Long Comment for NETWORK 0001 Segment: 01 Attached To: Network

This program is totally useless...

as far as controlling any process. Now on the other hand if you would like to see how different instructions are converted read on.

This program was converted using the ANX option. The registers convert to alias' that point to the AN-X module. The AN-X CSV file has been imported into the ControlLogix program.

This section of rungs show how bits are converted.

NETWORK 0001 Segment: 01 (LONG COMMENT ON PREVIOUS PAGE)

```
 I This is t descripti for N0001                                    This is the short comment for N0001
 I
 I
 I
 I
 I This is t                                                                                          This is t
 I descripti                                                                                          descripti
 I for 10001                                                                                          for 00001
 I D1R1S03                                                                                            D1R1S04
1+--] [------.......................................................................................---( )-----
 I SYM_10001                                                                                          OUT_00001
 I 10001                                                                                              00001
 I
 I
 I This is t                                                                                          This is t
 I descripti                                                                                          descripti
 I for 10002                                                                                          for 00002
 I D1R1S03                                                                                            D1R1S04
2+--] [------.......................................................................................---( )-----
 I SYM_10002                                                                                          OUT_00002
 I 10002                                                                                              00002
 I
 I
 I This is t                                                                                          This is t
 I descripti                                                                                          descripti
 I for 10003                                                                                          for 00003
 I D1R1S03                                                                                            D1R1S04
3+--]\[------.......................................................................................---( )-----
 I SYM_10003                                                                                          00003
 I 10003
 I
 I
 I This is t                                                                                          This is t
 I descripti                                                                                          descripti
 I for 10004                                                                                          for 00004
 I D1R1S03                                                                                            D1R1S04
4+--]\[------.......................................................................................---( )-----
 I SYM_10004                                                                                          00004
 I 10004
 I
 I
 I This is t  This is t  This is t  This is t                                                          This is t
 I descripti  descripti  descripti  descripti                                                          descripti
 I for 10005  for 10006  for 10007  for 10008                                                          for 00005
 I D1R1S03    D1R1S03    D1R1S03    D1R1S03                                                            D1R1S04
5+--] [--------] [--------] [--------] [-------------------------------------------------*.....................---( )-----
 I SYM_10005  10006      10007      10008                                                 |                     00005
 I 10005                                                                                  |
 I                                                                                        |
 I                                                                                        |
 I This is t  This is t  This is t  This is t  This is t  This is t  This is t  This is t|
 I descripti  descripti  descripti  descripti  descripti  descripti  descripti  descripti|
 I for 10009  for 10010  for 10011  for 10012  for 10013  for 10014  for 10015  for 10016|
 I D1R1S03    D1R1S03    D1R1S03    D1R1S03    D1R1S03    D1R1S03    D1R1S03    D1R1S03  |
6+--]\[--------]\[--------]\[--------]\[--------]\[--------]\[--------]\[--------]\[-----*
 I 10009      10010      10011      10012      10013      10014      10015      10016
 I
 I
```

```
==========================================================================================================

NETWORK  0002  Segment: 01

 I
 I
 I This is a  This is a  This is a  This is a
 I positive   positive   positive   positive
 I transitio  transitio  transitio  transitio
 I for 10017  not as th  not as th  not as th
1+--]P[--------]P[--------]P[--------]P[-----*
 I 10017      10018      10019      10020    |
 I                                           |
 I                                           |
 I                       This is a  This is a|
 I This is a  This is a  negative   negative |
 I negative   negative   transitio  transitio|                                                    This is t
 I transitio  transitio  not as th  not as th|                                                    descripti
 I for 10021  not as th  D1R1S04    D1R1S04  |                                                    for 00030
2+--]N[--------]N[--------]N[--------]N[-----*.................................................---( )-----
 I 10021      10022      00006      00007                                                         00030
 I
 I
 I
 I
 I
 I
 I
3+
 I
 I
 I
 I
 I
 I This is t  This is t  This is t  This is t                                                    This is a
 I descripti  descripti  descripti  descripti                                                    retentive
 I for 10023  for 10024  for 10025  for 10032                                                    coil
4+--] [--------] [--------] [--------]\[------.................................................---(L)-----
 I 10023      10024      10025      10032                                                         00024
 I
 I
 Long Comment for NETWORK  0004  Segment: 01 Attached To: Network
    Networks like this, although valid in the Modicon, do not convert well
    into ControlLogix.  Manual clean up will be needed with this network.
```

