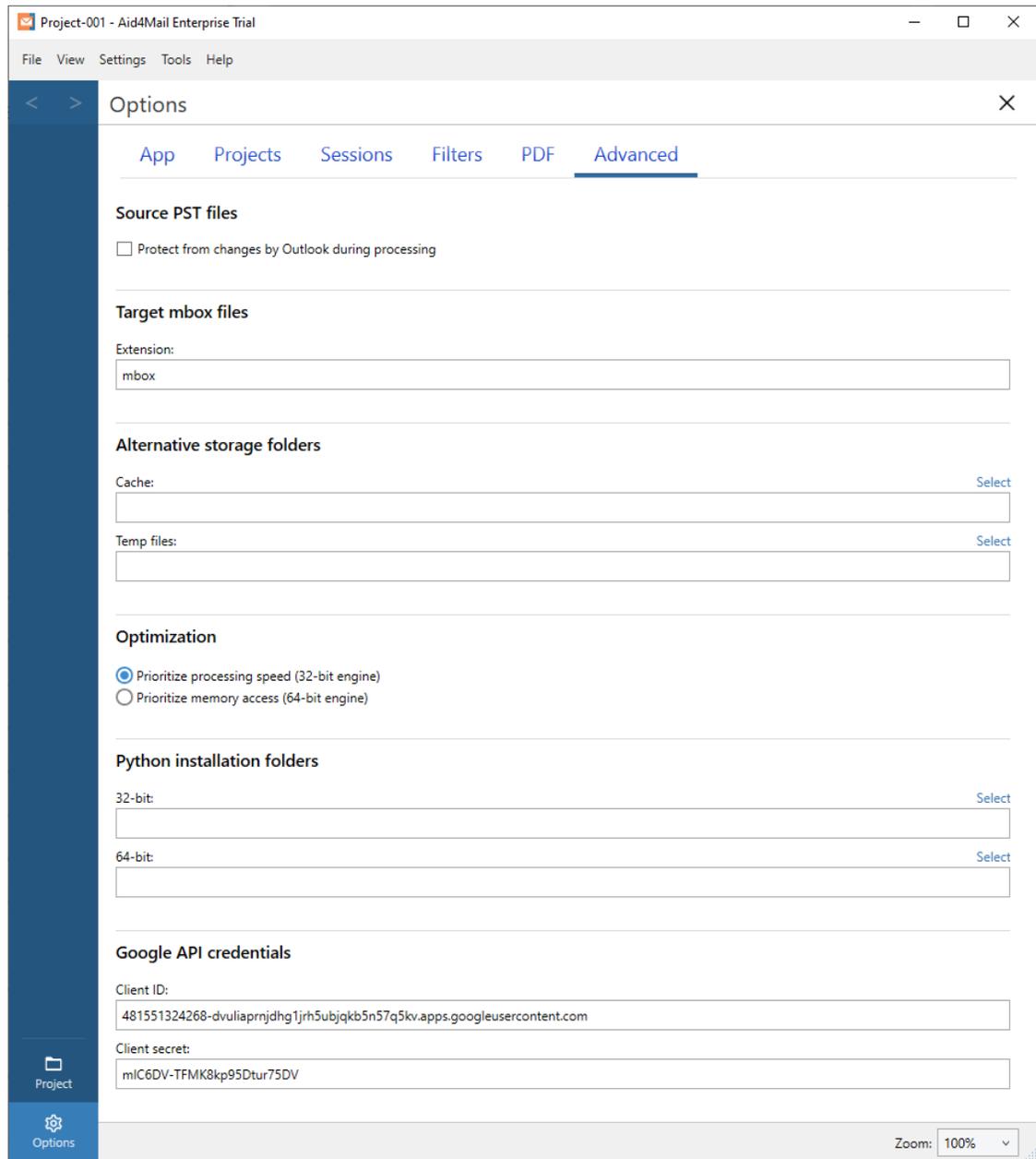
- *Arial*
- *Calibri*
- *Courier New*
- *Georgia*
- *Tahoma*
- *Times New Roman*
- *Trebuchet*
- *Verdana* (default)

### Font size

Select the size of the font used in the header and footer text. The default value is 9 points but any value between 6 and 20 is acceptable.

### 13.7.6 Options: Advanced

The *Advanced* section of the [Options](#) screen.



*Advanced section of the Options screen.*

## Source PST files

### Protect from changes by Outlook during processing

Only available in [Aid4Mail Enterprise](#) and [Investigator](#).

When a PST file is accessed by Outlook, Aid4Mail or any other program, the PST file is slightly modified internally. This is unacceptable in forensic examinations and also makes detecting duplicates almost impossible. When this option is *on*, Aid4Mail will create a temporary copy of a source PST file which it then connects to [MAPI](#) before processing. This avoids the original PST file being accessed and subsequently modified. However, it also has a small impact on performance. When this option is *off*, Aid4Mail will access a source PST file directly, thereby modifying it.

This option is *on* by default. [Aid4Mail editions](#) that do not have this option will access PST files directly (as if the option is *off*).

## Target mbox files

### Extension

Mbox files are valid with or without a file extension. Common mbox file extensions are *mbox* or *mbx*, for example *MyMailbox.mbox* or *MyMailbox.mbx*. By default Aid4Mail uses *mbox* as an extension. You can change this by entering the file extension of your choice in this field (without the preceding period character, i.e. write *mbox* and not *.mbox*) or by leaving it blank for no extension at all.

## Alternative storage folders

Provide alternative folder locations for file cache and temp files. We recommend you store these on a fast SSD or RAM drive for optimal performance.

### Cache

Enter an alternative folder location for file cache.

By default, cache files are stored in the following folder:

`C:\Users\<User>\AppData\Local\Aid4Mail5\Cache`

If Aid4Mail is running from a USB thumb drive then cache files are stored in the `AppData\Cache` directory under the [program folder](#).

### Temp files

Enter an alternative folder location for temporary files.

By default, temporary files are stored in the following folder:

`C:\Users\<User>\AppData\Local\Temp\Aid4Mail5`

If Aid4Mail is running from a USB thumb drive then temp files are stored in the AppData\Temp directory under the [program folder](#).

### Optimization

Only available if your operating system is 64-bit.

Aid4Mail includes both 32-bit and 64-bit processing engines and automatically selects the appropriate one. For example, if you need to process a PST file and have a 64-bit version of Outlook, Aid4Mail will automatically use its 64-bit processing engine. However, in cases where either version of the processing engine could be used, this option allows you to specify which one based on your priorities.

#### Prioritize processing speed (32-bit engine)

In general, 32-bit software is faster than 64-bit software. If processing speed is your priority, select this option. Aid4Mail will use the 32-bit engine in all cases except for those that specifically require 64-bit processing.

#### Prioritize memory access (64-bit engine)

64-bit software can potentially access four billion times more physical memory than 32-bit applications! If your system has more than 4 GB of RAM, and you need to process emails that are large (usually due to large attachments), Aid4Mail may perform more efficiently using the 64-bit engine. When you select this option, Aid4Mail will use the 64-bit engine in all cases except for those that specifically require 32-bit processing.

### Python installation folders

Only available if your operating system is 64-bit.

As explained under [Optimization](#), Aid4Mail includes both 32-bit and 64-bit processing engines and automatically selects the appropriate one. Unfortunately, Python does not. It only installs one version. This means that if your Python installation is 32-bit and Aid4Mail needs to use its 64-bit engine, your [Python script](#) will generate an error. Likewise if your Python installation is 64-bit and Aid4Mail is required to use its 32-bit engine.

This problem is accentuated if you have a project with multiple sessions that all use [Python scripts](#) and some require 32-bit processing while others require 64-bit. Aid4Mail will adapt to this scenario but Python will not. Fortunately there is a work-around: It is possible to install both 32-bit and 64-bit versions of Python manually in different locations. Then you can use these fields to tell Aid4Mail where to look to find the correct Python version.

Note that if both fields are blank, Aid4Mail will attempt to locate your default Python installation (if there is one), when required, but it will not be able to determine in advance whether it's 32 or 64-bit.

**32-bit**

Enter the location of your 32-bit [Python](#) installation.

**64-bit**

Enter the location of your 64-bit [Python](#) installation.

**Google API credentials**

Aid4Mail uses Google's secure [APIs](#) to access Google accounts, authenticating login details using [Aid4Mail Authenticator](#) and the secure [OAuth 2.0](#) protocol without any knowledge of usernames or passwords. This method of access and authentication provides maximum security and privacy. However, it also requires you to set up [set up Google API credentials](#) if you don't already have them. Once set up, enter your Google API credentials in this section before starting the [authentication process](#).

**Client ID**

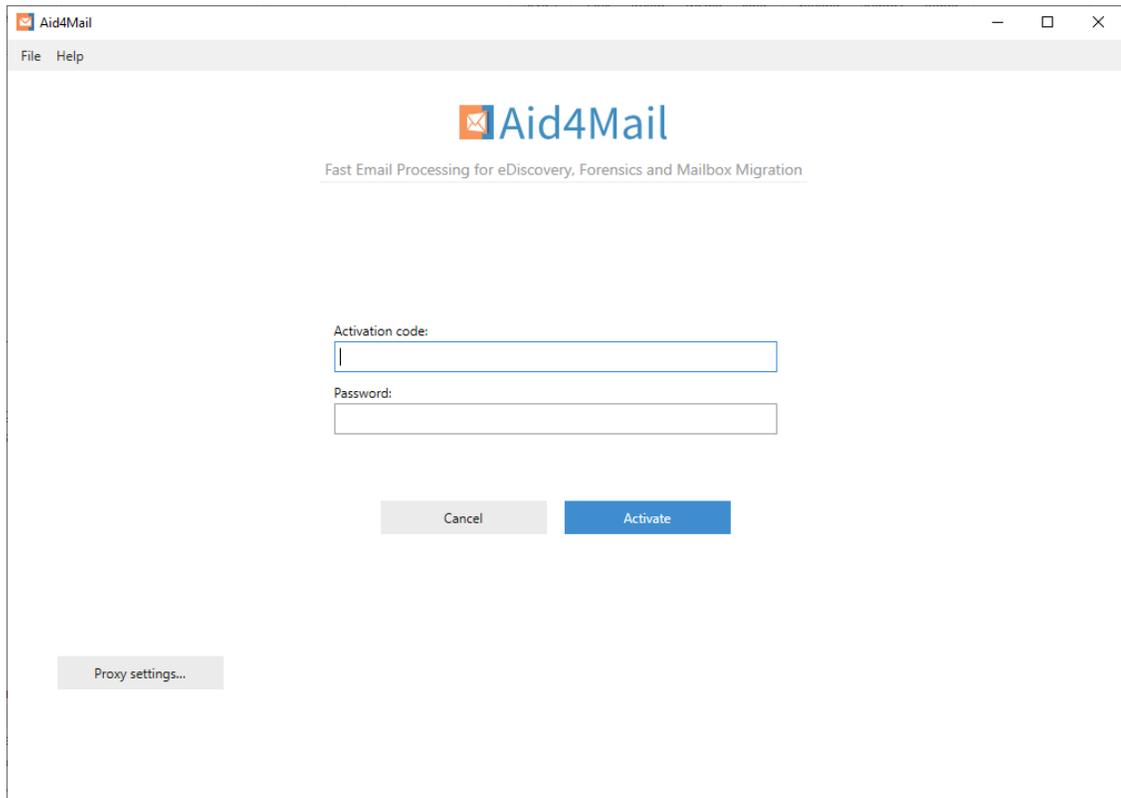
Enter the *Client ID* obtained from [setting up Google API credentials](#).

**Client secret**

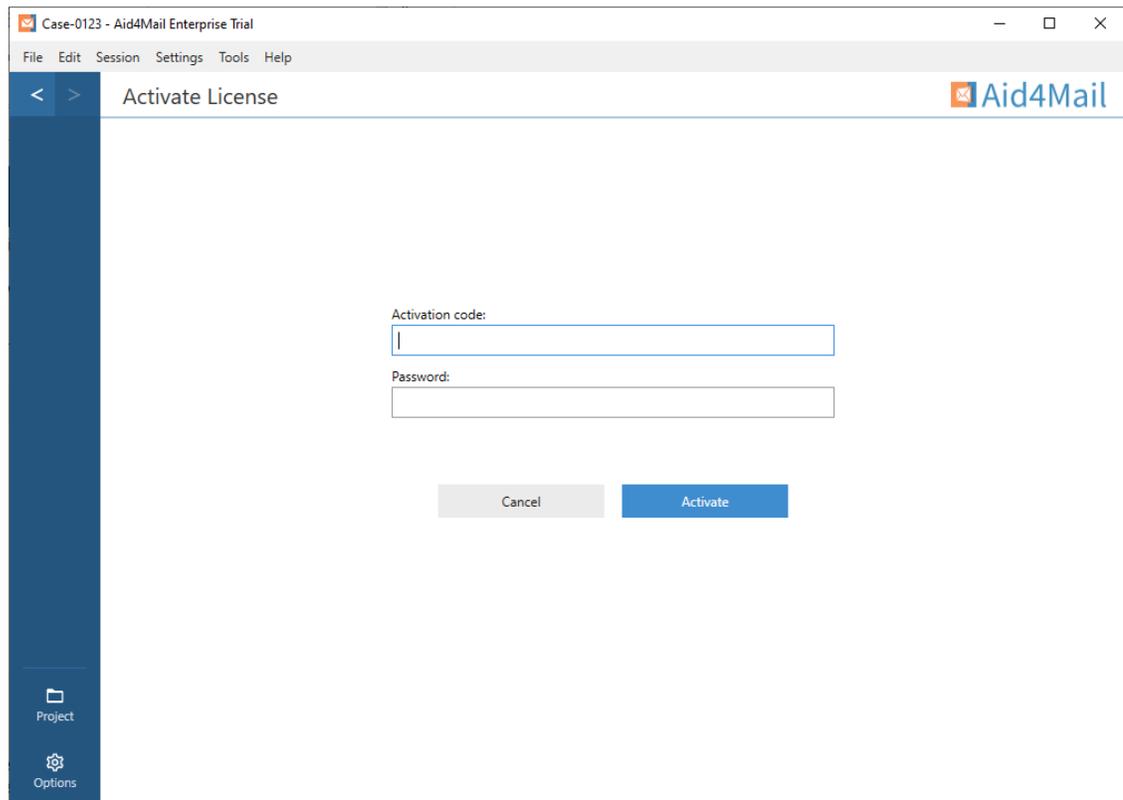
Enter the *Client secret* obtained from [setting up Google API credentials](#).

## 13.8 Activate license

The *Activate license* screen looks slightly different depending on whether you opened it from the [Start](#) screen or from the [File > Activate license](#) menu command. However they both contain the same input fields:



*Activate license screen when opened from the Start screen*



*Activate license screen when opened from the File menu*

### **Activation code**

When you purchase Aid4Mail, in most cases you will be sent an activation code by email. Enter it into this field.

### **Password**

Enter a password of your choosing. You can click and hold the eye icon to make the password visible. If you are re-activating Aid4Mail, note that the password you create must be different to all the passwords you have previously used with this activation code.

### **Activate**

Once you have filled in all the fields on this screen, select *Activate* to activate Aid4Mail.

## 13.9 Aid4Mail Authenticator

*Aid4Mail Authenticator* enables you to authorize temporary access to a cloud-based email service or [IMAP](#) account without having to share your login credentials with Aid4Mail. Example services include Gmail, Office 365, Outlook.com, and Hotmail.

It uses the secure [OAuth 2.0](#) protocol, creating an authentication token that Aid4Mail can read but that does NOT contain your username or password. You can invalidate the token at any time, revoking Aid4Mail's access to the account. This method of access and authentication provides you with maximum security and privacy.

### **For Gmail accounts only:**

Aid4Mail uses Google [APIs](#) during authentication and mail processing and requires you to have API credentials. You can set them up in a few minutes by following the instructions in the [Setting up Google API credentials](#) topic.

When you have created your credentials, enter them in the [Google API credentials](#) field on Aid4Mail's Options screen before following the [authentication instructions](#) below.

## **Authentication instructions**

1. Launch Aid4Mail Authenticator automatically by selecting *Add* above either of these fields:
  - Source [Email address](#)
  - Target [Email address](#)

Or when using the *OAuth2* [connection security](#) option in the [IMAP configuration editor](#).

2. Enter the address of the email account you want to access and then select *Authenticate*:



*Enter an email account in Aid4Mail Authenticator and press the Authenticate button*

3. Aid4Mail Authenticator will automatically open your web browser so that you can select your mail account and log into it. Note that Aid4Mail Authenticator has no access to your browser and does not see your login credentials at any time. It will only see the authentication token that's produced at the end of the process.

You will be presented with one or more of the following pages, depending on your mail service and whether you are already logged in or not:

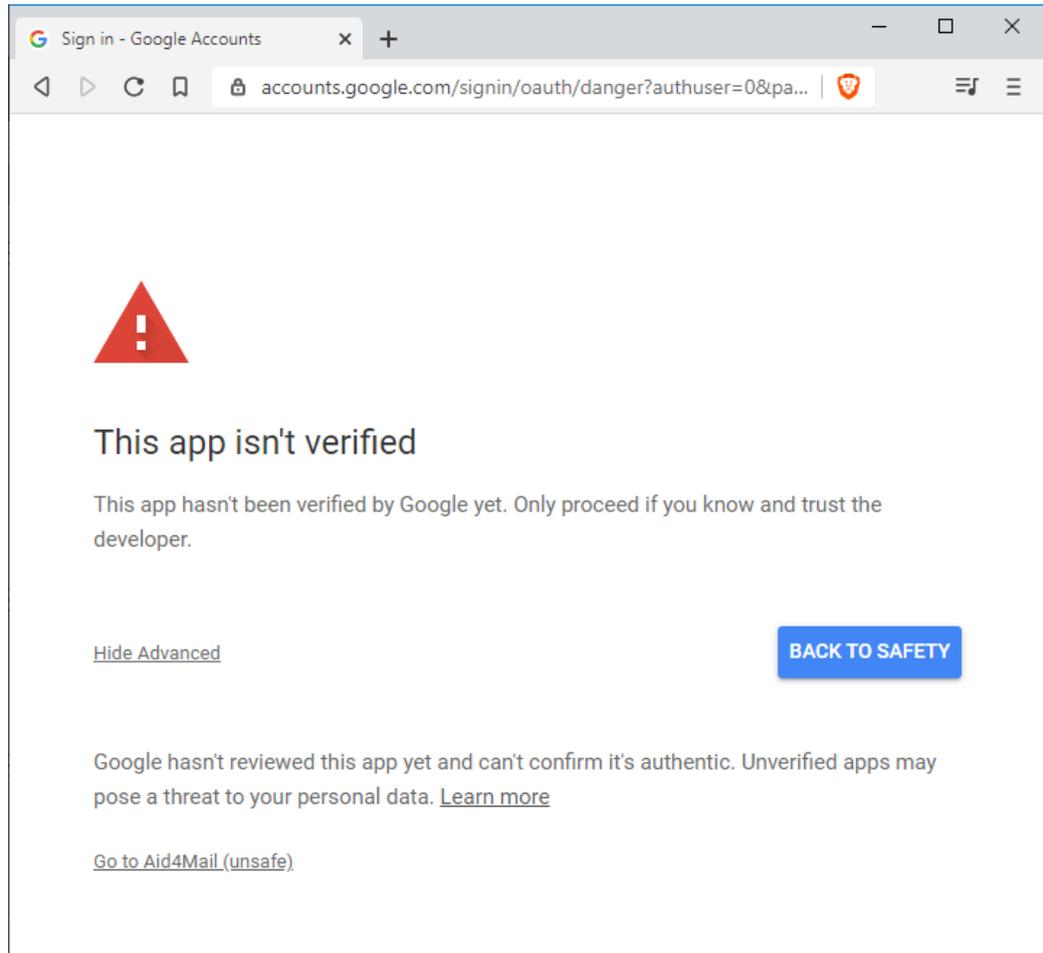
- a. A login page that requires you to:
  - Select your account if you have multiple accounts with this mail service .
  - Log in with your username and password (unless you are already logged in).

If you only have one account with this mail service and are already logged in, you may not see this page at all.

- b. **Only when accessing Google accounts outside of your own domain:** A message warning that the app has not yet been verified by Google. This message will not appear if you are accessing an account in your own domain.

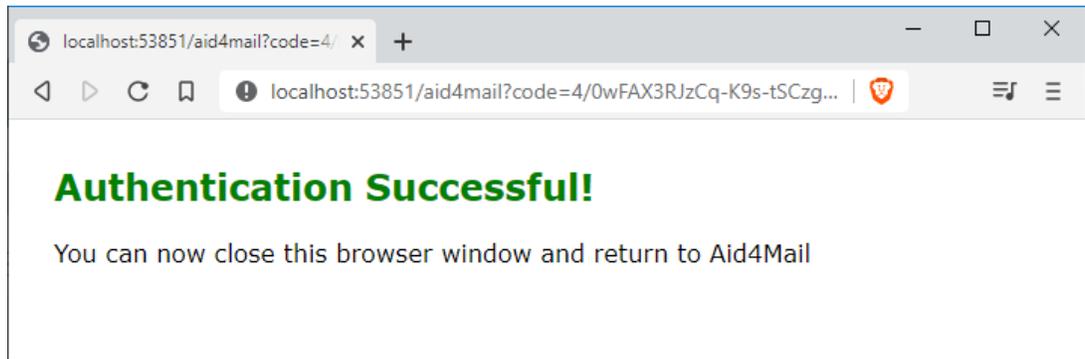
At the bottom of the warning message, select *Advanced* and then *Go to Aid4Mail*

(unsafe) as shown below. Then [continue](#) with the authentication process.



*Warning message: "This app hasn't been verified by Google yet".  
Select "Advanced" and then "Go to Aid4Mail (unsafe)".*

- c. A page requesting permission for Aid4Mail to access the account. Depending on your mail service, you may not see this screen. If you do, you need to allow access for Aid4Mail to continue.
- d. A success page. You will only see this if the previous steps were completed successfully. Otherwise the mail service will indicate any errors (for example an incorrect password).



*"Authentication successful" message in browser*

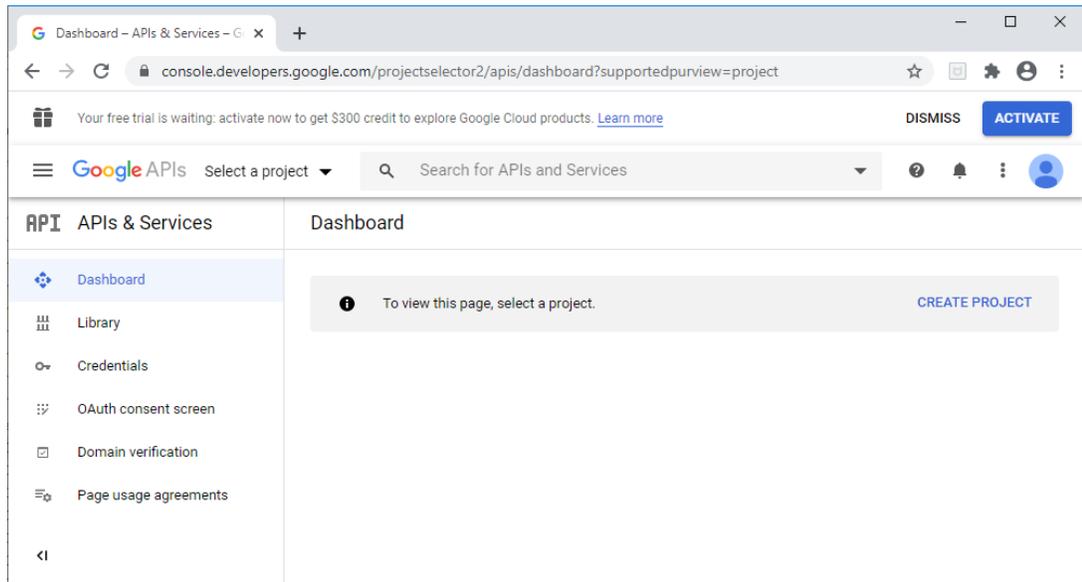
4. Close the browser window and return to Aid4Mail. The authentication token will automatically be saved in the correct location.

