

**Transform** is the premier AVeriSource offering for application reengineering and enables rearchitecting and rewriting applications or components in an accelerated fashion. It generates modern source code, test data, and testing frameworks for immediate schema testing and validation, configuration files for popular tools like SonarQube and Docker, and APIs and data framework test screens adhering to business rules for immediate design verification. **AVeriSource Transform** delivers structured, maintainable, object-oriented Java or C#, with NO proprietary runtimes, library or JAR files, no platform requirements, and no vendor lock-in.



## Problem

When legacy applications no longer fit your business requirements, and maintenance has become too time-consuming, error-prone, and costly, it's time to modernize or replace the applications. Most businesses would prefer to rearchitect their legacy applications, keeping and enhancing the good and removing or rewriting the bad. Previously, the choice to rewrite applications has been avoided due to the time, risk, and cost to do so. Rewrite projects have historically been problematic, with multiple developers producing disparate styles of code making maintenance and testing more difficult. For larger projects, many times the requirements can change over the duration of the project, incurring more cost and risk.



## Solution

**AVeriSource Transform** solves many of the arguments against rewriting legacy applications.

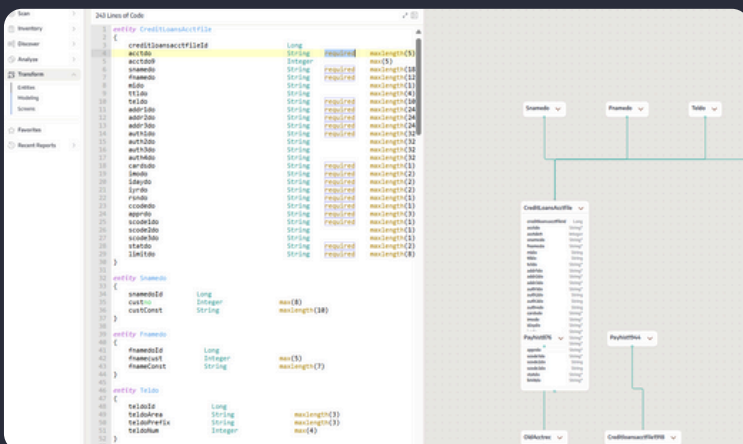
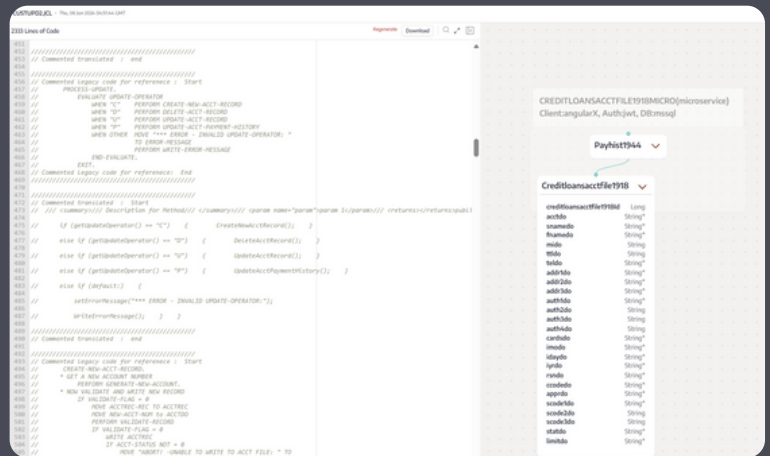
- 1) It reduces the time required to modernize legacy code by accelerating the rewrite efforts, thereby reducing cost and risk.
- 2) Generates high quality source code for production deployment while automatically creating standardized deliverables and quality code, reducing project time and cost, future maintenance time and issues, thereby reducing risk.
- 3) It enables implementation and integration of modern processes, technologies, and platforms, such as containerized cloud-native microservices in the cloud, on data center infrastructure, and even on the mainframe.

**Transform** is the full **AveriSource Platform™**, including **Scan**, **Inventory**, **Discover**, and **Analyze**, utilizing the information gained to enable model-driven transformation or an **Accelerated Rewrite™** approach to generate the following:

- ✔ Java with the Spring Boot framework, Spring Security, Spring MVC REST + Jackson, Hibernate bootstrapping, Spring Data JPA + Bean Validation
- ✔ .NET Core C# with the Entity Framework or ADO.NET
- ✔ JavaScript, Node.js, HTML5 boilerplate, and Angular projects
- ✔ Configuration files for many popular tools such as SonarQube, Docker, Prometheus, Maven or Gradle, and Cucumber
- ✔ Up to 95% of application or microservices code as the starting point with development, integration, testing, and deployment preferences
- ✔ **Transform** differentiates AveriSource, delivering high-quality code deployable to any platform supporting Java or C# and Angular projects, including the data center, the cloud, and the mainframe

🔄 Eliminate redundant and dead code, generating structured maintainable applications or microservices.


🔄 Rearchitect your portfolio entity schemas individually or as a whole, using auto-generated Entity Relationship Diagrams (ERD) of entities in the entire project codebase.





🔄 Generate ERD and AveriSource Descriptor Language (ADL) for the selected entry points and only the entities referenced by those components.

