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# **PAS Plugin MemberPropertyToGroup Documentation**

*Release 1.0a1*

**kitconcept**

**Mar 05, 2018**



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## Contents

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<b>1</b>	<b>Features</b>	<b>3</b>
<b>2</b>	<b>Documentation</b>	<b>5</b>
<b>3</b>	<b>Installation</b>	<b>7</b>
<b>4</b>	<b>Contribute</b>	<b>9</b>
<b>5</b>	<b>Support</b>	<b>11</b>
<b>6</b>	<b>Development</b>	<b>13</b>
<b>7</b>	<b>Credits</b>	<b>15</b>
<b>8</b>	<b>License</b>	<b>17</b>
8.1	Features . . . . .	17
8.2	Extensibility . . . . .	24
8.3	Indices and tables . . . . .	25





Plone PAS plugin to create virtual groups based on member properties.

The main use case are organisations that have an existing LDAP infrastructure that organises groups through member properties instead of LDAP groups.

If you have a vanilla Plone site without LDAP, you most likely do not need this plugin.



# CHAPTER 1

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## Features

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- Create virtual groups based on member properties
- Create multiple virtual groups based member properties
- Create virtual group based on a member properties prefix
- Grant local permissions based on virtual member properties groups



## CHAPTER 2

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### Documentation

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The full documentation for integrators and developers can be found in the “docs” folder. It is also available online at <http://paspluginsmemberpropertytogroup.readthedocs.org>.



## CHAPTER 3

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### Installation

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Install `pas.plugins.memberpropertytogroup` by adding it to your buildout:

```
[buildout]
...
eggs =
    pas.plugins.memberpropertytogroup
```

and then run “bin/buildout”.

If you are on Plone 3, you need to include the `plone.app.registry KGS` (know good set) and add the `[plone3]` extras to fetch the additional dependencies that are not part of Plone 3:

```
[buildout]
extends =
    http://dist.plone.org/release/3.3.6/versions.cfg
    http://good-py.appspot.com/release/plone.app.registry/1.0b2?plone=3.3.6
...
eggs =
    pas.plugins.memberpropertytogroup [plone3]
```

You can find a working example of a Plone 3 buildout here: <https://github.com/kitconcept/pas.plugins.memberpropertytogroup/blob/master/plone-3.3.x.cfg>



## CHAPTER 4

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### Contribute

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- [Source code at Github](#)
- [Issue tracker at Github](#) or [same issues on Kanban board at Waffle.io](#)
- [Documentation at ReadTheDocs:](#)



## CHAPTER 5

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Support

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If you are having issues, please let us know.



## CHAPTER 6

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### Development

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**Plone 3** There must be an `python2.4` binary available in system path, then:

```
$ bootstrap-3.3.x.sh
```

**Plone 4** There must be an `python` binary available in system path pointing to Python 2.7 , then:

```
$ bootstrap-4.3.x.sh
```

**Plone 5** There must be an `python` binary available in system path pointing to Python 2.7 , then:

```
$ bootstrap-5.0.x.sh
```



## CHAPTER 7

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Credits

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The development of this plugin has been kindly sponsored by [Bonn University](#).



kitconcept

Developed by [kitconcept](#).

Icon by [FamFamFam](#)



The project is licensed under the GPLv2.

Contents:

## 8.1 Features

### 8.1.1 Create virtual groups based on member properties

**As administrator I can create a group based on member properties**

```
Scenario: As administrator I can create a group based on member properties
  Given a user with the property 'usertype' = 'employee'
    and a logged-in manager
  When I create a virtual group 'Employees' with the property 'usertype' = 'employee'
  Then the user is member of the group 'Employees'
```

#### Given

- a user with the property 'usertype' = 'employee'
- a logged-in manager

#### When

- I create a virtual group 'Employees' with the property 'usertype' = 'employee'.



Manager ▾

Search Site    
 only in current section

Home

## Site Setup

### Plone Configuration

- Add-ons
- Calendar
- Configuration Registry
- Content Rules
- Discussion
- Editing
- Errors
- HTML Filtering
- Image Handling
- Language
- Mail
- Maintenance
- Markup
- Navigation
- Search
- Security
- Site
- Syndication
- Themes
- TinyMCE Visual Editor
- Types
- Users and Groups
- Zope Management Interface

### Add-on Configuration

- Member Property To Group

You are here: Home

Site Setup

## Member Properties To Group Settings

### Users Group Property Field

Name of property (key) on users property-sheet used as group mapping.