Note that you can revoke Aid4Mail's access to your mail account at any time. Please refer to your mail account's settings for details. For Gmail, you can revoke access on the [permissions page of the Google website](#).

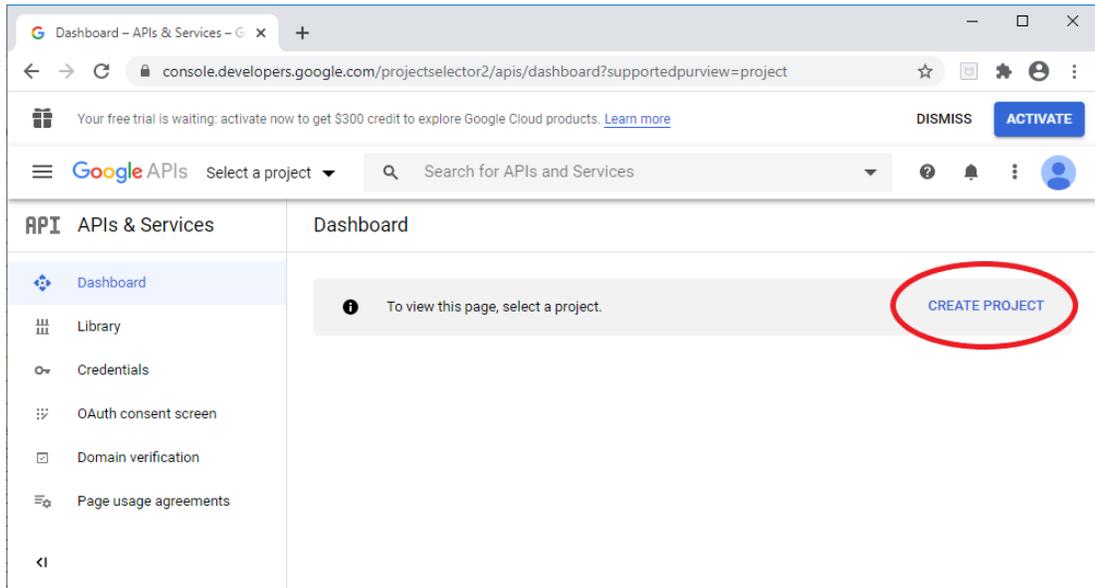
### 13.9.1 Setting up Google API credentials

Instructions:

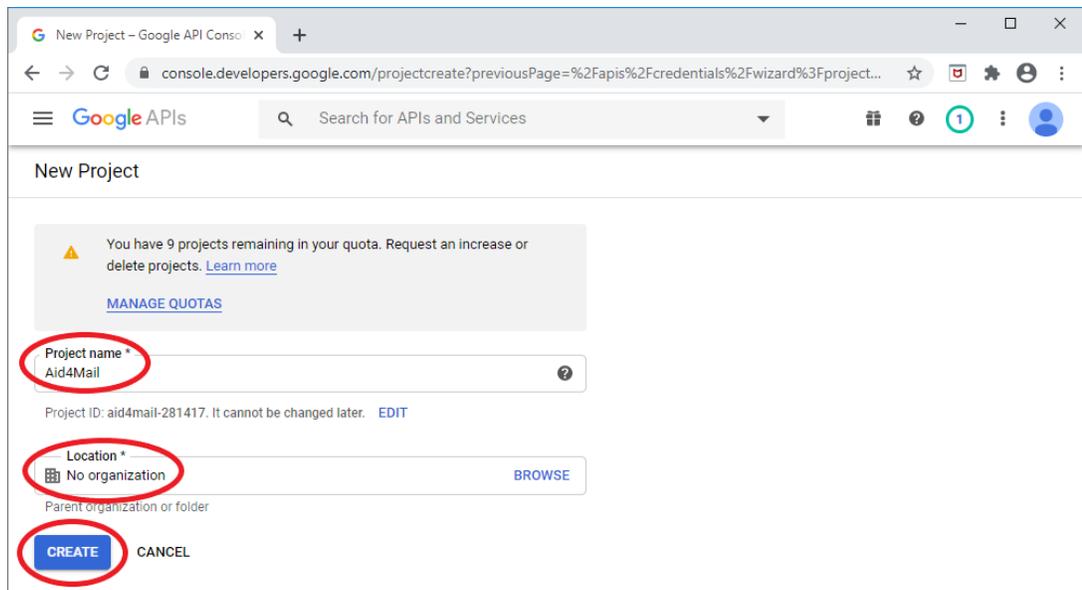
1. Log into the [Google developers website](https://developers.google.com) using your Google account details. It will look something like this:



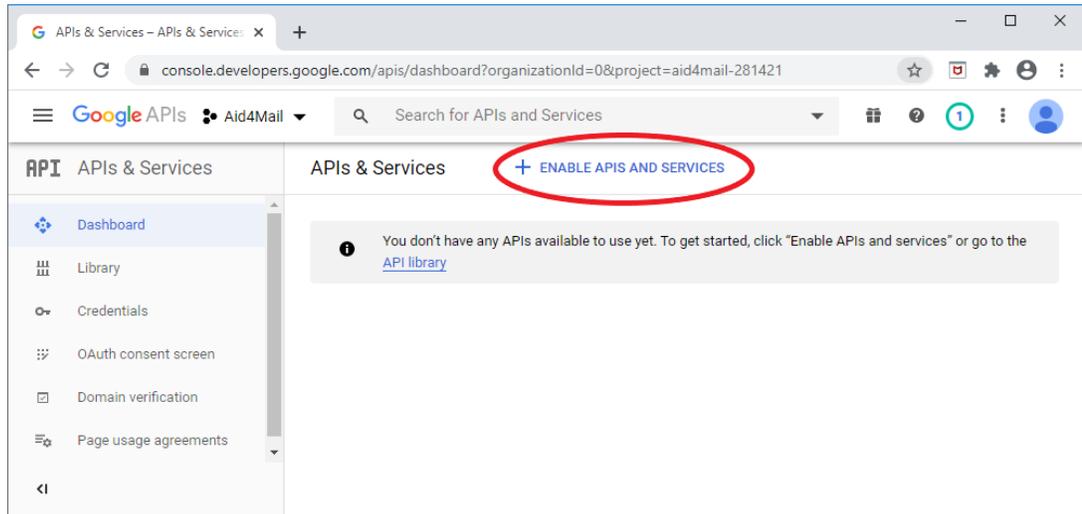
2. Select *CREATE PROJECT* at the top-right of the page.



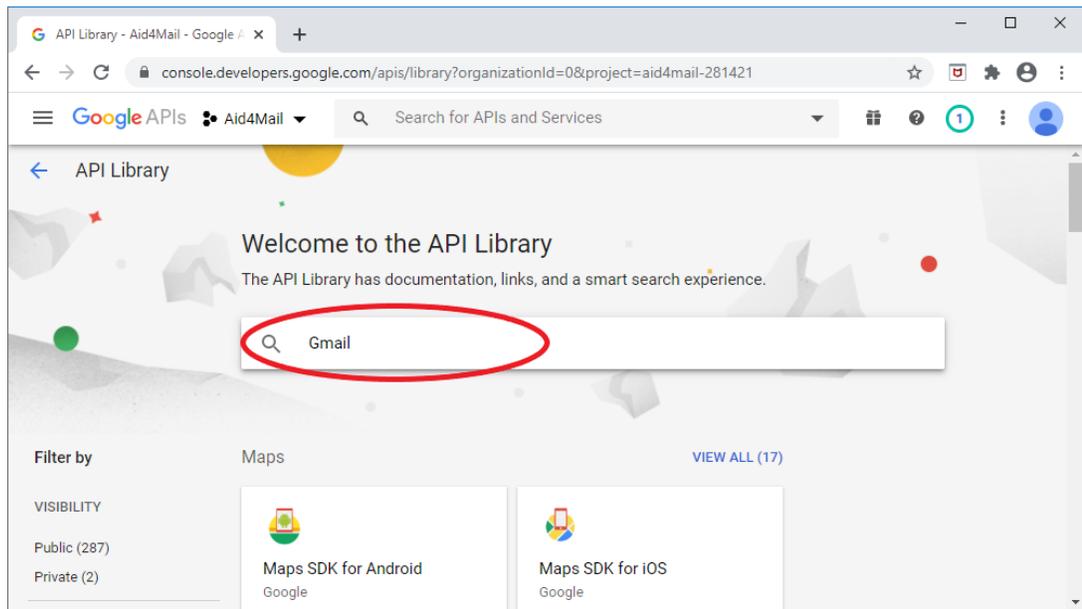
3. Enter a project name (for example *Aid4Mail*), leave *Location* set to *No organization* and select the *CREATE* button. It may take a few seconds for the project to be created.



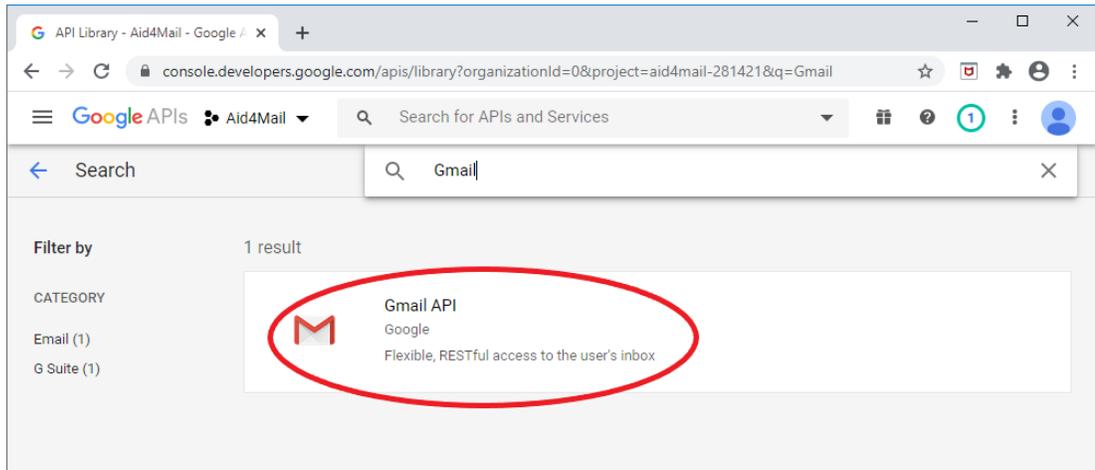
4. Select *ENABLE APIS AND SERVICES* at the top of the next page.



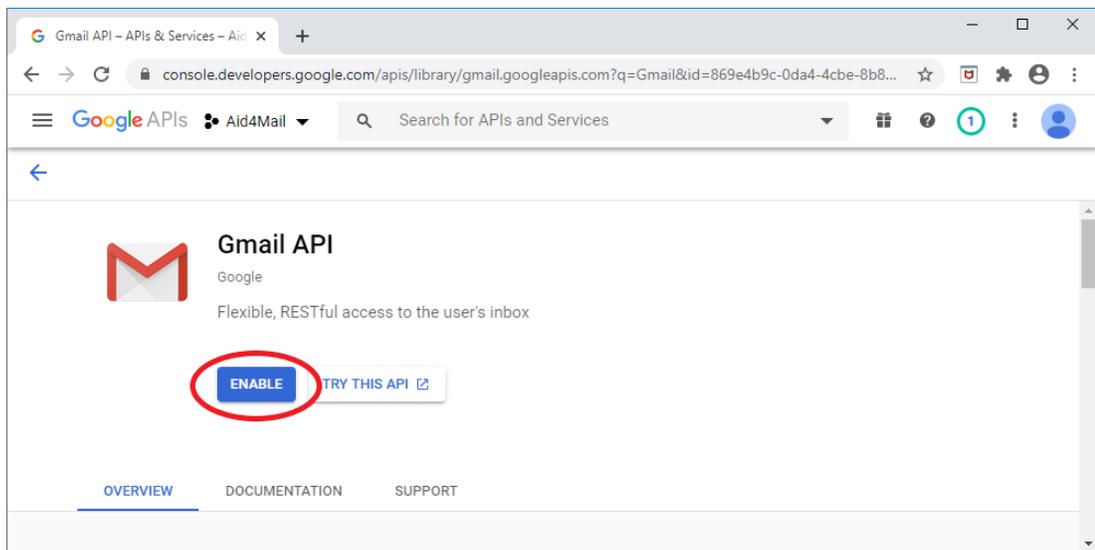
5. Enter *Gmail* into the search bar.



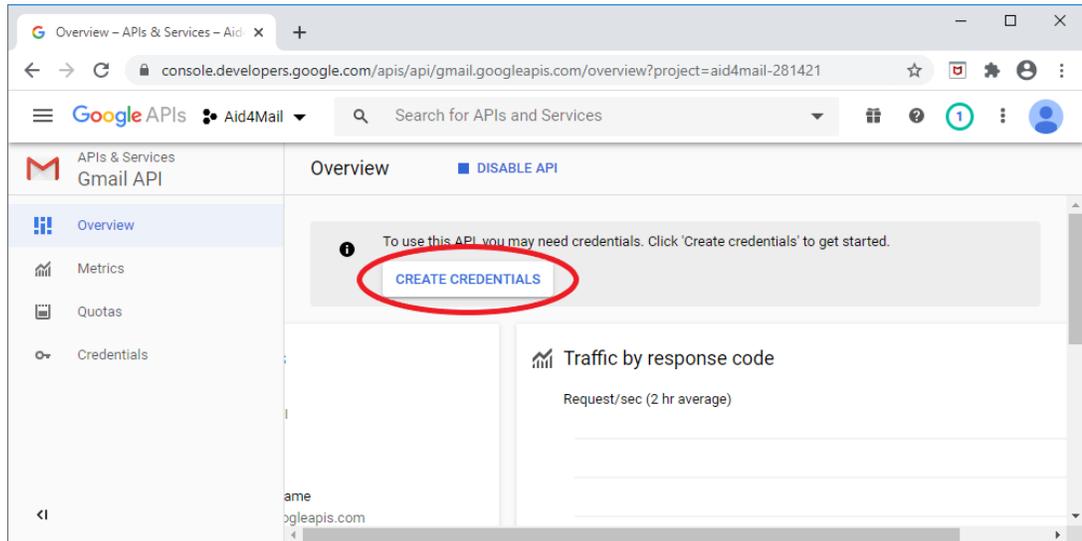
6. Select the *Gmail API*.



7. Once the Gmail API loads, select *ENABLE*.

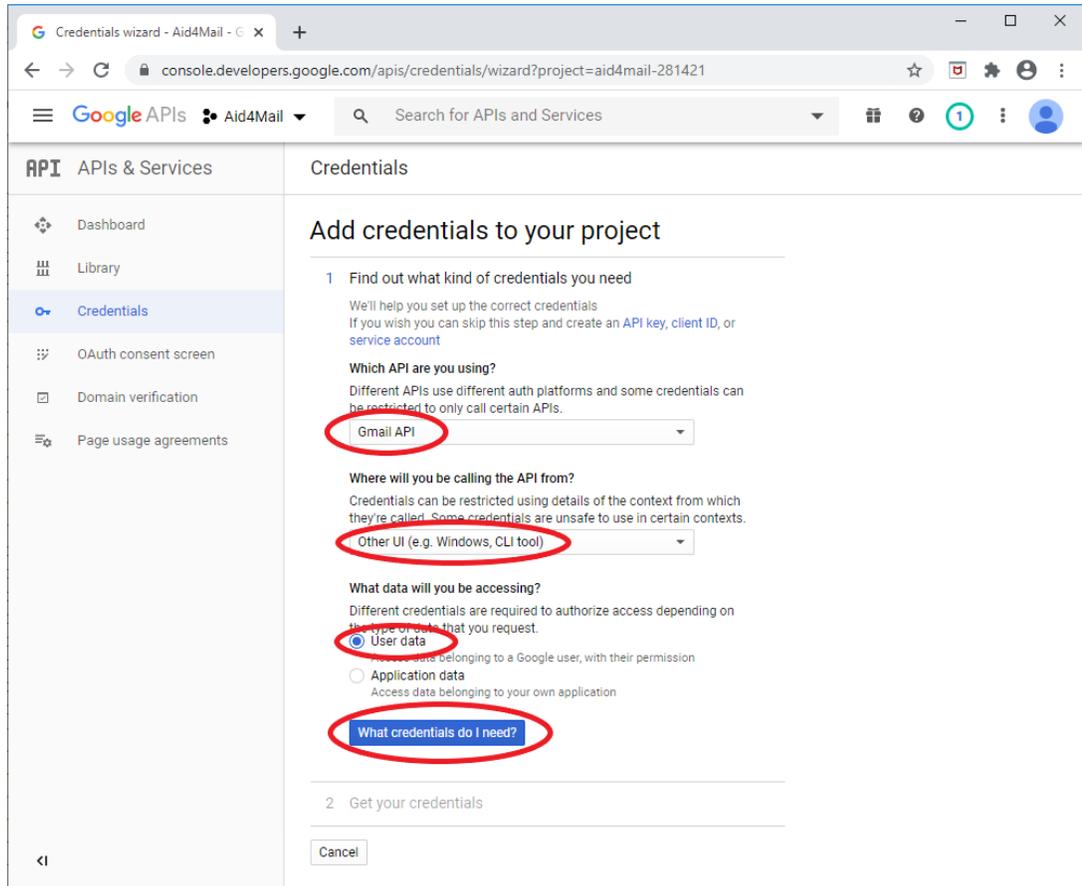


8. Select *CREATE CREDENTIALS* at the top of the next page.

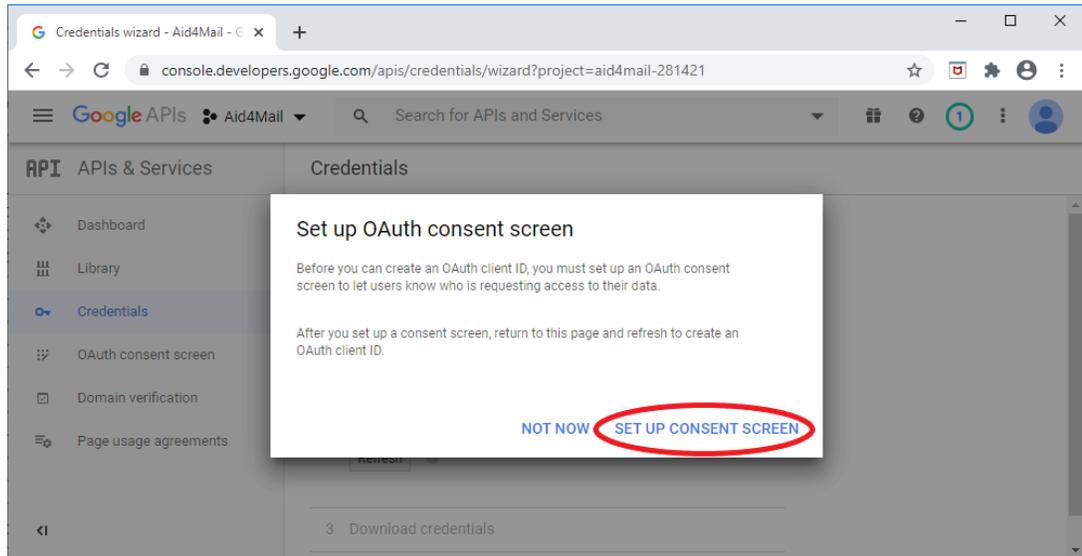


9. Under *Which API are you using?*, select *Gmail API*.  
Under *Where will you be calling the API from?*, select *Other UI (e.g. Windows, CLI tool)*.  
Under *What data will you be accessing?*, select *User data*.

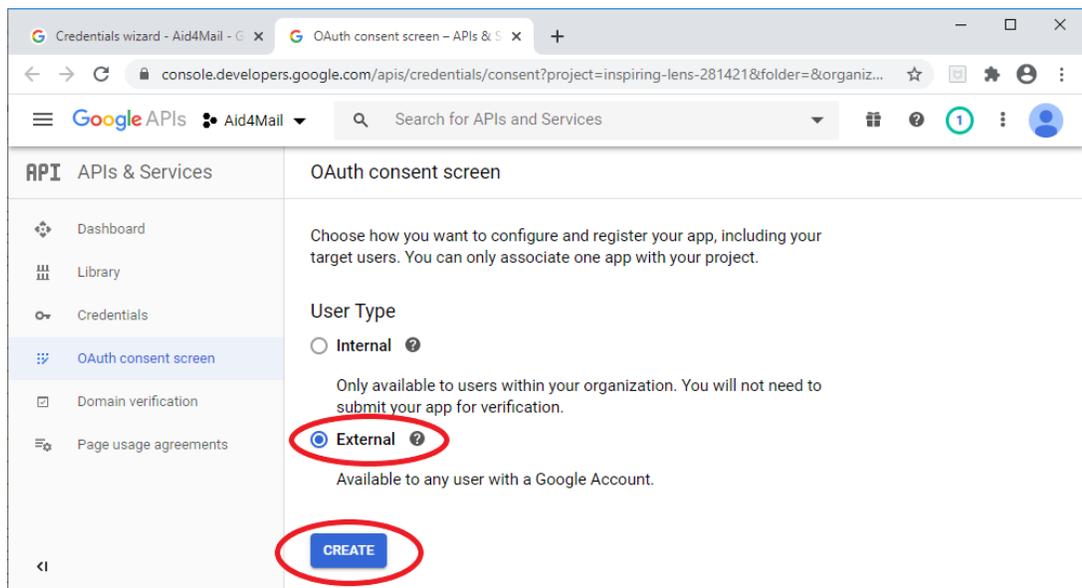
Finally, select the *What credentials do I need?* button.



10. Select *SET UP CONSENT SCREEN* at the bottom-right of the overlay that appears.



11. A new browser window will open, presenting two *UserType* options: *Internal* or *External*. If your organization has a Google Workspace subscription, and you will only be using Aid4Mail to process accounts within your organization's domain, then select *Internal*. If you have a regular Gmail account or plan to process accounts outside of your organization's domain, select *External*. Once you've chosen, select the *CREATE* button.



12. On the *OAuth consent screen*, enter *Aid4Mail* as your *Application name* and select your email address under *Support email*. Then select the *Save* button at the bottom of the page.

The screenshot shows the Google API console interface for configuring an OAuth consent screen. The page title is "OAuth consent screen" and the application name is "Aid4Mail". The "Verification status" is "Not published". The "Application name" field contains "Aid4Mail". The "Application logo" field is empty. The "Support email" dropdown menu is set to "mary@aid4mail.com". The "Scopes for Google APIs" section lists "email", "profile", and "openid". The "Authorized domains" section contains "example.com". The "Application Homepage link", "Application Privacy Policy link", and "Application Terms of Service link" fields are empty. The "Save" button at the bottom is highlighted with a red circle.

API APIs & Services

OAuth consent screen

Before your users authenticate, this consent screen will allow them to choose whether they want to grant access to their private data, as well as give them a link to your terms of service and privacy policy. This page configures the consent screen for all applications in this project.

**Verification status**  
Not published

**Application name** ?  
The name of the app asking for consent  
Aid4Mail

**Application logo** ?  
An image on the consent screen that will help users recognize your app  
Local file for upload Browse

**Support email** ?  
Shown on the consent screen for user support  
mary@aid4mail.com

**Scopes for Google APIs**  
Scopes allow your application to access your user's private data. [Learn more](#)  
If you add a sensitive scope, such as scopes that give you full access to Calendar or Drive, Google will verify your consent screen before it's published.

email  
profile  
openid

Add scope

**Authorized domains** ?  
To protect you and your users, Google only allows applications that authenticate using OAuth to use Authorized Domains. Your applications' links must be hosted on Authorized Domains. [Learn more](#)  
example.com  
Type in the domain and press Enter to add it

**Application Homepage link**  
Shown on the consent screen. Must be hosted on an Authorized Domain.  
https:// or http://

**Application Privacy Policy link**  
Shown on the consent screen. Must be hosted on an Authorized Domain.  
https:// or http://

**Application Terms of Service link (Optional)**  
Shown on the consent screen. Must be hosted on an Authorized Domain.  
https:// or http://

Save Submit for verification Cancel

**About the consent screen**  
The consent screen tells your users requesting access to their data and you're asking to access.

