

Getting started with hooks

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[Hooks Introduction](#)

[Proof of concept](#) (A veto hook)

[Hooks Example](#) - Assign a Unix id to each new group

Instructions to get started with Grouper and hooks.

- Install postgres, add a grouper user with a pass.
- Download the latest grouper 1.4 branch
 - `cvs -d:pserver:anoncvs@anoncvs.internet2.edu:/home/cvs/i2mi login`
 - `cvs -d:pserver:anoncvs@anoncvs.internet2.edu:/home/cvs/i2mi export -r GROUPER_1_4_BRANCH grouper`
 - `cvs -d:pserver:anoncvs@anoncvs.internet2.edu:/home/cvs/i2mi export -r GROUPER_UI_1_4_BRANCH grouper-ui`
- In grouper dir, run: `ant dist`
- Change these settings in `conf/grouper.hibernate.properties`
 - `hibernate.dialect = org.hibernate.dialect.PostgreSQLDialect`
 - `hibernate.connection.driver_class = org.postgresql.Driver`
 - `hibernate.connection.url = jdbc:postgresql://localhost:5433/grouper`
 - `hibernate.connection.username = grouper`
 - `hibernate.connection.password = whateverYouSet`
- Copy the `grouper_home/lib/jdbcSamples/postgresql.jar` to `grouper_home/lib/custom`
 - `cp lib/jdbcSamples/postgresql.jar lib/custom`
- Change this in `conf/grouper.properties` so ddl can be done:
`db.change.allow.user.1=grouper`
`db.change.allow.url.1=jdbc:postgresql://localhost:5432/grouper`
- Add tables: `bin/gsh.sh -registry -runscript`
 - You should now be able to browse the DB with pgAdmin or whatever tool you use to admin the db
- Check tables: `bin/gsh.sh -registry -check`
 - Should output: NOTE: database table/object structure (ddl) is up to date
- Start gsh and add a subject: `bin/gsh.sh`
`gsh 0% addSubject("mchyzer", "person", "Chris Hyzer")`
`gsh 1% exit`
- In `grouper.properties`, I will change/add these settings:
`groups.wheel.use = true`
`groups.wheel.group = etc:sysadmingroup`
`configuration.autocreate.group.name.0 = etc:sysadmingroup`
`configuration.autocreate.group.description.0 = super users`
`configuration.autocreate.group.subjects.0 = mchyzer`
- Start gsh again: `bin/gsh.sh` see if the user is in the groups. Make a stem. Add a type, and an attribute
`gsh 0% grouperSession = GrouperSession.startRootSession();`
`edu.internet2.middleware.grouper.GrouperSession: f802d876-b876-4315-b76e-0586bcc561b1,'GrouperSystem','application'`
`gsh 1% subject = findSubject("mchyzer");`
`subject: id='mchyzer' type='person' source='jdbc' name='Chris Hyzer'`
`gsh 2% member = MemberFinder.findBySubject(grouperSession, subject);`
`member: id='mchyzer' type='person' source='jdbc' uuid='1324c75e-9435-4c45-97e9-af40f2b71046'`
`gsh 3% member.getGroups();`
`group: name='etc:sysadmingroup' displayName='etc:sysadmingroup' uuid='e8cf5974-97ea-4865-9ac9-719fe3a13134'`
`gsh 4% addRootStem("aStem", "aStem");`
`stem: name='aStem' displayName='aStem' uuid='3e1c5e6e-6dd4-43f0-8b6c-20cb39f01ac8'`
`gsh 5% typeAdd("fubGroup");`
`type: 'fubGroup'`
`gsh 5% typeAddAttr("fubGroup", "gid", AccessPrivilege.READ, AccessPrivilege.ADMIN, false);`
`attribute: 'gid'`
- Lets add the hook and try in gsh. Just add in grouper source tree for simplicity sake

```

package test;

import edu.internet2.middleware.grouper.Group;
import edu.internet2.middleware.grouper.GroupType;
import edu.internet2.middleware.grouper.GroupTypeFinder;
import edu.internet2.middleware.grouper.hooks.beans.HooksContext;
import edu.internet2.middleware.grouper.hooks.beans.HooksGroupBean;

/**
 * add a type after a group insert
 */
public class GroupAddFubHook extends
    edu.internet2.middleware.grouper.hooks.GroupHooks {

    /**
     *
     * @see edu.internet2.middleware.grouper.hooks.GroupHooks#groupPostInsert(edu.internet2.middleware.grouper.
    hooks.beans.HooksContext, edu.internet2.middleware.grouper.hooks.beans.HooksGroupBean)
     */
    @SuppressWarnings("unchecked")
    @Override
    public void groupPostInsert(HooksContext hooksContext,
        HooksGroupBean postInsertBean) {

        super.groupPostInsert(hooksContext, postInsertBean);

        try {
            Group group = postInsertBean.getGroup();
            GroupType fubGroup = GroupTypeFinder.find("fubGroup");
            group.addType(fubGroup);
            group.setAttribute("gid", "2");
            group.store();

        } catch (Exception e) {
            throw new RuntimeException(e.getMessage(), e);
        }
    }
}

