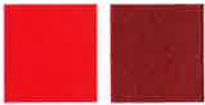


PACIFIC®



PRESS TECHNOLOGIES

```

GGGG EEEEE      FFFFF AAA N  N U  U  CCCC
G      E        F      A  A NN  N U  U  C
G GGG EEEE      FFF  AAAAA N N N U  U  C
G  G  E        F      A  A N  NN U  U  C
GGG  EEEEE      F      A  A N  N  UU  CCCC

```

```

AAA U  U TTTTT  OOO M  M AAA TTTTT IIIII  OOO N  N
A  A U  U  T  O  O MM MM A  A  T  I  O  O NN  N
AAAAA U  U  T  O  O M M M AAAAA  T  I  O  O N N N
A  A U  U  T  O  O M  M A  A  T  I  O  O N  NN
A  A  UUU  T  OOO M  M A  A  T  IIIII  OOO N  N

```

```

(*****
(*)
(*)          Program:  N453
(*)
(*)  PLC PROGRAM ENVIRONMENT          HIGHEST REFERENCE USED
(*)  -----
(*)      INPUT (%I):          512          INPUT:      %I0032
(*)      OUTPUT (%Q):        512          OUTPUT:     %Q0064
(*)      INTERNAL (%M):      1024         INTERNAL:   %M0804
(*)      GLOBAL DATA (%G):  1280         GLOBAL DATA:  NONE
(*)      TEMPORARY (%T):     256          TEMPORARY:   NONE
(*)      REGISTER (%R):      2048         REGISTER:    %R2002
(*)      ANALOG INPUT (%AI):  128          ANALOG INPUT: %AI0010
(*)      ANALOG OUTPUT (%AQ): 64           ANALOG OUTPUT: %AQ003
(*)
(*)          PROGRAM SIZE (BYTES):      6704
(*)
(*)
(*****)

```

```

(***** )
(* )
(*          BLOCK:  _MAIN          )
(* )
(* )
(* )
(*          BLOCK SIZE (BYTES):    198 )
(*          DECLARATIONS (ENTRIES): 269 )
(* )
(* )
(*          HIGHEST REFERENCE USED )
(*          ----- )
(* )
(*          INPUT (%I):           NONE )
(*          OUTPUT (%Q):          NONE )
(*          INTERNAL (%M):        NONE )
(*          GLOBAL DATA (%G):    NONE )
(*          TEMPORARY (%T):       NONE )
(*          REGISTER (%R):        NONE )
(*          ANALOG INPUT (%AI):    NONE )
(*          ANALOG OUTPUT (%AQ):   NONE )
(* )
(***** )

```

```

| [ START OF LD PROGRAM N453 ] (* *)
|
| [ VARIABLE DECLARATIONS ]

```

VARIABLE DECLARATION TABLE

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
%I0001	SS1-A	ModeSel Off=F Inch=T Auto=F
%I0002	SS1-B	ModeSel Off=F Inch=F Auto=T
%I0003	LS22-NO	Rear Gate Interlk
%I0004	LS24-NO	Front Gate Interlk
%I0005	FLS20	Hyd Oil Level
%I0006	LS1-NC	Maximum Closed Limit
%I0007	LS2-NC	Open Limit switch
%I0009	PB4	Front Open Button -N.O.
%I0010	PB5&6	Front Run Buttons -N.C.
%I0011	PB5+6	Front Run Buttons - N.O.
%I0012	SS5-A	Control Front=T Rear=F Both=F
%I0013	SS5-B	Control Front=F Rear=F Both=T
%I0014	PB14	Rear Open Button -N.O.
%I0015	PB15&16	Rear Run Buttons -N.C.
%I0016	PB15-16	Rear Run Buttons -N.O.
%I0017	SS2	Setup ModeSel Off=F On=T
%I0018	SS3	HydPres Low=F Hi=T
%I0020	SS4-A	S/C Sel Blwdn=T Steam=F Chill=F
%I0021	SS4-B	S/C Sel Blwdn=F Steam=F Chill=T
%I0022	PB10	S/C Cycle Start
%I0023	PB12	S/C Cycle Stop
%I0024	SS24	Monitor Process Off=F On=T
%I0032	SS32	Program Access Off=F On=T
%Q0033	M2<4	Start Low Presure Pump
%Q0034	LT8&18	Start Cycle Lights
%Q0037	LT20	Low Oil Light
%Q0038	LT22	Rear Gate Open Light
%Q0039	LT24	Front Gate Open Light
%Q0040	FR	Fault Relay
%Q0041	LT40	Front Open Press Light
%Q0042	LT42	Rear Open Press Light
%Q0043	LT26	Low Hyd Presure Light
%Q0044	LT28	High Hyd Presure Light
%Q0045	LT30	Cycle Delay Low Steam
%Q0046	LT32	Blow Down Light
%Q0047	LT34	Steam Light
%Q0048	LT36	Chill Light
%Q0049	SOL1	Pump Control Valve
%Q0050	SOL2	High Volume Relief Valve
%Q0051	SOL5	Down Valve
%Q0052	SOL6	One Up Valve
%Q0053	SOL9	Hi Speed Down
%Q0054	SOL7	Foot Valve
%Q0055	SOL8	Dump Valve
%Q0057	AIR	Air Valve
%Q0058	DUMP	Dump to Sewer Valve
%Q0059	CWSUPPY	Chill Water Supply Valve
%Q0060	CWRETUN	Chill Water Return Valve

%Q0061	CRRETRN	Condnst Return Valve
%Q0063	LT63	Press is Open Light - Front
%Q0064	LT64	Press is Open Light - Rear
%M0031	SETPMAX	Set Proprtl Relief to 100%
%M0061	CNTRRST	Stroke Counter Reset
%M0073	CYC-CMP	Auto Cycle Complet
%M0100	AUTODSP	Auto Display Process Selectd
%M0131	PC-TO	Precure Timed Out

