

Grouper rules pattern - Send email membership add due to folder

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Grouper rules

If an entity is flattened added (added by a new path, doesn't have an existing path) to a group in a stem, send an email to the employee and an admin

Assign this rule to the folder that has groups where membership is added.

Configure rule for v5+

Configure rule for v4 and previous

Java example

```
//add a rule on stem:a saying if you are added to a group in the stem by a new paths (flattened), then send an email
AttributeAssign attributeAssign = ruleStem
    .getAttributeDelegate().addAttribute(RuleUtils.ruleAttributeName()).getAttributeAssign();

attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleActAsSubjectSourceIdName(), actAsSubject.getSourceId());
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleActAsSubjectIdName(), actAsSubject.getId());
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleCheckTypeName(),
    RuleCheckType.flattenedMembershipAddInFolder.name());
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleCheckStemScopeName(),
    Stem.Scope.SUB.name());
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleThenEnumName(), RuleThenEnum.sendEmail.name());
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleThenEnumArg0Name(), emailToValue);
//the to, subject, or body could be text with EL variables, or could be a template. If template, it is
//read from the classpath from package: grouperRulesEmailTemplates/theTemplateName.txt
//or you could configure grouper.properties to keep them in an external folder, not in the classpath
attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleThenEnumArg1Name(), emailSubjectValue);

attributeAssign.getAttributeValueDelegate().assignValue(
    RuleUtils.ruleThenEnumArg2Name(), emailBodyValue);

//should be valid
String isValidString = attributeAssign.getAttributeValueDelegate().retrieveValueString(
    RuleUtils.ruleValidName());
if (!StringUtils.equals("T", isValidString)) {
    throw new RuntimeException(isValidString);
}
```

GSH shorthand method

```
RuleApi.emailOnFlattenedMembershipAddFromStem(SubjectFinder.findRootSubject(), stem, Stem.Scope.SUB,
"mchyzzer@isc.upenn.edu, ${safeSubject.emailAddress}", "template: testEmailGroupSubjectFlattenedAddInFolder",
"Hello ${safeSubject.name},\n\nJust letting you know you were removed from group ${groupDisplayExtension} in
the central Groups management system.&nbsp; Please do not respond to this email.\n\nRegards.");
```

GSH test case

```
gsh 0% grouperSession = GrouperSession.startRootSession();
edu.internet2.middleware.grouper.GrouperSession: 6fe6c4ab74fb4f61b1a9d0d6aefeb6f3,'GrouperSystem','application'

//this is the parent group

gsh 1% groupEmployee = new GroupSave(grouperSession).assignName("stem:employee").
assignCreateParentStemsIfNotExist(true).save();
group: name='stem:employee' displayName='stem:employee' uuid='0f4cf36b7fde40dfb8c23e87115c3ac9'

//two child groups

gsh 2% groupProgrammer = new GroupSave(grouperSession).assignName("stem:programmer").
assignCreateParentStemsIfNotExist(true).save();
group: name='stem:programmer' displayName='stem:programmer' uuid='d74baa8c2ddd4210aa63e10cb87ebc65'
gsh 3% groupResearcher = new GroupSave(grouperSession).assignName("stem:researcher").
assignCreateParentStemsIfNotExist(true).save();
group: name='stem:researcher' displayName='stem:researcher' uuid='c5d399ef395a496180e7d8e689a58fc5'
gsh 4% groupEmployee.addMember(groupProgrammer.toSubject());
gsh 5% groupEmployee.addMember(groupResearcher.toSubject());

//stem of groups
gsh 6% stem = StemFinder.findByName(grouperSession, "stem", true);
stem: name='stem' displayName='stem' uuid='5757e8b804c84152ad7df876d5daf3f4'
gsh 7% subject0 = SubjectFinder.findByIdAndSource("test.subject.0", "jdbc", true);
subject: id='test.subject.0' type='person' source='jdbc' name='my name is test.subject.0'
//add the rule
gsh 8% RuleApi.emailOnFlattenedMembershipAddFromStem(SubjectFinder.findRootSubject(), stem, Stem.Scope.SUB,
"a@b.c, ${safeSubject.emailAddress}", "template: testEmailGroupSubjectFlattenedAddInFolder", "Hello
${safeSubject.name},\n\nJust letting you know you were removed from group ${groupDisplayExtension} in the
central Groups management system.&nbsp; Please do not respond to this email.\n\nRegards.");
//run the change log daemon (if not running in background and wait a minute)
gsh 10% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
"CHANGE_LOG_changeLogTempToChangeLog");
loader ran successfully: Ran the changeLogTempToChangeLog daemon
//run the rules change log daemon (if not running in background and wait a minute)
gsh 11% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
"CHANGE_LOG_consumer_grouperRules");
loader ran successfully: null
//add someone to the child group
gsh 12% groupProgrammer.addMember(subject0, false);
true
gsh 13%&nbsp; edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
"CHANGE_LOG_changeLogTempToChangeLog");
loader ran successfully: Ran the changeLogTempToChangeLog daemon
//this will trigger two emails, one for the child group, one for the parent group
gsh 14% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
"CHANGE_LOG_consumer_grouperRules");
loader ran successfully: null
gsh 15% GrouperEmail.testingEmailCount
java.lang.Long: 2
//add to the other child group
gsh 16% groupResearcher.addMember(subject0, false);
true
gsh 17% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
"CHANGE_LOG_changeLogTempToChangeLog");
loader ran successfully: Ran the changeLogTempToChangeLog daemon
gsh 18% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,
```

```
"CHANGE_LOG_consumer_grouperRules");  
loader ran successfully: null  
//note, there is only one flat add since already a member of the parent, send one more email  
gsh 19% GrouperEmail.testingEmailCount  
java.lang.Long: 3  
//if you add to the parent, then no additional emails aill go out  
gsh 20% groupEmployee.addMember(subject0);  
gsh 21% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,  
"CHANGE_LOG_changeLogTempToChangeLog");  
loader ran successfully: Ran the changeLogTempToChangeLog daemon  
gsh 22% edu.internet2.middleware.grouper.app.loader.GrouperLoader.runOnceByJobName(grouperSession,  
"CHANGE_LOG_consumer_grouperRules");  
loader ran successfully: null  
gsh 23% GrouperEmail.testingEmailCount  
java.lang.Long: 3  
gsh 24%
```

An example email looks like this (based on configuration and optional templates):

```
From: whatever@configured.grouper.properties  
To: a@b.c, test.subject.0@somewhere.someSchool.edu  
Subject: You will be removed from group: employee
```

Body:

Hello my name is test.subject.0,

Just letting you know you were removed from group employee in the central Groups management system. Please do not respond to this email.

Regards.

GSH daemon

There is no daemon for this email rule

sdf