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# *Administering Inca with incat*

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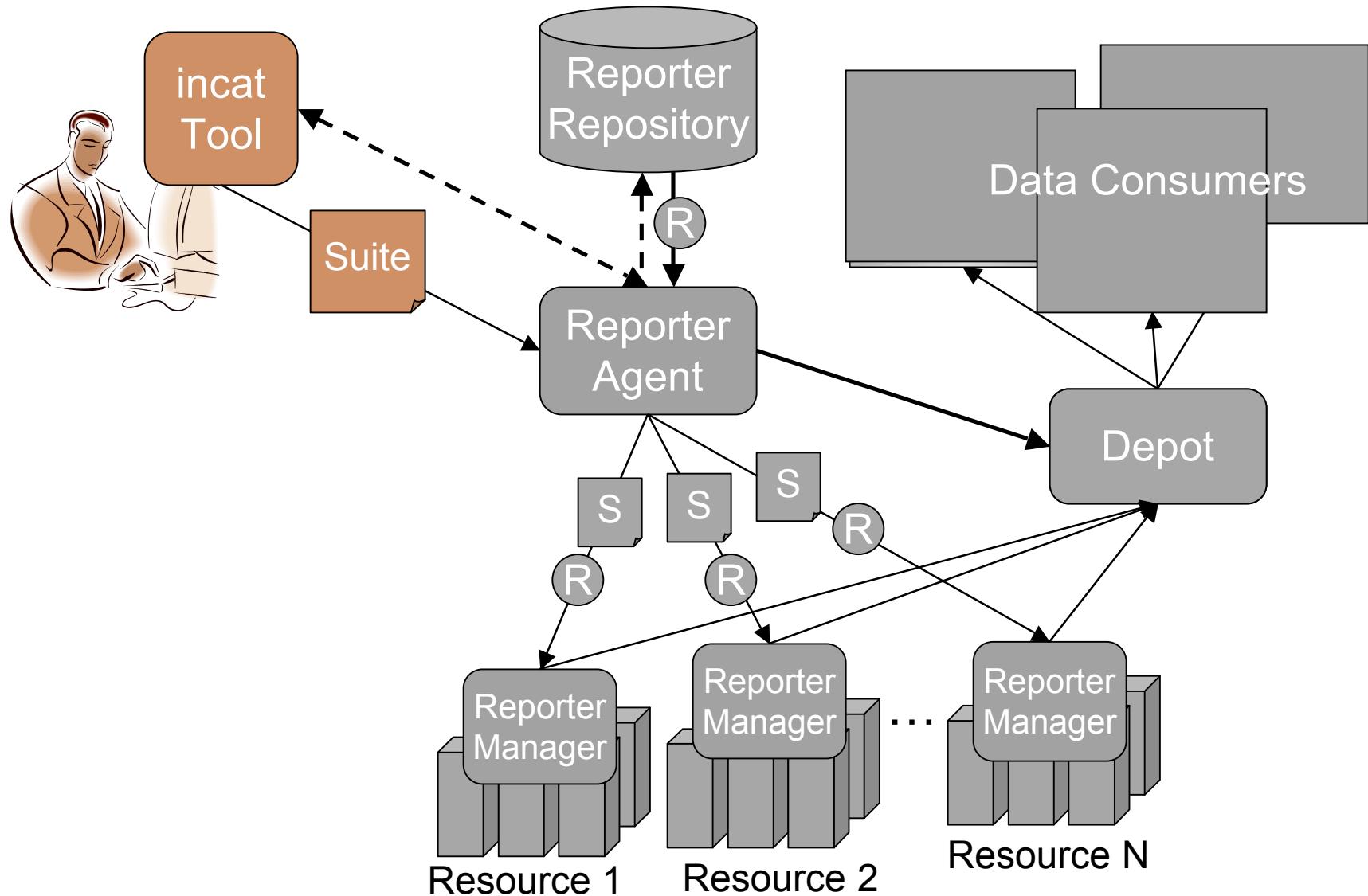
Inca 2.0 Workshop  
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**SDSC** — SAN DIEGO SUPERCOMPUTER CENTER