Program: N453

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Block: _MAIN

%M0141	PCBD-TO	Precure Blowdwn Timed Out
%M0142	PH-OPEN	Open Press After PreHeat
%M0151	CT-TO	Cure Time Timed Out
%M0152	DA-TO	Delay Open Air Valve
%M0161	ABD-TO	Air Blowdwn Timed Out
%M0162	DCWS-TO	Delay Chill Water Supply
%M0171	CF-TO	Chill Flush Timed Out
%M0176	DCWR-TO	Delay Chill Water Return
%M0181	CD-TO	Cool Down Timed Out
%M0182	STRBLNK	Start Open Lights Blink
%M0191	U-TO	Unload Time Timed Out
%M0201	PHBD-TO	Preheat Blowdwn Timed Out
%M0211	PH-TO	Preheat Timed Out
%M0248	ENGATES	Enable Gates to be Opened
%M0270	PHCYCLE	Preheat Cycle Selectd
%M0318	BOP	Bump Open Press
%M0320	BOB-DWL	Bump Open Positon Dwell
%M0330	OPENLMT	Ram at Full Open Limit
%M0331	SLWOPEN	Slow Open Speed Change
%M0332	SPD-CHG	Ram above Speed Change
%M0334	CONTACT	Dies Closed
%M0335	DECOMP	Begin Decompr Sequenc
%M0336	DECOMP1	Decompr Sequenc Timer 1
%M0338	DECOMP2	Decompr Sequenc Timer 2
%M0340	DECOMP3	Decompr Sequenc Timer 3
%M0404	RR-GATE	Rear Gate Opened to Load
%M0406	FR-GATE	Front Gate Opened to Load
%M0408	GATECHK	Check Gates Opened to Load
%M0410	OKTORUN	Enable Cycle Start
%M0412	BLNKOFF	Cycle 18LT & 8LT Off
%M0415	BLNK-ON	Cycle 18LT & 8LT On
%M0417	OFFBLNK	Cycle 40LT & 42LT Off
%M0419	ON-BLNK	Cycle 40LT & 42LT On
%M0420	FRATDRS	Front Run ATD Reset
%M0422	FRATDTM	Front Run ATD Timer
%M0424	RRATDRS	Rear Run ATD Reset
%M0426	RRATDTM	Rear Run ATD Timer
%M0432	REARRUN	Rear Run Command Auto
%M0434	FRNTRUN	Front Run Command Auto
%M0436	AUTOCLS	Close Press In Auto
%M0437	EMGOPEN	Emerg. Open in Auto
%M0438	AUTOPEN	Open Press In Auto
%M0439	OPENPRE	Press Opened After Preheat
%M0440	SETUPSL	Setup Mode Selectd
%M0442	AUTOSL	Auto Mode Selectd
%M0448	AUTORUN	Auto Cycle Running
%M0450	ATD-RST	Setup Run ATD Reset
%M0452	ATD-TMR	Setup Run ATD Timer
%M0454	RUN-CMD	Setup Run Command
%M0456	STP-CLS	Close Press In Setup
%M0458	STP-OPN	Open Press In Setup
%M0460	STP-LP	CloseAt Low Presure InSetup
%M0462	STP-HPC	CloseAt Hi Presure InSetup
%M0464	STP-LPO	OpenAt Low Presure inSetup
%M0500	STP-BDN	Setup Blow down to sewer
%M0502	STP-STM	Setup Steam Heat Dies

%M0504	STP-CHL	Setup Chill Water to Dies
%M0510	STEAMON	Enable Open of Steam Valve
%M0530	ZN1>FCT	Zone 1 above FnlCure Setpont
%M0532	ZN2>FCT	Zone 2 above FnlCure Setpont
%M0534	ZN3>FCT	Zone 3 above FnlCure Setpont
%M0536	ZN4>FCT	Zone 4 above FnlCure Setpont
%M0550	FCSTART	Start Final Cure Timer
%M0609	STRBUMP	Start Bump Cycles

Program: N453

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Block: _MAIN

%M0610	BUMP1ON	Bump #1 Selectd
%M0612	B1-OPEN	Bump #1 Open Press
%M0613	B1-STOP	Bump #1 Open Stop
%M0614	PABOP1	Press at Bump Open Positon
%M0616	B1-DCMP	Bump #1 Dwell Complet
%M0621	BUMP2ON	Bump #2 Selectd
%M0622	B2-OPEN	Bump #2 Open Press
%M0623	B2-STOP	Bump #2 Open Stop
%M0624	PABOP2	Press at Bump Open Positon
%M0626	B2-DCMP	Bump #2 Dwell Complet
%M0631	BUMP3ON	Bump #3 Selectd
%M0632	B3-OPEN	Bump #3 Open Press
%M0633	B3-STOP	Bump #3 Open Stop
%M0634	PABOP3	Press at Bump Open Positon
%M0636	B3-DCMP	Bump #3 Dwell Complet
%M0641	BUMP4ON	Bump #4 Selectd
%M0642	B4-OPEN	Bump #4 Open Press
%M0643	B4-STOP	Bump #4 Open Stop
%M0644	PABOP4	Press at Bump Open Positon
%M0646	B4-DCMP	Bump #4 Dwell Complet
%M0750	U-TMS	Start Unload Timer
%M0751	PHBDTMS	Start Preheat Blowdwn Timer
%M0752	PCBDTMS	Start Precure Timers
%M0753	ADSPNTS	Auto Display Not Selectd
%M0754	ENBLRUN	Enable Run Command
%M0801	ZN1OPEN	Zone 1 T/C is Open
%M0802	ZN2OPEN	Zone 2 T/C is Open
%M0803	ZN3OPEN	Zone 3 T/C is Open
%M0804	ZN4OPEN	Zone 4 T/C is Open
%R0001	RAMPOSN	Scaled Temposn Positon of Ram
%R0011	RAMPRES	Scaled Transdr Presure of Ram
%R0013	CALPRES	Presure Transdr Zero Calibr
%R0021	SC-SP	Speed Change Positon
%R0041	BUMPPOS	Program Bump Open Positon
%R0051	HPRS-SP	Hi Hyd Presure Setpont in PSI
%R0061	COUNTER	Stroke Counter Registr
%R0071	NCSPEED	Normal Closing Speed 1-10IPM
%R0081	CTST-SP	Cure Start Temp Setpont
%R0091	PS-TEMP	Process Setpont Temp
%R0131	PC-TIME	Precure Time
%R0132	PC-TM-S	Precure Time in Seconds
%R0133	PC-TMR	Precure Timer
%R0141	PB-TIME	Precure Blowdwn Time
%R0142	PB-TM-S	Precure Blowdwn in Seconds
%R0143	PB-TMR	Precure Blowdwn Timer
%R0151	C-TIME	Cure Time
%R0152	C-TM-S	Cure Time in Seconds
%R0153	C-TMR	Cure Timer
%R0156	DA-TMR	Delay Air Valve Timer
%R0161	AB-TIME	Air Blowdwn Time
%R0162	AB-TM-S	Air Blowdwn Time in Seconds
%R0163	AB-TMR	Air Blowdwn Timer
%R0166	DCW-TMR	Delay Chill Water Timer
%R0171	CF-TIME	Chill Flush Time
%R0172	CF-TM-S	Chill Flush Time in Seconds
%R0173	CF-TMR	Chill Flush Timer

%R0176	DCWRTMR	Delay Chill Water Return
%R0181	CD-TIME	Cool Down Time
%R0182	CD-TM-S	Cool Down Time in Seconds
%R0183	CD-TMR	Cool Down Timer
%R0191	U-TIME	Unload Time
%R0192	U-TM-S	Unload Time in Seconds
%R0193	U-TMR	Unload Timer
%R0201	PHBTIME	Preheat Blowdown Time

