

NAME

Mail::Box::Dir::Message – one message in a directory organized folder

INHERITANCE

```
Mail::Box::Dir::Message
  is a Mail::Box::Message
  is a Mail::Message
  is a Mail::Reporter
```

```
Mail::Box::Dir::Message is extended by
  Mail::Box::MH::Message
  Mail::Box::Maildir::Message
```

SYNOPSIS

```
my $folder = new Mail::Box::MH ...
my $message = $folder->message(10);
```

DESCRIPTION

A Mail::Box::Dir::Message is a base class for one message in a directory organized folder; each message is stored in a separate file. There are no objects of type Mail::Box::Dir::Message, only extensions are allowed to be created.

At the moment, three of these extended message types are implemented:

- Mail::Box::MH::Message
which represents one message in a Mail::Box::MH folder. MH folders are very, very simple.... and hence not sophisticated nor fast.
- Mail::Box::Maildir::Message
which represents one message in a Mail::Box::Maildir folder. Flags are kept in the message's filename. It is stateless, so you will never loose a message.
- Mail::Box::Netzwert::Message
which represents one message in a Mail::Box::Netzwert folder. As advantage, it stores pre-parsed information in the message file. As disadvantage: the code is not GPLed (yet).

Extends “DESCRIPTION” in Mail::Box::Message.

METHODS

Extends “METHODS” in Mail::Box::Message.

Constructors

Extends “Constructors” in Mail::Box::Message.

`$obj->clone(%options)`

Inherited, see “Constructors” in Mail::Message

`Mail::Box::Dir::Message->new(%options)`

Create a messages in a directory organized folder.

Option	--Defined in	--Default
body	Mail::Message	undef
body_type	Mail::Box::Message	<from folder>
deleted	Mail::Message	<false>
field_type	Mail::Message	undef
filename		undef
fix_header		false
folder	Mail::Box::Message	<required>
head	Mail::Message	undef
head_type	Mail::Message	Mail::Message::Head::Complete
labels	Mail::Message	{ }

log	Mail::Reporter	'WARNINGS'
messageId	Mail::Message	undef
modified	Mail::Message	<false>
size	Mail::Box::Message	undef
trace	Mail::Reporter	'WARNINGS'
trusted	Mail::Message	<false>

body => OBJECT

body_type => CODE|CLASS

deleted => BOOLEAN

field_type => CLASS

filename => FILENAME

The file where the message is stored in.

fix_header => BOOLEAN

See Mail::Box::new(fix_headers).

folder => FOLDER

head => OBJECT

head_type => CLASS

labels => ARRAY|HASH

log => LEVEL

messageId => STRING

modified => BOOLEAN

size => INTEGER

trace => LEVEL

trusted => BOOLEAN

Constructing a message

Extends “Constructing a message” in Mail::Box::Message.

`$obj->bounce([<$rg_object%options>])`

Inherited, see “Constructing a message” in Mail::Message::Construct::Bounce

`Mail::Box::Dir::Message->build([$message|$part|$body], $content)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Build

`Mail::Box::Dir::Message->buildFromBody($body, [$head], $headers)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Build

`$obj->forward(%options)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardAttach(%options)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardEncapsulate(%options)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardInline(%options)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardNo(%options)`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardPostlude()`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardPrelude()`

Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

`$obj->forwardSubject(String)`
 Inherited, see “Constructing a message” in Mail::Message::Construct::Forward

Mail::Box::Dir::Message->**read**(\$fh|String|SCALAR|ARRAY, %options)
 Inherited, see “Constructing a message” in Mail::Message::Construct::Read

`$obj->rebuild(%options)`
 Inherited, see “Constructing a message” in Mail::Message::Construct::Rebuild

`$obj->reply(%options)`
 Inherited, see “Constructing a message” in Mail::Message::Construct::Reply

`$obj->replyPrelude([String|$field|$address|ARRAY-$of-$things])`
 Inherited, see “Constructing a message” in Mail::Message::Construct::Reply

`$obj->replySubject(String)`
 Mail::Box::Dir::Message->**replySubject**(String)
 Inherited, see “Constructing a message” in Mail::Message::Construct::Reply

The message

Extends “The message” in Mail::Box::Message.

`$obj->container()`
 Inherited, see “The message” in Mail::Message

`$obj->copyTo($folder, %options)`
 Inherited, see “The message” in Mail::Box::Message

`$obj->filename([$filename])`
 Returns the name of the file in which this message is actually stored. This will return `undef` when the message is not stored in a file.

