

```

FLTIO IDENT 1/23/67-
*-
SBRR MACRO D-
      BRR* D(1)-
      ENDM-
* FLOATING POINT I/O MODULE-
*-
      BRU      ISCN (ISC)-
*      BRU      SICN (SIC)-
      BRU      FFI (52)-
      BRU      FFO (53)-
*-
* INTERNAL TO STRING CONVERSION-
*-
$ISCN  SBRM      ISCS-
      LDA      UE-
      SBRM      SUSR-
      LDP      0,2-
      STP      XWR3-
*      LDA      UNPTR1-
      SUB      UNPTR-
      ADM      1,2-
      LDA      =UNPTR-
      LDB      =XWR3-
      SBRM      WRSU-
      BRS      111-
ISCS   ZRO      IOLINK-
      STP      A1-
      STX      A3-
      STP      GET1-
      LDA      =15B-
      SKN      A1-
      CLA-
      STA      SIGN-
      CLA-
      STA      ERRFLG-
      STA      OVDGTS-
      SBRM      GETFMT-
      SBRM      SETPTR-
      LDA      IOW-
      SKE      =0-
      BRU      NFRFMT-
      LDA      *9
      STA      IOD-
      LDA      =16-
      STA      IOW-
      SBRM      RNDEXP
      LDP      GET1-
      STP      A1-
      LDA      IODEXP
      SKG      =8-
      SKG      =-1-
      BRU      IOEXP-
      CNA-

```

INIO/
L42
EXEC

"numeric input output"

FREE FORMAT-

CALLS ROUND SUBROUTINE-

EXAMINE MAGNITUDE OF THE NUMBER-

	ADM	IOD-	
	BRU	IOFCON-	
NFRFMT	LDA	IOFMT	NOT FREE FORMAT-
	CAX-	*	
	SKG	=5-	
	BRU	*+1,2-	
	BRU	ILGFMT	ERROR: ILLEGAL FORMAT-
	BRU	IOINT-	
	BRU	IOEXP-	
	BRU	IOFCON-	
	BRU	IOEXP-	
IOFCON	SBRM	RNDFI	F CONVERSION-
	LDA	=-2-	
	SUB	IOD	CALCULATE NUMBER OF SPACES TO OUTPUT-
	SKE	=-2-	
	SUB	=1-	
	ADD	IOW-	
	SKN	IOEXP-	
	SUB	IOEXP-	
	LDB	SIGN-	
	SKB	=-1-	
	BRU	*+2-	
	ADD	=1-	
	SKA	=400000000B-	
	BRU	FLDSHT	ERROR: SPECIFIED FIELD IS TOO SHORT-
	SKG	=0-	
	BRU	FCON2-	
FCON2	SBRM	SPCOUT-	
	LDA	SIGN-	
	SKE	=0-	
	SBRM	CHROUT-	
	LDA	=-1	CALCULATE NO. OF DIGITS BEFORE DECIMAL PT.
	SKN	IOEXP-	
	SUB	IOEXP-	
	CAX-		
	LDA	=20B-	
	SKN	IOEXP-	
	SBRM	GETDGT-	
	SBRM	CHROUT-	
	BRX	*-2-	
	LDA	IOD-	
	SKG	=0-	
	BRU	ISCEND	AN INTEGER IS OUTPUT FOR IOD=0-
	LDA	=16B-	
	SBRM	CHROUT-	
	LDA	IOEXP	CALCULATE NO. OF ZEROES AFTER DEC. PT. -
	ADD	=1-	
	CAX-		
	SKG	=-1-	
FCON8	BRU	FCON7-	
	SKR	IOD	OUTPUT DIGITS AFTER DECIMAL POINT-
	BRU	*+2-	
	BRU	ISCEND-	
	SBRM	GETDGT-	

