

# CONTROL/DCD & COBOL ANALYTICS

Marble Computer, Inc.

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## Control/DCD Optimizes 6.2 Code

Managing a COBOL migration to COBOL 6.2 for Mainframe Applications can have hidden problems depending on the quality of COBOL code being upgraded. COBOL 6.2 is designed to optimize IBM's new z/15 mainframes. IBM claims the z/15 will reduce COBOL processing by 50%.

The fact is, Optimization results will vary greatly by the type and number of COBOL compile options used. OPT(0) provides no optimization. Options like NUMCHECK and SSRANGE may add up to 50% overhead in optimized code execution according to IBM.

Below are 4 major issues that COBOL 6.2 compile options address.

1. Invalid Data for Usage Display for Numeric Fields for COBOL 5.1 through 6.2.
2. COBOL Parameter discrepancies between Called and Calling Programs
3. Binary and Packed Decimal Data Picture Clauses
4. Exceeding the limits of table sizes defined in a COBOL Program.

Some IBM recommended COBOL 6.2 migration work arounds are:

1. Compile with SSRANGE, NUMCHECK, PARMCHECK and OPT(0) for initial code changes and unit test.
2. To find table misuse, invalid data use and invalid parameter usage use OPT(0). Programs are easier to debug, and compile faster. Look at runtime logs for NUMCHECK, etc., error messages.
3. Recompile with NOSSRANGE, NONUMCHECK, NOPARMCHECK and OPT(2) plus INITCHECK for quality assurance test and production for maximum optimization.
4. NOSSRANGE, NONUMCHECK and NOPARMCHECK are required for performance .

### Current Enterprise COBOL Availability & End Of Service

V4.2 EOS 9-30-2021

V5.1 EOS 4-30-2020

V5.2 EOS 4-30-2020

V6.1 Available 3-18-2016

V6.2 Available 9-8-2017

V6.3 Available 9-6-2019

### Did you know.....

**Marble Computer has been in business since 1983.**

**Control/DCD helps major corporations manage their mission critical applications 24x7.**



The Digital Document Manual Is Usable Via A PDF Reader On Any Device

## Why Control/DCD?

Control/DCD serves as a pre-compiler and analyzes the COBOL code for 6.2 Compiler errors. This means expensive COBOL 6.2 compiles are not required to use Control/DCD's capability. Control/DCD finds incompatible syntax and program code that creates problems with the COBOL 6.2 compiler output. According to compiler experts, COBOL 6.2 can create invalid executable code that can cause production Abends and erroneous results.

The new Enterprise compilers have much more restrictive syntax checking than previous Enterprise compilers. Many data definitions of numeric data will not be compiled properly without change.

By using Control/DCD's Digital Documentation Manual the invalid data items will be listed in the &ERRORS report. Some of the errors found will be no picture clause value warnings.

Control/DCD Call Parameter Report examines an entire application and will provide calling errors due to invalid size definitions or just plain coding errors.

The Abend Analysis report in Control/DCD will highlight errors in Binary field definitions as well as for Packed Decimal. Binary fields defined with even integers create problems in the executable code.

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## Control/DCD

The new way to manage the mainframe source code environment.

With over 35 years of mainframe experience Marble Computer is taking the legacy of its DCD product line and utilizing the most advanced techniques for programmers to document and understand a program's logic and business rules.

Program modifications are made quickly, easily and accurately.

For more information:

Call (800) 252-1400 to arrange for a demo.



Marble Computer is an IBM Business Partner for z/OS Software.

## Modernize Your COBOL 6.2 Code Control/DCD

Control/DCD utilizes the ISPF editor to make it simple for COBOL programmers to quickly modernize a program.

Gain even more efficiency by quickly and easily updating old programs.

Safely remove unused code.

By utilizing Control/DCD's simple command structure and operational command words, programmers can issue an ISPF FIND for our Macro functions.

**Sample command structure:**

**Find &(Operand)**

Some **OPERAND** Examples:

FIELD-NAME

CALL

COPY

CODE-NOT-USED

ERRORS

FORWARD-TRACING

OPEN

PERFORM-ANALYSIS

PERFORMED-ROUTINES

SQL



Control/DCD's 3-Hour training Course Can Be Delivered Onsite or Online

By utilizing Control/DCD's simple command structure programmers can use the ISPF Find for Macro functions like Code-Not-Used or Forward-Tracing.

Document the usage a single data field with one simple FIND command to show the complete flow (and narrative) of that data field.

Forward tracing shows the flow of the program logic through the Procedure Division.

Follow the use of nested performs through their looping functions.

Flag errors such as COBOL verbs that are no longer supported. These verbs go back to early version of COBOL. With Control/DCD programmers are able to bring the code up to COBOL Version 6.2 without the fear of introducing old errors.

Deliver well documented COBOL programs for regression testing knowing that the code does not re-introduce old or create new Job Failure possibilities.

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## Control/DCD's Benefits

Adds an Intelligent COBOL Analytical capability to your COBOL 6.2 migration Project.

The Digital Documentation Manual is an up to date detailed guide of the COBOL program's analytics. The DDM can be stored on collaborative intranets like SharePoint. The DDM is updated with each modification change when used with Control/DCD.

No compile is necessary prior to using Control/DCD. Control/DCD acts as a pre-compiler. Let Control/DCD catch the 6 major Areas of Concern for COBOL 6.2. Focus on finding errors with Invalid Data, Parameter/Argument, Occurs Depending errors and table overflow issues.

Reduce COBOL 6.2 Compile times and produce more optimized code. Get the benefit of your MSU/MIPS reclamation project.

Analyze an entire application to find potential and real errors in COBOL code. Plan a change in field size knowing all uses of the field are found. Learn where data elements are modified in the application and under what conditions.

Control/DCD's Data Tracing Analysis function means less Job Failures which creates better utilization of the production environment, makes life easier for Job Schedulers and those that support Job Scheduling systems.

**Marble Computer software products are z/15 compliant, support z/OS V2.4 and COBOL Version 6.2.**



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