NAME

Mail::Message::Head::ResentGroup − header fields tracking message delivery

INHERITANCE

```
 Mail::Message::Head::ResentGroup
   is a Mail::Message::Head::FieldGroup
   is a Mail::Reporter
```

SYNOPSIS

```
 use Mail::Message::Head::ResentGroup;
 my $rg = Mail::Message::Head::ResentGroup−>new(head => $head,
              From => 'me@home.nl', To => 'You@tux.aq');
 $head−>addResentGroup($rg);

 my $rg = $head−>addResentGroup(From => 'me');

 my @from = $rg−>From;

 my @rgs = $head−>resentGroups;
 $rg[2]−>delete if @rgs > 2;
```

DESCRIPTION

A *resent group* is a set of header fields which describe one intermediate step in the message transport. Resent groups **have NOTHING to do** with user activety; there is no relation to the `user's` sense of creating reply, forward, or bounce messages at all!

Extends "DESCRIPTION" in Mail::Message::Head::FieldGroup.

METHODS

Extends "METHODS" in Mail::Message::Head::FieldGroup.

Constructors

Extends "Constructors" in Mail::Message::Head::FieldGroup.

`$obj`−>**clone**()

Inherited, see "Constructors" in Mail::Message::Head::FieldGroup

`$obj`−>**from**([<$head|$message>, `%options`])

WARNING: this method has two very different purposes. For backward compatibility reasons, without arguments **resentFrom()** is called to return the `From` field of this resent group.

With any arguments, a list of `Mail::Message::Head::ResentGroup` objects is returned, taken from the specified `$message` or message `$head`.

`$obj`−>**implementedTypes**()
Mail::Message::Head::ResentGroup−>**implementedTypes**()

Inherited, see "Constructors" in Mail::Message::Head::FieldGroup

Mail::Message::Head::ResentGroup−>**new**([$fields], `%options`)

Create an object which maintains one set of resent headers. The `$fields` are Mail::Message::Field objects from the same header.

`%options` which start with capitals will be used to construct additional fields. These option names are prepended with `Resent−*`, keeping the capitization of what is specified.

−Option	−−Defined in	−−Default
Bcc		undef
Cc		undef
Date		<now>
Delivered−To		undef
From		<required>
Message−ID		<uniquely created>
Received		<created>
Return−Path		undef
Sender		undef
To		undef
head		<created automatically>
log	Mail::Reporter	'WARNINGS'
message_head		undef
software	Mail::Message::Head::FieldGroup	undef
trace	Mail::Reporter	'WARNINGS'
type	Mail::Message::Head::FieldGroup	undef
version	Mail::Message::Head::FieldGroup	undef

Bcc => STRING|OBJECT|OBJECTS
Cc => STRING|OBJECT|OBJECTS
Date => STRING

When this resent-group is dispatched by the resender of the message. Like the `Date` field, it is not the date and time that the message was actually transported.

Delivered-To => STRING|FIELD
From => STRING|OBJECT|OBJECTS
Message-ID => STRING|FIELD

The `Resent−Message−ID` which identifies this resent group. The FIELD must contain a message id.

Received => STRING

The `Received` field is the starting line for a resent group of header lines. If it is not defined, one is created using **createReceived()**.

Return-Path => STRING|FIELD
Sender => STRING|OBJECT

Only permitted when more than one from address is specified. In this case, it selects one of these addresses as the main originator of the message.

To => STRING|OBJECT|OBJECTS
head => OBJECT

The header where the data is stored in. By default a Mail::Message::Head::Partial is created for you.

log => LEVEL
message_head => HEAD

The real header of the message where this resent group is part of. The `head` used in this class is only a container for a subset of fields.

software => STRING
trace => LEVEL
type => STRING
version => STRING

The header

Extends "The header" in Mail::Message::Head::FieldGroup.

`$obj−>`**add**(<$field, `$value`> | `$object`)

All fields appear only once, so `add()` behaves as **set()**.

`$obj`−>**addFields**([$fieldnames])

Not applicable to resent-groups: the same name can appear in more than one group. Therefore, a FIELDNAME is sufficiently distinctive.

`$obj`−>**attach**($head)

Inherited, see "The header" in Mail::Message::Head::FieldGroup

`$obj`−>**delete**()

Inherited, see "The header" in Mail::Message::Head::FieldGroup

`$obj`−>**fieldNames**()

Inherited, see "The header" in Mail::Message::Head::FieldGroup

`$obj`−>**fields**()

Inherited, see "The header" in Mail::Message::Head::FieldGroup

`$obj`−>**head**()

Inherited, see "The header" in Mail::Message::Head::FieldGroup

`$obj`−>**messageHead**([$head])

Returns (optionally after setting) the real header where this resent group belongs to. This may be undef at creation, and then later filled in when **Mail::Message::Head::Complete::addResentGroup()** is called.

`$obj`−>**orderedFields**()

Returns the fields in the order as should appear in header according to rfc2822. For the `Resent−*` fields of the group, the order is not that important, but the `Return−Path`, `Delivered−To`, and `Received` must come first. Only fields mentioned in the RFC are returned.