Program: N453

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Block: MAIN

%R0202	PHB-T-S	Preheat Blowdwn Time in Seconds
%R0203	PHB-TMR	Preheat Blowdwn Timer
%R0211	PH-TIME	Preheat Time
%R0212	PH-TM-S	Preheat Time in Seconds
%R0213	PH-TMR	Preheat Timer
%R0221	ZN1TEMP	Zone 1 Temp in Degrees F
%R0231	ZN2TEMP	Zone 2 Temp in Degrees F
%R0241	ZN3TEMP	Zone 3 Temp in Degrees F
%R0251	ZN4TEMP	Zone 4 Temp in Degrees F
%R0257	AVETEMP	Average Mold Temp
%R0261	ZN5TEMP	Zone 5 Temp in Degrees F
%R0271	ZN6TEMP	Zone 6 Temp in Degrees F
%R0281	ZN7TEMP	Zone 7 Temp in Degrees F
%R0291	ZN8TEMP	Zone 8 Temp in Degrees F
%R0500	SPD0CAL	Calibr 0 IPM
%R0501	SPD1CAL	Calibr 1 IPM
%R0502	SPD2CAL	Calibr 2 IPM
%R0503	SPD3CAL	Calibr 3 IPM
%R0504	SPD4CAL	Calibr 4 IPM
%R0505	SPD5CAL	Calibr 5 IPM
%R0506	SPD6CAL	Calibr 6 IPM
%R0507	SPD7CAL	Calibr 7 IPM
%R0508	SPD8CAL	Calibr 8 IPM
%R0509	SPD9CAL	Calibr 9 IPM
%R0510	SPD10CL	Calibr 10 IPM
%R0611	BB1-TM	Begin Bump #1 Time
%R0612	BB1-TMR	Begin Bump #1 Timer
%R0615	B1D-TM	Bump #1 Dwell Time
%R0616	B1D-TMR	Bump #1 Dwell Timer
%R0621	BB2-TM	Begin Bump #2 Time
%R0622	BB2-TMR	Begin Bump #2 Timer
%R0625	B2D-TM	Bump #2 Dwell Time
%R0626	B2D-TMR	Bump #2 Dwell Timer
%R0631	BB3-TM	Begin Bump #3 Time
%R0632	BB3-TMR	Begin Bump #3 Timer
%R0635	B3D-TM	Bump #3 Dwell Time
%R0636	B3D-TMR	Bump #3 Dwell Timer
%R0641	BB4-TM	Begin Bump #4 Time
%R0642	BB4-TMR	Begin Bump #4 Timer
%R0645	B4D-TM	Bump #4 Dwell Time
%R0646	B4D-TMR	Bump #4 Dwell Timer
%R0900	STM-PID	Start Registr Steam PIDLoop
%R0905	GAIN-S	Steam PIDLoop Proport Gain
%R0906	RESET-S	Steam PIDLoop Reset
%R0907	RATE-S	Steam PIDLoop Rate
%R0909	UPCLMP	Steam PIDLoop Upper Clamp
%R0950	STSETPT	Steam Temp Setpont
%R0954	PID_OUT	I/P Output Percent Steam
%R1611	BB1-TMS	Begin Bump #1 Time in Seconds
%R1615	B1D-TMS	Bump #1 Dwell Time in Seconds
%R1621	BB2-TMS	Begin Bump #2 Time in Seconds
%R1625	B2D-TMS	Bump #2 Dwell Time in Seconds
%R1631	BB3-TMS	Begin Bump #3 Time in Seconds
%R1635	B3D-TMS	Bump #3 Dwell Time in Seconds
%R1641	BB4-TMS	Begin Bump #4 Time in Seconds
%R1645	B4D-TMS	Bump #4 Dwell Time in Seconds

%R1800	SCNTRIG	Horner Tigger Screen Registr
%R1900	PRS-PID	Start Registr Presure PIDLoop
%R1905	GAIN-P	Presure PIDLoop Proport Gain
%R1906	RESET-P	Presure PIDLoop Reset
%R1907	RATE-P	Presure PIDLoop Rate
%AI0001	TC1	Zone 1 Thermo couple Input
%AI0002	TC2	Zone 2 Thermo couple Input
%AI0003	TC3	Zone 3 Thermo couple Input

Program: N453

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Block: MAIN

```

%AI0004      TC4      Zone 4 Thermo couple Input
%AI0005      TC5      Zone 5 Thermo couple Input
%AI0006      TC6      Zone 6 Thermo couple Input
%AI0007      TC7      Zone 7 Thermo couple Input
%AI0008      TC8      Zone 8 Thermo couple Input
%AI0009      TEMPSNC  Ram Positon Input
%AI0010      TRANSDR  System Hydraul Presure Input
%AQ001       PRESURE  Presure Output to VT2000
%AQ002       SPEED   Speed Output to VT5006
%AQ003       TEMP    Control Output to I/P Steam
    
```

I D E N T I F I E R T A B L E

IDENTIFIER	IDENTIFIER TYPE	IDENTIFIER DESCRIPTION
SCRN_NU	SUBROUTINE	Current Displayed Screen
BUFFER	SUBROUTINE	Program change Buffer
MODE	SUBROUTINE	Mode Selection
SCALING	SUBROUTINE	Transducer and Temposonic Inputs
SETUP	SUBROUTINE	SETUP OPERATION MODE
AUTO	SUBROUTINE	AUTO OPERATION MODE
PRESS	SUBROUTINE	PRESS VALVE CONTROL
PROCESS	SUBROUTINE	STEAM/CHILL VALVE CONTROL
TEMPCTL	SUBROUTINE	TEMPERATURE CONTROL AND INPUT
BUMP	SUBROUTINE	BUMP OPEN SEQUENCES
N453	PROGRAM NAME	

[[BLOCK DECLARATIONS]]

```

SUBR 10 |SCRN_NU|     LANG: LD (* Current Displayed Screen     *)
+-----+
SUBR 9 |BUFFER |     LANG: LD (* Program change Buffer     *)
+-----+
SUBR 5 |MODE |     LANG: LD (* Mode Selection     *)
+-----+
SUBR 7 |SCALING|     LANG: LD (* Transducer and Temposonic Inputs *)
+-----+
SUBR 1 |SETUP |     LANG: LD (* SETUP OPERATION MODE     *)
+-----+
SUBR 2 |AUTO |     LANG: LD (* AUTO OPERATION MODE     *)
+-----+
SUBR 3 |PRESS |     LANG: LD (* PRESS VALVE CONTROL     *)
+-----+
    
```

SUBR 4 +-----+
|PROCESS|
+-----+

LANG: LD (* STEAM/CHILL VALVE CONTROL *)

Program: N453

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Block: _MAIN

```

+-----+
SUBR 6 |TEMPCTL|      LANG: LD  (* TEMPERATURE CONTROL AND INPUT  *)
+-----+

```

```

+-----+
SUBR 8 | BUMP  |      LANG: LD  (* BUMP OPEN SEQUENCES           *)
+-----+

```

- #0001 SUBR 10
- #0002 SUBR 09
- #0003 SUBR 05
- #0004 SUBR 07
- #0005 SUBR 01
- #0006 SUBR 02
- #0007 SUBR 03
- #0008 SUBR 04
- #0009 SUBR 06
- #0010 SUBR 08

[START OF PROGRAM LOGIC]

```

| (*****|
| (* N453 program is for a 452N Compression Press with selectable *)
| (* PreHeat Cycle where Press closes to speed change and PreHeats, then *)
| (* opens automatically for loading. The UnLoad timer PreHeat segment of *)
| (* current program is de-activated when PreHeat Cycle is selected. In *)
| (* addition add program key switch to secure setpoint changes and add *)
| (* outputs for lights to indicate when press is opened after Preheat. *)
| (* Program N453 is similar to N452B with additions of Horner screens *)
| (* for PID loop gain adjustments for pressure control, Horner screens *)
| (* for speed control calibrations, and process real time monitoring. *)
| (* *) *)
| (* *) *)
| (* Electrical Schematic: 61779-400 Hydraulic Schematic: 61641-300 *)
| (* 61779-402 Steam Schematic: 61823-400 *) *)
| (* *) *)
| (* Pacific part number for N543 program is 61789-103. *)
| (* *) *)
| (* Symbols and Abbreviations: *)
| (* *) *)
| (* NC = switch is wired normally closed *) *)
| (* NO = switch is wired normally open *) *)
| (* *) *)
| (* Selector Switch Logic Designation: *)
| (* *) *)
| (* F = no input in position indicated [FALSE] *) *)
| (* T = input in position indicated [TRUE] *) *)
| (* -A = first contact of switch *) *)
| (* -B = second contact of switch *) *)
| (*****|

