

IT BEGINS WITH ARGUS

Argus has irrigation software where you can set up recipes for misting or watering. Each recipe pulls sensor information from a sensor or group of sensors in an environmental zone, does some math and then decides to water. The way it sends the message to water is by triggering a 24 volt signal on a specific relay output on a D8. In the old days the D8 output would open a 24v solenoid valve directly connected to the relay. Now we have the Boom Spooler. To the Argus, the Boom Spooler looks like 16 solenoid valves controlling 16 mist/irrigation zones.

It's a good idea to keep things simple and use (2) dedicated D8s in your Argus. Wire the outputs from the first D8 into Spooler inputs 1-8, matching output-to-input, and the outputs from the second D8 into inputs 9-16. When an Argus recipe triggers the 1st output of the 1st D8, which is wired into Spooler input #1, the spooler does its magic and broadcasts a command to all the booms to water crop 01. Trigger the 2nd output of the 1st D8, wired to the Spooler input #2, and the spooler broadcasts a command to all booms to water crop 02, and so forth.

Here's exactly how that works: There are 16 inputs on the spooler. There are 16 possible crops in each boom. When Spooler input #5, for instance, is energized, the spooler sends out a message to all booms to water crop 05. Any booms that have an active crop 5 (zones, valves, & passes defined), water it. Any booms which don't have a crop 5 (maybe they have only 4 crops total) or have an inactive crop 05 (zones, valves, or passes not defined) don't water.

So how do you use this practically? There are two considerations:

First, all booms networked to a given spooler basically share the same pool of 16 crops. See, all crop 01s tend to be watered in roughly the same way (or at least at the same time). So you don't want to have one boom with crop 01 = cacti and another with crop 01 = petunias. The same goes for crops 02-16. You need to make sure that you either keep the same plants in the same crops across all booms (i.e. crop 01 = petunias everywhere), or divvy up the crops between different booms (i.e. boom 1 has crops 1-4, boom 2 has crops 5-8, and boom 3 has crops 9-16, etc.). You do this by making boom 1 have 4 total crops, all active, boom 2, 8 crops with only crops 5-8 active, and boom 3, 16 crops with crops 9-16 active.

Second, how do you deal with different environmental zones? Say Zone A is drier than Zone B. Then if the spooler uses sensors in Zone A to water crop 01 everywhere, then booms in Zone B might water their crop 01s too often. You'll need to divvy up the crops between the environmental zones. So booms in Zone A might have only 8 crops (crops 1-8); and booms in Zone B might share (or divvy up) the remaining 8 crops (9-16).