`$obj->folder([$folder])`
 Inherited, see “The message” in Mail::Box::Message

`$obj->isDummy()`
 Inherited, see “The message” in Mail::Message

`$obj->isPart()`
 Inherited, see “The message” in Mail::Message

`$obj->messageId()`
 Inherited, see “The message” in Mail::Message

`$obj->moveTo($folder, %options)`
 Inherited, see “The message” in Mail::Box::Message

`$obj->partNumber()`
 Inherited, see “The message” in Mail::Message

`$obj->print([$fh])`
 Inherited, see “The message” in Mail::Message

`$obj->send([$mailer], %options)`
 Inherited, see “The message” in Mail::Message

`$obj->seqnr([$integer])`
 Inherited, see “The message” in Mail::Box::Message

`$obj->size()`
 Inherited, see “The message” in Mail::Message

`$obj->toplevel()`
 Inherited, see “The message” in Mail::Message

`$obj->write([$fh])`

Inherited, see “The message” in Mail::Message

The header

Extends “The header” in Mail::Box::Message.

`$obj->bcc()`

Inherited, see “The header” in Mail::Message

`$obj->cc()`

Inherited, see “The header” in Mail::Message

`$obj->date()`

Inherited, see “The header” in Mail::Message

`$obj->destinations()`

Inherited, see “The header” in Mail::Message

`$obj->from()`

Inherited, see “The header” in Mail::Message

`$obj->get($fieldname)`

Inherited, see “The header” in Mail::Message

`$obj->guessTimestamp()`

Inherited, see “The header” in Mail::Message

`$obj->head([$head])`

Inherited, see “The header” in Mail::Message

`$obj->nrLines()`

Inherited, see “The header” in Mail::Message

`$obj->sender()`

Inherited, see “The header” in Mail::Message

`$obj->study($fieldname)`

Inherited, see “The header” in Mail::Message

`$obj->subject()`

Inherited, see “The header” in Mail::Message

`$obj->timestamp()`

Inherited, see “The header” in Mail::Message

`$obj->to()`

Inherited, see “The header” in Mail::Message

The body

Extends “The body” in Mail::Box::Message.

`$obj->body([$body])`

Inherited, see “The body” in Mail::Message

`$obj->contentType()`

Inherited, see “The body” in Mail::Message

`$obj->decoded(%options)`

Inherited, see “The body” in Mail::Message

`$obj->encode(%options)`

Inherited, see “The body” in Mail::Message

`$obj->isMultipart()`

Inherited, see “The body” in Mail::Message

`$obj->isNested()`

Inherited, see “The body” in Mail::Message

`$obj->parts([<'ALL'|'ACTIVE'|'DELETED'|'RECURSE'|$filter>])`

Inherited, see “The body” in Mail::Message

Flags

Extends “Flags” in Mail::Box::Message.

`$obj->delete()`

Inherited, see “Flags” in Mail::Message

`$obj->deleted([BOOLEAN])`

Inherited, see “Flags” in Mail::Message

`$obj->isDeleted()`

Inherited, see “Flags” in Mail::Message

`$obj->isModified()`

Inherited, see “Flags” in Mail::Message

`$obj->label($label|PAIRS)`

Inherited, see “Flags” in Mail::Message

`$obj->labels()`

Inherited, see “Flags” in Mail::Message

`$obj->labelsToStatus()`

Inherited, see “Flags” in Mail::Message

`$obj->modified([BOOLEAN])`

Inherited, see “Flags” in Mail::Message

`$obj->statusToLabels()`

Inherited, see “Flags” in Mail::Message

The whole message as text

Extends “The whole message as text” in Mail::Box::Message.

`$obj->file()`

Inherited, see “The whole message as text” in Mail::Message::Construct::Text

`$obj->lines()`

Inherited, see “The whole message as text” in Mail::Message::Construct::Text

`$obj->printStructure([$fh|undef],[$indent])`

Inherited, see “The whole message as text” in Mail::Message::Construct::Text

`$obj->string()`

Inherited, see “The whole message as text” in Mail::Message::Construct::Text

Internals

Extends “Internals” in Mail::Box::Message.

`$obj->clonedFrom()`

Inherited, see “Internals” in Mail::Message

`Mail::Box::Dir::Message->coerce($message, %options)`

Inherited, see “Internals” in Mail::Message

`$obj->create($filename)`

Create the message in the specified file. If the message already has a filename and is not modified, then a move is tried. Otherwise the message is printed to the file. If the `$filename` already exists for this message, nothing is done. In any case, the new `$filename` is set as well.

`$obj->diskDelete()`

Inherited, see “Internals” in Mail::Box::Message

`$obj->isDelayed()`

Inherited, see “Internals” in Mail::Message

`$obj->loadBody()`

This method is called by the autoloader when the body of the message is needed.

`$obj->loadHead()`

This method is called by the autoloader when the header of the message is needed.

`$obj->parser()`

Create and return a parser for this message (–file).

`$obj->readBody($parser, $head, [$bodytype])`

Inherited, see “Internals” in Mail::Box::Message

`$obj->readFromParser($parser, [$bodytype])`

Inherited, see “Internals” in Mail::Message

`$obj->readHead($parser, [$class])`

Inherited, see “Internals” in Mail::Message

`$obj->recursiveRebuildPart($part, %options)`

Inherited, see “Internals” in Mail::Message::Construct::Rebuild

`$obj->storeBody($body)`

Inherited, see “Internals” in Mail::Message

`$obj->takeMessageId([STRING])`

Inherited, see “Internals” in Mail::Message

Error handling

Extends “Error handling” in Mail::Box::Message.

