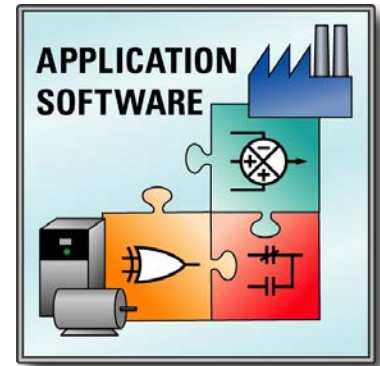


# Drive Application Software Application Set

Application Set Title	Positioning Load - Multiple Conveyor System		
Drive Product	PowerFlex® 40 AC Drive		
File Name for (AS)	AS_PF40_Pallet_Conveyor.dno		
Date / Firmware Rev	02/27/06	-	3.03



**Attention:** This document and related file(s) are designed to supplement configuration of the listed drive product. The information provided does not replace the drive products user manual and is intended for qualified personnel only.

**Description:** Programming a PowerFlex 40 drive to position a load in a multiple conveyor system. Two Proximity switches, "Decel" and "Stop" are used to position the load on the conveyor. A fast speed is used until "Decel" is made, at which the drive decelerates to a slow speed. When the "Stop" is made the drive stops. If the drive stops and "Decel" is past, the drive automatically reverses at a creep speed until the "Decel" is seen. The next Start signal sends the load to the next conveyor.

*Note: See supporting document Pallet\_Conveyor.doc for control wiring diagram, block diagram and step logic profile diagram.*

**Example Application:** Pallet conveyor system.  
See Document Pallet\_Conveyor.doc for details.

**Limitations:**

**Options & Notes:** A jog forward PB is required for manual control with a selector switch for direction. Start, Stop and Forward/Reverse are controlled by terminals 01 – 03.

## Drive Input & Output Connections:

Inputs	Function	Description
DI 1 Sel	2-Jog	
DI 2 Sel	23 – Logic In1	
DI 3 Sel	24 – Logic In2	
DI 4 Sel	(0 - Not Used)	
Outputs	Function	Description
Relay Out Sel	0-Ready/Fault	
Relay Out Lvl	0	
Opto Out1 Sel	2-Motor Running	
Opto Out1 Lvl		
Opto Out2 Sel		
Opto Out2 Lvl		

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## Parameter Configurations

Par	Name	Value	ENUM	Description
36	Start Source	1	3-Wire	
37	Stop Source	0	Ramp	
38	Speed Reference	6	Stp Logic	
39	Accel Time 1	1	Seconds	
40	Decel Time 1	1	Seconds	
51	Digital In1 Sel	2	Jog	
52	Digital In2 Sel	23	Logic In1	
53	Digital In3 Sel	24	Logic In2	
54	Digital In4 Sel			
55	Relay Out Sel	0	Ready/Fault	
56	Relay Out Level			
58	Opto Out1 Sel	2	Motor Running	
59	Opto Out1 Level			
61	Opto Out2 Sel			
62	Opto Out 2 Level			
64	Opto Out Logic	0	1=N.O./2=N.O.	
65	Analog Out Sel			
66	Analog Out High			
67	Accel Time 2	1	Seconds	
68	Decel Time 2	1	Seconds	
70	Preset Freq 0	70	Hz	
71	Preset Freq 1	70	Hz	
72	Preset Freq 2	20	Hz	
73	Preset Freq 3	0	Hz	
74	Preset Freq 4	8	Hz	
75	Preset Freq 5	0	Hz	
76	Preset Freq 6	0	Hz	
77	Preset Freq 7	0	Hz	
140	Stp Logic 0	00F1		Start the Drive and ramp to Run at 70 Hz (preset 0) in the forward direction. Transition to Step 1 after St logic Time 0.
141	Stp Logic 1	00F2		Step 1 Runs at 70 Hz (preset freq 1) till Decel (Logic In1) is met.
142	Stp Logic 2	00F3		Decelerate drive to 20 Hz(preset Freq 2)
143	Stp Logic 3	0814		Run at 20 Hz Until Stop switch (Logic in 2) is triggered. When triggered decelerate to stop.
144	Stp Logic 4	187F		If an over travel had occurred, reverse drive at 8 Hz until Decel is active and then Stops.
145	Stp Logic 5			
146	Stp Logic 6			
147	Stp Logic 7			

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Par	Name	Value	ENUM	Description
150	Stp Logic Time 0	1	Seconds	
151	Stp Logic Time 1		Seconds	
152	Stp Logic Time 2		Seconds	
153	Stp Logic Time 3	1	Seconds	
154	Stp Logic Time 4		Seconds	
155	Stp Logic Time 5		Seconds	
156	Stp Logic Time 6		Seconds	
157	Stp Logic Time 7		Seconds	