

# Application Transformer

**TCS MasterCraft** | Application Transformer

Across industries today, application migration is a key activity in the implementation of almost all IT strategies be it rationalizing the application portfolio, exiting legacy technologies or reducing maintenance costs. Migration projects, however, can turn out to be long drawn, resource and cost intensive, with less than encouraging success rates. The required expertise in multiple technologies and migration processes, manual conversion errors, and the resultant loss of business information and functionality in the new application are challenges that prevent organizations from realizing planned benefits.

TCS MasterCraft Application Transformer is an end to end framework for automated application migration from legacy to newer technologies. It offers migration capabilities such as language conversion, database migration and field expansion backed by TCS' proprietary language processing and conversion tools, delivering significant benefits in terms of cost, expertise, time and functional fidelity.

## Overview

The key success factor of any migration program is full functional migration – which needs to be achieved while balancing other factors such as cost, timelines and resources. Manually migrating applications offers maximum control, but implies escalated costs and delays, and often, the inaccuracies and inefficiencies introduced during conversion challenge the success of the initiative.

TCS' Application Transformer automates the Program Conversion and database conversion effort with a focus on retaining the application's business rules, functionality and interfaces with other applications. The code is converted as is, using proprietary language processing techniques, and this automation delivers the benefits of accuracy and higher productivity. It also offers management capabilities, maintains strategies of migration coded, there optimizing experts support.

## Key Differentiators

1. Application transformer is an end to end solution for migration, with built-in features for management of conversion strategy, risk and business continuity
2. The framework incorporates best practices from over two decades of migration and re-engineering experience, includes assets on standards, checklists, templates, guidelines, migration challenges as well as corresponding solutions
3. Core conversion engines are backed by extensive research and use the TCS proprietary Abstract Syntax Tree for intermediate code conversion
4. The web-based platform can be invoked remotely, enabling multi-location migration with centralized management
5. Standardized deployment and support processes ensure all key concerns are addressed immediately

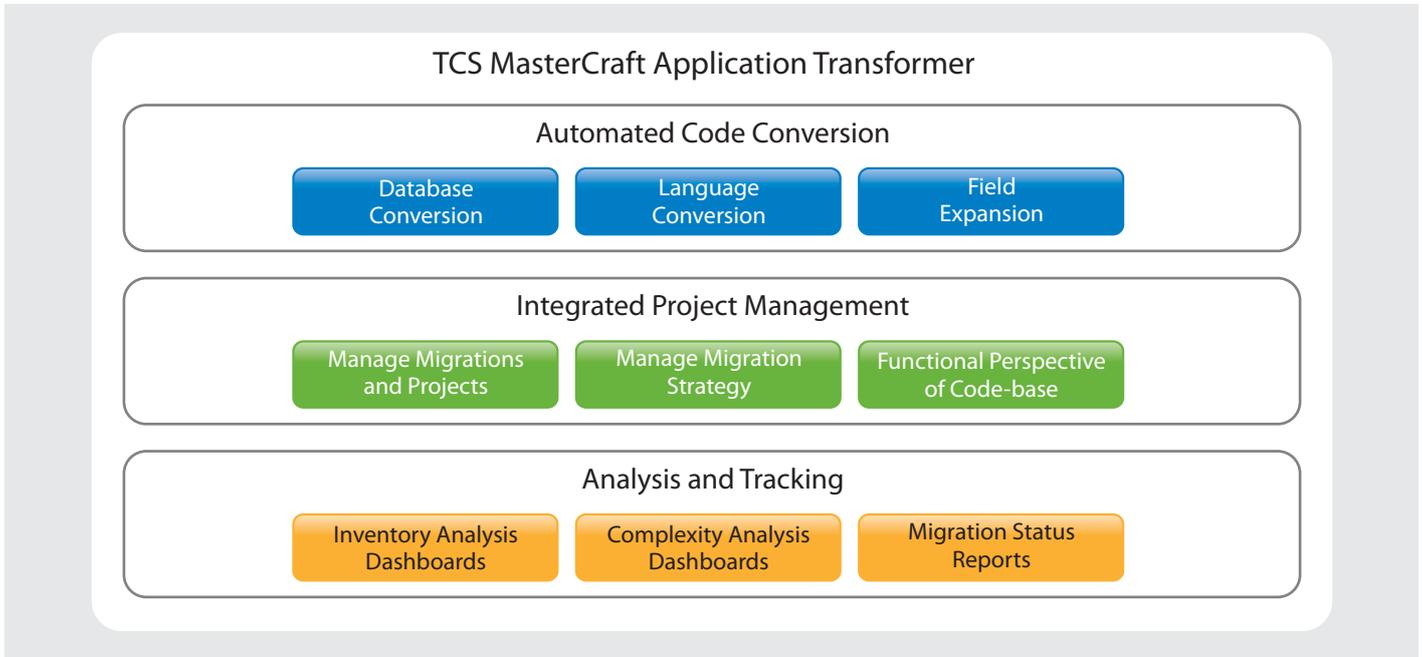
## Solution

TCS MasterCraft Application Transformer currently supports the following conversions:

- Database Migration
  - IDMS to Oracle
  - ISAM to Oracle
- Program Conversion
  - OS/VS COBOL to COBOL II
  - Easytrieve to COBOL II
- COBOL Field Expansions

## Key Features

- **Inventory Analysis and Complexity Dashboards:** These dashboards parse the entire code base and present high level metrics including the interrelationships between code components, the complexity of the statements in the code, and the occurrences of various statements, they also highlight missing components.
- **Conversion Engines:** The conversion engines use language processing techniques, comprising of lexer, parser and Abstract Syntax Tree, delivering faster and more effective migration. Customization of conversion strategy is possible, allowing greater control.
- **Call Flow Graphs and Field Expansion Tool:** These features make the legacy code more understandable and easy to maintain, thus improving business continuity during migration.
- **Risk Management Features:** Fine-grained conversion planning, functional view of code and extensive status dashboards ensure transparent migration execution.



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- **Component Grouping:** This feature allows the user to define the size of the batch of programs to be converted. This improves tracking and traceability. Business applications can be created representing the functional features of the code. Code components can be mapped to the applications which allows the user to understand which features or functions have been migrated and which are in progress.
- **Dashboards:** Code upload and conversion status dashboards depict the status of the migration.

**The TCS Advantage**

The Application Transformer is an efficient and intelligent solution backed by our extensive experience in executing large application migration engagements across industries. It is part of our integrated end to end solution, TCS MasterCraft Application Transformer, which incorporates our best practices and methodologies. It has been packaged to deliver a cost benefit when compared with other tools in this space, and has been creditably deployed for various global customers enabling them to migrate applications with reduced business risk.

**Contact**

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**About Tata Consultancy Services Ltd (TCS)**

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

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