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# *Architecture overview*



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## *Outline*

- Launching incat
- Adding repositories
- Adding resources
- Managing suites and report series

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## *Launching `inca`*

- “`inca start incat`” to start
- Can work with a local file (`--file path`), a Reporter Agent (`--agent host:port`), or both
- Retrieves existing configuration from Reporter Agent and/or loads specified file

# *incat Display*



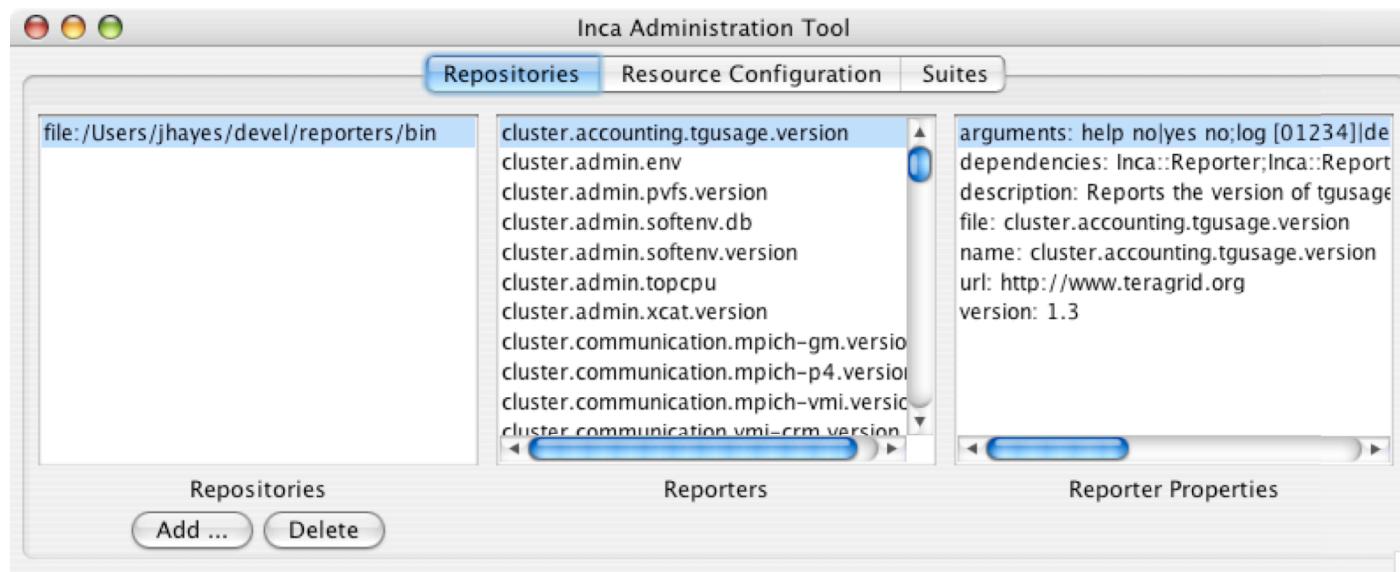
- **Tabs for repository, resource, and suite**
- **File Open/Save/Save As menu**
- **File/Commit sends to Reporter Agent**

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# *Outline*

- Launching incat
- Adding repositories
- Adding resources
- Managing suites and report series

