



<http://inca.sdsc.edu>

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.

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:

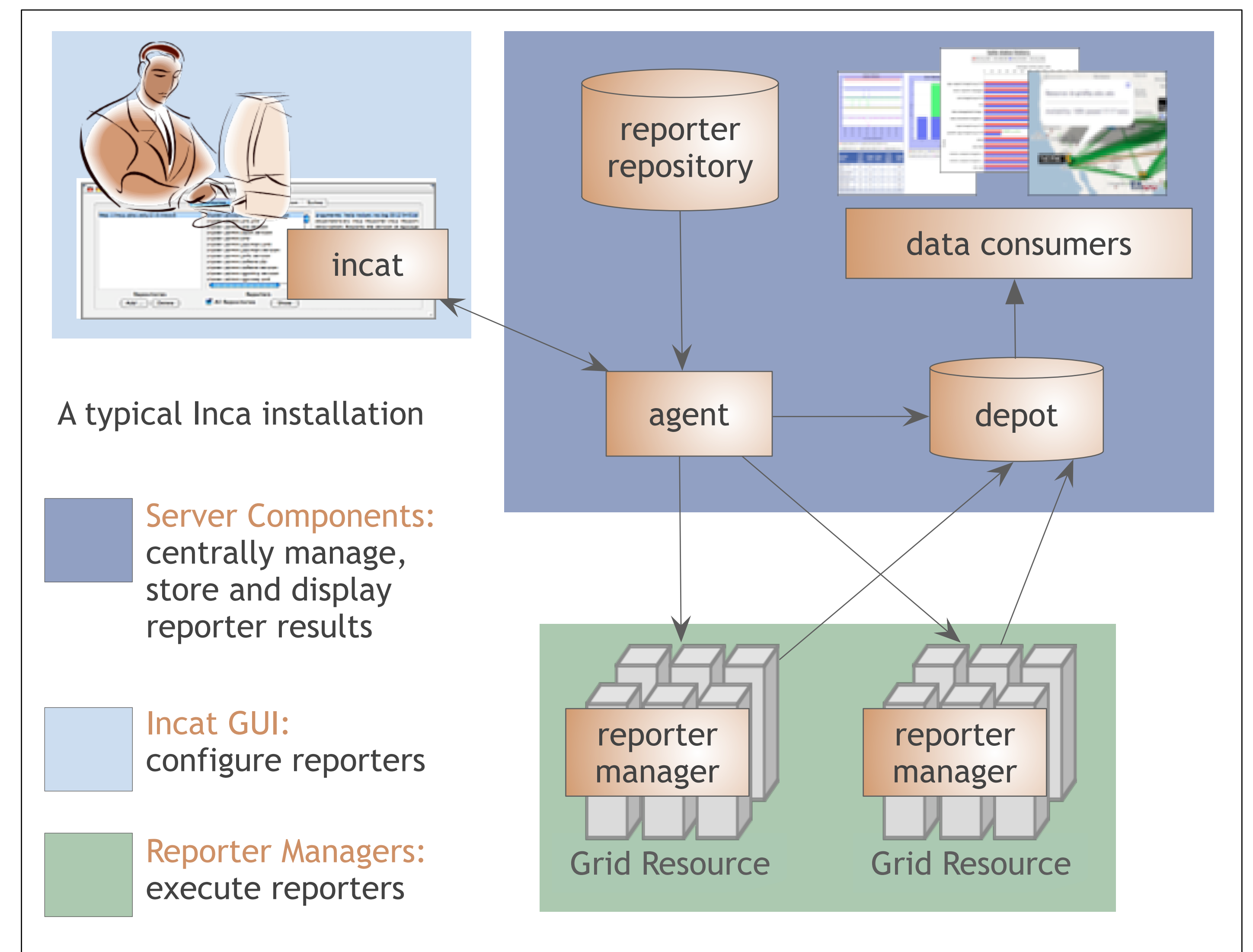
Data is collected by reporters, executables that measure some aspect of the system and output the result as XML. Multiple types of data can be collected. Perl and Python APIs are provided to make it easy to write reporters; most are less than 30 lines of code.

