

CONSTR1
STORAGE ALLOCATION.

COMPASS - VER 2.

03/23/71 00.40.31.

PAGE 1

ADDRESS LENGTH BINARY CONTROL CARDS.

0 205 IDENT CONSTR1
205 END

ENTRY POINTS.

MRPTR - 0

EXTERNAL SYMBOLS.

OPERCL	PAGESW	DEADCAP	SVSERK	GF.DDSF	MAINCL	FR.DDS	ECISEV
IPLIST	TEMP5	WRITCAP	DDSIPL	GF.DDSL	M.ADDS	M.DDSCT	ECIGEVH

IDENT CONSTR1

*

*

*

0

PARAMS XTEXT

0

MACROS XTEXT

0

SYSCALI XTEXT

*

EXT OPERCL,IPLIST

MACSET OPERCL,IPLIST,ECS

*

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EXT PAGESW,TEMP5,READCAP,WRITCAP,SYSERR
 EXT DDSIPL,GF,DDSF,GF,DDSL,MAINCL,M,ADDS
 EXT FR,DDS,M,DDSC

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*PAGE

MKPTR...MKPTR...MKPTR

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CONSTRUCT POINTER BLOCK IN DDS

NOTES:

- A) A POINTER BLOCK WITH THE DESIRED NUMBER OF POINTERS IS CREATED IN DDS
- B) A POINTER BLOCK POINTER WITH ZERO DISK ADDR IS RETURNED
- C) THE POINTER BLOCK IS INITIALIZED WITH POINTERS IDENTICAL TO THE PATTERN PASSED IN X2
- D) THE NECESSARY NUMBER OF RECORDS ARE REMOVED, ALL AT ONCE, FROM THE DDS FREE CHAIN. THE CHAIN LINKING THESE RECORDS IS USED TO KEEP TRACK OF THEM AS THEY ARE INITIALIZED
- E) ↑FR. DDS↑ IS CHECKED TO SEE IF ENOUGH IS ALREADY RESERVED. IF NOT, ADDITIONAL DDS IS RESERVED IF ANY IS LEFT. ↑FR. DDS↑ IS DECREMENTED BY THE APPROPRIATE AMOUNT.

