

RECOMP II USERS' PROGRAM NO. 1004

PROGRAM TITLE: AFIT 020 AN to AFIT Key word Conversion  
PROGRAM CLASSIFICATION: Service Routine  
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PURPOSE: Given an "AN Master Tape," to produce from it on  
"AFIT Relocatable Tape" of the same routine.  
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AFIT 020 AN to AFIT Key Word Conversion

**Purpose:** Given an "AN Master Tape," to produce from it on "AFIT Relocatable Tape" of the same routine.

**Method:** The AN key bits, which are placed, two per word, starting at location 4000, are packed together 38 per word, in key words which immediately follow the final word of the routine.

**Use:**

1. Read in AFIT 016 Memory Dump, with origin at 6000. Include the "optional features" at the end of the tape
2. With B up, C down, D up, press START 3. This puts AFIT 015 Relocator on the outcoming tape.
3. Read in the AN Master Tape to be converted.
4. Read in the tape of AFIT 020 Conversion Routine, with origin at 5700.

5. At location 5700, enter the Command Word -

+00 (N) . 0 + 00 (N) . 0

where N is a four digit octal number, giving the number of words in the routine on the AN master tape.

6. Put Switch B up, C down, D down

START

The AN key words are rearranged, and the routine from the AN master tape is punched on the tape, with proper starting and ending arrangements. The word on the display panel gives initial and final addresses, and the number of key words required for the routine.

7. To verify the resulting tape, use the method given in section VII of the instructions for AFIT 016 Memory Dump. Note that step (3) destroyed the AFIT relocater in memory but that it was reinserted by step (4).

8. Subsequent tapes are more easily produced from the first one obtained above, using the procedures of AFIT 016 Memory Dump.

9. Both AFIT 020 Conversion Routine and AFIT 016 Memory Dump are relocatable. If either one is relocated to an origin different from the one mentioned above, then the other must be advanced or set back in memory by an equal amount, for the procedures described above to be valid.

	<del>+CLA</del>				
	<del>5700</del>				
	<del>+00 0200 0</del>				
g	+CLA N	5700	+00	[0200]	0
	+CLA N		+00	[0200]	0
	+CLA (4000)	1	+00	5707	0
	+STO W		+60	5746	0
	+CLA g	2	+00	5700	0
	+STA a		+42	5730	1
	+ADD (4000)	3	+01	5707	0
	+STA b		+42	5752	0
t	+CLA V	4	+00	5746	0
	+STA c		+42	5710	0
	+CTL	5	+64	5710	0
	+CTV		+66	5720	0
	+TRA L <sub>0</sub>	6	+57	7760	0
	+ARS Nop		+40	0000	0
	<del>+CLA</del>	7	+00	4000	0
	<del>+CLA</del>		-00	4000	0
c	+CLA [4000]	5710	+00	[4162]	0
	+STO TS1		+60	7774	0
	+TPL	1	+52	7762	1
	+CLS TS1		+02	7774	0
	+STO TS1	2	+60	7774	0
	+EXT		+33	5747	0
	+STO TS2	3	+60	7775	0
	+CLA TS1		+00	7774	0
	+ARS 19 <sub>10</sub>	4	+40	0023	0
	+ADD TS2		+01	7775	0
d	+ALS [37]	5	+41	0045	0
	+ADD K		+01	7777	0
	+STO K	6	+60	7777	0
	+CLA C		+00	7760	0
	+ADD 1 to 18	7	+01	5750	0
	+STO C		+60	7760	0
	+SUB	5720	+03	5752	0
	+TZE	T	+50	5734	1
	+CLA d	1	+00	7765	0
	+SUB 2 to 18		+03	5751	0
	+STO d	2	+60	7765	0
	+SUB CW2		+03	7776	0

AFIT 020-R

+00 5700.0 = 35756.0

AN to AFIT Key-Word

Construct Control Word Conversion Routine

} 4000, 4000 for initial setting.

} Make the AN key word positive.  
Retain bit # 39

Accumulate AFIT Key Word on K.

} Augment command at C.

All key bits processed.

} Modify a command

Is an AFIT key word completed?

+TPL C	5723	+52 7760 0	
+TRA e		+57 5730 0	
+TPL	4	+52 7760 0	} TS1
+TRA		+57 3030 0	
+TPL	5	+52 7760 0	} TS2
+TRA		+57 3030 0	
+ALS	6	+41 0001 0	} CN2
+ADD		+01 7777 0	
<del>+CLA</del>	7	+00 0000 0	} K = 1639 initially.
<del>-CLA</del>		-00 0000 1	
e +CLA K	5730	+00 7777 0	} Put a completed AFIT key word into its final position.
+STO [N]		+60 0206 0	
+CLA W	1	+00 5746 0	
+ADD 19, 19		+01 5753 0	
+STO W	2	+60 5746 0	} Modify command to store next key word.
+CLA a		+00 5730 0	
+ADD 1638	3	+01 5754 0	
+STO a		+60 5730 0	
+TRA t	4	+57 5704 0	
+CLA a		+00 5730 0	
+STA k	5	+42 5736 1	} Provide for storage of final key word
+CLA k		+00 7777 0	
+ARS Nop	6	+40 0000 0	} store final key word.
+STO [ ]		+60 0206 0	
+CLA g	7	+00 5700 0	} Form the word for display on the display panel, and for planting in AFIT 016 Memory Dump.
+EXT RT Addr.		+33 5755 0	
+SUB 1638	5740	+03 5754 0	
+STO TS		+60 7774 0	
+CLA a	1	+00 5730 0	
+EXT t Addr.		+33 5755 0	
+SUB TS	2	+03 7774 0	
+ALS 12		+41 0014 0	
+ADD TS	3	+01 7774 0	
+ADD 1620		+01 5756 0	
+STO	4	+60 6000 0	} Plant in Memory Dump.
+DIS		+36 6000 0	
+TRA	5	+57 6001 0	} To AFIT 016
+ARS Nop		+40 0000 0	

<del>+CLA</del>	5746	+00 4162 0	
<del>-CLA</del>		-00 4162 0	
<del>+CLA</del>	7	+00 0000 0	} 1 to 39
<del>-CLA</del>		-00 0000 1	
<del>+CLA</del>	5750	+00 0001 0	} 1 to 18
<del>-CLA</del>		-00 0000 0	
<del>+CLA</del>	1	+00 0002 0	} 2 to 18
<del>-CLA</del>		-00 0000 0	
+CLA	2	+00 4200 0	} CH1
+STO		+60 7774 0	
<del>+CLA</del>	3	+00 0023 0	} 19, 19
<del>-CLA</del>		-00 0023 0	
<del>+CLA</del>	4	+00 0000 0	} 1 to 38
<del>-CLA</del>		-00 0001 0	
<del>+CLA</del>	5	+00 0000 0	} Extract pattern to save right address
<del>-CLA</del>		-00 7777 0	
<del>+CLA</del>	6	+00 0000 0	} 1 to 20
<del>+CLA</del>		+00 0000 0	
<del>+DSL</del>	7	+17 7700 0	} Three key words for relocation of this routine
<del>-DSL</del>		-20 0264 1	
+DSL	5760	+20 0077 1	
+XAR		+43 5436 1	
<del>+CLA</del>	1	+00 0000 0	}
<del>-CLA</del>		-00 0000 0	