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1 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 These criteria are no longer applicable.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.

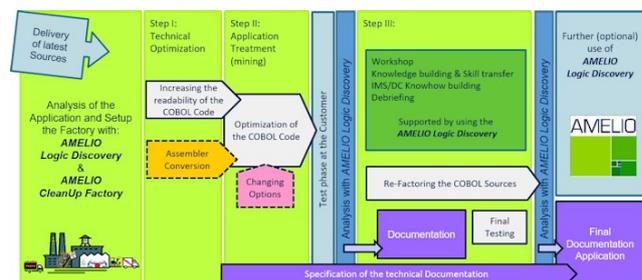
With this tailor-made solution the refactoring was performed in an audit-proof way.

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.

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 his 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, previously used third-party tools 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.

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.



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[Read more](#)

2 Bedag Relies on Delta ADS on Visual Studio

The Bedag Informatik AG modernises its development environment and combines the development in C# and Delta ADS in a .NET framework under Microsoft Visual Studio.

A uniform process control and development environment for the different programming languages is the goal of many enterprises. Bedag Informatik AG (Bedag) has mastered this step, it unifies its development processes and thus ensures a more efficient and future-proof application development.

(Further) Development of Viacar

Bedag develops and maintains the Viacar application with the solutions from Delta Software Technology GmbH (Delta) for many years. Many business cases as well as different canton-specific

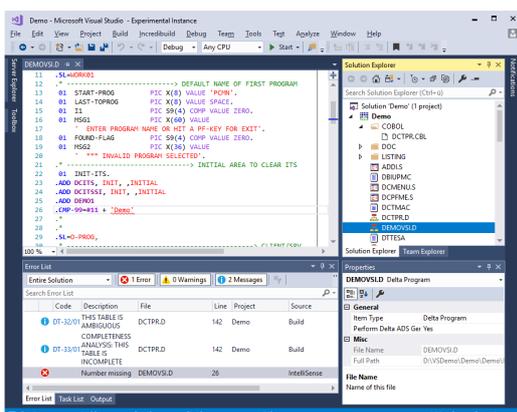
requirements were developed and generated Viacar-wide with [Delta ADS](#).

New parts of the application are developed in C# for .NET by using Microsoft Visual Studio. In order to avoid unnecessarily different processes and development environments, Bedag had the requirement to standardise its development of C# and Delta COBOL in one development environment.

Introduction of Delta ADS on Visual Studio

For this purpose Delta provided the plugin “[Delta ADS on Visual Studio](#)”. After a successful test, Bedag opted for the use of the Delta ADS plugin under Visual Studio. Delta ADS programs can now be maintained directly in Visual Studio and the corresponding COBOL code is generated. In this way, control processes could be unified and coordinated.

By using a unique development environment as well as the seamless integration of the Delta ADS plugin, Bedag’s developers do not have to switch between the development environments anymore. The provision of this uniform and modern user interface allows the efficient and future-proof development of the application.



About Bedag Informatik AG

With a revenue of more than CHF 100 million, Bedag is a leading Swiss IT service provider. Its 400 staff, including 27 trainees, ensure broad and sound IT expertise. Bedag’s core business is the development, maintenance and running of critical business IT solutions, and the company thereby guarantees economical and problem-free IT operations for its customers. Bedag has a strong regional presence, with a network of highly secure data centers, as well as sites in Berne, Aarau, Delémont, Geneva, Lausanne and Wettingen. Its customers are mainly public authorities and organisations, companies in the health and insurance sectors and UN organisations. Bedag was founded in 1990 and is owned by the Canton of Berne.



Viacar: The application for the Swiss Traffic Office

Viacar is a software system for traffic offices and is currently used by the six cantons Aargau, Luzern, Schaffhausen, Waadt, Zug and Zürich. The cantons manage therewith about 900 users and approx. 2.5 million vehicles and ships. At the Aarau location, Bedag and its team ensure the maintenance and further development of Viacar.

Go the way, too

If you want to standardise your development environment and processes under Visual Studio, we provide a trial version of the Delta ADS plugin.

If you don’t use Visual Studio, we also provide plugins for Eclipse as well as for [IBM RDz](#), [Micro Focus EDz](#), [Compuware Topaz](#) and other [Eclipse](#)

based development environments.

We would like to discuss with you the possibilities to optimize your development with Delta ADS.

Please get in touch with us.



Bedag Relies on Delta ADS on Visual Studio
The Bedag Informatik AG modernises its development environment and combines the development in C# and Delta ADS in a .NET framework under Microsoft Visual Studio.
[Read more](#)

3 Computerwoche: IT Legacy - Dusty but Valuable

Legacy Modernisation Challenges IT Managers

Start-ups are lucky: They can build new systems without taking account of existing ones. But, some day a successful start-up will become a company with a grown IT structure. On invitation of the COMPUTERWOCHE, IDG's weekly IT magazine in Germany, modernisation experts from seven companies discussed which problems can be solved and how.



