

AMELIO Modernization Platform

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. RDW has been able to take up the task of removing technical debt in a secure manner. Delta's AMELIO Modernization Platform plays a key role in this endeavour.

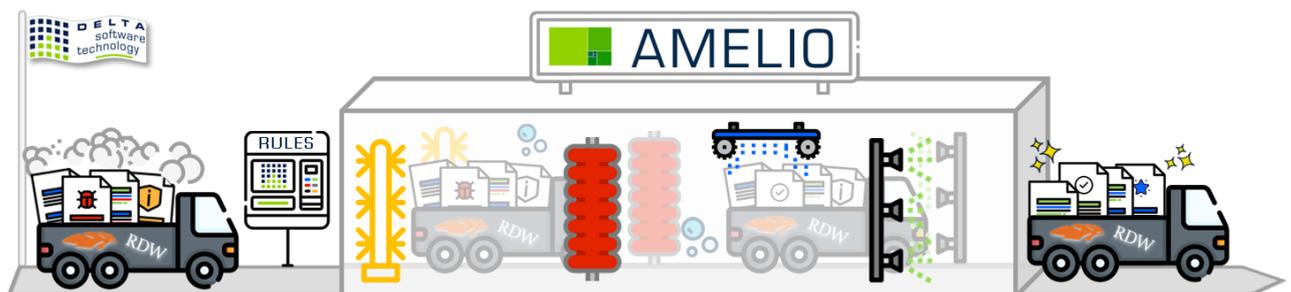
Technical Debt ampers Application Maintenance

The Netherlands Vehicle Authority (RDW) is a long-time user of Delta ADS, Delta Software Technology's software development product suite. In the past decades, the key applications have grown and also been migrated to different platforms. All these changes over the years have

decreased the maintainability of the application portfolio. To improve the maintainability of this application portfolio the decision was made to invest in the removal of technical debts.

The task of discovering and safely removing technical debts is a complex one. To remove or change code from a program that you have written yourself might be an option but if it has been written years ago by a predecessor that is not available to consult is another question. It is not without reason that many programmers do not trust themselves to perform these type of program changes. They have a rightful fear of cascading side effects of a change.

Another obstacle arises because removing the technical debts involves many programs that are depending on each other to work correctly. The fact that all these programs must be changed at





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the same time leads to freezing them all preventing all other functional maintenance that is needed for the business.

Database Access – an Example of reducing Technical Debt

RDW had implemented a new architecture for the database access in their applications which co-exists with an older way of accessing the data. This hybrid architecture was more and more considered to be a technical debt. A manual change was started for the less complex situations but in general a large portion remained and with the manual approach the completion would have taken many more years.

The remaining 9.000+ data access calls (of originally 16.000) contained also the most complex ones, some of them not yet made available in the new architecture. RDW decided to make use of Delta's AMELIO Modernization Platform to perform an automated replacement of the remaining old data access architecture by the new one.



"We now see Delta's AMELIO Modernization Platform as a kind of washing machine. As long as we chose the right program it will remove a 'stain' (technical debt) from our applications. It's a great solution for when we have mass changes that need to be carried out on our application portfolio."

Gert-Jan Theuwissen
Division Manager RDW ICT

Transformation step-by-step

Knowing that the new data access architecture did not yet support all features of the old architecture, the chosen approach was to use the AMELIO Modernization Platform to create a learning factory to discover and perform all the necessary changes in the application sources. That didn't have to be perfect for all possibilities in the beginning. No time was lost with specifying everything in all detail, the specification for the already performed manual transformation was used as a starting point. As a first step, the simpler data access types were analysed and transformed with the goal to make the programs productive even when they still contained other or more complex data access types using the old architecture. The next step was to remove the next type of data access, where the result from the previous step could be input as well as programs that were not handled by the factory before. This iterative process continued until at the end also the most complex data accesses were transformed.



"In the end our decision paid off. Using an automated approach also means almost no freeze and the possibility to change implementations at a very late stage. It enabled us to improve on the end result without any problem. With a manual approach, we would have passed the moment to do something in a different way long before."

Roland Römer - Product Owner, RDW



Continuously moving forward

After the migration to the new Data Access architecture the AMELIO Modernization Platform will now be used as an environment to perform other mass changes in the application sources that will reduce the technical debt.

RDW uses AMELIO Logic Discovery for Decision Making



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.

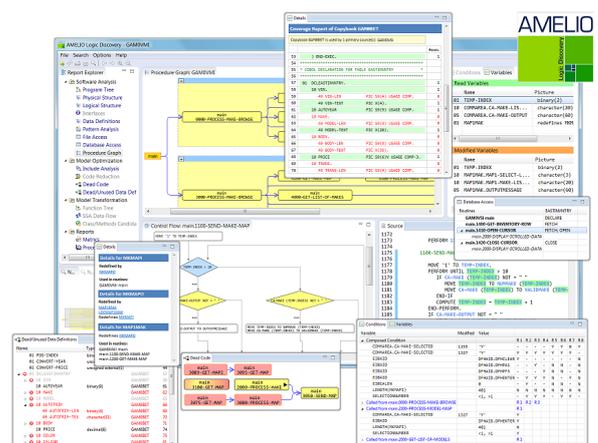


“AMELIO Logic Discovery offers new, flexible and structured views on our applications. Especially the logical views help us to find and understand the bottlenecks in our application.”

Marcel Rozema,
Senior Software Architect, RDW

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.





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 repeatedly has been awarded as the best and most innovative government organization, for best management and best annual results.



RDW

Can we help you (re)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.

Delta Software Technology

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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