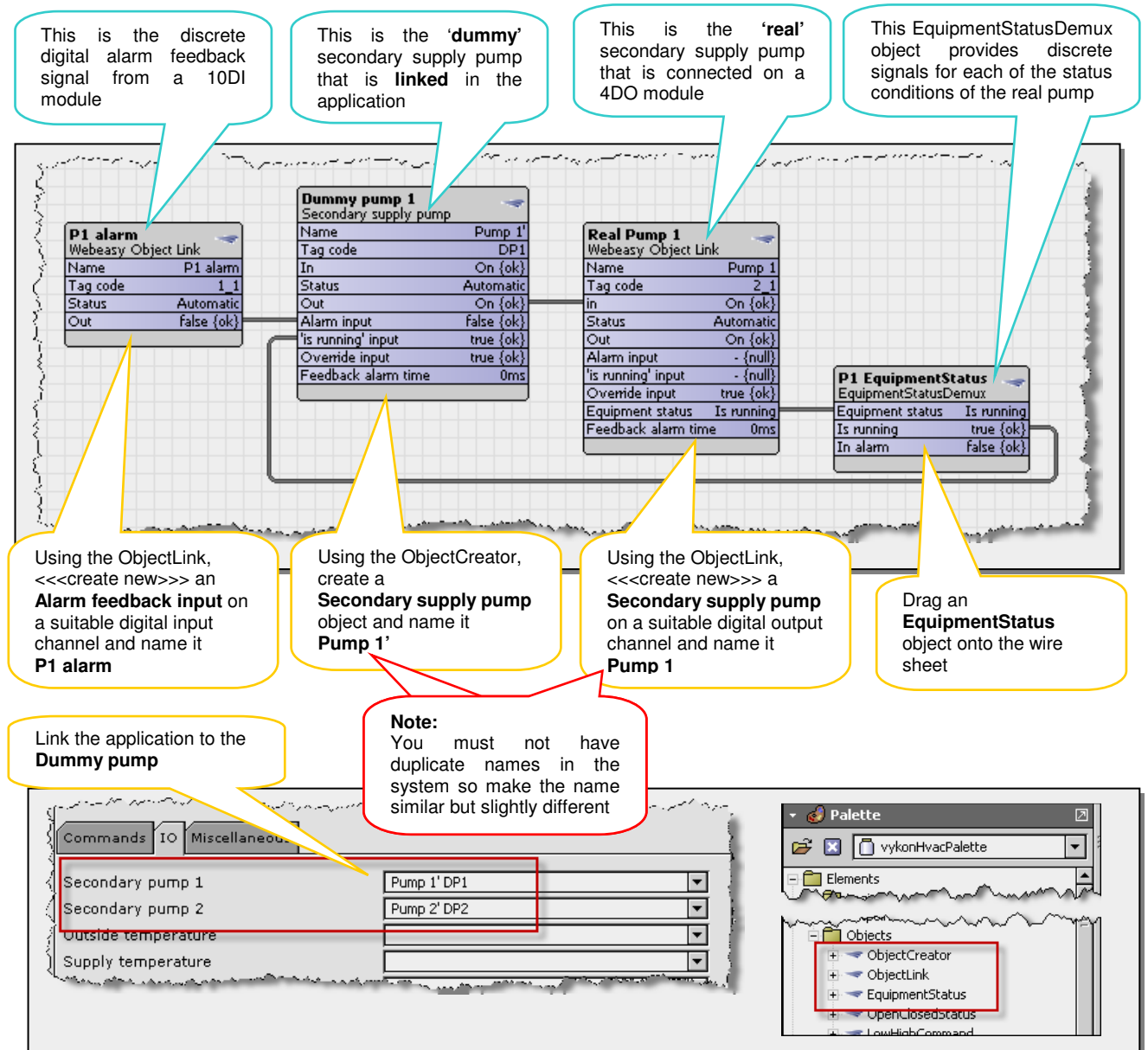


## EN-34: Using discrete inputs for equipment run and alarm status

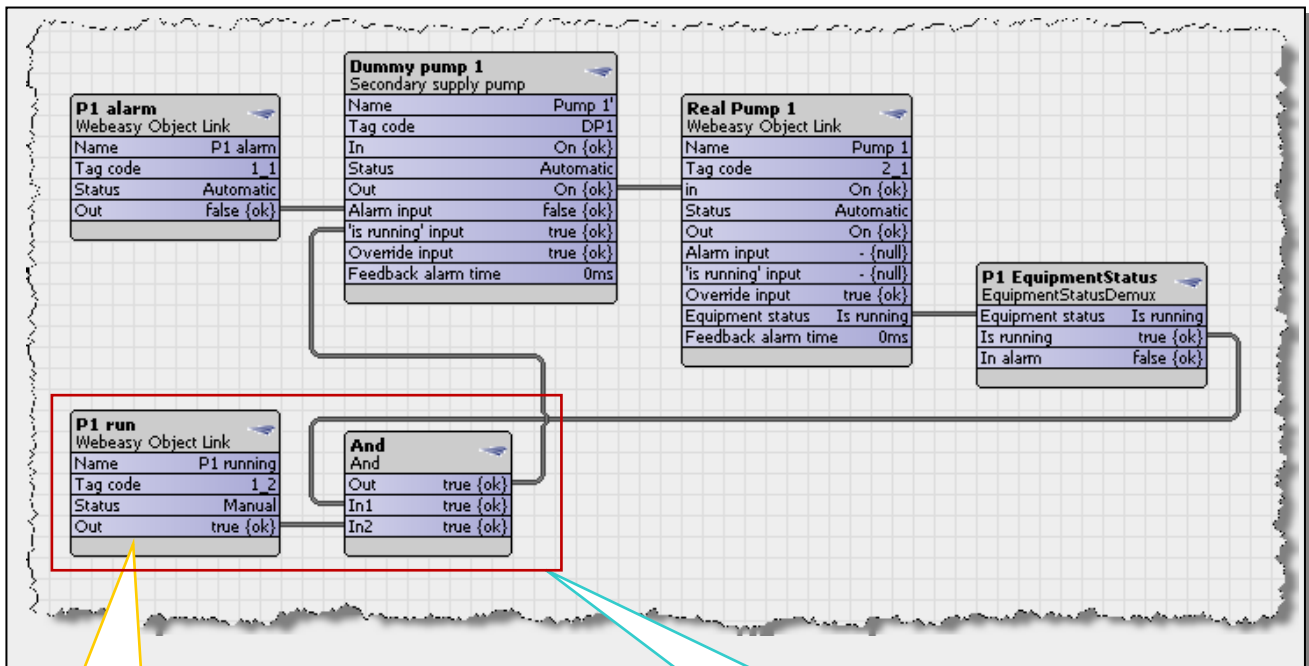
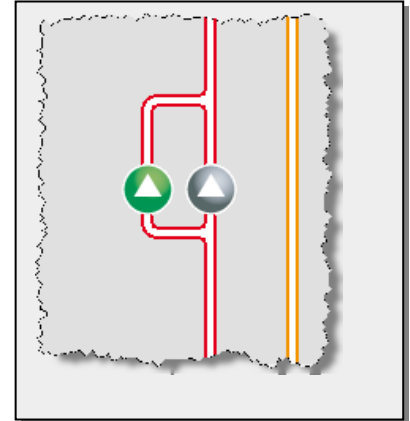
- Under some circumstances such as when you are using a digital output on a 4DO module or a 4AOH-3DO module for connected equipment, you may need to add an alarm or a feedback signal. This will effectively rebuild the equipment group 'device object' to preserve the control strategy and graphical operation of the application. This engineering note describes how to add both alarm feedback and running feedback signals to a digital output channel
- To illustrate it, this example will assume that two outputs of a 4DO module are being used as two 'secondary supply pumps' in a heat delivery application. When in alarm, the alarm feedback will initiate the auto-changeover function of the twin pump set. The same feedback process however, can be applied to any Vykon HVAC equipment group such as boilers and fans
- This example makes use of ObjectLink, ObjectCreator and EquipmentStatus objects which are located in the vykonHvacPalette. For each pump, a 'dummy' pump is created and it is this which is controlled by the application and effectively drives the real pump and the graphical view. We first simply add the alarm feedback and then optionally, the running feedback signals to the dummy pump object



Module 01   10DI		10DI		
I/O	Description	Info	Status	Terminals
DI1	1_1	Alarm input	false	1
	P1 alarm			+/24VAC
DI2	1_2	Status input	true	2
	P1 running			+/24VAC
DI3	1_3	Alarm input	false	3
	P2 alarm			+/24VAC
DI4	1_4	Status input	true	4
	P2 running			+/24VAC

