

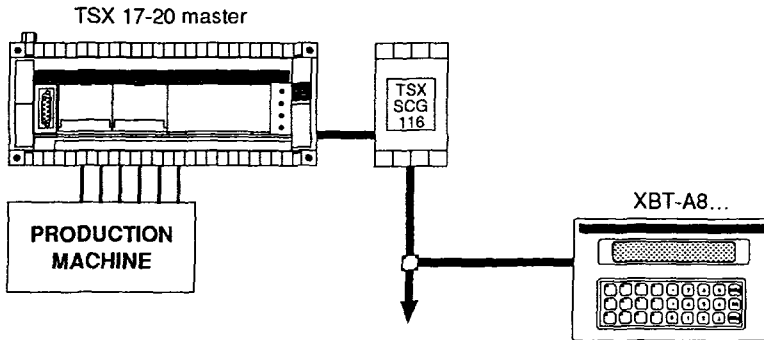
• Warning

The application example which follows is simplified, especially the internal initialization part which is needed for simulation. This is to make the explanations easier to understand. Only the program concerning the XBT-A8 exchanges is described.

Note : For a complete description of the TSX-SCG116 communication module and the use of text blocks, refer to the various manuals for the TSX7 range.

• Application

- Equipment layout



- A TSX 17 PLC controls a production machine. The TSX 17 is connected to the UNI-TELWAY bus by a TSX SCG116 master module.
- An XBT-A81010 display terminal connected to UNI-TELWAY informs the operator about the state of the machine and the number and type of items manufactured.

• Operating principle

- The production machine can manufacture two types of item (A and B), the choice of A or B being performed by a selector switch (while the machine is stopped).
- XBT-A8 displays :
 - in stop, the type of item selected (A or B)
 - in run, the number of items manufactured,
 - if the machine stops due to a fault, the FAULT message.

The occurrence of a fault stops the machine and re-starts the counters.

• Use of PLC objects

- Module configuration table

CONSTANT WORDS	HEX CODE
CW0	H'5002'
CW1	H'0000'
CW2	H'9600'
CW3	H'0010'
CW4	H'0000'
CW5	H'0000'
CW6	H'0000'
CW7	H'0000'
CW8	H'0000'
CW9	H'0000'

UNI-TELWAY master
2 connections scanned

Data rate 9600 bits/sec
Time-out

- Variable words

ADDRESS	FUNCTION
W98	Counter for items manufactured
W99	Reference item selected
W100	Maximum number of items (initialized at the start by a value)
W101	Number of A items manufactured
W102	Number of B items manufactured
W30	Start of communication text block (T1) : display unit address
W31	Communication text block table (T1) : number of XBT-A8 message to be displayed

- Assignment of inputs

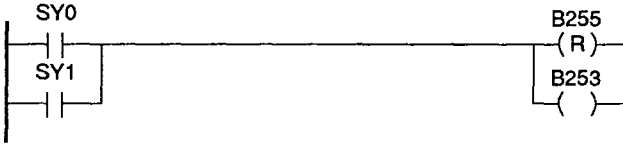
BITS	FUNCTION
I0,0	Select on/off
I0,1	Select type of item A or B
I0,2	Machine fault

