GiAPA

Global iSeries Application Performance Analysis

iSeries professionals consider application performance optimization a complex task, normally requiring expensive external experts. However, GiAPA's automatic data collection and analysis makes it easy for the average operator, programmer or systems analyst to locate and diagnose the vast majority of performance inefficiencies.

GiAPA assists in locating and diagnosing performance inefficiencies in applications running under i5/OS. GiAPA will assist you in using your existing computer resources in an optimal way, without the need to purchase additional hardware to meet the growth of users or applications.

Using less than 0.1 percent of one CPU, GiAPA collects performance data for all active jobs and tasks, automatically storing additional details down to thread level for the jobs using the most resources.

GiAPA allows you to collect comprehensive performance data continuously at merely no cost. This means that when a performance problem has occurred (e.g. a user complains about bad response times during the morning), you can pinpoint the cause within the available GiAPA data.

GiAPA is designed to tell you

1. which of your applications have performance problems,
2. what the problems are,
3. within which program(s), often down to the source statement line number, and
4. how the application can be improved to run efficiently.

GiAPA is used for much more than speeding up applications

Since GiAPA keeps details on the movements of all jobs, it is commonly used by operations to follow up on the every day load on the server (who did what and when), or to supply management trends on resource usage by application, by user, week, etc...

Other Benefits:

- Track who runs which programs and when
- analyze any performance problems even after they happened
- assist operations in the daily control of machine usage
- solve certain complex capacity planning
- control quality of new applications before they go in production
- use as base for simple job accounting

How does GiAPA Work?
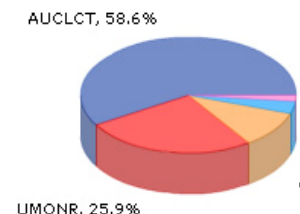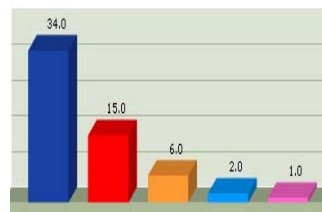
1. Data Collection

GiAPA's data collection retrieves performance details for all jobs and tasks every 15 seconds. Additional call stack and file usage data is collected automatically for any job causing a "HotSpot", i.e. exceeding user-defined limits for CPU percentage or Disk-I/Os within a 15 second interval. Data collection consumes typically somewhat less than 0.1 % CPU.

2. Data Expansion and Analysis

The collected performance data stored in compressed binary format is expanded and analyzed. Jobs suffering from or potentially causing performance problems are kept individually by GiAPA for further analysis – other jobs or tasks are kept summarized by type and interval.

3. GiAPA Reports

A large number of exception and detailed reports, including pie, bar, line, and column charts, can be requested interactively, often down to the source statement number. This will show where to correct which performance problems, or where additional resources are used.