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1 Delta ADS Webinar - Refresh & Connect

Delta ADS has been the proven solution for the efficient development of operational backend applications in COBOL and PL/I for almost 50 years. Our customers are active in all sectors and have been benefiting from the advantages and continuous development of Delta ADS for many decades. Even at 50, Delta ADS is still evolving to meet today's requirements.



That is why we would like to inform you about all the new features and improvements in a free webinar and at the same time offer you the opportunity to exchange ideas and experiences with other Delta ADS users.

Topics relating to the development with Delta ADS and the possibilities of its integration in modern development environments such as Eclipse or Visual Studio with Delta IDS will be presented and discussed.

We are planning the webinar for **28. June 2024 at 11 a.m.** - *Register now!*

[Register now ...](#)

Would you like to contribute your topics and questions?

Then send us a quick e-mail to support@delta-software.com or simply use our [contact form](#).

Would you prefer to be informed about the possibilities of [Delta ADS 6](#) and [Delta IDS](#) specifically tailored to the requirements of your company?

Then please [contact us](#) to arrange an appointment.

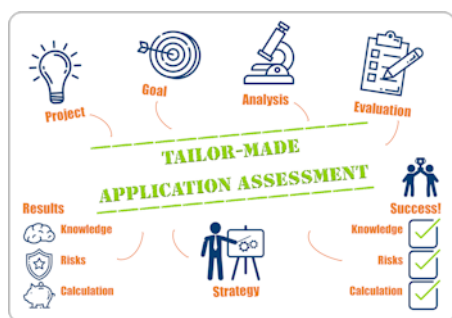


2 4 Important Steps for Sustainable Software Modernisation (Part 2)

- Do you value the functionality and reliability of your COBOL and PL/I applications?
- Are you struggling with the complexity and do you lack precise knowledge about the implementation of the functionality?
- Have you also been reducing your investment in existing backend applications for a long time and your experts and knowledge carriers are on their way to retirement?
- Do you want to modernise your



operational backend applications and benefit from new technologies while playing it safe with all changes?



We discuss 4 steps that will help you to modernise your applications securely and sustainably. The individual articles will be published successively in our newsletter.

Best Practices for Application Modernisation

Although there are countless reasons for application modernisation, the overarching goal is always to reduce the risks of legacy applications, save costs, increase organisational agility with modern IT and, last but not least, be attractive to new specialists.

The following 4 steps will help you to modernise your applications securely and sustainably.

1. Custom-fit Assessments for good decisions: For detailed information, read '4 important steps for sustainable software modernisation (Part 1)'
2. Automated Application Analysis for a comprehensive and accurate (re)understanding of the implemented application logic in order to reduce risks and costs for modernisation or new implementation and ensure easy knowledge transfer.

3. Agile Clean-up to optimise the use of your resources.

4. Fully Automated Transformation for a completely secure and flexible modernisation.

Simplify Your Legacy Application Modernisation

For almost 50 years, our customers have benefited from our automated solutions to develop their customised IT applications securely and sustainably while reducing costs and risks. From our experience with very large projects, we can say that most of the applications developed in COBOL and PL/I or created by generators are very large and complex because the business logic they implement is extensive and complex.

But, application size, complexity and strong inter-connectivity of the individual components as well as a lack of knowledge about the applications' implementation and inappropriate documentation hinder safe, effective and efficient modernisation.

So, how do you gain a comprehensive and accurate understanding of the applications that enables secure modernisation and flawless transformation of your valuable legacy applications into future-proof applications?

Step 1 Custom-fit Assessments for Good Decisions

The solution is an assessment. But, be careful: It is not enough - as many providers propose - to simply list a few figures about the approximate size and number of modules in order to receive reliable estimates of the effort and costs. The risks, as so



often, lie in the details.

Of course, rough decisions and gut feeling could also lead to success. As a rule, however, they lead to delays (also in other projects) and significant cost increases and, unfortunately, often also to the failure of modernisation projects.