# *Repositories Tab*



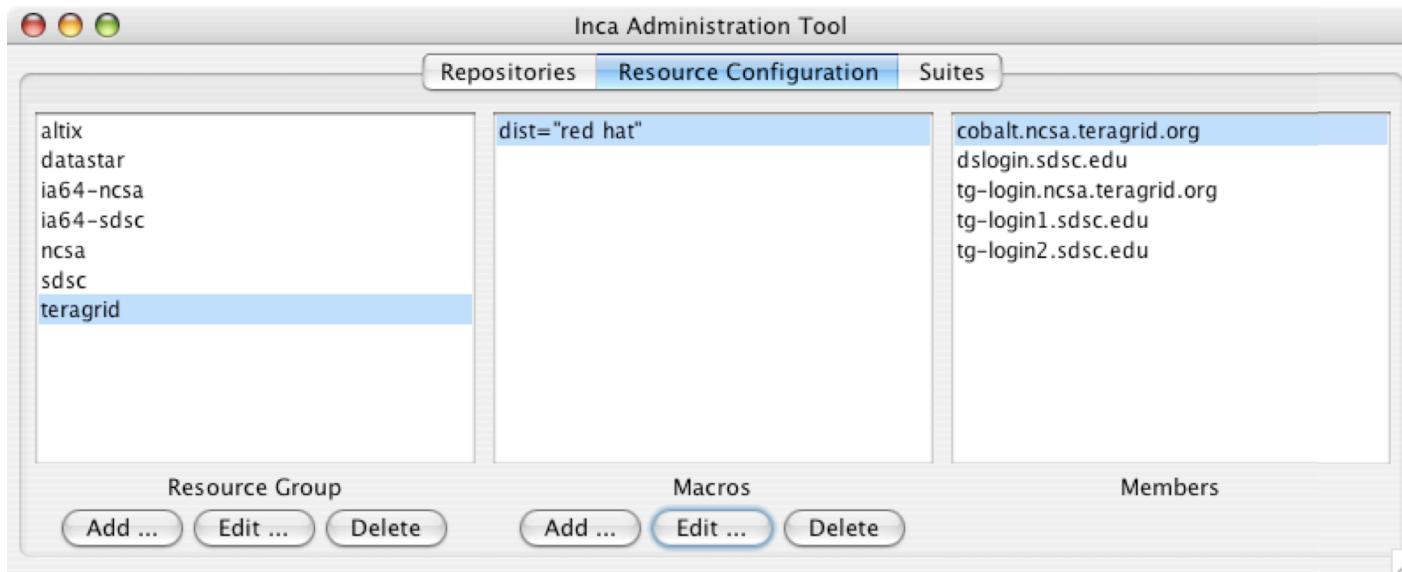
- **Repository list, reporter summary, reporter properties**
- **Reporter information retrieved from Reporter Agent**
- **Repository URLs relative to Reporter Agent**

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# *Outline*

- Launching incat
- Adding repositories
- **Adding resources**
- **Managing suites and report series**

# *Resource Configuration Tab*



- **Resource group name, associated macros, member hosts**
- **Groups of groups supported**
- **Macro for most specific group applies**

# *Resource Panel (cont.)*

The image displays two separate windows of the Inca Administration Tool, both titled "Inca Administration Tool". Each window has three tabs at the top: "Repositories", "Resource Configuration", and "Suites". The "Resource Configuration" tab is selected in both cases.

**Top Window (dist="red hat"):**

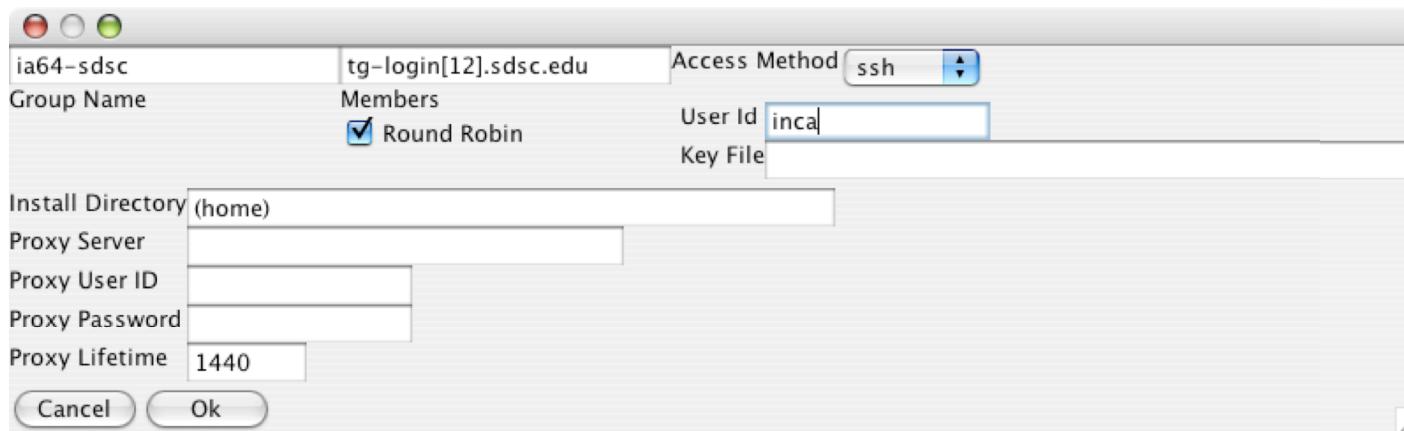
- Resource Group:** A list of resources including altix, datastar, ia64-ncsa, ia64-sdsc, ncsa, sdsc, and teragrid. The entry "teragrid" is highlighted with a blue selection bar.
- Macros:** A list containing "dist="red hat"
- Members:** A list of hosts including cobalt.ncsa.teragrid.org, dslogin.sdsc.edu, tg-login.ncsa.teragrid.org, tg-login1.sdsc.edu, and tg-login2.sdsc.edu.

**Bottom Window (dist=suse):**

- Resource Group:** A list of resources including altix, datastar, ia64-ncsa, ia64-sdsc, ncsa, sdsc, and teragrid. The entry "ia64-sdsc" is highlighted with a blue selection bar.
- Macros:** A list containing "dist=suse"
- Members:** A list of hosts including tg-login1.sdsc.edu and tg-login2.sdsc.edu.

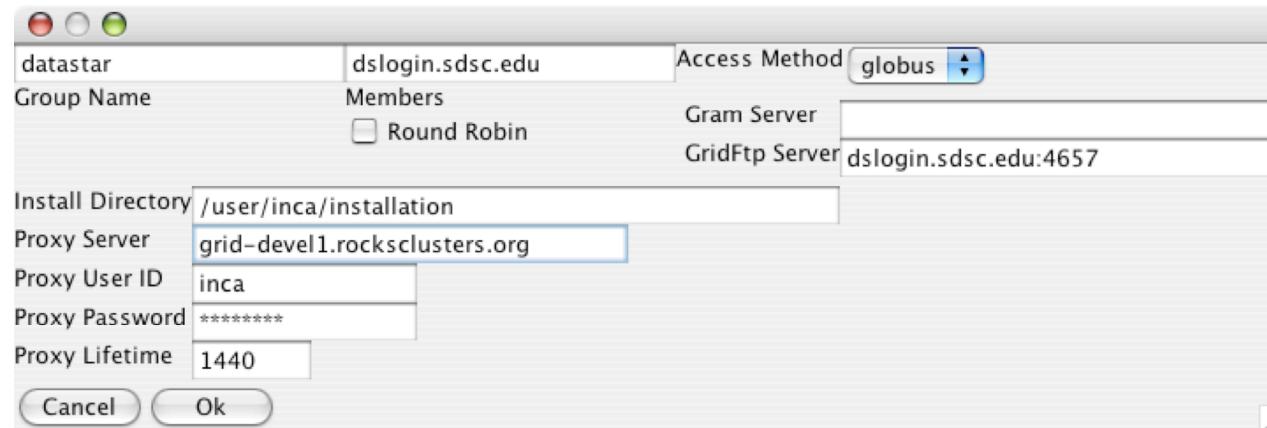
Both windows include standard OS X-style window controls (red, yellow, green buttons) and a toolbar at the bottom with buttons for "Add ...", "Edit ...", and "Delete".

