Inca Data Display (data consumers)

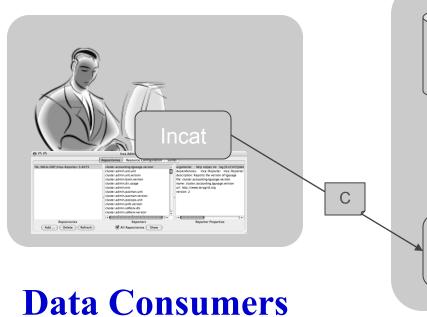
Kate Ericson

Inca Workshop August 27, 2010



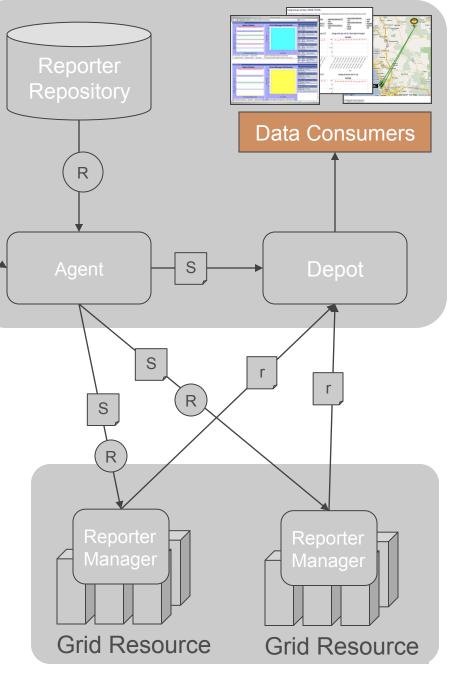






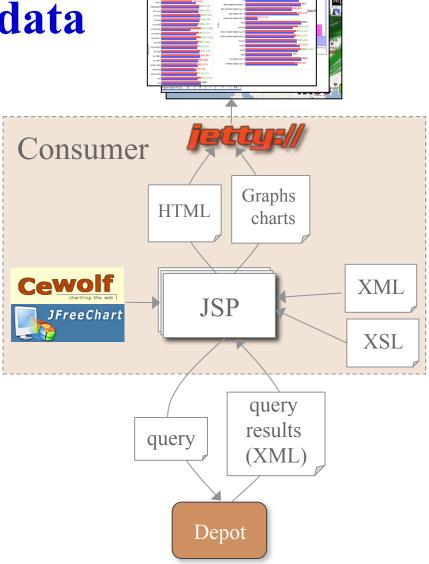
 Anything that queries and digests data from the depot

- Inca distribution includes a container and webapp to provide Web view of Inca deployment
- Designed for grid operators, system administrators, and users



Consumer displays data

- Current and historical views
- Web application packaged with Jetty
- JSP 2.0 pages/tags to query data and format using XSLT
- CeWolf/JFreeChart to graph data
- Extensible

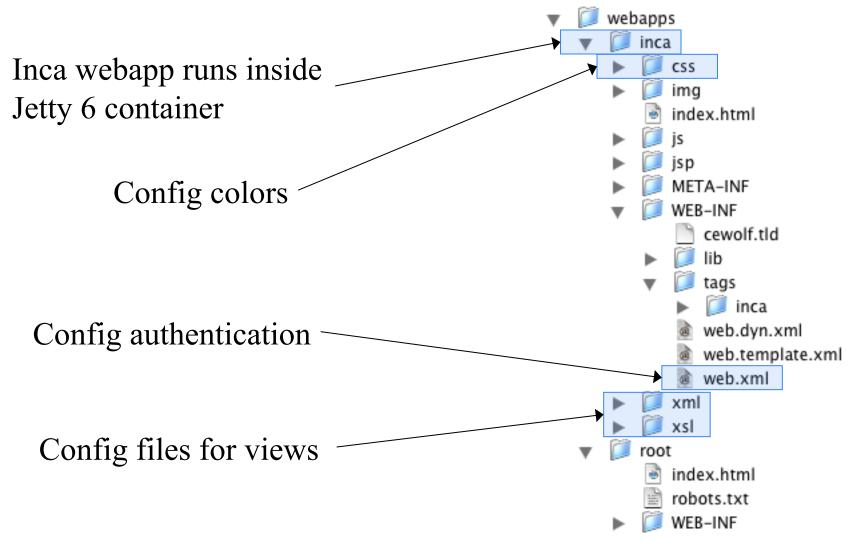








Files for customization









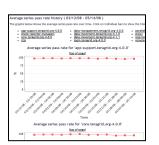
Default Status Pages







Series Summary



Suite & resource histories



Weekly status report



Cumulative series status by resource

Company of the Co

Error history summary



Related series histories



Individual series history

Inca's status
pages provide
multiple levels of
details



Series status by package and resource

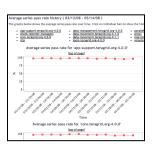
Meant in span age, and the many completed and in the proof to the proo