FCON7	SBRM BRU LDA SKR SBRM BRX BRU	CHROUT- FCON8- =20B IOD- CHROUT- *-2- FCON8-	OUTPUT ZEROES AFTER DECIMAL PT.-
ISCEND	LDA SKG BRU LDX CLA-	IOFMT =3- IE1- SPACES	ISC DONE-
IE1	WCI BRX LDX SKN SBRR BRU	UNPTR- *-1- A3 ERRFLG- ISCS- INTRPT-	OUTPUT SPACES AFTER NO. FOR TYPES 4 & 5-
IOEXP	SBRM LDA SUB SKG BRU SUB SKG BRU	RNDEXP IOW- IOD- =6- EXPSRT =7- =0- EXP2-	EXPONENTIAL OUTPUT-
EXP2	SBRM LDA SBRM	SPCOUT- SIGN CHROUT-	ERROR: SPECIFIED FIELD IS TOO SHORT-
EXP3	SBRM SKE BRU CLA- SKE BRU ADD BRU LDA SKN LDA ADM BRU	GETDGT =20B EXP6- A1- *+3- =20B- EXP6- =1- IODEXP- =-1- DEXP- EXP3-	OUTPUT SIGN-
EXP6	SBRM LDA SBRM	CHROUT- =16B CHROUT-	OUTPUT FIRST DIGIT- MAKES SURE 1ST DIGIT IS NON-ZERO-
EXP4	SKR BRU LDA SBRM LDA SKN SUB SBRM LDA	IOD- EXP5- =45B- CHROUT- *15B IODEXP- =2B- CHROUT- DEXP	OUTPUT DECIMAL POINT-
			OUTPUT 'E'-
			OUTPUT EXPONENTS-

	RSH	23-	
	DIV	=10-	
	ADD	=20B-	
	CBX-		
	SBRM	CHROUT-	
	CXA-		
	ADD	=20B-	
	SBRM	CHROUT-	
	BRU	ISCEND-	
EXP5	SBRM	GETDGT	* OUTPUT DIGITS AFTER DECIMAL PT.-
	SBRM	CHROUT-	
	BRU	EXP4-	
EXPSRT	LDA	=2	* ACTION TAKEN FOR FIELD TOO SHORT:-
	SBRM	ERR	REDUCE IOD IF POSSIBLE-
	LDA	IOD-	
	SUB	=7-	
	STA	IOD-	
	SKG	=-1-	
	BRU	*+2-	
	BRU	EXP2-	
	STA	OVDGTS-	
	CLA-		
	STA	IOD-	
	BRU	EXP2-	
IOINT	LDP	A1	INTEGER FORMAT-
	BRS	51-	
	STP	A1-	
	STP	GET1-	
	CLA-		
	STA	IOD-	
	BRU	IOFCON-	
ASTOUT	LDA	IOD-	OUTPUT ASTERISKS FOR FIELD TOO SHORT ERR -
	CNA	-	
	CAX-		
	LDA	=12B-	
*	WCI	UNPTR-	
	BRX	*-1-	
	BRU	IE1-	
ILGFMT	LDA	=1	ACTION FOR ILLEGAL FORMAT-
	SBRM	ERR-	
	LDA	=2-	
	STA	IOFMT-	
	BRU	IOEXP-	
FLDSHT	STA	OVDGTS	ACTION FOR FIELD TOO SHORT ERROR-
	LDA	=4-	
	SBRM	ERR-	
	LDA	OVFL-	
	SKE	=0-	
	BRU	ASTOUT-	
	BRU	FCON2-	
*****	INSERT	SPACES BEFORE OR AFTER NUMBER-	
SPCOUT	ZRO	FFL-	
	CNA-		
	STA	SPACES-	

```

LDA      IOFMT-
SKG      =3-
BRU      **2-
*        SBRR    SPCOUT-
LDX      SPACES-
CLA      -
WCI      UNPTR-
BRX      *-1-
SBRR     SPCOUT-
***** OUTPUT CHARACTERS OF THE NUMBER-
CHROUT  ZRO    FFL-
          SKN    OVDGTS          OVDGTS IS THE NEGATIVE OF NUMBER OF-
          BRU    **3          DIGITS OVERFLOWING THE FIELD-
          MIN    OVDGTS-
          SBRR   CHROUT-
          SKR    IOW-
          BRU    **2-
*        BRU    IE1-
          WCI    UNPTR-
          SBRR   CHROUT-
***** STORE ERROR NUMBER AND SET FLAG-
ERR      ZRO    FFL-
          STA    ERRNUM-
          LDA    =-1-
          STA    ERRFLG-
          SBRR   ERR-
***** GET NEXT DECIMAL DIGIT CONVERSION OF THE NUMBER IN A1,A2-
GETDGT  ZRO    FFL-
*        LDP    A1-
          LRSH   2-
          XAB-
          ADD    A2-
          XAB-
          ADC    A1-
          STP    A1-
          LRSH   19-
          ADD    =20B-
          XMA    A1-
          LDB    A2-
          ETR    =1777777B-
          LSH    3
          XMA    A1-
          STB    A2-
          SBRR   GETDGT-
***** DECIMAL NORMALIZATION OF A1,A2-
OUTSET  ZRO    OUTSX          OUTSET MULTIPLIES THE NUMBER IN A1,A2 BY-
*        *        *        *        *        *        *        *        *
*        *        *        *        *        *        *        *        *
*        *        *        *        *        *        *        *        *
*        *        *        *        *        *        *        *        *
          LDP    A1-
          SKE    =0-
          BRU    OS1-
          CLB-