### Mapped Groups

Mapped groups to be processed. On group per line. This creates valid plone groups, do not add them at other places. If user-property-value ends with an asterisk (\*) all values starting with the given string are matching. Format: user-property-value|group-id|title|description|email

employee|Employees|Employees|Employees (Virtual Group)|my-virtual-group@example.com

### Users Group Property Field

Name of property (key) on users property-sheet used as group mapping.

### Mapped Groups

Mapped groups to be processed. On group per line. This creates valid plone groups, do not add them at other places. If user-property-value ends with an asterisk (\*) all values starting with the given string are matching. Format: user-property-value|group-id|title|description|email

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## Then

- the user is member of the group 'Employees'



Manager ▾

 Search Site  
 only in current section 

Home

You are here: Home

## Site Setup

## Plone Configuration

- Add-ons
- Calendar
- Configuration Registry
- Content Rules
- Discussion
- Editing
- Errors
- HTML Filtering
- Image Handling
- Language
- Mail
- Maintenance
- Markup
- Navigation
- Search
- Security
- Site
- Syndication
- Themes
- TinyMCE Visual Editor
- Types
- Users and Groups
- Zope Management Interface

## Add-on Configuration

- Member Property To Group

[Personal Information](#) [Personal Preferences](#) **[Group Memberships](#)**

## Group memberships for (test-user)

[Up to Users Overview](#)

## Current group memberships

Group Name	Remove
Authenticated Users (Virtual Group)	<input type="checkbox"/>
Students	<input type="checkbox"/>

## Assign to groups

<input type="checkbox"/> Group Name
<input type="checkbox"/> Administrators
<input type="checkbox"/> Reviewers
<input type="checkbox"/> Site Administrators

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[Site Map](#) [Accessibility](#) [Contact](#)

## 8.1.2 Create multiple virtual groups based member properties

### As administrator I can create a group based on multiple member properties

```
Scenario: As administrator I can create a group based on multiple member properties
# Pass Execution Not implemented yet
Given a user 'John Doe' with the property 'usertype' = 'employee'
    and a user 'Jane Doe' with the property 'city' = 'bonn'
    and a logged-in manager
When I create a virtual group 'Employees' with the property 'usertype' = 'employee'
    and I add another virtual group 'Locals' with the property 'city' = 'bonn' in_
↪ slot 1
    Then the user 'John Doe' is member of the group 'Employees'
    and the user 'Jane Doe' is member of the group 'Locals'
```

#### Given

- a user 'John Doe' with the property 'usertype' = 'employee'
- a user 'Jane Doe' with the property 'city' = 'bonn'
- a logged-in manager

#### When

- I create a virtual group 'Employees' with the property 'usertype' = 'employee'

- I add another virtual group ‘Locals’ with the property ‘city’ = ‘bonn’ in slot 1

The screenshot shows the Plone administration interface for the 'Member Properties To Group' settings. The left sidebar contains a 'Site Setup' menu with various configuration options. The main content area is titled 'Member Properties To Group Settings' and is divided into three sections, each for a different 'Users Group Property Field'. Each section includes a text input for the property name and a text area for 'Mapped Groups'. The first section has 'usertype' as the property and a list of groups including 'Employee|Employees|Employees|Employees (Virtual Group)|my-virtual-group@example.com'. The second section has 'city' as the property and a list of groups including 'bonn|Locals|Locals|Locals (Virtual Group)|my-virtual-group@example.com'. The third section is currently empty. At the bottom of the configuration area, there are buttons for 'Add property', 'Remove last property', 'Save', and 'Cancel'. The footer of the page includes the Plone logo, a search bar, and a 'Manager' dropdown menu.

## Then

- the user ‘John Doe’ is member of the group ‘Employees’
- the user ‘Jane Doe’ is member of the group ‘Locals’



Manager ▾

   
 only in current section

Home

You are here: Home

## Site Setup

## Plone Configuration

- Add-ons
- Calendar
- Configuration Registry
- Content Rules
- Discussion
- Editing
- Errors
- HTML Filtering
- Image Handling
- Language
- Mail
- Maintenance
- Markup
- Navigation
- Search
- Security
- Site
- Syndication
- Themes
- TinyMCE Visual Editor
- Types
- Users and Groups
- Zope Management Interface

## Add-on Configuration

- Member Property To Group

[Personal Information](#) [Personal Preferences](#) **[Group Memberships](#)**

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[Up to Users Overview](#)

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Group Name	Remove
Authenticated Users (Virtual Group)	<input type="checkbox"/>
Students	<input type="checkbox"/>

Remove from selected groups

## Assign to groups

<input type="checkbox"/> Group Name
<input type="checkbox"/> Administrators
<input type="checkbox"/> Reviewers
<input type="checkbox"/> Site Administrators