Individual report details

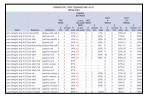
Series Details

Historical Current status

Series Summary



Suite & resource histories



Error history summary



Related series histories



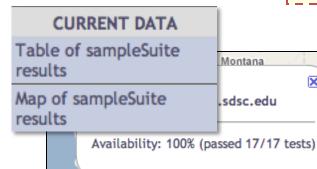
Individual series history



Weekly status report

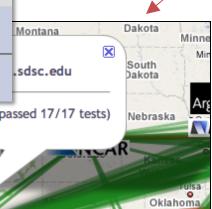


Cumulative series status by resource



Sacramento

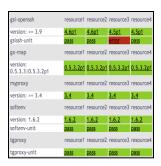
San Francisco California



Mexico

Chihuahua

El Paso



Series status by package and resource



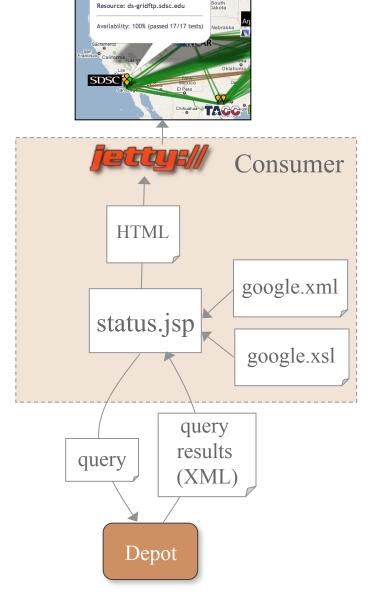
Individual report details

Series Details

Historical Current status

View cumulative series status by resource

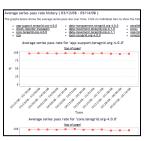
- Register for a Google Map API key http://code.google.com/apis/maps/signup.html
- Specify size of map, center of map, zoom level
- Define sites -- logo and resources
- Optionally change icons or colors



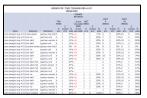








Average suite & resource series pass rate history



Error history summary



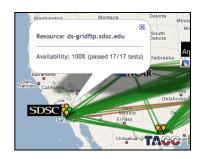
Related series histories



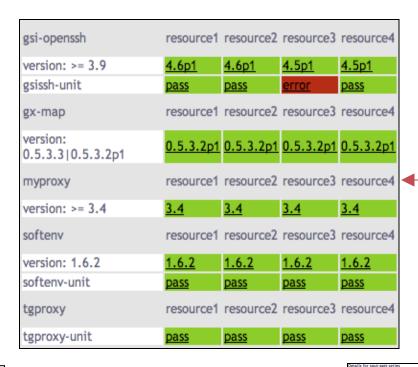
Individual series history



Weekly status report



Cumulative series status by resource



Series status by package and resource

Sendit:

completed with total programme of the send total point and send total point send to 1 point point send to 1 point point send to 1 point point point send to 1 point point send to 1 point point point send to 1 point point send total point point send total point point send total point point send total point send total

Individual report details

Series Details

Historical Current status

View series status by package and resource

HTML

status.jsp

Depot

query

 Specify list of suite(s) and resource(s) in URL

http://host:8080/inca/jsp/status.jsp?

suiteNames=s1[,s2,...]

resourceIds=r1[,r2,...]

REST equivalent:

http://host:8080/inca/HTML/rest/s1/

SAN DIEGO SUPERCOMPUTER CENTER

rl





query results

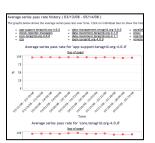
(XML)



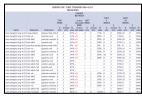
Consumer

default.xsl

Series Summary



Suite & resource histories



Error history summary



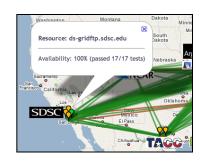
Related series histories



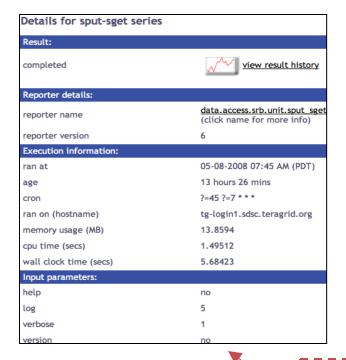
Individual series history

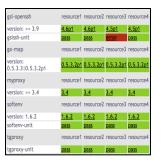


Weekly status report



Cumulative series status by resource





Series status by package and resource





Historical Current status

View individual report details

- Linked from other views
- Specify series nickname, resource, and collected time

http://host:8080/inca/jsp/instance.jsp?

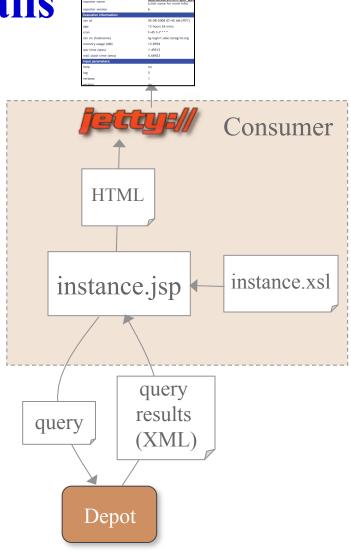
nickname=ant version &

resource=localResource &

collected=2010-08-11T20:51:08.000-07:00

REST equivalent (latest instance):

http://host:8080/inca/HTML/rest/sampleSuite/localResource/ant version

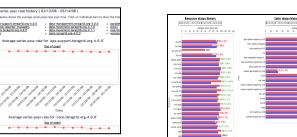








Series Summary

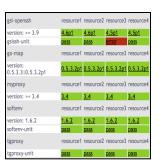


Weekly status report



Cumulative series status by resource





Series status by package and resource

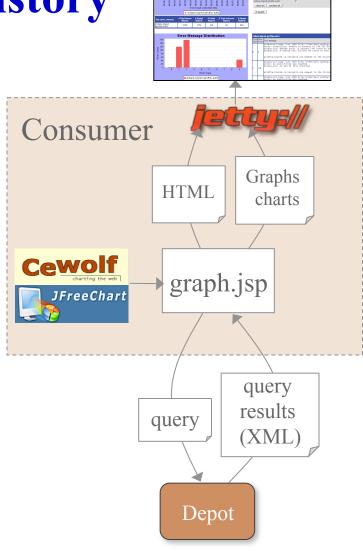
Series Details Individual report details

Historical

Current status

View individual series history

- Linked from individual report details page
- Requires series nickname, resource, and title
- By default for week, month, quarter or year
- Options:
 - Mouseovers and links
 - Legend (and position)
 - Width, Height
 - Background color







Choose selected series histories

- Is an error related to the resource or the software?
- What is the reliability of a service (viewing multiple tests)?