```

```
#0001 01 NOOP
```

```
<< RUNG 5 STEP #0002 >>
```

```
ALW_ON +-----+
```

```
+---] [----+ CALL SCR_NU+
|      | (SUBROUTINE) |
|      +-----+
|
|      #0002 LD          %S0007
|      #0003 FUNC 90    CALLSUB
|                      P1:   00010
|
```

Program: N453

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Block: MAIN

| << RUNG 6 STEP #0004 >>

|ALW_ON +-----+
+---] [---+ CALL BUFFER +
| (SUBROUTINE)|
+-----+

#0004 LD %S0007
#0005 FUNC 90 CALLSUB
P1: 00009

| << RUNG 7 STEP #0006 >>

|ALW_ON +-----+
+---] [---+ CALL SCALING+
| (SUBROUTINE)|
+-----+

#0006 LD %S0007
#0007 FUNC 90 CALLSUB
P1: 00007

| << RUNG 8 STEP #0008 >>

|ALW_ON +-----+
+---] [---+ CALL MODE +
| (SUBROUTINE)|
+-----+

#0008 LD %S0007
#0009 FUNC 90 CALLSUB
P1: 00005

| << RUNG 9 STEP #0010 >>

|ALW_ON +-----+
+---] [---+ CALL SETUP +
| (SUBROUTINE)|
+-----+

#0010 LD %S0007
#0011 FUNC 90 CALLSUB
P1: 00001

| << RUNG 10 STEP #0012 >>

|ALW_ON +-----+
+---] [---+ CALL AUTO +
| (SUBROUTINE)|
+-----+

#0012 LD %S0007
#0013 FUNC 90 CALLSUB
P1: 00002

| << RUNG 11 STEP #0014 >>


```
|
|ALW_ON +-----+
+--} [----+ CALL PRESS +
|      | (SUBROUTINE) |
|      +-----+
|
|      #0014 LD          %S0007
----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----
```

Program: N453

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Block: _MAIN

```
|      #0015  FUNC 90  CALLSUB  
|              P1:  00003  
|  
| << RUNG 12  STEP #0016 >>  
|  
|ALW_ON +-----+  
+---] [---+ CALL PROCESS+  
|      | (SUBROUTINE) |  
|      +-----+  
|  
|      #0016  LD      %S0007  
|      #0017  FUNC 90  CALLSUB  
|              P1:  00004  
|  
| [      END OF PROGRAM LOGIC      ]  
|  
|      #0018  END OF PROGRAM  
|
```

```

(*****
(*)
(*)          BLOCK:  SCR_NU          (*)
(*)
(*)          BLOCK SIZE (BYTES):    752 (*)
(*)          DECLARATIONS (ENTRIES):  0 (*)
(*)
(*)          HIGHEST REFERENCE USED (*)
(*)          ----- (*)
(*)          INPUT (%I):             %I0032 (*)
(*)          OUTPUT (%Q):            %Q0045 (*)
(*)          INTERNAL (%M):          %M0753 (*)
(*)          GLOBAL DATA (%G):      NONE (*)
(*)          TEMPORARY (%T):         NONE (*)
(*)          REGISTER (%R):          %R1800 (*)
(*)          ANALOG INPUT (%AI):     NONE (*)
(*)          ANALOG OUTPUT (%AQ):    NONE (*)
(*)
(*****

```

| [START LD SUBROUTINE SCRN_NU]

| [VARIABLE DECLARATIONS]

VARIABLE DECLARATION TABLE

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
NO VARIABLE TABLE ENTRIES		

IDENTIFIER TABLE

IDENTIFIER	IDENTIFIER TYPE	IDENTIFIER DESCRIPTION
NO IDENTIFIER TABLE ENTRIES		

| [START OF SUBROUTINE LOGIC]

<< RUNG 3 STEP #0001 >>

SS24	SS32	AUTODSP
+--] [-----]/[-----		()--

```

#0001 LD      %I0024
#0002 AND NOT  %I0032
#0003 OUT     %M0100

```

<< RUNG 4 STEP #0004 >>

AUTODSP +-----+	ADSPNTS
+--]/[---+ TMR +-----	()--

| 0.10s |

```

CONST --PV
+00002 |

```

```

+-----+
%R1220

```

```

#0004 LD NOT %M0100
#0005 FUNC 10 TMR
          P1: 00010
          P2: +00002
          P3: %R1220
#0006 OUT %M0753

```

```

| << RUNG 5 STEP #0007 >>
|
|FST_SCN                +-----+
+--] [-----+-----+MOVE_+-
|                | INT |
|AUTODSP ADSPNTS| | |
+--]/[-----]/[---+ CONST --IN Q+-SCNTRIG
|                +00281 | LEN |
|                |00001|
|                +-----+
|
|      #0007 LD      %S0001
|      #0008 LD     NOT %M0100
|      #0009 AND     NOT %M0753
|      #0010 OR      BLK
----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----

```

Program: N453

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Block: SCRN_NU(SUBR 10)

```

#0011  FUNC 37  MOVIN
          P1: +00281
          P2:  00001
          P3:  %R1800

```

<< RUNG 6 STEP #0012 >>

```

|AUTODSP PH-TO OKTORUN OPENLMT AUTORUN +-----+
+---] [---+---] [---+---] [-----] [-----]/[---+MOVE_+-
          |          |          |          |          |
          |OKTORUN|          |          |          |          |
          +---] [---+          |          |          |          |
                                CONST +-+IN Q+-SCNTRIG
                                +00295 | LEN |
                                |00001|
                                +-----+

```

```

#0012  LD      %M0100
#0013  LD      %M0211
#0014  OR       %M0410
#0015  AND     BLK
#0016  AND     %M0410
#0017  AND     %M0330
#0018  AND     NOT %M0448
#0019  FUNC 37  MOVIN
          P1: +00295
          P2:  00001
          P3:  %R1800

```

<< RUNG 7 STEP #0020 >>

```

|AUTODSP +-----+          +-----+
+---] [---+ SUB_+-----+ DIV_+-
          | INT |          | INT |
          |          |          |          |
U-TMR  +-+I1 Q+-%R1199 %R1199 +-+I1 Q+-%R1200
          |          |          |          |
U-TM-S +-+I2 |          |          |          |
          +-----+          +00010 +-----+

```

```

#0020  LD      %M0100
#0021  FUNC 62  SUB
          P1: %R0193
          P2: %R0192
          P3: %R1199
#0022  FUNC 66  DIV
          P1: %R1199
          P2: +00010
          P3: %R1200

```

| << RUNG 8 STEP #0023 >>

```
| AUTODSP PHCYCLE U-TMS U-TO PHBDTMS +-----+
+---] [-----]/[-----] [-----]/[-----]/[-----]+MOVE_+-
|                                     | INT |
|                                     |     |
|                                     CONST -+IN Q+-SCNTRIG
|                                     +00296 | LEN |
|                                     |00001|
|                                     +-----+
```

```
| #0023 LD %M0100
| #0024 AND NOT %M0270
| #0025 AND %M0750
```

