

Grouper rules pattern - Inherited privileges on folders

Wiki Home	Grouper Release Announcements	Grouper Guides	Grouper Deployment Guide	Community Contributions	Internal Developer Resources
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Grouper rules

If a folder is created under folder a:b, then apply privileges to the folder of CREATE,STEM to group a:security:admins

You should use the inherited privileges screen to control this. This rule is on the folder where folders are created.

Configure rule for v5+

Home > Root > test2

test2

Edit folder

Folder actions ▾

Show details ▾

Folder contentsPrivilegesMore ▾

Folder rules

Rules actions ▾

Documentation

Rule pattern

Inherited privileges on folders *

Type of rule that solves an existing use case with a certain action, condition, and result.

Subject id or identifier

test:groupA *

Generally put the group name of the group to assign privileges to. Or you can input a subject id or identifier.

Privileges to add

stemView, create *

Comma separated privileges to assign. e.g. stemView, create, stemAdmin, stemAttrRead, stemAttrUpdate

Folder scope

All groups in this folder or subfolders *

Select 'All' for everything in this folder and subfolders (most common). Otherwise, it only applies to objects directly in this folder.

Subject source

Grouper: Internal Source Adapter (g:isa) *

Generally pick g:isa to input the group name. Or pick any other source.

Run daemon override

If the rule has the ability to be run by daemon (for example to clean up data corruption), then you can set this to false if you do not want the daemon to run for this rule. If the rule does not have the ability to run in the daemon then this setting is ignored.

SaveCancel

Configure rule for v4 and previous

Java example

```

//add a rule on stem2 saying if you create a group underneath, then assign a reader group
AttributeAssign attributeAssign = stem
    .getAttributeDelegate().addAttribute(RuleUtils.ruleAttributeDefName()).getAttributeAssign();

AttributeValueDelegate attributeValueDelegate = attributeAssign.getAttributeValueDelegate();

attributeValueDelegate.assignValue(
    RuleUtils.ruleActAsSubjectSourceIdName(), actAs.getSourceId());
attributeValueDelegate.assignValue(
    RuleUtils.ruleActAsSubjectIdName(), actAs.getId());
attributeValueDelegate.assignValue(
    RuleUtils.ruleCheckTypeName(), RuleCheckType.stemCreate.name());

//can be SUB or ONE for if should be in all descendants or just on children
attributeValueDelegate.assignValue(
    RuleUtils.ruleCheckStemScopeName(), stemScope.name());
attributeValueDelegate.assignValue(
    RuleUtils.ruleThenEnumName(), RuleThenEnum.assignStemPrivilegeToStemId.name());

//this is the subject string for the subject to assign to
//e.g. sourceId ::::: subjectIdentifier
//or sourceId :::: subjectId
//or :::: subjectId
//or sourceId ::::: subjectIdOrIdentifier
//etc
attributeValueDelegate.assignValue(
    RuleUtils.ruleThenEnumArg0Name(), subjectToAssign.getSourceId() + " :::: " + subjectToAssign.getId());

//possible privileges are stem and create
attributeValueDelegate.assignValue(
    RuleUtils.ruleThenEnumArg1Name(), Privilege.stringValue(privileges));

//should be valid
String isValidString = attributeValueDelegate.retrieveValueString(
    RuleUtils.ruleValidName());

if (!StringUtils.equals("T", isValidString)) {
    throw new RuntimeException(isValidString);
}

```

GSH shorthand method

```

RuleApi.inheritFolderPrivileges(SubjectFinder.findRootSubject(), stem2, Stem.Scope.SUB, groupA.toSubject(),
Privilege.getInstances("stem, create"));