NETWORK 0004 Segment: 01 (LONG COMMENT ON PREVIOUS PAGE)

```
 I
 I
 I
 I
 I
 I
 I
 I
 I
1+--] [-----*--] [--------] [-----*.............................................................---( )-----
 I 10256    | 10258      10259    |                                                                 00400
 I          |                     |
 I          |                     |
 I          |                     |
 I          |                     |
 I          |                     |
 I          |                     |
 I          |                     |
2+--] [-----+            --] [-----*
 I 10257    |             10260
 I          |
 I          |
 I          |
 I          |
 I          |
 I          |
 I          |
3+          *--------------------------------*
 I                                           |
 I                                           |
 I                                           |
 I                                           |
 I                                           |
 I                                           |
 I                                           |
 I                                           |
4+--] [--------] [-----*-------------] [-----+...............................................------( )-----
 I 10261      10262    |             10265    |                                                        00401
 I                     |                     |
 I                     |                     |
 I                     |                     |
 I                     |                     |
 I                     |                     |
 I                     |                     |
 I                     |                     |
5+                    *--] [-----*--] [-----*
 I                      10263    | 10264
 I                               |
 I                               |
 I                               |
 I                               |
 I                               |
 I                               |
6+                               *---------------------------------.........................------( )-----
 I                                                                                                 00402
 I
 I
 I
```

```
 I
 I
 I
 I
7+                    ..................................................................................---( )-----
 I                                                                                                     00403
 I
 I
```

NETWORK 0005 Segment: 02

```
 I                                                                                                  UCTR
 I UCTR                                                                                             Count=Pre
 I Control                                                                                          D1R1S04
1+--] [------*--------*-.......................................................................---( )-----
 I 10033     |#1000   |                                                                            00008
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                            UCTR
 I           |        |                                                                            Count<Pre
 I           |Up Counte                                                                            D1R1S04
2+-----------+  UCTR  +-.......................................................................---( )-----
 I            40001                                                                                 00009
 I
 I
 I
 I
 I                                                                                                  DCTR
 I DCTR                                                                                             Count=0
 I Control                                                                                          D1R1S04
3+--] [------*--------*-.......................................................................---( )-----
 I 10034     |40002   |                                                                            00010
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                            DCTR
 I           |        |                                                                            Count>0 a
 I DCTR      |        |                                                                            Count<Pre
 I Enable/Re |Down Coun                                                                            D1R1S04
4+--] [------+  DCTR  +-.......................................................................---( )-----
 I 10035      40003                                                                                 00011
 I
 I
```

NETWORK 0006 Segment: 02

```
 I
 I
 I
 I
 I
 I
 I                                                                                                                T1.0
 I T1.0                                                                                                           Timer=Pre
 I Control                                                                                                        D1R1S04
1+--] [-----**--------*-.......................................................................................---( )-----
 I 10036    ||#0060   |                                                                                          00012
 I          ||        |
 I          ||        |
 I          ||        |
 I          ||        |
 I          ||        |
 I          ||        |
 I          ||Timer 1.0
2+          *+  T1.0  +-
 I            40004
 I
 I
 I
 I
 I                                                                                                                T0.1
 I T0.1                                                                                                           Timer=Pre
 I Control                                                                                                        D1R1S04
3+--] [------*--------*-.......................................................................................---( )-----
 I 10037     |30001   |                                                                                          00013
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                                          T0.1
 I T0.1      |        |                                                                                          Timer<Pre
 I Enable/Re |Timer 0.1                                                                                           D1R1S04
4+--] [------+  T0.1  +-.......................................................................................---( )-----
 I 10038      40005                                                                                               00014
 I
 I
 I
 I
 I
 I
 I
5+
 I
 I
 I
 I
 I
 I
 I
 I
6+          **--------*-
 I          ||40006   |
 I          ||        |
 I          ||        |
```

```
 I          ||        |
 I          ||        |                                                                                                T.01
 I T.01     ||        |                                                                                                Timer<Pre
 I Control  ||Timer 0.0                                                                                                D1R1S04
7+--] [-----*+  T.01  +-.......................................................................................---( )-----
 I 10039      40007                                                                                                    00015
 I
 I
```