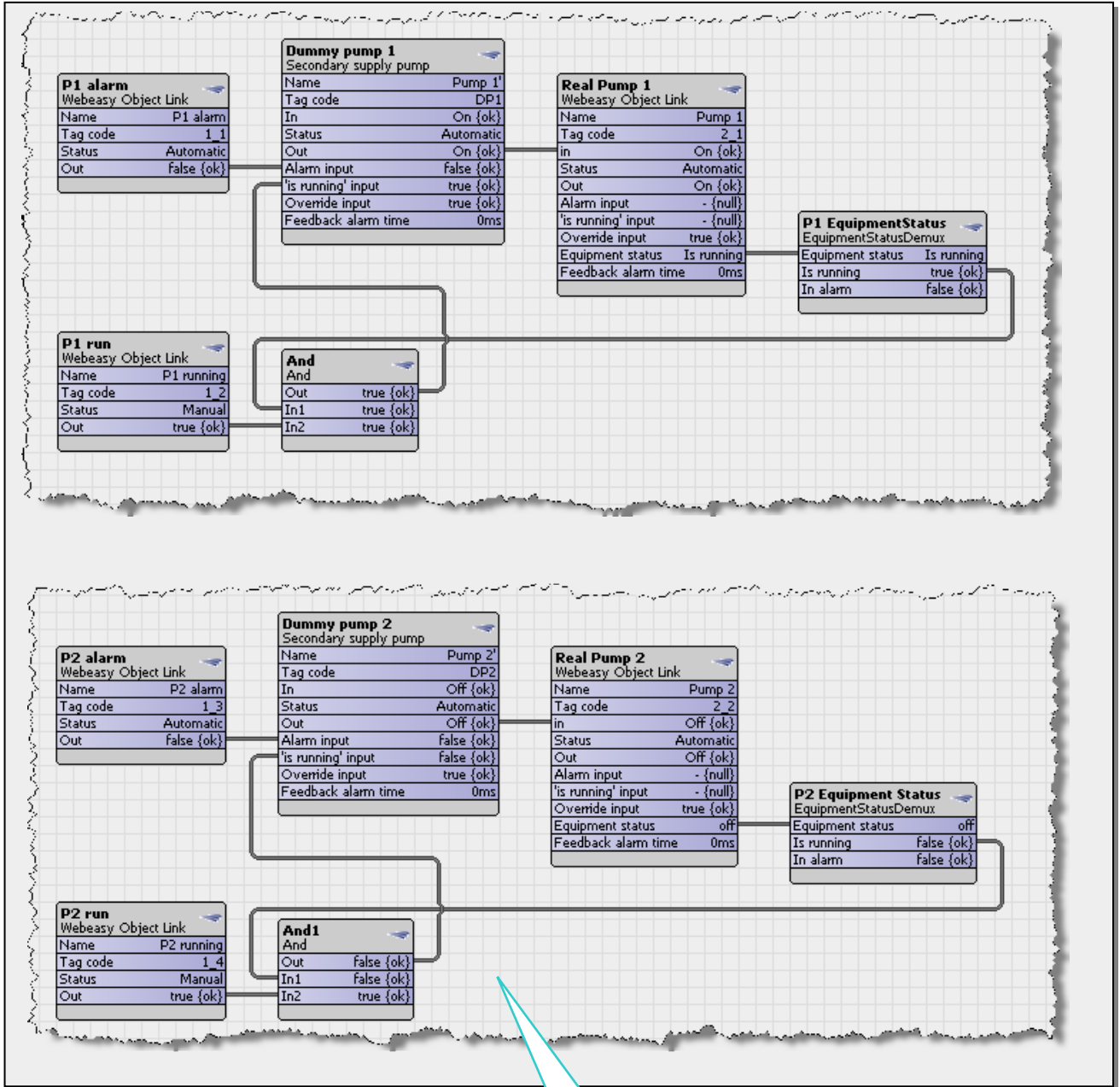
  

Module 02   4DO		4DO		
I/O	Description	Info	Status	Terminals
DO1	2_1 Pump 1	-	On	NO-14
				P-11
				NC-12
DO2	2_2 Pump 2	-	Off	NO-24
				P-21
				NC-22



Using the ObjectLink, <<<create new>>> an **Feedback 'is running'** on a suitable digital input channel and name it **P1 running**

Add this logic if you want to provide the **Running feedback**



Repeat the logic for Pump 2...

