A1 Batch Macro Processor

Implement a macro-processor which expands the macro invocations by substituting the macro's definition. Create tables like NAMTAB, DEFTAB and ARGTAB. Call Assembler function in turn to produce the object codes by creating all relevant tables.

Modify the algorithm to implement independent feature:

Conditional Macro Expansion

Input:

```
COPY START 0
ALPHA WORD 5
BETA WORD 10
GAMMA RESW 1
TEN WORD 10
ADDS MACRO &A1, &A2
STA &A1
IF (&A1 EQ 5)
ADD &A2
ENDIF
STA GAMMA
MEND
. Main Program
FIRST STL RETADR
LDA LENGTH
ADDS ALPHA, BETA
LDA ALPHA
ADD FIVE
STA ALPHA
ADDS TEN, BETA
RETADR RESW 1
LENGTH WORD 100
FIVE WORD FIVE
END FIRST
```