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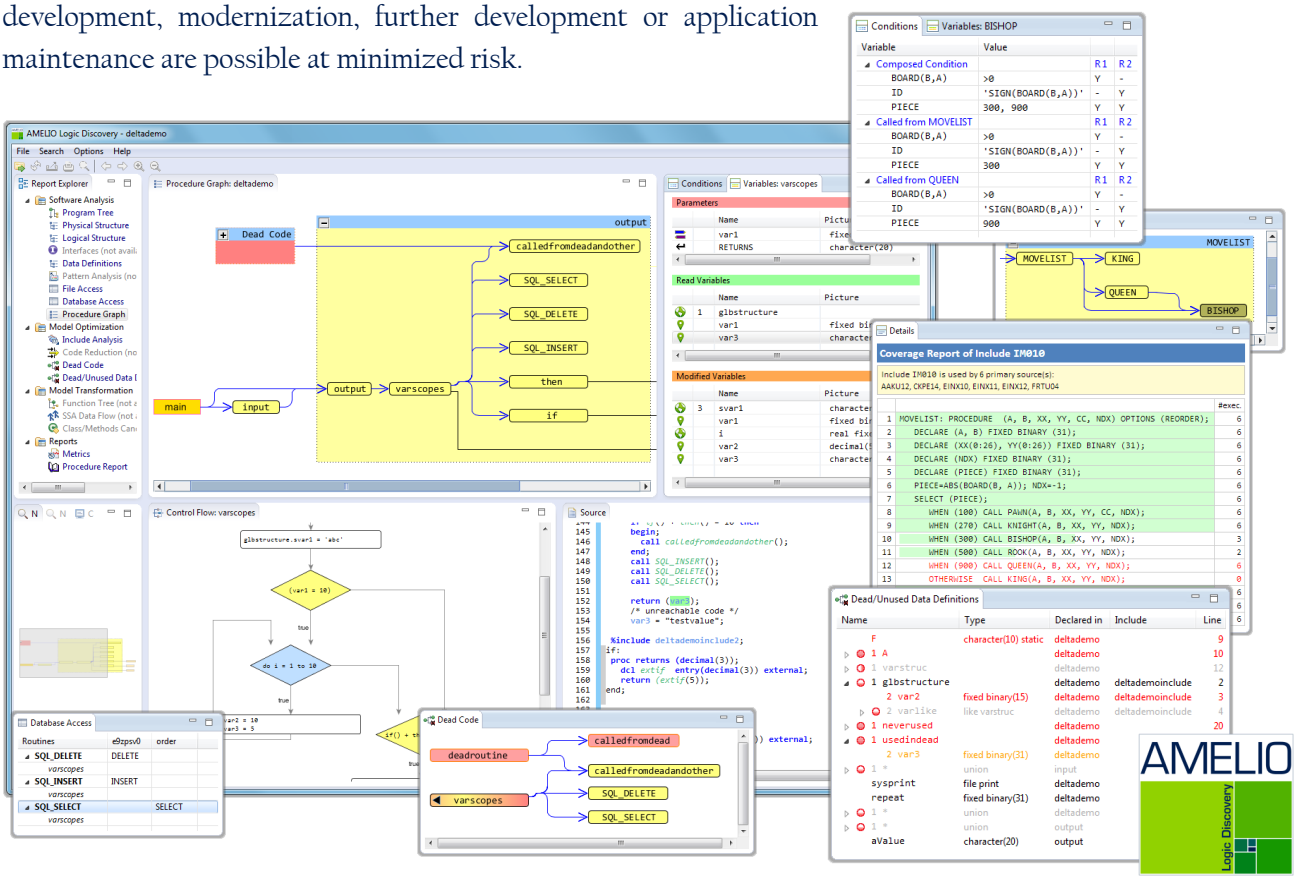
AMELIO LOGIC DISCOVERY FOR PL/I

AMELIO Logic Discovery is an innovative analysis tool that helps to understand PL/I applications better and extracts its relevant functionality. It also analyses large and complex applications and derives knowledge about the application functionality from the implementation details. Application logic is separated from the technical infrastructure. Analysis results are displayed in a model-driven way, making them available as programming language independent documentation. With the knowledge gained in this way an efficient re-development, modernization, further development or application maintenance are possible at minimized risk.



Analyzing Application Logic

AMELIO Logic Discovery provides analyses with different goals and granularities for improved understanding of the application logic of PL/I applications.

Application Architecture

- Analyses of what programs and sub-programs do belong to an application. Detects call dependencies, including calling conditions and interface information.
- The results from the analysis are displayed graphically. Additional details, for example calling conditions and interface details, are represented textually.

