NEWSLETTER

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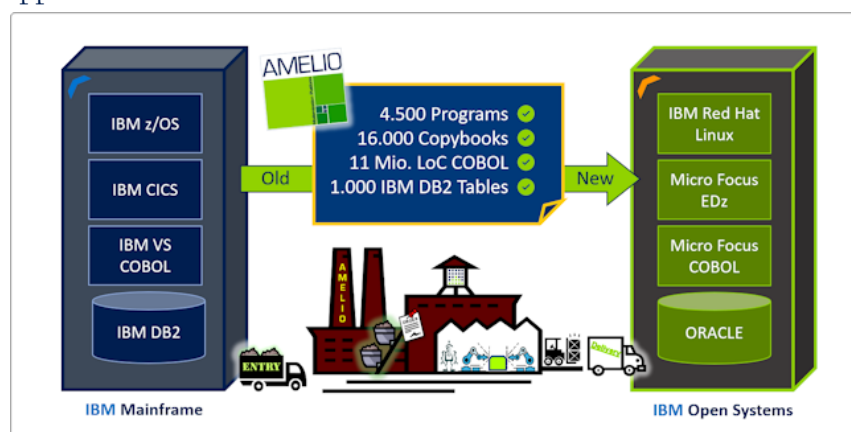## 1 Large Financial Service Provider Succeeds in Secure Platform Change with AMELIO

Away from the Mainframe at the Push of a Button: Delta's AMELIO Modernization Platform Enables Large Building Society to Replace Platforms Securely

A leading building society consolidates its platforms and has therefore replaced their IBM mainframe with Red Hat Linux. The migration of the central, strongly interconnected applications, however, involved particular risks, e.g., due to parallel changes and further development. Also, the performance in the new environment was a major concern. With the AMELIO tools from Delta Software Technology, this company successfully migrated its highly critical core application.

The project management particularly praised the good cooperation with the manufacturer. Delta offered the project at a fixed price and was nevertheless very flexible in responding to special requests. Due to the good cooperation with Delta, the transformed application exactly meets the company's requirements.

The Business-critical Centrepiece

The building society sees its social mandate in fulfilling people's desire for home ownership. In order to perfectly support its services, the heart of the IT applications, the core booking system, was developed in-house: Several thousand programs with millions of lines of code process data in one thousand database tables and perfectly support employees in their daily work for several million customers.

Requirements: Absolute Security and Parallel Further Development

As part of the corporate-wide platform consolidation, the core booking system was to be migrated from the previous IBM zOS CICS platform with DB2 databases to Red Hat Linux with Oracle.

The importance of the application resulted in additional requirements for the migration solution:

- No disruption of the day-to-day business
- Permanent availability of the subsystems for parallel changes and further development, no blocking, no freezing
- Consistent adoption of changes and further developments of the productive application for the migration
- Audit-proof documentation of all changes

However, the migration of the core booking system was only part of an extensive overall project. This meant that changes that resulted from other subprojects had to be considered in the transformation of the core booking system on time. It was also necessary to react flexibly to schedule changes in other projects.

The Tailor-made Solution with AMELIO

The financial service provider decided to work with the modernisation specialist Delta Software Technology. Delta offered the company a tailor-made and at the same time fully automated transformation of its core booking system with AMELIO tools at a fixed price.

Technical Data of the Project

The project:
Migration of a central application

- Platform replacement:
  IBM z/OS CICS → Red Hat Linux + Micro Focus EDz

- Application transformation:
  IBM VS COBOL → Micro Focus COBOL

- Database replacement:
  IBM DB2 → Oracle DB

- Data and application conversion:
  EBCDIC → ASCII

- Data migration

The sources:

- 4.500 Programs
- 16.000 Copybooks
- 11 Mio. Lines of Code COBOL
- 1.000 IBM DB2 Tables

The Delta tools used:

AMELIO Logic Discovery
Complete analysis of the application in advance to determine all the key points and pitfalls for the project.

AMELIO Modernization Platform
This adaptive transformation factory works rule-based. As a result, it can be perfectly tailored to the requirements and it also implements operational peculiarities, standards or special rules to improve performance.
Delta's AMELIO Modernization Platform works fully automated applying a clean room concept: All changes are implemented consistently and in an audit-proof manner in all sources without any

manual intervention.