**OAuth verification**  
To protect you and your users, your application may need to be verified. Verification is required if your app is Public and at least one of the following:  

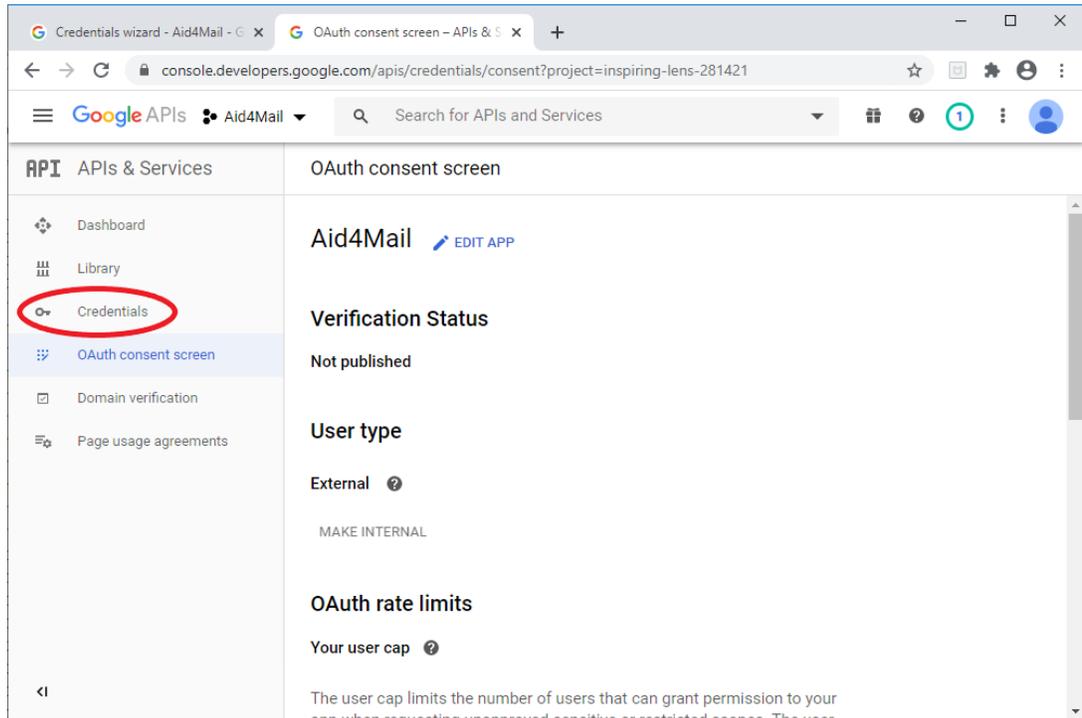
- Your app uses a sensitive and/or scope
- Your app displays an icon on its screen
- Your app has a large number of domains
- You have made changes to a published OAuth consent screen

The verification process may take up to 7 weeks, and you will receive email updates as it progresses. [Learn more](#) about verification.  
Before your consent screen and application are verified by Google, you can still test your application with limitations. [Learn more](#) about how to test your application before it's verified.  
[Let us know what you think about our experience.](#)

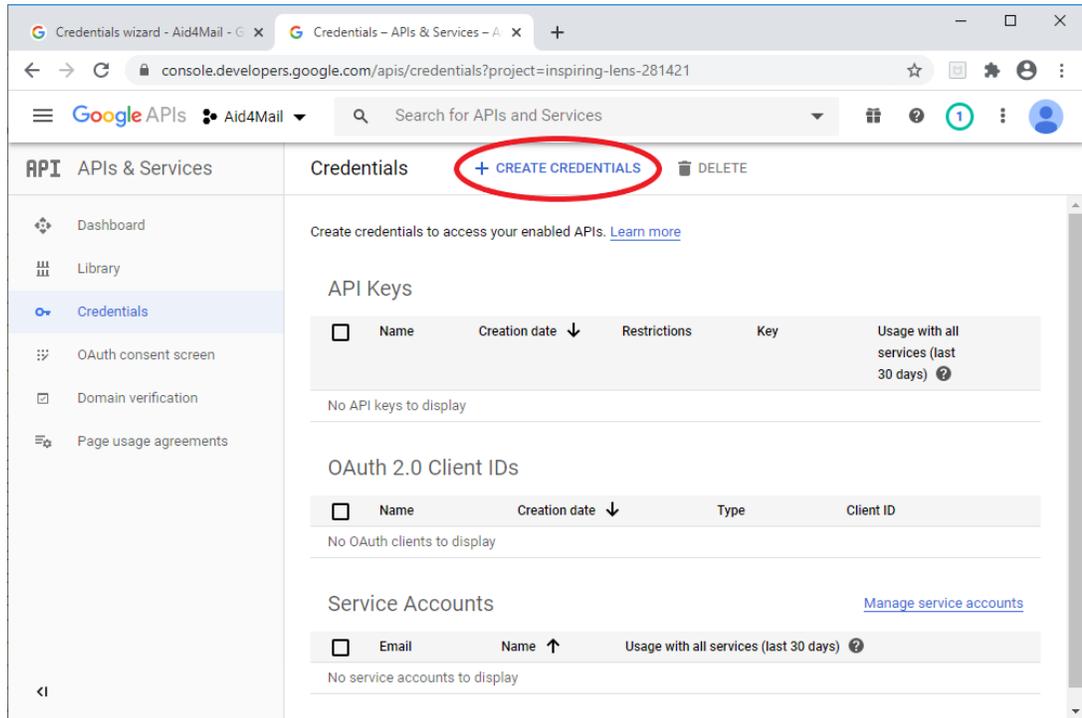
**OAuth grant limits**  
**Token grant rate**  
Your current per minute token grant rate is 10,000 grants per minute. The per minute token grant rate resets every minute. Your current per minute token grant rate limit is 10,000 grants per day. The token grant rate resets every day.  
[Raise limit](#)

1h 6h 1d  
No data for this time interval

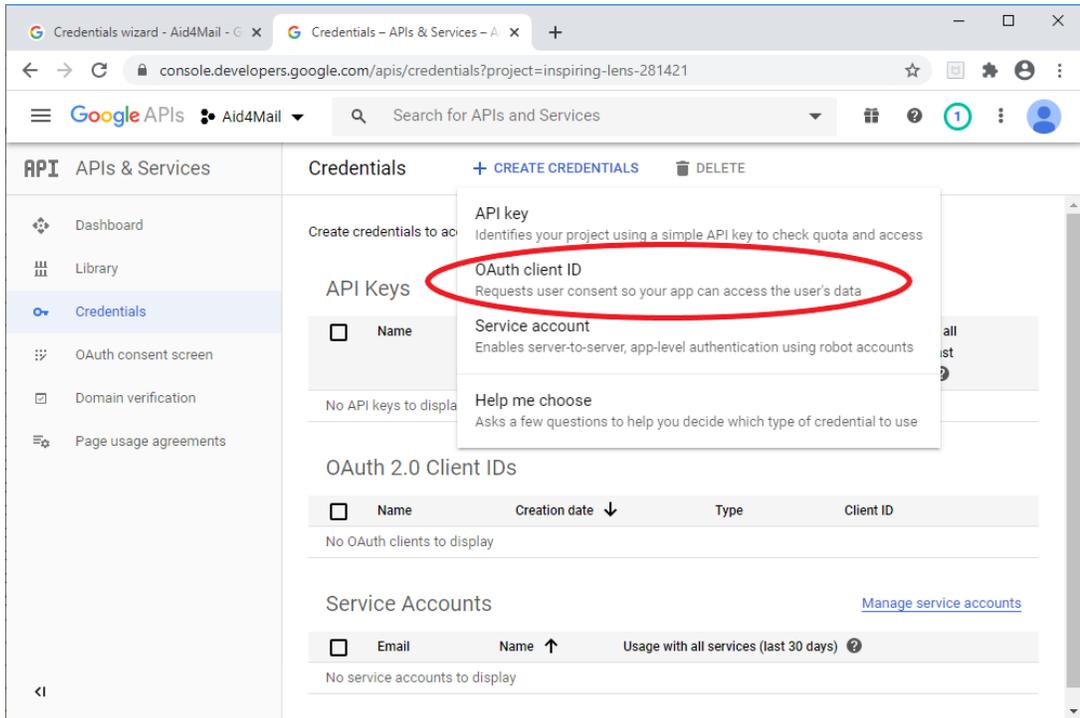
13. Select *Credentials* from the menu on the left of the page.



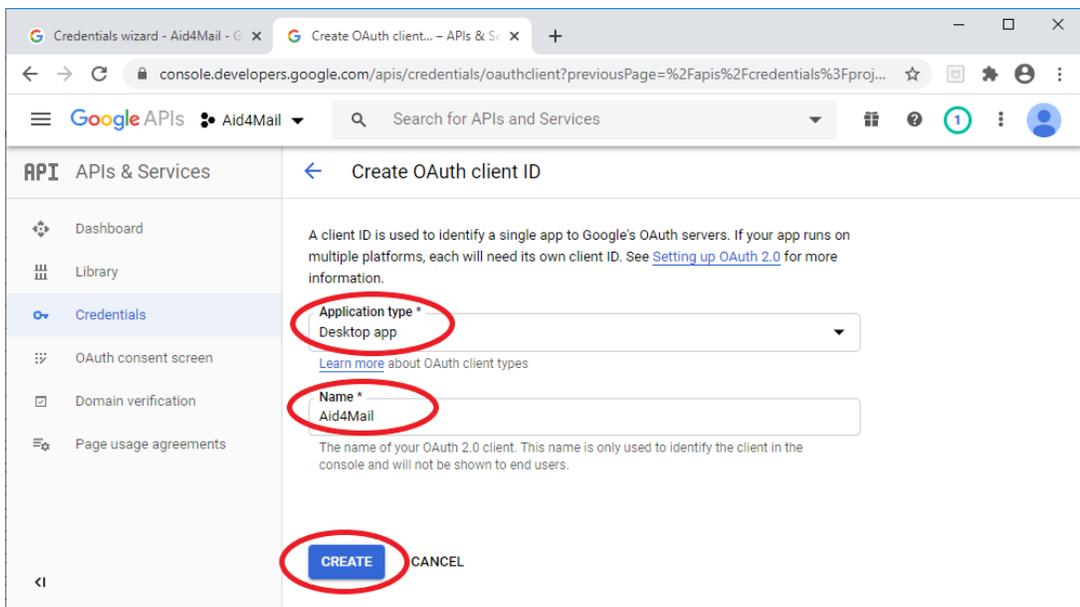
14. Select *CREATE CREDENTIALS* at the top of the page.



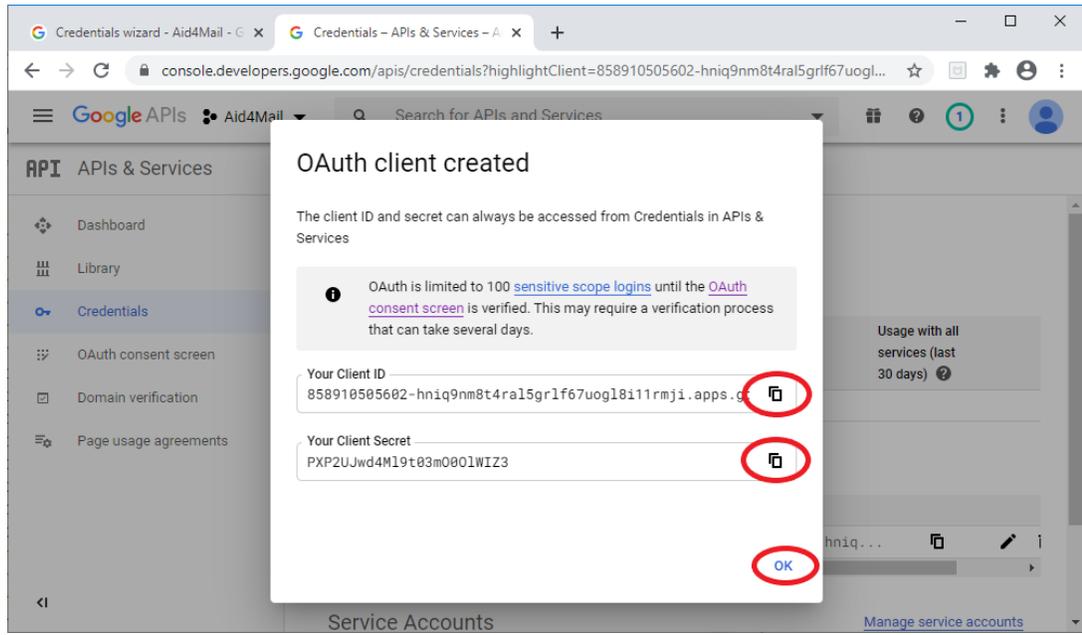
15. Select *OAuth client ID* from the popup menu.



16. Under *Application type*, select *Desktop app*. In the *Name* field, enter *Aid4Mail* and select the *CREATE* button.



17. The overlay shows your Google API credentials. Before selecting **OK**, copy *Your client ID* and, in Aid4Mail, paste it into the [Client ID](#) field under [Google API credentials](#) (in the [Advanced](#) section of Aid4Mail's [Options](#) screen). Likewise, copy *Your Client secret* to the [Client secret](#) field.



That's it! You can now follow the [Authentication instructions](#) to add any Gmail accounts you would like to process with Aid4Mail.

## 13.10 Aid4Mail Remote Authenticator

*Aid4Mail Remote Authenticator* is a stand-alone version of [Aid4Mail Authenticator](#) that does not require installation or an Aid4Mail license. It can be downloaded by any third party under investigation, or whose mail account you are processing on their behalf. It enables the account owner to grant Aid4Mail secure, temporary access to a cloud-based email service or [IMAP](#) account without providing their full login credentials and without having a copy of Aid4Mail.

The [Aid4Mail Remote Authenticator User Guide](#) (pdf) includes complete instructions for an account owner to download and use *Aid4Mail Remote Authenticator*.

### How does it work?

Aid4Mail Remote Authenticator creates an authentication token that Aid4Mail can read but that protects the account owner's information. With [IMAP](#) accounts, the password field is encrypted and an expiry date can be set for the token. For Google and Microsoft accounts, the secure [OAuth 2.0](#) protocol is used whenever possible. This creates an authentication token that provides account access without containing the username or password at all. The account owner can invalidate the token at any time, revoking Aid4Mail's access.

### Using an authentication token

Once an authentication token has been created, the account owner simply sends you the file. You can import it into Aid4Mail by selecting *Import* above one of the following fields:

- Source [Email address](#)
- Source [IMAP account](#)
- Target [Email address](#)
- Target [IMAP account](#)

The authentication token's filename indicates which option to use: It consists of the email address of the account owner followed by a two-part extension reflecting the protocol used to create it. For example, the token with filename *test@aid4mail.com.Google.auth* was created using the email address *test@aid4mail.com* and authenticated through Google [APIs](#) using the [OAuth 2.0](#) protocol.

The following explains each two-part extension and how to use the authentication token in Aid4Mail:

- *Google.auth*  
Authenticated through Google [APIs](#) using the [OAuth 2.0](#) protocol. To use the token in Aid4Mail, select *Gmail* as the source or target [Format](#) and use the *Import* button above the [Email address](#) field to import it..
- *Microsoft.auth*  
Authenticated through the Microsoft Graph [API](#) using the [OAuth 2.0](#) protocol. Currently, only Outlook 365 accounts are authenticated this way and they can only be used as source formats. To use the token in Aid4Mail, select *Outlook 365* as the source [Format](#) and use the *Import* button above the [Email address](#) field to import it.
- *IMAP.auth*  
Authenticated through [IMAP](#) using the [OAuth 2.0](#) protocol. To use the token in Aid4Mail, select *IMAP* as the source or target [Format](#) and use the *Import* button above the [IMAP account](#) field to import it.
- *IMAP.ini*  
Authenticated using regular [IMAP](#) credentials with an encrypted password. To use the token in Aid4Mail, select *IMAP* as the source or target [Format](#) and use the *Import* button above the [IMAP account](#) field to import it.

Note that each cloud-based email service or IMAP account that you process will require its own authentication token.

### **For Google accounts only**

Aid4Mail uses Google [APIs](#) during authentication and mail processing and requires you to have API credentials. You can set them up in a few minutes by following the instructions in the [Setting up Google API credentials](#) topic.

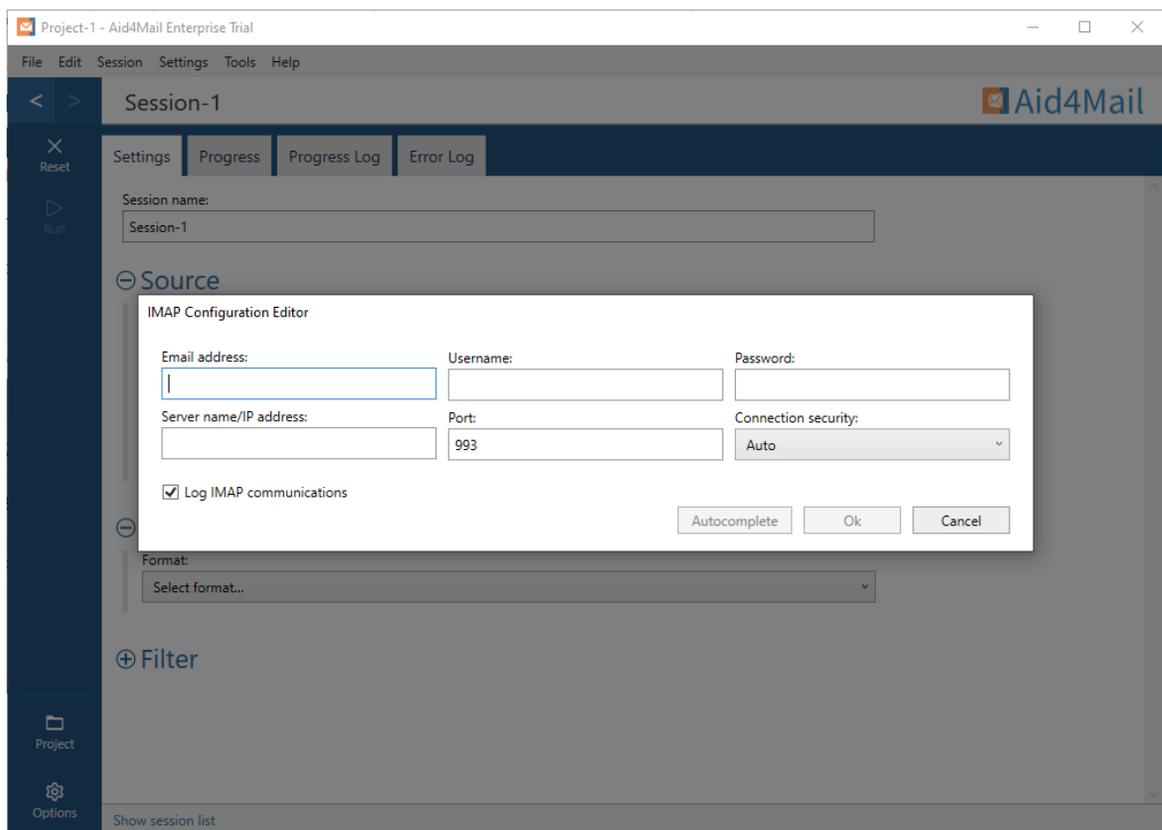
When you have created your credentials, enter them in the [Google API credentials](#) field on Aid4Mail's Options screen and then access one of your own Google accounts by following the [instructions](#) on the Aid4Mail Authenticator page. This will create a file called *Auth-Google.ini* in your [application data folder](#). You will need to send this file to your customer/suspect along with the link for Aid4Mail Remote Authenticator. Don't worry, this file does not contain the login credentials for your account—only your Google API credentials—and is encrypted.

### 13.11 IMAP Configuration Editor

The IMAP Configuration Editor opens when you select *Add* or *Edit* above the [source IMAP account](#) or [target IMAP account](#) list. It allows you to enter the details of an [IMAP](#) account manually or by using [autocomplete](#).

For manual configuration, please consult your IMAP account service provider's documentation for the necessary details. Alternatively, refer to our list of [common IMAP configurations](#).

For automatic configuration, fill in the [Email address](#) field and then select [Autocomplete](#). Aid4Mail will automatically configure the [Username](#), [Server name/IP address](#) and [Port](#) fields, leaving only the [Password](#) to be entered manually.



*IMAP Configuration Editor*

## Fields

### Email address

The email address of your [IMAP](#) account.

### Username

The username of your [IMAP](#) account. This is often (but not always) the same as the [email address](#).

### Password

The [IMAP](#) account password.

### Server name/IP address

The name or IP address of the server hosting the account. A server's name is in a more readable format, for example *imap.gmail.com*, whereas the IP address is a less-readable sequence of numbers, *74.125.21.108*. Both refer to the same server location so you can use either.

### Port

Ports allow network resources to be shared by different applications on the same computer at the same time. They are similar in concept to a telephone extension that allows a phone number to be shared by multiple people.

Aid4Mail will pre-fill this field with 993 which is the most commonly used port for [IMAP](#) connections. If you select [Autocomplete](#), Aid4Mail may update this with a port number that's appropriate for your [email address](#) domain name.

### Connection security

Choose one of the following options:

- *None*  
No security protocol is used to access the [IMAP](#) account.
- *Auto*  
The most appropriate security setting will automatically be used. This is the default option.

- *StartTLS*  
Aid4Mail will determine if a plain text connection needs to be upgraded to a secure one based on the server response.
- *SSL/TLS*  
The SSL/TLS security protocol will be used to access the [IMAP](#) account.
- *OAuth2*  
Aid4Mail will connect to the [IMAP](#) account using the [OAuth 2.0](#) protocol. This is the most secure option.  
If you select this option, Aid4Mail will ignore your password and, after you select [OK](#), will launch [Aid4Mail Authenticator](#) to establish a connection to your IMAP account. Please follow the [instructions in the Aid4Mail Authenticator topic](#).

### Log IMAP communications

When *on*, Aid4Mail will log all communication with the [IMAP](#) server, storing the details in *.log* files in your [project folder](#). There may be multiple log files corresponding to the various stages of the conversion process. These logs can help identify connection issues or problems encountered while downloading or uploading emails. They will sometimes be requested by our [technical support](#) team if you [contact us](#) with IMAP related issues. This option is *off* by default to maximize performance.

### Autocomplete

Only available once the [email address](#) field has been completed with a valid address.

Autocomplete will configure the [Username](#), [Server name/IP address](#) and [Port](#) fields based on the [email address](#) domain name, leaving only the [Password](#) field to be completed manually.

### OK

Close the *IMAP Configuration Editor*, either adding a newly created account to the [source IMAP account](#) or [target IMAP account](#) list, or updating an existing account in one of these lists.

### Cancel

Close the *IMAP Configuration Editor* without adding to, or updating, the [source IMAP account](#) or [target IMAP account](#) list.



### 13.11.1 Common IMAP configurations

If you choose to [configure your IMAP account](#) manually, you should find the necessary details in your [IMAP](#) account service provider's documentation. For your convenience, some of the most common IMAP configurations are listed below (in alphabetical order).

Service provider	Server name	Port	Connection security
Amazon WorkMail	imap.mail.us-west-2.awsapps.com or imap.mail.us-east-1.awsapps.com or imap.mail.eu-west-1.awsapps.com  Contact your system administrator for guidance on which of the three regional server names to use.	993	SSL/TLS
AOL Mail (AIM.Mail)	imap.aol.com	993	SSL/TLS
FastMail	imap.messagingengine.com	993	SSL/TLS
Gmail	imap.gmail.com	993	SSL/TLS
GMX Mail	imap.gmx.com	993	SSL/TLS
Lotus Domino	imap.host.name	993	SSL/TLS
Outlook.com	imap-mail.outlook.com	993	SSL/TLS
Office 365 and Office 365 Education (formerly Live@edu)	outlook.office365.com	993	SSL/TLS
Yahoo! Mail	imap.mail.yahoo.com	993	SSL/TLS
Zoho Mail	imap.zoho.com	993	SSL/TLS

### 13.12 Keyboard shortcuts

The following keyboard shortcuts are available in Aid4Mail.