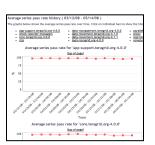
data-management.teragrid.org-4.0.0								
		psc-bigben	purdue-condor	purdue-steele	sdsc-bg	sdsc-datastar	sdsc-ia64	
select row or column:								
ctss-data-management-4.0.0-registration	\Box							
sls-dm-4.0.0		$ \overline{\bullet} $			⋖		$ \overline{\mathbf{v}} $	
sput-sget-dm-4.0.0	\Box							







Series Summary

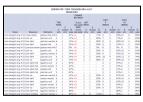


Weekly status report



Cumulative series status by resource



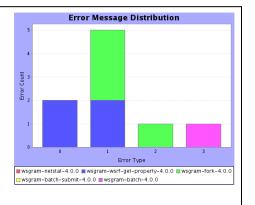


Error history summary



-1100					
-1	· · · · · · · · · · · · · · · · · · ·	11/			****
-1	<u> </u>	V V			
0					
0					
1-1-8/08	4/30/08	92/01/08	5/02/08	15/04/08	80/50/50
,40 ,40		ි st result coll		05/	02)
wsgram-netsta wsgram-fork-4	Te t-4.0.0 - wsgi	st result coll am-wsrf-ge	ection time t-property	-4.0.0	
 wsgram-netsta wsgram-fork-4 Fest name,	Te t-4.0.0 - wsgi	st result coll am-wsrf-ge	ection time t-property	-4.0.0	ch-4.0.0 % Passec
wsgram-netsta wsgram-fork-4 Fest name, resource wsgram-netstat-	Te t-4.0.0 → wsgran t.0.0 → wsgran # Total Known	st result coll ram-wsrf-ge n-batch-sub # Passed	ection time et-property mit-4.0.0 # Failed	-4.0.0 wsgram-bat #Total Unknown	ch-4.0.0 % Passec
wsgram-netsta	Tet-4.0.0 - wsgran # Total Known Reports	st result coll ram-wsrf-ge n-batch-sub # Passed Reports	ection time et-property mit-4.0.0 # Failed Reports	-4.0.0 	ch-4.0.0 % Passed Reports
wsgram-netsta wsgram-fork-4 Test name, resource wsgram-netstat- 4.0.0 wsgram-wsrf-get-	Tet-4.0.0 • wsgran # Total Known Reports 3411 1077	st result coll ram-wsrf-ge n-batch-sub # Passed Reports 3411	ection time et-property mit-4.0.0 # Failed Reports	# Total Unknown Reports	ch-4.0.0 % Passec Reports
wsgram-netstat- 4.0.0 wsgram-wsrf-get- property-4.0.0	Tet-4.0.0 • wsgran # Total Known Reports 3411 1077	st result coll ram-wsrf-ge n-batch-sub # Passed Reports 3411 1073	# Failed Reports	-4.0.0	ch-4.0.0 % Passec Reports 100%

Status History



gsi-openssh	resource1	resource2	resource3	resource4
version: >= 3.9	4.6p1	4.6p1	4.5p1	4.5p1
gsissh-unit	pass	pass	error	pass
gx-map	resource1	resource2	resource3	resource4
version: 0.5.3.3 0.5.3.2p1	0.5.3.2p1	0.5.3.2p1	0.5.3.2p1	0.5.3.2p1
myproxy	resource1	resource2	resource3	resource4
version: >= 3.4	3.4	3.4	3.4	3.4
softenv	resource1	resource2	resource3	resource4
version: 1.6.2	1.6.2	1.6.2	1.6.2	1.6.2
softenv-unit	pass	pass	pass	pass
tgproxy	resource1	resource2	resource3	resource4
tgproxy-unit	pass	pass	pass	pass

Series status by package and resource



Individual series history



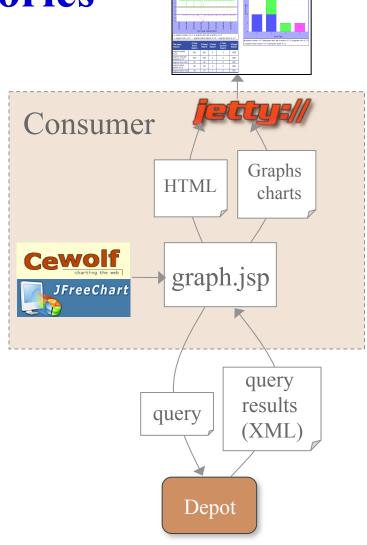
Individual report details

Series Details

> Historical Current status

View related series histories

- Requires multiple series nickname, resource, and title
- Two weeks of history by default
- Options:
 - Mouseovers and links
 - Legend (and position)
 - Width, Height
 - Background color