Easy to configure and maintain:

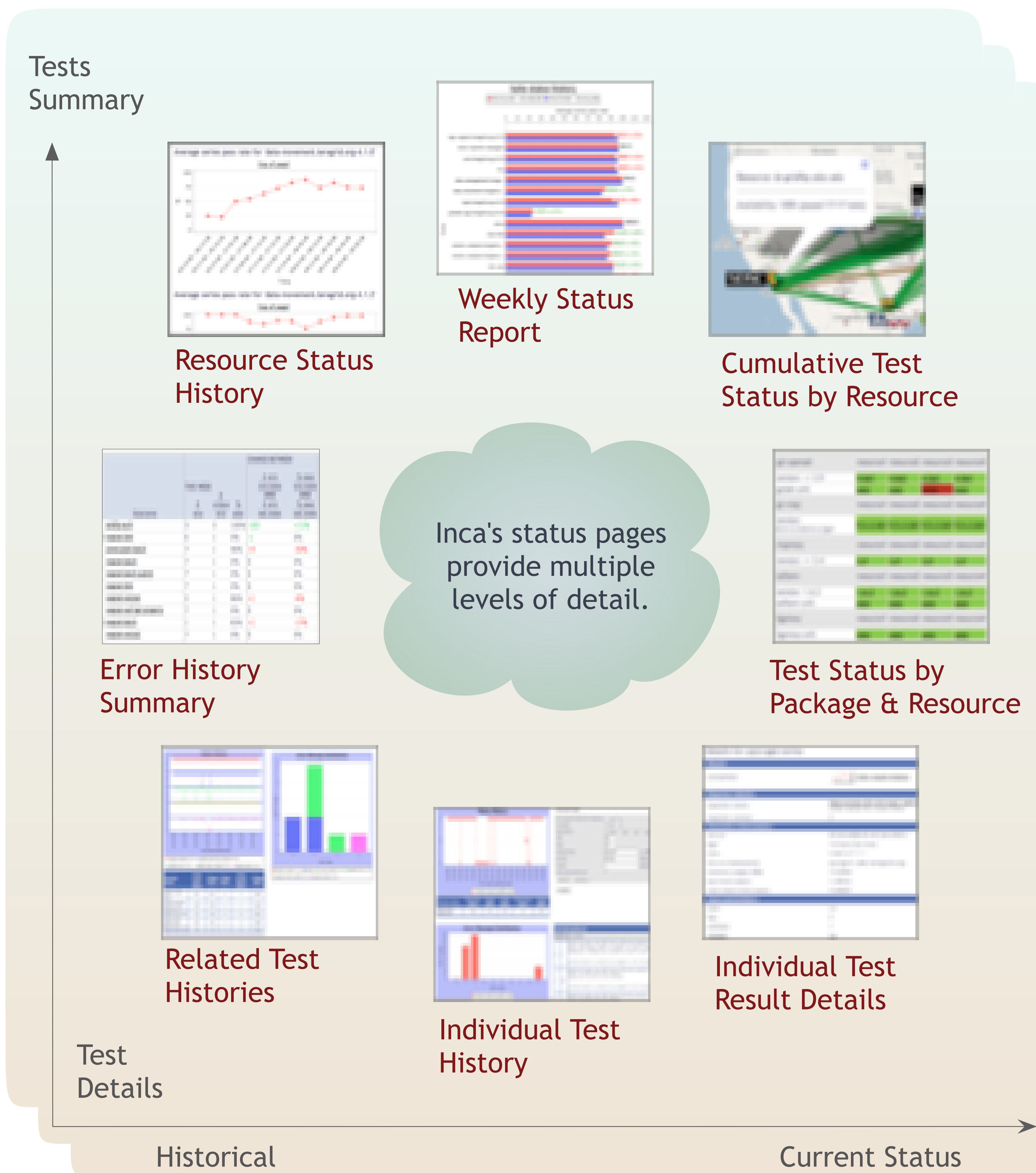
Manages and collects a large number of results through a GUI interface (incat). Measures resource usage of tests and benchmarks to help Inca administrators balance data freshness with system impact.

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.

Deployed on global Grids:

Inca is deployed on a wide variety of Grid projects 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.

Community Software:

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

Supported by:

