



Monitoring User-level Grid Functionality and Performance Using Inca

Inca detects Grid infrastructure problems by executing periodic, automated, user-level testing of Grid software and services.

<http://inca.sdsc.edu>

Enables consistent user-level testing across resources:

Emulates a Grid user by running under a standard user account and executing tests using a standard GSI credential. Ensures consistent testing across resources with centralized test configuration.

Easy to collect data from resources:

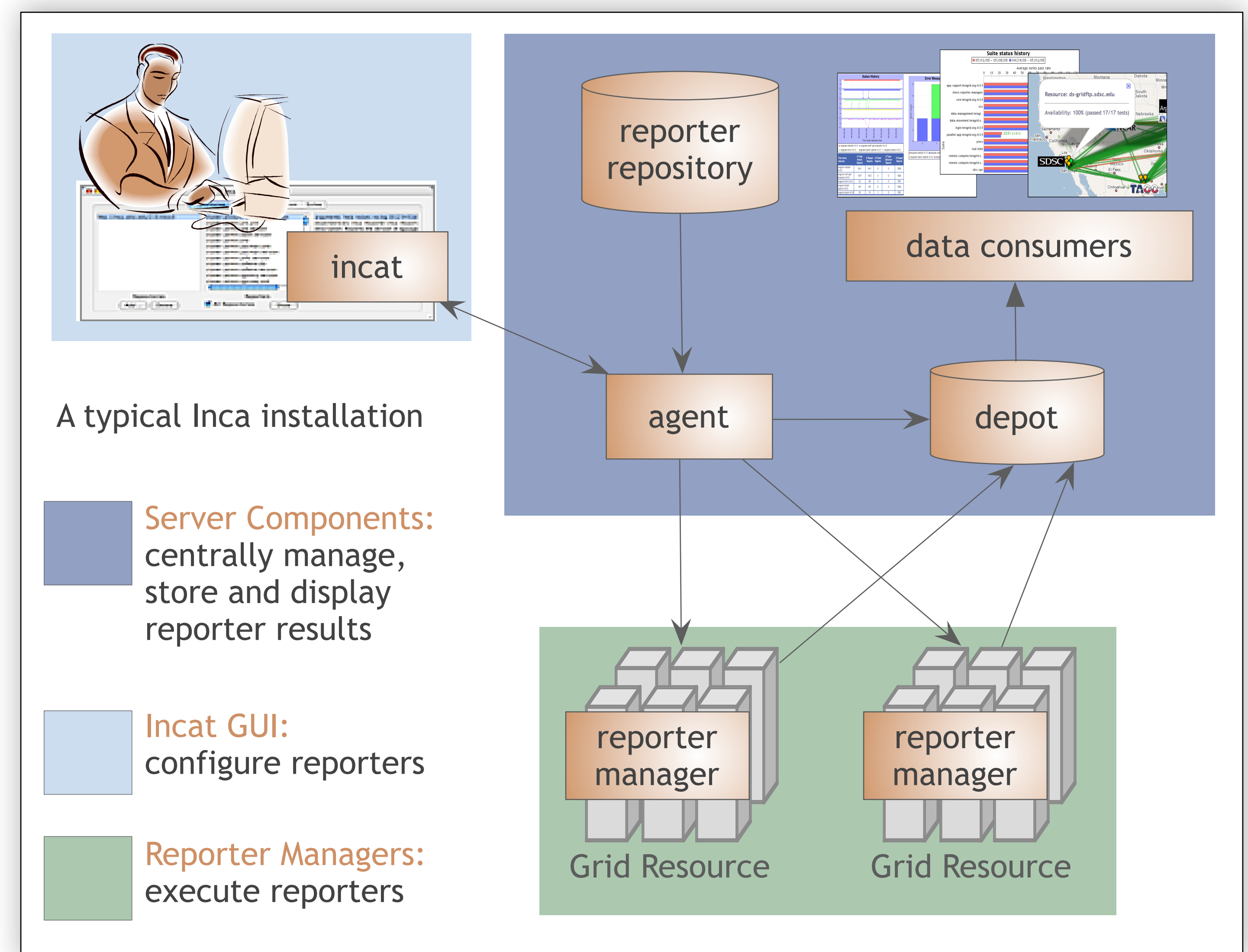
Data is collected by reporters, executables that measure some aspect of the system and output the result as XML. Multiple types of data can be collected. Perl and Python APIs are provided to make it easy to write reporters; most are less than 30 lines of code.

Easy to configure and maintain:

Manages and collects a large number of results through a GUI interface (incat). Measures resource usage of tests and benchmarks to help Inca administrators balance data freshness with system impact.

Comprehensive views of data:

Offers a variety of web status pages from cumulative summaries to reporter execution details and result histories.



A standard Inca installation

Archived results support troubleshooting:

Further understanding of Grid behavior by storing and archiving complete monitoring results. Allows system administrators to debug detected failures using archived execution details.

Secure:

Inca components communicate using SSL. Securely manages short-term proxies for Grid service testing.

Used in production:

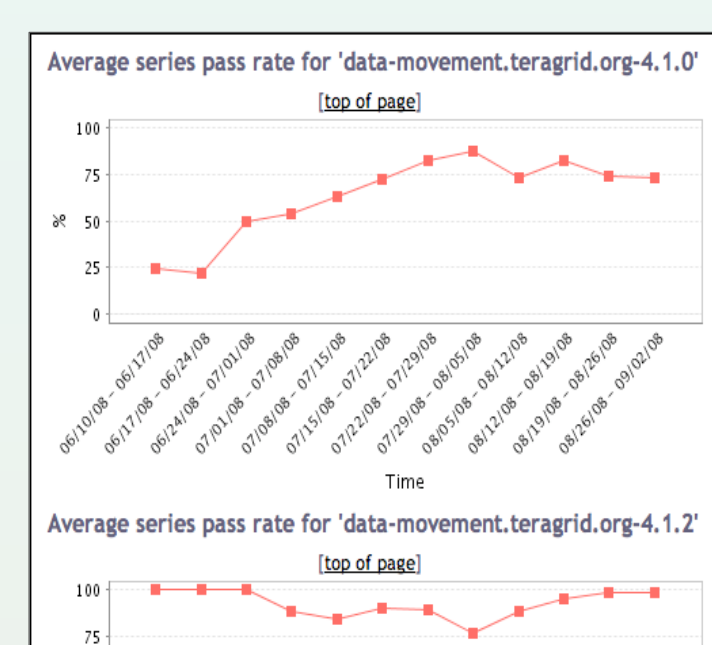
Inca is deployed on a wide variety of production Grids such as TeraGrid, GEON, TEAM, University of California (UC Grid), ARCS, DEISA, NGS and ZIH. Inca has also been used to monitor Open Source DataTurbine deployments on CREON and GLEON as well as execute and collect performance data from IPM instrumented applications.

Inca software and documentation can be found at <http://inca.sdsc.edu>. For further questions, please email inca@sdsc.edu.

