

Insurer Makes Important Core Application Fit for the Future

A large insurer has renovated a key component of his core application with the solutions from Delta Software Technology (Delta). Delta's AMELIO-Tools for automated analyses, code clean-up and re-documentation ensure a future-proof application infrastructure and an easy know-how transfer to the application heirs.

In the 1980s the insurer's IT developed a COBOL application for the screen control. Until now this forms an important part of the application infrastructure. Since its initial development this part of the application and the entire application have evolved: Extensions have been added over and over again. The screen control has been maintained by several generations of developers. Different programming styles and COBOL versions have been used for the further development. Moreover, the screen control has been optimized according to former criteria. These criteria are no longer applicable. However, over time all of these measures have greatly affected understandability and maintainability.

The screen control has proven itself over the years. For this reason, it was decided to make this part of the established and reliable application fit for the future to preserve the proven application logic and to ensure the investments effected. The improvement of the application should be carried out safely and with as less effort as possible.

Fit for the future

For making the application fit, the following measures should be implemented:

- Clean-up and upgrade (refactoring) of the source code, so that it will be understandable and maintainable again and that changes and extensions can be implemented efficiently.
- Creating a technical documentation to better understand what the application does and how it works.
- Knowledge transfer about the application and its functionality to new developers.

A manual implementation of the measures would have been risky and inefficient:

- Efforts and risks could not be estimated.
- The daily business would have been disturbed due to a strong resource commitment.
- Massive testing efforts, to ensure the correctness of the changes.

The insurer has chosen the automated solution with Delta's tools and was able to avoid the problems of a manual approach.

Usage of the Delta AMELIO family

To solve the task Delta, suggested a multi-level approach with the following elements:

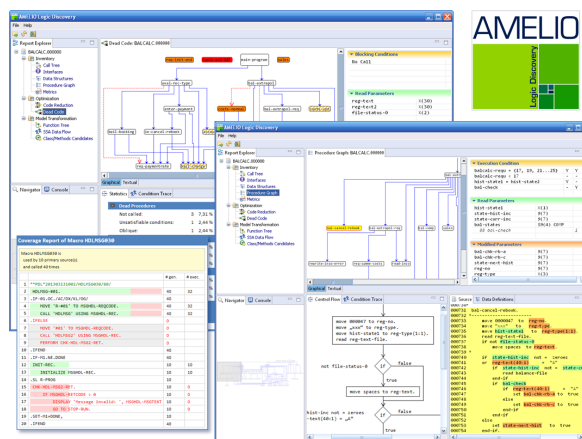
- Code clean-up
- In-depth source analyses
- Refactoring
- Re-documentation
- Workshops for the knowledge transfer

Analysis and clean-up of the sources

During the first step, the AMELIO toolset was configured regarding the customer-specific programming styles, name conventions, etc. General clean-ups, like the removal of redundant code and the standardisation of syntax variants, were implemented by using the AMELIO CleanUp Factory.

The analysis with AMELIO Logic Discovery identified what the application does and how it works. From these analysis results Delta derived suggestions for a tailor-made refactoring. These suggestions, as well as other requirements of the customer, were evaluated and coordinated in close cooperation to build the customer-specific factory.

With this tailor-made solution the refactoring was performed in an audit-proof way.



AMELIO Logic Discovery
... the comprehensive system for the automatic analysis of large and complex applications

