

TECHNOTE NUMBER: TN-MOD-0010

SUBJECT: How to create a “heartbeat” signal in MOD 30ML

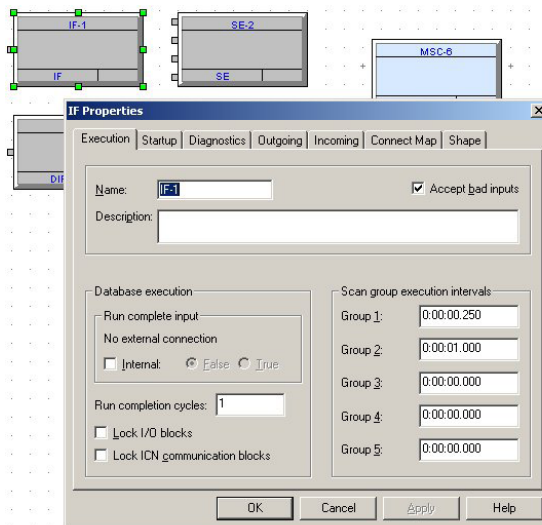
APPLIES TO: MOD 30ML Controllers

DATE: December 2006

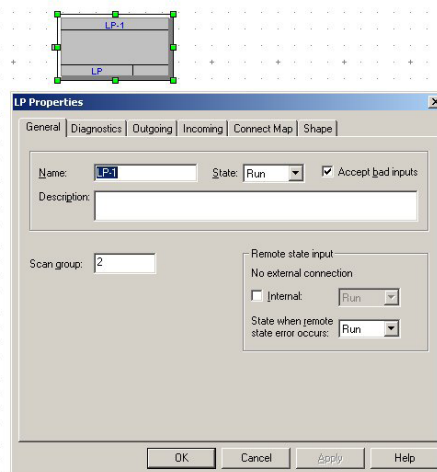
This TechNote describes how to create a “heartbeat” signal in MOD 30ML and indicate it on the front display.

Build the Heartbeat Signal

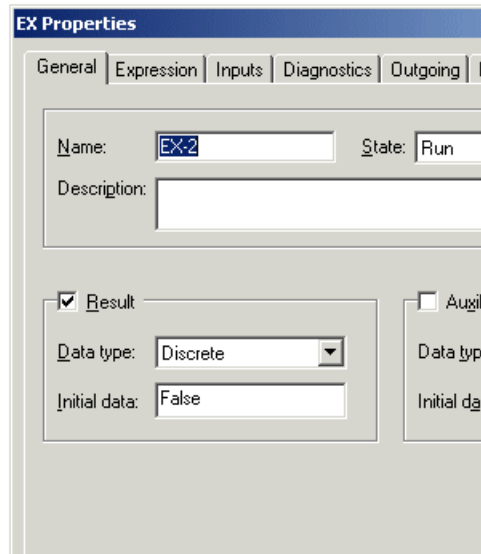
1. In the Interface Block, create a new Scan Group with a scan time of 1 second. There will be nothing in this scan group except for the “heartbeat”.



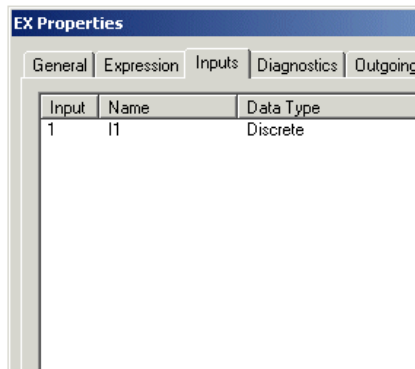
2. Place a Loop Compound in the workspace. Open the Loop Compound. Inside the compound, open LP-1 and assign it to the Scan Group created in Step 1.



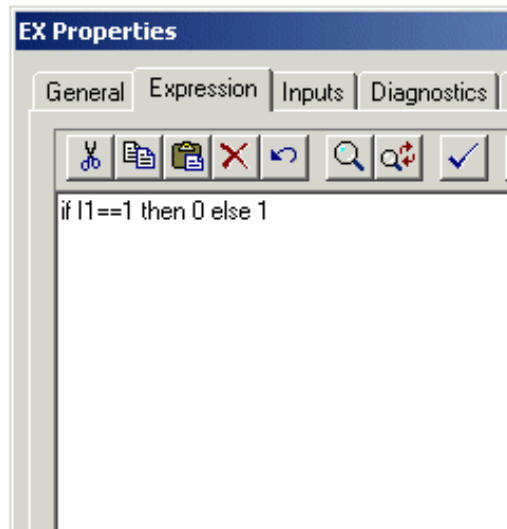
- Place an Expression Block in the compound. Open the expression block. Check the "Result" box and change the Result Data Type to Discrete.



