



MIT-WPU

T.Y. B.Tech

System Software and Compilers

Text Books & Reference Books

Text Books:

1. Dhamdhere D., "Systems Programming and Operating Systems", McGraw Hill, ISBN 0 - 07 -463579 – 4.
2. A V Aho, R Sethi, J D Ullman, "Compilers: Principles, Techniques, and Tools", Pearson Edition, ISBN 81-7758-590-8.
3. John Donovan, "System Programming", McGraw Hill, ISBN 978-0--07-460482-3.

Reference Books:

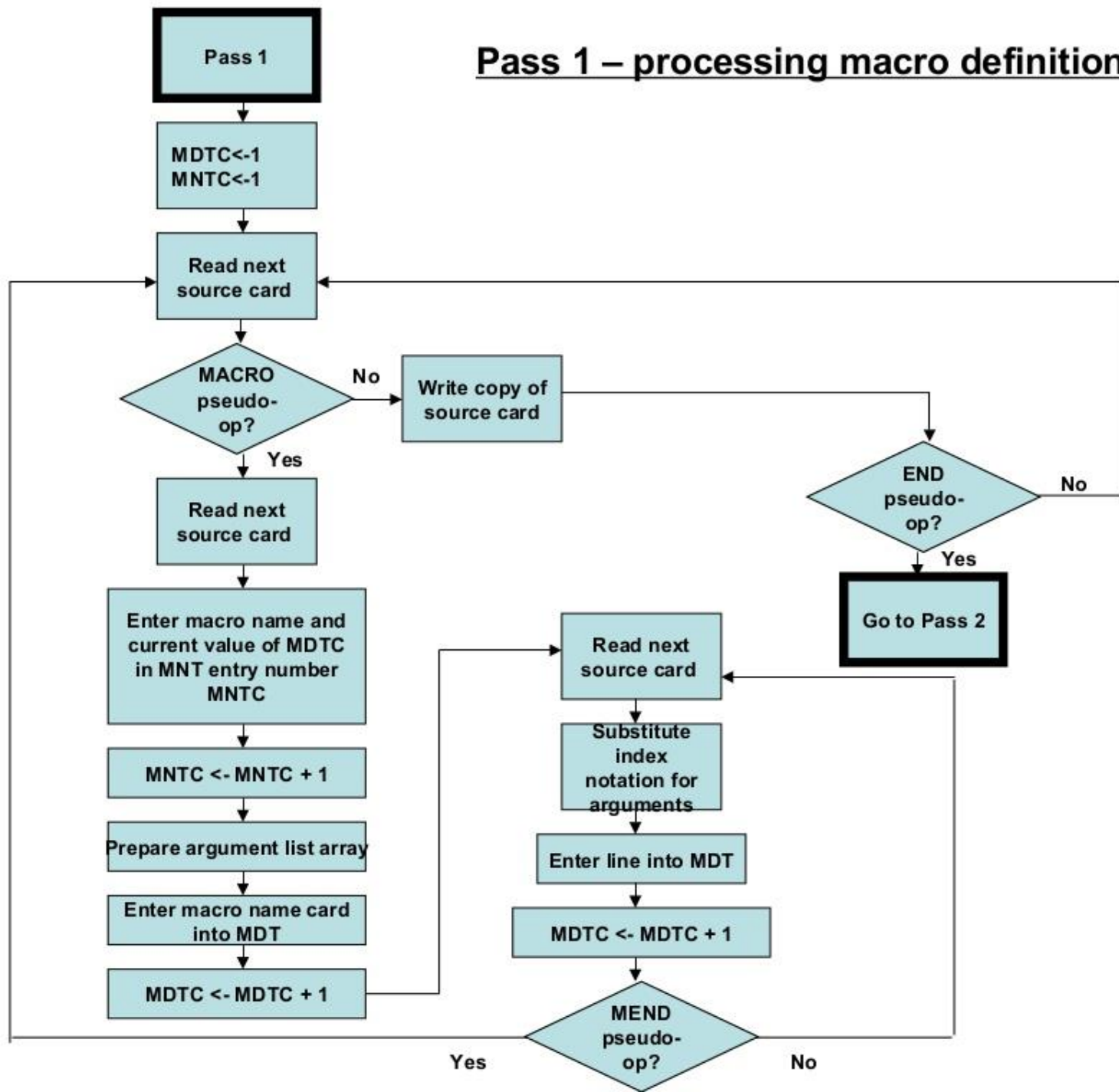
1. John. R. Levine, Tony Mason and Doug Brown, "Lex and Yacc", O'Reilly, 1998, ISBN: 1- 56592-000-7.
2. Leland L. Beck, "System Software An Introduction to Systems Programming" 3rd Edition, Person Education, ISBN 81-7808-036-2.
3. Adam Hoover, "System Programming with C and Unix", Pearson, 2010