```

	STB	DEXP-	
	BRU	CNVD1-	
OS1	SKN	A1-	
	BRU	OS2-	
	BRS	21-	
	STP	A1-	
	STP	GET1-	
OS2	LSH	39-	
	LDX	=-1-	
	SKG	=0	* EXAMINE SIGN OF BINARY EXPONENT-
	LDX	=1-	
	STX	DEXP-	
*	STX	IODEXP-	
	LDX	=RLI09 *	ADDRESS OF FLOATING 1/10-
*	SKA	=40000000B-	
	LDX	=RLI08	ADDRESS OF FLOATING 10-
*	STX	NCONV-	
	LDP	A1-	
	STE		
	NOD	48-	
ADJUST	XXA-		
	LSH	3-	
	RSH	3-	
	SKG	=0-	
	SKG	=-4	BINARY EXPONENT IS NOT LEQ 0 AND GTR -4-
*	BRU	ADJ1-	
	CNA		CONVERSION DONE-
	XXA-		
	LRSH	1,2-	
CNVD1	STP	A1-	
	LDA	DEXP-	
	SKN	IODEXP-	
	CNA-		
	STA	IODEXP-	
	SBRR	OUTSET-	
ADJ1	XXA-		
*	STX	RLI06-	
	LDX	NCONV-	
	SBRM	DPMRIO*	MULTIPLY BY 10 OR 1/10-
	MIN	DEXP-	
	BRU	ADJUST-	
*****	FLOATING	MULTIPLY WITH 48-BIT FRACTION-	
DPMRIO	ZRO	FFL	THIS IS A MULTIPLY ROUTINE FOR 48 BIT-
*			* MANTISSA WITH THE EXPONENT IN A 3RD-
*			WORD. THE MLTIER IS IN A,B WITH THE-
*			EXPONENT IN RLI06. THE MLTCND IS IN-
*			3*WORDS POINTED TO BY X. THE PRODUCT-
*			IS RETURNED IN A,B,X-
	STA	RLI07-	
	BAC-		
	RCY	2-	
	MUL	0,2-	
	STA	RLI01-	
	LDA	1,2-	