----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----

Program: N453

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Block: SCRΝ_NU(SUBR 10)

```

#0026 AND NOT %M0191
#0027 AND NOT %M0751
#0028 FUNC 37 MOVIN
      P1: +00296
      P2: 00001
      P3: %R1800

```

<< RUNG 9 STEP #0029 >>

```

|AUTODSP +-----+          +-----+
+---] [---+ SUB_+-----+-----+ DIV +-
      | INT |          | INT |
|PHB-TMR--+I1 Q+-%R1201 %R1201 -+I1 Q+-%R1202
      |   |          |   |
|PHB-T-S--+I2 |          CONST -+I2 |
      +-----+          +00010 +-----+

```

```

#0029 LD %M0100
#0030 FUNC 62 SUB
      P1: %R0203
      P2: %R0202
      P3: %R1201
#0031 FUNC 66 DIV
      P1: %R1201
      P2: +00010
      P3: %R1202

```

<< RUNG 10 STEP #0032 >>

```

|AUTODSP PHBDTMS          PHBD-TO +-----+
+---] [---+---] [-----+-----+]/[---+MOVE_+-
      |   |   |          | INT |
      |PHCYCLE OKTORUN PH-OPEN OPENLMT| |   |
+---] [-----] [-----]/[-----]/[---+ CONST -+IN Q+SCNTRIG
      +00297 | LEN |
      |00001|
      +-----+

```

```

#0032 LD %M0100
#0033 LD %M0751
#0034 LD %M0270
#0035 AND %M0410
#0036 AND NOT %M0142
#0037 AND NOT %M0330
#0038 OR BLK
#0039 AND BLK
#0040 AND NOT %M0201
#0041 FUNC 37 MOVIN
      P1: +00297
      P2: 00001
      P3: %R1800

```



```
<< RUNG 11 STEP #0042 >>
```

```
AUTODSP PHCYCLE PH-OPEN OPENPRE +-----+
+---] [-----] [-----] [-----]/[-----+MOVE_+-
| INT |
| |
CONST -+IN Q+-SCNTRIG
+00307 | LEN |
|00001|
+-----+
```

```
#0042 LD %M0100
#0043 AND %M0270
#0044 AND %M0142
#0045 AND NOT %M0439
#0046 FUNC 37 MOVIN
P1: +00307
P2: 00001
P3: %R1800
```

```
<< RUNG 12 STEP #0047 >>
```

```
AUTODSP +-----+ +-----+
+---] [----+ SUB +-----+ + DIV +-
| INT | | INT |
PH-TMR --+I1 Q+-%R1203 %R1203 --+I1 Q+-%R1204
| | |
PH-TM-S--+I2 | CONST --+I2 |
+-----+ +00010 +-----+
```

```
#0047 LD %M0100
#0048 FUNC 62 SUB
P1: %R0213
P2: %R0212
P3: %R1203
#0049 FUNC 66 DIV
P1: %R1203
P2: +00010
P3: %R1204
```

<< RUNG 13 STEP #0050 >>

```
AUTODSP PHBD-TO AUTORUN PH-TO +-----+
+---] [-----] [---+---] [---+---]/[---+MOVE +-
      |         |         | INT |
      |PHCYCLE|         |     |
+---]/[---+ CONST -+IN Q+-SCNTRIG
      +00298 | LEN |
              |00001|
              +-----+
```

```
#0050 LD      %M0100
#0051 AND     %M0201
#0052 LD      %M0448
#0053 OR      NOT %M0270
#0054 AND     BLK
#0055 AND     NOT %M0211
#0056 FUNC 37  MOVIN
      P1: +00298
      P2:  00001
      P3: %R1800
```

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Block: SCRNU(SUBR 10)

<< RUNG 14 STEP #0057 >>

```

|AUTODSP +-----+
+---] [---+ SUB +-----+ DIV +-
|      | INT |      | INT |
|PB-TMR --+I1 Q+-%R1205 %R1205 --+I1 Q+-%R1206
|      | INT |      | INT |
|PB-TM-S--+I2 |      | CONST --+I2 |
|      +-----+      +00010 +-----+

```

```

#0057 LD %M0100
#0058 FUNC 62 SUB
      P1: %R0143
      P2: %R0142
      P3: %R1205
#0059 FUNC 66 DIV
      P1: %R1205
      P2: +00010
      P3: %R1206

```

<< RUNG 15 STEP #0060 >>

```

|AUTODSP PH-TO PCBD-TO +-----+
+---] [---+ ] [---+ ]/[---+MOVE +-
|      | INT |
|PCBDTMS| |
+---] [---+ CONST --+IN Q+--SCNTRIG
      +00299 | LEN |
              |00001|
              +-----+

```

```

#0060 LD %M0100
#0061 LD %M0211
#0062 OR %M0752
#0063 AND BLK
#0064 AND NOT %M0141
#0065 FUNC 37 MOVIN
      P1: +00299
      P2: 00001
      P3: %R1800

```

<< RUNG 16 STEP #0066 >>

```
AUTODSP +-----+
+---] [---+ SUB +-----+ DIV +-
| INT | | INT |
| PC-TMR -+I1 Q+-%R1207 %R1207 -+I1 Q+-%R1208
| PC-TM-S-+I2 | | CONST -+I2 |
+-----+ +00010 +-----+
```

```
#0066 LD %M0100
#0067 FUNC 62 SUB
      P1: %R0133
      P2: %R0132
      P3: %R1207
#0068 FUNC 66 DIV
      P1: %R1207
      P2: +00010
      P3: %R1208
```

Program: N453

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Block: SCR_NU(SUBR 10)

```
| << RUNG 17 STEP #0069 >>
```

```
| LT30 AUTODSP +-----+  
+---] [-----] [-----+MOVE_+-  
| INT |  
| |  
CONST -+IN Q+-SCNTRIG  
+00308 | LEN |  
|00001|  
+-----+
```

```
#0069 LD %Q0045  
#0070 AND %M0100  
#0071 FUNC 37 MOVIN  
P1: +00308  
P2: 00001  
P3: %R1800
```

```
| << RUNG 18 STEP #0072 >>
```

```
| AUTODSP PCBD-TO PC-TO +-----+  
+---] [-----] [-----]/[-----+MOVE_+-  
| INT |  
| |  
CONST -+IN Q+-SCNTRIG  
+00300 | LEN |  
|00001|  
+-----+
```

```
#0072 LD %M0100  
#0073 AND %M0141  
#0074 AND NOT %M0131  
#0075 FUNC 37 MOVIN  
P1: +00300  
P2: 00001  
P3: %R1800
```

| << RUNG 19 STEP #0076 >>

```
|AUTODSP +-----+
+---] [---+ SUB_+-----+ DIV_+-
|      | INT |      | INT |
| C-TMR --I1 Q+-%R1209 %R1209 --I1 Q+-%R1210
|      |   |      |   |
|C-TM-S --I2          CONST --I2
|      +-----+          +00010 +-----+
```

```
#0076 LD          %M0100
#0077 FUNC 62     SUB
          P1: %R0153
          P2: %R0152
          P3: %R1209
#0078 FUNC 66     DIV
          P1: %R1209
          P2: +00010
          P3: %R1210
```