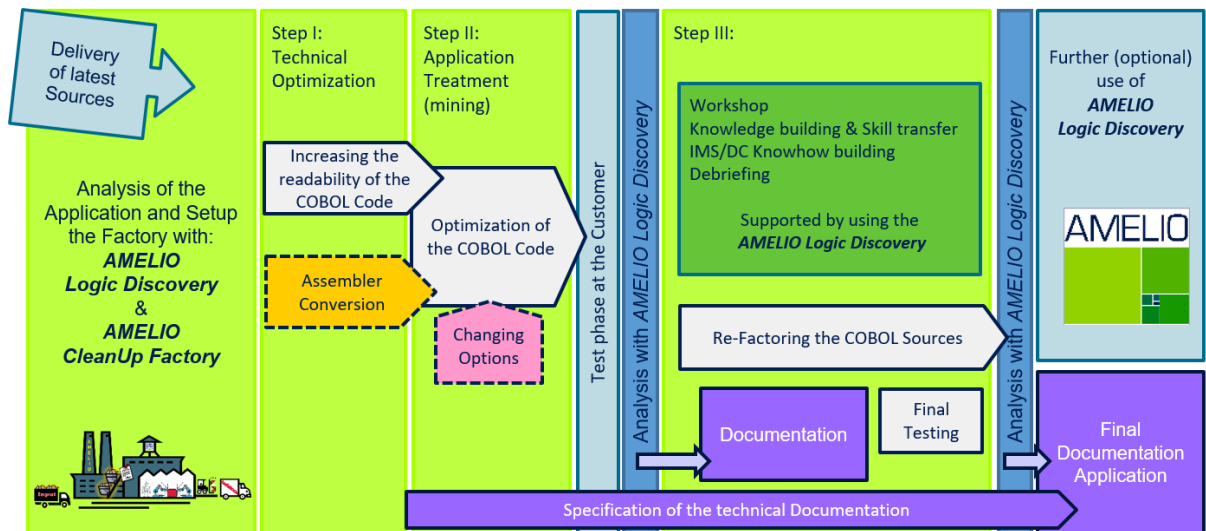
Workshop for the knowledge transfer

The results of the analyses and the refactoring were presented in a workshop and thus new employees were trained to work with the implementation of the screen control. Further possible improvements of the application were defined. The employees benefitted from the functionality of AMELIO Logic Discovery when implementing these improvements. They gained deep insight in the sources and were able to build their know-how about the application.



software
technology

AMELIO CleanUp Factory



Final analysis and re-documentation

Finally, these sources were analysed again by AMELIO Logic Discovery and a documentation of the entire application was created automatically. With the help of this documentation and the interactive presentation in AMELIO Logic Discovery, first maintenance cases have been implemented quick and efficiently.

Highlights and benefits of the Delta solution

The clean-up and refactoring were performed by a factory specifically configured for this purpose:

- **Automated** - The changes were implemented automatically and without manual interventions. The strict process ensured that the results are always comprehensible and reproducible. In this way, efforts and risks of the project have been minimized.
- **Audit-proof** - All changes to the code have been documented automatically. The complete automation and the change log provide security for internal and external auditors.
- **Tailor-made** - The necessary code changes were agreed with the customer and adapted to their requirements and company policies.
- **Documented** - A documentation of the application was created automatically.
- **Knowledge Building** - The knowledge about the application and its functioning was regained.
- **Without footprints, without vendor lock-in** - No additional runtime components or new products have to be installed or licensed. In addition, third-party tools, such as the decision table generator VORELLE, could be removed.
- **Short freeze phase** - The development and maintenance of the application could be continued in parallel without hindrance.
- **Minimal test effort** - Using *Meta-level testing*, not all changed programs had to be tested, but only the change rules using a small test set.

Goal achieved ...

The customer has managed to make his application fit for the future with little effort and low risk. With the gained experience it is now possible to decide how to make further (complex) applications fit for the future, while reusing the factory.

When will you make this step?

You have COBOL, PL/I or Delta ADS applications that have proven themselves and you want to make sure they are fit for the future?

Get in touch with us and find out what is possible with an automated approach.

AMELIO Logic Discovery

AMELIO Logic Discovery helps to understand the existing COBOL- and PL/I- applications and thus reduces the costs for re-implementation of the existing functions and for the modernization of the applications.

Further information can be found here:

delta-software.com/amld



AMELIO CleanUp-Factory

With the AMELIO CleanUp Factory you can quickly and securely clean up your COBOL and PL/I as well as Delta ADS applications and thus regain the flexibility and adaptability of your core applications.

Further information can be found here:

delta-software.com/cleanup



Delta Software Technology - The perfect Way to better Software

Delta Software Technology is a specialist for generative development tools that automate the modernisation, integration, development and maintenance of individual IT applications.

Our solutions help you to quickly and safely adapt your applications to new business requirements, architectures, technologies and technical infrastructures.

Delta has a more than 40-year track record of successfully delivering advanced software technology to Europe's leading organisations, including AMB Generali, ArcelorMittal, Deutsche Telekom, Hüttenwerke Krupp Mannesmann, Gothaer Versicherungen, La Poste, RDW, Suva and UBS.

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