

## COB02 VS COBOL II Dump Debugging

**Course Description** This course is designed to provide application programmers with the skills required to solve VS COBOL II abends using the formatted dump, snap dump, the system dump and other information available.

**Who Should Attend** Participants should be programmers or analyst programmers who are required to solve VS COBOL II dumps in either a development or support environments.

**Pre-Requisites** Participants should ideally already have at least three months practical experience using VS COBOL II, but no previous dump solving skills are required. Some additional Assembler background will be an advantage, but is not necessary.

**Duration** 2 Days

### VS COBOL II Introduction

Types of dumps  
 Snap dump  
 FDUMP  
 System dump  
 Types of abend  
 Program interrupts  
 System abends  
 User abends  
 Special DD statements for dumps  
 The VS COBOL II run time environment  
 Solving incorrect output type problems Display  
 With debug mode  
 Interactive debug  
 The **Program Problem Determination Method**

### Machine & Program Architecture

Source, Object & Load modules  
 The translation process  
 The Program Status Word  
 Purpose  
 Content  
 The General Purpose Registers  
 Addressing main storage  
 Save area purpose & contents  
 VS COBOL II register usage and conventions

### The Compiler & Link-Edit Listings

Compiler options to aid debugging  
 List, Map, Xref, Test, Fdump, Sstrange, etc...  
 The compiler listing in detail  
 The link-edit listing in detail  
 Some common IGZ... modules

### Abend Reason

Program interrupts  
 Common causes  
 System abends  
 Common code descriptions  
 Check list  
 User abends  
 Non-zero program return codes

### Abend Location

The point of interrupt / PSW  
 The actual point of the problem  
 The program name  
 The module name  
 The statement number  
 Non VS COBOL II modules  
 Save area chaining revisited

### Locating Your Data In the Dump

The Task Global Table  
 The base locators (BLW, F, X, L, etc..)  
 Locating internal variables  
 Locating external variables  
 Locating parameter variables  
 Locating file information  
 FCB  
 The buffer contents  
 The current record

### VS COBOL II Run-time Control Blocks Format

COBCOM  
 COBCOV  
 THDCOM  
 RUNCOM  
 TGT

### Other Useful Sysudump Formatted Control Blocks

The dump index  
 The CDE  
 The TIOT  
 The save area trace  
 The general purpose registers