Lab Implementation

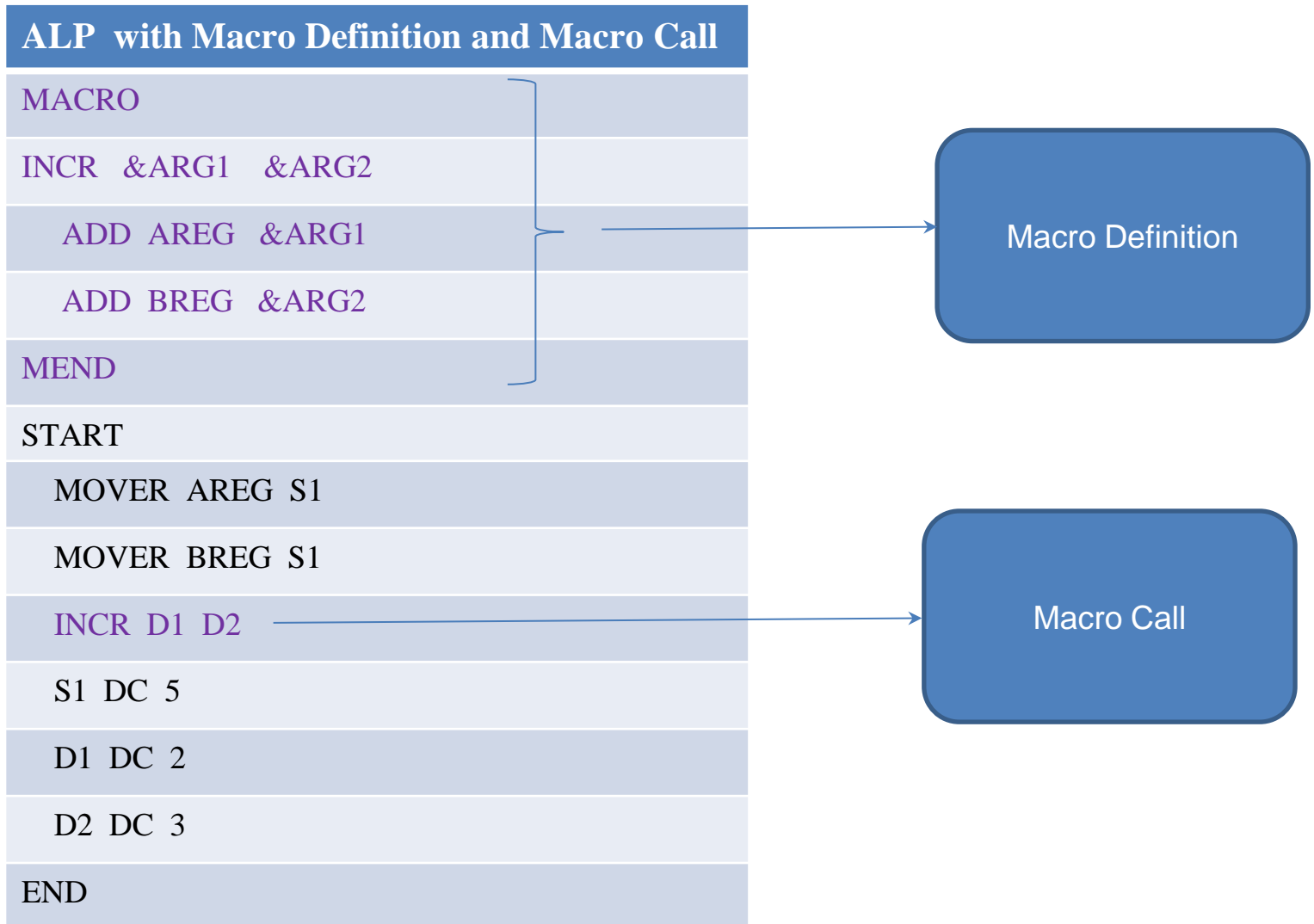
Assignment No 3:

Design of Pass I of Two Pass Macro processor.

