Understanding CPU and Memory Usage in isCOBOL Applications

A common question when planning an isCOBOL deployment is: *How much CPU and memory does an application require?*

There is no single answer. CPU and memory consumption depend on the application being run, the workload being processed, and the number of active users. Two applications running on the same version of isCOBOL can have very different resource requirements.

CPU usage and the number of cores needed depends on what the application is doing at a given time. Activities such as complex calculations, large file processing, sorting data, database access, long-running loops and report generation can increase CPU utilization.

Memory usage includes both the Java Virtual Machine (JVM) and the application running inside it. The amount of memory required depends on factors such as the volume of data being processed, called programs, cached data, and how the application is designed.

Because of this, Veryant recommends measuring actual resource usage rather than relying on estimates.

Measuring Resource Usage with VisualVM

Veryant recommends using **VisualVM** to monitor and analyze JVM resource usage.

VisualVM provides information about:

- JVM memory usage
- Heap activity
- Garbage collection
- Threads
- CPU activity
- Application performance

By monitoring an application during normal and peak workloads, you can identify actual CPU and memory consumption and investigate potential performance bottlenecks.

Detailed instructions for configuring and using VisualVM with isCOBOL are available in:

Tuning and Monitoring the Java Virtual Machine with VisualVM

The data collected with VisualVM provides the most accurate basis for capacity planning, performance tuning, and system sizing.

Online URL: https://support.veryant.com/phpkb/article.php?id=362