In its Chaos Report 2019, the Standish Group reports that 83.9% of IT projects fail partially or completely. The following reasons for failure are repeatedly cited in studies:

1. Badly defined requirements
2. Poorly defined or unrealistic planning
3. Inaccurate and unrealistic estimates

The modernisation projects that we have implemented for large financial service providers have shown that only a complete analysis of all sources in advance provides reliable information. The emphasis here is placed on Complete and All. This is the only way to recognize all obstacles and dependencies. This is the only way to make good decisions and eliminate the risks.

Tailor-made Assessment - Why?

Simply collecting all the data about your applications will not help you to reliably assess the risks and costs of extensive changes. This can only be achieved by an analysis that is precisely tailored to your project goal and your applications.

Our projects have shown us that a targeted and individually tailored analysis of the applications is a crucial basis for:

1. The exact definition of the requirements
2. Reliable planning

3. Inaccurate and unrealistic estimates


The modernisation projects that we have implemented for large financial service providers have shown that only a complete analysis of all sources in advance provides reliable information. The emphasis here is placed on Complete and All. This is the only way to recognize all obstacles and dependencies. This is the only way to make good decisions and eliminate the risks.

What Can We Do for You?

If you want to ensure the success of your modernisation projects, find out about the possibilities of our tailor-made application assessments.

You can find an initial overview in our flyer “Application Assessment: Don’t Guess – Assess”.

Application Assessment



Tailor-made application assessments enable you to pinpoint and to reliably evaluate all critical issues for your projects. They help you to accomplish your projects in the areas of modernisation, migration, mass changes and clean-up of your COBOL and PL/I applications successfully in time and in budget.

[Read more ...](#)

[Download](#)

Every project is different and our flyer just gives you a first general idea. To get the best solution for you, you should directly discuss the requirements and details of your project with us.

Step 2 Automated Application Analysis – Why?

Regardless of whether you want to modernise the functionality of your backend applications by changing the data management system or replacing



individual technology modules, or whether you want to redevelop them using 'modern' languages, you always need to know exactly what is currently implemented and how it is implemented.

Understanding large and complex applications is a Herculean task! Especially if you have not developed the applications yourself and even more so if the original developers are no longer available. The documentation - if available and up-to-date - does not provide the knowledge about the implementation of the functionality that is necessary for understanding and modernising or rewriting.

Even if the applications were originally well structured, this design has often suffered over the decades. Old architectures and techniques are used. New code was repeatedly added to fulfil new requirements. However, code that was no longer needed was rarely removed, as there was no real certainty that this code was no longer needed under any circumstances and the cost and effort of testing was spared. It is generally estimated that the proportion of 'dead code' in applications increases by around 10% per decade. This also prevents precise understanding.

Poor understanding of existing applications leads to

1. poorly or even incorrectly defined requirements
2. poorly defined and unrealistic planning
3. unrealistic estimates of risks and expenses
4. errors during modernisation or new implementation

Read also 'Chaos Report 2019 by the Standish Group' for more details.

In addition, a lack of understanding of existing

applications usually also leads to delays (also in other projects) and significant cost increases and, unfortunately, often to the failure of modernisation projects.

Really Understanding Applications – A Dream?

The truth or rather the entire knowledge about your applications, their functionality and their actual implementation is in the current source code!

But beware: It is not enough - as many providers propagate - to simply visualise the application code, data usage and possibly also the dependencies. Some tools, especially those that are also used for maintenance, also offer step-by-step execution of the code. All of this is not enough to really understand the applications and their implementation.

But, the good news is: this knowledge can be recovered quickly using our automated application analysis.

Proper Structuring and Logical Abstraction

Real understanding can only be gained through the right structuring and logical abstraction, through the ability to view the analysed code under varying aspects and from different perspectives and, above all, to be able to abstract the implementation across multiple levels.

The aim is not only to visualise the physical code and data structures, but also to determine the logical components of the source code and the conditions for their interaction. This is the only way to derive the implemented functions, their interfaces and the conditions for their execution.

To simplify knowledge transfer, onboarding and



subject-specific communication, the information also needs to be presented in a language-neutral way.