# *Using Ssh Resources*



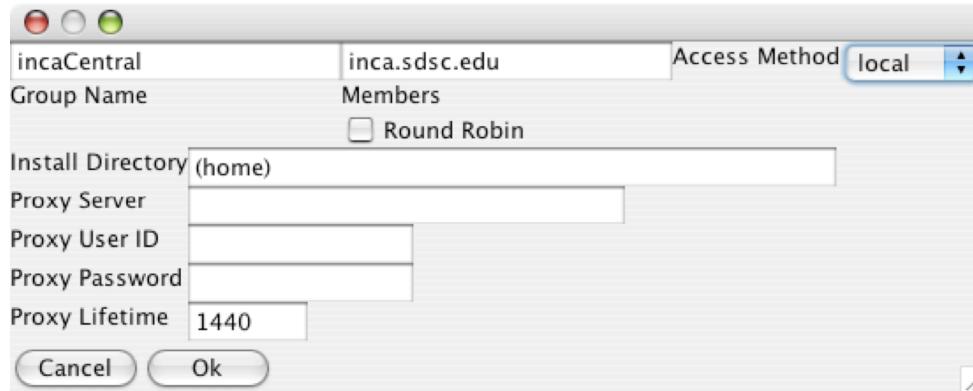
- Member specification allows choice () and character sets ([])
- Round Robin resources considered equivalent--one Reporter Manager
- Passwordless ssh key, for now

# *Using Globus Resources*



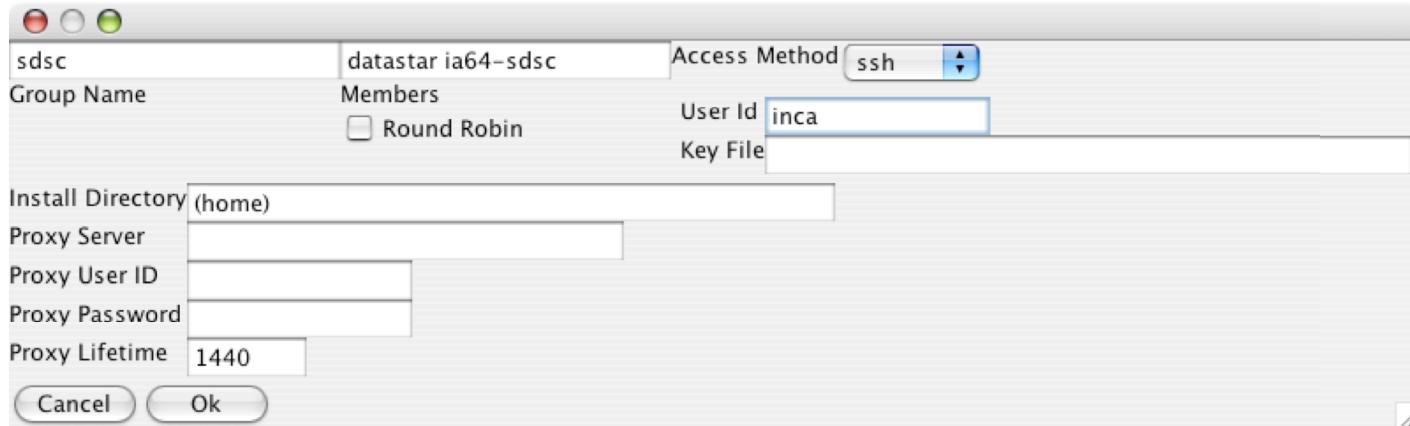
- Accessed by Reporter Agent via Globus CoG Java classes
- Reporter Manager staging via GridFtp
- Proxy used by Reporter Agent to launch Reporter Manager and potentially by Reporters

