

IBM

SEGMENT 2403

OS ASSEMBLER LANGUAGE PROGRAMMING

Student Notes

UK 53 - 2213 - 1

Segment Timetable

<u>Day</u>	<u>Topic</u>	<u>Page</u>
Monday	Introduction Pre-requisite Test Assembler Programming Techniques	1.1
Tuesday	Section Linkage Practical 1 Debugging 1	2.1 7.8 3.1
Wednesday	QSAM Practical 2 Practical 3	4.1 7.9 7.10
Thursday	The Timer, Operator Communications and List & Execute Forms Practical 4 (not run) Practical 5 (not run)	5.1 7.11 7.12
Friday	Debugging 2 Self Evaluation Test Segment Review	6.1

Note: Time is allowed for debugging on Thursday and Friday morning and at the end of each day.

Segment Description

This segment covers assembler language instructions other than the basic hardware instructions, and the writing of modular assembler language programs. The interaction of the various control and service programs is discussed, together with the use of the queued sequential access method to access sequentially organised data sets.

Segment Objectives

On successful completion of the segment you should be able to:

code assembler language modules consisting of one or more control sections, ensuring that all base registers are correctly loaded and all fields are addressable

use standard system macros to pass control and information between separate control sections which may or may not be separately assembled

given a dump of problem program storage, follow a systematic approach to determine the cause of any program check interruption and certain other common errors within the problem program

state the functions of an access method and code the appropriate macros to use a sequential data set for either input or output or both

state which macros will make a program device dependent and code programs which are device independent

write system macros to use the system timer and write an asynchronous exit routine

communicate with the operator using standard system macros, and describe the function of an event control block.

Segment Prerequisites

Any student attending this segment should have attended segment 2402, Basic System Functions, Controls and Services. He should also have completed segment 2401, Assembler Language Fundamentals P.I.text. He should bring to this segment the coded solutions to the case study modules, form number UK23-1004.

Segment Duration

Five days.