View related series histories as report

REPORTS

Past week: sampleSuite pass/fail graphs and err msgs

Past week: avg pass rate by resource/suite

Past 4 weeks: series error summary

Resource avg pass history

Suite avg pass history

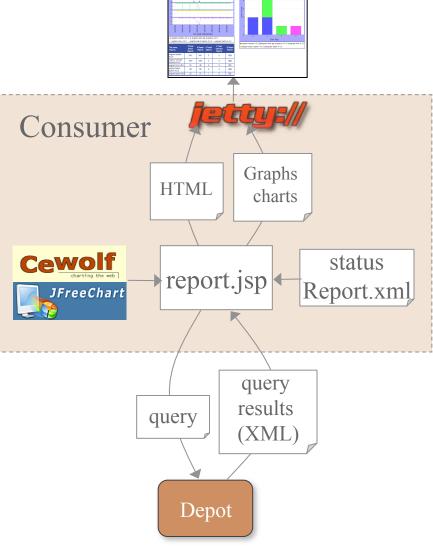
• Requires multiple series nickname, resource, and titles described in XML file

 Two weeks of history by default

Options:

- Mouseovers and links
- Legend (and position)
- •Width, Height
- Background color
- Metrics

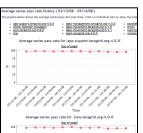








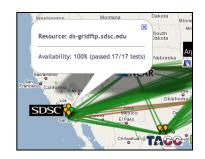
Series Summary



Suite & resource histories



Weekly status report



Cumulative series status by resource



					CHANGE BETWEEN							
	<u>Nickname</u>	THIS WEEK	# unique errs	%	# errs this week AND # errs last week	% pass this week AND % pass last week	LAST WEEK # errs	# unique errs		PAST 4 WEEKS # errs	# unique errs	E
	gridftp-auth	3	3	100%	-103	+11%	106	4	89%	1957	14	5
1	wsgram-fork	6	1	0%	-1	0%	7	1	0%	24	4	C
	prews-gram-batch	7	1	46%	+4	-33%	3	1	79%	33	5	5
	wsgram-batch	7	1	0%	0	0%	7	1	0%	25	4	C
	wsgram-batch-submit	7	1	0%	0	0%	7	1	0%	25	4	C
	wsgram-fork	7	1	0%	0	0%	7	1	0%	25	5	C
	wsgram-netstat	2	1	86%	+1	-4%	1	1	90%	3	2	9
	wsgram-wsrf-get-property	7	1	0%	0	0%	7	1	0%	25	4	C
	wsgram-batch	1	1	83%	+1	-17%	0	0	100%	1	1	9
	wsgram-netstat	7	1	0%	0	0%	7	1	0%	24	4	C
							_	_			_	_

Related series histories



Individual series history

Result:	
completed	view result history
Reporter details:	
reporter name	data access srb.unit.sput_se (click name for more info)
reporter version	6
Execution information:	
ran at	05-08-2008 07:45 AM (PDT)
age	13 hours 26 mins
cron	?=45 ?=7 * * *
ran on (hostname)	tg-login1.sdsc.teragrid.org
memory usage (MB)	13.8594
cpu time (secs)	1.49512
wall clock time (secs)	5.68423
Input parameters:	
help	no
log	5
verbose	1
version	00

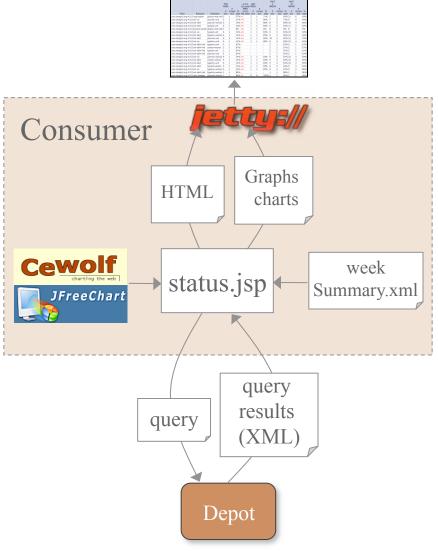
Individual report details

Series Details

Historical Current status

View error history summary ("diff")

- Designed for daily/ weekly review
- Uses cached historical query
- Four weeks of history by default
- Sortable by column