Add user to selected groups

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## 8.1.3 Create virtual group based on a member properties prefix

### As administrator I can create a group based on member properties prefixes

Scenario: As administrator I can create a group based on member properties prefixes

Given a user with the property 'student\_id' = '1234567'  
 and a logged-in manager

When I create a virtual group 'Students' with the property 'student\_id' = '123\*'  
 Then the user is member of the group 'Students'

#### Given

- a user with the property 'student\_id' = '1234567'
- a logged-in manager

#### When

- I create a virtual group 'Students' with the property 'student\_id' = '123\*'



Manager ▾

Search Site    
 only in current section

Home

## Site Setup

### Plone Configuration

- Add-ons
- Calendar
- Configuration Registry
- Content Rules
- Discussion
- Editing
- Errors
- HTML Filtering
- Image Handling
- Language
- Mail
- Maintenance
- Markup
- Navigation
- Search
- Security
- Site
- Syndication
- Themes
- TinyMCE Visual Editor
- Types
- Users and Groups
- Zope Management Interface

### Add-on Configuration

- Member Property To Group

You are here: Home

Site Setup

## Member Properties To Group Settings

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### Users Group Property Field

Name of property (key) on users property-sheet used as group mapping.

### Mapped Groups

Mapped groups to be processed. On group per line. This creates valid plone groups, do not add them at other places. If user-property-value ends with an asterisk (\*) all values starting with the given string are matching. Format: user-property-value|group-id|title|description|email

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## Then

- the user is member of the group 'Students'



Manager ▾

   
 only in current section

Home

## Site Setup

## Plone Configuration

- Add-ons
- Calendar
- Configuration Registry
- Content Rules
- Discussion
- Editing
- Errors
- HTML Filtering
- Image Handling
- Language
- Mail
- Maintenance
- Markup
- Navigation
- Search
- Security
- Site
- Syndication
- Themes
- TinyMCE Visual Editor
- Types
- Users and Groups
- Zope Management Interface

## Add-on Configuration

- Member Property To Group

You are here: Home

[Personal Information](#) [Personal Preferences](#) **[Group Memberships](#)**

## Group memberships for (test-user)

[Up to Users Overview](#)

## Current group memberships

Group Name	Remove
Authenticated Users (Virtual Group)	<input type="checkbox"/>
Students	<input type="checkbox"/>

Remove from selected groups

## Assign to groups

<input type="checkbox"/> Group Name
<input type="checkbox"/> Administrators
<input type="checkbox"/> Reviewers
<input type="checkbox"/> Site Administrators

Add user to selected groups

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## 8.1.4 Grant local permissions based on virtual member properties groups

### As reviewer I can grant permissions based on member properties groups

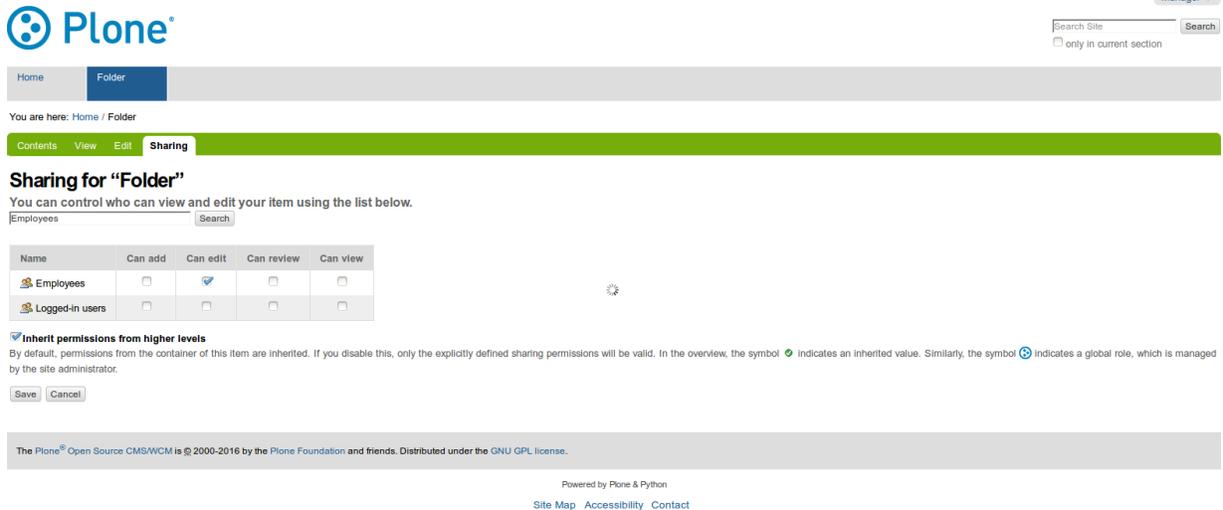
```
Scenario: As reviewer I can grant permissions based on member properties groups
  Given a user with the property 'usertype' = 'employee'
    and a virtual group 'Employees' with the property 'usertype' = 'employee'
    and a logged-in manager
  When I grant the virtual group 'Employees' the 'Edit' permission on a folder
```

