

## Better Understanding ADS Applications

### *Code Optimisation - Debugging - Analysis*

Using Delta's generative development system ADS, our customers have implemented very large applications in COBOL and PL/I. The decisions about the future development and modernisation of these core applications require a clear understanding and a reliable assessment of these applications.

The new ADS 6 focuses on these requirements: The new functions of ADS 6 improve the understanding of the ADS applications. Language extensions for ADS MACRO simplify the development and maintenance of the application frameworks. Analyses and reports provide reliable information for the assessment.

#### **Do You Understand Your Software?**

ADS applications have grown over a long period of time. They are an active business value that comprises significant investments. Over time however, the knowledge of the implementation often got lost. As a result, the costs for maintenance and usage increase.

#### **Understand Your Software!**

With its new functions ADS 6 helps you to analyse and to re-document the applications and macro frameworks developed with the ADS tools and to better understand the implemented logic.

#### **The New ADS 6**

The following functions facilitate the development and maintenance of your applications:

- Enhanced and extended macro syntax
- Macro Source Optimizer
- Extensive documentation and analysis

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*„The new ADS 6 enables us to further improve the efficiency and quality of our software development and maintenance.“*

**Oswald Klackl, B+S Bankssysteme, Austria**  
**Head of Architecture & Quality Management**

# ADS 6

Generative Development  
for COBOL and PL/I



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## Extensions for MACRO

ADS MACRO is the key element of the ADS development system for the systemised multiple reuse of code. With ADS MACRO many customers have developed extensive application frameworks with thousands of modules or even entire generator systems.

```
149@@ DO-15, (1,#17),
150 .CMP-16=SUBSTR(S1,#15,1),
151@@ IF-16.EQ.,
152@@ IF-15.GT.13,
153 .CMP-16=SUBSTR(S1,1,#15),
154 .EXEC DCPENSG, PR-61, DCPRO, #16
155 *
156 .CMP-17= #17 - #15,
157 .CMP-17= #17 + 1,
158 .CMP-#5=SUBSTR(S1,#15,#17),
159 .CMP-#1=SUBSTR(S1,1,12),
160 .QUIT-15,
161 .IFELSE,
162 .CMP-17= #17 - #15,
163 .CMP-17= #17 + 1,
164 .CMP-#5=SUBSTR(S1,#15,#17),
165 .CMP-16= #15 + 1,
166 .CMP-#1=SUBSTR(S1,1,#15),
167 .QUIT-15,
168 .IFEND,
169 .IFEND,
170 .DOEND-15,
171@@ IF-15.GT.13,
172@@ IF-#5.EQ.,
173 .EXEC DCPENSG, PR-61, DCPRO, #51
174 *
175 .CMP-#1=SUBSTR(S1,1,12),
176 .IFEND,
177 .IFEND,
178 **POL*#1#1/03/PROGRAM #51 ADS-50
179
171@@ DO-Pos, (1,LenProgram),
172 .CMP-buffer=SUBSTR(PROGRAM, (Pos),1),
173 .IF-buffer.EQ.,
174@@ IF-Pos.GT.13,
175 .CMP-buffer=SUBSTR(PROGRAM,1,(Pos)),
176 .EXEC DCPENSG, PR-61, DCPRO, (buffer)
177 *
178 PR-61/04 >(buffer): TRUNCATED TO 12 buffer. (PROG-#)
179 .CMP-LenProgram= (LenProgram) - (Pos),
180 .CMP-ProgramType=SUBSTR(PROGRAM, (Pos), (LenProgram)),
181 .CMP-PROGRAM=SUBSTR(PROGRAM,1,12),
182 .QUIT-Pos,
183 .IFELSE,
184 .CMP-LenProgram= (LenProgram) - (Pos),
185 .CMP-LenProgram= (LenProgram) + 1,
186 .CMP-ProgramType=SUBSTR(PROGRAM, (Pos), (LenProgram)),
187 .CMP-Pos= (Pos) - 1,
188 .CMP-PROGRAM=SUBSTR(PROGRAM,1,(Pos)),
189 .QUIT-Pos,
190 .IFEND,
191 .IFEND,
192 .DOEND-Pos,
193@@ IF-Pos.GT.13,
194@@ IF-ProgramType.EQ.,
195 .EXEC DCPENSG, PR-61, DCPRO, (program)
196 *
197 PR-61/04 >(program): TRUNCATED TO 12 buffer. (PROG-#)
198 .CMP-PROGRAM=SUBSTR(PROGRAM,1,12),
199 .IFEND,
200 **POL*(gen-date)/(program)/03/PROGRAM (program) ADS-60
```