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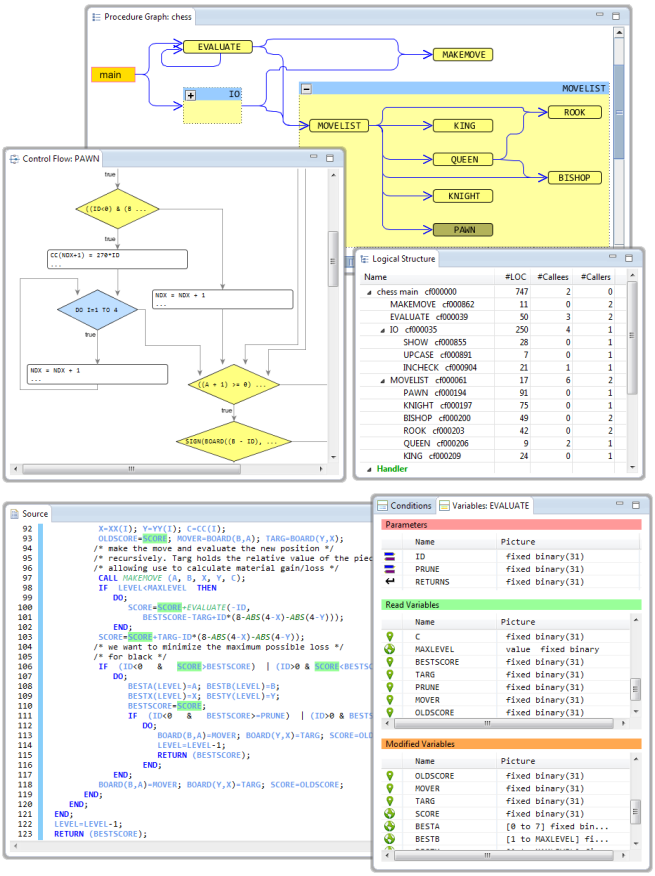
Procedure Analysis

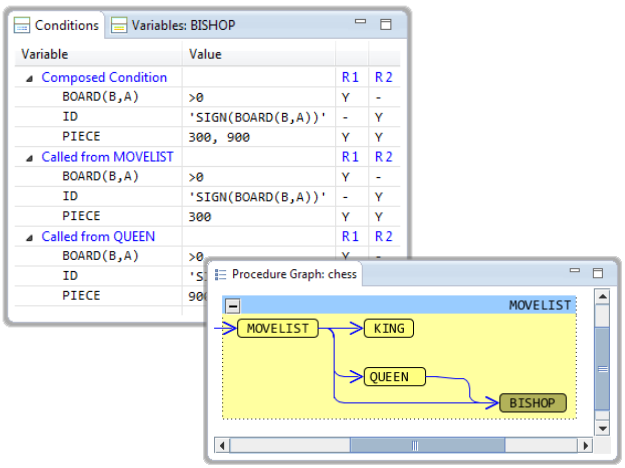
- Detects procedures contained in the program and their call dependencies.
- The procedures and their dependencies are displayed as graphs. Additionally, the detected procedures are displayed in a tree structure.
- For every procedure details like read and modified variables and their parameters are displayed as well as their control flow which is represented as activity diagram.



Detection of Composites

- Procedures that build logical units are summarized in composites.
- The embedding of composites and their dependencies into the procedure graph. Additionally, the logical program structure including the composites and the included procedures are displayed as a tree structure.

Condition Analysis



- Determination of the conditions under which a sub-program is called from a main program. Also: analysis of the conditions under which a sub-program calls another sub-program.
- Under which aggregate condition based on the program start, a procedure is called. Also: under which aggregate condition is a procedure called from another procedure?
- Displaying the individual and summarized conditions in form of condition tables.

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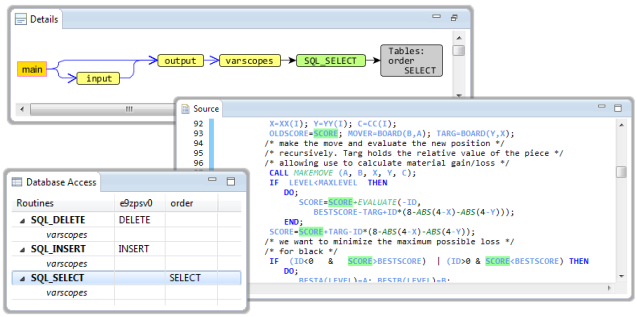
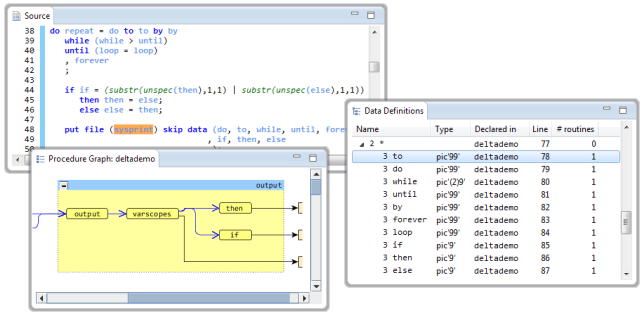
I/O-Analyses