# *Using the Local Resource*



- Allows running reporters on the same machine as the Reporter Agent
- Used by default installation

# *Grouping Resources*



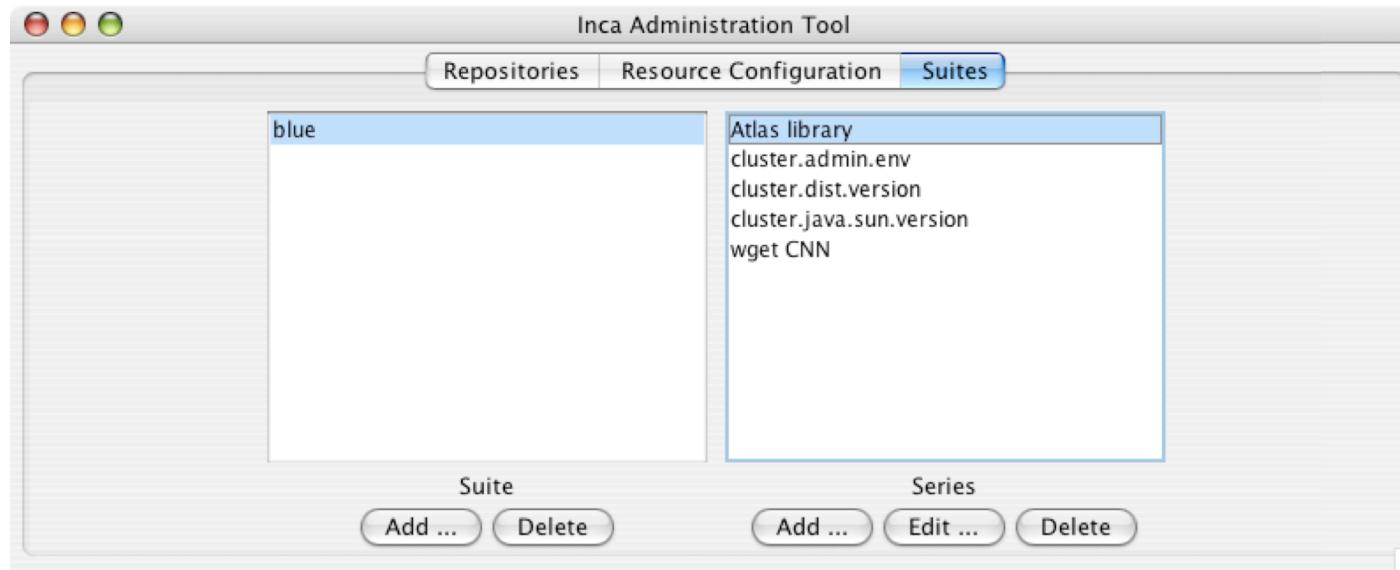
- **Directory, proxy info, etc. like macros--most specific value is used for each host**

