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# **gs.group.messages.base Documentation**

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**GroupServer.org**

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## Core messages support for GroupServer

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Contents:

### 1.1 `gs.group.messages.base` API

There are two parts to the API supplied by the `gs.group.messages.base` product: there is a *viewlet* and some *utilities*.

#### 1.1.1 Viewlet

The `gs.group.messages.base` product supplies a *viewlet* — for the group page (`gs.group.home`) — called `gs-group-messages-base`. In turn it contains a *viewlet manager* that creates a slot for the various views of the list of messages. (In the user-documentation this is generally referred to as *the archive*.)

The viewlet manager provides the interface `interfaces.IGroupHomepageMessages`.

**class** `gs.group.messages.base.interfaces.IGroupHomepageMessages`

A viewlet manager for the messages on the group homepage

The viewlets that provide lists for the *Group* page register against this interface.

```
<browser:viewlet
  name="gs-group-messages-topics-tab"
  manager="gs.group.messages.base.interfaces.IGroupHomepageMessages"
  template="browser/templates/topics.pt"
  class=".topicstab.TopicsTab"
  permission="zope2.Public"
  weight="10"
  title="Topics" />
```

The viewlets and viewlet manager combine to create tabs, using the [Bootstrap tabs](#) system. The title of each viewlet becomes the tab-title, with the content of the viewlet becoming the tab-panel. All the tabs are marked-up with [WAI:ARIA roles](#). The viewlet itself has the HTML id attribute value `gs-group-messages-base-tabs`

### 1.1.2 Utilities

There are utilities for *file icons* and for formatting *file sizes*. These happen to be used in many different contexts, so the functions are placed here.

#### File icons

In GroupServer the file icons are actually characters. The icon font supplied by `gs.content.css` turns the character into a glyph.

`gs.group.messages.base.get_icon(mimeType)`

Get the icon (character) for a particular MIME-type

**Parameters** `mimeType` (*str*) – The mime-type to look up

**Returns** The character for the icon representing the MIME type

**Return type** `unichr`

#### Example

Call the function:

```
f['icon'] = get_icon(f['mime_type'])
```

Use the icon in the page template:

```
<a class="icon-alone" href="#" tal:attributes="href f/url; title f/name">
  <span aria-hidden="true" data-icon="#x1f3a8;"
    tal:attributes="data-icon f/icon"></span>
  <span class="screen-reader-text">File type:
    <span tal:content="f/mime_type">application/octet-stream</span>
  </span>
</a>
```

#### File sizes

File sizes are displayed in the list of attached posts in both email and on the web, and on the *Image* page, hence the presence of the `file_size_format()` function here. It formats the size so it has the appropriate unit (b, kb, mb, gb, tb...) after it, or it displays empty.

`gs.group.messages.base.file_size_format(bytes)`

A humanized string for a given amount of bytes

**Parameters** `bytes` (*int*) – The number of bytes

**Returns** The file size with the units

**Return type** `str`

**See also:**

The original version of this function [http://python.todaysummary.com/q\\_python\\_11123.html](http://python.todaysummary.com/q_python_11123.html)

## 1.2 Hierarchical and temporal navigation

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### 1.2.1 Hierarchy

There is a hierarchy of pages in GroupServer. The **primary** hierarchy is (from most general to most specific) Site, Group, Topic, Post, Image. This hierarchy is shown in the *breadcrumbs* going from left to right. Conceptually the site is at the top and any **up** link goes up to the page that is higher in the hierarchy, so there is a slightly awkward mapping of *Left* in the breadcrumbs onto *Up* in the navigation links.

It is possible that in future versions of GroupServer that this mapping may be removed, so the *Left* navigation button (or swiping to the right) will go the containing (more general) page.

### 1.2.2 Temporal navigation

The temporal navigation of messages in a group may seem inconsistent. However, it follows the principal of supporting the user's task: *follow closely*, or *keep in the loop*. We switch mode because the user is switching mode; this is in tension with consistency.

#### Follow closely

If the user is following something closely then the posts are shown in a strict temporal order with the oldest post first. This is similar to a book, or a diary. There is **one page** that follows this order: the **Topic page**. This makes reading the conversation much easier.

Two other pages take their queue from the Topic page for organising the **navigation links**.

- **The Post page** has four links: First, Older, Up, Newer, Last.
- **The Image page** has three links: Older, Up, Newer. The *Up* link goes to the post.

Because *Up* has been taken for the page *hierarchy*, *Left* has been mapped to *Up* in the sense of moving higher on the *Topic* page.

#### Keep in the loop

*Keeping in the loop* is the other task supported by GroupServer. For interfaces that support this task the posts (or topics) are displayed from newest to oldest. These pages include:

- The *Site* page, which lists topics
- The *Group* page that lists topics, post, and files
- The rarely visited *Topics* page
- The even more rarely visited *Posts* page

In all these pages the *Left* navigation button has been mapped to *Up* in the sense of moving higher on in the list. So as all these interfaces show posts from newest to oldest *Left* is the same as *Newer*.

## 1.3 Changelog

### 1.3.1 3.2.0 (2015-10-30)

- Adding the `file_size_format` utility
- Adding unit tests
- Adding Sphinx documentation

### 1.3.2 3.1.2 (2015-02-04)

- Naming the reStructuredText files as such
- Pointing to [GitHub](#) as the primary repository

### 1.3.3 3.1.1 (2014-03-26)

- Switched to Unicode literals
- Minor code cleanup

### 1.3.4 3.1.0 (2013-04-21)

- Added the `get_icon` utility function
- Updated the metadata

### 1.3.5 3.0.0 (2013-02-20)

- Added accessibility with WAI-ARIA roles
- Switching to Twitter Bootstrap tabs for the new GroupServer UI
- Taking over responsibility of the *Messages* tabs from the *Group* page

### 1.3.6 2.0.1 (2012-12-17)

- Following the updated search JavaScript

### 1.3.7 2.0.0 (2012-06-06)

- Added a viewlet to load the search JavaScript on the Group page

### 1.3.8 1.1.0 (2011-04-21)

- Updated help

### 1.3.9 1.0.0 (2011-02-18)

Initial version

This is the core code for displaying messages in a `GroupServer` group. This module supplies:

- *A viewlet manager* for displaying the *Messages* tab on the *Group* page, and
- *Some utilities* that are useful for displaying messages.

[Hierarchical and temporal navigation](#) is also discussed here, because it mostly comes up with the design of the pages associated with messages.

## 1.4 Indices and tables

- [genindex](#)
- [modindex](#)
- [search](#)

## 1.5 Resources

- Documentation: <http://groupserver.readthedocs.io/projects/gsgroupmessagesbase/>
- Code repository: <https://github.com/groupserver/gs.group.messages.base>
- Questions and comments to <http://groupserver.org/groups/development>
- Report bugs at <https://redmine.iopen.net/projects/groupserver>



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