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## 1 ADS 6 for COBOL - Final Release

The final release for the new ADS 6 for COBOL is available now.

With its new functions, ADS 6 for COBOL helps to develop, maintain and test the applications generated with ADS and the application frameworks created with ADS MACRO more efficiently:

- ADS 6 improves the understanding of the applications developed with ADS.
- Language extensions for ADS MACRO simplify the development and maintenance of the application frameworks.
- The Macro Optimizer enhances readability and maintainability of the already existing macros.
- The Post-Generation Debugger facilitates the understanding and testing of the applications.
- Reports support the maintenance and help to (re)document the applications.
- Analyses provide reliable information for the assessment of the applications.

With the final release, ADS 6 for COBOL is now available for all target platforms (operating systems, TP monitors und databases). Here you find an overview on all target platforms.

### Development Environments for ADS 6

We provide ADS 6 for two different development environments:

- [ADS 6 on SCOUT<sup>2</sup> Development Platform](#)
- [ADS 6 on Eclipse](#)

Furthermore, we provide solutions to integrate the use of ADS 6 functions with the development on mainframes.

[Talk with us to find the right solution for you.](#)

### The easy way to the ADS 6 Update

The new ADS 6 provides many functions that improve the understanding of COBOL applications as well as of the macro frameworks developed with ADS and thus simplify the development and maintenance. The larger the applications developed with ADS, the more benefit is to be gained from these new functions.

But, we also know that some customers dread the effort for the introduction of a new product release. They have developed very large applications with ADS and they are afraid of the impacts when the underlying generative development system changes. They often also cannot assess the scale of their changes to standard macros. That's why we have attached great importance on continuity and on the compatibility of the new ADS 6 with previous releases.

For customers who use older ADS versions and for customers who have implemented substantial changes to standard macros, we provide tailor-made update solutions that minimize the risk and effort for the update. In this way, you can quickly benefit from the new functions. Your development with ADS remains as stable and reliable as ever. Talk with us about your opportunities to quickly benefit from the advantages of the new release.

[Make an appointment now.](#)

We recommend the update to the new ADS 6 to all customers. The final release of ADS 6 for COBOL is now available.

[Order your update now.](#)

### **Note for our PL/I Customers:**

ADS 6 provides the same new functions for the development of PL/I applications as for the development of COBOL applications.

ADS 6 for PL/I is currently available as pre-release. The final release will be available soon.

[You can order the pre-release now.](#)

Now, the new ADS 6 is also available for SCOUT<sup>2</sup>

## **2 SCOUT<sup>2</sup> Extensions for ADS 6**

Development Platform. You can comfortably integrate the new functions into your development processes and further improve the development and maintenance of applications. For this purpose, ADS 6 on SCOUT<sup>2</sup> Development Platform provides new process types for the macro analysis, the optimization of macros, the production of generation reports and the use of the Post-Generation Debugger. The new functions will help you to analyse and (re) document the implemented logic of your applications.

### **Macro Analyzer**

The comprehensive macro analyses help you to better understand your application frameworks. You can analyse individual macros as well as entire collections. You get cross-references and find out in detail which statements have been executed during the generations and which are dead code.

### **Source Optimizer for Macros**

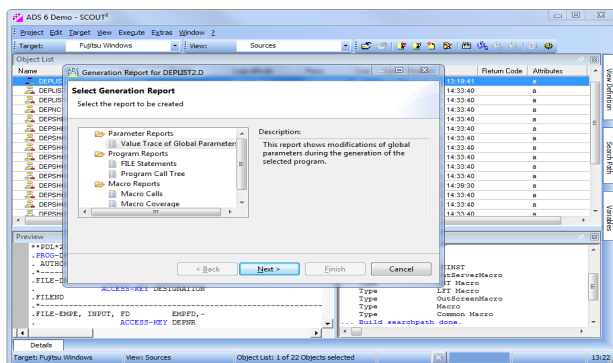
With the Optimize function you can automatically apply the new language extensions for ADS MACRO for your existing macros. For example, the previous two-digit parameter designations will thereby be replaced by the descriptive, meaningful parameter names that you have chosen. Macros can be automatically indented. The Source Optimizer for Macros considerably improves the readability and understanding of macros.

You can execute these optimisations directly within your SCOUT<sup>2</sup> development environment, for indi-

vidual macros as well as for entire collections. In this way, the extended syntax is available to you for the new development as well as for the existing macros – and of course, with no impact on the generated code.

### Generation Reports

A special assistant (wizard) is available for you in SCOUT<sup>2</sup> for the creation of generation reports. Reports can be created for macros, for programs and sub-programs, screens and data access servers. You can generate reports for individual sources as well as global reports which evaluate the entire knowledge base. The generation reports which are created in HTML format are directly displayed in the SCOUT<sup>2</sup> preview window or in the browser. In this way, you can easily understand and document your programs and macros as well as the connections between the individual components.

