

LENGTH OF PRG 00074

```

1          IDENT      PLTHNDLR
2          *****
3          *
4          *          THIS ROUTINE IS THE PLOTTER DRIVER
5          *
6          *          THIS DRIVER IS VERY SIMPLE SINCE ABOUT ALL IT DOES IS
7          *          MAKE CALLS TO MOVEBUFF AND THE CONNECT ROUTINE
8          *
9          *          MOVEBUFF DOES ALL OF THE QUEUEING FOR THIS DRIVER
10         *
11         *          THIS ROUTINE HAS A NUMBER OF ENTRY POINTS WHO PURPOSES ARE
12         *          AS FOLLOWS
13         *
14         *          PLINT      ENTERED FROM INTSORT WHENEVER THERE IS A PLOTTER
15         *          INTERRUPT
16         *          PLOTCB     ENTERED FROM MOVEBUFF WHENEVER A RECORD
17         *          REQUEST IS NOT IMMEDIATLY PROCESSED
18         *          PLOTCON    INITIAL STORES THE PLOTTER CONNECT CODE HERE
19         *
20         *          THE DEVICE CONTROL MACRO (CALL PLOTBLOC) IS BUILTBY
21         *          INITIAL WHEN IT DISCOVERS THAT A PLOTTER EXISTS
22         *
23         *****

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25         INCLUDE    ↑SYSMAC
26+001  SYSMAC      COSY/      03      V4.1      08/17/74  0453
27
28         ENTRY      PLINT
29         ENTRY      PLOTCB
30         ENTRY      PLOTCON
31         EXT        CONNECT      ROUTINE TO CONNECT TO CONTROLLERS
32         EXT        PLOTBLOC     PLOTTER CONTROL MACRO
33         EXT        UNCON        ROUTINE TO RELEASE CHANNEL
34         EXT        URBLOK      BUFFER ROUTINES
35         EXT        URBLOKNX    ROUTINE TO GET NEXT OUTPUT FILE
36
37         *
38
39
40

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00000 P
00010 P
00051 P

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00000
00000
00000
00000
00001
00002
00000
00001
00002
00003
00000

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40+001  IMPURE     EQU      0
40+001  IO         EQU      0
40+001  SELECT     EQU      0
40+001  SENSE      EQU      0
40+002  READYST    EQU      1      READY STATUS
40+002  BUSYST     EQU      2      BUSY STATUS
40+003  X0         EQU      0
41      X1         EQU      1
42      X2         EQU      2
43      X3         EQU      3
44      CBI        EQU      0

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URBDEF

URBLOCK BLOCK DEFINITIONS

00000
00001
00002
00003
00004
00005
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00010
00011
00012
00013
00014
00015
00016
00016
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FB EQU 0
BLF EQU FB+1
BFBGN EQU BLF+1
BFCPP EQU BFBGN+1
CALBAK EQU BFCPP+1
IMAD EQU CALBAK+1
LNIM EQU IMAD+1
KILLFLAG EQU LNIM+1
ENAD EQU KILLFLAG+1
NJM EQU ENAD+1
ENIT EQU NJM+1
DEVBLK EQU ENIT+1
COUNT EQU DEVBLK+1
POSI EQU COUNT+1
PFWORD EQU POSI+1
FORMSWRD EQU PFWORD+1
IDENT EQU PFWORD+1
URBEXITA EQU IDENT+1
URBEXIT EQU URBEXITA+1
QINGLOC EQU URBEXIT+1
QPNT EQU QINGLOC+1
QEMPTY EQU QPNT+1
STRTLOC EQU QEMPTY+1

POINTER TO NEXT FILE BLOCK
COUNT OF BLOCKS IN THIS FILE
QUARTER PAGE NUMBER OF CURRENT
512 WORD BLOCK
POINTER TO NEXT WORD TO BE
LOADED FROM THIS BLOCK. THIS
POINTER IS RELATIVE TO THE
BEGINNING OF THE CURRENT BLOCK
GO TO THIS ADDRESS WHEN BUFFER
IS DONE AFTER AN INTERRUPT
BIT23 SEZ CALBAK
LOCATION WHERE RECORD IS TO BE
PLACED OR MOVED FROM.
