

# CONTROL/DCD'S SPECIAL NARRATIVE

Marble Computer, Inc.

September, 2021

Control/DCD offers a unique feature for changing a COBOL program as it undergoes modification or refactoring. Designated the "Special Narrative" this feature is now available in Control/DCD's Enhanced Compile Mode. As one would suspect from its name Enhanced Compile Mode is an add on capability for any IBM COBOL Compiler.

The Special Narrative is applied to all Data Fields and the Procedure Division. Below is more information.

## **Special Narrative** - as applied to EACH data-field

- complete **DATA DIVISION** information formatted for the field
- shows the **Performed Routine Names** containing any activity referencing this field
- shows a **PROCEDURE DIVISION** statement for each verb (MOVE, IF etc.) for all references
- shows **Forward Tracing** information for all referenced Performed Names
- provides a **FIND** command to directly reference the **Forward Tracing** report

## **Forward Tracing** - for all Performed Routines in the program

Forward Tracing is a hierarchical chart to show how each performed routine relates to all other performed routines

## **Perform Errors** - for Major, Moderate and Minor Perform Errors

Major PERFORM Errors show where the structure of the program is violated when a PERFORM is branched out of itself by a GO TO

The following pages of this brochure describes in more detail each of the capabilities of the Special Narrative.

IBM estimates that there is now around 250 billion lines of COBOL code being maintained throughout the world. Additionally some where around 1 billion new lines of code are added annually to production applications. These are mainframe production applications that store and serve as much as 70% of the world's Enterprise information.

## **Did you know.....**

Marble Computer has been in business since 1983.

Our primary product Control/DCD helps major corporations manage their mission critical applications 24x7.



Marble Computer's Control/DCD Improves Programmer Productivity

## Special Narrative Example

```
&70. &INV-2-RECORD-IN                                DATA DIVISION
      94 pos in 01 INV-2-RECORD-IN
      within FD INV-MAST-FILE-2
      INV-2-RECORD-IN
```

```
A-PROCESS-ALL-RECORDS                                PROCEDURE DIVISION
      Write INV-2-RECORD-IN (264)
E-FORMAT-OUTPUT-REC
      Move SPACES to INV-2-RECORD-IN (478)
```

```
1  A-PROCESS-ALL-RECORDS                                RELATED TRACING
2  B-INV-CHECK (No Activity)                            F &247. FIRST
3  E-FORMAT-OUTPUT-REC --> (Perform/UNTIL)
```

The entire flow of the program for data field INV-2-RECORD-IN is shown on one page within ISPF's 80-column viewer. No paging is required. This is what the Special Narrative provides for each field within Control/DCD.

Programmers are more productive as there is no need to switch back and forth between the many pages of the standard COBOL listing. The Special Narrative displays easy to read relationships between the data field and the code that operates on the data field.

## Enhanced Compile Mode

The COBOL Compiler Add On from Marble Computer. Adds value to all COBOL Compilers. Extends the life of COBOL V4.2.

With over 38 years of mainframe experience Marble Computer is taking the legacy of it's DCD product line and utilizing COBOL analytics for programmers to easily 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.

## How Enhanced Compile Mode Works:

Control/DCD in Enhanced Compile Mode creates a new powerful add-on to make any IBM COBOL compiler more effective in documenting a COBOL program.

By adding additional documentation, Special Narrative, to a standard COBOL Compile Listing Control/DCD makes it simple for the COBOL programmer to better understand the flow of the program as to data and process. Business rules are easily interpreted, data analysis is made simple, dead code is found and can be eliminated.

The Special Narrative provides the following features.

Hierarchical Flow Chart of the Performed routines through the Forward Tracing Chart.

Data Division analysis which includes all copybooks. Data Name tracing with associated Performed Routines.

Procedure Division analysis including Major and Minor perform errors. Top down structure of Performs, Invalid GOTO statements, Code-Not-Used and more.



**Enhanced Compile Mode Insures Your Programmers Are More Productive**

By utilizing Control/DCD's Enhanced Compile Mode programmers will get useful information that no version of an IBM COBOL compiler can provide.

Each day, on IBM Mainframes, 100,000s of compiles are executed utilizing some version of an IBM COBOL compiler. Even versions like OS COBOL or COBOL 74 are still being used. Soon COBOL Version 4.2 will be End of Service.

Control/DCD's Enhanced Compile Mode is compiler independent. It will add additional valuable information about the program's code.

New documenting capabilities include the Special Narrative feature which documents the complete code flow of all data fields.

The Forward Tracing feature shows the flow of the program logic throughout the Procedure Division.

Enhanced Compile mode delivers one IBM COBOL listing. Source code followed by the compiler errors and warning messages followed by Control/DCD's added documentation.

With Control/DCD your organization will have better documented COBOL programs for specific program modifications or a refactoring project.

## Enhanced Compile Mode's Benefits

Marble Computer has created a simple FIND command structure, with the addition of one character (An & character) added to the Find Command that works with a program's data names, paragraph names, and more. So the adoption rate is fast and efficient. Control/DCD requires very little training.

By using the **&**, as in 'Find **&**Operand' the programmer is now in control of the code from the Working Storage Section to Procedure Division including all Record formats as well as all Copybooks.

In Enhanced Compile Mode Control/DCD runs as a batch job step within the standard Compile job stream. Utilizing the COBOL compiler's output, Control/DCD produces an alternative compile listing (ACL) which displays in the ISPF viewer.

Productivity is dramatically increased from the time the code is opened for remediation until it's ready for Alpha and Beta Testing.

Management statistics are produced so that the final code changes can be analyzed as to the quality of the program as well as the programmer. Project management is now able to deliver projects on time and under budget.

Better code 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 & 6.3.



**Marble Computer Inc. - 6416 Via De Albur Court—Suite 100—El Paso, TX 79912**

**Phone: (800) 252-1400 - Fax: (915) 845-7918**

**Website: [www.marblecomputer.com](http://www.marblecomputer.com)**

**Sales: [sales@marblecomputer.com](mailto:sales@marblecomputer.com)**