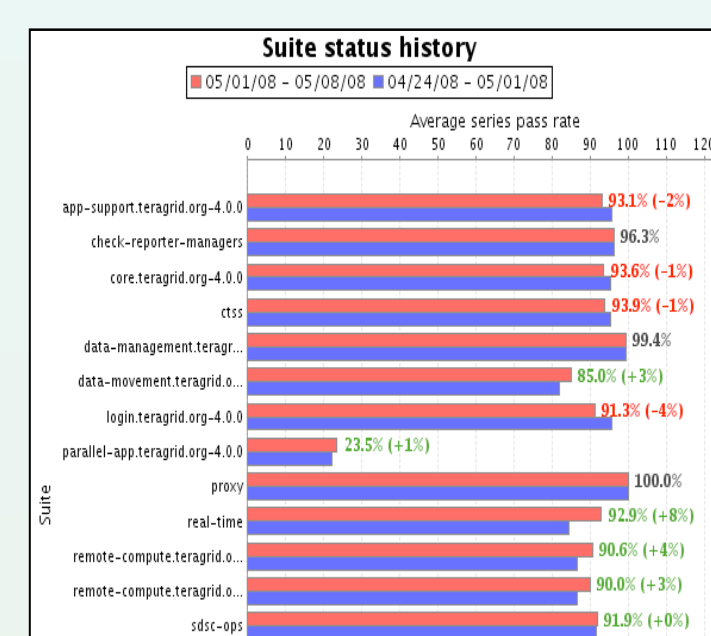


Inca is supported by NSF/NMI #0721364

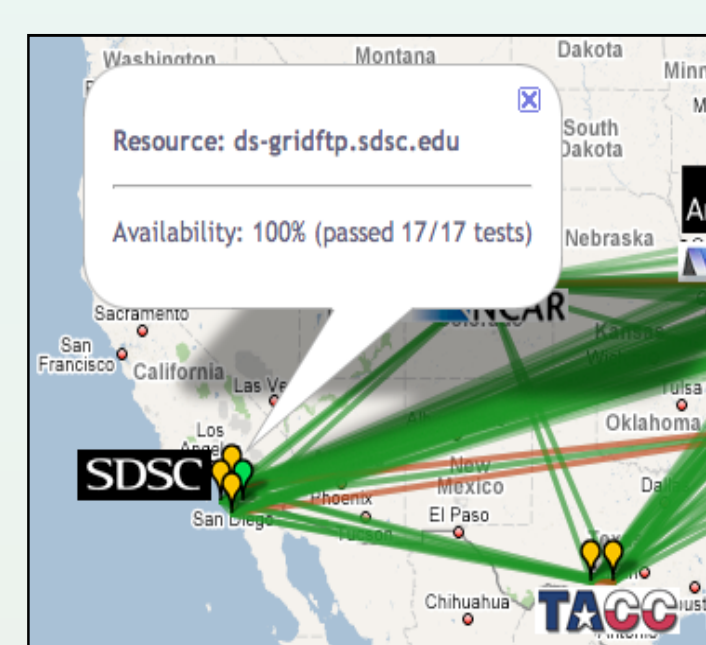
Tests Summary



Resource Status History



Weekly Status Report



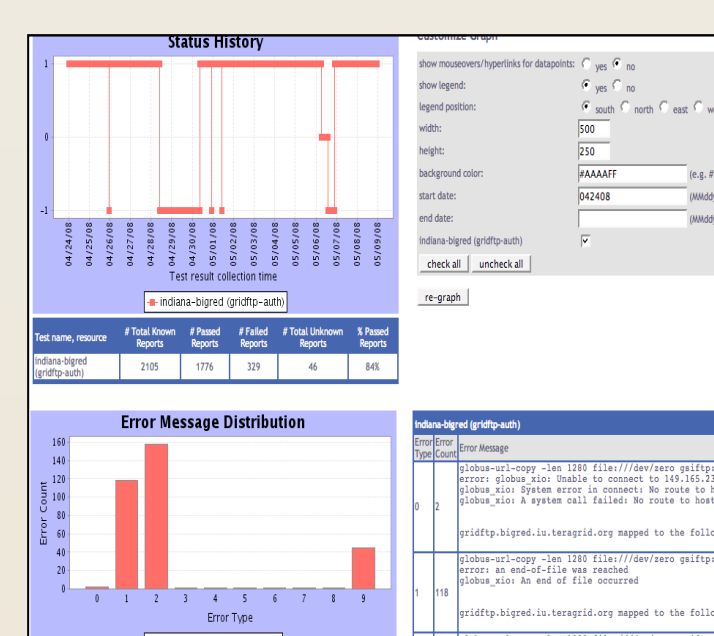
Cumulative Test Status by Resource

Nickname	THIS WEEK	# TESTS	% PASS	CHANGE BETWEEN	
				THIS WEEK AND LAST WEEK	% PASS
gsl-openish	3	3	100%	100	+11%
gsl-openish	6	1	0%	-1	0%
gsl-openish	7	1	66%	+4	-33%
gsl-openish	7	1	0%	0	0%
gsl-openish	7	1	0%	0	0%
gsl-openish	7	1	0%	0	0%
gsl-openish	2	1	86%	+1	-4%
gsl-openish	7	1	0%	0	0%
gsl-openish	1	1	83%	+1	-17%
gsl-openish	7	1	0%	0	0%

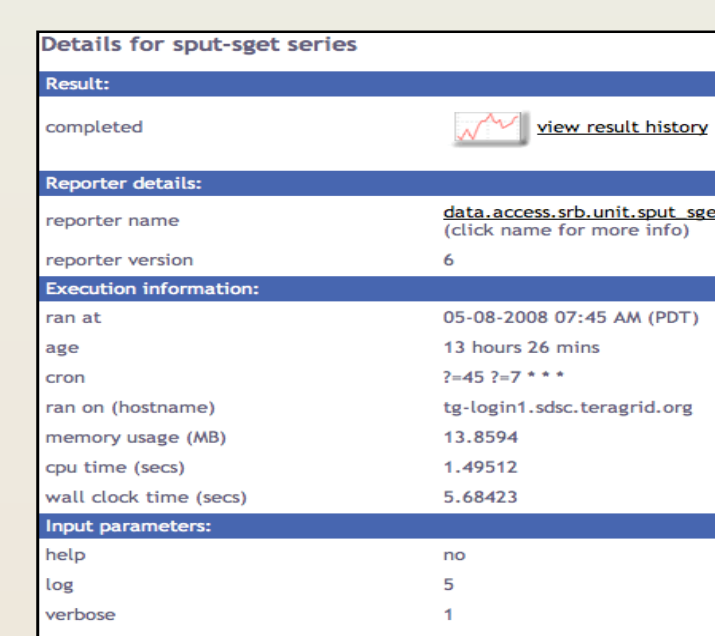
Error History Summary



Related Test Histories



Individual Test History



Individual Test Result Details

Test Details

Historical

Current Status