## General keyboard shortcuts

Shortcut	Description
F1	Context-sensitive help.
Ctrl+X	Cut (only in a text field).
Ctrl+C	Copy (only in a text field).
Ctrl+V	Paste (only in a text field).

## File menu shortcuts

Shortcut	Description
Ctrl+N	Shortcut for the <a href="#">File &gt; New</a> menu item.
Ctrl+O	Shortcut for the <a href="#">File &gt; Open</a> menu item.
Alt+F4	Shortcut for the <a href="#">File &gt; Exit</a> menu item.

## View menu shortcuts

Shortcut	Description
Ctrl+L	Shortcut for the <a href="#">View &gt; Show/Hide list</a> menu item.
F11	Shortcut for the <a href="#">View &gt; Navigate backward</a> menu item.
F12	Shortcut for the <a href="#">View &gt; Navigate forward</a> menu item.
Ctrl+F11	Shortcut for the <a href="#">View &gt; Zoom out</a> menu item.
Ctrl+F12	Shortcut for the <a href="#">View &gt; Zoom in</a> menu item.

## Session menu shortcuts

Shortcut	Description
Ctrl+Del	Shortcut for either the <a href="#">Session &gt; Delete</a> or <a href="#">Session &gt; Reset</a> menu item: If there's more than one session then delete the selected session. If there's only one session then reset it.

Shortcut	Description
Ctrl+R	Shortcut for the <a href="#">Session &gt; Run</a> menu item.
F7	Shortcut for the <a href="#">Session &gt; Select &gt; Previous</a> menu item.
Up arrow	Shortcut for the <a href="#">Session &gt; Select &gt; Previous</a> menu item when the <a href="#">Session list</a> has focus.
F8	Shortcut for the <a href="#">Session &gt; Select &gt; Next</a> menu item.
Down arrow	Shortcut for the <a href="#">Session &gt; Select &gt; Next</a> menu item when the <a href="#">Session list</a> has focus.
Ctrl+G	Shortcut for the <a href="#">Session &gt; Select &gt; By index</a> menu item.
Alt+Up arrow	Shortcut for the <a href="#">Session &gt; Move &gt; Up</a> menu item.
Alt+Down arrow	Shortcut for the <a href="#">Session &gt; Move &gt; Down</a> menu item.
Alt+Home	Shortcut for the <a href="#">Session &gt; Move &gt; To top</a> menu item.
Alt+End	Shortcut for the <a href="#">Session &gt; Move &gt; To bottom</a> menu item.

### 13.13 Session settings file

When you run an Aid4Mail session, or close the application, the session's settings are saved to a file in the [project folder](#). The filename is composed of the [session name](#) followed by `.settings.ini`. For example, the session named *JohnDoe* will have its settings saved in file *JohnDoe.settings.ini*.

Every [session setting](#) in Aid4Mail has a corresponding entry in the file (although unused settings may not be listed). They are grouped under headings: `[Source]`, `[Target]`, `[Filter]` and others that generally reflect the various sections of the [settings screen](#) in Aid4Mail. Settings in the file are composed of the setting name followed by an equal sign (=) and a value. Generally, setting names in the file correspond to those in Aid4Mail although there are some exceptions.

For example, when converting EML files, the `[Source]` section of the file might look like this:

```
[Source]
Format=EML
RootLocation=D:\Email\Source\EML\
```

You can edit the session settings file directly although care must be taken to use the correct syntax and valid values. We suggest you experiment by changing settings in Aid4Mail and observing how they are stored in the file. Once you are familiar with them, you can edit the file directly. This can prove useful if you are running [Aid4Mail Enterprise](#) using its [command-line interface](#).

## 14 Command-line interface (CLI)

[Aid4Mail Enterprise](#) includes a command-line interface (CLI) that enables further automation. It allows the software to be run from the Windows Command Prompt, batch files or directly from third-party applications. [Aid4Mail Investigator](#) and [Converter](#) do not have access to the command-line interface.

### Aid4Mail CLI executables

Aid4Mail contains two CLI executables. One is 32-bit and the other 64-bit:

- a4m-32.exe
- a4m-64.exe

In general, 32-bit software is faster than 64-bit software. If processing speed is your priority, use the 32-bit executable. However, 64-bit software can potentially access four billion times more physical memory than 32-bit applications! If your system has more than 4 GB of RAM, and you need to process emails that are large (usually due to large attachments), Aid4Mail may perform more efficiently if you use the 64-bit executable.

If your source or target mail format is an Outlook profile, or PST/MSG file(s) that you want to access through Outlook, and you have 64-bit Outlook installed on your system, then you will need to use the 64-bit Aid4Mail executable.

### Constructing a command line

To run Aid4Mail from the command line, specify an executable followed by either the [Settings switch](#) or the [CLI switch](#). Additional switches can be used to [specify individual settings](#) (that override their counterparts in the settings file).

#### Settings switch

The `-settings` switch specifies the location of the [session settings file](#) to be used.

For example, the following command line will run the 32-bit Aid4Mail executable using the JohnDoe session settings file:

```
a4m-32.exe -settings:C:\Users\FookesSoftware\Projects\ArchiveEmployeeMail\JohnDoe.se
```

Note that if the file location contains one or more spaces then it needs to be enclosed in quotes, as follows:

```
a4m-32.exe -settings:"C:\Users\Fookes Software\Projects\Archive Employee Mail\JohnDo
```

Any optional switches used to [specify individual settings](#) will override the corresponding settings in the settings file. This can prove useful in [certain scenarios](#).

### CLI switch

The `-cli` switch tells Aid4Mail not to use a settings file and, instead, use internal default values. The intention is that all settings will be [individually specified](#). This means that, at a minimum, you must [specify](#) the source and target format, and the location of the source and target files or accounts.

## Specifying individual settings

Any setting that can be used in the [session settings file](#) has a corresponding, optional command-line switch that takes precedence. In other words, a setting specified in the command line overrides the corresponding setting in the session settings file if both are present.

The command-line switch for an individual setting is composed of a hyphen (-), followed by the heading under which the setting would appear in the settings file, a period, and finally the setting name:

```
-Heading.SettingName
```

For example, in the session settings file, the source format is located under the *Source* heading and the setting is called *Format*. The command-line switch for this setting is:

```
-Source.Format
```

Likewise, the command-line switch for the *RootLocation* setting, under the *Source* heading, is:

```
-Source.RootLocation
```

These command-line switches require a value (as do their corresponding settings in the file). Specify the value after a colon following the switch as follows:

```
-Source.Format:EML  
-Source.RootLocation:D:\Email\Source\EML\
```

The full command line, using the JohnDoe session settings file, and overriding the source format and root location, would look like this:

```
a4m-32.exe -settings:C:\Users\FookesSoftware\Projects\ArchiveEmployeeMail\JohnDoe.se  
-Source.Format:EML -Source.RootLocation:D:\Email\Source\EML\
```

As before, make sure that any values containing spaces are placed in quotes.

### When should you override a session settings file?

The ability to specify individual settings is particularly useful in multi-session scenarios, where sessions mostly share the same settings but have a small number that are different. An example of this type of scenario would be a large-scale archival project where 1,000 employee accounts, currently in the EML format, need to be archived in separate PST files.

In this example, most settings would be identical for each Aid4Mail session with only the source and target file locations changing from one session to another. To accomplish this, common settings can be stored in a shared settings file and the source and target file locations can be specified directly for each session. The command line (for the first three sessions) would look something like this:

```
a4m-32.exe -settings:Common.settings.ini -Source.RootLocation:Leroy\ -Target.FileStore
a4m-32.exe -settings:Common.settings.ini -Source.RootLocation:Ava\ -Target.FileStore
a4m-32.exe -settings:Common.settings.ini -Source.RootLocation:Janelle\ -Target.FileStore
etc...
```

### Common command-line switches

Note that command-line switches and their values are case-insensitive.

Command-line switch	Description
-Settings	Location of the <a href="#">session settings file</a> to be used. Settings in this file can be overridden by <a href="#">specifying individual settings</a> .  Note that every command-line must contain either the -Settings switch or the -CLI switch.
-CLI	Indicates that there is no <a href="#">session settings file</a> and internal defaults will be used, overridden by <a href="#">specifying individual settings</a> .  Note that every command-line must contain either the -Settings switch or the -CLI switch.
-Source.Format	Same as the <a href="#">Format</a> field in the <a href="#">Source settings</a> .
-Target.Format	Same as the <a href="#">Format</a> field in the <a href="#">Target settings</a> .
-Source.RootLocation	Same as the <a href="#">Location</a> field in the <a href="#">Source settings</a> .

Command-line switch	Description
-Target.RootLocation	Same as the <a href="#">Location</a> field in the <a href="#">Target settings</a> .
-Source.FileStore	Same as the <a href="#">PstFile</a> field in the <a href="#">Source settings</a> .
-Target.FileStore	Same as the <a href="#">PstFile</a> field in the <a href="#">Target settings</a> .
-Source.MapiProfile	Same as the <a href="#">Profile</a> field in the <a href="#">Source settings</a> .
-Target.MapiProfile	Same as the <a href="#">Profile</a> field in the <a href="#">Target settings</a> .
-Source.MapiStore	Same as the <a href="#">Store</a> field in the <a href="#">Source settings</a> .
-Target.MapiStore	Same as the <a href="#">Store</a> field in the <a href="#">Target settings</a> .
-Source.AuthTokenFile	File location of the authentication token that provides access to the account whose <a href="#">Email address</a> is in the <a href="#">Source settings</a> .
-Target.AuthTokenFile	File location of the authentication token that provides access to the account whose <a href="#">Email address</a> is in the <a href="#">Target settings</a> .
-Source.ImapConfig	Location of the configuration file that represents the <a href="#">IMAP account</a> in the <a href="#">Source settings</a> .
-Target.ImapConfig	Location of the configuration file that represents the <a href="#">IMAP account</a> in the <a href="#">Target settings</a> .

## 15 Adding header metadata

Aid4Mail faithfully preserves all available metadata in the email header during conversion from one mail format to another. However, some [source mail formats](#) include proprietary header fields that don't exist in the [target](#). In addition, some [target folder structure](#) options do not reflect their source counterparts. In such cases, Aid4Mail provides additional metadata fields that can be added to the header of a target email by selecting [Add extra metadata to email headers](#) in the *Target settings*.

### Why add additional metadata?

There are two main reasons for adding additional metadata to an email message header:

1. To preserve the original content of header fields after conversion to a [target format](#) that does not support those header fields, or that changes them.

An example of this would be converting from Thunderbird to EML. Thunderbird mailboxes use *From* delimiters to separate one email from the next. This is in addition to the regular *From* header fields which can contain different information. EML does not use *From* delimiters so they will be lost after conversion. However, Aid4Mail can preserve them by adding proprietary *X-From* header fields to contain them. This means that the original *From* delimiters are always available for forensic analysis. It also means that if the EML files are subsequently converted back to Thunderbird, even after conversion to other formats in the meantime, the original *From* delimiters can be recreated instead of creating new ones. This will be done automatically if the *X-From* field is detected.

2. To preserve the email's original folder hierarchy after conversions that change the folder structure.

For example, if a session's target [folder structure](#) is set to *Flat (everything in the same folder)*, the original folder structure will be lost. However Aid4Mail can preserve a copy of the source folder hierarchy in an *X-Folder* header field. This makes it available for forensic analysis. It also means that the original folder structure can be subsequently recreated, even after multiple conversions, by selecting *Use X-Folder metadata* as the target [folder structure](#) option.

## List of additional header fields

Aid4Mail can add the following header fields to target emails when [Add extra metadata to email headers](#) is selected in the *Target settings*. The exact combination of header fields added depends on the [source mail format](#) and the content of the source email header.

### All source formats

- *X-From*

Proprietary header field containing the *From* delimiter for this email. It is only added if the source format uses *From* delimiters to separate one email from the next (for example Thunderbird or mbox).

- *X-Folder*

Proprietary header field containing the email's source folder hierarchy.

- *Status* and *X-Status*

Standard [MIME](#) headers that contain one or more status flags (described below). These headers are rarely used, having been replaced by proprietary fields added by email clients. However, when the proprietary fields are not present and this option is *on*, Aid4Mail will add status information gleaned from index files or folder locations to these two fields.

Flag options for the *Status* header:

- R = Read
- O = Old
- U = Unread
- No value = New

Flag options for the *X-Status* header:

- A = Replied
- D = Deleted
- F = Flagged
- W = Forwarded
- No value = None of the above

Example: The following header flags signify an email that has been read, is old and has been replied to and deleted.

```
Status: RO
X-Status: AD
```

**Outlook/Exchange as source format**• *X-MAPI-Categories*

Represents the proprietary [MAPI](#) field *PidNameKeywords* and contains any Outlook/Exchange categories assigned to the email. For example:  
`X-MAPI-Categories: Transferred to SharePoint; Important Mail; Teams Mail; For Later; Not Important`

• *X-PR-CREATION-TIME*

Represents the proprietary [MAPI](#) field *PR\_CREATION\_TIME*

• *X-PR-ENTRYID*

Represents the proprietary [MAPI](#) field *PR\_ENTRYID*

• *X-PR-ICON-INDEX*

Represents the proprietary [MAPI](#) field *PR\_ICON\_INDEX*

• *X-PR-LAST-MODIFICATION-TIME*

Represents the proprietary [MAPI](#) field *PR\_LAST\_MODIFICATION\_TIME*

• *X-PR-MESSAGE-CLASS*

Represents the proprietary [MAPI](#) field *PR\_MESSAGE\_CLASS*

• *X-PR-STORE-ENTRYID*

Represents the proprietary [MAPI](#) field *PR\_STORE\_ENTRYID*

**IMAP as source format**• *X-Email-UID*

A unique ID that combines two proprietary [IMAP](#) fields: The email *UID* and the folder *UID*, separated by a period.

• *X-IMAP-Flags*

Represents the proprietary [IMAP](#) *FLAGS* field which consists of both standard IMAP flags and any proprietary flags specific to the IMAP server. Standard flags are prefixed with a backslash character (\) and proprietary flags with a dollar symbol (\$). All flags are separated by a space. For example:

```
\Answered \Flagged \Seen $Forwarded $Junk
```

• *X-Date-Stored*

Represents the proprietary [IMAP](#) field *INTERNALDATE*.

## 16 Processing archival formats

[Aid4Mail Enterprise](#) supports three major archive export formats:

1. Google Vault (zipped mbox files)
2. Mimecast (zipped EML SJF files)
3. Proofpoint (password-protected zipped EML files)

At the time of writing, Aid4Mail Enterprise is the only tool on the market that can search and convert these archives in their native form. With Google Vault archives, Aid4Mail not only preserves email status information (unread, read, replied, sent, etc.) but can also restore the original folder structure. With Proofpoint and downloaded Mimecast exports, Aid4Mail has the unique ability to reorganize exports [by email account](#), saving hours (if not days) of manual work!

For information on how to process these formats, please refer to the following *How to* tutorials on our website:

- [How to process Google Vault exports](#)
- [How to process Mimecast exports](#)
- [How to process Proofpoint exports](#)

## 17 Multiple sessions

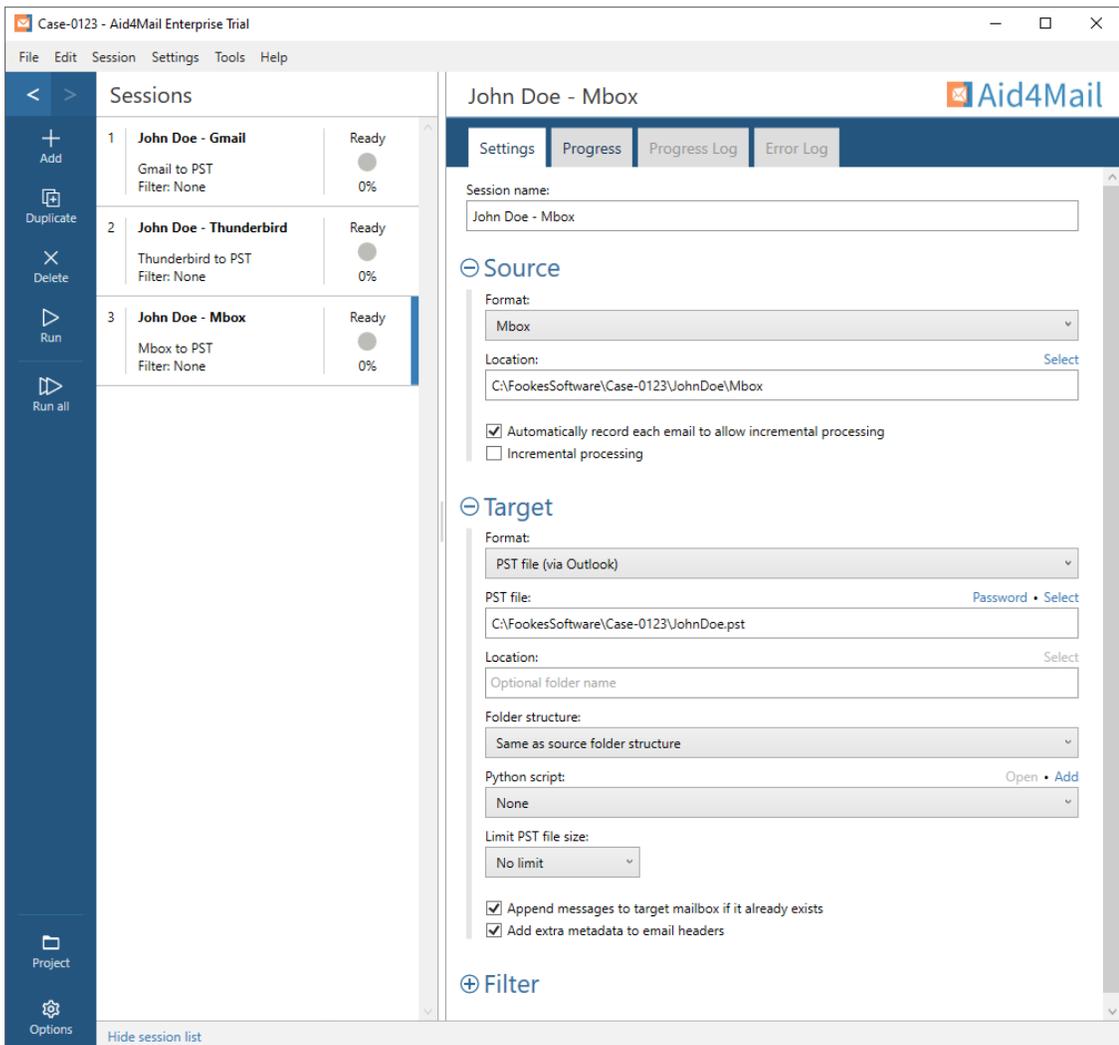
### What is a session?

A *session* can be thought of as an independent instance of the Aid4Mail processing engine. Aid4Mail allows you to work with one session at a time or with multiple sessions, enabling you to set up a whole project of related email processing tasks.

### Setting up multiple sessions

To set up multiple sessions, first open the [session list](#) by selecting [View > Show/Hide session list](#) from the menu or [Show/Hide session list](#) in the task bar. Once the session list is open, you will notice additional items on the [button bar](#) and in the [session menu](#). These allow you to [add](#) a new session, [duplicate](#) an existing one, [delete](#) or [reset](#) it and [move](#) sessions around.

The following screenshot shows a project with three sessions. It is an implementation of [Example 1](#) in the [example scenarios](#) below:



*Project with three sessions to implement Example 1*

## Running multiple sessions

All [Aid4Mail editions](#) allow you to set up multiple sessions and to [run](#), [pause](#) and [stop](#) the currently selected session.

[Aid4Mail Converter](#) can only run one session at a time. You can still set up multiple sessions but the next session can only be run once the current one has finished processing. If you have multiple sessions set up, you will need to continually return to the computer to manage them one at a time.

[Aid4Mail Enterprise](#) and [Investigator](#) can run single sessions like Aid4Mail Converter. In addition, they can [run all](#) the sessions in the list, either [consecutively or concurrently](#), and [pause all](#) and [stop all](#). Any sessions not yet running will be placed in a queue and automatically run when it's their turn. There's no need to return to the computer to manage each session. Aid4Mail does it for you, unattended, whether it takes hours, days or weeks to complete.

## Why run multiple sessions?

There are two major time-saving benefits from running multiple sessions:

1. Set up your whole project in advance and then let it run in your absence while you're doing something else. Whether you're a forensics professional processing multiple mail sources belonging to the same suspect, or an IT technician migrating thousands of employee accounts to a new mail system, this can be a huge time saver.
2. Mail is processed significantly faster when multiple engines can work on it at the same time. Each session runs independently, on a separate thread, maximizing your computer's resources. This is optimized even further when Aid4Mail is running on a multi-core or multi-processor system.

## Processing order

When running multiple sessions, they are processed in the order they appear in the [session list](#). The list can be [rearranged](#) as required before you select [Run all](#).

## Consecutive vs Concurrent processing

In [Aid4Mail Enterprise](#) and [Investigator](#), you can set the [maximum number of sessions that can be run concurrently](#). When set to 1, the sessions will be processed consecutively. When set to a value greater than 1, then up to that number of sessions will be processed simultaneously at any given time.

### Consecutive processing

Consecutive processing is useful if you want to use the target mail of one session as the source of another. It's also necessary when your [Bates numbering scope](#) is set to *Project* or *Global*.

With consecutive processing, the first session is run and the others are placed in a queue. Once a session finishes processing, the next one will automatically be run. This continues,

one session after the other, until there are no sessions left in the queue. The whole process is automated and there is no need to intervene, even for large projects.

### **Concurrent processing**

Concurrent processing is useful in larger projects where having multiple Aid4Mail engines working together can significantly reduce the project's duration.

With concurrent processing, multiple sessions run simultaneously. Each runs in its own thread, making optimal use of the computer's resources. Remaining sessions are placed in a queue. When a session finishes processing, the next one will automatically be run by the available thread until all sessions are complete. Again, no need for user intervention.

For example, say you have set the [maximum number of sessions running concurrently](#) to 5 and have set up 10 sessions. When you select [Run all](#), the first 5 sessions in the [list](#) will start processing at the same time. When one of them finishes, session 6 will start automatically. When the next one finishes, session 7 will launch. This will continue, with 5 sessions processing simultaneously at any given moment, until all 10 sessions have been completed.

### **How many sessions can be processed concurrently?**

In theory, as many as you want. However, in reality, it depends on the capabilities of the computer running Aid4Mail. Generally, the default value for the [maximum number of sessions running concurrently](#) works well for most modern computers. If you have an older system, you can reduce the number. If you have a powerful one with multiple cores, you could consider increasing it. Note that this does not limit how many sessions you can set up, just how many will run at the same time.

### **Sharing source and target mail across multiple sessions**

Source mail files or accounts can be shared by any number of sessions because they are not altered or locked by Aid4Mail.

In many cases, target files can also be shared by multiple sessions although it depends on the format:

- Target PST files, [IMAP](#) and Gmail accounts can be shared by multiple sessions.
- Target EML and MSG folders can be shared as long as the files being created in these folders are not shared.
- Target Mbox, Thunderbird, EML and MSG files cannot be shared across sessions.

## Example multi-session scenarios

### Example 1

A forensic examiner may use multiple sessions to process different mail sources belonging to a suspect and compile the results in a single PST file. The first session might use the suspect's online Gmail account as source, the second may be mail from their Thunderbird application that does not exist on the server, and the third session source might be an mbox file containing [archived mail](#) found on the suspect's computer. All three sessions would use the same target PST file to compile the results together.

### Example 2

An IT technician may want to use multiple sessions to migrate all of the company employees from one [live mail system](#) to another. The first session may have John's Gmail account as source and his new Office 365 account as target. The second session would do the same for Sally's mail accounts, the third session for Leroy's, and so on for all employees.

### Example 3

An archiving project may involve separating one huge file, containing all company mail and obtained by exporting from an old archival system, into multiple individual [archives](#), one for each employee. All sessions would have the same source mbox file but use a specific filter and target PST file for each employee. The filter would ensure that only mail sent to or from that employee ends up in their archive. UPDATE: This can now be done even more simply using the [{EmailAccount}](#) token in a [filename template](#).

### Example 4

An eDiscovery analyst may use multiple sessions to categorize an individual's mail. The same mail source would be used by all sessions. The target format may be a single PST file, also shared by all sessions, with each session using a unique filter to separate mail into different folders inside the PST file.

## 18 Duplicating sessions

### Creating a single duplicate session

When [multiple sessions are enabled](#), you can use the [Session > Duplicate](#) menu command or the [Duplicate](#) button to create a duplicate of the currently selected session. The new session will be created directly below the session it's duplicating in the [session list](#) and will become the selected session.

With the exception of the [session name](#), both sessions will contain identical settings including any that are blank. You can subsequently edit their settings independently as the two sessions are not linked in any way. However, any source or target mail specified before duplication will be [shared](#) by both sessions unless subsequently edited. The exception to this is when wildcards are used, as explained next.

### Creating multiple duplicate sessions

Certain projects require [multiple sessions](#) to be set up with almost identical settings. For example, an archival project that saves multiple employee accounts to separate PST files. Its sessions may all have the same settings except for the source and target file locations.

This can be accomplished in more than one way. For very large-scale projects, with hundreds or thousands of sessions, using [Aid4Mail Enterprise's command-line interface](#) may be appropriate. For smaller projects, Aid4Mail allows you to create multiple duplicate sessions using wildcards.

### Duplicating sessions using wildcards

With certain source formats, you can use the asterisk (\*) or question mark (?) wildcards in a filename or folder name when duplicating a session. The asterisk matches one or more characters and the question mark matches a single character (just like in Windows file dialogs).

Aid4Mail knows whether it's a filename or a folder name based on the presence or absence of a period (.) character. For example, \*.pst and Export-\*.pst are both interpreted as filenames whereas Export-\* will be seen as a folder name.

When you duplicate a session that uses wildcards in this manner, Aid4Mail will replace the file/folder name in this session with the full name of the first file/folder that matches the pattern. It will then create new, duplicate sessions for every remaining file/folder that matches the pattern. This is demonstrated in the [examples](#) below.

**Wildcards in a source filename**

Wildcards can be used in a source filename when duplicating a session with one of the following [source formats](#):

- Google Vault
- Mimecast
- Proofpoint
- PST

**Wildcards in a source folder name**

Wildcards can be used in a source folder name when duplicating a session with one of the following [source formats](#):

- EML
- Google Takeout
- Maildir
- mbox
- Mimecast
- Msg
- Proofpoint
- SeaMonkey
- Thunderbird

**Asterisk wildcard in a target file/folder name**

When a wildcard is used in a source file/folder name, an asterisk wildcard can also be placed in the target file/folder name. This acts as a placeholder for the corresponding source name. After duplication, the newly created sessions will each have a target file/folder name that match its source (but usually with a different file extension, if any). The three [examples](#), below, clarify this process.

**Asterisk wildcard in a session name**

Similarly, an asterisk wildcard can be placed in the session name, acting as a placeholder for the corresponding source file/folder name. [Example 1](#) and [Example 3](#), below, demonstrate this.

**Examples**

The following three examples demonstrate the use of wildcards when duplicating sessions:

- [Example 1](#)
- [Example 2](#)

- [Example 3](#)

## 18.1 Duplicating sessions: Example 1

In this example, four employee's PST files need to be converted to EML. This requires four sessions because Aid4Mail can only process one PST file at a time.

The following folder contains the four PST files:

```
C:\Employee PST\
```

The files inside are:

```
Leroy.pst
Sally.pst
Mike.pst
Judy.pst
```

Select *PST* as your [source format](#) and enter the following location in the source [PST file](#) field:

```
C:\Employee PST\*.pst
```

Select *EML* as your [target format](#) and enter the following in the target [Location](#) field:

```
C:\Employee EML\*
```

Aid4Mail knows this is a folder name and not a file name because of the absence of a period (.) in the name.

Enter the following in the [Session name](#) field:

```
Session-*
```

Next, configure any other settings that need to be identical across all four sessions.

Finally, select the [Session > Duplicate](#) menu command or the [Duplicate](#) button. Aid4Mail will replace the filename pattern in this session with the name of the first PST file. It will then create three new, duplicate sessions: one for each of the remaining three PST files that match the pattern.

The source [PST file](#) fields for the four sessions will be:

```
C:\Employee PST\Leroy.pst
C:\Employee PST\Sally.pst
C:\Employee PST\Mike.pst
C:\Employee PST\Judy.pst
```

The target [Location](#) fields for the four sessions will contain folder names that match the source PST filenames:

```
C:\Employee EML\Leroy  
C:\Employee EML\Sally  
C:\Employee EML\Mike  
C:\Employee EML\Judy
```

The [Session name](#) fields for the four sessions will also contain the text that matches the wildcard:

```
Session-Leroy  
Session-Sally  
Session-Mike  
Session-Judy
```

You can then [run all](#) the sessions if you have [Aid4Mail Enterprise](#) or [Investigator](#), or [run them one by one](#) if you have [Aid4Mail Converter](#).

## 18.2 Duplicating sessions: Example 2

In this example, Mimecast has delivered four archives on an external hard drive. They are already organized by account and have been copied over to the computer running Aid4Mail. Each account needs to be converted to PST which requires four Aid4Mail sessions. Note that Mimecast is only available as a source format when you're running [Aid4Mail Enterprise](#).

The following folder contains the four Mimecast archives:

```
C:\Mimecast archives\
```

The files inside are:

```
leroy@aid4mail.com_20121201_20121231_US334-13.000001.zip  
sally@aid4mail.com_20121201_20121231_US334-13.000001.zip  
mike@aid4mail.com_20121201_20121231_US334-13.000001.zip  
judy@aid4mail.com_20121201_20121231_US334-13.000001.zip
```

Select *Mimecast* as your [source format](#) and enter the following in the source [Location](#) field:

```
C:\Mimecast archives\*.zip
```

Select *PST* as your [target format](#) and enter the following in the target [PST file](#) field:

```
C:\PST archives\*.pst
```

Next, configure any other settings that need to be identical across all four sessions.

Finally, select the [Session > Duplicate](#) menu command or the [Duplicate](#) button. Aid4Mail will replace the filename pattern in this session with the name of the first Mimecast archive. It will then create three new, duplicate sessions: one for each of the remaining three archives that match the pattern.

The source [Location](#) fields for the four sessions will be:

```
C:\Mimecast archives\leroy@aid4mail.com_20121201_20121231_US334-13.000001.zip  
C:\Mimecast archives\sally@aid4mail.com_20121201_20121231_US334-13.000001.zip  
C:\Mimecast archives\mike@aid4mail.com_20121201_20121231_US334-13.000001.zip  
C:\Mimecast archives\judy@aid4mail.com_20121201_20121231_US334-13.000001.zip
```

The target [PST file](#) fields for the four sessions will contain PST filenames that match the Mimecast source names:

```
C:\PST archives\leroy@aid4mail.com_20121201_20121231_US334-13.000001.pst  
C:\PST archives\sally@aid4mail.com_20121201_20121231_US334-13.000001.pst
```

```
C:\PST archives\mike@aid4mail.com_20121201_20121231_US334-13.000001.pst  
C:\PST archives\judy@aid4mail.com_20121201_20121231_US334-13.000001.pst
```

You can then [run all](#) the sessions.

### 18.3 Duplicating sessions: Example 3

In this example, four employee's EML folders need to be converted to Mbox archives. This could be done simply using a single session because Aid4Mail can create a separate Mbox file for each EML folder it encounters. However, using [multiple sessions that are running concurrently](#) can significantly speed things up.

The following folder contains the four EML folders:

```
C:\Employee EML\
```

The folders inside are:

```
leroy@aid4mail.com  
sally@aid4mail.com  
mike@aid4mail.com  
judy@aid4mail.com
```

Select *EML* as your [source format](#) and enter the following location in the source [Location](#) field:

```
C:\Employee EML\*
```

Aid4Mail knows this is a folder name and not a file name because of the absence of a period (.) in the name.

Select *mbox* as your [target format](#) and enter the following in the target [Location](#) field:

```
C:\Employee Mbox\*.mbox
```

In the [Session name](#) field, simply enter an asterisk (\*).

Next, configure any other settings that need to be identical across all four sessions.

Finally, select the [Session > Duplicate](#) menu command or the [Duplicate](#) button. Aid4Mail will replace the folder name pattern in this session with the name of the first EML folder. It will then create three new, duplicate sessions: one for each of the remaining three EML folders that match the pattern.

The source [Location](#) fields for the four sessions will be:

```
C:\Employee EML\leroy@aid4mail.com  
C:\Employee EML\sally@aid4mail.com  
C:\Employee EML\mike@aid4mail.com  
C:\Employee EML\judy@aid4mail.com
```

The target [Location](#) fields for the four sessions will contain Mbox filenames that match the EML source folders:

```
C:\Employee Mbox\leroy@aid4mail.com.mbox  
C:\Employee Mbox\sally@aid4mail.com.mbox  
C:\Employee Mbox\mike@aid4mail.com.mbox  
C:\Employee Mbox\judy@aid4mail.com.mbox
```

The [Session name](#) fields for the four sessions will also reflect the folder names:

```
leroy@aid4mail.com  
sally@aid4mail.com  
mike@aid4mail.com  
judy@aid4mail.com
```

You can then [run all](#) the sessions if you have [Aid4Mail Enterprise](#) or [Investigator](#), or [run them one by one](#) if you have [Aid4Mail Converter](#).

## 19 Bates numbering

### Definition

Bates numbering is a system of unique identification used for documents in the forensic, legal, business and medical fields. Although there is no standard for Bates numbering, it usually consists of a combination of text and sequential numbering, sometimes with the addition of a time stamp, to create a unique ID for each item.

Aid4Mail implements Bates numbering by providing a [Bates number](#) and a formatted [Bates stamp](#).

### Bates number

Aid4Mail's Bates number is a sequential counter that is automatically incremented by 1 for every item processed. In [Aid4Mail Enterprise](#) and [Investigator](#), you can set the Bates number's [start value](#) in the [Bates section of the project settings](#) and its [scope](#) in the [App section of the Options screen](#). In [Aid4Mail Converter](#), default values are used.

When the scope is *Global*, the Bates number increments across all sessions and projects. With a *Project* scope, it will be set to 1 at the start of each new project but will increment across all sessions in the project. Using a *Session* scope, the Bates number will be set to 1 for each new session which allows for [concurrent processing](#).

The Bates number can be accessed through the `{BatesNumber}` token for use in [templates](#). It can be combined with text and/or other [template tokens](#) that represent properties of the email message being processed, the current session and project, the case it's part of, and the computer system running Aid4Mail. The unique ID created can then be used in file or folder names or inserted directly into an email.

The Bates number can also be accessed through the `flt_BatesNumber` and `mod_BatesNumber` variables for use in [Python scripts](#). In addition, the `mod_BatesNumber` variable allows for modifications to its value.

### Bates stamp

The Bates stamp is a formatted version of the Bates number with a fixed [number of digits](#) and an optional [prefix](#) and/or [suffix](#). This allows for standardization as the stamp is always the same length. The prefix and suffix can contain text, other [template tokens](#) or both, providing lots of flexibility.

In [Aid4Mail Enterprise](#) and [Investigator](#), you can configure the Bates stamp in the [Bates section of the project settings](#). In [Aid4Mail Converter](#), default values are used.

The Bates stamp can be accessed through the [{BatesStamp}](#) token for use in [templates](#) and can be further combined with text and/or other [template tokens](#) if necessary. As with the [Bates number](#), it can be used in file or folder names or inserted directly into an email.

The Bates stamp can also be accessed through the [flt\\_BatesStamp](#) and [mod\\_BatesStamp](#) variables for use in [Python scripts](#). In addition, the [mod\\_BatesStamp](#) variable allows for modifications to its value.

## Example 1

A simple [Bates stamp](#), with project-level [scope](#) and *JohnDoe-* as a prefix, would produce the following naming scheme:

```
JohnDoe-00000001.eml  
JohnDoe-00000002.eml  
JohnDoe-00000003.eml  
JohnDoe-00000004.eml  
etc.
```

## Example 2

John Doe's mail is spread across a Gmail account, an Outlook PST file, and several mbox archives. You set up three sessions to convert it all to EML and [name](#) them *JohnDoe-Gmail*, *JohnDoe-PST* and *JohnDoe-Mbox*. Using a [Bates stamp](#) with session-level [scope](#), and [{SessionName}-](#) as a prefix (the [{SessionName}](#) token followed by a hyphen), the following files would be created:

```
JohnDoe-Gmail-00000001.eml  
JohnDoe-Gmail-00000002.eml  
JohnDoe-Gmail-00000003.eml  
etc.
```

```
JohnDoe-PST-00000001.eml  
JohnDoe-PST-00000002.eml  
JohnDoe-PST-00000003.eml  
etc.
```

```
JohnDoe-Mbox-00000001.eml
```

*JohnDoe-Mbox-00000002.eml*  
*JohnDoe-Mbox-00000003.eml*  
*etc.*

## 20 Templates

Templates can be used in Aid4Mail in different 3 ways:

1. To specify the [folder structure](#) of your target mail. This is useful for merging or splitting folders, or for grouping emails based on specific characteristics like the email account, date or status .
2. To customize [filenames](#) when your chosen [target mail](#) format uses individual files for each email message (*MSG, EML, Plain text, HTML, PDF or XML*).
3. To define the content of the HTML index file created when your [target mail](#) is *HTML* and the [Create HTML index file](#) option is turned *on*.

When a template is used, it is applied to every email processed in a [session](#).

Templates are easy to create using a simple syntax that combines text with [tokens](#) that represent properties of the email being processed and the Aid4Mail [session](#) and [project](#) that's processing it. Text can also be used [inside tokens](#) to provide increased control of the output or, in some cases, to [refine](#) or [format](#) it.

In this section:

- [Folder structure templates](#)
- [Filename templates](#)
- [Combining templates](#)
- [Template tokens](#)
- [Text inside template tokens](#)
  - [Refining the {EmailAccount} token](#)
  - [Formatting date tokens](#)

## 20.1 Folder structure templates

You can customize the [folder structure](#) of your target mail using a template. Aid4Mail will place each target email into the appropriate folder within the structure.

### Setting up a folder structure template

Enter your template in the [Folder structure template](#) field, located under [Target](#) on Aid4Mail's [Settings screen](#). This field is only available once you've selected *Use a template* in the [Folder structure](#) field.

You can use the Insert button above the [Folder structure template](#) field to insert [template tokens](#).



The screenshot shows a settings interface for folder structure templates. It features two main sections. The first section is labeled 'Folder structure:' and contains a dropdown menu with the option 'Use a template' selected. The second section is labeled 'Folder structure template:' and contains a text input field with the placeholder text 'Please complete this field'. To the right of the text input field is a blue 'Insert' button.

### Understanding folder structure templates

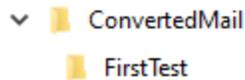
A folder structure template consists of the names of each level of the folder structure, separated by backslash characters (\).

#### Example 1

The following, very basic, folder structure template illustrates the concept:

```
ConvertedMail\FirstTest
```

It tells Aid4Mail to create a simple target folder structure with the top level named *ConvertedMail* and the next level named *FirstTest*:



### Using tokens

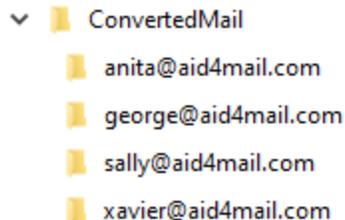
Usually you will want at least part of the folder structure to be dependent on some property of the email, or of the session or project. [Template tokens](#) enable you to do this.

### Example 2

In the following template, the second level of the folder structure is the email address of the message sender. It uses the [{SenderAddress}](#) token to do this:

```
ConvertedMail\{SenderAddress}
```

The resulting folder structure would still have *ConvertedMail* as the top level but there are multiple second level folders, one for each sender address. Aid4Mail will ensure that emails from each address are placed in the correct folder.



### Example 3

Some tokens represent properties that are independent of the email being processed. For example, [{CurrentDate}](#) represents the current system date. It might be used like this:

```
ConvertedMail-{CurrentDate:yyyy-mm-dd}\{SenderAddress}
```

This template will name the top level folder *ConvertedMail-* followed by the current date, formatted to show only the year, month and day (see [Formatting date tokens](#) for details of how to do this). It doesn't include the time because that would be different for every email. The second level of the folder structure will be named after each different sender address as before:

- ▼  ConvertedMail-2020-06-30
  -  anita@aid4mail.com
  -  george@aid4mail.com
  -  sally@aid4mail.com
  -  xavier@aid4mail.com

See the [Template tokens](#) topic for a full list of tokens that can be used in Aid4Mail templates. Note that [certain characters are illegal in operating systems](#) and should be avoided in folder and filename templates.

## 20.2 File name templates

If your selected target [target format](#) consists of individual files (*MSG, EML, Plain text, HTML, PDF or XML*), you can customize the target filenames using a template.

### How to set up a filename template

Enter your template in the [File name template](#) field, located under [Target](#) on Aid4Mail's [Settings screen](#). This field is only available once you've selected *Use a template* in the [File name](#) field:

You can use the Insert button above the [File name template](#) field to insert [template tokens](#).



The screenshot shows a user interface for setting a file name template. It consists of two main sections. The first section is labeled 'File name:' and contains a dropdown menu with the option 'Use a template' selected. The second section is labeled 'File name template:' and contains a text input field with the placeholder text 'Please complete this field'. To the right of the text input field is a blue 'Insert' button.

### Understanding filename templates

A filename template usually consists of some text and a [token](#).

#### Example 1

This simple example uses the [{BatesNumber}](#) token:

```
Email-{BatesNumber}
```

It would create the filenames *Email-1, Email-2, Email-3*, etc. as the counter is incremented for each email processed. You don't have to specify a file extension as it will be added automatically based on your chosen [target format](#), as shown below.

-  Email-1.eml
-  Email-2.eml
-  Email-3.eml
-  Email-4.eml

This concept is explored further in the [Bates numbering](#) topic.

### Example 2

The following template uses the [{SenderName}](#) and [{LocalMessageDate}](#) tokens to create filenames based on the name of the message sender along with the message date in local time. The date is formatted to display the year, month and day (see [Formatting date tokens](#) for details of how to do this):

```
{SenderName} {LocalMessageDate:yyyy-mm-dd}
```

It would produce filenames such as these:

-  Huckleberry Finn 2020-06-20.eml
-  Jane Eyre 2020-06-21.eml
-  Mary Poppins 2020-06-21.eml
-  Robin Hood 2020-06-05.eml

The [Template tokens](#) topic contains a full list of tokens that can be used in Aid4Mail templates. Note that [certain characters are illegal in operating systems](#) and should be avoided in folder and filename templates.

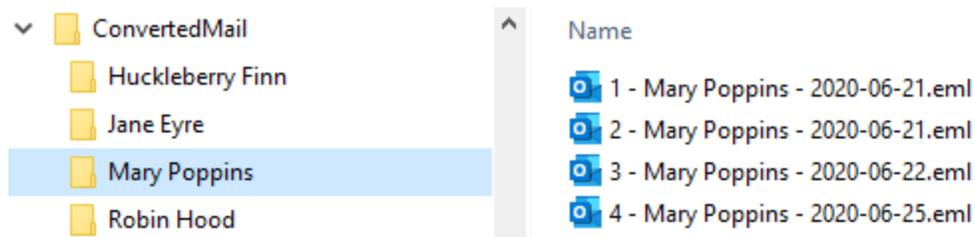
## 20.3 Combining templates

Using templates for both your folder structure and filenames can help organize your converted mail. For example:

Folder structure template: `ConvertedMail\{SenderName}`

Filename template: `{BatesCounter} - {SenderName} - {LocalMessageDate:yyyy-mm-dd}`

These would produce the following folder structure and filenames:



See the [Template tokens](#) topic for a full list of tokens that can be used in Aid4Mail templates. Note that [certain characters are illegal in operating systems](#) and should be avoided in folder and filename templates.

## 20.4 Template tokens

### What are template tokens?

Template tokens are placeholders for variable content that's used in Aid4Mail [templates](#). They can represent properties of the email message being processed, the current session and project, the case it's part of and the computer system running Aid4Mail. Tokens also provide access to the [Bates number](#) and [Bates stamp](#).

All the tokens available for use in Aid4Mail templates are listed [below](#).

### Using template tokens

Tokens can be combined with text to create templates as shown in the examples in the [Folder structure templates](#), [Filename templates](#) and [Combining templates](#) topics.

Text can also be placed inside tokens. The advantage of this approach is that, when the token is empty, the additional text is not displayed. See the [Texts inside template tokens](#) topic for details.

Text inside the `{EmailAccount}` token, and in most [date tokens](#), is treated differently. In the `{EmailAccount}` token, it allows you to limit the list of account email addresses. In date tokens, except `{RawMessageDate}`, it allows you to format the date. Please refer to the [Refining the {EmailAccount} token](#) and [Formatting date tokens](#) topics for details.

### List of template tokens

All the tokens available for use in Aid4Mail templates are listed below, grouped in the following categories.

- [Bates tokens](#)
- [Case tokens](#)
- [Date tokens](#)
- [Email tokens](#)
- [File tokens](#)
- [Flag tokens](#)
- [Folder tokens](#)
- [Hash tokens](#)
- [Page tokens](#)
- [Project tokens](#)
- [Session tokens](#)

## Bates tokens

Token	Value
{BatesNumber}	A whole number starting at 1 and incremented for each email message (or non-email item) processed. Please refer to the <a href="#">Bates numbering</a> topic for more information.
{BatesStamp}	A <a href="#">Bates stamp</a> comprising the {BatesNumber}, formatted to a specific number of digits, along with an optional prefix and suffix.

## Case tokens

Token	Value
{CaseDate}	Case date as specified in the <a href="#">project settings</a> .
{CaseID}	Case ID as specified in the <a href="#">project settings</a> .
{CaseLocation}	Case location as specified in the <a href="#">project settings</a> .
{CaseName}	Case name as specified in the <a href="#">project settings</a> .
{EvidenceID}	Evidence ID as specified in the <a href="#">project settings</a> .
{InvestigatorName}	Investigator name as specified in the <a href="#">project settings</a> .
{LabID}	Lab ID as specified in the <a href="#">project settings</a> .

## Date tokens

With the exception of [{RawMessageDate}](#), date tokens are formatted to the [International Date Format](#) by default. However, colon characters (:) that separate the hours, minutes and seconds are replaced with hyphens (-). This is because colons are [illegal characters](#) in Windows folder and filenames. You can customize formatted dates. Please refer to the [Formatting date tokens](#) topic for details.

Token	Value
{RawMessageDate}	Message <i>Date</i> field from the header of the email message currently being processed. It is not formatted and appears exactly as in the email header. Its layout depends on the <a href="#">source mail format</a> being processed but typically looks something like this: <i>Thu, 27 Jun 2013 21:08:12 +0300</i> .

Token	Value
	This raw date cannot be formatted like other date tokens. However, you can still add <a href="#">text inside the token</a> . It's primary use is in the <i>items.html</i> template that defines the index created when <i>HTML</i> is the target format and the <a href="#">Create HTML index file</a> option is turned on.
{LocalMessageDate}	The date in <a href="#">{RawMessageDate}</a> converted to the local time zone of the host computer and <a href="#">formatted</a> .
{UtcMessageDate}	The <a href="#">{RawMessageDate}</a> converted to <a href="#">Coordinated Universal Time (UTC)</a> and <a href="#">formatted</a> .
{CurrentDate}	Current system date of the computer running Aid4Mail, <a href="#">formatted</a> .
{SessionRunDate}	System date of the computer running Aid4Mail at the time the session was run, <a href="#">formatted</a> .

## Email tokens

Token	Value
{EmailAccount}	Only available in <a href="#">Aid4Mail Enterprise</a> and <a href="#">Investigator</a> .  Any email address found in the <i>From</i> , <i>To</i> , <i>Cc</i> or <i>Bcc</i> fields of the email header. Please refer to the <a href="#">Refining the {EmailAccount} token</a> topic for details of how to customize this token.
{MessageId}	<i>Message-ID</i> field from the email message header.
{SenderAddress}	Email address used to send the message.
{SenderName}	Name of the person who sent the email message.
{Subject}	Subject line of the email message.
{Thread}	Value of the <i>Thread-Index</i> or <i>In-Reply-To</i> field from the email message header.