	LRSR	2-	
	MUL	RLI07-	
	ADD	RLI01-	
	MUL	=2	
	STB	RLI01-	
	XMA	RLI07-	
	MUL	0,2-	
	XAB-		
	ADD	RLI01-	
	XAB-		
*	ADC	RLI07-	
	STA	A1-	
	LDA	2,2-	
	ADD	RLI06-	
	CAX-		
	LDA	A1-	
	NOD	48-	
	SBRR	DPMRIO-	
*****	ROUND	NUMBER FOR OUTPUT-	
RNDEXP	ZRO	RNDX	ROUND ROUTINE FOR EXP. FORM-
	LDA	=-1-	
	BRU	ROUND-	
RNDFI	ZRO	RNDX	ROUND ROUTINE FOR F-CONV. AND INTEGER-
	CLA-		
ROUND	STA	RNDFLG-	
	SBRM	OUTSET	CALCULATE WHICH DIGIT TO EXAMINE-
	LDA	=-2-	
	SUB	IOD-	
	SKN	RNDFLG-	
	SUB	IOEXP-	
	CAX-		
	SBRM	GETDGT	GET THE DIGIT TO BE EXAMINED-
	BRX	*-1-	
	SKG	=24B	DETERMINE IF ROUNDING IS NECESSARY-
	BRU	RND6-	
	LDA	IOEXP	CALCULATE HOW MUCH TO ADD TO NUMBER-
	SKN	RNDFLG-	
	CLA-		
	SUB	IOD-	
	SKE	=0-	
	BRU	RND2-	
	LDP	ONE-	
RND1	FAD	GET1-	
	STP	A1-	
RNDONE	SBRM	OUTSET-	
	SBRR	RNDEXP-	
RND6	LDP	GET1-	
*	BRU	RNDONE-1-	
RND2	SKG	=0-	
	BRU	RND3-	
	CNA-		
	CAX-		
	LDP	ONE-	
	FMP	TEN-	

	BRX	*-1-
	BRU	RND1-
RND3	CAX-	
	LDP	ONE-
	FMP	TENTH-
	BRX	*-1-
	BRU	RND1-

*-

* STRING TO INTERNAL CONVERSION-

*-

\$SICN	SBRM	SETPTR-
	LDA	UE-
	SBRM	SUSR-
	LDP	0,2-
	STP	XWR3-
	LDA	=XWR3-
	LDB	=UNPTR-
	SBRM	RDSU-
	LDX	A3-
	SBRM	SICS-
	BRU	*+2-
	MIN	UBRSRT-
	LDA	UE-
	SBRM	SUSR-
	LDA	UNPTR-
	SUB	XWR4X3-
	ADM	0,2-
	LDP	A1-
	LDX	A3-
	BRS	111-
SICS	ZRO	IOLINK-
	STX	A3-
	SBRM	GETFMT-
	CLA-	
	STA	ERRFLG-
	SKE	IOW-
	BRU	RLI30-
RLI31	CLAB-	
	STA	RLI02-
	STP	A1-
	STA	RLI07-
	STA	DGTCNT-
	LDA	--1-
	STA	RLI04-
	STA	RLI05-
	STA	EXPFLG-
	STA	DFLG-
	SBRM	CHRSET-
RLI16	GCI	UNPTR
	BRU	RLI18-
	SKG	=0-
	BRU	RLI16-
RLI20	SBRM	CHRCHK-
	BRU	RLI21

GET ONE CHARACTER FROM STRING-

CHARACTER IS '+'-

BRU	RLI5
BRU	RLI2
BRU	RLI6
BRU	RLI18
CAB	
MIN	DGTCNT-
LDA	DGTCNT-
SKG	=11-
BRU	*+2-
BRU	RLI21-
CBA-	
SKN	EXPFLG-
BRU	RLI10-
SKN	DFLG-
MIN	RLI02-
SBRM	RLITEN-
RLI21	GCI
	UNPTR-
BRU	RLI18-
BRU	RLI20-
RLI30	LDA
	UNPTR-
	IOW-
SKG	UNPTR1-
BRU	*+2-
STA	UNPTR1-
CLA-	
WCI	UNPTR-
LDA	IOfMT-
SKG	=1-
BRU	RLI31-
LDP	UNPTR

