Progress® OpenEdge®

OpenEdge Memory Profiler: Enhancing Application Performance and Stability

WHITEPAPER

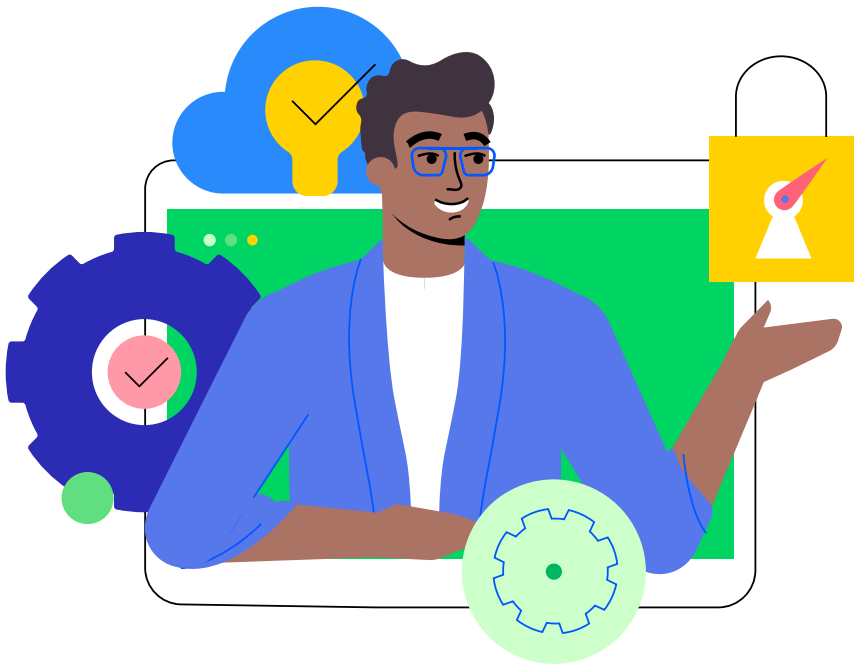
Introduction

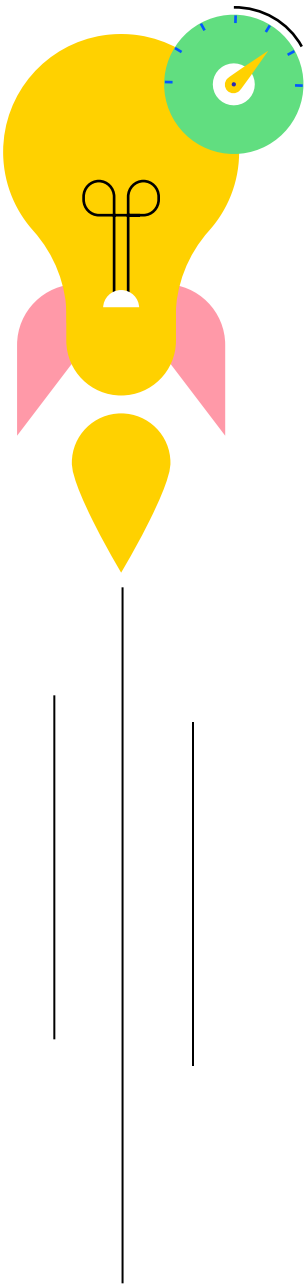
Now more than ever, optimizing application performance and maintaining system stability are paramount. With the Progress® OpenEdge® Memory Profiler (OEMP), developers can see memory-related issues within OpenEdge applications. The profiler is a powerful tool designed to help Advanced Business Language (ABL) developers and organizations achieve their performance and stability goals. This whitepaper explores the key benefits and features of the OpenEdge Memory Profiler, highlighting why it is an essential tool for anyone working with OpenEdge applications.

What Is the OpenEdge Memory Profiler?

Memory issues can slow down applications, causing a lag and overall poor performance. In the worst cases, they can exhaust memory and crash the application. The OpenEdge Memory Profiler is a free tool that helps identify these problems by visualizing platform and application memory usage.

While the impact depends on individual applications, the ability to visualize and analyze memory usage data is vital for developers and organizations. When developers can spot memory leaks and other memory issues, they can mitigate, refactor code and resolve the issues for better-performing applications.





Key Benefits of the OpenEdge Memory Profiler

Identifying Excessive Memory Consumption

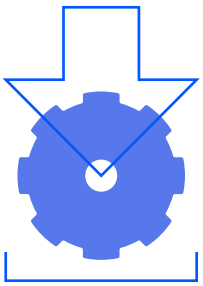
One of the primary advantages of the OpenEdge Memory Profiler is its ability to identify excessive memory consumption. By pinpointing areas where memory usage is higher than necessary or not being properly cleaned up, developers can optimize memory usage, leading to improved application stability. This proactive approach helps in maintaining efficient resource utilization and enhances the overall user experience. Additionally, OEMP supports migration efforts by helping to identify memory issues when moving from classic AppServer to PAS for OpenEdge.

Detecting Memory Leaks

Memory leaks can lead to significant issues, including application crashes and system instability. The OpenEdge Memory Profiler allows developers to detect possible memory leaks during development and testing phases. By identifying and addressing these leaks early, developers can prevent potential problems in production environments, facilitating smoother and more reliable application performance.