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# *Outline*

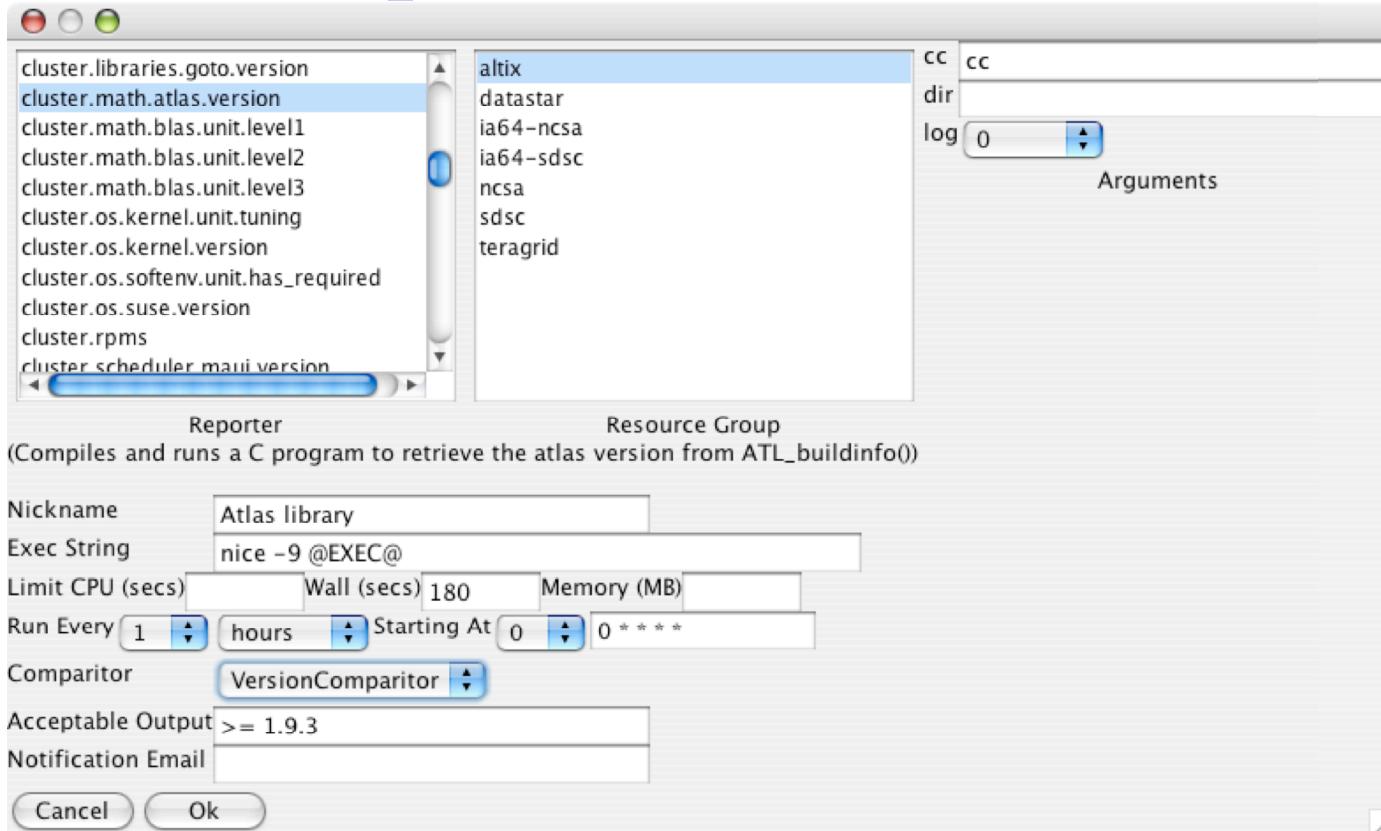
- Launching incat
- Adding repositories
- Adding resources
- **Managing suites and report series**

# *Suites Tab*



- Single/multiple series choice up to administrator
- Report series named after reporter or given “nickname”