MAXIMUM ALLOWABLE RECORD SIZE
STI *,0
ENI BLOCK,X1
UJP IMPURE
TEMP FOR INDEX 3
IF BIT23 DEVICE MUST BE STARTED
BY OPERATOR
IF BIT22 DO NOT PROCESS FORMS ON
THIS DEVICE
IF BIT21 THEN STOP MACRO
IF BIT20 THEN BUFFER IS UNSAFE
BIT 19 IS A QUEUEING FLAG
PTR TO 4 WORD BLOCK
COUNT OF WORDS IN RECORD
RELATIVE LOCATION IN BUFFER
CONTENTS OF PF1
BIT19 SEZ WAITING FOR
OPERATOR TO READY DEVICE
BIT20 SEZ WANTS FORMS
BIT21 SEZ HAS FORMS
BIT22 SEZ TAKE FORMS OUT
BIT23 SEZ SAME AS BIT22 BUT
DRIVER IS WAITING TO OUTPUT NEXT
FILE
BCD IDENT OF THE DEVICE
ENI BLOCK,X1
UJP IMPURE
ADDRESS TO GO TO WHEN FILES
ARE UNEQUIPPED
POINTER TO NXPTR AND LXPTR
ADDRESS TO TELL DRIVER THAT IT
HAS TO MORE FILES TO OUTPUT
ADDRESS TO TELL DRIVER TO START
FILE

00000	47300044	P	48	PLINT	STI	RETURN,X3	SAVE THE RETURN ADDRESS
00001	00700050	P	49		RTJ	PLCON	CONNECT TO FLCTER
00002	77730000		50		DINT		PREVENT OTHER INTERRUPTS
00003	04000000		51	LCNRFG	ISE	IMPURE,0	SKIP IF NO PLCT BUFFER
00004	01000030	P	52		UJP	PLOT	PLOT DATA IF PRESENT
00005	47000025	P	53		STI	OKAYL,0	SET OKAY TO PLOT FLAG
			54	*			
00006	54200044	P	55	RLSCHAN	LDI	RETURN,X2	LOAD THE RETURN ADDRESS
00007	01077777	X	56		UJP	UNCON	RELEASE CHANNEL
			57				
			58				
00010	47300044	P	59	PLOTCB	STI	RETURN,X3	SAVE THE RETURN ADDRESS
00011	01000023	P	60		UJP	PLISTA	
			61				
			62				
			63				
00012	01000000		64	CHANINT	UJP	IMPURE	ENTER HERE ON CHANNEL INTERRUPT
00013	54300012	P	65		LDI	CHANINT,X3	LOAD RETURN ADDRESS
00014	47300044	P	66		STI	RETURN,X3	SAVE FOR STANDARD RETURN
00015	77100020		67		SEL	200,SELECT	SELECT INT. ON READY AND NOT BUSY
00016	14000000		68		NOP	0	IGNORE REJECTS
00017	14177777	X	69		ENI	PLOTBLOC,X1+CBI	
			70				
	00020	P	71	PLRFB	EQU	*	
00020	14300022	P	72		ENI	*+2,X3	ENTER RETURN ADDRESS
00021	01077777	X	73		UJP	URBLOK	
00022	01000044	P	74		UJP	RETURN	NO PLOT BUFFER YET
	00023	P	75	PLISTA	EQU	*	
00023	03300045	P	76		AZJ,LT	TERMF	JUMP IF FILE MARK OR END OF DATA
00024	47300003	P	77		STI	LCNRFG,X3	SAY BUFFER PRESENT
			78				
00025	04000000		79	OKAYL	ISE	IMPURE,0	ZERO SEZ OKAY TO PLOT
00026	01000044	P	80		UJP	RETURN	RETURN IF BUSY NOW
00027	00700050	P	81		RTJ	PLCON	CONNECT TO THE PLOTTER
	00030	P	82	PLOT	EQU	*	
00030	20100005		83		LDA	IMAD,X1+CBI	LOAD THE BUFFER ADDRESS
00031	44000040	P	84		SWA	PLOTFWA	
00032	30100014		85		ADA	COUNT,X1+CBI	COMPUTE THE LWA
00033	44000037	P	86		SWA	PLOTLWA	AND SAVE IT
00034	77100001		87		SEL	1,SELECT	SELECT ASSEMBLY
00035	14000000		88		NOP	0	IGNORE REJECTS
00036	14407770		89		ENA,S	077708	
00037	76000000		90	PLOTLWA	OUTW,INT	10,IMPURE,IMPURE	
00040	00400000		91	PLOTFWA	EQU	PLOTLWA+1	
	00040	P	92		UJP	*-2	REJECT
00041	01000037	P	93		SWA	OKAYL	RESET OKAY TO PLOT FLAG
00042	44000025	P	94		STI	LCNRFG,0	RESET BUFFER PRESENT FLAG
00043	47000003	P	95	RETURN	UJP	IMPURE	RETURN
00044	01000000		96				
			97				
	00045	P	98	TERMF	EQU	*	
00045	03100020	P	99		AZJ,NE	PLRFB	FILE MARKS TO BE IGNORED
00046	54200044	P	100		LDI	RETURN,X2	LOAD THE RETURN ADDRESS
00047	01077777	X	101		UJP	URBLOKNX	GET THE NEXT PLOT FILE

00050	01000000		103	PLCON	UJP	IMPURE	ROUTINE TO CONNECT TO PLOTTER
00051	14100000		104	PLOTCON	ENI	IMPURE,X1	ENTER CONNECT CODE