Program: N453

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Block: SCR_NU(SUBR 10)

```
| << RUNG 20 STEP #0079 >>
```

```
|AUTODSP PC-TO FCSTART CT-TO +-----+
+---] [-----] [-----] [-----]/[---+MOVE +-
|          | INT |
|          |     |
|          |CONST -+IN Q+-SCNTRIG
|          |LEN |
|          |00001|
|          +-----+
```

```
| #0079 LD          %M0100
| #0080 AND         %M0131
| #0081 AND         %M0550
| #0082 AND NOT    %M0151
| #0083 FUNC 37    MOVIN
|                 P1: +00301
|                 P2:  00001
|                 P3: %R1800
```

```
| << RUNG 21 STEP #0084 >>
```

```
|AUTODSP +-----+          +-----+
+---] [---+ SUB +-----+ DIV +-
|          | INT |          | INT |
|          |     |          |     |
|AB-TMR  -+I1  Q+-%R1211  %R1211  -+I1  Q+-%R1212
|          |     |          |     |
|AB-TM-S-+I2  |          |CONST -+I2  |
|          +-----+          +00010 +-----+
```

```
| #0084 LD          %M0100
| #0085 FUNC 62    SUB
|                 P1: %R0163
|                 P2: %R0162
|                 P3: %R1211
| #0086 FUNC 66    DIV
|                 P1: %R1211
|                 P2: +00010
|                 P3: %R1212
```

```

| << RUNG 22  STEP #0087 >>
|
|AUTODSP CT-TO ABD-TO +-----+
+---] [-----] [-----]/[---+MOVE +-
|
|          | INT |
|          |     |
|          CONST -+IN Q+-SCNTRIG
|          +00302 | LEN |
|          |00001|
|          +-----+
|
| #0087 LD          %M0100
| #0088 AND         %M0151
| #0089 AND NOT    %M0161
| #0090 FUNC 37    MOVIN
|          P1: +00302
|          P2:  00001
|          P3:  %R1800
|

```

Program: N453

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Block: SCRNU(SUBR 10)

<< RUNG 23 STEP #0091 >>

```

|AUTODSP +-----+                               +-----+
+--] [---+ SUB_+-----+-----+ DIV_+-
|      | INT |                               | INT |
|CF-TMR -+I1 Q+-%R1213 %R1213 -+I1 Q+-%R1214
|      |   |                               |   |
|CF-TM-S-+I2 |                               CONST -+I2 |
|      +-----+                               +00010 +-----+

```

```

#0091 LD      %M0100
#0092 FUNC 62  SUB
      P1: %R0173
      P2: %R0172
      P3: %R1213
#0093 FUNC 66  DIV
      P1: %R1213
      P2: +00010
      P3: %R1214

```

<< RUNG 24 STEP #0094 >>

```

|AUTODSP ABD-TO  CF-TO  +-----+
+--] [-----] [-----]/[---+MOVE_+-
|      | INT |
|      |   |
|CONST -+IN Q+--SCNTRIG
|+00303 | LEN |
|      |00001|
|      +-----+

```

```

#0094 LD      %M0100
#0095 AND     %M0161
#0096 AND NOT %M0171
#0097 FUNC 37  MOVIN
      P1: +00303
      P2: 00001
      P3: %R1800

```

<< RUNG 25 STEP #0098 >>

```
AUTODSP +-----+
+---] [---+ SUB +-----+ DIV +-
| | INT | | INT |
|CD-TMR -+I1 Q+-%R1215 %R1215 -+I1 Q+-%R1216
| | | | |
|CD-TM-S--+I2 | CONST -+I2 |
| +-----+ +00010 +-----+
```

```
#0098 LD %M0100
#0099 FUNC 62 SUB
      P1: %R0183
      P2: %R0182
      P3: %R1215
#0100 FUNC 66 DIV
      P1: %R1215
      P2: +00010
      P3: %R1216
```

Program: N453

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Block: SCR_NU(SUBR 10)

<< RUNG 26 STEP #0101 >>

```

AUTODSP CF-TO CD-TO +-----+
+--] [-----] [-----]/[---+MOVE_+-
      | INT |
      |     |
      CONST -+IN Q+-SCNTRIG
      +00304 | LEN |
      |00001|
      +-----+

```

```

#0101 LD      %M0100
#0102 AND     %M0171
#0103 AND NOT %M0181
#0104 FUNC 37 MOVIN
      P1: +00304
      P2: 00001
      P3: %R1800

```

<< RUNG 27 STEP #0105 >>

```

AUTODSP CD-TO CYC-CMP OPENLMT +-----+
+--] [-----] [-----]/[-----]/[---+MOVE_+-
      | INT |
      |     |
      CONST -+IN Q+-SCNTRIG
      +00305 | LEN |
      |00001|
      +-----+

```

```

#0105 LD      %M0100
#0106 AND     %M0181
#0107 AND NOT %M0073
#0108 AND NOT %M0330
#0109 FUNC 37 MOVIN
      P1: +00305
      P2: 00001
      P3: %R1800

```

<< RUNG 28 STEP #0110 >>

```

AUTODSP OPENLMT +-----+
+--] [-----] [---+ EQ_ |
      | INT |
      |     |
      SCNTRIG-+I1 Q+-----+MOVE_+-
      |     | | INT |
      |     | |     |
      CONST -+I2 | CONST -+IN Q+-SCNTRIG
      +00049 +-----+ +00306 | LEN |
      |00001|
      +-----+

```

```

#0110 LD      %M0100
#0111 AND     %M0330
#0112 FUNC 52 EQ

```

P1: %R1800
P2: +00049
#0113 FUNC 37 MOVIN
P1: +00306
P2: 00001
P3: %R1800

Program: N453

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Block: SCRN_NU(SUBR 10)

```

| << RUNG 29 STEP #0114 >>
| AUTODSP OPENLMT +-----+
| +---] [-----] [----+ EQ_ |
|           | INT |
|           | |
| SCNTRIG--+I1 Q+-----+MOVE_+-
|           | |           | INT |
|           | |           | |
| CONST --+I2 | CONST --+IN Q+--SCNTRIG
| +00305 +-----+ +00306 | LEN |
|                               |00001|
|                               +-----+
|
| #0114 LD          %M0100
| #0115 AND         %M0330
| #0116 FUNC 52    EQ
|           P1: %R1800
|           P2: +00305
| #0117 FUNC 37    MOVIN
|           P1: +00306
|           P2: 00001
|           P3: %R1800
|
| [ END OF SUBROUTINE LOGIC ]
|
| #0118 END OF SUBR
|

```

```

(*****
(*)
(*)          BLOCK:  BUFFER                      (*)
(*)
(*)          BLOCK SIZE (BYTES):  1413          (*)
(*)          DECLARATIONS (ENTRIES):  0         (*)
(*)
(*)          HIGHEST REFERENCE USED            (*)
(*)          -----                          (*)
(*)
(*)          INPUT (%I):  %I0032                (*)
(*)          OUTPUT (%Q):  NONE                 (*)
(*)          INTERNAL (%M):  %M0705            (*)
(*)          GLOBAL DATA (%G):  NONE           (*)
(*)          TEMPORARY (%T):  NONE             (*)
(*)          REGISTER (%R):  %R1907            (*)
(*)          ANALOG INPUT (%AI):  NONE          (*)
(*)          ANALOG OUTPUT (%AQ):  NONE        (*)
(*)
(*****