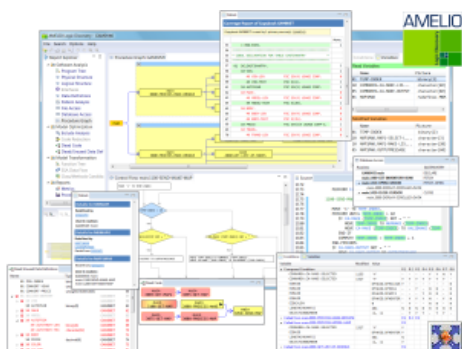
Automated Application Analysis with AMELIO Logic Discovery

AMELIO Logic Discovery is an innovative analysis tool that helps you to better understand your native and generated COBOL, PL/I and Delta ADS applications and to comprehensively secure the relevant functionality.



Through in-depth and comprehensive analyses of the applications, AMELIO Logic Discovery determines

- what is implemented
- how it is implemented
- which logical relationships exist
- which components form a logical unit (procedures, composites, ...)
- the conditions under which procedures and components are called or executed
- what the interfaces of these components look like
- which data structures are used, how and where (definition, scope, ...)



The implementation details are abstracted, the information obtained is connected, logically structured and the knowledge about the functionality of the application is derived. The result is a clear, language-neutral and technology-independent visualisation of the application logic, in which users can navigate freely across all levels, in topic-related views and in selectable levels of detail, so that your teams can easily understand the applications.

The modernisation projects we have accomplished for large companies have shown that a precise understanding of the functionality of the existing applications and their implementation is essential for the success of modernisation projects.

“AMELIO Logic Discovery offers new, flexible and well-structured views of our applications. Especially the logical views help to find and understand the crucial points in our applications.”
Marcel Rozema (Senior Software Architect, RDW)

AMELIO Logic Discovery offers you a reliable basis for your application modernisation, for the elimination of technical debt, for decisions on the next development steps, for new development with modern languages and for many other tasks.

The AMELIO Tool Family

AMELIO Logic Discovery can be extended according to your specific needs. For example, it is possible to use code-smell analyses to determine whether company-specific coding standards are being violated and, if so, where. For modernisation projects, the ‘points of interest’ and thus possible crucial points can be determined automatically.

Especially for clean-up and modernisation projects, AMELIO Logic Discovery can be combined with



other tools from the AMELIO family to perform the necessary changes to the source code in a fully automated and audit-proof manner.

Our tools help you to analyse COBOL, PL/I and Delta ADS applications in a targeted manner, to adapt them quickly and securely to new requirements and technical infrastructures and to reliably assess risks..

This (and more) is what we can do for you!

If you want to reduce the risks and costs for your modernisation projects and to make it easier for your teams to really (re)understand your applications, then find out now about the possibilities of our automated application analysis with AMELIO Logic Discovery.

We offer you an initial overview in our flyer 'Analysis for COBOL & PL/I - (re)understanding applications'

AMELIO Logic Discovery: Understanding COBOL and PL/I



AMELIO Logic Discovery is an innovative analysis tool that helps you to better understand your native and generated COBOL, PL/I and Delta ADS applications and to comprehensively secure the relevant functionality.

[Read more ...](#)

[Download](#)

Further information on AMELIO Logic Discovery can also be found here:

[AMELIO Logic Discovery: Really Understanding COBOL, PL/I, Delta ADS Applications](#)

Every project is different and our flyers only give you an initial overview. To get the best solution for you, you should discuss the requirements and details of

your project with us directly.

Step 3
Agile Clean-up

Coming soon

Step 4
Fully Automated Transformation

Coming soon

What's next

In the next newsletters you will receive further information on important steps for sustainable software modernisation and we will explain the criteria for security and flexibility in software modernisation.

We help you to make good decisions for your modernisation projects through customised assessments, to recover the necessary application knowledge through automated application analysis, to retain only what is really necessary through agile clean-up and to modernise your applications in an absolutely audit-proof manner through fully automated transformation.