00052	14777777		105		ENQ	77777B	MAXIMUM TIME
00053	54200044	P	106		LDI	RETURN,X2	LOAD THE RETURN ADDRESS
00054	14300054	P	107		ENI	*,X3	
00055	01077777	X	108		UJP	CONNECT	CALL CCNECT ROUTINE
00056	00700012	P	109		RTJ	CHANINT	CALL ON CHANNEL INTERRUPT
00057	01200000		110		UJP	0,X2	WILL BE INTERRUPTED ON CONNECTED
00060	14100017	X	111		ENI	PLOTBLOC,X1+CBI	
00061	47200044	P	112		STI	RETURN,X2	SAVE THE RETURN ADDRESS
00062	14200144		113		ENI	100,X2	ENTER COUNT OF ALLOWED REJECTS
00063	77100021		114		SEL	218,SELECT	RELEASE INT ON READY AND NOT BUSY
00064	02600063	P	115		IJD	*-1,X2	REJECT
00065	77200001		115+001		EXS	READYST,SENSE	SEE IF READY
00066	77200002		115+002		EXS	BUSYST,SENSE	AND NOT BUSY
00067	01000071	P	115+003		UJP	*+2	NOT READY OR BUSY
00070	01000050	P	117		UJP	PLCON	RETURN IF READY
			118				
00071	77100020		119		SEL	208,SELECT	SELECT INT ON READY AND NOT BUSY
00072	02600071	P	120		IJD	*-1,X2	REJECT
00073	01000006	P	121		UJP	RLSCHN	
			122		END		

NO LINES WITH ERRORS

BF8GN	00002	13	15	00000P						
BFCPP	00003	15	19	00000P						
BLF	00001	12	13	00000P						
BUSYST	00002	40+2	115+2	00066P						
CALBAK	00004	19	22	00000P						
CBI	00000	44	69	00017P	83	00030P	85	00032P	111	00060P
CHANINT	00012P	64	65	00013P	109	00056P				
CONNECT	X	31	108	00055P						
COUNT	00014	37	38	00000P	85	00032P				
DEV3LK	00013	36	37	00000P						
ENAC	00010	26	27	00000P						
ENIT	00012	28	36	00000P						
FB	00000	11	12	00000P						
*FORMSWRD	00016	40								
IDENT	00017	49	50	00000P						
IMAD	00005	22	24	00000P	83	00030P				
IMPURE	00000	37	51	00003P	64	00012P	79	00025P	90	00037P
			103	00050P	104	00051P			90	00037P
			90	00037P						
IO	00000	38	26	00000P						
KILLFLAG	00007	25	26	00000P						
LCNRFG	00003P	51	77	00024P	94	00043P				
LNIM	00006	24	25	00000P						
NJM	00011	27	28	00000P						
OKAYL	00025P	70	53	00005P	93	00042P				
PWORD	00016	39	40	00000P	49	00000P				
PLCON	00050P	103	49	00001P	81	00027P	117	00070P		
PLINT	00000P	48	28	00000P						
PLISTA	00023P	75	60	00011P						
PLOT	00030P	82	52	00004P						
PLOT3LOC	X	32	60	00017P	111	00060P				
PLOT3	00010P	59	29	00000P						
PLOTCON	00051P	104	30	00000P						
PLOTFWA	00040P	91	84	00031P						
PLOTLWA	00037P	90	91	00041P	86	00033P				
PLRFB	00020P	71	99	00045P						
POSI	00015	38	39	00000P						
QEMPTY	00024	55	57	00000P						
QINGLOC	00022	52	54	00000P						
QPNT	00023	54	55	00000P						
READYST	00001	40+1	115+1	00065P						
RETURN	00044P	95	48	00000P	55	00006P	59	00010P	66	00014P
			100	00046P	106	00053P	112	00061P	74	00022P
RLSCHAN	00006P	55	121	00073P					80	00026P
SELECT	00000	39	67	00015P	87	00034P	114	00063P	119	00071P
SENSE	00000	40	115+1	00065P	115+2	00066P				
*STRTLOC	00025	57								
TERMF	00045P	98	76	00023P						
UNCON	X	33	56	00007P						
URBEXIT	00021	51	52	00000P						
URBEXITA	00020	50	51	00000P						
URBLOK	X	34	73	00021P						
URBLOKNX	X	35	101	00047P						
*X0	00000	40+3								
X1	00001	41	69	00017P	83	00030P	85	00032P	104	00051P
X2	00002	42	55	00006P	100	00046P	106	00053P	110	00057P
			115	00064P	120	00072P			111	00060P
			48	00000P	59	00010P	65	00013P	66	00014P
X3	00003	43	107	00054P					72	00020P
									77	00024P