ON ENTRY: X2 = PATTERN TO BE USED TO INITIALIZE
 POINTER PAGES

B5 = NUMBER OF POINTERS IN NEW POINTER
 BLOCK

B6 = RETURN LINK

B6-1 = DDS FULL FAILURE RETURN

ON EXIT: PAGE SWITCH AND POINTER PAGES ARE IN DDS

X6 = POINTER BLOCK POINTER FOR NEW
POINTER BLOCK

REGISTERS USED: B3, B4, B5, A3/X3, A4/X4, A5/X5,
A6/X6, A7/X7

TEMPORARIES USED: TEMP5, PAGESW : PAGESW+7

		ENTRY	MKPTR	
0	76550	MKPTR	SX5	B5
	21503		AX5	3
	7255000001		SX5	X5+1
1	5140000000 X		SA4	FR.DDS
	20455		LX4	A0-15
	43655		MX6	A0-15
2	15646		BX6	-X6#X4
	13446		BX4	X4-X6
	37665		IX6	X6-X5
3	0336000154 +		NG	X6, MKPTR8
	12664		BX6	X6+X4
	20617		LX6	15
4	54640		SA6	A4
	7160000000 X	GETEVH	(MAINCL+M.ADDS)	GET RECORDS FROM FREE DDS
13	10377	BX3	X7	
	63370	SB3	X7	ADDR FOR PAGE SWITCH
	6140000000	SB4	R0+0	PAGE SWITCH INDEX
14	0307000144 +	ZR	X7, MKPTR7	JP IF OUT OF DDS SPACE
				FILL IN PAGE SWITCH AND GRAB PORTION OF FREE LIST
15	7160000000 X	MKPTR1	REDDS	X3, TEMP5.1
27	5150000000 X	SA5	TEMP5	ADDR OF EVEN NUMBERED PTR PAGE
	6155777767	SB5	R5-8	DECR PTR COUNT
30	0305000144 +	ZR	X5, MKPTR7	JP IF OUT OF DDS SPACE
	13444	BX4	X4-X4	
31	0605000044 +	LE	R5, B0, MKPTR2	JP IF GOT LAST PAGE
	7160000000 X	REDDS	X5, ***	
42	54450	SA4	A5	ADDR OF ODD NUMBERED PTR PAGE
	0304000144 +	ZR	X4, MKPTR7	
	73340	SX3	X4	
43	6155777767	SB5	R5-8	
44	20436	MKPTR2	LX4	30
	12654		BX6	X5+X4
	5164000000 X	SA6	PAGESW+84	PACK UP TWO PTR PAGE ADDRESSES
45	6144000001	SB4	R4+1	STORE PAGE ADDRS IN PAGE SW

```

0705000015 +
*
*
46 5150000000 X
7160000000 X
57 54450
7160000000 X
66 13666
54650
7160000000 X
*
*
*
72 6144777767
0440000076 +
73 13666
74 5164000010 X
6144000001
75 0540000074 +
*
*
*
76 7160000000 X
MKPTR4 WRDDS R4, PAGESW, 8
*
*
*
110 5130000000 X
7233000000
*
*
*
111 6140777767
10622
MKPTR5 SB4 -R
BX6 X2
*
*
*
112 5164000010 X
6144000001
MKPTR6 SA6 PAGESW+8+R4
SB4 R4+1
113 0540000112 +
NE R4, B0, MKPTR6
*
*
*
7160000000 X
126 7160000000 X
133 5130000000 X
0313000111 +
*
*
*
134 0450000142 +
135 13666
5165000010 X
136 6155000001
0550000135 +
137 7160000000 X
*
*

```

GT R5, B0, MKPTR1 LOOP UNTILL ENOUGH RECORDS

FINISH UP ALLOCATION OF DDS SPACE
 READ FREE CHAIN POINTER FROM
 LAST BLOCK USED
 ADDR OF NEXT FREE BLOCK

PUT END MARK ON SURCHAIN
 OF POINTER PAGES

CLEAR REST OF PAGE SWITCH

IF PAGE SW FULL

WRITE OUT NEW PAGE SWITCH

CONSTRUCT POINTER PAGES

ADDR OF FIRST POINTER PAGE

POINTER TO INITIALIZE PTR PAGES

INITIALIZE ONE PAGE

WRITE OUT POINTER PAGE

READ ADDR OF NEXT PAGE
 WRITE OUT PAGE

PROCEED TO NEXT PAGE IF NOT AT
 END OF CHAIN OF POINTER PAGES

IF LAST PAGE FULL

CLEAR UNUSED POINTERS

REWRITE LAST PAGE

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*
*
142 7160005000          20660          76730          MKPTR6R  SX6      E000B
                                           LX6      A0-12
                                           SX7      R3
143 20730              12667          LX7      24
                                           BX6      Y6+X7
*
*
0260000000          JP      R6      RETURN
*
*
144 7160000000 X          MKPTR7  SENDEV  *R3      DDS SPACE EXHAUSTED
153 0100000000 X          RJ      SYSERR  RETURN WHOLE MESS TO FREE SPACE
*
*
154 14566              7160000000 X          MKPTR8  BX5      X6      ATTEMPT TO RESERVE SOME MORE DDS
                                           GETEVH  (MAINCL,M.DDSCT)  NUM RECORDS NEEDED
163 37375              0333000175 X          IX3      X7-X5
                                           NG      Y3,MKPTR9  JP IF NO MORE DDS
164 7160000000 X          SENDEV  *X3
173 5140000000 X          SA4      FR.DDS
                                           LX4      A0-15
                                           IX6      Y4+X5
174 20617              20455          36645          LX6      15
                                           SA6      A4      INCR FR.DDS
                                           54640
0200000000 X          JP      MKPTR  START OVER
*
*
175 10377              7160000000 X          MKPTR9  BX3      X7      OUT OF DDS
                                           SENDEV  *X3
204 0260777776          JP      R6-1      NO FUNNY RETURN
*
*
*
*
*
*
*
*
END MKPTR...END MKPTR...END MKPTR
*
*

