



Control DCD New Release 2.4 Highlights May 15, 2021

Release 2.4 is a major enhancement within Control/DCD

Control/DCD has been modified with the following features and changes in release 2.4.

Three new reports are available in the Alternate Compile Listing in Release 2.4, in both Independent Mode and in Compile Mode as follows:

Special Narrative - for EACH data-field

- Special Narrative developed show:
 - complete **DATA DIVISION** information well 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 an **Abbreviated Forward Tracing** report for all referenced Performed Names
 - shows a FIND command to directly reference the **Full Forward Tracing** report
- This Narrative for each data field typically fits into one ISPF screen
- The Narrative is reached directly with one FIND from the Procedure Division

Forward Tracing - for all Performed Routines in the program

- Forward Tracing is a hierarchical chart to show how each performed routine relates to another

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
- Backward GO TOs and Backward PERFORM define Moderate and Minor PERFORM Errors

The use of (**F &operand**) allows immediate branching **from** source line being evaluated in PROCEDURE DIVISION and **to** Special Narrative for a data-name being evaluated on that line, AND also immediate **branching** back to that source line.

Paging left and right on the ISPF monitor is greatly reduced saving much time and introducing more readability.

In Compile Mode, the Return Code for the Control DCD step has been converted from 0001 to a normal COND CODE similar to that give by the COBOL compiler (0000, 0004, 0008, 0012 and 0016). Also the Compile Mode reports have page numbers redone as they follow the Alternate Compile Reports.

The flow of a program that abends for any reason has been enhanced by rebuilding our GIVEBACK program.

Control/DCD Release 2.4 is designed to be more maintainable long-term than prior releases.

The 'Install Guide' has greatly improved for easier installation of Control/DCD.

Logic has been added to Control/DCD to do analysis on several programs at once to look for INVALID DATA, and to look for WORKING-STORAGE Usage DISPLAY field that have no VALUE for assistance in conversion to COBOL 6 or beyond.

- The CALL Parameter Report is also added to this feature for evaluating multiple COBOL programs at once.
- A report is produced to show categories of error messages of INVALID DATE by program along with count and description of the error to make fixing these errors relatively easily
- WORKING-STORAGE Usage DISPLAY fields with no VALUE are also shown.

A Parm option and feature has been added to allow adding multiple VALUES automatically in the WORKING-STORAGE for fields identified as having no VALUE.

The structure of Control/DCD has been modified allowing larger tables for faster processing and minimum REGION SIZE has be increased from 8,192K to 16,384K with a recommended REGION SIZE of 25,600K or larger.

- For larger programs, rather than reverting to multiple SORTs invoking the SORT program, internal SORTs are done on the larger table sizes available.

A new version control field, ENTERPRISE-6 has been added to allow recognizing distinct COBOL 6 verbs.

In the Forward-Tracing chart, the & is removed from performed routine for clarity in viewing.