# *Report Series Editor*



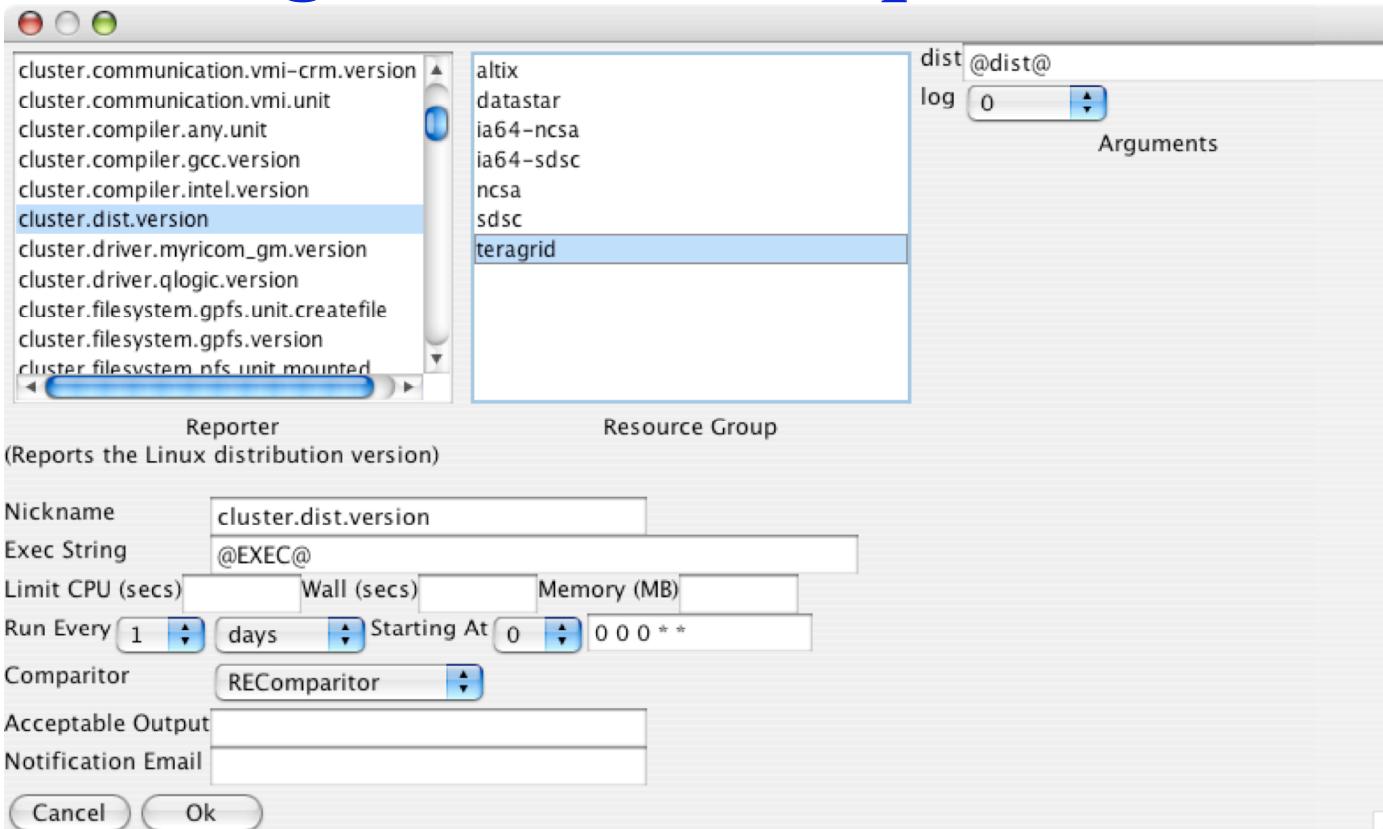
- **Select reporter, resource group, and command-line argument values**
- **Argument list determined by reporter**
- **Reporter description appears below reporter**

## *Report Series Editor (cont.)*

Nickname	Atlas library		
Exec String	nice -9 @EXEC@		
Limit CPU (secs)	Wall (secs)	180	Memory (MB)
Run Every	1	hours	Starting At 0 0 * * *
Comparitor	VersionComparitor		
Acceptable Output	>= 1.9.3		
Notification Email			

- **Nickname useful in later report display**
- **Exec String allows specialized execution**
- **Reporter killed and error report stored if limits exceeded**
- **Run frequency uses cron syntax**
- **Comparitor takes action on unacceptable output**

# *Using Macros in Report Series*



- **@macro@ expanded for each host**
- **Multi-valued macros expand to multiple report series**