

Chapter 1: VSAM File Access

Client Specific Performance Objectives and Examples 1-2

VSAM versus QSAM 3

Terminology - VSAM and QSAM 4

VSAM Types 5-6

Defining VSAM 7

Specifying Sequential Organization 8-9

Specifying Indexed Organization 10-11

Alternate Keys 12

Specifying Relative Organization 13-14

Access Modes 15-16

I/O Statements 17-18

File Position Indicator 19

Opening a File 20

Opening an Empty File 21

Load a File 22-23

Opening a Loaded File 24

Adding Records 25-26

Replacing Records 27-28

Deleting Records 29-30

Errors in VSAM 31-32

File Status 33

File Status - High Order Byte 0 33-34

File Status - High Order Byte 1 36

File Status - High Order Byte 2 37

File Status - High Order Byte 3 38

File Status - High Order Byte 4 39

File Status - High Order Byte 9 40

Return Status 41-43

VSAM Return Codes 44

VSAM Function Code 45

VSAM Feedback Code - Return Code 12 46

VSAM Feedback Code - Return Code 8 47-52

Chapter 2: SORT MERGE

Client Specific Performance Objectives and Examples 1-2

SORT versus MERGE 3-4

SORT Rules 5

Defining SORT File 6-7

Input Procedure 8-9

Output Procedure 10-11

Sample Input/Output Procedure 12-13

Procedure Restrictions 14-15

Variable-length Records 16-17

Sorting Files 18

Sort Rules 19-20

Sort Completion Code 21-22

SORT-MESSAGE 23

Early Termination 24

Controlling SORT Behavior 25-26

DUPLICATES Phrase 26

Chapter 5: Subprograms

Client Specific Performance Objectives and Examples 1-2

Subprograms 3

Main Programs and Subprograms 4

EXIT PROGRAM 5

Initial State 6-7

Static Calls 8

Dynamic Calls 9-10

Nested COBOL Programs 11-12

Nested Program Advantages 13

Scope of Names 14-15

ADDRESS OF 16

LENGTH OF 17

Procedure and Function Pointers 18-19

Passing Data 20-21

Parameters - Describing 22-23

OMITTED Arguments 24-25

EXTERNAL Clause 26-28

Sharing Files 29-30

Chapter 6: XML Processing

Client Specific Performance Objectives and Examples 1-2

XML 3

XML Components 4-7

XML PARSE 8

PARSE Statement 9

XML PARSE 10

COBOL XML Parser 11-13

Accessing XML Documents 14-15

Parsing 16-18

Writing Procedures 19-22

Transforming XML Text to COBOL 23-24

Parsing XML Documents with Validation 25

Parsing One Segment at a Time 26-27

QSAM and VSAM Files 28-29

Encoded in UTF-8 30-31

XML Output 32-33

Generating XML Output 34

GENERATE Statement 35-36

Generating XML Output 37

Attributes 38

Exception 39-40

Chapter 3: Advanced Table Processing

Client Specific Performance Objectives and Examples 1-2

Tables 3-6

Nesting Tables 7-8

Multi-dimension Tables 9-10

Indexing 11-13

Subscripting 14-15

Reference Modification in a Table 16

Indexing 17

SET Statement 18-20

Loading Values Into a Table 21

Loading a Table Dynamically 22

Initializing a Table 23-24

Assigning Values at Table Definition 25

Initializing Individual Items 26

Group Level Initializing 27

Variable-length Tables 28-31

Assigning Values to a Variable-length Table 32

Searching a Table 33-34

Serial Search 35-37

Binary Search 38

Intrinsic Functions and Tables 39-40

SSRANGE Option 41

Chapter 4: Language Environment

Client Specific Performance Objectives and Examples 1-2

Language Environment 3

Components of LE 4

Date and Time Services 5

Callable Services 6-9

Minimum Date Values 10

General Callable Services 11-13

CEE3DMP Callable Service 14-15

CEEENV Callable Service 16

CEEENV Parameters 17-20

CEEENV Example 21-28

CEESIOLR - Bit Clear 29

CEESISET - Bit Set 30

CEESISHF - Bit Shift 31

CEESITST - Bit test 32

Run-Time Options 33-35

ALL31 36

CBLPSHPOP 37

CEEDUMP 38-40

CHECK - COBOL only 41

ENVAR 42

HEAP 43-45

MSGFILE 46

RPTOPTS 47

RPTSTG 48

Chapter 7: String Processing

Client Specific Performance Objectives and Examples 1-2

Concatenating Strings 3-4

STRING Statement 5-6

ON OVERFLOW 7

STRING Flow 8

Data Movement Termination 9

STRING Examples 10-11

UNSTRING Statement 12-15

UNSTRING Command 16

UNSTRING Examples 17

UNSTRING Clauses 18-22

Reference Modification 23-25

INSPECT Statement 26-27

INSPECT Flow 28

INSPECT Clauses 29

INSPECT Format 1 30

INSPECT Format 2 31

INSPECT Example 32-33

INSPECT_CONVERTING Clause - Upper/Lower Case 34

Upper/Lower Case - Example 35-36

Chapter 8: Performance

Client Specific Performance Objectives and Examples 1-2

ARITH - EXTEND or COMPAT 3-4

BLOCK0 or NOBLOCK0 5-6

DATA(24) or DATA(31) 7

DYNAM or NODYNAM 8-9

OPTIMIZE(STD)/OPTIMIZE(FULL) or NOOPTIMIZE 10-11

RENT or NORENT 12

SSRANGE or NOSSRANGE 13-14

TEST or NOTEST Compiler Option 15

XMLPARSE Option 16-17

Using CALLS 18-19

Using IS INITIAL on the PROGRAM-ID Statement 20

Using IS RECURSIVE on the PROGRAM-ID Statement 21

QSAM Files 22-23

Variable-length Files 24

VSAM Files 25-27

BINARY (COMP or COMP-4) 28

Data Conversions 29-30

Indexes versus Subscripts 31-32

OCCURS DEPENDING ON 33-34

Factoring Expressions 35

Subscript Usage 36

Searching 37

Character Conversion Functions 38

Initializing Data 39

Chapter 9: Debugging

Client Specific Performance Objectives and Examples..... 1-2
 Debugging..... 3
 Tracing Program Logic 4-5
 Comment Debug Statements..... 6
 Validating Data 7
 Generating Information About Procedures 8-9
 DECLARATIVES Section..... 10
 DECLARATIVES Example..... 11-12
 Checking for Valid Ranges 13-14
 Level of Error..... 15-16
 Finding Program Entity Definitions and References..... 17
 Listing Data Items..... 18
 LIST Output 19-21