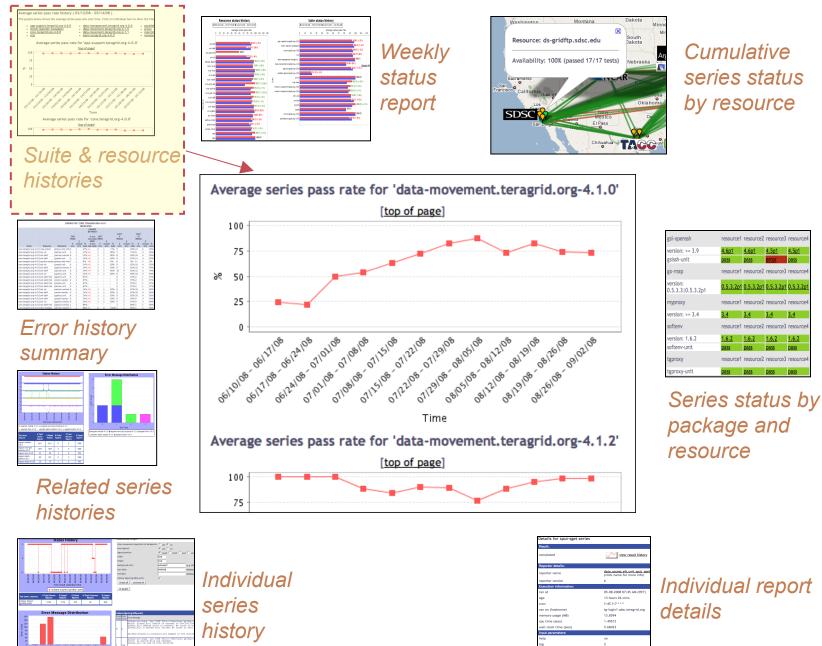










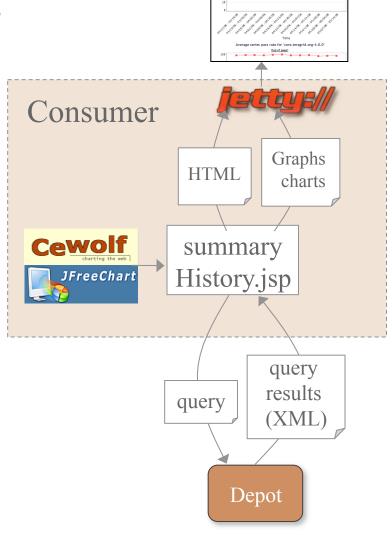


Series Details

Historical Current status

View average suite and resource histories

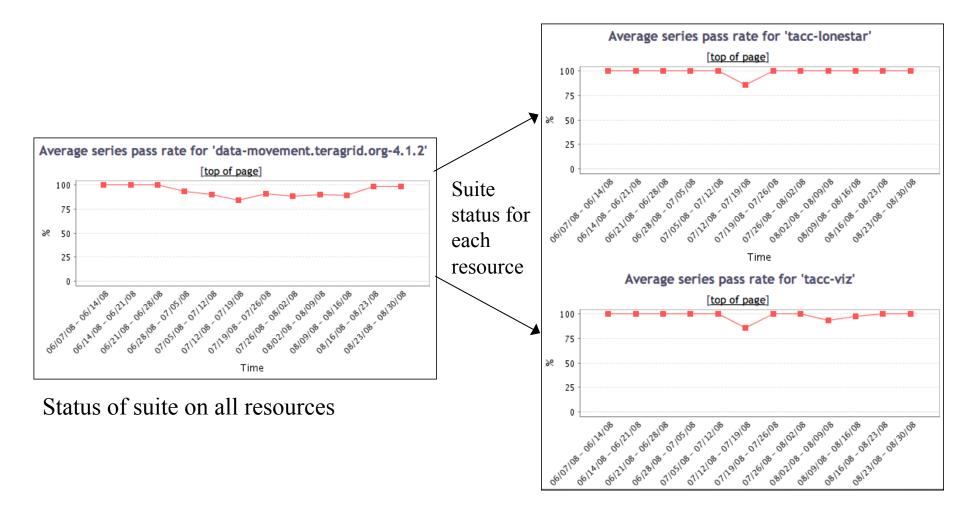
- Designed for daily/ weekly review
- Uses cached historical query
- Four weeks of history by default
- Click to view further details







View suite or resource history details









Series Summary



Theoretain thiny

| Control | Contro

Washington

Montana

Resource: ds-gridftp.sdsc.edu

Availability: 100% (passed 17/17 tests)

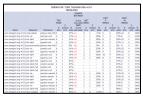
Segregation

Segregation

Oklahoma

Cumulative series status by resource

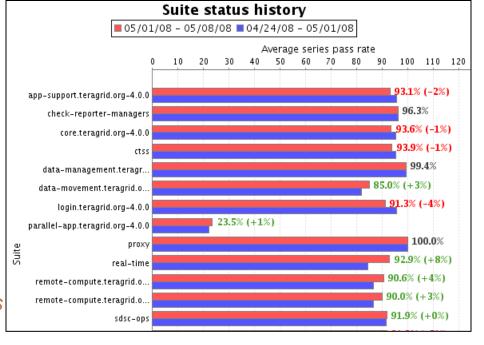
Suite & resource histories



Error history summary



Related series histories



Series status by package and resource

Model Models of the control of the c

Individual series history

Amount on special part and the final part of the result history completed for the result history for the result of the result history for the result of t

Individual report details

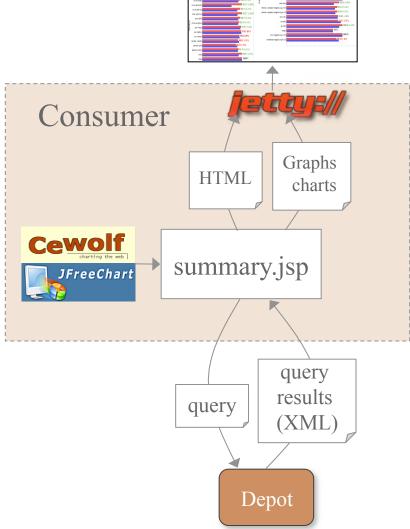
Series Details

Historical

Current status

View weekly suite and resource status

- Designed for daily/ weekly review
- Uses cached historical query
- Four weeks of history by default
- Click to view further details