ADS 6 - Comprehensible and optimized macros with new syntax, identifiers, indentation

The extensions for ADS MACRO available with ADS 6 provide more clarity, better readability and understanding. Special attention was paid to the extension of the syntax:

- descriptive parameter names
- free formatting
- clear indentation
- mixed-case notation

## Macro Source Optimizer

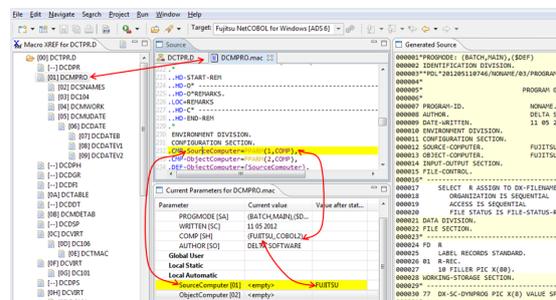
You can profit from the new extended macro syntax not only in case of new development but also for your existing macros. For that purpose, ADS 6 provides you with a Macro Source Optimizer that allows you to convert automatically your existing macros from the old syntax to the new syntax. Even though the syntax changes, the generated code remains the same as before. This way, you also understand your already existing macros faster and better – completely automatically.

## New Functions for ADS on Eclipse

For users of the development environment ADS on Eclipse, additional new functions for the better understanding of ADS applications are available with ADS 6, in particular the Post-Generation Debugger as well as analyses and reports.

## Post Generation Debugger

With the Post-Generation Debugger of ADS on Eclipse we support an absolutely new and innovative concept for the generative development. You actually can follow the generation process step-by-step - across all layers and across all modules involved in the generation. This way, development and testing get really easy.



ADS 6 - Post Generation Debugger simplifies development and testing

## Analyses and Reports

During the generation, ADS 6 collects all information about macro usage, interfaces, program calls and much more. As a result, you gain a detailed and configurable documentation about your application directly in your work environment in ADS on Eclipse: coverage and dead code analyses, call trees, cross-reference reports and much more.



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# ADS 6

Generative Development  
for COBOL and PL/I

## Delta ADS for COBOL and PL/I: Proven Efficiency in Application Development

Delta ADS is one of the most successful development systems for enterprise back-end applications in COBOL and PL/I. Our customers have implemented extremely large applications using ADS: including hundreds of thousands of programs and billions of generated LOC.

According to the testimony of our customers, a few developers suffice to maintain and further develop thousands of programs. The development with ADS is stable, reliable and very efficient.

Now, the new ADS 6 helps you to re-document your applications and to analyse the implemented logic.

## Get your ADS 6 now to enhance the development and understanding of your applications!

Switch to the new ADS 6 now and benefit immediately from the new functions.

We help you to introduce ADS 6 to your individual application development securely and with the least possible effort.

[www.delta-software.com/ads6](http://www.delta-software.com/ads6)

### Delta Software Technology — The Perfect Way to Better Software

Delta Software Technology is a specialist for generative development tools that automate the modernisation, integration, development and maintenance of individual IT applications.

We understand the enterprise IT as a living organism that is continuously changing. Our automated solutions help you to quickly and safely adapt your applications to new business requirements, architectures, technologies and technical infrastructures.

#### AMELIO® Modernization Platform™

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

#### AMELIO® Logic Discovery

Comprehending COBOL- and PL/I-Applications: Cut costs and risks for maintenance, modernization and re-implementation.

#### AMELIO® CleanUp Factory

Securely improve your COBOL-, PL/I- and Delta ADS applications and regain the flexibility and adaptability for your core applications.

#### SCORE® Adaptive Bridges™

Intelligent service enablement for the reuse of proven applications with modern technologies: flexible, profitable and non-invasive.

#### SCORE® Data Architecture Integration™

Data as real business services: fast, easy and independent of data architectures and management systems.

#### ADS™ Application Development for COBOL and PL/I

Platform independent development for future-proof back-end applications: stable, reliable and efficient.

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.



[www.delta-software.com](http://www.delta-software.com)