IMSL

PERFORCE

IMSL Migration Services

Increase Security, Efficiency, and Performance

Keeping your applications up to date with the latest compiler and platform support can be challenging. Since IMSL provides libraries that are portable and tested in the most common and up-to-date configurations, your application is in a good position to upgrade or migrate to the latest platforms. While there are likely changes required for your application because of new compiler requirements, security updates, or platform support, Perforce is here to help.

Stay focused on building value for your business—and keep your critical applications up to date—by choosing IMSL Migration Services.

Why IMSL Migration Services?

When you utilize IMSL Migration Services, your project is managed by an IMSL migration expert. These experts have extensive experience in large-scale platform upgrades, platform differences, and testing. They work to ensure you:

- **Save Time** - Skip learning curves get back to valuable customer driven feature development by utilizing experienced IMSL engineers and proven best practices.
- **Stay Secure** - Keep your application up to date with the latest security fixes and enhancements.
- **Increase Performance and Stability** - Realize the maximum gains in application performance and stability enhancements.
- **Cut Risk** - Minimize unexpected cost and resource issues, downtime, and other business disruptions.

Why Upgrade?

It is critical to update your applications' use of build technologies and third-party libraries. New releases:

- Include security patches, which protect against breaches.
- Enable you to move up to newer versions of the Intel Fortran compiler, Visual Studio, Java, and OS to maintain compatibility.
- Can increase application performance, improving user experience.
- Include new features and enhancements that boost development efficiency, code quality, and improve stability of your application.

What's the Process?

Working closely with your team, our engineers help establish the right strategy for your business, applications, and teams. They then use a multi-phase process that includes analysis, upgrading, and testing.

ANALYSIS

Initially, your consultant will review your existing code and architecture using manual and automated processes to:

- Identify key application requirements and map them to required changes.
- Pinpoint potential incompatibility and configuration issues up front so they don't cause production issues.
- Identify and replace incompatible legacy code, deprecated interfaces, and/or extensions.

At the conclusion of the analysis phase, your consultant will provide a comprehensive plan that includes timelines, code changes, architecture and code optimizations, and the testing strategy.

UPGRADING OR MIGRATING

During the application upgrade process your consultant will upgrade your application to the latest version of IMSL, making sure it properly works with any new interfaces and functionality.

Our consultants use a hands-on, mentoring approach during migration, so your developers:

- Learn to use the new APIs, library features, and components.
- Understand any new compiler requirements.
- Optimize efficiently with coding methodologies that support new types of features.

TESTING

To help ensure your applications run seamlessly in production, your consultant will test changes as they are made during the upgrade process. They will leverage any existing test suites that are part of the application and automated processes. Using a short, incremental upgrade and testing approach makes it easier to pinpoint errors immediately rather than waiting until the migration is complete, saving time and reducing the risk of production issues.

Upgrading from Older Compilers

Each new compiler release brings advancements in how it builds applications. Many of the advancements result in new warnings and occasionally, compilation issues, across your codebase. It can be a challenge understanding what code changes are needed and ensuring that any changed code does not alter the functionality of the application. Some examples of what needs to be dealt with during compiler updates include:

- **Standards Conformance**
  Each new compiler version continues to increase the compliance checking language. Conformance issues result in warnings and compilation errors.
- **Compatibility with C++17**
  Explicit changes for C++17 ripple across your code with warnings such as "register is no longer a support storage class," deprecation of functions, and other types of compatibility issues. Perforce is experienced in not just fixing these kinds of issues, but also in taking advantage of the updates to improve applications.

Explore Your Options

Contact us to learn about your upgrade options. Boost security, save time, and increase performance by engaging IMSL Migration Services. Contact our team to book your free assessment.

CONTACT US

imsl.com/contact-us