## File tokens

Token	Value
{Filename}	The filename of the source email or mailbox being processed, or blank if there is no filename (for example when processing cloud-based accounts).

## Flag tokens

Token	Value
{HasAttachment}	<i>Attachments</i> if the email message contains one or more attachments, otherwise empty.
{IsDuplicate}	<i>Duplicates</i> if the email message contains one or more <a href="#">duplicates</a> , otherwise empty. Note that the <a href="#">Duplicates detection scope</a> option affects how this token works.
{IsForwarded}	<i>Forwarded</i> if the email message has been forwarded, otherwise empty.
{IsRead}	<i>Read</i> if the email message has been read, otherwise empty.
{IsReplied}	<i>Replied</i> if the email message has been replied to, otherwise empty.
{IsStarred}	<i>Starred</i> if the email message has been starred, otherwise empty.
{IsUnpurged}	<i>Unpurged</i> if the email message is <a href="#">unpurged</a> , otherwise empty.
{IsUnread}	<i>Unread</i> if the email message has been not been read, otherwise empty.
{Origin}	Either <i>Inbound</i> or <i>Outbound</i> , depending on the nature of the message, or empty if this cannot be determined from the folder type or email header flags.
{PrimaryStatus}	Status of the message taken from the email header. If multiple statuses are defined, it is the most important one.

## Folder tokens

Token	Value
{FolderId}	ID of the folder that contains the email message.
{FolderName}	Name of the folder that contains the email message, i.e. the bottom-most folder in {FolderPath}. For example, if {FolderPath} is <i>Customers\2018\04</i> then {FolderName} is <i>04</i> . If {FolderPath} is empty then so is {FolderName}.
{FolderPath}	Full path of the folder that contains the email message, relative to the <a href="#">source location</a> . For example, <i>Customers\2018\04</i> . If the email is directly in the source location folder rather than one of its subfolders then {FolderPath} is empty.

Token	Value																		
{FolderType}	<p>The type of folder that contains the email. If this can be identified then it will be one of the following values:</p> <table border="0"> <tr> <td>inbox</td> <td>starred</td> <td>journal</td> </tr> <tr> <td>sent</td> <td>important</td> <td>notes</td> </tr> <tr> <td>drafts</td> <td>archive</td> <td>tasks</td> </tr> <tr> <td>outbox</td> <td>calendar</td> <td>chats</td> </tr> <tr> <td>spam</td> <td>contacts</td> <td>rssfeeds</td> </tr> <tr> <td>trash</td> <td></td> <td></td> </tr> </table> <p>If the folder type can't be identified then the token value is blank.</p>	inbox	starred	journal	sent	important	notes	drafts	archive	tasks	outbox	calendar	chats	spam	contacts	rssfeeds	trash		
inbox	starred	journal																	
sent	important	notes																	
drafts	archive	tasks																	
outbox	calendar	chats																	
spam	contacts	rssfeeds																	
trash																			
{TopFolderName}	<p>Name of the top-most folder in {FolderPath}. For example, if {FolderPath} is <i>Customers\2018\04</i> then {FolderTop} is <i>Customers</i>. If {FolderPath} is empty then so is {FolderTop}.</p>																		

## Hash tokens

Token	Value
{Fnv1a}	64-bit FNV-1a hash code based on the email <i>Message-ID</i> field (or on a combination of other header fields if <i>Message-ID</i> is missing).
{MD5}	MD5 hash code based on the email <i>Message-ID</i> field (or on a combination of other header fields if <i>Message-ID</i> is missing).
{Sha1}	SHA-1 hash code based on the email <i>Message-ID</i> field (or on a combination of other header fields if <i>Message-ID</i> is missing).
{Sha256}	SHA-256 hash code based on the email <i>Message-ID</i> field (or on a combination of other header fields if <i>Message-ID</i> is missing).
{Sha512}	SHA-512 hash code based on the email <i>Message-ID</i> field (or on a combination of other header fields if <i>Message-ID</i> is missing).

## Page tokens

Token	Value
{PageCount}	The total number of pages in a target document.
{PageNumber}	The current page number in a target document.

**Project tokens**

Token	Value
{ProjectName}	Project name as specified in the <a href="#">project settings</a> .

**Session tokens**

Token	Value
{SessionId}	Unique ID that's automatically generated for the session.
{SessionName}	Session name as specified on the <a href="#">Settings</a> screen.

## 20.5 Text inside template tokens

### The benefit of text inside tokens

Tokens can be combined with text as shown in the examples in the [Folder structure templates](#) and [Filename templates](#) topics. However, text can also be placed within tokens. The advantage of this approach is that, when the token is empty, the additional text is not displayed.

For example, the `{Origin}` token has three possible values. The first is *Inbound*, the second is *Outbound* and the third value is nothing at all (the token is empty). The latter happens when an email cannot be identified as either inbound or outbound. A draft email may fall into this category. However this can be problematic if you're combining the `{Origin}` token with text. For example:

```
{Origin}-Mail
```

If the value of `{Origin}` is *Inbound*, then the above template will produce *Inbound-Mail*. Likewise, if the token's value is *Outbound* then the template will produce *Outbound-Mail*. But if the email is a draft, and `{Origin}` is empty, then the template will produce *-Mail* which is less useful. Placing the additional text inside the token solves this problem:

```
{Origin:-Mail}
```

Text is added inside a token by following the token name with a `:` (colon) and then with the text you want to add. If the token's value is empty then the additional text inside is not added. In our example, the template will now produce either *Inbound-Mail*, *Outbound-Mail* or it will be blank.

### Placeholders

By default, text inside the token will be appended to the token value. However you can specify the token's position within the text using the `^*` placeholder, like this:

```
{Origin:Jack-^*-Mail}
```

The token value will replace the `^*` placeholder unless it is empty, in which case none of the text will be displayed. So the three possible outcomes of this template would now be: *Jack-Inbound-Mail*, *Jack-Outbound-Mail* or blank.

## Truncating text inside tokens

If you know that a token's value may produce text that's too long, you can truncate it using `^[n]` where `n` is the maximum number of characters allowed. The final character will be an ellipsis (...). This means that `^[10]` will use the first 9 characters of the token's value with the tenth character being an ellipsis. This option is useful when using the `{Subject}` token because email subject lines can often be fairly long. Truncating them makes them shorter, and all the same length, which is useful in filenames.

For example:

```
{Subject:^[30]}
```

If the email subject line was: *Hi from the Jones family on vacation in Greece enjoying sunset at the beach*

The token's value would be: *Hi from the Jones family on v...*

The truncated token value can be placed at any position in additional text, like this:

```
{Subject:Subject - ^[30]}
```

The template would now produce: *Subject - Hi from the Jones family on v...*

## Refining the {EmailAddress} token and formatting date tokens

Text inside the [{EmailAddress}](#) token, and in most [date tokens](#), is treated differently. In the `{EmailAddress}` token, it allows you to limit the list of account email addresses. In date tokens, except [{RawMessageDate}](#), it allows you to format the date. Please refer to the following sub-topics for details:

- [Refining the {EmailAddress} token](#)
- [Formatting date tokens](#)

### 20.5.1 Refining the {EmailAddress} token

#### Limiting the email addresses

By default, the [{EmailAddress}](#) token matches any email address found in the *From*, *To*, *Cc* or *Bcc* fields of the email header. You can limit the addresses that will result in a match by listing them inside the token, after a colon (:). For example, the following token will only match the email address *alice@aid4mail.com*:

```
{EmailAddress:alice@aid4mail.com}
```

Multiple addresses can be separated by the [vertical bar \(|\) OR operator](#). For example, this token will match both *alice@aid4mail.com* and *trevon@aid4mail.com*:

```
{EmailAddress:alice@aid4mail.com|trevon@aid4mail.com}
```

#### Wildcards

The [\\*](#) and [?](#) wildcards can also be used in an email address although they will operate slightly differently in this context. They will not be limited to a single word as they are with search terms. This means they will match periods, parentheses or any other characters that would normally delimit a word. The use of these two wildcards in this context is the same as in the [Windows Common File dialog](#) and MS-DOS:

- ? matches a single character.
- \* matches zero or more characters (including word delimiters).

For example, the following token will match any email address in the *aid4mail.com* domain, including those containing word-delimiter characters like *intern.helen@aid4mail.com*:

```
{EmailAddress:*@aid4mail.com}
```

#### Folder structure example

A whole folder structure token using this technique might be:

```
EmployeeAccounts\{EmailAddress:*@aid4mail.com|*@admin.aid4mail.com}
```

The `{EmailAccount}` token in this example would match any email address in the `@aid4mail.com` or `@admin.aid4mail.com` domains and would produce the following folder structure (obviously depending on the actual accounts encountered):

```
▼ EmployeeAccounts
  alice@aid4mail.com
  intern.helen@aid4mail.com
  john@admin.aid4mail.com
  nia@aid4mail.com
  OTHER
  tracy@admin.aid4mail.com
  trevon@aid4mail.com
```

Notice that:

- Each email address that matches the token has its own folder containing the relevant emails.
- Emails with addresses that don't match the token are placed in the *OTHER* folder.

## Adding additional text

You can still add additional text inside the `{EmailAccount}` token by placing your list of email addresses inside the `^[]` placeholder. For example:

```
EmployeeAccounts\{EmailAccount:Employee-^[*@aid4mail.com|
*@admin.aid4mail.com]}
```

This would produce the following folder structure (again, depending on the actual accounts encountered):

- ▼ EmployeeAccounts
  - Employee-alice@aid4mail.com
  - Employee-intern.helen@aid4mail.com
  - Employee-john@admin.aid4mail.com
  - Employee-nia@aid4mail.com
  - Employee-tracy@admin.aid4mail.com
  - Employee-trevon@aid4mail.com
  - OTHER

### 20.5.2 Formatting date tokens

In general, date tokens work differently to other tokens. The text inside them is primarily used to format the date. This is the case for the following date tokens:

- [{LocalMessageDate}](#)
- [{UtcMessageDate}](#)
- [{CurrentDate}](#)
- [{SessionRunDate}](#)

The exception is [{RawMessageDate}](#). Its content cannot be formatted and so text inside the token is treated the same as with regular tokens (see the [Text inside template tokens](#) topic for details).

### Default date values

The default, and only, value of [{RawMessageDate}](#) is the content of the message *Date* field, exactly as it appears in the email message header and without any additional formatting. Its layout depends on the [source mail format](#) being processed but typically looks something like this: *Thu, 27 Jun 2013 21:08:12 +0300*. This raw date cannot be formatted like other date tokens although [text can be added inside the token](#) to present additional information.

All other date tokens are formatted by default to the [International Date Format](#) (extended format). This includes both the date and the time, ordered from the largest to smallest unit (YYYY-MM-DD hh:mm:ss). However, in this case, colon characters (:) that separate the hours, minutes and seconds are replaced with hyphens (-). This is because colons are [illegal characters](#) in Windows folder and filenames.

Formatted dates therefore look like this by default: *2013-06-27 21-08-12*. The year is specified first followed by the month and day, separated by hyphens. A space separates this block from the hours, minutes and seconds that are also separated by hyphens. This layout is useful for folder and filenames as they will all have the same length and be in chronological order when listed alphabetically.

### Custom formatting

You can customize formatted dates tokens by specifying a date pattern inside the token. The table below describes the pattern symbols and shows the results they produce on the following 2 dates:

Date 1: January 5, 2019 at 2 seconds after 9:08 am

Date 2: December 25, 2019 at 56 seconds after 4:34 pm

Symbol	Represents	Result for date 1	Result for date 2
YY	2-digit year	19	19
YYYY	4-digit year	2019	2019
m	1 or 2-digit month	1	12
mm	2-digit month	01	12
mmm	First 3 characters of the month	Jan	Dec
mmmm	All characters of the month	January	December
d	1 or 2-digit day	5	25
dd	2-digit day	05	25
h	1 or 2-digit hour (uses 24-hour clock / military time)	9	16
hh	2-digit hour (uses 24-hour clock / military time)	09	16
n	1 or 2-digit minute	8	34
nn	2-digit minute	08	34
s	1 or 2-digit second	3	56
ss	2-digit second	03	56

Note that:

- Pattern symbols are case-insensitive so using `yyyymmdd-hhnnss` gives the same result as `YYYYMMDD-HHNNSS`.
- Hour symbols use the 24-hour clock (military time) so 2pm is presented as 14.

## Example date patterns

Below are some example patterns using the `{LocalMessageDate}` token operating on an email with the following message date in local time: January 5, 2019 at 2 seconds after 9:08 am.

```
{LocalMessageDate}           produces 2019-01-05 09-08-02
{LocalMessageDate:yyyy-mm-dd hh-nn-ss} produces 2019-01-05 09-08-02
{LocalMessageDate:yyyymmdd-hhnnss} produces 20190105-090802
```

<code>{LocalMessageDate:yyyy-mm-dd}</code>	produces	<i>2019-01-05</i>
<code>{LocalMessageDate:m-d-yy}</code>	produces	<i>1-5-19</i>
<code>{LocalMessageDate:dd.mm.yy}</code>	produces	<i>05.01.19</i>
<code>{LocalMessageDate:mmm yyyy}</code>	produces	<i>Jan 2019</i>
<code>{LocalMessageDate:MMMM d, yyyy}</code>	produces	<i>January 5, 2019</i>
<code>{LocalMessageDate:MMMM d, yyyy @ h.nn}</code>	produces	<i>January 5, 2019 @ 9.08</i>

## Adding additional text

You can still add additional text inside date tokens by placing your formatting pattern in the `^[]` placeholder. For example, the following produces the text *Email date is January 5, 2019*:

```
{LocalMessageDate:Email date is ^[MMMM dd, yyyy]}
```

## 21 Python scripts

[Python](#) is an interpreted, high-level programming language and is the language of choice for many forensic professionals. This is partly due to its use as a scripting language, embedded in software products like Aid4Mail, to enable user-created functionality beyond what's built in.

[Aid4Mail Enterprise](#) and [Investigator](#) support the use of Python scripts to add new features to Aid4Mail. These include specialized filtering, data extraction, the modification of email content and the customization of file and folder names. You can even use Python scripts to create your own target mail formats and custom output.

### Python installation

To use Python scripts in Aid4Mail, you will need to install Python on your computer. Aid4Mail supports Python 3 and later versions. You can [download installers](#) from the Python website.

Note that Aid4Mail includes both 32-bit and 64-bit processing engines and automatically selects the appropriate one depending on your [Optimization](#) settings (located in the [Advanced](#) section of the [Options](#) screen). If you are running a [session](#) that includes a Python script, and it's using Aid4Mail's 32-bit processing engine, you will need 32-bit Python installed. Likewise if the session uses Aid4Mail's 64-bit processing engine then you will need 64-bit Python installed in order to process the script.

Unfortunately, Python does not install both 32 and 64-bit versions like Aid4Mail. It only installs one at a time. Aid4Mail can usually find the default Python installation but does not know if it's 32 or 64-bit. Running a Python script with the wrong bit version of Python will generate an error.

For Windows users, the safest way of dealing with this is to install both 32 and 64-bit versions of Python into separate folders. They can be downloaded from the [Windows downloads](#) page on the Python website. The 32-bit version is referred to as the *Windows x86 executable installer*. The 64-bit version is the *Windows x86-64 executable installer*. Once installed, tell Aid4Mail where to find them by specifying their folder locations under [Options > Advanced > Python installation folders](#).

For Mac users, recent versions of Python are 64-bit only. The installer is referred to as the *macOS 64-bit installer* and can be downloaded from the [Mac downloads](#) page of the Python website. Once installed, tell Aid4Mail where to find it by entering the installation folder location in the *64-bit* field under [Options > Advanced > Python installation folders](#).

You will also need to select *Prioritize memory access (64-bit engine)* under [Options > Advanced > Optimization](#) to tell Aid4Mail to prioritize its 64-bit engine.

## Creating and modifying Python scripts

You can create Python scripts in any text editor or specialized code editor. Details of the Python language are not covered in this guide. For this information, please consult the [Python website](#) that contains a [beginner's guide](#), [tutorial](#), [FAQ](#) and [documentation](#).

Python scripts contain your Python code and are stored in `.py` files in the [Scripts folder](#), usually under your [application data folder](#).

If you save a script directly to this location, it will automatically become available in either the [Python modifier script](#) or [Python filter script](#) drop-down list the next time you run Aid4Mail. Alternatively, you can load an existing script from any location by using *Add* above either of those drop-down lists. This effectively copies your script to the [Scripts folder](#) (without deleting the original) and makes it available in the list.

You can view or modify an existing Python script by selecting *Open* above the [Python modifier script](#) or [Python filter script](#) drop-down list. This will open the script in whatever application you have associated with `.py` files.

Aid4Mail includes a number of scripts bundled with the software. These are stored in your Aid4Mail [program folder](#) and are automatically loaded in the aforementioned drop-down lists when you first run Aid4Mail. You can customize these scripts too. Simply open a script by selecting *Open* (above the drop-down list), make the necessary changes and save the file. The modified file will automatically be saved in the [Scripts folder](#), leaving the original unchanged in the [program folder](#).

Python scripts in Aid4Mail are grouped into two categories:

- [Python filter scripts](#)
- [Python modifier scripts](#)

## 21.1 Python filter scripts

[Aid4Mail Enterprise](#) and [Investigator](#) allow you to create your own custom filters using [Python scripts](#). Python filter scripts use the `.flt.py` file extension and are for use in the [Python filter script](#) field in the [filter settings](#).

A filter script is executed while a source email is being read and so is the first of the Python scripts to be run. A filter script contains code that determines whether or not the email currently being processed should be kept or discarded. This should result in a `True` or `False` value that is then assigned to variable [flt\\_Continue](#) to tell Aid4Mail whether or not to continue processing the email.

Example:

```
# Filter script that only continues processing the current email if it contains the word 'aid4mail'
flt_Continue.Value = "aid4mail" in flt_ItemMime.Value
```

Note that the first line in the example above is a *comment* and so is ignored by the Python interpreter. Comments start with a hash (#) character and extend to the end of the line. They are useful to explain what the script does, as in this example.

### Filter variables

Data in Aid4Mail is made available to your Python scripts through variables. Filter variables are prefixed with `flt_` and are only for use in filter scripts.

Aid4Mail's Python variables need to be appended with `.Value` whenever they're used. This is a syntax requirement that enables the Python variables to interact with the Delphi programming language used by Aid4Mail. For example:

```
flt_Continue.Value = "aid4mail" in flt_ItemMime.Value
```

The following Python filter variables are available in Aid4Mail. Note that they are case-sensitive.

Variable name	
<code>flt_AppSettings</code>	Contains the filename of the settings used to configure the current session. The file is stored in the standard INI format.
<code>flt_BatesNumber</code>	Access the <a href="#">Bates number</a> .
<code>flt_BatesStamp</code>	Access the <a href="#">Bates stamp</a> .
<code>flt_Continue</code>	Use this variable to return your script's filter result to Aid4Mail. A Boolean result of <code>True</code> or <code>False</code> is expected. The email is skipped when set to <code>False</code> . Alternatively, you can

Variable name	
	assign the <code>skip</code> keyword to <a href="#">flt_ScriptStatus</a> , which has the same effect as <code>flt_Continue = False</code> .
flt_ItemFiles	Provides a list of filenames of extracted attachments so they can be analyzed by Python scripts and modules. Each filename is stored in a separate line.
flt_ItemHeader	Contains an unwrapped and decoded version of the email header.
flt_ItemImages	Provides a list of filenames of extracted image attachments so they can be analyzed by Python scripts and modules. Each filename is stored in a separate line.
flt_ItemMetadata	<p>Contains a list of metadata values in plain JSON format:</p> <pre> {     "Attachments"="",     "Bcc"="",      "Category"="none,social,promotions,updates,forums,blue,green,orange,purple,red,yellow",     "Cc"="",      "Contents"="archive,attachment,audio,document,email,excel,image,pdf,powerpoint,presentation,spreadsheet,video,word",     "DisplayDate"="",      "Flags"="calendar,chat,contact,deleted,draft,duplicate,encrypted,forwarded,important,journal,journaled,list,news,notification,notify,offline,partial,read,received,redirected,replied,sent,spam,starred,task,unpurged,unread,unsent",     "MD5"="",     "Messaged"="",     "Received"="",     "Sender"="",     "Sent"="",     "Subject"="",     "To"="",     "UID"= } </pre>
flt_ItemMime	Contains the current email in MIME format.

Variable name	
flt_ScriptError	Use this variable if an error occurred while processing the data in your script. If this variable is empty after the script has executed, Aid4Mail will assume the email was successfully processed. Otherwise it will display the error message.
flt_ScriptStatus	Use this variable to report an <code>error</code> and/or to issue a <code>skip</code> or <code>abort</code> command. Use a comma as a separator between several values. Assign <code>error</code> to report an error. Add the <code>skip</code> keyword if the email shouldn't be processed further (the equivalent of setting <code>flt_Continue</code> to <code>False</code> ). Use <code>abort</code> to terminate all further processing. The following example will skip the current email and increment the <code>Skip</code> count: <code>flt_ScriptStatus = skip</code>
flt_SourceFolder	Provides the source folder name of the current email being processed.
flt_SourceFolderMetadata	Contains a list of metadata values in plain JSON format: <pre>{     "DisplayName"="",     "Flag"="All Mail,Archive,Calendar,Chats,Contacts,Drafts,Important,Inbox,Journal,News,Notes,Outbox,RSS,Sent,Spam,Starred,Tasks,Trash",     "Folder"="",     "ItemsCount"=",     "RootLocation"="",     "SizeInBytes"= }</pre>

Note that, although filter variables can be modified, this will only affect the filter feature and will not modify target emails. For example, if one source email contains *Peter* in the header then it will be found with the following script:

```
flt_Continue.Value = "Peter" in flt_ItemHeader.Value
```

The header can be modified before the filter condition is tested. Here, *Peter* is changed to *Sally* before the filter condition and no emails will be found:

```
flt_ItemHeader.Value = flt_ItemHeader.Value.replace("Peter", "Sally")
flt_Continue.Value = "Peter" in flt_ItemHeader.Value
```

If the condition is then updated so that the script is both changing *Peter* to *Sally*, and then searching for *Sally*, then the email will be found again:

```
flt_ItemHeader.Value = flt_ItemHeader.Value.replace("Peter", "Sally")
flt_Continue.Value = "Sally" in flt_ItemHeader.Value
```

However the saved target email will not have been modified and will have *Peter* in the header, not *Sally*. This is because filter variables only modify the filter. To modify the saved target email you would need to use a [modifier script](#) (that uses [modifier variables](#)).

## 21.2 Python modifier scripts

[Aid4Mail Enterprise](#) and [Investigator](#) allow you to extract data, customize file and folder names, modify email content and even create your own target mail formats using [Python scripts](#). Python modifier scripts use the `.mod.py` file extension and are for use in the [Python modifier script](#) field in the [Target settings](#).

A modifier script is run after a source email has been read and passed through the filter but before it is saved in its target format. The modifier script allows you to make changes to the content of the email, its file or folder name, or to extract data from it.

### Example 1

```
# Modifier script that prepends "Aid4Mail\" to the target folder name
mod_TargetFolder.Value = "Aid4Mail\\" + mod_TargetFolder.Value
mod_UpdateVars.Value = "TargetFolder"
```

### Example 2

```
# Modifier script that replaces the password "abc123" with six 'X' characters
mod_ItemMime.Value = mod_ItemMime.Value.replace("abc123", "XXXXXX")
mod_UpdateVars.Value = "MIME"
```

Note that the first line in each of the examples above is a *comment* and so is ignored by the Python interpreter. Comments start with a hash (#) character and extend to the end of the line. They are useful to explain what the script does, as in these examples.

## Modifier variables

Data in Aid4Mail is made available to your Python scripts through variables. Modifier variables are prefixed with `mod_` and are only for use in modifier scripts.

Aid4Mail's Python variables need to be appended with `.Value` whenever they're used. This is a syntax requirement that enables the Python variables to interact with the Delphi programming language used by Aid4Mail. For example:

```
mod_TargetFolder.Value = "Aid4Mail\\" + mod_TargetFolder.Value
```

The following Python modifier variables are available in Aid4Mail. Note that they are case-sensitive.