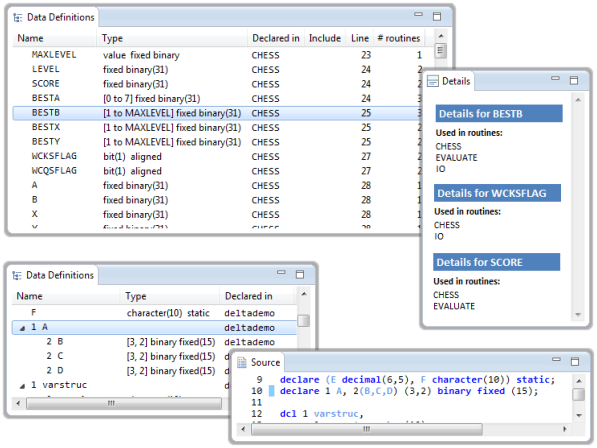
- Analyses which tables and files are accessed by a program.
- Which procedure accesses a certain file or table (column) for read or for update and where this procedure itself is called.
- Detection of potential CRUD procedures.

Keyword, Function or Variable

- Analysis, whether a statement is a keyword, a function or a variable.
- Results are displayed graphically in lists and represented in the code as chroma coding.



Data Definition Analysis

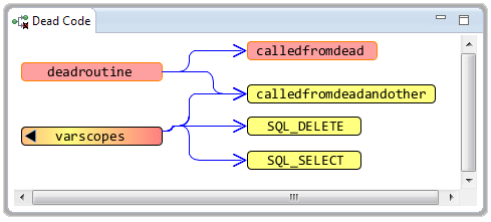


- Detection of all data elements that are defined in the program as well as dissolving factoring. Details like the data type (also at implicit declarations), its scope of validity and its usage are displayed per data element as well as which data elements are redefined (based, Pointer) by others or copied by using like.
- Include-calls are expanded and thus also data elements that stem from a copybook are determined.

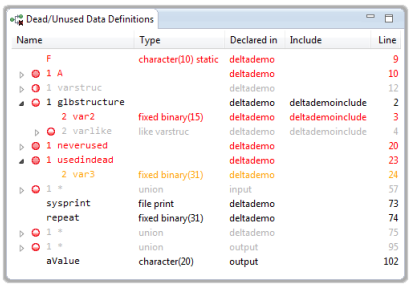
Analyses for Code Elimination

Dead Code Analysis

- Detects procedures and sections that are nowhere called or only called from dead procedures or sections.
- Analyses whether procedures contain code that can never be executed.

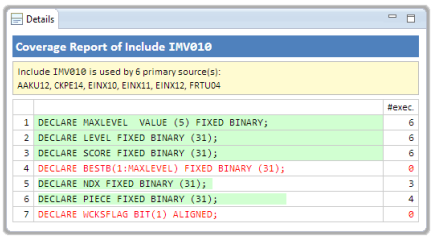


Analysis of Superfluous Data Definitions



- Provides a list of data elements that are nowhere used or only used within dead code.
- Analyses for groups whether they or their subordinated elements are used.

Include Analysis



- Detects for every used include whether it contains code parts which are dead code or dead data definitions in all analyzed programs.
- Detects which parts of the include are only required in specific programs and therefore should be better defined in these programs.

Reports and Exports

- Analysis results can be displayed as HTML reports.
- Additionally, all analyses can be exported to a number of different file types.

Predicate BEST OF 2015 for AMELIO Logic Discovery

The "Initiative Mittelstand" (Initiative for Small and Medium-sized Businesses) awarded AMELIO Logic Discovery with the predicate BEST OF 2015.

No “one size fits all” Solution

AMELIO Logic Discovery is configurable, in this way the amount of delivered analyses can be adapted to each use case. The presented analyses are only a selection, further analyses are available by default. Additional customer-specific analyses can be added. Further information can be found here: **www.delta-software.com/amld**

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.

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The tailor-made factory for the modernisation of large IT applications: 100% automatically and that's why it is safe, reliable and error-free.

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