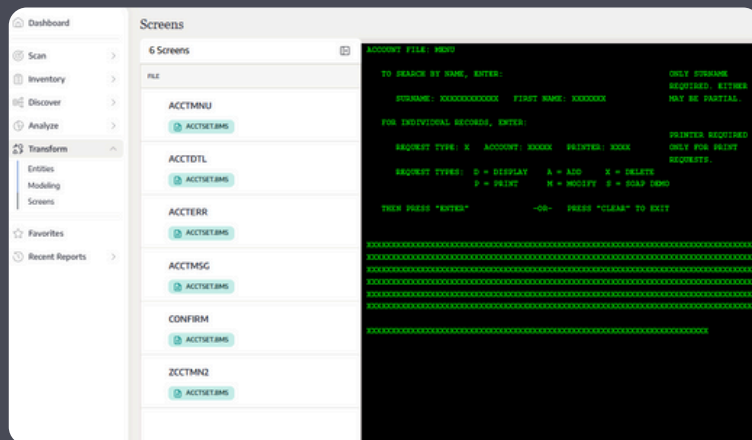
🔄 Generate code using understandable variable translations defined in Discover

🔄 Auto-generate YAML files for configuration and builds

 Generate test data and auto-populate target databases for data framework testing





 Generate configuration files for popular tools and environments like SonarQube, Maven, Docker, or Red Hat® OpenShift®

 Auto-generate data framework test screens and APIs adhering to business rules identified in **Analyze**



## Implementation Requirements

### Hardware

-  1 server (2 if client wants DB installed separately)
-  8+ CPU cores (per server)
-  64+ GB memory (minimum, per server)
-  500 GB storage (minimum, per server)

### Software

-  Windows Server (v2012 R2 or greater)
-  .NET Framework (v4.7+)
-  IIS (v8+)
-  MS SQL Server (v2016+)
-  SQL Server Management Studio (SSMS), compatible version with DB server
-  Microsoft Word (v2016+)
-  Microsoft Excel (v2016+)
-  Chrome Web Browser (latest)

## Averisource Transform Requirements

1. Java JDK 11+ (need to set the environment variables)
2. For Java: Eclipse IDE (Latest version)
3. For C#: Visual Studio (Latest version) with .NET Core
4. Apache Maven 3.8.2
5. NPM 6.14.15 or greater
6. Node 14.18.0

**NOTE:** Items 4 to 6 are included in **Averisource Transform**

## Additional Resources

View this **infographic** to see how the AveriSource Platform can be utilized at any stage of your journey, with multiple application modernization patterns.

**AI-Powered, Data-Driven Mainframe and Midrange Application Modernization**

Your approach to application modernization depends on your legacy landscape—it's not a one-size-fits-all solution.

Each strategy has different outcomes and ROI, so before prioritizing which systems to modernize, several factors must be taken into consideration.

- Business priorities** What are your organization's strategic goals in terms of customer experience, cost reduction, or security enhancements?
- Technical debt** Which applications utilize outdated technology, lack documentation, or require frequent maintenance?
- Criticality** Which applications are operationally essential for business continuity and performance?
- Cost-benefit analysis** What potential ROI and long-term cost savings would be gained by modernizing each application?
- Compatibility and integration** Which applications will seamlessly integrate with the other systems and technologies within your organization?
- Resource availability** What resources, skills, or budget will be required to ensure a successful modernization journey?
- Risk assessment** How will your organization account for potential downtime, data migration challenges, and user adoption difficulties?
- Vendor support** Are there legacy applications with limited or discontinued support that should be prioritized?

What if you could plan and deliver the optimal modernization journey—all within one platform?

With five integrated packages tailored to your needs, the Averisource Platform™ can help your organization **assess** your entire legacy application landscape, **refactor** the applications to modernize, and **execute** the right modernization strategy.

Whether you're interested in a full, AI-powered transformation or simply documenting existing functionality, the Averisource Platform is tailored to and optimized for the following modernization strategies.

In this **modernization use cases guide**, you'll explore the many functional requirements and business challenges that the Averisource Platform can help address, organized by persona and complete with next steps, platform capabilities, and comprehensive reports.

- AI-Powered Accelerated Rewrite™
- Application Analysis & Business Rules Extraction
- Reduce Technical Debt & Improve Code Quality
- Accelerated Onboarding & Knowledge Transfer; Application Management Services Takeover
- MGA — Due Diligence & Planning
- Software Stack Consolidation & Replacement

**Transform**

**Persona(s)**

Modernization Architect, Data Architect, Tech Lead, Developer

Use Case Name

AI-Powered Accelerated Rewrite™

Use Case Description

Leverage AI modeling to transform legacy source code to modern target language and re-deployment to any mainframe, distributed, container, or cloud environment.

Next Step

Utilize popular tools such as AWS CodeWhisperer, GitHub Copilot, or Google's Duet AI to complete the code transformation project. Deploy modernized, OO code without vendor lock-in to desired target environment on mainframe, distributed, or cloud.

Platform Reports Used

- Entities
- ADL Models
- Screens - Angular

Our mission is to help you accelerate your application analysis and modernization journey. For sales inquiries and to book a demo of the Averisource Platform, email us at [hello@averisource.com](mailto:hello@averisource.com) or click the button below.

Contact Us

For more information about the use of **AveriSource Transform**, including application analysis, business rule extraction, AI-powered code transformation, application modernization roadmap assessment, supported platforms, languages, and databases, visit our website.

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