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205

END

43647

STORAGE USED
6600 ASSEMBLY

639 STATEMENTS
8.936 SECONDS

12R SYMBOLS
149 REFERENCES

000014 INVENTED SYMBOLS

CONSTR1
SYMBOLIC REFERENCE TABLE.

COMPASS - VER 2.

03/23/71 00.40.46.

PAGE 6

DDSIPL	0	EXTERNAL*	3/40 S	3/40	4/06 S	4/11	4/24 S	4/41 S	4/42 S	4/55
			3/40 S	3/46 S	4/06 S	4/24 S	4/24	4/41 S	4/42 S	
			3/40 S	3/46 S	4/06	4/24 S	4/41 S	4/41	4/42	
			3/40 S	3/46	4/11 S	4/24 S	4/41 S	4/42 S	4/52 S	
EC:GEVH	0	EXTERNAL*	3/31	5/21						
EC:SEV	0	EXTERNAL*	4/08	5/15	5/24	5/35				
FR:DDS	0	EXTERNAL*	3/18	5/24						
GF:DDSF	0	EXTERNAL*	3/40	3/46	4/06	4/24	4/41			
GF:DDSL	0	EXTERNAL*	3/40	3/46	4/06	4/24	4/41			
IPLIST	0	EXTERNAL*	2/10							
IP::LIST	0	EXTERNAL*	2/10 D	3/31	4/08	5/15	5/21	5/24	5/35	
			3/31 S	4/08 S	5/15 S	5/21 S	5/24 S	5/35 S		
			3/31 S	4/08 S	5/15 S	5/21 S	5/24 S	5/35 S		
MAINCL	0	EXTERNAL*	3/31	5/21						
MKPTR	0	PROGRAM*	3/13 E	3/15 L	5/30					
MKPTR1	15	PROGRAM*	3/39 L	4/01						
MKPTR2	44	PROGRAM*	3/44	3/50 L						
MKPTR3	74	PROGRAM*	4/17 L	4/19						
MKPTR4	76	PROGRAM*	4/15	4/23 L						
MKPTR5	111	PROGRAM*	4/31 L	4/43						
MKPTR6	112	PROGRAM*	4/34 L	4/36						
MKPTR6A	135	PROGRAM*	4/47 L	4/50						
MKPTR6B	142	PROGRAM*	4/46	5/03 L						
MKPTR7	144	PROGRAM*	3/34	3/42	3/47	5/14 L				
MKPTR8	154	PROGRAM*	3/24	5/19 L						
MKPTR9	175	PROGRAM*	5/22	5/33 L						
M.ADDS	0	EXTERNAL*	3/31							
M.DDSCT	0	EXTERNAL*	5/21							
OPERCL	0	EXTERNAL*	2/10							
OP:::CL	0	EXTERNAL*	2/10 D	3/30	4/07	5/14	5/20	5/23	5/34	
PAGESW	0	EXTERNAL*	3/52 S	4/17 S	4/24	4/27	4/34 S	4/42	4/48 S	
READCAP	0	EXTERNAL*	3/39	3/45	4/05	4/40				
SYSERR	0	EXTERNAL*	3/40	3/46	4/06	4/08	4/24	4/41	4/52	5/24
			3/40	3/46	4/06	4/11	4/24	4/41	5/15	5/35
			3/40	3/46	4/06	4/24	4/41	4/42	5/15	
TEMP5	0	EXTERNAL*	3/40	3/40	4/04	4/41	4/42			
WRITCAP	0	EXTERNAL*	4/10	4/23	4/41	4/51				

END OF FILE

[illegible]