The Roundtable

Dr. Daniela Schilling (CEO, Delta Software Technology) discussed in this round with representatives of Software AG, Deloitte Consulting, CA Germany, innoQ Germany, Capgemini and ConSol Software.

Read the complete online article from Karin Quack published in COMPUTERWOCHE from April 11,

2018:

<https://www.computerwoche.de/a/legacy-modernisierung-fordert-it-manager-heraus,3544668>

Go the Way With Delta Software Technology

We would be happy to discuss with you the different possibilities for modernisation. Just get in touch with us. Together we make your software future-proof.

This article was published in German by Karin Quack in the COMPUTERWOCHE in Germany on April 11, 2018 under the title "IT-Legacy – angestaubt, aber wertvoll: Legacy-Modernisierung fordert IT-Manager heraus" and translated into English by Delta Software Technology.

The original article, as well as further links, can be found [here](#).

4 20th GI-Workshop "Software Reengineering & Evolution"

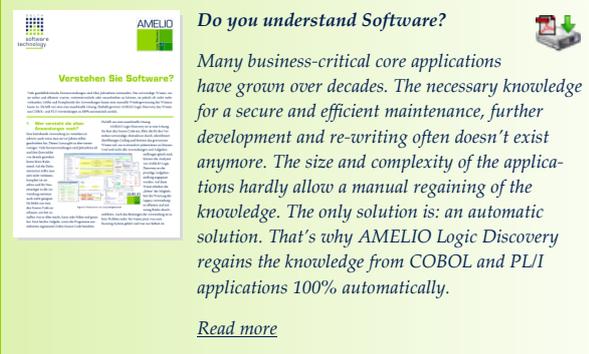
The 20th workshop "Software Reengineering & Evolution" of the GI section Software Reengineering (SRE) took place this year from 02 - 04 May 2018. (GI – Gesellschaft für Informatik e.V. is a German Society for Computer Science).



GI: 20th Workshop
 "Software Reengineering & Evolution"
 02 - 04 May 2018, Bad Honnef, Germany

Delta Software Technology was represented there with two contributions:

- Live Demo: AMELIO Logic Discovery – “Do You Understand Your Software?”
[Here you will find the presentation ...](#)



Do you understand Software?

Many business-critical core applications have grown over decades. The necessary knowledge for a secure and efficient maintenance, further development and re-writing often doesn't exist anymore. The size and complexity of the applications hardly allow a manual regaining of the knowledge. The only solution is: an automatic solution. That's why AMELIO Logic Discovery regains the knowledge from COBOL and PL/I applications 100% automatically.

[Read more](#)

- Presentation: Modernising Legacy Applications - “Everything New in Spring?”
[Here you will find the presentation ...](#)



Everything new in Spring?

Many companies often regard legacy applications as a burden and their maintenance and further development as error-prone and cost-intensive. But re-writing the application is too expensive and too risky due to size and complexity. By cleaning-up, re-structuring and modernization this burden becomes a valuable legacy that can be efficiently and continuously used. With the tools from the AMELIO family these modernization steps can be executed tailor-made and automated. As a result, the effort and the risk will be manageable.

[Read more](#)

Our speaker

Dr. Daniela Schilling

Dr. Daniela Schilling is Managing Director of Delta Software Technology.

Further Information

Further information on the event can be found here:
<http://fg-sre.gi.de/wsre2018>

You couldn't attend? Then contact us, we would be happy to meet you for a [personal discussion](#).

5 New Training Courses for ADS

Anyone using tools to automate software development needs in-depth knowledge of the methods, modes of operation, and capabilities of the tools. And not just “in principle”, but in relation to the concrete environment and task.

Our training courses and workshops help you to use Delta tools efficiently and to optimise the development of your applications: practice-oriented, taking into account your main focus.

ADS Basics - ADS for Administrators -
ADS Refresher - ADS on Eclipse -
ADS What's new

Here are the new training schedules for the first half of 2018:

- 06.-08.11.2018 - [ADS Basics](#)
- 13.-15.11.2018 - [ADS for Administrators](#)
- 20.-21.11.2018 - [ADS Refresher](#)
- 27.-28.11.2018 - [ADS on Eclipse](#)
- 04.12.2018 - [ADS What's new](#)

[Learn more about our trainings and workshops ...](#)

[Contact us](#) to discuss your requirements for a customised training.

More newsletters and our newsletter administration can be found here:
www.delta-software.com/newsletter