NETWORK 0007 Segment: 02

```
 I
 I
 I
 I
 I
 I
 I
 I
 I
1+
 I
 I
 I
 I
 I
 I
 I
 I
2+---------------------------------*--------*-
 I                                 |40014   |
 I                                 |        |
 I                                 |        |
 I                                 |        |
 I                                 |        |
 I                                 |        |
 I                                 |        |
 I                                 |        |
3+----------------------*--------*-+        +-
 I                      |#0010   | |#0010   |
 I                      |        | |        |
 I                      |        | |        |
 I                      |        | |        |
 I                      |        | |        |
 I                      |        | |        |
 I                      |        | |Divide  |
 I                      |        | |Instructi
4+-----------*--------*-+        +-+  DIV   +-
 I           |40009   | |40012   |  40015
 I           |        | |        |
 I           |        | |        |
 I           |        | |        |
 I           |        | |        |
 I           |        | |        |
 I Addition  |        | |Multiply|
 I instructi |        | |Instructi
5+*--------*-+        +-+  MULT  +-
 I|40008   | |40010   |  40013
 I|        | |        |
 I|        | |        |
 I|        | |        |
 I|        | |        |
 I|        | |Subtract|
 I|        | |Instructi
6++        +-+  SUB   +-
 I|#0001   |  40011
 I|        |
 I|        |
 I|        |
```

```
 I|        |
 I|        |
 I|Addition|
 I|instructi
7++  ADD   +-
 I 40008
 I
 I
```

NETWORK 0008 Segment: 02

```
 I                                                          When the SUB result contains the optional "Trash
 I                                                          Resgister" the SUB instruction is removed and
 I
 I
 I
 I
 I
 I SUB                                                                                                   SUB
 I Control                                                                                               Top>Middl
1+--] [------*--------*-.......................................................................................---( )-----
 I 10040     |40017   |                                                                                  00041
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                                  SUB
 I           |        |                                                                                  Top=Middl
2+           +        +-.......................................................................................---( )-----
 I           |#0100   |                                                                                  00042
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |Trash   |                                                                                  SUB
 I           |Register|                                                                                  Top<Middl
3+           +  SUB   +-.......................................................................................---( )-----
 I            40999                                                                                       00043
 I
 I
 I
 I
 I
 I SUB                                                                                                   SUB
 I Control                                                                                               Top>=Midd
4+--] [------*--------**......................................................................................---( )-----
 I 10041     |40017   ||                                                                                 00044
 I           |        ||
 I           |        ||
 I           |        ||
 I           |        ||
 I           |        ||
 I           |        ||
5+           +        +*
 I           |#0100   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |Trash   |
 I           |Register|
6+           +  SUB   +-
 I            40999
 I
 I
```

NETWORK 0009 Segment: 02

```
 I                                                          This will show what will happen to SUB
 I                                                          instructions that do not contain the "Trash
 I
 I
 I
 I
 I
 I SUB
 I Control
1+--] [------*--------*-
 I 10042     |40018   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
2+           +        +*
 I           |#0100   ||
 I           |        ||
 I           |        ||
 I           |        ||
 I           |        ||
 I           |        ||
 I           |Trash   ||                                                                    SUB
 I           |Register||                                                                    Top<=Midd
3+           +  SUB   +*.............................................................................---( )-----
 I            40999                                                                          00045
 I
 I
 I
 I
 I
 I SUB                                                                                      SUB
 I Control                                                                                  Top>Middl
4+--] [------*--------*-.............................................................................---( )-----
 I 10043     |40019   |                                                                    00046
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                    SUB
 I           |        |                                                                    Top=Middl
5+           +        +-.............................................................................---( )-----
 I           |40020   |                                                                    00047
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |SUB     |                                                                    SUB
 I           |Instructi                                                                    Top<Middl
6+           +  SUB   +-.............................................................................---( )-----
 I            40021                                                                          00048
 I
 I
```

