DELTA
software
technology

ICEBERG AHEAD

Part 2: Knowledge Transfer: Securing, Re-understanding, Optimizing and Passing on the Foundation

These three procedures are the prerequisite for securing the investments you have made so far, maintaining your applications efficiently and using them optimally. And finally, to successfully modernize these applications and keep them future-proof.

You know the situation: The original developers of the COBOL and PL/I applications are rarely or no longer available. The successors, new teams or external service providers are responsible for the maintenance, modernization or re-implementation. But I have seen the shrug of shoulders so often when questions were asked about the basis of the legacy applications. In order to be able to guarantee smooth day-to-day business, you need a comprehensive and in-depth understanding of your existing applications.

Targeted Application Analysis for Knowledge Transfer, Modernization and Re-implementation

It is very time-consuming to understand large and complex application systems. Figuring out what they're doing is nearly impossible without profound help. With the existing COBOL and PL/I applications, further hurdles is the ongoing development that has been implemented for decades (i.e. software evolution) and the very own language architecture. The older an application gets, the harder it is to understand it. Knowledge transfer, further development or modernization are almost impossible without the understanding.

In each of these cases, however, you not only need reliable information about the current structure and the interaction of the individual components, you must also and above all understand the implemented logic. Static information from compilers or information from data dictionaries is usually not sufficient for this. Aspects such as the orders of calls or execution conditions cannot be derived from this. Neither can you see which parts of the code belong together or are responsible for a specific task within the code.

Only the Code is reliable!

In many discussions, our customers have shown us that specific knowledge about the applications differs from project to project. Many core applications are decades old and their developers from back then are enjoying their retirement today. You cannot rely on the documentation (if it exists at all). It is barely complete and for newcomers to the application it is usually not helpful in understanding the application.

Therefore: The only reliable Source is the existing Source Code.

But the crux of this reliable source is: The source code is only understandable for programmers with an enormous effort or not at all. Small example: Dedicated code parts that logically belong together can be distributed over the entire code of the source. Therefore, a targeted extraction of the relevant knowledge from the sources of the applications as well as a representation that is understandable for all is required.

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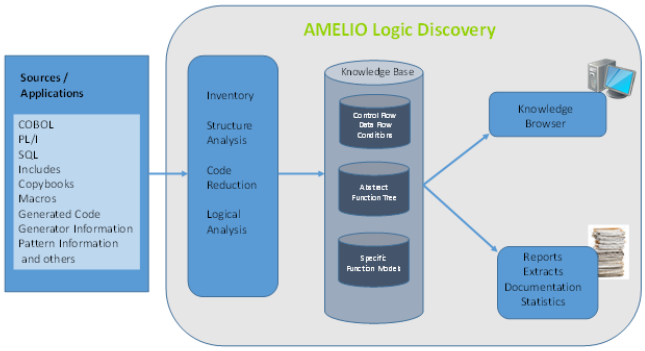
AMELIO Logic Discovery

AMELIO Logic Discovery helps you to quickly and easily extract the complex business logic hidden in the productive COBOL and PL/I applications.

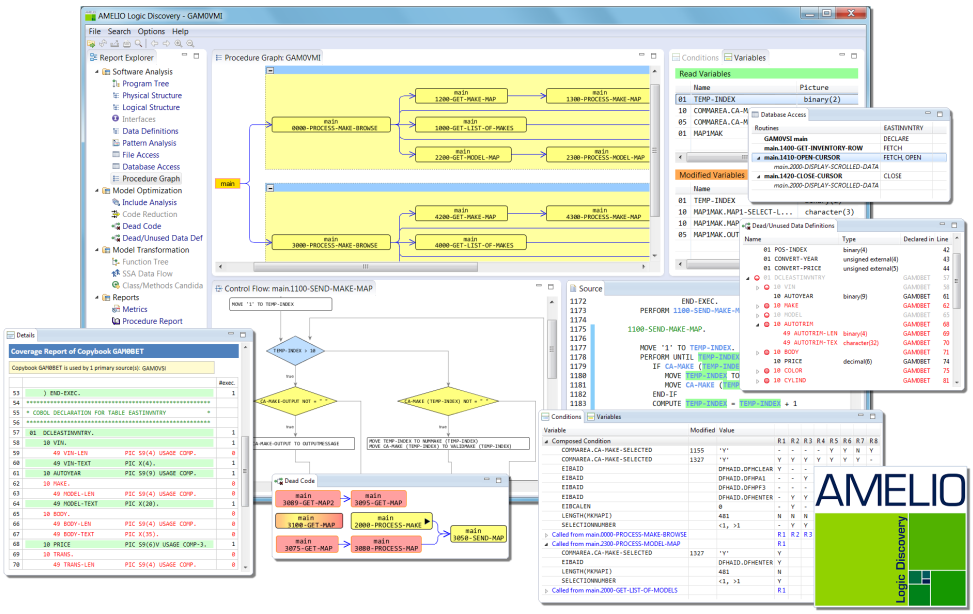
Here, AMELIO Logic Discovery goes beyond a mere inventory, instead intensive analyses are performed such as:

- checking of logical groups, procedures (also in COBOL) and composites.
- the analysis of database and file accesses
- Determination whether variables are used locally or globally in the application
- combines routines into logical composites with the designation of their call relationships, dependencies, parameters and thus facilitates the outsourcing of functions.
- Identification of code patterns e.g. for quality assurance or to support migrations
- generates statistics and widely usable documentations
- checks conditions under which procedures are called or databases or files are accessed
- and many more



With our solution, the real knowledge of the application is restored by formal and logical abstraction as well as conclusions from the obtained information and the application logic is separated from the technical infrastructure. The knowledge gained from this is presented in different perspectives clearly and language-neutral in a user-friendly interactive front end.

Customized analyses and reports are also possible. Large and complex COBOL or PL/I applications are analysed automatically (adapted to your requirements). In this way you regain the knowledge of the application and, at the same time, you receive a current documentation.



Your Advantages

AMELIO Logic Discovery can be perfectly tailored to your needs.

- You receive a visualization of the application logic as well as reliable statements about the quality, size and complexity of the applications.
- AMELIO Logic Discovery supports you in eliminating the deficits caused by dwindling know-how and ensures the transfer of knowledge. Your dependence on external specialists is reduced and the productivity of development is improved.
- With this reliable basis for decision-making, you are able to reduce costs and risks for modernization and re-implementation as well as for development, maintenance and quality assurance.
- AMELIO Logic Discovery provides a sound foundations for the requirements engineering if you want to refactor or rewrite the application or sub-applications.

The added value for you:

The regained knowledge and understanding of your old application secures the foundation and enables the necessary and loss-free transfer of knowledge.

In this way you secure your decades of investments and can continue to efficiently maintain/optimally use your applications, modernize them and keep them future-proof.

Read in the next part of our series:

- Assessment or how to assess and minimize the risk of a change

About the Author:

Hans Nickessen, born in 1966, has been working in the IT for 30 years. Initially as a database developer, later from managerial sales positions to the current position as a Senior Consultant at Delta Software Technology GmbH. As a Trusted Advisor, he now supports users in general questions of software modernization and, as a special sub-area, the replacement of IMS Databases.

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