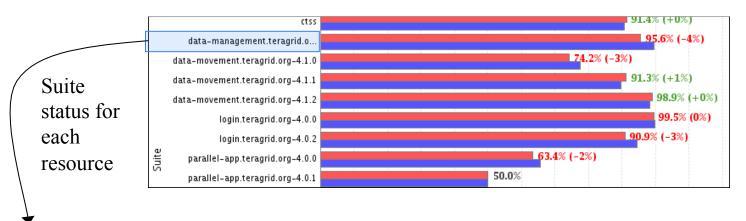


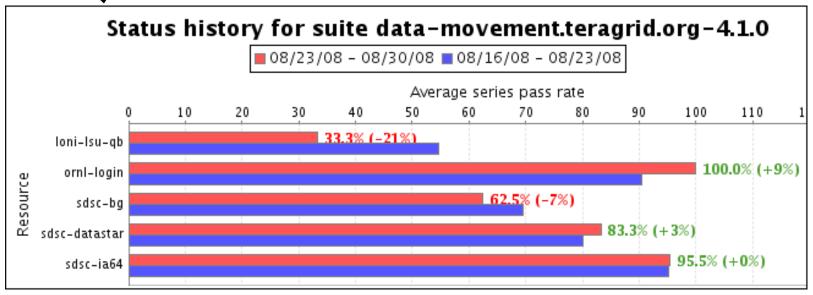






View suite and resource details





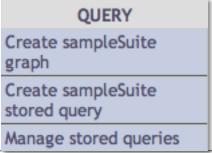






Caching provides quick page load times

- Periodically load and store large queries
- Latest suite instances cached by default -frequency from reload property
- Query management page allows view, execute, refresh, and modification action on queries (requires authentication)





Query management page







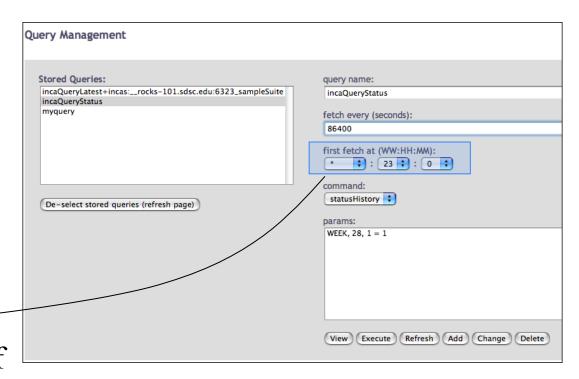
Daily history query analyzes errors

PERIOD, DAYS, CONDITION

where

PERIOD = DAY | WEEK | MONTH | QUARTER

- Four weeks of history loaded every day -time of day from reloadAt property
- TeraGrid 10 weeks of history
 (WEEK, 70, 1 = 1)



Query management page







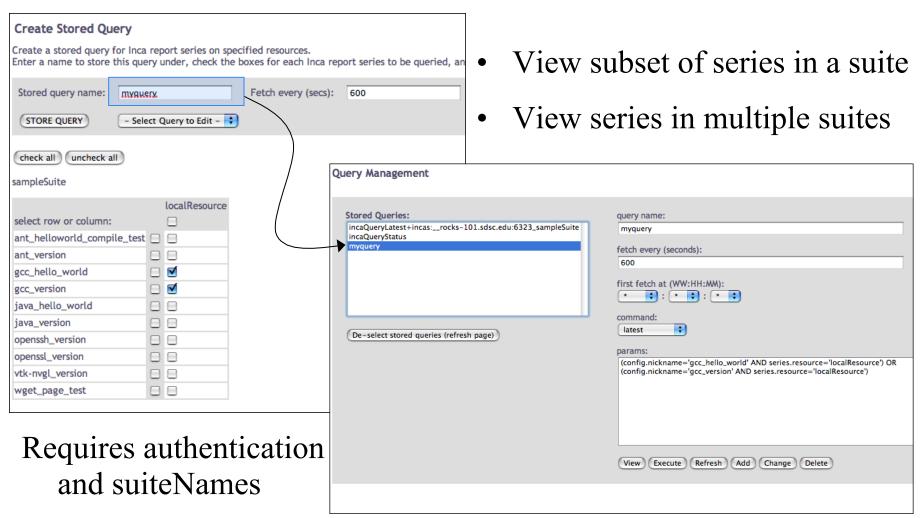
Daily history query output

```
<quer:object>
 <row><series>
  <guid>incas://rocks-101.sdsc.edu:6323/sampleSuite</guid>
                                                                     suite
  <nickname>gcc hello world</nickname>
                                                          series
 <re>ource>localResource</resource>
 <period>
  <br/><begin>1217830004174</begin>
                                             period 1
  <end>1218434804173</end>
  <success>1008</success>
                                                      num successes
  <failure>
   <message>gcc: Command not found</message>
                                                                 failure
   <count>2</count>
  </failure>
 </period> <period>
  <br/><begin>1218434804174</begin>
```





Create a custom query









Use custom query name in views

• Use queryNames in place of suiteNames

http://host:8080/inca/jsp/status.jsp?

queryNames=myquery

resourceIds=defaultGrid

gcc_hello_world
 gcc_version

 localResource
gcc_hello_world pass
gcc_version

3.4.4

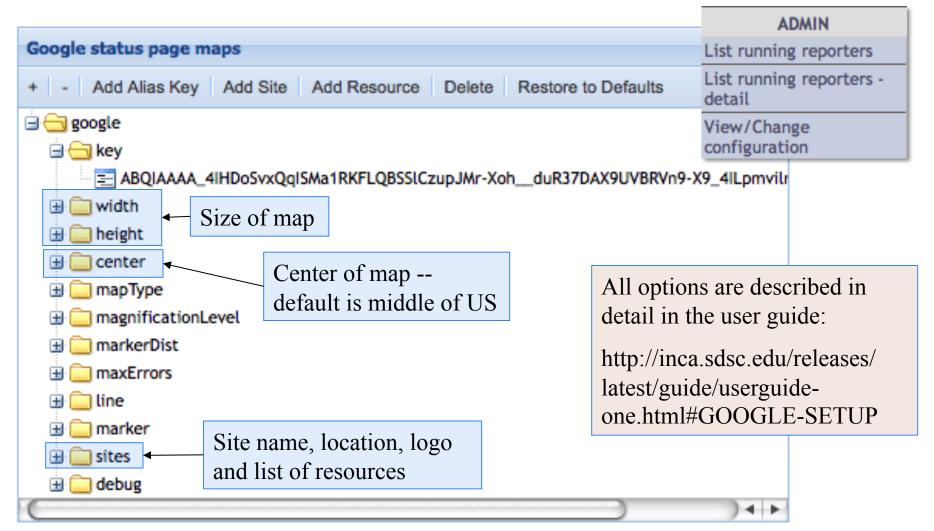
REST equivalent:

http://host:8080/inca/HTML/rest/myquery/defaultGrid





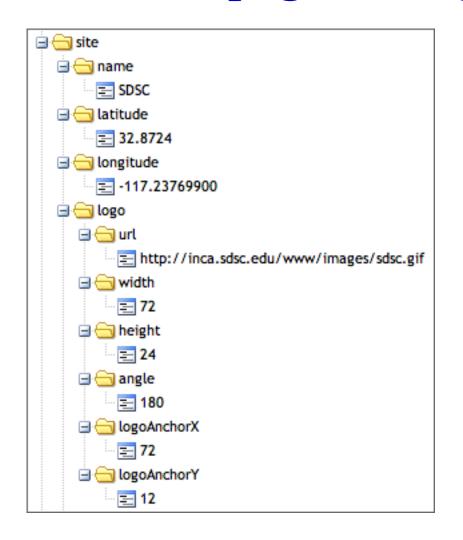
Admin pages: configure Google map view

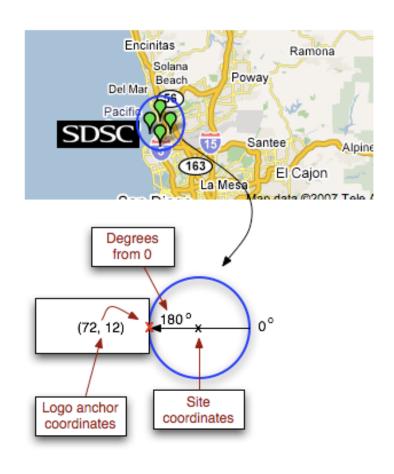






Admin pages: Google map site logos



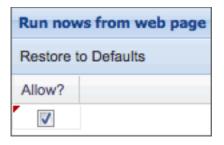








Admin pages: Run Nows



- triggers reporter execution on the local machine
- useful for admin who have worked on an issue and want to verify that a problem has been resolved

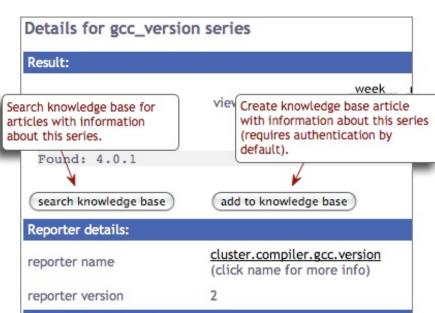




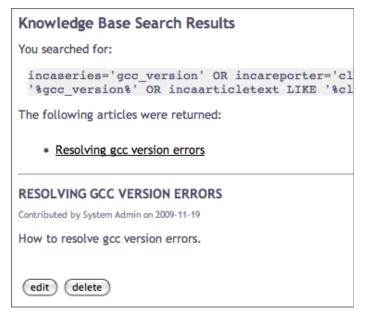


Admin pages: Knowledge Base





- designed to collect problem resolution information for tests
- used to debug problems