Variable name	
mod_AppSettings	Contains the filename of the settings used to configure the current session. The file is stored in the standard INI format.

Variable name	
mod_BatesNumber	Access or modify the <a href="#">Bates number</a> .
mod_BatesStamp	Access or modify the <a href="#">Bates stamp</a> .
mod_ItemMetadata	The data in this variable is in the same format as <a href="#">flt_ItemMetadata</a> .
mod_ItemMime	Contains the current email in MIME format. If you set <a href="#">mod_UpdateVars</a> equal to "MIME", any modifications you make to the contents of this variable will be returned to Aid4Mail.
mod_ScriptError	Use this variable if an error occurred while processing the data in your script. If this variable is empty after the script has executed, Aid4Mail will assume the email was successfully processed. Otherwise it will display the error message.
mod_ScriptStatus	Use this variable to report an error and/or to issue a skip or abort command. Use a comma as a separator between several values. Assign "error" to report an error and stop processing the item. Use "abort" to terminate all further processing. The following example will increment the error count and abort email processing:  <pre>mod_ScriptStatus = error,abort</pre>
mod_SourceFolder	Provides the source folder name of the current email being processed.
mod_SourceFolderMetadata	The data in this variable is in the same format as <a href="#">flt_SourceFolderMetadata</a> .
mod_TargetFile	Provides the target filename. It will be empty (and ignored) for target formats that are not file-based like <a href="#">MAPI</a> and <a href="#">IMAP</a> .
mod_TargetFolder	Provides the target folder name. If you set <a href="#">mod_UpdateVars</a> to "TargetFolder", any changes to its value will be reflected in the target folder used by Aid4Mail.
mod_UpdateVars	Use this variable to tell Aid4Mail whether to update the data based on the contents of the <a href="#">mod_ItemMime</a> and <a href="#">mod_TargetFolder</a> variables. Recognized values include

Variable name	
	either MIME or TargetFolder, or any combination (separate with a comma if you use more than one).

## 22 Customizing Aid4Mail

Aid4Mail allows you to customize some of its core functionality by making its data files available for editing, and through its support for Python scripts. These files are stored in the [Data](#) and [Scripts](#) folders, respectively.

### Data folder

The *Data* folder contains files that you can edit to customize Aid4Mail's behavior. They contain information on time zones, file extensions, [IMAP](#) server names, MIME fields and how they are used, etc.

### Scripts folder

The *Scripts* folder contains [Python scripts](#). There are a number of scripts shipped with Aid4Mail and they are all editable. You can also create your own scripts, or add third-party ones, by placing them in the Scripts folder. Aid4Mail will automatically find them the next time you run it.

### Folder locations

The *Data* and *Scripts* folders are subfolders of the [program folder](#). However, you should not edit a file, or add a new one, directly in this location because it will be overwritten whenever you reinstall or update Aid4Mail. Instead, copy the file to the corresponding *Data* or *Scripts* subfolder of your [AppData folder](#) and edit it there. This location will not be affected by reinstallation or software updates.

Alternatively you can copy the file to the *Data* or *Scripts* subfolder of your [Public folder](#). This makes it available to all users.

If you have installed Aid4Mail on a USB drive, you can instead copy the file to the *Data* or *Scripts* subfolder of your [USB program folder](#). However, that this location may also be overwritten if you reinstall or update Aid4Mail.

Note that, in each case, you may have to create the *Data* or *Scripts* subfolder if it doesn't exist yet in that location.

## Folder location priority

When Aid4Mail uses a file from the *Data* or *Scripts* folders, it checks the aforementioned locations in the following order:

1. [USB program folder](#)
2. [AppData folder](#)
3. [Public folder](#)
4. [Program folder](#)

If a file exists in multiple locations, Aid4Mail will use the first one it finds. This means that files in the [USB program folder](#) are given priority over those in the [AppData folder](#), which in turn has priority the [public folder](#) and finally the [program folder](#). This makes it easy to revert back to the original version of a file that you've edited: Simply delete it and Aid4Mail will automatically use the original version in the program folder.

## 23 Glossary

### **Application data (AppData) folder**

The folder in which your Aid4Mail application data and settings are stored on your computer.

The data and settings stored in this folder are those related to the app itself or those made available to all [projects](#) and [sessions](#) (data and settings related to specific projects or sessions are stored in your [project folder](#)). For example, the following are stored in the application data folder (some in subfolders):

- Configuration file containing the [Options](#) screen's settings,
- Authentication tokens created by [Aid4Mail Authenticator](#) or [imported](#) from another location (stored in the *OAuthTokens* subfolder),
- [IMAP](#) account files set up through the [IMAP Configuration Editor](#) (stored in the *IMAP* subfolder),
- User-edited data files (stored in the [Data](#) subfolder).
- [Python scripts](#) you have created or modified (stored in the [Scripts](#) subfolder).

Each Aid4Mail user will have their own application data folder, located under their Windows profile. The specific location depends on your system's configuration and your Windows username but is usually the following (where *<User>* represents your Windows username):

```
C:\Users\<User>\AppData\Roaming\Aid4Mail5
```

If you are not able to browse to this location in File Explorer, turn on *View > Hidden items*.

### **Application programming interface (API)**

A method of communication between two pieces of software. Using a mail service's API to access data usually offers benefits over using more general protocols like [IMAP](#). For example, access to additional metadata, native filtering and reduced bandwidth limitations. Email-related APIs used by Aid4Mail include [MAPI](#), Microsoft Graph API and Google APIs.

### **Archive**

A mailbox or file that is no longer connected (or never was) to an email service and cannot receive or send emails. An archive can be considered to be the opposite of a [live email account](#).

**Bates numbering**

A system of unique identification used for documents in the forensic, legal, business and medical fields. Although there is no standard for Bates numbering, it usually consists of a combination of text and sequential numbering, sometimes with the addition of a time stamp, to create a unique ID for each item.

Aid4Mail implements Bates numbering by providing a [Bates number](#) and a formatted [Bates stamp](#). For information, please refer to the [Bates numbering](#) topic.

**Boolean operator**

In Aid4Mail, Boolean operators (also known as logical operators) allow you to negate [search terms](#) or combine them to build sophisticated filters. For details, see the [Boolean operators](#) topic.

**Character**

Any character that is represented in a Unicode or extended ANSI character set.

**Circular processing**

A potentially problematic situation that can occur when you use the same email account or mailbox as both source and target. Mail added to the account can be processed again and again in a never-ending loop. This problem can be mitigated by using a [filter to exclude duplicate emails](#) although it may still produce ambiguous progress information and cause the progress bar to exceed 100%. A cleaner solution is for target mail to be placed in a folder that has been excluded from processing by a [folder filter](#). This provides an internal separation between the source and target mail within the same account or mailbox and will result in accurate progress information.

**Comparison operator**

Comparison operators are used to compare one value with another. Aid4Mail uses them in certain [search operators](#). Please refer to the [Comparison operators](#) section for details.

**Coordinated Universal Time (UTC)**

A 24-hour time standard created in 1884 and used to synchronize all world clocks. UTC is not a time zone itself but is a standard that all time zones in the world are based upon. It does not adjust for daylight savings.

Time zones across the world are specified as positive or negative offsets from UTC. For example:

- GMT (Greenwich Mean Time) is UTC +0:00,

- EST (Eastern Standard Time) is UTC -5:00
- EDT (Eastern Daylight Time) is UTC -4:00
- PST (Pacific Standard Time) is UTC -8:00
- SGT (Singapore Time) is UTC +8:00

You can obtain the current time in UTC at the [WorldTimeServer.com](http://WorldTimeServer.com) website.

### Data folder

The *Data* folder contains files that you can edit to customize Aid4Mail's behavior. They contain information on time zones, file extensions, [IMAP](#) server names, MIME fields and how they are used, etc.

The *Data* folder can be present in multiple locations. Original data files shipped with Aid4Mail are in the *Data* subfolder of your [program folder](#). However these should not be edited directly as this location is overwritten whenever you reinstall or update Aid4Mail. Files you edit should be placed in the *Data* subfolder of your [application data folder](#) (or alternatively your [public folder](#) or [USB program folder](#), depending on how you're using Aid4Mail). Please refer to [Customizing Aid4Mail](#) for further information.

### Deduplication

Deduplication is the process of eliminating [duplicate emails](#), ensuring there is only one of each in your target mail. Aid4Mail makes deduplication very easy through a simple [search term](#), NOT `Type:Duplicate`. Please refer to the [Deduplication](#) topic for more information.

### Duplicate email

An email that is identical to another as determined by [certain rules](#), explained in the [Deduplication](#) topic.

### Encrypted email

An email whose content has been scrambled so that only those with the key can read it. There are various protocols for doing this but *S/MIME* is the most widely supported. Aid4Mail will consider an email to be encrypted ([Type:Encrypted](#)) if its header contains the field *Content-Type: multipart/encrypted*.

### Folder

A container for emails (or non-email items). A single email can only exist in one folder although identical copies of it can be placed in other folders, resulting in [duplicates](#).

For example, an email in the *Sent* folder can be moved to the *Work* folder but then will no longer exist in the *Sent* folder. Alternatively, a copy of the email can be placed in the *Work* folder resulting in two duplicate emails, one in each folder.

### HTML Entity

A symbolic representation of certain individual characters in HTML.

In [HTML](#), some characters cannot be specified directly because they are reserved for other purposes. For example, the less than and greater than characters, < and >, form part of an HTML tag like <p> or <h1> and so cannot be used directly in text. Instead they are represented by HTML entities, in this case &lt; and &gt; respectively.

HTML entities are comprised of a series of letters or numbers that start with an ampersand (&) and finish with a semicolon (;). Other examples are &quot; that represents a double quotation mark (") and &euro; which is the euro currency symbol (€). You can read more about HTML entities at the [W3Schools website](#).

In Aid4Mail, you will only encounter HTML entities when filtering raw email text using the [Raw](#) search operator.

### Illegal filename characters

Operating systems define certain characters that are illegal to use in folder and filenames. In Windows these characters are:

- < (less than)
- > (greater than)
- :
- " (double quote)
- / (forward slash)
- \ (backslash)
- | (vertical bar or pipe)
- ? (question mark)
- \* (asterisk)

### Internet Message Access Protocol (IMAP)

An Internet Standard protocol ([RFC 3501](#)), supported by most email applications, that enables direct access to mail on a remote server. IMAP allows multiple apps to access the same mail account, even from different devices. This feature is the main reason IMAP is generally preferred over POP, an older protocol that requires mail to be downloaded to the device.

**International date format**

An international standard ([ISO 8601](#)) of presenting dates numerically that avoids the ambiguity of country-based representations. It also ensures that alphabetically listed dates are ordered chronologically.

Notably, the year is specified first followed by the month and then the day: `YYYY-MM-DD` (extended format) or `YYMMDD` (basic format). Dates can include time values which follow the same logic of being ordered from the largest to smallest unit: `YYYY-MM-DD hh:mm:ss` (extended format) or `YYMMDD hhmmss` (basic format). Hours `hh` must always be specified using the 24-hour clock.

Dates in Aid4Mail use the following subset of the international date standard's extended format:

```
YYYY
YYYY-MM
YYYY-MM-DD
YYYY-MM-DD hh
YYYY-MM-DD hh:mm
YYYY-MM-DD hh:mm:ss
```

**Journaling**

The process of retaining information related to electronic messages including emails, instant messages, text messages, faxes, audio messages, etc.

A journaled email typically includes the actual email message along with related metadata. This consists of time/date information, sender, receiver(s) and transport information, and can also include data relating to the computer involved and its physical location.

Aid4Mail will consider an email to be [Type:Journaled](#) if its header contains either of the following:

- *X-MS-Journal-Report*
- *Content-Identifier: ExJournalReport*

Aid4Mail will consider an email to be [Type:Journal](#) if it's from the *Journal* folder in a PST file, Exchange or any Outlook message store.

**Label**

A descriptive tag assigned to an email in a system that organizes mail using labels instead of folders.

Traditionally, mail is organized in [folders](#). A single email can only exist in one folder although identical copies of it can be placed in other folders, resulting in [duplicates](#).

Gmail, and other service providers, organize mail using labels instead. With this system, the mail resides in a central location and individual emails can be assigned one or more labels. The advantage of this approach is that there is only one copy of each email, even if it has multiple labels. This also facilitates searching as emails with multiple labels can easily be targeted.

Note that most mail clients organize by folders. This means that, when the mail client downloads from Gmail, emails with multiple labels are duplicated to multiple folders. For example, an email labelled *Sent* and *Work* will be duplicated and placed in both the *Sent* folder and the *Work* folder after downloading.

### **Live email account**

An email account (or mailbox connected to an email account) that is in active use to receive or send emails. A live email account can be considered to be the opposite of an [archive](#).

### **MAPI**

An [API](#) for accessing Microsoft Outlook and Exchange. Aid4Mail uses MAPI to read and write to Outlook profiles, and PST/MSG files when the [Process using Outlook](#) option is turned *on*.

### **New line**

Any character that represents a new line. This includes Line Feed (LF), Vertical Tab (VT), Form Feed (FF), Carriage Return (CR), Next Line (NEL), Line Separator (LS), Paragraph Separator (PS), etc.

### **OAuth 2.0**

OAuth 2.0 is a secure protocol that enables internet users to grant limited temporary access to their data, to third-party websites or applications, without giving up their username or password. It uses an authentication token, requested from the service hosting the user's data by the third-party application. The token is only created once the user has logged in to their account and granted permission, and it can be invalidated by the user at any time. The file does not contain the user's credentials but, instead, contains unique access codes that are only valid for that account and specific application. This method of access and authentication provides users with the maximum security and privacy.

For more information, see the [OAuth 2.0 Authorization Framework](#) specification.

**Offline email**

An email whose environment has been disconnected from the internet. Many email clients and services allow you to work offline. However Aid4Mail only considers an email to be offline ([Type:Offline](#)) if its header contains an Outlook offline flag.

**Paragraph**

A sequence of one or more [words](#) or [sentences](#) followed by one or more [new lines](#).

**Partial email**

An email containing only a part of the full message. Aid4Mail considers an email to be partial ([Type:Partial](#)) if its header contains the field *Content-Type: message/partial*.

**Personal email**

Aid4Mail classifies an email as *personal* if it meets all three of the following conditions:

1. It is sent from an individual person,
2. It shows no evidence of being part of a campaign, message list or mailing list,
3. It shows no evidence of being a bulk email, advertisement, notification or [journaled email](#).

[Aid4Mail Enterprise](#) and [Investigator](#) allow you to include or exclude personal mail using the [Type:Personal](#) operator. For further details, see [Searching personal mail](#).

**Program folder**

The folder in which Aid4Mail is installed on your computer. It's location depends on your system's configuration but is typically:

C:\Program Files (x86)\Aid4Mail5

or

C:\Program Files (x86)\Fookes Software\Aid4Mail5

**Project**

An Aid4Mail project contains one or more [sessions](#) that are usually related in some way (although this is not a requirement). For example a Forensic examiner may have a different project for every individual under investigation. Each project may contain multiple sessions, one for each of the individual's various mail sources (as in [Example 1 in the Multiple sessions topic](#)). An IT technician may have a different project for each department in the company, with each project containing a session for every employee whose mail is to be migrated (as in [Example 2 in the Multiple sessions topic](#)).

**Project folder**

The folder on disk where the project is stored.

The [Location](#) field on the [Project settings](#) screen displays the full path of the project folder. It is also a hyperlink so, when selected, will open the project folder location in the Windows File Explorer app.

You can set the [default project folder](#) location for all future projects on the [Options](#) screen, under the [Projects](#) section.

**Proximity search**

A proximity search finds words or characters that are located close to one another. Proximity searches can be very powerful, using context to enable precise searching and filtering.

Most proximity search engines are limited to finding words within a specified distance of one another, where distance is the number of intermediate words. Aid4Mail can do this too but goes further, beyond traditional proximity searching. It enables you to search within the grammatical structures that naturally exist in most text—sentences and paragraphs—regardless of the number of intermediary words.

For more details, please refer to the [Proximity searching](#) topic.

**Public folder**

The folder in which Aid4Mail settings or data can be publicly shared with other people on same computer or network. It's location depends on your system's configuration but is typically:

```
C:\Users\Public\Aid4Mail5
```

This folder does not exist by default so, if necessary, you need to create it under C:\Users\Public. Most content from the [application data folder](#) can be placed in the this folder to make it publicly accessible, as long as you maintain the same folder structure.

**Punctuation**

In Aid4Mail's search and filter feature, quotes, parentheses, brackets and braces have special meaning. See the [Punctuation](#) topic for details.

**Python**

An interpreted, high-level programming language and the language of choice for many forensic professionals. This is partly due to its use as a scripting language, embedded in

software products like Aid4Mail, to enable user-created functionality beyond what's built in.

For more information about Python, please refer to the [Python website](#). For help using Python in Aid4Mail, please refer to the [Python scripts](#) topic.

### **Python script**

Script written in the [Python](#) programming language to add new features to [Aid4Mail Enterprise](#) and [Investigator](#). Scripts can add specialized filtering, data extraction, the modification of email content and the customization of file and folder names. You can even use Python scripts to create your own target mail formats and custom output. Please refer to the [Python scripts](#) topic for details.

### **Regular expression**

Also known as *regex*. An extremely powerful search pattern (with a cryptic syntax) that enables searches that would not otherwise be possible. Aid4Mail's supports [Perl Compatible Regular Expressions \(PCRE\)](#) as [search terms](#). Please refer to the [Regular expressions](#) topic for details.

### **Scripts folder**

The *Scripts* folder contains [Python scripts](#). There are a number of scripts shipped with Aid4Mail and they are all editable. You can also create your own scripts, or add third-party ones, by placing them in the *Scripts* folder. Aid4Mail will automatically find them the next time you run it.

The *Scripts* folder can be present in multiple locations. Original scripts shipped with Aid4Mail are in the *Scripts* subfolder of your [program folder](#). However these should not be edited directly as this location is overwritten whenever you reinstall or update Aid4Mail. Scripts you edit, new scripts you create, or any third-party scripts you want to add should be placed in the *Scripts* subfolder of your [application data folder](#) (or alternatively your [public folder](#) or [USB program folder](#), depending on how you're using Aid4Mail). Please refer to [Customizing Aid4Mail](#) for further information.

### **Sentence**

A sequence of one or more [words](#) ending with a period (full stop) or tab.

**Session**

A *session* can be thought of as an independent instance of the Aid4Mail processing engine. Aid4Mail allows you to work with one session at a time or with multiple sessions, enabling you to set up a whole project of related email processing tasks.

All [Aid4Mail editions](#) allow you to set up multiple sessions and to [run](#), [pause](#) and [stop](#) the currently selected session. Whereas [Aid4Mail Converter](#) can only run one session at a time, [Aid4Mail Enterprise](#) and [Investigator](#) can [run all](#) the sessions in the list, either [consecutively or concurrently](#). Any sessions not yet running will be placed in a queue and automatically run when it's their turn. Please refer to the [Multiple sessions](#) topic for further information.

**Session settings file**

When you run an Aid4Mail session, or close the application, the session's settings are saved to a file in the [project folder](#). Every session setting in Aid4Mail has a corresponding entry in the session settings file (although unused settings may not be listed). For further details, please refer to the [Session settings file](#) topic.

**Search operator**

Search operators allow you to narrow down a search by specifying exactly which items should be included in the target mailbox. Aid4Mail supports most Gmail, Google Vault and Microsoft Office search operators and many more. Please refer to the [Search operators](#) topic for details.

**Search term**

A word or phrase to be searched for in folders, email messages and non-email items (contacts, calendars, etc). Search terms can be refined by [punctuation](#), [wildcards](#) and [regular expressions](#), and targeted with [search operators](#). They can also be combined using [Boolean operators](#).

Aid4Mail filters consist of one or more search terms. During processing, items that match your search terms will be included in your target mail. Those that don't will be excluded. Please refer to the [Search terms](#) topic for more information.

**Source mail**

The mail that Aid4Mail will be processing or converting. Conversions are from your *source mail* to your *target mail*.

**Target mail**

The mail that Aid4Mail will be creating. Conversions are from your *source mail* to your *target mail*.

**Template**

Templates are an optional feature in Aid4Mail that can be used in different 3 ways:

1. To specify the [folder structure](#) of your target mail. This is useful for merging or splitting folders, or for grouping emails based on specific characteristics like the email account, date or status .
2. To customize [filenames](#) when your chosen [target mail](#) format uses individual files for each email message (*MSG, EML, Plain text, HTML, PDF* or *XML*).
3. To define the content of the HTML index file created when your [target mail](#) is *HTML* and the [Create HTML index file](#) option is turned *on*.

For further information, please refer to the [Templates](#) topic.

**Template token**

A placeholder for variable content that's used in Aid4Mail [templates](#). A token can represent properties of:

- The email being processed.
- The [session](#) processing the email.
- The [project](#) processing the email.

Please refer to the [Template tokens](#) topic for details.

**Trial mode**

A special mode that allows you to test Aid4Mail before you purchase. It is fully featured but modifies [target mail](#) during the conversion process, notably adding watermarks. It does not affect your [source mail](#) in any way. For details see the [Trial mode](#) topic.

**Unpurged mail**

Hidden copies of emails that have been deleted or moved to another location. An unpurged email contains a *DELETED* flag in its header. For a more detailed explanation, see [What is unpurged mail?](#) in the [Searching unpurged mail](#) topic.

**USB program folder**

The folder in which Aid4Mail is installed if you're running it from a USB drive. It's location depends on your system's configuration but is typically:

`U:\Aid4Mail5\`

*U*: represents the root folder of the USB drive.

**Wildcard**

A special token that stands in for one or more characters, [HTML entities](#) or whole words. Some wildcards operate within a single word while others span a sentence or paragraph. There's even a wildcard that offers [proximity searching](#) by standing in for a given number of words across the whole text. Please refer to the [Wildcards](#) topic for details.

**Word**

A sequence of [characters](#) and/or [HTML entities](#) followed by one or more spaces.

## 24 Known issues

This page lists issues related to Aid4Mail that we are already aware of. Most are caused by third-party products or services that interact with Aid4Mail, and not by Aid4Mail itself. However, as they affect our customers, we are dedicated to finding solutions or workarounds wherever possible. In the meantime they are listed here for your information.

### **Anti-virus warnings (false positives)**

Anti-virus products, and especially those using proactive protection, occasionally generate false positives. This happens when they incorrectly determine that a file contains a virus, or other malware, when there is none at all. We have received reports of this happening to Aid4Mail's installation file. This is not an issue with Aid4Mail but with the anti-virus product that's generating the false positive.

All our products are uploaded to the Internet virus-free. Aid4Mail was scanned by over 60 different anti-virus products. With the exception of one or two obscure apps that sometimes show false positives, all the major anti-virus products show Aid4Mail to be 100% clean. If you have downloaded Aid4Mail from our website or online store, or a reputable software repository, then you can be confident that it does not contain a virus. Unless you have a virus on your computer that affects Aid4Mail after installation, any warning you may get from your anti-virus product is most likely a false positive.

This is a frustrating situation for us because, other than contacting the manufacturer of the offending anti-virus product, there is little we can do to rectify it. However you may be able to help as these companies are more likely to listen to their own customers. If you encounter a false positive concerning Aid4Mail, please inform the manufacturer so they can fix the issue in their next update. In the meantime, you should be able to white-list Aid4Mail in your anti-virus product, or turn off proactive protection, to prevent any further false positives.

### **Outlook installation**

Microsoft Outlook can be installed on your computer in several different ways. The following two installation types can prevent Aid4Mail from converting between Outlook formats (Outlook profiles, PST and MSG files) and MIME formats (EML and mbox):

1. Outlook installed as part of the Microsoft Office Desktop Apps package.

The recommended solution in this case is to uninstall Office 365 and reinstall the regular edition from your Office 365 account on Microsoft's website. In an upcoming Aid4Mail

update we plan to provide a workaround that will enable mail conversion when this type of installation is encountered. However, these conversions may not be as accurate as those handled by Outlook's internal converter.

2. Outlook installed as a Microsoft Office Click-to-Run app and the Windows Registry has not been updated to support IConverterSession.

