

Scotty - iRODS Admin Interface

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Abstract

RENCI has developed a web-based iRODS Administration dashboard named Scotty. It is available from the E-iRODS website.

Index Keyword Terms— *iRODS*, *E-iRODS*, *administration*, *web client*, *data management*

1. Overview

Scotty is a web-based iRODS Administration dashboard that can connect to any running iRODS Zone (grid). Connections are limited to iRODS users with the “rodsadmin” designation.

Scotty is a java application that runs on Tomcat and uses the Jargon API to communicate with iRODS. The iRODS server can be either local or remote. Scotty provides cumulative statistics for users, resources, and files in a single Zone as well as user and password management.

Since Scotty can be installed and run separately from the iRODS server (from any capable networked computer) and provides a dashboard for any iRODS Zone, it stores no connection information and no metric information locally.

2. Statistics

Because Scotty communicates over the iRODS protocol, it can only display information that is available to the iRODS server itself (namely, what is stored in the iCAT database). Figures 1-4 illustrate the type of information that can be accessed directly in this manner.

However, Scotty can also display server-specific statistics collected on its behalf by its accompanying stats gatherer, Guinan. Guinan is a separate application installed alongside E-iRODS which periodically executes small python scripts that each calculate a particular metric. These metrics are stored in the iRODS database and therefore made available to any connecting Scotty instance. These metrics can be displayed within Scotty as time-series data. We expect a community to form around useful metrics that can be shared and installed by grid administrators.

3. Download

Both DEB and RPM packages are available for Scotty and Guinan. They can be found on the E-iRODS downloads page (<http://ei rods.org/download>).

4. Acknowledgements


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Here is a placeholder for the Administration Dashboard which will display information metrics such as this:

	8	iRODS Admin Users
	34	Total iRODS Users



	3	iRODS Resources
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Total Zone (dfcmain) Statistics

	21,311	iRODS Files in this Zone (including Trash)
	28,728,594,402	Total Size (bytes) of iRODS Files in this Zone (including Trash)
	270	iRODS Collections in this Zone (including Trash)
	N/A	iRODS Collections in this Zone containing Data Objects (including Trash)
	11	iRODS Files in this Zone that are in Trash
	3,147,156	Total Size (bytes) of iRODS Files in this Zone that are in Trash
	53	iRODS Collections in this Zone that are in Trash
	N/A	iRODS Collections in this Zone containing Data Objects that are in Trash



Per User (dfcAdmin) Zone Statistics

dfcAdmin ▼

	20,023	iRODS Files in this Zone for this User (including Trash)
	27,790,971,874	Total Size (bytes) of iRODS Files in this Zone for this User (including Trash)
	21	iRODS Collections in this Zone for this User (including Trash)
	N/A	iRODS Collections in this Zone containing Data Objects for this User (including Trash)
	4	iRODS Files in this Zone that are in Trash for this User
	44	Total Size (bytes) of iRODS Files in this Zone that are in Trash for this User
	10	iRODS Collections in this Zone that are in Trash for this User
	N/A	iRODS Collections in this Zone containing Data Objects that are in Trash for this User

Per Resource (demoResc) Zone Statistics

demoResc ▼

	20	iRODS Files in this Zone for this Resource (including Trash)
	42,550,627	Total Size (bytes) of iRODS Files in this Zone for this Resource (including Trash)
	5	iRODS Files in this Zone that are in Trash for this Resource
	1,387	Total Size (bytes) of iRODS Files in this Zone that are in Trash for this Resource

Per User (dfcAdmin) and Resource (demoResc) Zone Statistics



	4	iRODS Files in this Zone for this User and Resource (including Trash)
	299,992	Total Size (bytes) of iRODS Files in this Zone for this User and Resource (including Trash)
	2	iRODS Files in this Zone that are in Trash for this User and Resource
	34	Total Size (bytes) of iRODS Files in this Zone that are in Trash for this User and Resource

Figure 1. The Dashboard shows a cumulative snapshot of the number of administrators, users, resources (both in the local Zone and remote), files, and collections. Per user and per resource totals can also be accessed via drop down menus.



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Create

iRODS Admin Users					
Id	Login	Zone	Create Time		
31631		dfcmain	1/2/2013 4:24:07 AM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31615		dfcmain	10/4/2012 7:49:06 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10007		dfcmain	9/27/2011 11:00:19 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31607		dfcmain	9/14/2012 1:01:34 PM	<input type="button" value="Update"/>	
10024		dfcmain	10/4/2011 3:37:20 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31694		dfcmain	1/29/2013 3:01:54 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
9002		dfcmain	1/28/2007 4:00:00 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10012		dfcmain	9/30/2011 7:32:57 PM	<input type="button" value="Update"/>	<input type="button" value="Remove"/>

iRODS Users					
Id	Login	Zone	Create Time		
31643		dfcmain	2013/01/02 17:48:46	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31611		dfcmain	2012/09/14 20:34:15	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31637		dfcmain	2013/01/02 17:46:54	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10054		dfcmain	2011/12/01 22:46:18	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10057		dfcmain	2011/12/02 19:45:45	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10100		dfcmain	2012/01/23 18:14:41	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10097		dfcmain	2012/01/23 18:14:30	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31640		dfcmain	2013/01/02 17:47:59	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10082		dfcmain	2012/01/18 22:24:32	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10108		dfcmain	2012/01/23 18:30:48	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10088		dfcmain	2012/01/23 18:13:38	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31646		dfcmain	2013/01/02 17:50:52	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10091		dfcmain	2012/01/23 18:14:04	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
10021		dfcmain	2011/10/02 03:41:17	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31668		dfcmain	2013/01/16 17:19:49	<input type="button" value="Update"/>	<input type="button" value="Remove"/>
31634		dfcmain	2013/01/02 17:45:29	<input type="button" value="Update"/>	<input type="button" value="Remove"/>

Figure 2. The Users listing displays the administrators and other users in the iCAT of the connected Zone. This list includes both localZone users and any federated users from other Zones. Also listed are the userID and creation time for each user. The administrator may update or remove users from this page but cannot remove his or her own account.



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User Id:	10007
User Name:	<input type="text"/>
User Type:	<input type="text" value="rodsadmin"/>
User Zone:	dfcmain
Comment:	<input type="text"/>
Info:	<input type="text"/>
Create Time:	9/27/2011 11:00:19 PM
Modify Time:	9/27/2011 11:00:19 PM
Password:	<input type="text"/>
Verify Password:	<input type="text"/>

Figure 3. The User Update page allows the logged in administrator to manipulate the account type (rodsuser or rodsadmin), update the comment and information fields in the iCAT, and reset the password for a particular user.



Admin User: dfcDemo Zone: dfcmain

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iRODS Resources List			
Id	Name	Type	Vault Path
10015	res-dfcmain	unix file system	/vault19/dfcmain/maindata
10017	res-bk15	unix file system	/data2/dfcmain/dfcVault
10050	demoResc	unix file system	/vault19/dfcmain/demoVault

Scotty developed at RENCI, Chapel Hill, NC. Scotty version: 1.0-BETA, Jargon Version: 3.2.1.4-SNAPSHOT, Build date: 2013-02-22 04:07

Figure4. The Resources listing displays the existing resources connected to the Zone. It shows the ID, the name, the type, and the Vault path.