```

```
| [ START LD SUBROUTINE BUFFER ]
|
| [ VARIABLE DECLARATIONS ]
```

VARIABLE DECLARATION TABLE

REFERENCE	NICKNAME	REFERENCE DESCRIPTION
NO VARIABLE TABLE ENTRIES		

IDENTIFIER TABLE

IDENTIFIER	IDENTIFIER TYPE	IDENTIFIER DESCRIPTION
NO IDENTIFIER TABLE ENTRIES		

```
| [ START OF SUBROUTINE LOGIC ]
```

```
<< RUNG 3 STEP #0001 >>
```

```
SS32 +-----+ +-----+ +-----+
+--] [---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT | | INT | | INT |
      | | | | | |
SC-SP --IN Q+-%R1100 BUMPPOS--IN Q+-%R1102 HPRS-SP--IN Q+-%R1104
      | LEN | | LEN | | LEN |
      |00001| |00001| |00001|
      +-----+ +-----+ +-----+
```

```
#0001 LD %I0032
#0002 FUNC 37 MOVIN
      P1: %R0021
      P2: 00001
      P3: %R1100
#0003 FUNC 37 MOVIN
      P1: %R0041
      P2: 00001
      P3: %R1102
#0004 FUNC 37 MOVIN
      P1: %R0051
      P2: 00001
      P3: %R1104
```

```
<< RUNG 4 STEP #0005 >>
```

```
SS32 +-----+ +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT | | INT | | INT |
      | | | | | |
%R1100 --IN Q+- SC-SP %R1102 --IN Q+-BUMPPOS %R1104 --IN Q+-HPRS-SP
      | LEN | | LEN | | LEN |
      |00001| |00001| |00001|
      +-----+ +-----+ +-----+
```

```
|  
| #0005 LD NOT %I0032  
| #0006 FUNC 37 MOVIN  
| P1: %R1100  
| P2: 00001  
| P3: %R0021  
| #0007 FUNC 37 MOVIN  
----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----
```

Program: N453

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Block: BUFFER(SUBR 09)


```

P1: %R1102
P2: 00001
P3: %R0041
#0008 FUNC 37 MOVIN
P1: %R1104
P2: 00001
P3: %R0051

```

<< RUNG 5 STEP #0009 >>

```

SS32  +-----+          +-----+          +-----+
+--] [---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT |          | INT |          | INT |
      |   |          |   |          |   |
NCSPEED--+IN Q+-%R1106 CTST-SP--+IN Q+-%R1108 PS-TEMP--+IN Q+-%R1110
      | LEN |          | LEN |          | LEN |
      |00001|          |00001|          |00001|
      +-----+          +-----+          +-----+

```

```

#0009 LD      %I0032
#0010 FUNC 37 MOVIN
      P1: %R0071
      P2: 00001
      P3: %R1106
#0011 FUNC 37 MOVIN
      P1: %R0081
      P2: 00001
      P3: %R1108
#0012 FUNC 37 MOVIN
      P1: %R0091
      P2: 00001
      P3: %R1110

```

| << RUNG 6 STEP #0013 >>

```
| SS32 +-----+ +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-----+MOVE_+-
| | INT | | INT | | INT |
| | | | | | |
| %R1106 --IN Q+-NCSPEED %R1108 --IN Q+-CTST-SP %R1110 --IN Q+-PS-TEMP
| | LEN | | LEN | | LEN |
| |00001| |00001| |00001|
| +-----+ +-----+ +-----+
```

```
| #0013 LD NOT %I0032
| #0014 FUNC 37 MOVIN
| | P1: %R1106
| | P2: 00001
| | P3: %R0071
| #0015 FUNC 37 MOVIN
| | P1: %R1108
| | P2: 00001
| | P3: %R0081
| #0016 FUNC 37 MOVIN
| | P1: %R1110
| | P2: 00001
| | P3: %R0091
```

Program: N453

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Block: BUFFER(SUBR 09)

```
<< RUNG 7 STEP #0017 >>
```

```
SS32 +-----+ +-----+ +-----+
+--] [---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT | | INT | | INT |
      | | | | | |
PC-TIME--+IN Q+-%R1112 PB-TIME--+IN Q+-%R1114 C-TIME --+IN Q+-%R1116
      | LEN | | LEN | | LEN |
      |00001| |00001| |00001|
      +-----+ +-----+ +-----+
```

```
#0017 LD %I0032
#0018 FUNC 37 MOVIN
      P1: %R0131
      P2: 00001
      P3: %R1112
#0019 FUNC 37 MOVIN
      P1: %R0141
      P2: 00001
      P3: %R1114
#0020 FUNC 37 MOVIN
      P1: %R0151
      P2: 00001
      P3: %R1116
```

```
<< RUNG 8 STEP #0021 >>
```

```
SS32 +-----+ +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT | | INT | | INT |
      | | | | | |
%R1112 --+IN Q+-PC-TIME %R1114 --+IN Q+-PB-TIME %R1116 --+IN Q+-C-TIME
      | LEN | | LEN | | LEN |
      |00001| |00001| |00001|
      +-----+ +-----+ +-----+
```

```
#0021 LD NOT %I0032
#0022 FUNC 37 MOVIN
      P1: %R1112
      P2: 00001
      P3: %R0131
#0023 FUNC 37 MOVIN
      P1: %R1114
      P2: 00001
      P3: %R0141
#0024 FUNC 37 MOVIN
      P1: %R1116
      P2: 00001
      P3: %R0151
```

```

| << RUNG 9 STEP #0025 >>
|
| SS32 +-----+
+---] [---+MOVE +-----+MOVE +-
|      | INT |          | INT |
|      |   |          |   |
|AB-TIME--IN Q+-%R1118 CF-TIME--IN Q+-%R1122
|      | LEN |          | LEN |
|      |00001|          |00001|
|      +-----+          +-----+
|
|      #0025 LD          %I0032
|      #0026 FUNC 37 MOVIN
----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----

```

Program: N453

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Block: BUFFER(SUBR 09)

```

P1: %R0161
P2: 00001
P3: %R1118
#0027 FUNC 37 MOVIN
P1: %R0171
P2: 00001
P3: %R1122

```

<< RUNG 10 STEP #0028 >>

```

SS32 +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-
      | INT | | INT |
%R1118 -+IN Q+-AB-TIME %R1122 -+IN Q+-CF-TIME
      | LEN | | LEN |
      |00001| |00001|
      +-----+ +-----+

```

```

#0028 LD NOT %I0032
#0029 FUNC 37 MOVIN
P1: %R1118
P2: 00001
P3: %R0161
#0030 FUNC 37 MOVIN
P1: %R1122
P2: 00001
P3: %R0171

```

<< RUNG 11 STEP #0031 >>

```

SS32 +-----+ +-----+ +-----+
+--] [---+MOVE_+-----+MOVE_+-----+MOVE_+-
      | INT | | INT | | INT |
CD-TIME-+IN Q+-%R1124 U-TIME -+IN Q+-%R1126 PHBTIME-+IN Q+-%R1128
      | LEN | | LEN | | LEN |
      |00001| |00001| |00001|
      +-----+ +-----+ +-----+

```

```

#0031 LD %I0032
#0032 FUNC 37 MOVIN
P1: %R0181
P2: 00001
P3: %R1124
#0033 FUNC 37 MOVIN
P1: %R0191
P2: 00001
P3: %R1126
#0034 FUNC 37 MOVIN
P1: %R0201
P2: 00001
P3: %R1128

