

Printed: Monday, January 30, 2006 10:50:03 AM

[The current version of this file can be found at
"//depot/projects/eudora2/docs/mailstore.txt"]

A mailbox is simply a collection of messages, with some additional data. It caches information about the messages, in order to display them more quickly.

The idea is that a mailbox can be displayed without reading any of the messages contained in the mailbox.

Kept with each Message:

- MessageID -- needed to find the message
- Selected -- boolean
- Cached from the messages:
 - Subject
 - Sender (or recipient for sent messages)
 - Date
 - Label
 - Status
 - Priority
 - Junk Score
 - Message Size (in bytes)
 - Attachment count
 - (a few other bits of information)

Data kept in the mailbox:

- Window Position
- Scroll Position
- Sort Criteria
- Position/size of preview pane.
- For "virtual" mailboxes, the search criteria for the mailbox.
- Whatever else we (or plugins) need
 - This is extensible, because it will be stored in a collection.

Each mailbox has a unique (in the mailstore) integer ID. These are picked at random, and are used (with the mailbox name as backup) as a way to locate a mailbox. (In a similar manner that message-IDs are used to identify messages).

The basic interface for a mailbox is a `boost::shared_ptr<Mailbox>`, which is a reference-counted shared pointer. There will only be one "Mailbox" object per mailbox. You get a pointer to a mailbox from the mailstore, asking by mailbox-ID

A mailbox is stored on disk as an XML file.

The XML contains the following sections:

- Mailbox version, name, and ID
- Collection info
- An array of messages

Operations on a mailbox:

[The header file for these operations can be found at
"//depot/projects/eudora2/common/include/mailstore.txt"]

- Get/Set cached message attributes
- Get/Set mailbox data
- Read/Save from disk
- Get/Set/Add/Delete collection items.

Update the cached values for a message from the message (in case the user changes something in another mailbox, say).

Add a message to a mailbox.

Remove a message from a mailbox.

Change the sort criteria for a mailbox - note that sorting a mailbox reorders the messages in the mailbox; it's not just a display attribute; but this is a (relatively) cheap operation because we're not moving around message contents, just the cached information.