`$obj->AUTOLOAD()`

Inherited, see “METHODS” in Mail::Message::Construct

`$obj->addReport($object)`

Inherited, see “Error handling” in Mail::Reporter

`$obj->defaultTrace([$level][[$loglevel, $tracelevel]][[$level, $callback]]`

`Mail::Box::Dir::Message->defaultTrace([$level][[$loglevel, $tracelevel]][[$level, $callback]]`

Inherited, see “Error handling” in Mail::Reporter

`$obj->errors()`

Inherited, see “Error handling” in Mail::Reporter

`$obj->log([$level, [$strings]])`

`Mail::Box::Dir::Message->log([$level, [$strings]])`

Inherited, see “Error handling” in Mail::Reporter

`$obj->logPriority($level)`

`Mail::Box::Dir::Message->logPriority($level)`

Inherited, see “Error handling” in Mail::Reporter

`$obj->logSettings()`

Inherited, see “Error handling” in Mail::Reporter

`$obj->notImplemented()`

Inherited, see “Error handling” in Mail::Reporter

`$obj->report([$level])`

Inherited, see “Error handling” in Mail::Reporter

`$obj->reportAll([$level])`
 Inherited, see “Error handling” in Mail::Reporter

`$obj->shortSize([$value])`
 Mail::Box::Dir::Message->**shortSize**([\$value])
 Inherited, see “Error handling” in Mail::Message

`$obj->shortString()`
 Inherited, see “Error handling” in Mail::Message

`$obj->trace([$level])`
 Inherited, see “Error handling” in Mail::Reporter

`$obj->warnings()`
 Inherited, see “Error handling” in Mail::Reporter

Cleanup

Extends “Cleanup” in Mail::Box::Message.

`$obj->DESTROY()`
 Inherited, see “Cleanup” in Mail::Reporter

`$obj->destruct()`
 Inherited, see “Cleanup” in Mail::Box::Message

DETAILS

Extends “DETAILS” in Mail::Box::Message.

DIAGNOSTICS

Error: Cannot coerce a `$class` object into a `$class` object

Error: Cannot create parser for `$filename`.
 For some reason (the previous message have told you already) it was not possible to create a message parser for the specified filename.

Error: Cannot include forward source as `$include`.
 Unknown alternative for the forward(include). Valid choices are NO, INLINE, ATTACH, and ENCAPSULATE.

Error: Cannot include reply source as `$include`.
 Unknown alternative for the include option of **reply()**. Valid choices are NO, INLINE, and ATTACH.

Error: Cannot write message to `$filename: $!`
 When a modified or new message is written to disk, it is first written to a temporary file in the folder directory. For some reason, it is impossible to create this file.

Error: Failed to move `$new` to `$filename: $!`
 When a modified or new message is written to disk, it is first written to a temporary file in the folder directory. Then, the new file is moved to replace the existing file. Apparently, the latter fails.

Error: Method bounce requires To, Cc, or Bcc
 The message **bounce()** method forwards a received message off to someone else without modification; you must specified it’s new destination. If you have the urge not to specify any destination, you probably are looking for **reply()**. When you wish to modify the content, use **forward()**.

Error: Method forwardAttach requires a preamble

Error: Method forwardEncapsulate requires a preamble

Error: No address to create forwarded to.
 If a forward message is created, a destination address must be specified.

Error: No default mailer found to send message.
 The message **send()** mechanism had not enough information to automatically find a mail transfer agent to sent this message. Specify a mailer explicitly using the `via` options.

Error: No rebuild rule \$name defined.

Error: Only **build()** Mail::Message's; they are not in a folder yet

You may wish to construct a message to be stored in a some kind of folder, but you need to do that in two steps. First, create a normal Mail::Message, and then add it to the folder. During this **Mail::Box::addMessage()** process, the message will get **coerce()**-d into the right message type, adding storage information and the like.

Error: Package \$package does not implement \$method.

Fatal error: the specific package (or one of its superclasses) does not implement this method where it should. This message means that some other related classes do implement this method however the class at hand does not. Probably you should investigate this and probably inform the author of the package.

Error: Unable to read delayed body.

For some reason, the header of the message could be read, but the body cannot. Probably the file has disappeared or the permissions were changed during the progress of the program.

Error: Unable to read delayed head.

Mail::Box tries to be *lazy* with respect to parsing messages. When a directory organized folder is opened, only the filenames of messages are collected. At first use, the messages are read from their file. Apparently, a message is used for the first time here, but has disappeared or is unreadable for some other reason.

Error: coercion starts with some object

SEE ALSO

This module is part of Mail-Box distribution version 3.009, built on August 18, 2020. Website: <http://perl.overmeer.net/CPAN/>

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