Data Transformers
Based on the results of the application analysis with AMELIO Logic Discovery, Delta generated tailor-made data transformers that performed the migration of all data.

With AMELIO Modernization Platform, Delta has configured a highly specialised transformation factory that is perfectly tailored to the project and that automatically, i.e. without manual intervention, implemented the specified mass changes to the programs of the core booking system.

This approach enabled the company to transform new versions of their sources, which emerged from maintenance and further development or by the effects of other projects, at any time during the duration of the project.

Performance
The project management was impressed by the efficiency and flexibility with which the AMELIO factory was set up, continuously optimized and adapted to their needs.

Just one example for the good cooperation and the flexibility of the solution: Everyone who leaves the mainframe worries about the performance of the applications. During the course of the project, performance tests showed that the components in the new environment behaved differently than expected. Delta changed the transformation rules for certain accesses and simply transformed the application again. And the problem was solved!

Planning Reliability and Fixed Costs
Before the project started, Delta performed a complete assessment of all sources with AMELIO Logic Discovery. Through the results of this assessment, the financial service provider has already gained important knowledge for the planning and implementation of the project:

- Which transformations are required?
- What are the key points and pitfalls?
- What are the dependencies?
- How can packages be tailored to bring them into production piece by piece instead of a big bang?
- And what about the project schedule? Which timeframe is realistic?

Moreover, this preparation gave the company additional security with regard to costs:
After the detailed assessment, Delta offered the entire transformation at a fixed price and nevertheless responded to additional requests during the project with extraordinary flexibility.

Successful Transformation In Time and In Budget
With the AMELIO tools from Delta Software Technology, the financial service provider was able to securely migrate the centrepiece of the system, the large, business-critical application developed in COBOL, from the mainframe to the new environment in parallel with ongoing operations.

The following advantages were particularly important for the company:

- During the entire project, the normal maintenance and further development could continue undisturbed. The resulting changes were neatly adopted into the transformation of the application.

- The solution considered the company's own standards and the project management was free to choose between implementation variants.

- The Delta solution also helped optimising the application for the new platform. New insights into the runtime behaviour of the application in the new environment could automatically be applied for the transformation of the entire application.

- The partial packages were taken into production step by step - without a big bang.

- The application performed well in the new environment

- No footprint, no vendor lock-in: Delta's tools are no longer required after the transformation. The company does not incur any follow-up costs.

A degree of automation of 99.5% was achieved by using the AMELIO Modernization Platform, i.e. 4,478 programs of 4,500 programs were transformed completely automatically. 22 programs required a special solution. They were modified in advance before they were also transformed completely automatically.

The company's project manager and the managing director of Delta Software Technology, Dr. Daniela Schilling agree:

"The open communication and the excellent cooperation between all employees and those responsible made a significant contribution to the success of the project."

2 RDW uses AMELIO Logic Discovery for decision-making

Existing applications have accumulated a lot of technical debt over the years. Removing it could speed up maintenance significantly. In reality the task of improve the software by removing the obsolete parts is seldom performed. The risk of introducing errors and the cost of testing is the biggest reason for not doing anything.

RDW wants to reduce technical debt in its decennia old applications. Goal is to improve flexibility and make them fit for the future.

But:

- What measures are possible or necessary?
- Which parts of the source code can be deleted, which need to be rewritten and how?
- Which correlations and effects do exist?
- And what is the best way to proceed?

To answer these and a lot of other questions for an application of about 5.500 programs and 8.5 million lines of code without doubt, RDW decided to use AMELIO Logic Discovery.

RDW has the Advantage of the New Release

RDW also profits from the new features in release 2.0. AMELIO Logic Discovery now offers two new

perspectives. KnowledgeBase and CallTree are the addition to the existing perspectives that enable to (re)gain insight in the application.

> *"AMELIO Logic Discovery offers new, flexible and structured views on our applications. Especially the logical views help us to find and understand the bottlenecks in our application."*
> *Marcel Rozema*
> *Senior Software Architect, RDW*

Can we help you understanding your applications?

Are you also, like RDW, feeling the need to improve understanding of your application, want to reduce technical debt or modernize and are looking for a secure way towards that goal?

Contact us and we are glad to show you what our AMELIO portfolio can offer you.