```

<< RUNG 12 STEP #0035 >>

```

| SS32      +-----+                +-----+                +-----+
+---] / [---+MOVE_+-----+-----+-----+-----+-----+-----+
|           | INT |                | INT |                | INT |
|           |   |                |   |                |   |
|R1124  -+IN  Q+-CD-TIME %R1126 -+IN  Q+-U-TIME  %R1128 -+IN  Q+-PHBTIME
|           | LEN |                | LEN |                | LEN |
|           |00001|                |00001|                |00001|
|           +-----+                +-----+                +-----+

```

```

#0035 LD NOT %I0032
#0036 FUNC 37 MOVIN
      P1: %R1124
      P2: 00001
      P3: %R0181
#0037 FUNC 37 MOVIN
      P1: %R1126
      P2: 00001
      P3: %R0191
#0038 FUNC 37 MOVIN
      P1: %R1128
      P2: 00001
      P3: %R0201

```

<< RUNG 13 STEP #0039 >>

```

| SS32      +-----+                +-----+                +-----+
+---] [---+MOVE_+-----+-----+-----+-----+-----+-----+
|           | INT |                | INT |                | INT |
|           |   |                |   |                |   |
|PH-TIME-+IN  Q+-%R1130  BB1-TM -+IN  Q+-%R1132  B1D-TM -+IN  Q+-%R1134
|           | LEN |                | LEN |                | LEN |
|           |00001|                |00001|                |00001|
|           +-----+                +-----+                +-----+

```

```

#0039 LD %I0032
#0040 FUNC 37 MOVIN
      P1: %R0211
      P2: 00001
      P3: %R1130
#0041 FUNC 37 MOVIN
      P1: %R0611
      P2: 00001
      P3: %R1132
#0042 FUNC 37 MOVIN
      P1: %R0615
      P2: 00001
      P3: %R1134

```

| << RUNG 14 STEP #0043 >>

```
| SS32 +-----+ +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-----+MOVE_+--
| | INT | | INT | | INT |
| | | | | | |
| %R1130 --IN Q+-PH-TIME %R1132 --IN Q+-BB1-TM %R1134 --IN Q+-B1D-TM
| | LEN | | LEN | | LEN |
| |00001| |00001| |00001|
| +-----+ +-----+ +-----+
```

| #0043 LD NOT %I0032

| #0044 FUNC 37 MOVIN

----- IL TEXT FOR RUNG CONTINUED NEXT PAGE -----

Program: N453

C:\LM90\N453

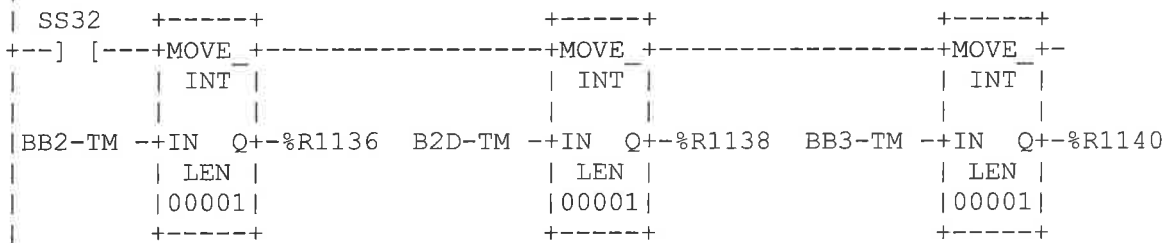
Block: BUFFER(SUBR 09)

```

P1: %R1130
P2: 00001
P3: %R0211
#0045 FUNC 37 MOVIN
P1: %R1132
P2: 00001
P3: %R0611
#0046 FUNC 37 MOVIN
P1: %R1134
P2: 00001
P3: %R0615

```

<< RUNG 15 STEP #0047 >>

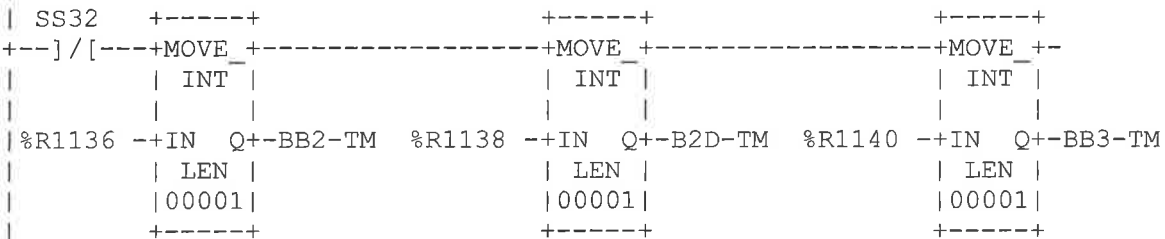


```

#0047 LD %I0032
#0048 FUNC 37 MOVIN
P1: %R0621
P2: 00001
P3: %R1136
#0049 FUNC 37 MOVIN
P1: %R0625
P2: 00001
P3: %R1138
#0050 FUNC 37 MOVIN
P1: %R0631
P2: 00001
P3: %R1140

```

<< RUNG 16 STEP #0051 >>



```

#0051 LD NOT %I0032
#0052 FUNC 37 MOVIN
P1: %R1136
P2: 00001
P3: %R0621
#0053 FUNC 37 MOVIN
P1: %R1138
P2: 00001

```


|
| #0054 FUNC 37 P3: %R0625
| MOVIN
| P1: %R1140
| P2: 00001
| P3: %R0631
|

Program: N453

C:\LM90\N453

Block: BUFFER(SUBR 09)

| << RUNG 17 STEP #0055 >>

```

| SS32 +-----+ +-----+ +-----+
+--] [---+MOVE_+-----+MOVE_+-----+MOVE_+-
| | INT | | INT | | INT |
| | | | | | |
| B3D-TM --+IN Q+-%R1142 BB4-TM --+IN Q+-%R1144 B4D-TM --+IN Q+-%R1146
| | LEN | | LEN | | LEN |
| |00001| |00001| |00001|
| +-----+ +-----+ +-----+

```

```

#0055 LD %I0032
#0056 FUNC 37 MOVIN
      P1: %R0635
      P2: 00001
      P3: %R1142
#0057 FUNC 37 MOVIN
      P1: %R0641
      P2: 00001
      P3: %R1144
#0058 FUNC 37 MOVIN
      P1: %R0645
      P2: 00001
      P3: %R1146

```

| << RUNG 18 STEP #0059 >>

```

| SS32 +-----+ +-----+ +-----+
+--]/[---+MOVE_+-----+MOVE_+-----+MOVE_+-
| | INT | | INT | | INT |
| | | | | | |
| %R1142 --+IN Q+-B3D-TM %R1144 --+IN Q+-BB4-TM %R1146 --+IN Q+-B4D-TM
| | LEN | | LEN | | LEN |
| |00001| |00001| |00001|
| +-----+ +-----+ +-----+

```

```

#0059 LD NOT %I0032
#0060 FUNC 37 MOVIN
      P1: %R1142
      P2: 00001
      P3: %R0635
#0061 FUNC 37 MOVIN
      P1: %R1144
      P2: 00001
      P3: %R0641
#0062 FUNC 37 MOVIN
      P1: %R1146
      P2: 00001
      P3: %R0645

```