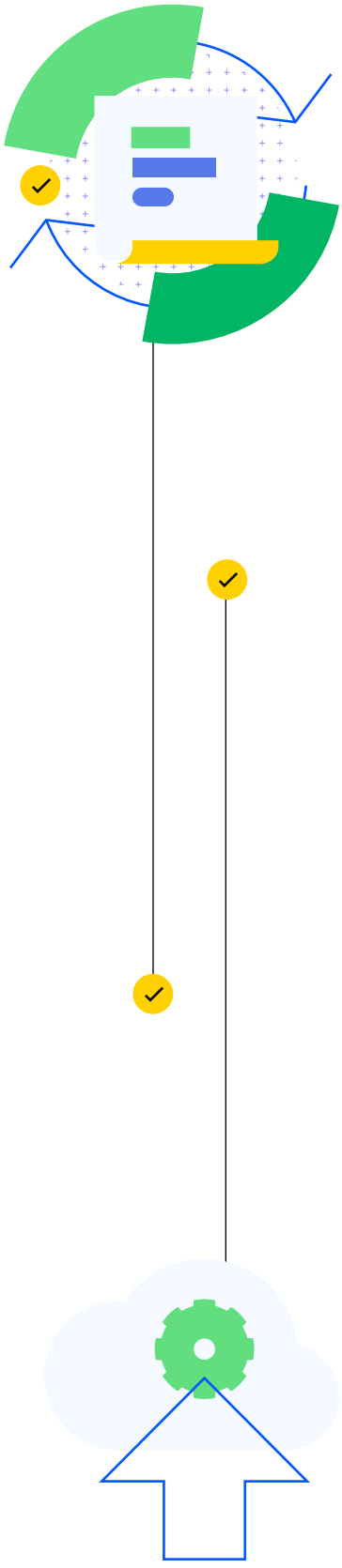
Running the profiler in User Acceptance Testing (UAT) environments can help identify memory issues that only appear under true load conditions. This step, while part of the overall testing process, allows for comprehensive detection and resolution of memory leaks before they appear in production environments.

Improving Productivity



The OpenEdge Memory Profiler improves developer productivity by providing visualizations and metrics that simplify the debugging process. The tool accelerates the resolution of memory-related issues, allowing developers to focus on enhancing application functionality rather than troubleshooting problems. The intuitive interface and comprehensive data provided by the profiler make it easier to identify and resolve issues quickly.

The platform and application memory usage data the profiler provides helps developers make more informed decisions. Specifically, the usage data can help developers optimize



memory allocation, detect and address potential memory leaks and refine their code for better performance. Embracing OEMP is a strategic move towards achieving superior application performance and operational excellence.

Key Features of OEMP

Profile Memory Usage

The profiler enables developers to record the memory usage of a running application for a period of time for ABL applications or PAS for OpenEdge instances. Within the profiler tool, a developer can view these memory profiling recordings to visualize a comprehensive view of memory usage over time, helping to identify patterns and potential issues.

View Snapshot Summary

A memory profiler recording is made up of a series of snapshots of the application's memory usage over time. Developers can access a summary list of the application's objects in memory at any point in time by viewing a snapshot summary. This snapshot summary provides a quick overview of memory allocation, making it easier to identify areas of concern.

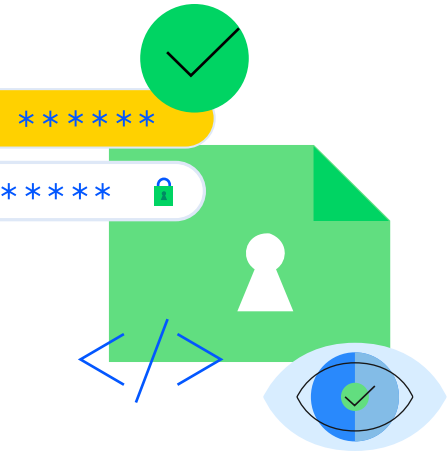
Analyze Memory Usage

The profiler allows developers to drill down into detailed information for individual objects within a memory snapshot. This detailed analysis supports developers' understanding of memory usage at a granular level, enabling more precise analysis.

Compare Snapshots

The OpenEdge Memory Profiler provides developers with a clear and actionable analysis of application memory consumption across two distinct points in time. For example, developers can compare memory use at Snapshot A to Snapshot B to identify:

- Objects that were present in Snapshot A, but subsequently deleted in Snapshot B
- Objects that persist across both snapshots and changes in memory footprint
- Objects newly created (present in Snapshot B but not in Snapshot A)



By highlighting key differences between memory snapshots, OpenEdge developers can gain deep insights into memory usage patterns, enabling faster identification of potential memory leaks and inefficient memory allocation.

Manage Recordings

Recordings exist on disk when produced , and OEMP imports recordings for analysis. To manage storage and maintain relevant data, developers can delete one or more of the imported recordings. This feature helps keep the database organized and retains only pertinent data for analysis. Files on disk will not be deleted directly by the profiler.

Conclusion

The OpenEdge Memory Profiler is an indispensable tool for ABL developers and organizations looking to optimize application execution and uphold system stability. By providing detailed insights into memory usage, detecting leaks and improving productivity, the profiler helps developers create more efficient and reliable applications. Embracing the OpenEdge Memory Profiler is a strategic move towards achieving superior application efficiency and operational excellence.

To learn more about the Progress OpenEdge Memory Profiler, visit our webpage.

About Progress

Progress (Nasdaq: PRGS) empowers organizations to achieve transformational success in the face of disruptive change. Our software enables our customers to develop, deploy and manage responsible AI-powered applications and experiences with agility and ease. Customers get a trusted provider in Progress, with the products, expertise and vision they need to succeed. Over 4 million developers and technologists at hundreds of thousands of enterprises depend on Progress. Learn more at www.progress.com

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