
PAS Plugin MemberPropertyToGroup Documentation

Release 1.0a1

kitconcept

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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

Features

- 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

Documentation

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

Installation

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

Contribute

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

CHAPTER 5

Support

If you are having issues, [please let us know](#).

CHAPTER 6

Development

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

Credits



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 ▾

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Add-on Configuration

- Member Property To Group

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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.

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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’

The screenshot shows the Plone Manager interface. At the top, there's a 'Plone' logo and a 'Manager' dropdown. Below the logo is a 'Home' button. The main navigation bar includes 'Site Setup', 'Personal Information', 'Personal Preferences', and 'Group Memberships' (which is highlighted). The 'Group Memberships' page is titled 'Group memberships for (test-user)' and includes a link 'Up to Users Overview'. It shows 'Current group memberships' in a table with columns 'Group Name' and 'Remove'. The table lists 'Authenticated Users (Virtual Group)' and 'Students'. Below the table is a 'Remove from selected groups' button. The 'Assign to groups' section shows a list of groups: 'Administrators', 'Reviewers', and 'Site Administrators', each with a checkbox. There is an 'Add user to selected groups' button at the bottom of this section. The left sidebar contains various site configuration options like 'Add-ons', 'Calendar', 'Configuration Registry', etc. The footer includes the Plone Foundation copyright notice and links for 'Site Map', 'Accessibility', and '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 web interface. At the top left is the Plone logo. On the right, there's a 'Manager' dropdown and a search bar. Below the logo is a 'Home' button. A left sidebar contains a 'Site Setup' menu with various configuration options like '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', and 'Zope Management Interface'. The main content area is titled 'Member Properties To Group Settings'. It has a breadcrumb 'You are here: Home' and a 'Site Setup' link. The page is divided into three sections, each with a 'Users Group Property Field' and 'Mapped Groups' subsection. The first section has a property field 'usertype' and a mapped group 'employee|Employees|Employees|Employees (Virtual Group)|my-virtual-group@example.com'. The second section has a property field 'city' and a mapped group 'bonn|Locals|Locals|Locals (Virtual Group)|my-virtual-group@example.com'. The third section is empty. At the bottom of the main area are buttons: 'Add property', 'Remove last property', 'Save', and 'Cancel'. A footer bar contains the Plone license information and links for 'Site Map', 'Accessibility', and 'Contact'.

Then

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

The screenshot shows the Plone 5.0 user interface. At the top, there's a 'Plone' logo and a 'Manager' dropdown menu. Below the logo is a 'Home' button. The main navigation menu on the left includes 'Site Setup', 'Plone Configuration' (with sub-items like 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, and Zope Management Interface), and 'Add-on Configuration' (with sub-item Member Property To Group). The main content area shows the 'Group Memberships' page for 'test-user'. It includes a breadcrumb 'You are here: Home', tabs for 'Personal Information', 'Personal Preferences', and 'Group Memberships', and a link 'Up to Users Overview'. The 'Current group memberships' section shows a table with 'Group Name' and 'Remove' columns, listing 'Authenticated Users (Virtual Group)' and 'Students'. Below this is a section 'Assign to groups' with a table listing 'Group Name' and 'Add user to selected groups' button. The footer contains copyright information and links for 'Powered by Plone & Python', 'Site Map', 'Accessibility', and 'Contact'.

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 ▾

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Then

- the user is member of the group ‘Students’

The screenshot shows the Plone user interface. At the top, there's a 'Plone' logo and a 'Manager' dropdown menu. Below the logo is a 'Home' button. The main navigation menu on the left includes 'Site Setup' (with sub-items like 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, and Zope Management Interface) and 'Add-on Configuration' (with sub-item Member Property To Group). The main content area shows the 'Group Memberships' page for 'test-user'. It includes a breadcrumb 'You are here: Home', tabs for 'Personal Information', 'Personal Preferences', and 'Group Memberships', and a link 'Up to Users Overview'. The 'Current group memberships' section shows a table with columns 'Group Name' and 'Remove'. The table lists 'Authenticated Users (Virtual Group)' and 'Students'. Below this is a 'Remove from selected groups' button. The 'Assign to groups' section shows a list of groups: 'Administrators', 'Reviewers', and 'Site Administrators'. Below this is an 'Add user to selected groups' button. At the bottom, there's a footer with the Plone logo and text: 'The Plone® Open Source CMS/WCM is © 2000-2016 by the Plone Foundation and friends. Distributed under the GNU GPL license.' and 'Powered by Plone & Python'. There are also links for 'Site Map', 'Accessibility', and 'Contact'.

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

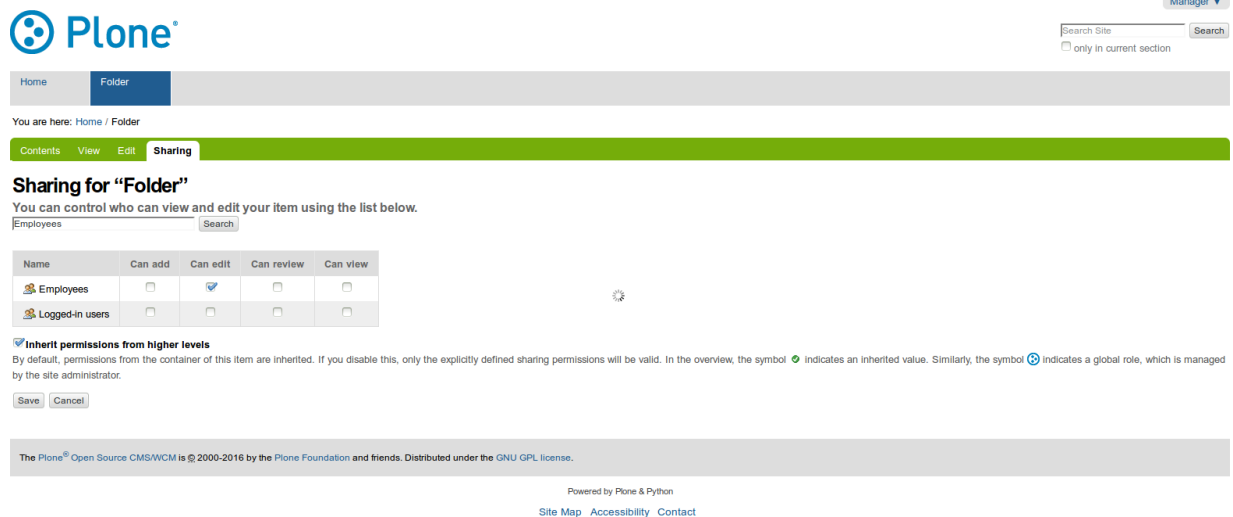
When I grant the virtual group 'Employees' the 'Edit' permission on a folder

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.



Plone

Manager

Search Site Search

☐ only in current section

Home Folder

You are here: Home / Folder

Contents View Edit **Sharing**



Sharing for “Folder”

You can control who can view and edit your item using the list below.

Employees Search

Name	Can add	Can edit	Can review	Can view
Employees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logged-in users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☒ **Inherit permissions from higher levels**

By default, permissions from the container of this item are inherited. If you disable this, only the explicitly defined sharing permissions will be valid. In the overview, the symbol  indicates an inherited value. Similarly, the symbol  indicates a global role, which is managed by the site administrator.

Save Cancel

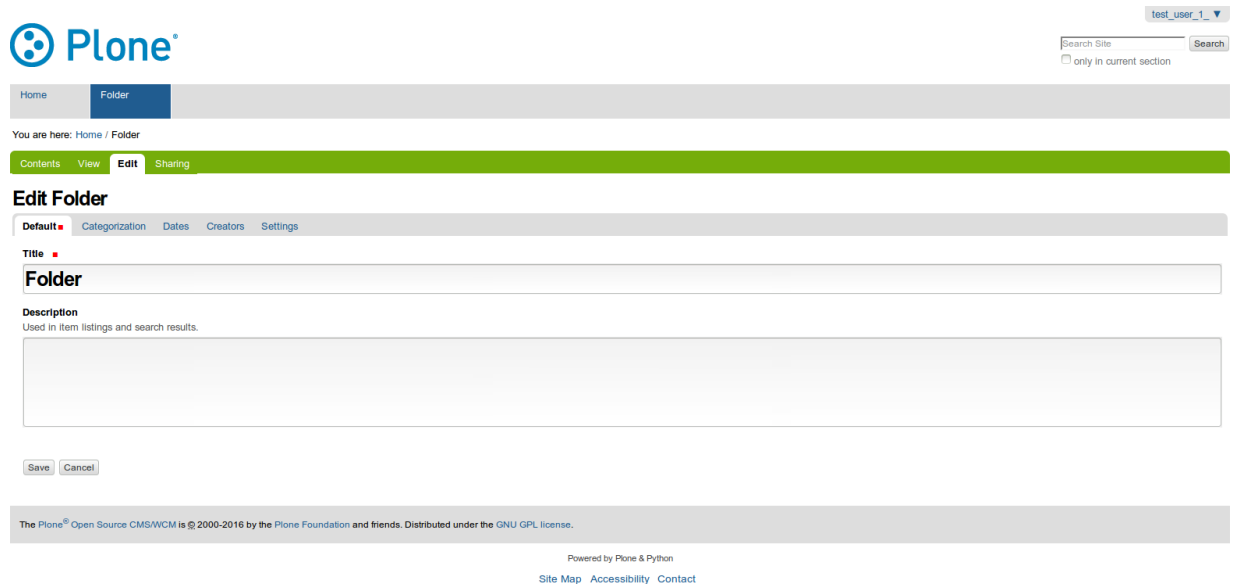
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Then

- the user can edit the folder.



Plone

test_user_1

Search Site Search

☐ only in current section

Home Folder

You are here: Home / Folder

Contents View **Edit** Sharing

Edit Folder

Default Categorization Dates Creators Settings

Title

Folder

Description

Used in item listings and search results.

Save Cancel

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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](#)