

Correspondence and Receipts...PO Box 552, Grafton, MA 015019

Setting up Irilink+ Schedules

Irilink+ is a new version of the original Irilink but with the use of soil moisture threshold. This new Product still allows for automated 3 schedules for all outputs as well as as manual count down runs for outputs. But we have also added the ability to hold a schedule off if the soil moisture from the radio is higher then the set reading. Depending on your system configuration you may have only 8 Outputs on one tab or two tabs with a total of 16 Outputs. Setup is the same for both configurations with 16 Output just having twice as many Outputs to configure.

To start with lets go over each of the different functions you would find on a Irilink+ system and their purpose.

Cascade Link

Cascade link allows users to link multiple schedules to one another. For example if I were to cascade link

RCB 1 Schedule Cascade Link 1			
Cascade link 1	Cascade link 2	Cascade link 3	Cascade link 4
0	0	0	0

Output 2 from 1, It would clear the schedule start times of Output 2. Then it would replace it with a appropriate time to allow the schedule to run right after Output 1's schedule. As the name implys the schedules will cascade from one to the next. This way if you wanted to water multiple greenhouses but only have enough pump GPM for one green house you could use cascade in place of that.

You can no longer adjust the start time if a output once it has been cascaded from another output, but you can change the outputs run time and DOW selection which also adjust and the next sequential cascaded output. All start times adjust automatically when run-times are changed.

RCB Status 1

The RCB status 1 control block consist of two fields.

RCB 1 Status 1	
RCB1_SlaveID	CommErr1
1	0

The first field being Slave ID. This is the MODBUS ID of the RCB. Usually this would be 1 for 8 valve systems or either 1 or 2 for 16 valve systems. The second field is Comm Errors. This tells us if the RCB is online and found.

IF CommError reads 0, your RCB is on and functioning. If CommError reads 1 or higher, usually the RCB may no longer be reading. To ensure that a CommError is true write a 0 into the CommError slot and read the box. If there is a Comm issue the number should start increasing slowly to 10 after multiple box reads. If there is no comm issue nothing should change.

RCB Status 2

RCB 1 Status 2

RCB 1 Manual RCB1 Override

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The RCB status 2 control block consist of two fields, the first being a read only check box and the other being a writable field.

This check box shows if the RCB is in manual mode. If the Manual mode button is activated physically on the front of the box this check box will be marked. This can be useful to determine if a RCB was accidentally left in manual mode. When in that mode, previously configured schedules will not function until the box is put back into normal operating mode.

RCB 1 Status 2	
RCB 1 Manual	RCB1 Override
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The Override checkbox is a configurable setting, If you would like users to not be able to use manual mode on the box, check the setting and write to the box. When activated, any time a user physically comes up to the RCB and tries to manual turn on outputs, the user will no longer be able to turn on outputs but instead be greeted with a blinking manual button light. In this mode you can still see weather or not its in manual by looking at the Manual mode checkbox.

NOTE: when manual override is activated and the RCB is in manual mode, schedules will still run.

RCB Soil Moisture Threshold

A new feature specific to Irilink+ allowing users to hold off a output's schedule if a radio reports soil moisture above a certain user defined level. This way you can now prevent accidental over watering for a specific output/zone.

RCB 1 Soil Moisture Threshold 1			
Thres 1	Thres 2	Thres 3	Thres 4
0.0	0.0	0.0	0.0

Now depending on the system con-fig you may have 8 or 16 soil moisture slots. Each threshold slot is hard coded to its equivalent radio slot. For example radio 5 is to Output 5, Radio 15 to Output 15 and so on. Also Soil moisture threshold as the name imply's only works with soil moisture radios. It will not work with other sensor types. You **cannot** mismatch radio slots to other outputs as they are hard-coded as mentioned before.

As mentioned before Soil moisture holds off a schedule from activating. If at some point during the runtime of a schedule the threshold UN-trips, the Output will turn to finish the remaining time. For Example if you scheduled output 1 for 1 hour at 15:00 hours with a soil moisture threshold of 50%. Radio 1 reports a SM of 70% right before the schedule is supposed to run. This in turn causes output 1 to not turn on. Lets say at 15:20 the radio reports a SM of 20%. Now Output 1 will be on until 16:00 hours unless the radio reports a SM of 50% or higher.

RCB Outputs

RCB outputs consist of 5 parts each vital to the automation of each Output. Depending on your system Configuration you may only have 8 Outputs or 16 total split into two tabs 1-8 on one and 9-16 on another.

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Start Time

The First part of any Output control block for RCB's is the start time. As you can see you can enter a total of 3 different start times per a Output. Each one is a valid start time and could be used to run a output up to 3 times in one day.

RCB 1 Output 1		
Start 1	Start 2	Start 3
0:00	0:00	0:00

NOTE: all start times are done based on the 24 hr clock, for example 12:00 is noon time, 16:00 is 4pm and so on.

Run Time

The next field is run time. This field is important as it determines the total run time of that schedule, without it the schedule wouldn't know for how long to run. In automated schedules this number doesn't change but if a user were to do a manual run of a output using Harvest-Watch, this number counts down to zero when the output is on.

Run Time
0.0

Day of week (DOW)

Day of the week is a important as it determines what days a automated schedule. This allows the User to decide what days the written schedule for that output should run. This way you could program multiple outputs to run on completely different days.

S	M	T	W	T	F	S
<input type="checkbox"/>						

ON/OFF

On/Off shows Users the current state of a given output. Users can also use this to manually run a output for the set runtime by checking the checkbox and writing to the system.

Group

Groups allows users to follow multiple outputs to one output. This way one output's schedule can control multiple outputs. To setup a group determine which output is the one you would like to follow for example Output one would be group 1 and output 8

Group
1



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would be group 8. Now set the main output to the group number, example being set Out one to group 1. If you forget to do this, groups do not work. Next set the outputs you would like to follow your main output to its corresponding number. For example if your main output is 1, You both set Output 1 group to 1 and any other outputs you would like to follow 1 to group 1. Now to operate this group set your main output with a DOW, run time and start time. Now when your scheduled main output turns on, all your other grouped outputs should turn on. Note, manual starts will not activate groups, only schedules.