



# Helmsman: Get us on Track

## *Part 5: Realizing the added Value of a Modernization*

The decision has been made. The modernization is imminent.

### And now?

How many times have I experienced this situation and spoke to people this task have been imposed on or who have actively made this decision.

Requirements such as reducing costs and risks by replacing old platforms, databases, languages and front-ends, etc. are the goal of modernization. But what is the ideal way to achieve these goals?

After all my experience, I can rightly doubt the promises made by some providers on the market that a standard solution is always the best solution. The environment, the requirements, the history and the actual goal of the modernization are always unique for each customer. How should a standardized model be promising? With AMELIO you not only modernize tailored to your requirements, you also achieve the required goals with minimal costs and risks.

### **The Best Practice Approach**

From our experience and in many projects at our customers, the most practicable and successful approach to achieve these goals, consists of the following steps:

- Assessment
- Clean-Up
- Modernization
- Production

### **The Assessment**

In the last few texts, I had already described the concept of an assessment. We use our AMELIO solution in a personalized assessment tailored to your requirements. Not only information is collected and evaluated about how the application was implemented, but it is also determined what was implemented.



The determination and evaluation of all “sticking points” (so-called points of interest - POI) is extremely important. Every project, either a platform change, an architecture transformation, a refurbishment, a technology exchange, or something else, affects specific but always different places in the code and always has different effects on the application components, their interfaces and their behaviour. These effects define the POIs. They are fully identified, analyzed and evaluated.

This procedure, including extensive discussions with the customer, eliminates the risk of overlooking critical points and dependencies. For you, the project planning becomes safe and efficient.

### **Clean-Up and Factory: Tailored to customer requirements**

Applications that have lived for many years and have been continuously developed often contain superfluous code, different coding standards, code fragments from technologies or platforms that have been replaced long ago, and much more. All of this makes it

difficult to read and maintain the application. In many cases, a comprehensive clean-up is the first step in modernization.

After this clean-up or in parallel, the actual modernization is performed in the form of a platform change, a technology exchange, a refactoring, an architecture transformation and much more.

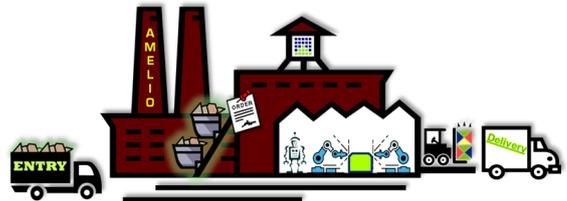
For each of these tasks, an AMELIO Factory specially adapted to the requirement is generated. It is built up step-by-step and adapted exactly to your requirements. In the learning phase, the findings from the assessment are incorporated, suggestions are elaborated and discussed with you. The first transformed sources are made available to you. The feedback resulting from runtime and performance tests is used to optimize the factory. The learning phase ends with the proof that the transformations are correct. The concept of meta-level testing is ideal to keep the effort as low as possible. After a successful test, the application can then be put into production in packages.

The highlight here is that the regular maintenance work can continue unhindered while the factory is being set up precisely. Instead of a freeze, the status of the sources in the factory is updated regularly. A short freeze should only be performed before the final transformation. But a few hours, a night or a weekend are sufficient for this.

## Security and Traceability

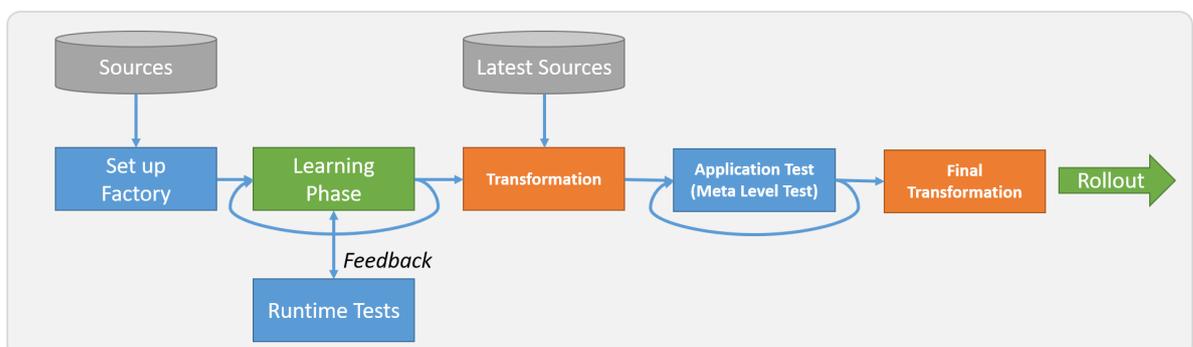
The factory works rule-based. This is not only the key to flexibility and adaptability, but also offers the important points of security and traceability.

With the rule-based approach, a transformation result can be reproduced at any time. Each transformation is also marked in the source and, if desired, recorded in a separate document. This also guarantees audit security.



## Meta level test: More security, despite reduced testing effort

The rule-based approach can also be used to reduce the test effort and at the same time to increase security. A normal test provides that every change is tested. However, in a modernization project, this could mean many thousands or even millions of changes. In the meta-level test, therefore, not all changes are tested, but the change rules. Because once the factory applies a rule correctly, it always applies it correctly.



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### Easy transfer to production

The transformations are performed cluster-wise for packages of any size. AMELIO supports the free combination of transformed and non-transformed modules. The complete automation of all changes ensures that the projects can actually be implemented independently of the running maintenance and further development.

### You don't have to compromise!

You can safely achieve your goal of reducing costs and risks with a modernization performed in this way. Several manageable steps keep your project clear. After each of these steps, you immediately profit. And

- Further development and maintenance can be continued without disruption during the project
- There is no point of no return. Strategy change is possible at any time
- The result is future-proof and does not create any dependencies, so there is no vendor lock-in and no footprints for you.

In the next and last part of this series you will get to know some of our projects that show how successfully the solution approach described above works.

I hope that I was able to arouse your interest in this exciting topic with the insight into my experience on the subject of application modernization.

Our entire team is happy to be at your disposal and we would be delighted if we could accompany you on your way to modernization.

For more information, I would like to recommend visiting our homepage at

<https://www.delta-software.com>

#### 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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