NETWORK 0010 Segment: 03

```
 I
 I
 I
 I
 I
 I
 I
 I
 I
1+-----------*--------*------------*--------*-
 I           |10049   |            |40023   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |AND     |
 I           |AND     |            |on 20   |
 I           |on one re            |registers
2+           +        +-           +        +-
 I           |40022   |            |40043   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
3+           +   AND  +-           +   AND  +-
 I            #0001                 #0020
 I
 I
 I
 I
 I
 I
 I
4+
 I
 I
 I
 I
 I
 I
 I
 I
5+-----------*--------*------------*--------*-
 I           |10065   |            |40064   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |OR      |
 I           |OR      |            |on 20   |
 I           |on one re            |registers
6+           +        +-           +        +-
 I           |40063   |            |40084   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
```

```
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
7+           +   OR   +-           +   OR   +-
 I            #0001                 #0020
 I
 I
```

NETWORK 0011 Segment: 03

```
 I
 I
 I
 I
 I
 I
1+-----------*--------*------------*--------*-
 I           |40104   |            |40106   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |COMPlemen
 I           |COMPlemen            |on 20   |
 I           |on one re            |registers
2+           +        +-           +        +-
 I           |40105   |            |40126   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
3+           +  COMP  +-           +  COMP  +-
 I            #0001                 #0020
 I
 I
 I
 I
 I
 I
 I
4+
 I
 I
 I
 I
 I
 I
 I
 I
5+-----------*--------*------------*--------*-
 I           |40146   |            |40148   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |XOR     |
 I           |XOR     |            |on 20   |
 I           |on one re            |registers
6+           +        +-           +        +-
 I           |40147   |            |40168   |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
 I           |        |            |        |
```

```
 I           |        |            |        |
7+           +   XOR  +-           +   XOR  +-
 I            #0001                 #0020
 I
 I
```

NETWORK 0012 Segment: 03

```
 I
 I
 I
 I
 I
 I
 I
 I SKP
 I Control
1+--]\[------+  SKP   +-
 I 10026      #0002
 I
 I
 I
 I
 I
 I R->T                                                                                                  Passes
 I Control                                                                                               Power
2+--] [------*--------*-.......................................................................................---( )-----
 I 10027     |10081   |                                                                                  00034
 I           |        |
 I           |        |
 I           |        |
 I R->T      |        |
 I Prevent   |        |                                                                                  R->T
 I Pointer   |R->T    |                                                                                  Pointer a
 I Increment |on one re                                                                                  top of ta
3+--] [------+        +-.......................................................................................---( )-----
 I 10028     |40188   |                                                                                  00035
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I R->T      |        |
 I Reset     |        |
4+--] [------+  R->T  +-
 I 10029      #0001
 I
 I
 I
 I
 I
 I R->T                                                                                                  Passes
 I Control                                                                                               Power
5+--] [------*--------*-.......................................................................................---( )-----
 I 10030     |40190   |                                                                                  00036
 I           |        |
 I           |        |
 I           |        |
 I R->T      |        |
 I Prevent   |R->T    |                                                                                  R->T
 I Pointer   |on 20   |                                                                                  Pointer a
 I Increase  |registers                                                                                  top of ta
6+--] [------+        +-.......................................................................................---( )-----
 I 10031     |40191   |                                                                                  00037
 I           |        |
 I           |        |
 I           |        |
```

```
 I           |        |
 I           |        |
 I R->T      |        |
 I Reset     |        |
7+--] [------+  R->T  +-
 I 10044      #0020
 I
 I
```