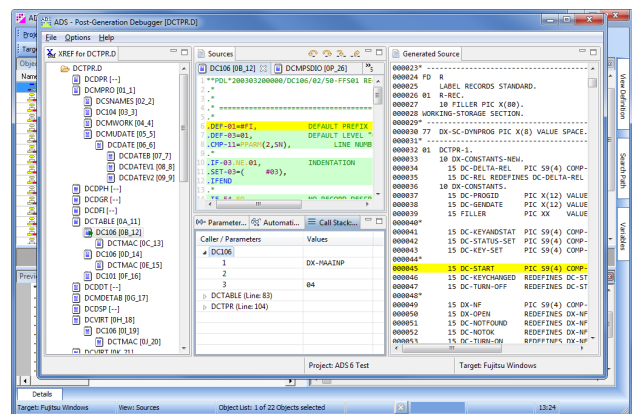


Generation Report Wizard

### Post-Generation Debugger

By using the Post-Generation Debugger you can follow the generation process within the project context in your SCOUT<sup>2</sup> environment. The dynamic navigation leads you straightaway to the right place in the right modules - without any time-consuming, prior setting of breakpoints. You can freely navigate

by yourself, going backwards and forwards in the generation.



Post-Generation Debugger

You see the contents of all variables before and after the execution of the statements, that means

- which macros and processors have been called,
- which statements have been executed at all in the individual macros,
- the values of each individual macro parameter when a statement was executed,
- from which module (and statement) each line in the generated code derives.

You can thereby follow the code generation step-by-step. In this way, development and testing gets very easy.

### Efficient Development with SCOUT<sup>2</sup>

Many enterprises use SCOUT<sup>2</sup> Development Platform for the optimisation of their software development processes. The development gets easier as the developers do not have to care about the infrastructure anymore. They can comfortably develop their



applications on Microsoft Windows, regardless of where the application will be used for production. They use SCOUT<sup>2</sup> to integrate their development processes in an audit-proof way across all software components, tools and platforms.

Read on to get more information about [SCOUT<sup>2</sup> Development Platform](#).

**Requirements for ADS 6 on SCOUT<sup>2</sup>**

To use the new ADS 6 functions on SCOUT<sup>2</sup> Development Platform you need:

- SCOUT<sup>2</sup> Development Platform version 4.5b or higher
- Oracle Java SDK version 1.6 (32 bit) or higher

SCOUT<sup>2</sup> supports the new ADS 6 functions with new process types. We help you to smoothly integrate the new processes into your SCOUT<sup>2</sup> Development Platform.

[Order your update for ADS 6 on SCOUT<sup>2</sup> Development Platform now.](#)

**3 ADS 6 Reports - Clear View of Usage and Dependencies**

In the last issues of our newsletter we explained the new language extensions for ADS MACRO, the Macro Source Optimizer and the Post-Generation Debugger. Now we want to present the new ADS 6 Generation Reports that assist and support you in the maintenance and documentation of your applications and the application frameworks developed with ADS MACRO.

With ADS 6, it is possible to store comprehensive

information about the code generation in a Knowledge Base. Based on this information the most different analyses can be made with the new ADS 6 Generation Reports. You can create reports for individual sources or global reports which evaluate the entire Knowledge Base.

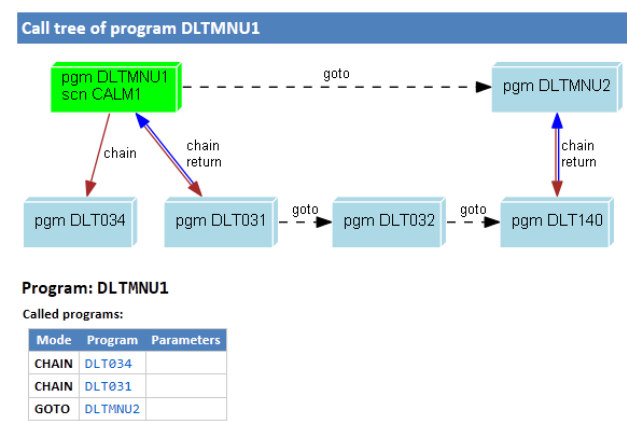
Our customers confirm the high benefit of the new report functions. Oswald Klackl, Head of Architecture & Quality Management at B+S Bankssysteme, judges:

*The new ADS 6 enables us to further improve the efficiency and quality of our software development and maintenance. For example, new functions for the detailed documentation and description of the generating process help us to securely and fast perform changes and enhancements on our large scale and complex applications.*

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

**Primary Source Reports**

Reports for individual primary sources like programs, screens, macros, data access servers and others evaluate the data of a generation – across the entire component hierarchy. Examples for this are Call Trees that give you an overview on programs and sub-programs and thus of impacts and dependencies when changing copy books or interfaces.



Call Tree

Trace Reports document the use of the global parameters and answer the question of which parameters are changed where and how and when they have which contents.