We help you to carry out your modernisation projects successfully - guaranteed!

Let us discuss your projects now!

Send us an e-mail to sales@delta-software.com or call us directly on +49 2972 97190

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3 Pre-release available: Delta ADS - Generation for the Java Target System P3/COBOL

Existing IT applications are often a company's most valuable software assets, setting it apart from its competitors. One of today's greatest challenges is therefore to expand a company's technology base without having to give up decades of valuable development work.

So how do you bring your COBOL applications generated with Delta ADS into the modern world quickly and securely? It's simple! To make it easier for you to integrate your Delta ADS applications into your Java environment, Delta Software Technology made the Delta ADS development system available for the EasiRun P3/COBOL compiler.

Delta ADS for COBOL

Delta ADS for COBOL is one of the most successful development systems for operational backend applications in COBOL. The sophisticated and comprehensive generator technology enables the automated creation of platform-independent online and batch applications in COBOL. This automated generation of standardised, optimised and correct code

- speeds up development by providing tools for recurring standard sequences in the program logic and for function types/groups,
- ensures quality and drastically reduces the testing effort,
- ensures vendor independence on the one hand by dispensing with interpretative runtime components and on the other hand by separating



application logic and platform-specific implementation for operating systems, data storage systems and TP monitors.

Our customers have realised extremely large applications with Delta ADS: With hundreds of thousands of programs and billions of lines of code (LoC) generated. Development with Delta ADS is characterised by a high degree of abstraction and automation. It is stable, reliable and extraordinarily efficient.

EasiRun P3/COBOL

P3/COBOL was developed for the transition from COBOL to Java. P3/COBOL is a system that is completely based on Java and compiles the COBOL applications into Java source code. No native C or C++ add-ons are required. P3/COBOL relies on pure Java functions for performance optimisation, so you don't have to leave the current JVM.



P3/COBOL is a proven technology that generates 100% Java code.

Delta ADS für P3/COBOL

We developed Delta ADS for the new target system P3/COBOL in close cooperation with our partner EasiRun. This enables special optimisations of the code generation that take into account the specific features of the P3/COBOL compiler.



Delta ADS for P3/COBOL enables you to integrate your Delta ADS applications comfortably and securely into your Java runtime environment. These are the advantages for you::

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- You keep your efficient application development with Delta ADS while compiling the generated COBOL code to a Java source with P3/COBOL.
- You quickly and safely bring your proven Delta ADS applications into your Java runtime environment.
- You have the possibility to embed native Java code directly into the Delta ADS sources.
- You benefit from a proven technology that creates 100% Java code.

Delta ADS for P3/COBOL offers you the highest level of security on your way to Java and supports you in quickly placing your applications in a modern world.


Integrate your Delta ADS applications easily into your Java environment

Do you also want to integrate your Delta ADS applications seamlessly and securely into your Java environment? We would be happy to take your requirements and wishes into account in our new solution. Please contact us directly!

E-mail sales@delta-software.com or phone +49 2972 97190

EasiRun + Delta = A Successful Partnership

“The companies EasiRun and Delta have maintained a successful and project-proven partnership for many years and we are pleased to continue this partnership with the new project,” says Dr. Daniela Schilling, CEO Delta Software Technology. Don Fitzgerald, CEO EasiRun Europe, confirms: *“Delta convinces with the experience of more than 45 years and a multitude of successfully implemented modernisation projects.”*

EasiRun is both a provider of tools and consulting services  with a focus on application modernisation and transformation, as well as a solution provider in the areas of mainframe, Java, .NET and COBOL (Linux, UNIX, Windows) and cloud. The portfolio offers, among other things, Eclipse IDEs, COBOL transpilers, data storage and web browser solutions, analysis services as well as automation and integration for the individual needs of the customers.

Delta Software Technology offers tools and custom-fit solutions for



- automated application generation for all platforms (OS, DBMS, TP monitor, compiler)
- automated application analysis and knowledge discovery
- automated clean-up to get rid of technical debts
- automated application migration, transformation and modernisation

Large companies use Delta solutions to develop their proven individual IT applications securely and sustainably and make them fit for the future. They thereby reduce the costs and risks for the maintenance, modernisation and re-implementation of their applications and gain flexibility, freedom of decision and security.