NETWORK 0013 Segment: 03

```
 I
 I
 I
 I
 I T->R                                                                                                  Passes
 I Control                                                                                               Power
1+--] [------*--------*-.......................................................................................---( )-----
 I 10045     |40212   |                                                                                  00038
 I           |        |
 I           |        |
 I           |        |
 I T->R      |        |
 I Prevent   |        |                                                                                  T->R
 I Pointer   |T->R    |                                                                                  Pointer a
 I Increase  |on one re                                                                                  top of ta
2+--] [------+        +-.......................................................................................---( )-----
 I 10046     |40213   |                                                                                  00039
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I T->R      |        |
 I Reset     |        |
3+--] [------+  T->R  +-
 I 10047      #0001
 I
 I
 I
 I
 I
 I T->R                                                                                                  Passes
 I Control                                                                                               Power
4+--] [------*--------*-.......................................................................................---( )-----
 I 10048     |40215   |                                                                                  00040
 I           |        |
 I           |        |
 I           |        |
 I T->R      |        |
 I Prevent   |T->R    |                                                                                  T->R
 I Pointer   |on 20   |                                                                                  Pointer a
 I Increase  |registers                                                                                  top of ta
5+--] [------+        +-.......................................................................................---( )-----
 I 10113     |40216   |                                                                                  00065
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I T->R      |        |
 I Reset     |        |
6+--] [------+  T->R  +-
 I 10114      #0020
 I
 I
```

NETWORK 0014 Segment: 03

```
 I
 I
 I
 I
 I T->T                                                                                                  Passes
 I Control                                                                                               Power
1+--] [------*--------*-.......................................................................................---( )-----
 I 10115     |40235   |                                                                                  00066
 I           |        |
 I           |        |
 I           |        |
 I T->T      |        |
 I Prevents  |        |                                                                                  T->T
 I Pointer   |T->T    |                                                                                  Pointer a
 I Increase  |on one re                                                                                  top of ta
2+--] [------+        +-.......................................................................................---( )-----
 I 10116     |40236   |                                                                                  00067
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I T->T      |        |
 I Reset     |        |
3+--] [------+  T->T  +-
 I 10117      #0001
 I
 I
 I
 I
 I
 I T->T                                                                                                  Passes
 I Control                                                                                               Power
4+--] [------*--------*-.......................................................................................---( )-----
 I 10118     |40238   |                                                                                  00068
 I           |        |
 I           |        |
 I           |        |
 I T->T      |        |
 I Prevents  |T->T    |                                                                                  T->T
 I Pointer   |on 20   |                                                                                  Pointer a
 I Increase  |registers                                                                                  top of ta
5+--] [------+        +-.......................................................................................---( )-----
 I 10119     |40258   |                                                                                  00069
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I T->T      |        |
 I Reset     |        |
6+--] [------+  T->T  +-
 I 10120      #0020
 I
 I
```

NETWORK 0015 Segment: 03

```
 I
 I
 I
 I
 I
 I
1+-----------*--------*-
 I           |40279   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |BLKM    |
 I           |on one re
2+           +        +-
 I           |40280   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
3+           +  BLKM  +-
 I            #0001
 I
 I
 I
 I
 I
 I
 I
4+-----------*--------*-
 I           |40281   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |BLKM    |
 I           |on 20   |
 I           |registers
5+           +        +-
 I           |40301   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
6+           +  BLKM  +-
 I            #0020
 I
 I
```

NETWORK 0016 Segment: 04

```
 I
 I
 I
 I                                                                                                  Passes
 I                                                                                                  Power
 I                                                                                                  D1R1S04
1+-----------*--------*-.......................................................................---( )-----
 I           |10097   |                                                                           00016
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |FIN-FOUT|                                                                           FIN
 I           |instructi                                                                           queue ful
2+           +        +-.......................................................................---( )-----
 I           |40324   |                                                                           00017
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                           FIN
 I           |        |                                                                           queue emp
3+           +   FIN  +-.......................................................................---( )-----
 I            #0010                                                                               00018
 I
 I
 I
 I
 I
 I            FIN-FOUT                                                                            Passes
 I            instructi                                                                           Power
4+-----------*--------*-.......................................................................---( )-----
 I           |40324   |                                                                           00019
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                           FOUT
 I           |        |                                                                           queue ful
5+           +        +-.......................................................................---( )-----
 I           |00049   |                                                                           00020
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                           FOUT
 I           |        |                                                                           queue emp
6+           +  FOUT  +-.......................................................................---( )-----
 I            #0010                                                                               00021
 I
 I
```