Pass 1 – processing macro definitions



Sample Input Pass I



Sample Output Pass I

MNT		
MNT Index	Macro Name	MDT Index
1	INCR	1

MDT	
MDT Index	Instruction
1	INCR &ARG1 &ARG2
2	ADD AREG #1
3	ADD BREG #2
4	MEND

ALA	
ALA Index	Dummy Arguments
#1	&ARG1
#2	&ARG2

ALP without Macro Definition but with Macro Call

START

MOVER AREG S1

MOVER BREG S1

INCR D1 D2

S1 DC 5

D1 DC 2

D2 DC 3

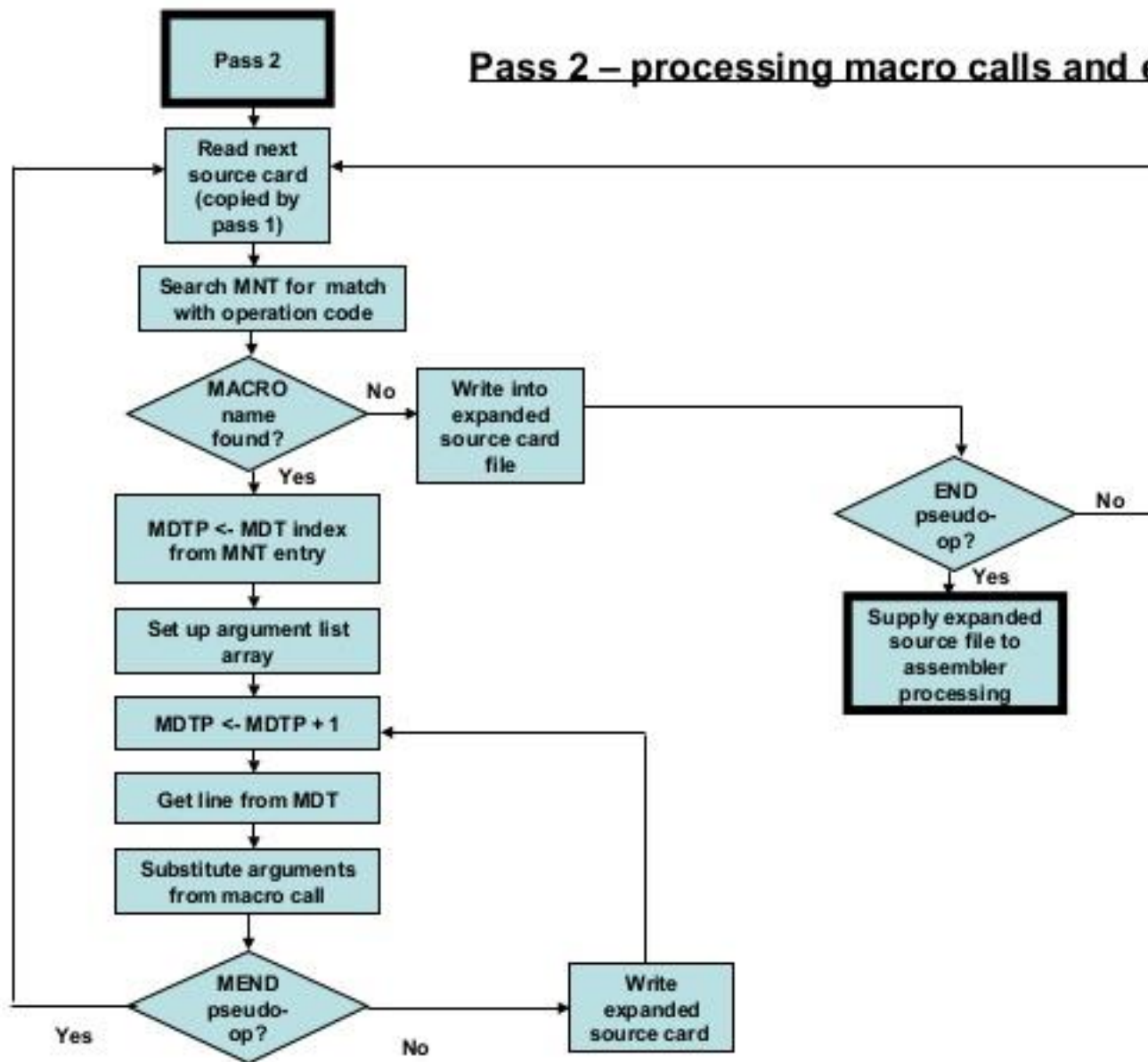
END

Lab Implementation

Assignment No 4:

Design of Pass II of Two Pass Macro processor.

Pass 2 – processing macro calls and expansion



Sample Input Pass II

MNT		
MNT Index	Macro Name	MDT Index
1	INCR	1

MDT	
MDT Index	Instruction
1	INCR &ARG1 &ARG2
2	ADD AREG &ARG1
3	ADD BREG &ARG2
4	MEND

ALA	
ALA Index	Dummy Arguments
#1	&ARG1
#2	&ARG2

ALP without Macro Definition but with Macro Call

START

MOVER AREG S1

MOVER BREG S1

INCR D1 D2

S1 DC 5

D1 DC 2

D2 DC 3

END

Sample Output Pass II

Modified ALA	
ALA Index	Actual Arguments
#1	D1
#2	D2

Macro Expansion

ALP without Macro Definition and without Macro Call
START
MOVER AREG S1
MOVER BREG S1
ADD AREG D1
ADD BREG D2
S1 DC 5
D1 DC 2
D2 DC 3
END