6 Application example

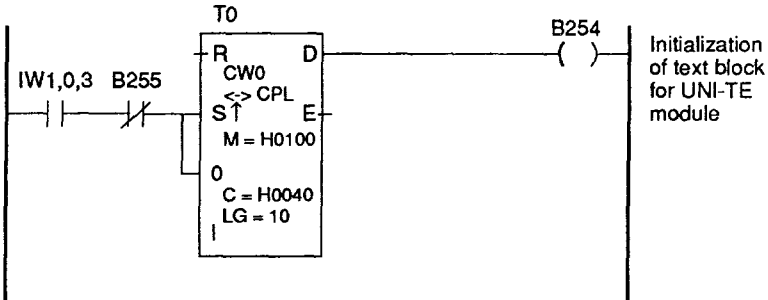
• Program

INITIALIZATION OF UNI-TE MODULE

LAB : 1



LAB : 3

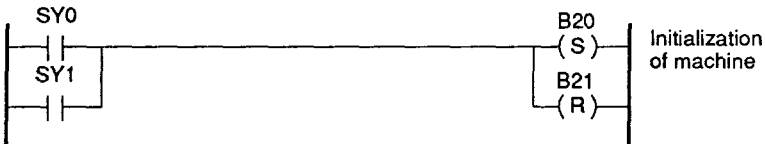


LAB : 5



POWER-UP - MACHINE IN STOP

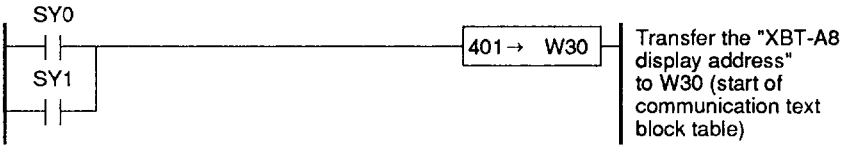
LAB : 11



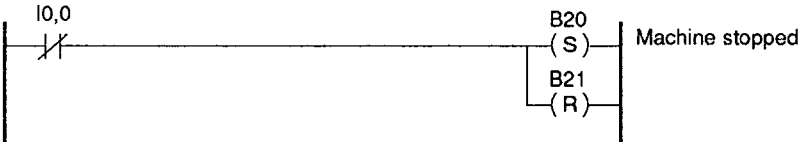
6 Application example

INITIALIZATION OF THE COMMUNICATION TABLE

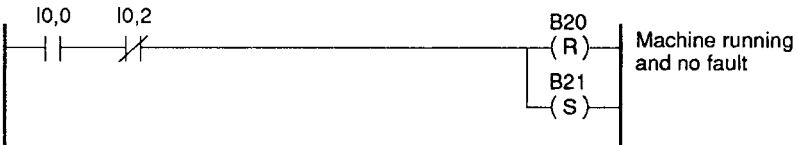
LAB : 15



LAB : 50



LAB : 52 Machine in run and no faults

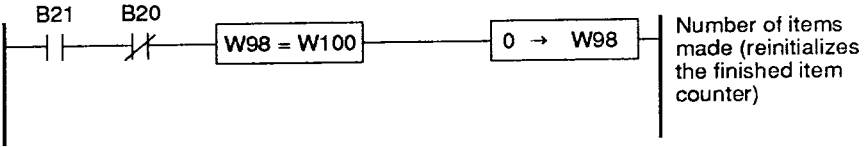


I0,2



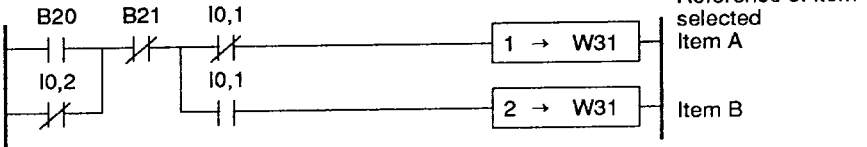
6 Application example

LAB : 102

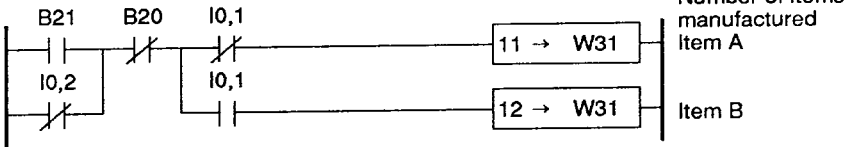


INITIALIZATION OF TRANSMISSION TABLE : SELECT THE NUMBER OF THE MESSAGE TO BE DISPLAYED ON THE XBT-A8

LAB : 116



LAB : 118

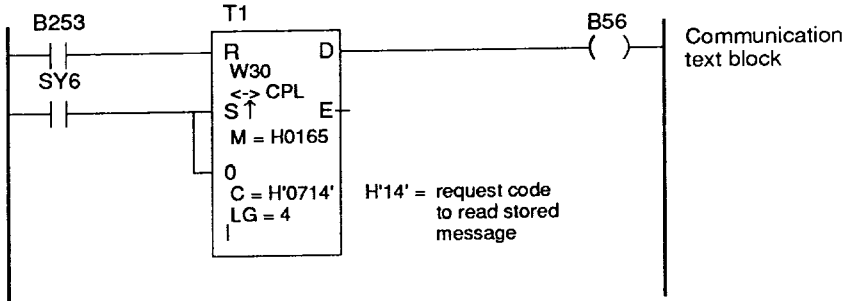


MACHINE FAULT

LAB : 120

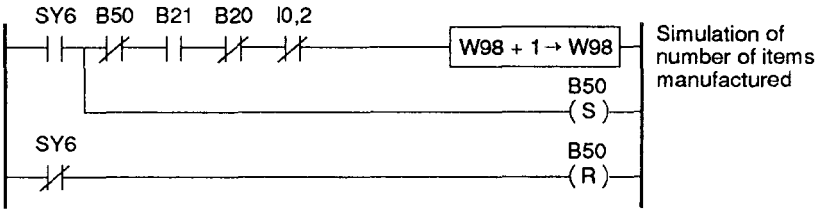


LAB : 200

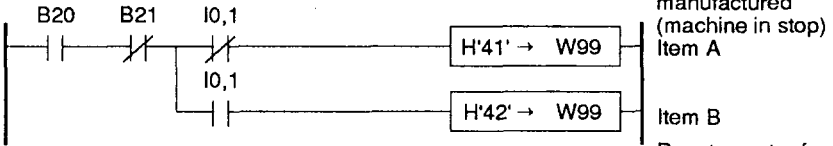


6 Application example

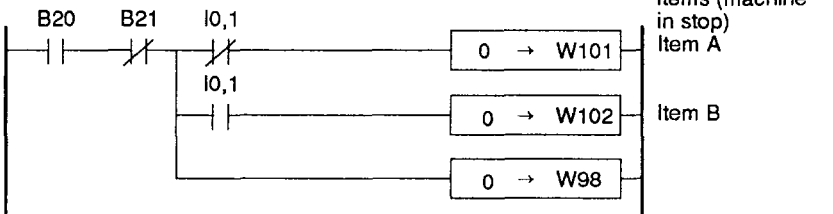
LAB : 56



LAB : 58



LAB : 60



LAB : 100