```

[mchzyer@flash2 grouper]\$ ant dist

- Add this line to the hooks section in conf/grouper.properties
hooks.group.class=test.GroupAddFubHook
- See hook work, see new type and new attribute: bin\gsh.sh

```

gsh 0% group = addGroup("aStem", "aGroup5", "aGroup5");
group: name='aStem:aGroup5' displayName='aStem:aGroup5' uuid='b5552545-2ad2-462c-b5df-67586c987992'
gsh 1% group.getTypes();
type: 'base'
type: 'fubGroup'
gsh 2% group.getAttributes();
java.util.HashMap: {extension=aGroup5, displayExtension=aGroup5, gid=2, name=aStem:aGroup5, displayName=aStem:
aGroup5}
gsh 3%

```

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Grouper UI

- Download or unzip grouper-ui
- Run ant - exit
- Edit the build.properties,
 - set the grouper.folder if not ../grouper
- Run ant - dist
- Edit your tomcat_home/conf/server.xml, add a context for the UI


```
<Engine defaultHost="localhost" name="Catalina">
  <Realm className="org.apache.catalina.realm.UserDatabaseRealm" resourceName="UserDatabase"/>
```

```
<Host appBase="webapps" autoDeploy="true" name="localhost" unpackWARs="true" xmlNamespaceAware="false" xmlValidation="false">
  <Context docBase="/home/mchyzer/grouper_v1_4/grouper-ui/dist/grouper" path="/grouper" reloadable="false"/>
</Host>
</Engine>
```

- Add a user to your tomcat-users.xml file:

```
<tomcat-users>
  <role rolename="grouper_user" />
  <user username="mchyzer" password="whateveryouwant" roles="grouper_user" />
</tomcat-users>
```

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- If you are using mod_jk, hook up the url with the tomcat:
JkMount /grouper/* tomcat_mchyzer
- Stop and start apache and tomcat:
[mchyzer@flash2 grouper]\$ /home/mchyzer/apache2_0/bin/apachectl stop
[mchyzer@flash2 grouper]\$ /home/mchyzer/apache2_0/bin/apachectl start
[mchyzer@flash2 grouper]\$ /home/mchyzer/tomcat/bin/shutdown.sh
Using CATALINA_BASE: /home/mchyzer/tomcat
Using CATALINA_HOME: /home/mchyzer/tomcat
Using CATALINA_TMPDIR: /home/mchyzer/tomcat/temp
Using JRE_HOME: /opt/appserv/java6
[mchyzer@flash2 grouper]\$ /home/mchyzer/tomcat/bin/startup.sh
Using CATALINA_BASE: /home/mchyzer/tomcat
Using CATALINA_HOME: /home/mchyzer/tomcat
Using CATALINA_TMPDIR: /home/mchyzer/tomcat/temp
Using JRE_HOME: /opt/appserv/java6
[mchyzer@flash2 grouper]\$
- Add a group with or without the fubGroup type, and see the type and attribute when done
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