#### Given

- a user with the property 'usertype' = 'employee'
- a virtual group 'Employees' with the property 'usertype' = 'employee'

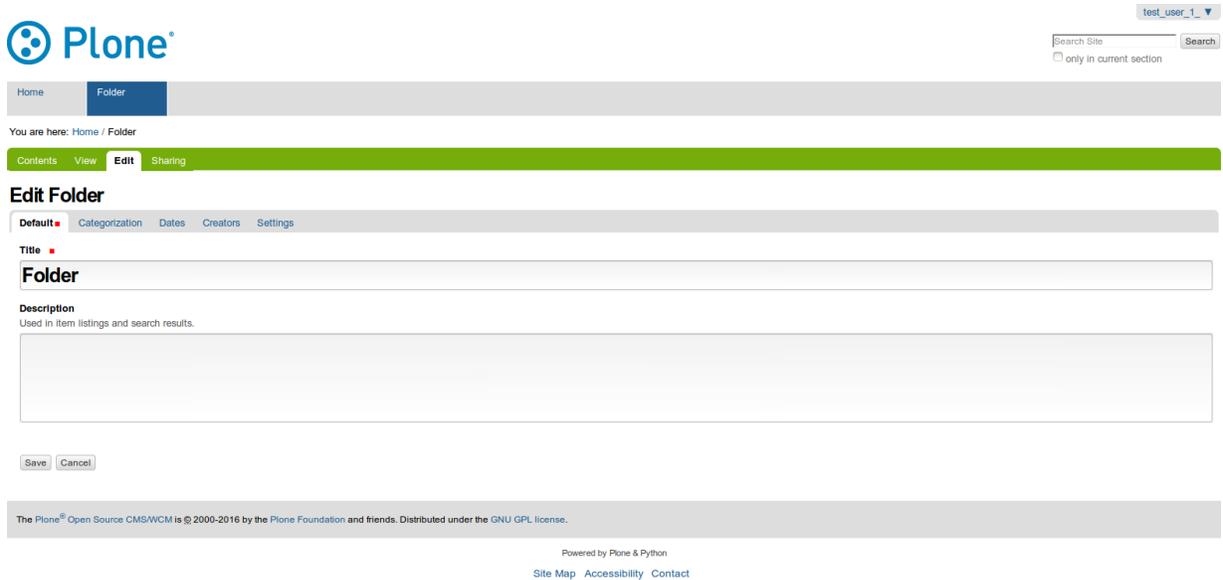
#### When

- I grant the virtual group the 'edit' permission on a folder.



Then

- the user can edit the folder.



## 8.2 Extensibility

### 8.2.1 Reason for custom code

`pas.plugins.memberpropertytogroup` has one shortcoming: With this approach it is not possible to list the groups a members in a performant way. One would have to loop over all member instances for each group id, which gets expensive soon if there are many users.

Specific backends - or user providers - offering its specific ways to get around this. I.e for users stored in a SQL database the group may be queried efficiently. The same may apply for LDAP, dependent on how the users are stored.

For other storages or for the default Plone users this does not apply

## 8.2.2 Solution

The plugins method `getGroupMembers` is responsible to return the members of a given group. There a utility component is queried providing the interface `pas.plugins.memberpropertytogroup.interfaces.IGetGroupMembers`. If there is no utility found an empty tuple is returned. This is the default behavior.

Integrators using this module may provide their own solution by registering a utility for this interface. In case a utility was found, it gets called with the plugin instance and the group id as parameters. The result of the call is then considered as a list of members of the group and returned as is.

## 8.2.3 Example

Here is a simple but complete example for a specific `IGetGroupMembers` providing function.

In a file `getgroupmembers.py`:

```
from pas.plugins.memberpropertytogroup.interfaces import IGetGroupMembers
from zope.component import provider

@provider(IGetGroupMembers)
def example_group_member_fetcher(plugin, group_id):
    # ... here the real code to get the groups members
    # fake here as example
    group_members = ('foo', 'bar', 'baz')
    return group_members
```

And a line of zcml configuration in `configure.xml`:

```
...
<utility component=".getgroupmembers.example_group_member_fetcher" />
...
```

## 8.3 Indices and tables

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