About RDW

RDW ICT is the IT service provider of the national vehicle authority of The Netherlands. Their main tasks include the inspection and registration of vehicles, market authorisation of vehicles, administration of driving licenses, information services for the police – in total more than 300 million transactions annually.

RDW removes technical debts using Delta's automated solution

Existing applications have accumulated a lot of technical debt over the years. Removing it could speed up maintenance significantly. In reality the task of improve the software by removing the obsolete parts is seldom performed. The risk of introducing errors and the cost of testing is the biggest reason for not doing anything.

Read more...

3 Understanding Applications: Finding instead of Searching

AMELIO Logic Discovery helps you to (re) understand your large and complex COBOL, PL/I and ADS applications. The two new perspectives "KnowledgeBase" and "CallTree" speeds up this process.

KnowledgeBase - Finding instead of Searching

With the KnowledgeBase perspective, you get an overview of all analysed artifacts at the push of a button. You can quickly and safely find the access to the modules that are relevant for your task.

Furthermore,

- You get analysis information on groups of artifacts as well as on each individual artifact
- You will find out which (code) patterns were found and how often, both for the entire application, for groups of artifacts or just individual artifacts
- You can use the comment function to record findings and make them available to others
- With the bookmarks and tags you get the possibility to mark artifacts of particular interest to find them easier
- With intelligent filter functions, you can simply focus on the artifacts that are relevant to the current task

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Overview in the Application Network

One question that always recurs is to identify dependencies in the network of artifacts: Who is calling whom and who is being called by whom? AMELIO Logic Discovery provides that too at the push of a button. The new CallTree perspective is the counterpart to the established ProgramTree perspective. For a program, it shows the other programs from which it is called.

And beyond,

- You receive information about the program interfaces, which parameters are expected and which are actually transferred
- Decision tables show you clearly and unambiguously which conditions must be fulfilled to enable a program to be called.

Ensure the Success of your Project through optimal Application Analysis with AMELIO Logic Discovery

Do you want to (re) understand your application, carry out a migration or modernization project? Or get rid of technical debt from your applications?

AMELIO Logic Discovery helps you with this and automatically provides all the information you need. Try it.

You can find more information about AMELIO Logic Discovery on our website … Or just contact us directly.

RDW removes technical debts using Delta's automated solution

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Read more…

4 Support Information: New Product Versions available

We have released new versions of the following products:

- AMELIO Logic Discovery 2.1.0
- ADS for COBOL 6.4.4 - for all platforms
- ADS on Micro Focus Enterprise Developer 7.2.0
- ADS on Eclipse 7.2.0
- Generator Engine 6.5.2 for IBM z/OS; Windows, Linux, ...

AMELIO Logic Discovery: Better overview faster with new perspectives

Benefit from the new features:
Besides the proven perspectives, the new release AMELIO Logic Discovery 2.1 now provides two further perspectives (KnowledgeBase and CallTree) that helps you to (re)gain the knowledge about your applications. Furthermore, we have created the possibility of annotating each artifact in order to secure knowledge and to further facilitate the work in the team.
Do you also want to re-understand your application, remove technical debts like our customer RDW or modernize like the IT service provider msg systems and do you look for a secure way to achieve your goal? Then get in touch with us, we will be happy to show you, using your examples, how you can easily understand your applications and modernize them securely with AMELIO.

Delta ADS on Micro Focus Enterprise Developer: Final release available now

With ADS on Micro Focus Enterprise Developer you can standardize your working environments for the application development.

ADS on Micro Focus ED integrates all ADS tools seamlessly into your individual development environment.

For this purpose, a suitable function package was created for the Application Workbench Manager (AWM), which helps with the generation on the host and supports the local generation with access to host datasets, e.g. via FTPS..

Delta ADS on Eclipse: Offers even more

ADS on Eclipse has been extended with various convenience functions: The ADS XREF view now provides additional information on the generations and the post-generation debugger can be called directly from there. In addition, there is support for the ftp and ftps protocol in search paths.

Besides the development environments mentioned above, the plug-in is also available for other Eclipse-based development environments and for Microsoft Visual Studio.

Further information

Our customers can find detailed information on new functions and corrections in the release notes in the support area of our website.
Request information and updates directly. The list of our current product versions can be found here.