If you have this type of setup and are unable to convert Outlook mail, please use the [Fix Registry for MAPI](#) command under Aid4Mail's [Tools menu](#).

## Accessing cloud-based Microsoft accounts through IMAP with OAuth 2.0

Aid4Mail supports [IMAP](#) access to cloud-based email accounts using several different [security protocols](#). The most secure is [OAuth 2.0](#). Unfortunately, Microsoft has not yet implemented OAuth 2.0 support for IMAP access to Office 365 accounts. Attempts to access Office 365 in this way will result in an error. However, Aid4Mail can still access Office 365 accounts through IMAP using one of the other [connection security protocols](#).

OAuth 2.0 IMAP access is supported by Outlook.com and Hotmail.com accounts although our tests indicate it may not be reliable. This has been confirmed by third-party reports on public forums.

Aid4Mail remains ready for OAuth 2.0 IMAP access to all these accounts once Microsoft has resolved their issues.

## Microsoft Graph API limitations

Aid4Mail offers direct access to Office 365 accounts using the Microsoft Graph [API](#) along with the secure [OAuth 2.0](#) protocol. This is the most efficient way of accessing these accounts. The Microsoft Graph API is recommended by Microsoft and is a replacement for their older Exchange Web Services (EWS). Unfortunately, the Microsoft Graph API is currently limited to downloading messages. It cannot upload them. For this reason, Office 365 is only available directly as a [source format](#) and not as a [target format](#) in Aid4Mail. However, you can still convert to Office 365 using either *IMAP* or an *Outlook profile* as your target format.

## 25 Technical support

If you have a question that is not answered in this guide, please consult our [online knowledge base](#) for a solution.

If you can't find an answer in the knowledge base, or have pre-sales questions, we're here to help. You can contact our support team by submitting a support ticket.

### Submitting a support ticket

Aid4Mail's technical support uses an email ticketing system. When contacting technical support, please provide all the information below as this will improve our ability to diagnose and address your issue:

- Version / build of Aid4Mail being used (found in the main menu under [Help > About Aid4Mail](#)).
- Version of Windows (or other operating system) being used.
- Aid4Mail activation code / license key.
- Progress log for the Aid4Mail session that encountered the issue. You'll find the [location of this file](#) on the [Progress log](#) screen.
- Error log (if one was created) for the Aid4Mail session that encountered the issue. You'll find the [location of this file](#) on the [Error log](#) screen. The error log is only created if errors were produced.

Once you have this information, please [submit a support ticket](#).

### Business hours

We provide customer support on business days from Monday to Friday. We usually reply within 24 hours (priority support) but it may take up to 2 business days for users of [Aid4Mail Converter](#).

If you don't hear back from us, please check if our reply got caught by your spam protection tool, or was automatically moved to your Junk folder.

## 26 Company information

# FOOKES® Software

Fookes Software has been developing software since 1990. In 1996 the company was formally registered at the Trade Register in Geneva, Switzerland. Now a Limited (Ltd) company based in Charmey, in the Swiss Prealps, it is fully owned by its parent Fookes Holding Ltd.

For almost 30 years Fookes Software has been developing award-winning tools and productivity software. Clients include government and law enforcement agencies, Fortune 500 corporations, top universities and other educational institutions, international organizations, as well as individuals and home users in over 100 countries around the world.

Fookes Software respects each individual's right to personal privacy. We collect information through our website, including registration forms and inquiry forms, and use it only in the ways disclosed in our [privacy policy](#).

### Policies

1. We are perfectionists and strive to develop reliable and efficient software solutions.
2. We listen to our users and try to implement feature suggestions that benefit them.
3. We are committed to providing excellent customer support.
4. We are upfront about our services and products (no "small print") so that you can make an informed buying decision.

### Websites

[www.aid4mail.com](http://www.aid4mail.com)

[www.fookes.com](http://www.fookes.com)

### Address

Fookes Software Ltd  
La Petite Fin 27  
1637 Charmey (en Gruyère)  
Switzerland

Email: [helpdesk@fookes.net](mailto:helpdesk@fookes.net)

If you have a technical support question, please refer to the [Technical support](#) topic.

## Business Details

Fookes Software Ltd is registered in Switzerland and owned by its parent company Fookes Holding Ltd:

- Reference Number: [2420/2008](#)
- Federal Number: CH-217-3540396-6

Trade Register details:

*Service du registre du commerce du Canton de Fribourg, Switzerland*  
Website: [www.fr.ch/rc/](http://www.fr.ch/rc/)

IRS Employer Identification Number (EIN): 98-0604274

## 27 EULA

You can [download](#) the latest version of the End User License Agreement (EULA) from the Aid4Mail website. A local PDF copy is also available in your Aid4Mail [program folder](#).

- - -

- (Boolean operator) 75, 82, 100, 102, 104

- " -

"" 62

- # -

# wildcard 57

- &amp; -

&amp; wildcard 57

- ( -

() 62

- \* -

\* wildcard 55, 61, 85, 91, 93, 95

\*\* wildcard 55, 60, 93

- . -

.flt.py 283

.mod.py 287

.NET 16

- ? -

? wildcard 55

- [ -

[] 62

[R] modifier 65

- ^ -

^ (Boolean operator) 82

- { -

{ } 62

{Counter} 267

{Date} 267, 273

{DateNow} 267

{DateSession} 267

{DateUtc} 267

{Folder} 267

{FolderPath} 267

{FolderTop} 267

{FolderType} 267

{HasAttachment} 267

{HashFnv1a} 267

{HashMD5} 267

{HashSha1} 267

{HashSha256} 267

{HashSha512} 267

{IsDuplicate} 267

{IsForwarded} 267

{IsRead} 267

{IsReplied} 267

{IsUnpurged} 267

{IsUnread} 267

{MessageId} 267

{Sender} 267

{SenderEmail} 267

{Subject} 267

{Thread} 267

{Traffic} 267

- | -

| (Boolean operator) 68, 75, 78, 82

- ~ -

~ wildcard 55

~\* wildcard 55, 60, 91

- + -

+ (Boolean operator) 82

**- < -**

<> 135  
 <\*> wildcard 58, 60, 93  
 <.> wildcard 58, 60, 91  
 <n> wildcard 58, 95, 97

**- A -**

About Aid4Mail 134  
 Access email located outside your personal mailbox (e.g. shared mailboxes) 143, 148  
 Across all folders 195  
 Activate license 21, 119, 123, 127, 206  
 Activate with a key file 123  
 Activate with an activation code 119  
 Activate your Aid4Mail license 118  
 Activation code 119, 206  
 Add 129, 135  
 Add extra metadata to headers 148  
 Additional rules for folder search terms 52  
 Additional rules for item search terms 52  
 Advanced 185, 202  
 Advanced Query Syntax 110  
 After 71  
 Aid4Mail 7  
 Aid4Mail Authenticator 208, 224  
 Aid4Mail Converter 12  
 Aid4Mail editions 12  
 Aid4Mail Enterprise 12  
 Aid4Mail Remote Authenticator 224  
 Aid4Mail website 134  
 All data 133  
 Alternative folder for cache and temp files 202  
 Amazon WorkMail 230  
 AND 82  
 anti-virus 115  
 AOL Mail (AIM.Mail) 230  
 apostrophes 52  
 App 185, 186  
 Append messages to target mailbox if it already exists 148  
 Apply folder mapping to top-level target folder names 190  
 AQS 110  
 archive 267  
 AROUND 58, 97

Assistant 100, 102, 104, 158  
 Attachment options 52, 158  
 AttachmentNames 75  
 Attachments 267  
 Audio 75  
 authentication 208, 224  
 Auto 226  
 Autocomplete 226  
 automatic updates 115  
 Automatically record each email to allow incremental processing 143

**- B -**

backup 115  
 bandwidth 115  
 Bates numbering 257  
 Bates numbering starts at 202, 257  
 Bcc 70  
 Before 71  
 Boolean operator 52, 82, 85, 97, 100, 102, 104, 110  
 Boolean operators 50  
 braces 52, 62, 65  
 business hours 306  
 Button bar 124, 135  
 Bytes per second 165

**- C -**

C = Case sensitive 62  
 calendar 267  
 Case description 175  
 Case ID 175  
 Case information 175  
 case insensitive 52  
 Case owner contact details 175  
 Case owner name 175  
 case sensitive 52  
 Category 68  
 Category:Blue 68  
 Category:Forums 68  
 Category:Green 68  
 Category:Orange 68  
 Category:Promotions 68  
 Category:Purple 68  
 Category:Red 68  
 Category:Social 68  
 Category:Updates 68

- Category:Yellow 68
- CC 70
- Chaining proximity searches 99
- Chaining wildcards 61
- Change Aid4Mail edition 127
- character 55, 57, 90
- character wildcard 60, 61, 91, 93, 95
- Character wildcards 55
- Character wildcards vs word wildcards 60
- chats 267
- Check for software updates 186
- Check for updates 134
- Clear 158
- Clear cache 133
- cloud-based email service 208, 224
- Combining templates 266
- Common search terms 100, 102
- compacted 102
- comparison chart 12, 21
- comparison operator 71, 78
- Comparison operators 66
- Completed 165
- Connection security 226
- contacts 267
- Content 78
- Content pane 170, 172
- Content:Archive 78
- Content:Attachment 78
- Content:Audio 78
- Content:Database 78
- Content:Document 78
- Content:Email 78
- Content:Excel 78
- Content:Image 78
- Content:Jpeg 78
- Content:Multimedia 78
- Content:Pdf 78
- Content:Powerpoint 78
- Content:Presentation 78
- Content:SourceCode 78
- Content:Spreadsheet 78
- Content:Video 78
- Content:Word 78
- Converter 12
- Converting mail 24
- Coordinated Universal Time (UTC) 267
- Copy 128
- core 115

- counter 257
- CPU 16
- Create local backup copy on failure to save 148
- Create local backup copy on failure to save email 190
- Current Folder 165
- Current item 165
- Customizing Aid4Mail 290
- Cut 128

## - D -

- Data folder 190, 290
- Database 75
- Date 100
- Date/Time search operators 71
- Deduplication 45, 100
- Default project folder 188
- Default project name 188
- Default session name 190
- Delete 129, 135
- DELETED 71, 102
- DeliveredTo 70
- Description 175
- Document 75
- download Python 281
- drafts 267
- Duplicate 100, 129, 135
- Duplicates 267

## - E -

- Edit menu 126, 128
- EIN 307
- Email 75
- Email account 208, 224
- Email address 143, 148, 226
- Email attribute search operators 78
- Email attributes 102, 104
- Email ID search operators 81
- Email section search operators 75
- End User License Agreement (EULA) 309
- Enterprise 12
- Error 165
- Error log 139, 172
- Error log file 172
- Errors 165
- Ethernet cable 115

EULA 12, 309  
 evaluation purposes 15  
 Evidence description 175  
 Evidence ID 175  
 Exact 62, 81  
 Excel 75  
 Exit 127  
 expunged 102

## - F -

F = Whole field 62  
 Failed At Start 165  
 Failed Midway 165  
 FastMail 230  
 file indexing 115  
 File menu 126, 127  
 file metadata 115  
 file monitoring 115  
 File name 148  
 File name template 148  
 File name templates 264  
 FileName 75  
 FileNames 75  
 files contained within attachments 115  
 FileText 75  
 Filter 45, 141, 158, 185, 195  
 Filter settings 85  
 Filter variables 283  
 Filtered 165  
 Fix Registry for MAPI 133  
 Flag duplicates 100, 195  
 flt.py 283  
 flt\_AppCounter 283  
 flt\_AppSettings 283  
 flt\_Continue 283  
 flt\_ItemFiles 283  
 flt\_ItemHeader 283  
 flt\_ItemImages 283  
 flt\_ItemMetadata 283  
 flt\_ItemMime 283  
 flt\_ScriptError 283  
 flt\_ScriptStatus 283  
 flt\_SourceFolder 283  
 flt\_SourceFolderMetadata 283  
 Folder 165  
 folder filter 85, 115  
 folder location priority 290

Folder or native filter 158  
 folder search 52, 85  
 Folder search operators 52, 68  
 Folder search terms 85, 158  
 Folder structure 148  
 Folder structure template 148  
 Folder structure templates 261  
 FolderMapping.dat 190  
 foldername 52, 68, 85  
 FolderNames.dat 190  
 folders 100  
 Fookes Holding Ltd 307  
 Fookes Software Ltd 307  
 Format 143, 148  
 Formatting date tokens 273  
 Forwarded 267  
 Free edition 12, 21  
 From 70, 100

## - G -

General rules for all search terms 52  
 Generate email hash value using 100, 190  
 Glossary 292  
 Gmail 110, 212, 230  
 GMX Mail 230  
 Go to session 128  
 Google API 208  
 Google API credentials 202, 208, 212, 224  
 Google's AROUND operator 58, 97  
 GPU 115  
 Gsuite 212

## - H -

Has 78  
 HasAttachment 78  
 HasAttachment:False 78  
 HasAttachment:True 78  
 Header 75  
 Header[All] 75  
 Header[Field] 75  
 Help menu 126, 134  
 hibernation 115  
 HTML entities 57  
 HTML entity wildcards 57

**- I -**

- I = Case insensitive 62
- illegal characters 264, 266
- Image 75
- image size limit for metadata searches 115
- IMAP 110
- IMAP account 143, 148, 208, 224
- IMAP configuration 230
- IMAP Configuration Editor 226
- Import license key 123, 127
- Importance 78
- Importance:High 78
- Importance:Highest 78
- Importance:Low 78
- Importance:Lowest 78
- Importance:Medium 78
- important 267
- In 68
- In same folder only 195
- In:Archive 68
- In:Calendar 68
- In:Chats 68
- In:Contacts 68
- In:Drafts 68
- In:Important 68
- In:Inbox 68
- In:Journal 68
- In:Notes 68
- In:Outbox 68
- In:RssFeeds 68
- In:Sent 68
- In:Spam 68
- In:Starred 68
- In:Tasks 68
- In:Trash 68
- inbox 267
- Include empty folders 195
- Include files contained in attachments 158
- Include metadata for file types lacking searchable text (slower) 158
- Include non-email items from Outlook 195
- Incoming 267
- Incremental 165
- Incremental data 133
- Incremental processing 115, 143
- Index 137

- Index data 133
- Indexing files 165
- International date format 71, 85, 273
- Internet bandwidth 115
- Introduction 7
- Invalid 165
- Investigator 12
- Investigator contact details 175
- Investigator name 175
- IP address 226
- IRS Employer Identification Number 307
- Is 78
- IsRead 78
- IsRead:False 78
- IsRead:True 78
- Item filter 85, 115, 158
- item search 52
- Item search smart case detection 52, 195
- Item search term 100, 102, 104
- Item search terms 85, 158
- Items per second 165

**- J -**

- journal 267
- Journalled 104
- Jpeg 75

**- K -**

- key file 123
- keyboard shortcuts 231
- Keywords 175
- knowledge base 306

**- L -**

- L = Literal 62
- Lab ID 175
- Label 68
- labels 100
- Larger 78
- License agreement 309
- Limit search range within attachments and files to 195
- line return 52
- Linux 16
- List 70, 104

ListID 70  
 Live@edu 230  
 Location 143, 148, 175  
 Log IMAP communications 226  
 Lotus Domino 230

## - M -

Mac OS X 16  
 macOS 16  
 Mail store 165  
 mailer-daemon 104  
 Maximum number of concurrent sessions 190, 243  
 Md5 81  
 Menu 124, 126  
 Merge all emails into the target folder 148  
 Merge all emails into the top-level folders 148  
 MessageId 81  
 Message-ID 100  
 Message-ID header 100  
 Message-ID header field 190  
 Minimum Hardware Requirements 16  
 mod.py 287  
 mod\_AppCounter 287  
 mod\_AppSettings 287  
 mod\_ItemMetadata 287  
 mod\_ItemMime 287  
 mod\_ScriptError 287  
 mod\_ScriptStatus 287  
 mod\_SourceFolder 287  
 mod\_SourceFolderMetadata 287  
 mod\_TargetFolder 287  
 mod\_UpdateVars 287  
 Modified 71  
 Modifier variables 287  
 Move 129  
 Multimedia 75  
 Multiple sessions 128, 243

## - N -

native filter 115  
 Native filtering 45, 110  
 Native search terms 158  
 Navigation 135  
 network drivers 115  
 New project 127

Newer 71  
 Newer\_Than 71  
 NewerThan 71  
 News 104  
 None 226  
 noreply 104  
 no-reply 104  
 NOT 82, 85, 100, 102, 104  
 Not processed 165  
 Not ready 165  
 notes 267  
 Notification 104  
 Notify if license expiry is within 30 days 186

## - O -

OAuth 2.0 208, 224  
 OAuth2 226  
 OData 110  
 Office 365 110, 230  
 Office 365 Education 230  
 Older 71  
 Older\_Than 71  
 OlderThan 71  
 ONEAR 58, 97  
 Only search metadata in images larger than 195  
 Open assistant 158  
 Open project 127  
 Optimization 202  
 Options 132, 135, 185, 186, 188, 190, 195, 202  
 OR 82, 85, 97  
 order of search terms 115  
 Original SMTP header 100, 190  
 OS X 16  
 Other errors 165  
 outbox 267  
 Outgoing 267  
 Outlook plugins 115  
 Outlook.com 230  
 Outlook's ONEAR operator 58, 97  
 Overview 165

## - P -

P = Partial words 62  
 paragraph 55, 58, 90  
 Parentheses 62, 85

- Participants 70
  - Password 119, 206, 226
  - Paste 128
  - Pause 129, 135
  - Pause all 129, 135
  - Paused 165
  - Pdf 75
  - Perl Compatible Regular Expressions (PCRE) 65
  - personal mail 104
  - Placeholder 273
  - Port 226
  - postmaster 104
  - Powerpoint 75
  - precedence 82
  - Presentation 75
  - Preserve source PST files from changes during processing 202
  - prioritize Aid4Mail's 32-bit processing engine 115
  - Prioritize memory access (64-bit engine) 202
  - Prioritize processing speed (32-bit engine) 202
  - Privacy Policy 307
  - Process all folders 158
  - Process all items 158
  - Processing 165
  - Processing time 165
  - Profile 143, 148
  - Progress 139, 165
  - Progress bar 165
  - Progress log 139, 170
  - Progress log file 170
  - Progress overview 137
  - Project 132, 135, 185, 188
  - Project name 175
  - Project name counter starts at 188
  - Project settings 175
  - proximity search 97, 99
  - Proximity searching 45, 90
  - Proximity searching within a paragraph 58, 93
  - Proximity searching within a sentence 58, 91
  - Proximity searching within a specified distance 58, 95
  - Proxy 132
  - PST file 143, 148
  - Punctuation 50, 62
  - purged 102
  - Python 16
  - Python filter scripts 45, 283
  - Python installation 281
  - Python installation folders 202
  - Python modifier scripts 287
  - Python script 148, 158
  - Python scripts 115, 281, 290
  - Python website 281
- Q -**
- quotes 52, 62, 85
- R -**
- R = Regular expression 62
  - RAM 16, 115
  - Raw 75
  - Read 267
  - Ready 165
  - Received 71
  - Received\_After 71
  - Received\_Before 71
  - ReceivedAfter 71
  - ReceivedBefore 71
  - Recipients 70
  - References 75
  - regex 65
  - Registre du commerce 307
  - registry 133
  - Regular expressions 50, 65
  - Remote authentication 224
  - Remote Authenticator 224
  - Reopen last project on restarting Aid4Mail 186
  - Replied 267
  - ReplyTo 70
  - Reset 129
  - Reset session name counter to 1 for each new project 190
  - RFC 822 standard 81
  - Rfc822MsgId 81
  - rssfeeds 267
  - Run 129, 135
  - Run all 129, 135
- S -**
- Same as source file names 148
  - Same as source folder structure 148
  - Scripts folder 281, 290
  - Search and filter 45

search assistant 100, 102, 104, 158  
 search operator 52, 85, 110  
 Search operators 50, 66  
 search term 52, 65, 85, 91, 93, 95, 100, 102, 104  
 Search term rules 50, 52  
 search terms 45, 50, 158  
 Search text in attachments and image Exif/IPTC/XMP metadata 158  
 Searching personal mail 45, 104  
 Searching unpurged mail 45, 102  
 Select in folder tree 85, 158  
 Sender 70  
 Sender/Recipient search operators 70  
 sent 71, 267  
 Sent\_After 71  
 Sent\_Before 71  
 SentAfter 71, 85  
 SentBefore 71, 85  
 sentence 55, 58, 90  
 Server name 226  
 session 185, 190, 243  
 Session information 124, 137, 139  
 Session list 124, 137  
 Session menu 126, 129  
 Session name 141  
 Session name counter starts at 190  
 Settings 139, 141, 143, 148, 158  
 Settings menu 126, 132  
 Size 78  
 Skip duplicates 100  
 Skip unpurged mail 102  
 Skipped 165  
 sleep 115  
 Smaller 78  
 software updates 115  
 Source 141, 143  
 Source errors 165  
 SourceCode 75  
 space 52  
 spam 267  
 Spreadsheet 75  
 square brackets 62  
 SSD 115  
 SSL/TLS 226  
 starred 267  
 Start screen 21  
 StartTLS 226  
 statistics 165

Status 165  
 Status and X-Status 148  
 Stop 129, 135  
 Stop all 129, 135  
 Stop processing if an item cannot be opened or saved 190  
 Stopped 165  
 Store 143, 148  
 Stored 71  
 streaming services 115  
 Subject 75, 100  
 Successful 165  
 support 306  
 System requirements 16

## - T -

Table cells are treated as sentences 91  
 Table rows are treated as paragraphs 93  
 Target 141, 148  
 Target errors 165  
 Target mbox file extension 202  
 Task bar 124, 174  
 tasks 267  
 technical support 306  
 Template tokens 261, 264, 266, 267  
 Templates 260  
 Text 75  
 Text inside template tokens 273  
 ticket 306  
 Tiff 75  
 Time/Speed 165  
 To 70, 85  
 Tokens 264, 266, 267  
 Tools menu 126, 133  
 trash 267  
 Trial license 21  
 Trial mode 15  
 Truncating text inside tokens 273  
 Turn on/off multiple sessions 174, 243  
 Tutorial: Search and filter basics 45, 85  
 Type 45, 78, 102, 104  
 Type:Calendar 78  
 Type:Chat 78  
 Type:Contact 78  
 Type:Deleted 78  
 Type:Draft 78  
 Type:Duplicate 45, 78, 100

- Type:Encrypted 78
- Type:Filtered 78
- Type:Forwarded 78
- Type:Important 78
- Type:Journal 78
- Type:Journalized 78
- Type:List 78
- Type:News 78
- Type:Note 78
- Type:Notification 78
- Type:Notify 78
- Type:Offline 78
- Type:Partial 78
- Type:Personal 45, 78, 104
- Type:Read 78
- Type:Received 78
- Type:Redirected 78
- Type:Replied 78
- Type:Sent 78
- Type:Spam 78
- Type:Starred 78
- Type:Task 78
- Type:Unpurged 45, 78, 102
- Type:Unread 78
- Type:Unsent 78

## - U -

- Uid 81
- Unpurged 267
- unpurged mail 102
- Unread 267
- updates 115
- Use a template 148
- Use FNV-1a signatures 148
- Use login credentials to access another account as a delegate 143, 148
- Use MD5 signatures 148
- Use SHA-1 signatures 148
- Use X-Folder metadata 148
- Username 226

## - V -

- Validate 158
- Video 75
- View help 134

## - W -

- W = Wildcards 62
- Waiting 165
- Website 75
- What's new in Aid4Mail 5? 9
- wifi 115
- Wi-Fi 115
- wildcard 52, 61, 85, 95, 97, 99
- Wildcards 50, 54
- Windows 16
- Windows clipboard 128
- Windows registry 133
- Windows Server 16
- word 55, 57, 58, 75, 90
- Word order in proximity searches 97
- word wildcard 60, 91, 93, 95
- Word wildcards 58
- WordList 62

## - X -

- X-Folder 148
- X-From 148
- X-MAPI-Categories 148
- XOR 82

## - Y -

- Yahoo! Mail 230

## - Z -

- Zoho Mail 230