

you to write it in separate blocks. Before attempting to write a very large program you should go to the very last programming block available to you and put the end statement there and no where else. The end statement can be used in debugging by ending the program early and disabling commands that fall after the end statement.

X001 Y001	Y001	rung one
-   --- / ---[01000 TON T002]-[01000 TOF T003]-----	( )--	
X001	Y002	rung two
--   ---+-----	( )--	
Y002		
--   ---+-----		
X001 R006		
--   --- / ---[01000 TON T004]-----+-----[D150 + 1 -> D150]-	R006	rung three
	+-----[01000 TOF T005]---( )--	
-[D150 >200]-----	Y003	rung four
Y003	( )--	
-   -----	[ 0 MOV D150]--	rung five
--(END)-----		END rung

Example two is a bit more complicated than example one, but once you understand it you'll be on your way to being able to design your own relay ladder logic. Rung one is especially interesting. A TON and a TOF combination that lets output Y001 cycle on and off for 10 seconds at a time. While TON waits a given time before allowing an energized input to affect an output, TOF waits a given time before de-energizing an output after it's input has been cut off.

Let's analyze the rung. The -|/|- conditional with X001 is there for good programming, it isn't actually necessary in this rung but if it's not there you have no way to stop the oscillating of Y001 during the PLC's operation. Now notice that we're not allowing current to flow if Y001 is energized yet the output of this rung is to energize Y001. Well, if Y001 is off then current is passed to TON. After TON has gone through it's specified time it will energize Y001. Now that Y001 is energized current to the rung is cut off. Once the current has stopped TOF will keep Y001 powered for a specified amount of time before Y001 feels the affects