'E'-
 TERMINATING CHARACTER-
 CHARACTER IS A DIGIT-

*
*
*
*

THE STRING OF CHARACTERS IS SEARCHED-
 *FOR A DECIMAL POINT OR 'E'. IF ONE IS-
 FOUND , THE NUMBER IS TAKEN AS IT IS.-
 IF NOT, A DECIMAL POINT IS INSERTED-
 WHERE IT IS SPECIFIED BY THE FORMAT-

STP	GET1-
GCI	GET1-
BRU	*+4-
SKE	=16B-
BRU	*-3-
BRU	RLI31-
LDX	IOfMT-
BRU	*-1,2-
* BRU	RLI34-
BRU	RLI36-
* BRU	RLI34-
BRU	RLI36-
* LDA	=1-
SBRM	ERR-
BRU	RLI34-
RLI36	LDA
	UNPTR1
STA	GET2-
STA	GET3-
STA	GET4-
SUB	IOfD-

F FORMAT-

	SUB	=1-
	STA	GET1-
	STA	GET5-
	GCI	GET1-
	BRU	*+3-
	WCI	GET3-
	BRU	*-3-
	LDA	GET5-
	STA	UNPTR1-
	LDA	=16B-
	WCI	UNPTR-
	GCI	GET3-
	BRU	*+3-
	WCI	UNPTR-
	BRU	*-3-
	BRU	RLI31-
RLI34	LDP	UNPTR
	STP	GET2-
	GCI	GET2-
	BRU	NOE
	SKE	=45B-
	BRU	*-3
	BRU	RLI31-
NOE	LDA	=5-
	SBRM	ERR-
	BRU	RLI36
*		
RLI5	SKN	EXPFLG-
	BRU	*+3-
	STB	RLI04-
	BRU	RLI21-
	STB	RLI05-
	BRU	RLI21-
RLI2	STB	DFLG
	BRU	RLI21-
RLI6	STB	EXPFLG-
	STB	DGTCNT-
	BRU	RLI16-
*RLI10	SUB	=20B-
	XMA	RLI07-
	MUL	=10-
	LSH	23
	ADM	RLI07-
	BRU	RLI21-
RLI18	AXC-	
	SKE	10W-
	BRU	*+2-
	STX	A3-
	LDA	DFLG-
	ADD	EXPFLG-
	SKG	=-2-
	BRU	RLI22
	LDA	RLI07-
	SKN	RLI05-

E FORMAT-

NO 'E' NOR DECIMAL POINT FOR E FORMAT;-
NUMBER IS TREATED AS IN F FORMAT-

CONTENTS OF B IS 0 AFTER 'CHRCHK'-

	CNA-		RLI02-
	SUB		RLI02-
	STA		=TENTH-
	LDX		RLI02-
	SKN		=TEN-
	LDX		FFX-
	STX		RLI02-
	SKN		
*	CNA-		
	CAX-		
	SKE	=0-	
	BRU	*+3-	
	LDP	A1-	
	BRU	RLI12-	
	LDP	A1-	
	FMP*	FFX	
*			
*			
	BRX	*-1-	
RLI12	SKN	RLI04-	
	BRS	21-	
RLI17	STP	A1-	
	CLA-		
	SKE	IOW-	
	BRU	RLI19-	
	LDA	DFLG-	
	ADD	EXPFLG-	
	SKG	=-2-	
	BRU	*+2-	
	MIN*	SICS-	
RLI19	LDP	A1-	
	LDX	A3-	
	SKN	ERRFLG-	
	SBRR	SICS-	
	BRU	INTRPT-	
RLI22	LDB	A2	
	SKD	=24-	
	BRU	ERR3-	
	LDP	A1-	
	BRS	50-	
	ROV-		
	SKB	=400000000B-	
	ADD	=1-	
	OVT-		
	BRU	ERR3-	
	SKN	RLI04-	
	CNA	-	
	BRU	RLI17-	
ERR3	LDA	=3	
	SBRM	ERR-	
	LDA	=37777777B-	
	CLB-		
	STP	A1-	
	BRU	RLI17-	