Preview

**Value trace of global system parameters for generation of EMPB1.D**

**Parameter: S3**

Macro	Line	Name (Alias)	Old Value	New Value
DCMPRO	123		1	2
DCMSCO	121		1	2

**Parameter: S5**

Macro	Line	Name (Alias)	Old Value	New Value
DCMPRO	123		1: '>	1: '>

**Parameter: SA**

Macro	Line	Name (Alias)	Old Value	New Value
DCMPRO	19	TRANSACTIONAL	TRANSACTIONAL	
DCMPRO	27	TRANSACTIONAL	TRANSACTIONAL,MAIN	

Trace Report

### Global Reports

The global reports evaluate the entire Knowledge Base. Reports of this kind include, for example, the coverage analyses of macros that evaluate the use of macro statements across all generations. They mark

**Coverage Report of Macro MCVADAT**

Macro MCVADAT is used by 53 primary source(s) and called 95 times

1	**PDL*200406170828/MCVADAT/02/VALIDATEEvMacro for date	
2	.DCL-10.macname,	95
3	.CMP-macname=PPARM(1,ACTMACRO),	95
4	.SET-11={count}	95
5	.IF-M1.NE.,	95
6	.QUIT-MACRO	95
7	.IFELSE,	95
8	.SET-M1=FIRST,	95
9	.IFEND	95
10	.SL FILE-ROUT	95
11	.DETAB-{macname}, OPT 0	0
12	X IF KX-{macname}-? NOT NUMERIC ,T,M,3,ELSE,ELSE,ELSE,ELSE,ELSE.	95

Coverage Report

used macro statements (coverage) and dead code. Cross-reference reports facilitate the evaluation of dependencies when implementing changes. Global reports provide information about the use of FD and

RD macros as well as about file usage – across all programs. Which programs use which file macros by using which functions and which parameters? If interfaces change you can very quickly find out which modules will be affected.

**FILE Statements grouped by FD/RD Macro**

Usages of .FILE statements in programs grouped by FD/RD macro

Filter criteria:  
 FD Macro(s): DISK  
 RD Macro(s): \*

FD Macro	RD Macro	Program	Int. Filename	File Function	Ext. Filename	Usages
DISK	BONRD	BONUS-TOT.D	TOTSAL	OUTPUT	Z:\EMPLTOTSAL	
		BONUS.D	TOTSAL	INPUT	Z:\EMPLTOTSAL	
			PAYEEDAT	OUTPUT	Z:\PAYEEDAT	
		COUNTB.D	CFI	INPUT	Z:\COUNTBF	
		DEPSHOW9.D	DEPEMP (Phase: SELNUM)	OUTPUT	Z:\DEP_EMP	SPP PUT (1)
	DEPRD	DEP-ASUB.d	DEPSEQ (Phase: LOAD)	INPUT	Z:\DEPSEQ	SPP GET (2)
			DEPSEQO	OUTPUT	Z:\DEPSEQO	SPP

Usage Report

Macro Call Reports document which programs use which macros in which variants.

**Calls of Macro(s) for EMPU5 .D**

Calls of selected macros (first column) during generation of EMPU5 .D.

Macro	Called by	Line	Parameters
DCBUILD	DCMOSINT	11	WINDOW=EMP5
DCCHECK	DCMOSINT	11	WINDOW=EMP5, DATACHECK
DCCURSOR	DCMOSINT	11	VARIABLE=NEXTEMPNR, WINDOW=EMP5
	EMPSMC	193	VARIABLE=ENTRYDATE, WINDOW=EMP5
		200	VARIABLE=BIRTHDATE, WINDOW=EMP5
DCDEF	DCMOSINT	11	WINDOW=EMP5
DCITS	DCMSCO	168	
DCITSSI	DCMSCO	169	
DCMOSC	EMPUS	11	
DCMOSINT	DCMOSC	67	DCCURSOR, VARIABLE=NEXTEMPNR, WINDOW=EMP5
		77	DCCURSOR, VARIABLE=NEXTEMPNR, WINDOW=EMP5
	DCMOSO	225	DCNEXT, CALL 'DCOSCK'
		356	DCNEXT, RETURN

Macro Call Report

### Generation Report Wizard

An assistant (wizard) help you to create Generation Reports. In the wizard you can filter the information that is relevant for you depending on the report. The Generation Reports which are created in HTML format are directly displayed to you in the project context of your Eclipse or SCOUT<sup>2</sup> development environment or in the browser.

### Understand Your Software!

The new ADS 6 report functions help you to (re) document your applications and the application frameworks developed with ADS MACRO and to analyse the implemented logic. In this way you understand your software!

The final release of ADS 6 for COBOL is available now! [Order your update now!](#)

## **4** HyperSenses Video - Creating Generator and DSL in Less Than 3 Minutes

### Creating Generator and DSL in Less Than 3 Minutes

We show you how to create a first generator including suitable DSL in less than 3 minutes by using HyperSenses. Naturally it is only a very small example. But it demonstrates the concept of HyperSenses, our



environment for the model-driven development of generators and DSLs. On the basis of this example we show you that the use of HyperSenses already scales for small tasks.

The development of more complex and larger generators and DSL is described in tutorials. These tutorials and further information on HyperSenses as well as a free download version can be found on our website.

This link will take you to the [video](#).

If you want to go through the demo step-by-step, you can find a [clickable version](#) here.

Further Information about HyperSenses you will get here: [www.hypersenses.com](http://www.hypersenses.com)

More newsletters and our newsletter administration can be found here: [www.delta-software.com/newsletter](http://www.delta-software.com/newsletter)