`$obj`−>**set**(<$field, `$value`> | `$object`)

Set a `$field` to a (new) `$value`. The`$field` names which do not start with 'Resent−*' b ut need it will have that added. It is also an option to specify a fully prepared message field `$object`. In any case, a field `$object` is returned.

example:

```
my $this = Mail::Message::Head::ResentGroup−>new;
$this−>set(To => 'fish@tux.aq');
$msg−>addResentGroup($this);
$msg−>send;

$msg−>bounce(To => 'fish@tux.aq')−>send;   # the same

my $this = Mail::Message::Head::ResentGroup
    −>new(To => 'fish@tux.aq');
```

Access to the header

Extends "Access to the header" in Mail::Message::Head::FieldGroup.

`$obj`−>**bcc**()

In scalar context, the `Resent−Bcc` field is returned. In list context, the addresses as specified within the bcc field are returned as Mail::Address objects. Bcc fields are not transmitted (hidden for external parties).

`$obj`−>**cc**()

In scalar context, the `Resent−Cc` field is returned. In list context, the addresses as specified within the cc field are returned as Mail::Address objects.

`$obj`−>**date**()

Returns the `Resent−Date` field, or `undef` if it was not defined.

`$obj`−>**dateTimestamp**()
The timestamp as stored within the `Resent−Date` field converted to local system time.

`$obj`−>**deliveredTo**()
The field which describes the `Delivered−To` of this resent group.

`$obj`−>**destinations**()
Returns a list of all addresses specified in the `Resent−To`, `−Cc`, and `−Bcc` fields of this resent group.

`$obj`−>**isResentGroupFieldName**($name)
Mail::Message::Head::ResentGroup−>**isResentGroupFieldName**($name)
`$obj`−>**messageId**()
Returns the message-ID used for this group of resent lines.

`$obj`−>**received**()
The field which describes the `Received` data of this resent group.

`$obj`−>**receivedTimestamp**()
The timestamp as stored within the `Received` field converted to local system time.

`$obj`−>**resentFrom**()
In scalar context, the `Resent−From` field is returned. In list context, the addresses as specified within the from field are returned as Mail::Address objects.

For reasons of backward compatibility and consistency, the **from()** method will return the same as this method.

`$obj`−>**returnPath**()
The field which describes the `Return−Path` of this resent group.

`$obj`−>**sender**()
In scalar context, the `Resent−Sender` field is returned. In list context, the addresses as specified within the from field are returned as Mail::Address objects.

`$obj`−>**software**()
Inherited, see "Access to the header" in Mail::Message::Head::FieldGroup

`$obj`−>**to**()
In scalar context, the `Resent−To` field is returned. In list context, the addresses as specified within the to field are returned as Mail::Address objects.

`$obj`−>**type**()
Inherited, see "Access to the header" in Mail::Message::Head::FieldGroup

`$obj`−>**version**()
Inherited, see "Access to the header" in Mail::Message::Head::FieldGroup

Internals

Extends "Internals" in Mail::Message::Head::FieldGroup.

`$obj`−>**collectFields**([$name])
Inherited, see "Internals" in Mail::Message::Head::FieldGroup

`$obj`−>**createReceived**([$domain])
Create a received field for this resent group. This is automatically called if none was specified during creation of this resent group object.

The content of this field is described in RFC2821 section 4.4. It could use some improvement.

`$obj`−>**detected**($type, `$software`, `$version`)
Inherited, see "Internals" in Mail::Message::Head::FieldGroup

Error handling

Extends "Error handling" in Mail::Message::Head::FieldGroup.

`$obj`−>**AUTOLOAD**()
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**addReport**($object)
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**defaultTrace**([$level]|[$loglevel, `$tracelevel`]|[$level, `$callback`])
Mail::Message::Head::ResentGroup−>**defaultTrace**([$level]|[$loglevel, `$tracelevel`]|[$level, `$callback`])
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**details**()
Inherited, see ‘‘Error handling’’ in Mail::Message::Head::FieldGroup

`$obj`−>**errors**()
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**log**([$level, [$strings]])
Mail::Message::Head::ResentGroup−>**log**([$level, [$strings]])
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**logPriority**($level)
Mail::Message::Head::ResentGroup−>**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

`$obj`−>**print**([$fh])
Inherited, see ‘‘Error handling’’ in Mail::Message::Head::FieldGroup

`$obj`−>**report**([$level])
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**reportAll**([$level])
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**trace**([$level])
Inherited, see ‘‘Error handling’’ in Mail::Reporter

`$obj`−>**warnings**()
Inherited, see ‘‘Error handling’’ in Mail::Reporter

Cleanup

Extends ‘‘Cleanup’’ in Mail::Message::Head::FieldGroup.

`$obj`−>**DESTROY**()
Inherited, see ‘‘Cleanup’’ in Mail::Reporter

DIAGNOSTICS

Error: Message header required for creation of ResentGroup.
It is required to know to which header the resent-group is created. Use the `head` option. Maybe you should use **Mail::Message::Head::Complete::addResentGroup()** with DATA, which will organize the correct initiations for you.

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.

SEE ALSO

This module is part of Mail-Message distribution version 3.012, built on February 11, 2022. Website: *http://perl.overmeer.net/CPAN/*

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