THE NUMBER WAS ENTERED AS AN INTEGER-
AND IS NOW ADJUSTED BY MULTIPLYING-
DETERMINED BY RLI02 AND RLI07-

NUMBER IS INTEGER-

ERROR: INTEGER INPUT IS TOO LARGE-

***** RESET CHARACTER TABLE-

CHRSET ZRO FFL-
 STA PLUS-
 LDA =16B-
 STA PERIOD-
 LDA =45B-
 STA EEE-
 LDA =-1-
 STA ENDCHR-
 LDA =15B-
 STA MINUS-
 LDA =13B-
 XMA PLUS-
 SBRR CHRSET-

***** CHECK AND CLASSIFY CHARACTER-

CHRCHK ZRO FFL * CHRCHK CHECKS THE IDENTITY OF THE-
 * CHARACTER IN THE A REGISTER AND RETURNS-
 * CONTROL TO THE 1ST THRU 6TH LOCATIONS-
 * AFTER THE CALLING COMMAND, DEPENDING-
 * WHETHER THE CHARACTER IS '+', '-', '.', '-'
 * 'E', TERMINATING CHARACTER OR DIGIT, -
 * RESPECTIVELY. B REGISTER IS CLEARED-

LDX =-4-
 LDB =-1-
 SKG =31B-
 SKG =17B-
 BRU NDGT-
 LDX =1-
 BRU NDGT1-
 NDGT SKE ENDCHR,2-
 BRX *-1-
 STB ENDCHR,2-
 SKN PLUS-
 BRU *+2-
 NDGT1 STB MINUS-
 SKN MINUS-
 BRU *+2-
 STB PLUS-
 SKN EEE-
 BRU NDGT2-
 SBRM CHRSET-
 STB EEE-
 STB PERIOD-
 NDGT2 COPY AB, XA-
 ADD =4-
 ADM* CHRCHK-
 BAC
 SBRR CHRCHK-

***** MULTIPLY BY 10 AND ADD NEW DIGIT-

RLITEN ZRO RLITEX RLITEN MULTIPLIES THE NUMBER IN-
 * A1, A2 BY TEN AND ADD TO IT THE-
 * DIGIT IN A-
 SUB =20B-
 XMA A1-

LDB	A2-
FMP	TEN-
XMA	A1-
STB	A2-
BRS	51-
FAD	A1-
STP	A1-
SBRR	RLITEN-

***** UNPACK FORMAT SPECIFICATION-

GETFMT	ZRO	FFL-
	COPY	XB,A-
	LSH	3-
	STA	IOFMT-
	CLA	
	LSH	6-
	STA	IOD-
	CLA-	
	LSH	6-
	STA	IOW-
	CLA-	
	LSH	1-
	STA	OVFL-
	SBRR	GETFMT-

*-

* FLOATING OUTPUT SYSTEM SUBROUTINE-

*-

SFFO	LDA	UX-
	ETR	=377B-
	SKG	=0-
	LDA	COUT-
	STA	IOFILE-
	LDP	UA-
	LDX	UX-
	SBRM	ISCS-
	LDP	UNPTR-
	LDX	IOFILE-
	BRS	35-
	BRS	111-

*-

* FLOATING INPUT SYSTEM SUBROUTINE-

*-

SFFI	SBRM	SETPTR-
	SBRM	CHRSET-
	LDB	UX-
	LSH	33-
	RSH	18-
	STA	FIOW-
	LSH	25-
	RSH	40-
	STB	IOFILE-
	SKE	FIOW-
	BRU	IOIN1-
IOIN2	CIO	IOFILE
	SKG	=0-