NETWORK 0017 Segment: 04

```
 I
 I
 I
 I
 I SRCH                                                                                                  Passes
 I Control                                                                                               Power
1+--] [------*--------*-.......................................................................................---( )-----
 I 10121     |40321   |                                                                                  00077
 I           |        |
 I           |        |
 I           |        |
 I SRCH      |        |
 I Start sea |        |
 I at pointe |SRCH    |                                                                                  SRCH
 I register  |instructi                                                                                  match fou
2+--] [------+        +-.......................................................................................---( )-----
 I 10122     |40335   |                                                                                  00031
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
3+           +  SRCH  +-
 I            #0010
 I
 I
 I
 I
 I
 I
 I
4+
 I
 I
 I
 I
 I
 I
 I            STAT
 I            instructi
5+-----------*--------*-
 I           |40347   |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
6+           +  STAT  +-
 I            #0010
 I
 I
```

NETWORK 0018 Segment: 04

```
 I
 I
 I
 I
 I CMPR                                                                                                  Passes
 I Control                                                                                               Power
1+--] [------*--------*-.......................................................................................---( )-----
 I 10123     |40337   |                                                                                  00078
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I CMPR      |        |
 I Reset     |CMPR    |                                                                                  CMPR
 I Pointer   |instructi                                                                                  miscompar
2+--] [------+        +-.......................................................................................---( )-----
 I 10124     |40339   |                                                                                  00032
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |                                                                                  CMPR
 I           |        |                                                                                  state of
 I           |        |                                                                                  miscompar
3+           +  CMPR  +-.......................................................................................---( )-----
 I            #0001                                                                                       00033
 I
 I
```

NETWORK 0019 Segment: 04

```
 I
 I
 I
 I
 I SENS       SENS                                                                    Passes
 I Control    intructio                                                               Power
1+--] [------*--------*-.......................................................---( )-----
 I 10125     |40338   |                                                              00022
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I SENS      |        |
 I Increase  |        |                                                              SENS
 I Pointer   |        |                                                              bit resul
2+--] [------+        +-.......................................................---( )-----
 I 10126     |30002   |                                                              00023
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I SENS      |        |
 I Reset     |        |                                                              SENS
 I Pointer   |        |                                                              error
3+--] [------+  SENS  +-.......................................................---( )-----
 I 10127      #0016                                                                  00025
 I
 I
 I
 I
 I
 I MBIT       MBIT                                                                    Passes
 I Control    instructi                                                               Power
4+--] [------*--------*-.......................................................---( )-----
 I 10128     |40341   |                                                              00026
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I MBIT      |        |
 I Set/Clear |        |                                                              MBIT
 I Control   |        |                                                              sense bit
5+--] [------+        +-.......................................................---( )-----
 I 10129     |40357   |                                                              00027
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I MBIT      |        |
 I Increase  |        |                                                              MBIT
 I Pointer   |        |                                                              error
6+--] [------+  MBIT  +-.......................................................---( )-----
 I 10130      #0032                                                                  00028
 I
 I
```