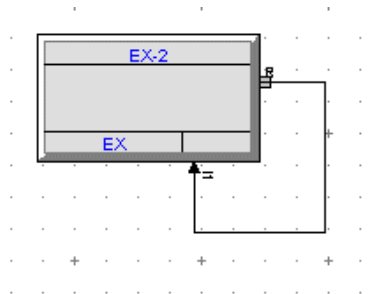
- Click on the Inputs tab of the Expression Block. Create Input 1 with data type "Discrete".



- Click on the Expression tab and enter the expression as shown, then close the EX block.



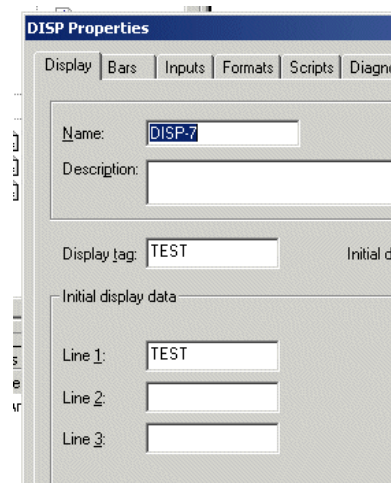
- Connect the result R of the Expression Block to its own I1



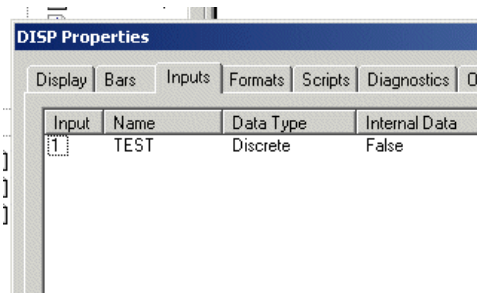
Build a Display to Indicate the Heartbeat

You could also check this through Debug mode in ViZapp or on the Status page in ViZapp instead of building a front-face display.

- Place a DISP block next to the Expression Block
- Open the DISP block and type:
TEST in the Display tag field.
TEST in Line 1 Initial Display Data.

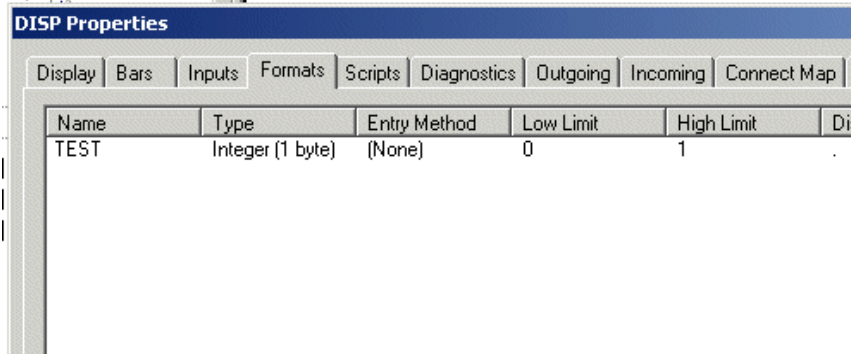


- Click on the Inputs tab of the DISP block.
- Add Input 1 with format name TEST and Data Type Discrete.

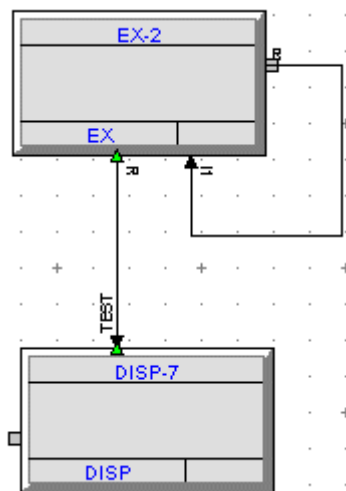


- Click on the Formats tab. Add a new format with the following:

Format name – TEST
 Type – Integer (1 byte)
 Entry Method – None
 Low Limit – 0
 High Limit – 1



- Close the DISP block and connect the Result of the Expression Block to Input 1 (TEST) of the Display Block.



- Remember to add the Display Tag TEST to the Display List in the DIF block before compiling and downloading or you will not see your display.