INPUT IS IN FREE FORMAT-

```

BRU      IOIN2-
SKE      =135B-
BRU      IOIN3+1-
CIO      IOFILE-
*        BRU      IOIN2-
IOIN3    CIO      IOFILE
        WCI      UNPTR-
        SBRM     CHRCHK-
        BRU      IOIN3-
*        BRU      IOIN3-
        BRU      IOIN3-
        BRU      IOIN3-
        BRU      IOIN4-
*        BRU      IOIN3-
IOIN4    SBRM     SICS-
        BRS      111-
        MIN      UBRVRT-
        BRS      111-
IOIN1    LDA      FLOW
        CNA
        CAX-
IOIN5    CIO      IOFILE-
        SKE      =135B-
*        BRU      IOIN6-
        CIO      IOFILE-
        STX      A3-
        ADM      A3-
        CNA-
        CAX-
        WCI      UNPTR-
        BRX      *-1-
        LDX      A3-
        BRU      *+2-
IOIN6    WCI      UNPTR-
        BRX      IOIN5-
        CLA-
        WCI      UNPTR-
        BRU      IOIN4-
***** INITIALIZE UNPTR TO EMPTY STRING-
SETPTR   ZRO      FFL-
        LDA      XWR4X3-
        STA      UNPTR-
        STA      UNPTR1-
        SBRR     SETPTR-
***** GENERATE INTERRUPT 5-
INTRPT   STP      A1-
        LDA      =200B-
        SBRM     SUSR-
        LDA      ERRNUM-
        STA      0,2-
        LDA      =5-
        BRS      79-
        LDP      A1-
        LDX      A3-

```

INPUT NUMBER OF CHARACTRS SPECIFIED-
BY IOW-

BRS 111-

*-

* CONSTANTS-

*-

RLI08 DATA 24000000B-
* DATA 00000000B-
DATA 0004B-
RLI09 DATA 31463146B-
DATA 31463146B-
DATA -003B-
TEN DATA 24000000B-
DATA 00000004B-
TENTH DATA 31463146B-
DATA 31463775B-
ONE DATA 20000000B-
DATA 00000001B-

-

* SET UP WINDOW TO USER-

-

SUSR ZRO SUSR1; STA SUSR2; RCY 11; ETR =7; MUL =3; CBX-
LDP CMRL1; LCY 0,2; LRSR 12; STA SUSR3-
BRS 43; LCY 12; ETR =7770000B; MRG SUSR3; RCY 12; BRS 44-
LDA SUSR2; ETR =3777B; ADD =20000B; CAX; SBRR SUSR-

-

* SET UP WINDOW FOR STRING POINTER-

-

SRSU ZRO SRSU1; CAX; LDA 1,2; SUB 0,2; STA SRSU21-
SRSP NOP SRSU1; LDA 0,2; MUL =12525253B; AXC-
LCY 2; STA SRSU20; CAX; SBRM SUSR; MUL =3; LSH 23-
ADD SRSU20; STA SRSU20; SBRR SRSU-

-

* READ STRING FROM USER-

-

RDSU ZRO SRSU4; STB SRSU3; SBRM SRSU; XMA SRSU21; ADM SRSU21-
SKG =75; BRU **2; HLT; LDX SRSU3; LDA 0,2; STA 1,2-
RDSU1 GCI SRSU20; SBRR RDSU; WCI 0,2; BRU RDSU1-

-

* * WRITE STRING TO USER-

-

WRSU ZRO SRSU4; STA SRSU3; CBX-
SBRM SRSP; STA SRSU21; LDX SRSU3-
WRSU1 GCI 0,2; SBRR WRSU; WCI SRSU20; BRU WRSU1-

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END-