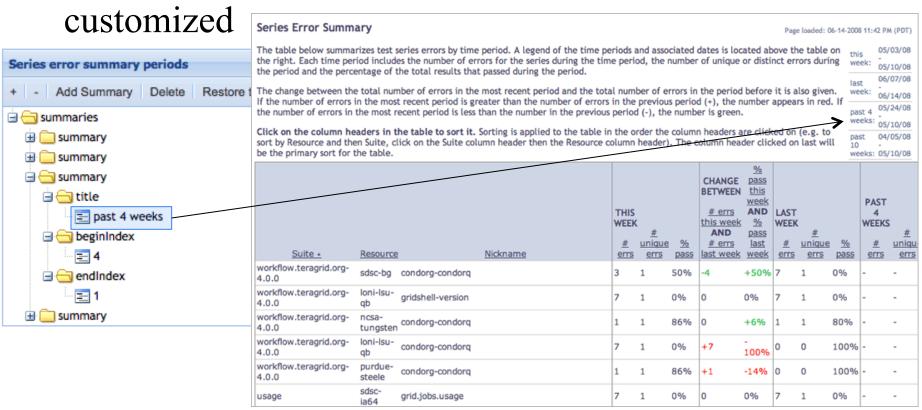




Admin pages: Series Error Summary

summarize test series errors by time period

• time periods and titles (i.e., PAST 4 WEEKS) can be





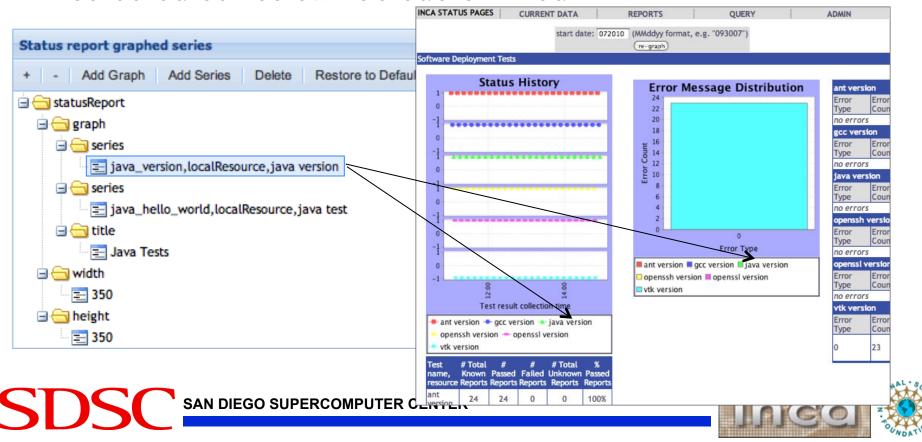




Admin pages: Pass/Fail Reports

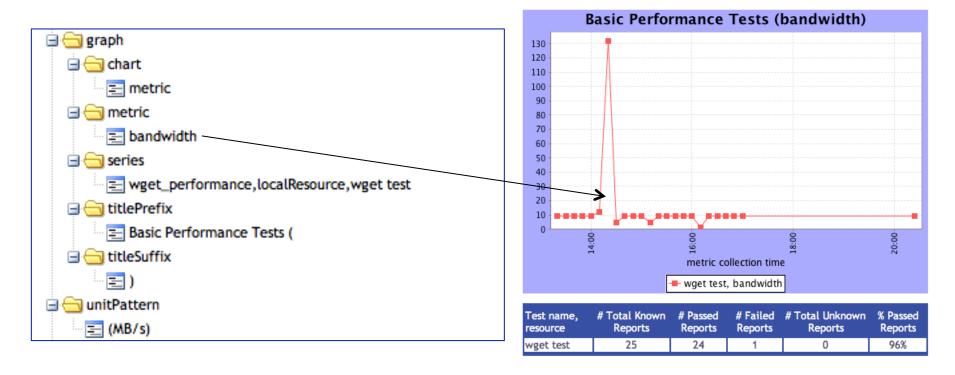
 historical summary reports with pass/fail status and error information

selected series can be customized



Admin Pages: Statistics

- historical summary reports with statistics
- selected series can be customized









Password authentication can be customized

- Ports: HTTP on 8080, HTTPS on 8443
- Password protection on query.jsp and status-auth.jsp (change in \$INCA_DIST/webapps/inca/WEB-INF/web.xml)
- Password set in \$INCA_DIST/etc/realm.properties username: password





REST Syntax

- Fetch suite or stored query data in XML or HTML format using REST URLs.
- By default, the consumer recognizes a REST URL using the following format: http://localhost:8080/inca/XML|HTML/rest/<suiteName>| <queryName>[/<resourceId>[/<seriesNickname>[/week| month|quarter|year]]]
- http://inca.sdsc.edu/releases/2.6/guide/userguide-one.html#REST





Customize the header

Add logo or background color here

INCA STATUS PAGES	CURRENT DATA	REPORTS	QUERY	ADMIN
	Table of sampleSuite	Past week: sampleSuite	Create sampleSuite	List running reporters
	results	msgs	graph	List running reporters -
	Map of sampleSuite		Create sampleSuite	detail
	results	Past week: avg pass rate	stored query	View/Change
		by resource/suite	Manage stored queries	configuration
		Past 4 weeks: series		
		error summary		
		Resource avg pass history		
		Suite avg pass history		

- Header can be customized by editing unordered list in header.xsl -- change for your suites
- Add logo at top or background color by adding row to table







```
  <a href="http://www.geongrid.org">
                                                                        Add GEON
   <img src="http://www.geongrid.org/images/logo lofi.gif"/>
                                                                        logo to top
  </a>
                                                                        of page
 INCA STATUS PAGES
  <u1>
                                                                            Table View
                                                 Summary Status for Common, Inc.
                                                                  Common Tests
                                                                            Map view
   <h2>Current Data</h2>
                                                                   Inca Tests
                                                 The map below uses the Google Maps Al
                                                                            ca test suites.
                                                                            map image).
    <u1>
     <1i>>
      <a href="{concat($jsp, 'status.jsp?', $all)}">Table Vivw </a>
      <111>
        <a href="{concat($jsp, 'status.jsp?', $all)}"> x | Tests </a> 
       <1i>
        <a href="{concat($jsp,'status.jsp?suiteNames=Common&amp;resourceIds=ROCKS')}">
          Common Tests
         </a></1i>
```



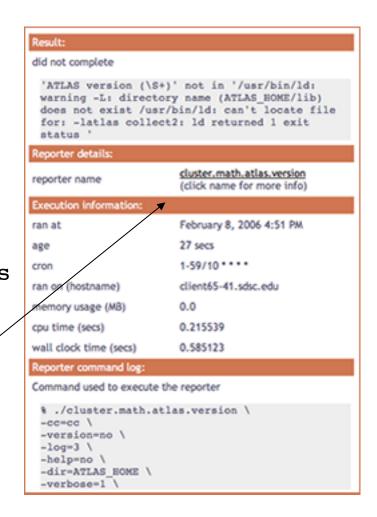




Changing colors in CSS

- Edit CSS (Cascading Style Sheet) to change colors and fonts
- E.g. change .header background-color

```
$INCA_INSTALL/webapps/inca/css/inca.css
.header {
          background-color: #D07651;
```







Summary

- A data consumer is anything that queries and digests data from the depot
- Inca includes a data consumer -- an embedded Jetty web container that includes a webapp
- Inca's status pages provide multiple levels of details from historical to current data and summary and detail views
- Caching of queries is automated to optimize page load times and can be customized
- Status pages' content, look, and security can be customized