NETWORK 0020 Segment: 04

```
 I Bit Shift
 I
 I
 I
 I
 I
 I            BROT
 I BROT       Source                                                                                  Passes
 I Control    Matrix                                                                                  Power
1+--] [------*--------*-.......................................................................---( )-----
 I 10131     |40389   |                                                                              00079
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |BROT    |
 I BROT      |Destinati                                                                               BROT
 I Direction |Matrix  |                                                                              Sense Bit
2+--] [------+        +-.......................................................................---( )-----
 I 10132     |00081   |                                                                              00070
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I BROT      |        |
 I Shift/Rot |        |
3+--] [------+  BROT  +-
 I 10133      #0015
 I
 I
```

```
==========================================================================================================

NETWORK  0021  Segment: 04

 I ASCII
 I
 I
 I
 I
 I
 I
 I READ       READ                                                                                  READ
 I Control    Source                                                                                Active
1+--] [------*--------*-.......................................................................---( )-----
 I 10134     |40404   |                                                                            00071
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I READ      |READ    |
 I Pause     |Destinati                                                                              READ
 I Operation |Table   |                                                                              Error
2+--] [------+        +-.......................................................................---( )-----
 I 10135     |40411   |                                                                            00072
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I READ      |        |
 I Abort     |        |                                                                              READ
 I Operation |        |                                                                              Complete
3+--] [------+  READ  +-.......................................................................---( )-----
 I 10136      #0064                                                                                 00073
 I
 I
 I
 I
 I
 I WRIT       WRIT                                                                                  WRITE
 I Control    Source                                                                                Active
4+--] [------*--------*-.......................................................................---( )-----
 I 10137     |40475   |                                                                            00074
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I WRIT      |WRIT    |
 I Pause     |Destinati                                                                              WRIT
 I Operation |Table   |                                                                              Error
5+--] [------+        +-.......................................................................---( )-----
 I 10138     |40539   |                                                                            00075
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I WRIT      |        |
 I Abort     |        |                                                                              WRIT
 I Operation |        |                                                                              Complete
6+--] [------+  WRIT  +-.......................................................................---( )-----
 I 10139      #0064                                                                                 00076
 I
 I
```

NETWORK 0022 Segment: 04

```
 I PID
 I
 I
 I
 I
 I
 I
 I PID2       PID2                                                                                  PID2
 I Auto/Manu  Source                                                                                Loop Inva
1+--] [------*--------*-.......................................................................---( )-----
 I 10140     |40546   |                                                                            00321
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |PID2    |
 I PID2      |Destinati                                                                             PID2
 I Track Mod |Table   |                                                                            High Alar
2+--] [------+        +-.......................................................................---( )-----
 I 10141     |40567   |                                                                            00322
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I PID2      |        |                                                                            PID2
 I Action    |        |                                                                            Low Alarm
3+--] [------+  PID2  +-.......................................................................---( )-----
 I 10142      #0001                                                                                00323
 I
 I
```

NETWORK 0023 Segment: 04

```
 I
 I
 I
 I
 I
 I
1+-----------*--------*-
 I           |L001    |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
2+           +  JSR   +-
 I            #0001
 I
 I
```

NETWORK 0024 Segment: 05

```
 I                                                                                                                  Passes
 I                                                                                                                  Power
1++  LAB   +-.......................................................................................................---( )-----
 I L001                                                                                                             00029
 I
 I
 I
 I
 I                                                                                                                  BLKT
 I BLKT       BLKT                                                                                                   Move
 I Control    Source Bl                                                                                              Complete
2+--] [------*--------*-.............................................................................................---( )-----
 I 10143     |40576   |                                                                                             00324
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |BLKT    |
 I BLKT      |Destinati                                                                                               BLKT
 I Hold Poin |Pointer |                                                                                               Error
3+--] [------+        +-.............................................................................................---( )-----
 I 10144     |40586   |                                                                                             00325
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I BLKT      |        |
 I Reset Poi |        |
4+--] [------+  BLKT  +-
 I 10145      #0010
 I
 I
 I
 I
 I            TBLK                                                                                                   TBLK
 I TBLK       Source                                                                                                 Move
 I Control    Table                                                                                                  Complete
5+--] [------*--------*-.............................................................................................---( )-----
 I 10146     |40597   |                                                                                             00326
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I           |TBLK    |
 I TBLK      |Destinati                                                                                               TBLK
 I Hold Poin |Pointer |                                                                                               Error
6+--] [------+        +-.............................................................................................---( )-----
 I 10147     |40610   |                                                                                             00327
 I           |        |
 I           |        |
 I           |        |
 I           |        |
 I TBLK      |        |
 I Reset     |        |
```

```
 I Pointer   |        |
7+--] [------+  TBLK  +-
 I 10148      #0010
 I
 I
```

NETWORK 0025 Segment: 05

```
 I
 I
 I
 I
 I
 I
1++  RET   +-
 I #0001
 I
 I
```