```

GSH test case

```

gsh 0% grouperSession = GrouperSession.startRootSession();
edu.internet2.middleware.grouper.GrouperSession: 09aad006bc554a1dbc8cbe684dad5508,'GrouperSystem','application'
gsh 1% stem2 = new edu.internet2.middleware.grouper.StemSave(grouperSession).assignName("stem2").
assignCreateParentStemsIfNotExist(true).save();
stem: name='stem2' displayName='stem2' uuid='b79a373db8304cb9b8c193d3ab1684ca'
gsh 2% groupA = new GroupSave(grouperSession).assignName("stem1:admins").assignCreateParentStemsIfNotExist
(true).save();
group: name='stem1:admins' displayName='stem1:admins' uuid='d94dcd40fe414881bdf1eb90b93cc56'
gsh 3% addMember("stem1:admins", "test.subject.0");
true
gsh 4% subjectActAs = SubjectFinder.findByIdAndSource("GrouperSystem", "g:isa", true);
subject: id='GrouperSystem' type='application' source='g:isa' name='GrouperSysAdmin'
gsh 6% RuleApi.inheritFolderPrivileges(subjectActAs, stem2, Stem.Scope.SUB, groupA.toSubject(), Privilege.
getInstances("create", stem));
gsh 7% stemB = new edu.internet2.middleware.grouper.StemSave(grouperSession).assignName("stem2:b").
assignCreateParentStemsIfNotExist(true).save();
stem: name='stem2:b' displayName='stem2:b' uuid='8dc178c0e8cd40f2b1958b87c32a99be'
gsh 8% hasPriv("stem2:b", "test.subject.0", Privilege.getInstance("create"))
true
gsh 9% hasPriv("stem2:b", "test.subject.0", Privilege.getInstance("stem"))
true
gsh 10% stemD = new edu.internet2.middleware.grouper.StemSave(grouperSession).assignName("stem3:d").
assignCreateParentStemsIfNotExist(true).save();
stem: name='stem3:d' displayName='stem3:d' uuid='8a7f434822524652bd3e8d820e48978b'
gsh 11% hasPriv("stem3:d", "test.subject.0", Privilege.getInstance("create"))
false
gsh 12% hasPriv("stem3:d", "test.subject.0", Privilege.getInstance("stem"))
false
gsh 13% stemC = new edu.internet2.middleware.grouper.StemSave(grouperSession).assignName("stem2:sub:c").
assignCreateParentStemsIfNotExist(true).save();
stem: name='stem2:sub:c' displayName='stem2:sub:c' uuid='4d2a5eff7f1c4dd8b0726ff86760d0d3'
gsh 15% hasPriv("stem2:sub:c", "test.subject.0", Privilege.getInstance("create"))
true
gsh 17% hasPriv("stem2:sub:c", "test.subject.0", Privilege.getInstance("stem"))
true
gsh 18%

```

GSH daemon test case

Run the above GSH and then continue below

```

gsh 18% revokePriv("stem2:sub:c", "test.subject.0", Privilege.getInstance("create"))
false
gsh 19% status = GrouperLoader.runOnceByJobName(grouperSession, GrouperLoaderType.GROUPER_RULES);
loader ran successfully: Ran rules daemon, changed 0 records
gsh 20% hasPriv("stem2:sub:c", "test.subject.0", Privilege.getInstance("create"))
true

```

Another GSH test

```

Type help() for instructions
gsh 0% grouperSession = GrouperSession.startRootSession();
edu.internet2.middleware.grouper.GrouperSession: 867846c824334805bc59a369c009acc3,'GrouperSystem','application'
gsh 1% stem_a = new StemSave(grouperSession).assignName("a").assignCreateParentStemsIfNotExist(true).save();
stem: name='a' displayName='a' uuid='30809211370c43a3b234243234234'
gsh 2% stem_a_b = new StemSave(grouperSession).assignName("a:b").assignCreateParentStemsIfNotExist(true).save();
stem: name='a:b' displayName='a:b' uuid='30809211370c43a3b231231231442'
gsh 3% stem_a_b_c = new StemSave(grouperSession).assignName("a:b:c").assignCreateParentStemsIfNotExist(true).
save();
stem: name='a:b:c' displayName='a:b:c' uuid='30809211234234243231231442'
gsh 4% stem_a_c = new StemSave(grouperSession).assignName("a:c").assignCreateParentStemsIfNotExist(true).save();
stem: name='a:b:c' displayName='a:b:c' uuid='30809211234234243231231442'
gsh 5% stem_a_b.hasCreate(SubjectFinder.findById("test.subject.2"));
false
gsh 6% stem_a_b_c.hasCreate(SubjectFinder.findById("test.subject.2"));
false
gsh 7% stem_a_c.hasCreate(SubjectFinder.findById("test.subject.2"));
false
gsh 8% RuleApi.inheritFolderPrivileges(SubjectFinder.findRootSubject(), stem_a, Stem.Scope.SUB, SubjectFinder.
findById("test.subject.2"), Privilege.getInstances("stem, create"));
edu.internet2.middleware.grouper.attr.assign.AttributeAssign: AttributeAssign
[id=681b3033fc044c25b4c4a4ffdbd3958c,action=assign,attributeDefName=etc:attribute:rules:rule,
stem=Stem[displayName=a,name=a,uuid=ba7b1db6dda044e3933b0bc0df2f9398,
creator=f7c2ea49e9de4a1e8e2f46aaf8603092]]
gsh 9% stem_a_b_c.hasCreate(SubjectFinder.findById("test.subject.2"));
false
gsh 10% RuleApi.runRulesForOwner(stem_a)
1
gsh 11% stem_a_c.hasCreate(SubjectFinder.findById("test.subject.2"));
true
gsh 12% stem_a_b_c.hasCreate(SubjectFinder.findById("test.subject.2"));
true
gsh 13% stem_a_b.hasCreate(SubjectFinder.findById("test.subject.2"));
true
gsh 14%

```

sdaf