4 Presentation at GSE zExpert Forum: AMELIO - The Software Washing Machine

Clean Up Applications with Agility - Using the Washing Machine for Software

COBOL- and PL/I-applications are still performing their tasks reliably. However, the longer these applications live, the more debris and technical debts accumulate in the applications, making their maintenance and further development increasingly difficult and error-prone. It also makes sense to clean up applications in the run-up to modernisation projects in order to prevent errors and minimise costs.



Traditionally, the clean-up of (legacy) software is done manually. During this process, the variety of possible clean-ups is performed program by program. But very often, not all possible and necessary clean-up actions are known from the outset. Some of them only come in sight when other clean-up measures have been implemented. A much better and safer strategy is to perform one clean-up task for all programs in one go at the same time, before - using the knowledge acquired - performing the next clean-up task. This requires an approach where each program might be changed more than once. The risk and effort of such an approach can be eliminated by using an automated solution that repeatedly can be applied consistently for as many clean-ups as needed.

As a solution, Manuel Dolle presented at the Swiss 98. GSE z/OS zExpert Forum on 10 April 2024, how the software washing machine with AMELIO CleanUp enables a secure and agile cleanup of your

applications.

You couldn't attend but are interested in the lecture? Then contact Manuel Dolle directly.

The zExpert Forum is the z/OS working group of GSE Switzerland: The forum of "z/OS Experts for z/OS Experts" in Switzerland meets twice a year to discuss experiences and provide interesting presentations.



Further information can be found here: <https://www.zexpertenforum.ch/>

5 Workshop Software-Reengineering & Evolution

„Software Reengineering and Evolution“ is an evergreen in software development. However, new technologies and possibilities in the area of development lead to ever new challenges in dealing with the existing software.



The expert group Software Reengineering and Evolution (SRE) within the Gesellschaft für Informatik (GI) – the German-speaking professional society for computer science – deals with all aspects of software reengineering, software maintenance and software evolution. In principle, this includes all activities whose goal is analysis, visualisation, evaluation, improvement, migration and further development.

Workshop Software Reengineering & Evolution (WSRE)

With the conference series Workshop "Software Reengineering and Evolution" (WSRE), the SRE expert group aims to bring together practice and research and to promote professional exchange with

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a variety of current topics.

Practitioners and researchers are cordially invited to report on experiences, projects, research results, methods, tools and "war stories" in this field at the WSRE, to present their current work and to discuss it constructively in an open environment..

WSRE 2024

The 26th Software Reengineering & Evolution Workshop of the GI Software Reengineering (SRE) specialist group took place on 29 and 30 April in Bad Honnef.

How to Quickly (Re-)Gain the Knowledge about Your COBOL Applications

At this year's tool session, Dr. Daniela Schilling, CEO of Delta Software Technology, presented:



'When the English Dictionary is Not Enough - Understanding COBOL Applications with AMELIO Logic Discovery'

In order to (re)understand large, complex COBOL applications that have grown over decades, it is not enough to be able to read the code. Instead, it is necessary to abstract from technical details and gain knowledge at a glance. Appropriate views of the application are also required for various tasks. We present AMELIO Logic Discovery, a tool for automated knowledge (re)gain.

You couldn't attend? No problem!

Contact us directly and find out how AMELIO Logic Discovery can help you to re-understand your COBOL applications.

6 Support Information: New Product Updates Available

We have released new versions for the following products:



- Delta ADS for COBOL (6.6.5)
- Generator Engine alle Varianten (6.6.5)
- ADS on Eclipse (8.1.4)
- ADS on opentext (Micro Focus) EDz / EDc (8.1.4)

For more information about the new features and improvements, please see the respective release notes and reference books in the support area of our website.

Get information and updates right now. You'll find the list of our current product versions here.



More newsletters and our newsletter administration can be found here:

delta-software.com/newsletter