



Hard to Port or Risk Minimization

Part 4: Reducing costs through modernization

Modernization of COBOL or PL/I applications

Changing large, productive IT applications is associated with high costs, risks and an enormous amount of time. The race in the areas of agility, adaptability, and the adoption of new requirements is becoming increasingly difficult. The costs for the maintenance and further development of the application are increasing.

In discussions, my customers repeatedly highlight two topics as the reason for this:

1) Benefits and costs diverge from each other :

The maintenance nightmare due to missing documentation, the loss of experienced employees and missing specialists prevent the further development of the applications. Time-critical changes, for example, have to be laboriously integrated into the system. A lack of know-how is compensated for by more and more workarounds. The downward spiral begins. Changed requirements such as legal regulations are becoming major challenges. The costs increase due to increased maintenance effort and further development. Due to the deteriorating quality, the existing landscape can no longer be flexibly adapted to the changes that are being demanded ever more quickly. New required business models suffer as a result. The legacy systems are becoming more and more complex and, in the worst case, hinder the progress of the entire company.

However, flexibility and quick adaptability of the core applications are the most important prerequisites for software business processes to be optimally supported. However, the COBOL and PL/I applications have grown over decades, and they have been continually adapted and expanded to meet new requirements. What the user needs now is a clean-up of these applications.

2) The technology change

The implementation of new technologies promises more flexibility, more options and lower costs. To do this, however, the existing technology has to be replaced. Such projects were often started in the past, but the old technology was never completely replaced. Finally, several technologies are used for one task. However, such a coexistence of different technologies can lead to problems over time: The performance of the application decreases, the effort for maintenance increases and, if necessary, a migration to a new platform that is necessary for other reasons is prevented. To counteract this, it is necessary to exchange or consolidate technologies. But often, the technologies to be exchanged are firmly anchored in the existing applications.

However, the challenge with clean-ups and technology changes does not necessarily lie in the changes themselves. As a rule, the problem is the bulk of the application modules. In addition, there is the difficulty (and sometimes even the impossibility) of isolating individual applications from one another in such a way that the changes can be performed out safely.

And these applications are typically large, complex, and business-critical. A manual implementation of the clean-up or the technology change is too time-consuming and risky. A manual implementation would mean an enormous testing effort and impair regular maintenance. Thus, a process must be implemented that automatically provides you with a change and, if necessary, also allows a partial procedure.

AMELIO Modernization Platform

The AMELIO Modernization Platform offers you fully automated, step-by-step modernization that is perfectly tailored to your individual modernization requirements and that provides you with measurable results at an early stage. The targeted transformation tailored to your needs is performed in such a way that it also takes your future application architecture into account. In this way, you can safely replace old techniques, development paradigms and components. You get clearly structured, stable and flexible applications. Applications that can cope with the next changes and the changes after that and are therefore future-proof.

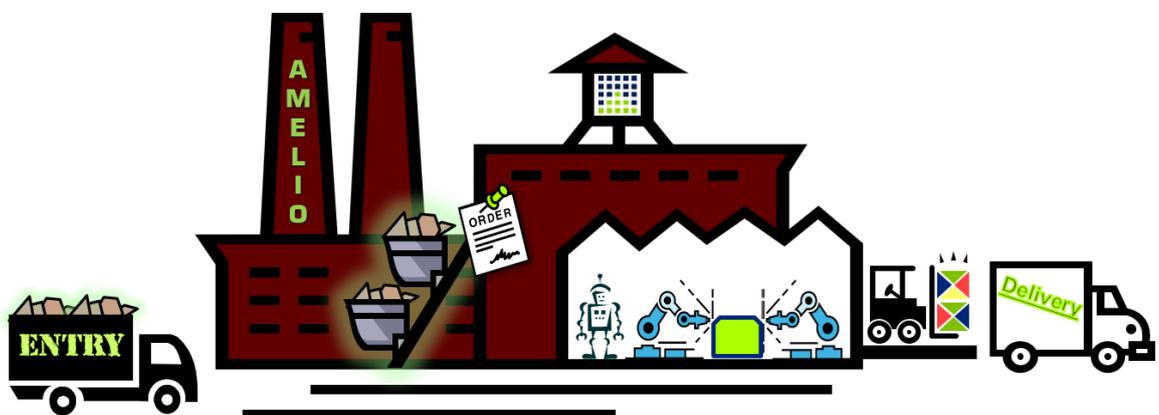


Your advantages:

- Strong automation, up to 100% in most areas
- Future security for your applications
- No vendor lock-ins, no external dependencies
- Tool-based solutions instead of anonymous outsourcing solutions
- Step-by-step approach with early and clear results
- Excellent quality

AMELIO supports your modernization project safely and flexibly with the following options:

- **Clean-up**
Take advantage of the opportunity to not only examine your applications for dead code. See the superfluous parts of your application, visualize their links, discover and clean-up code from the past that is no longer required or let them examine how syntax problems affect your applications.
- **Change or consolidation of technologies**
A task such as the transfer from hierarchical IMS/DB to relational DB2 seemed impossible for a long time. Nevertheless, several of our customers took this step successfully with our help. Or use AMELIO to make your applications available to new areas of application quickly and easily.



- **Modernization of the application architecture**

Even if this option does not save costs in the short term, in the long term it will mean that your application landscape can maintain the pace that is required. This includes changes to individual application layers, e.g. the modernization of the front ends for the use of new (web) technologies, the implementation of a separate data server layer, as well as extensive changes as are necessary when implementing service-oriented architectures (SOA).

The AMELIO Modernization Platform not only helps you to change your COBOL or PL/I applications. It shows you how big the problem actually is. It analyzes all sources including all meta-level components such as macros, copybooks, includes etc. AMELIO performs all changes automatically and 100%. This drastically reduces the test effort required and guarantees the full integrity and functionality of your applications at all times.

The productive lifetime of business functions is often measured in decades. Technologies, on the other hand, have a much shorter lifespan. For such transformation projects, you therefore need flexible tools that change your applications in a targeted manner - without endangering functionality and thus the important day-to-day business.

Therefore, in the next part of our series, read how you:

- can realize the added value of a technology change

About the Author:

Hans Nickessen, born in 1966, has been working in the IT for 30 years. Initially as a database developer, later from managerial sales positions to the current position as a Senior Consultant at Delta Software Technology GmbH. As a Trusted Advisor, he now supports users in general questions of software modernization and, as a special sub-area, the replacement of IMS Databases.

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