

Irrigation: several times a week

A cultivation in the soil has to be irrigate several times a week.

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1. Create a worksheet

First, create a worksheet '21 Several times a week'.

Proceed as follows:

1. Create a folder '21 Several times a week' in My explorer
2. Drag the setting lists and the waterconnections survey form the Hoogendoorn explorer to this folder
3. Drag them on to the worksheet

The screenshot shows the iSi Explorer software interface. The left pane displays a tree view of the project structure, with a folder named '21 Several times a week' highlighted. The main pane shows the configuration for 'Crop section control - Gr 1'. The settings table is as follows:

Settings	Unit	Value
start cycle		manual start
stop cycle		No
start later: start time	h:m	20:00
valves simultaneous maximum number		1
control time/lines		cc/plant
phase 1: pre-supply		0.00
phase 2: supply		80.00
phase 3: after-supply		0.00
EC control: EC value phase 2	EC	2.3
EC control: EC value phase 3	EC	0.0
pH control: pH value	pH	5.5
EC control: type of control		Selection
pH control: type of control		Selection
pH control: acid/alkali supply		acid supply
fertilizer phase 2: number		1
fertilizer phase 3: number		0

Below this, the configuration for 'Valves group 1 - Gr 1' is shown with the following settings table:

Settings	Unit	Value
% water supply relative to crop section phase 1	%	100.0
% water supply relative to crop section phase 2	%	100.0
% water supply relative to crop section phase 3	%	100.0
more valves allowed simultaneously		No
area valve section	m ²	382
type of valve		rain valve

2. Pump

The setting list of "Pump" you can adjust to the following list:

The screenshot shows the configuration for 'Pump - Gr 1'. The settings table is as follows:

Settings	Unit	Value
pump stop / continue		
pump pause time	h:m	00:00
valves simultaneous maximum number: VIP		4

pump: stop / continue

In this setting you can choose from:

- set pump to pause: irrigation is paused until midnight
- let pump continue: the alarm is cancelled, irrigation continues from the same point where the pump was stopped for an alarm or pause

pump: pause time

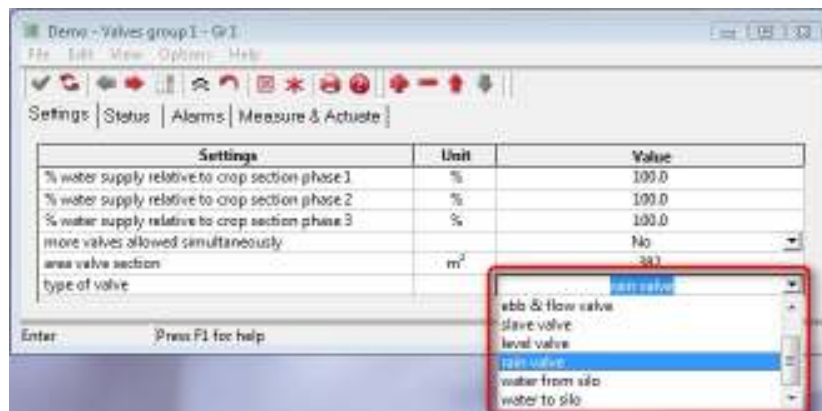
These settings are used to specify a pause. The pause time then counts down. Once the pause time has elapsed, irrigation starts at the same point where the pump was stopped before the pause.

valves simultaneous maximum number: VIP

This setting allows you to set or more valves may be opened simultaneously.

3. Valve group 1

The setting list of "Valves group 1" you can adjust to the following list:



% water supply relative to crop section phase 1

% water supply relative to crop section phase 2

% water supply relative to crop section phase 3

These settings enable you to set the percentage of the water supply relative to the crop section. Normally these settings would be 100%.

more valves allowed simultaneously

This setting allows you to set or more valves may be opened simultaneously.

area valve section

Input the area of the valve section in this setting.

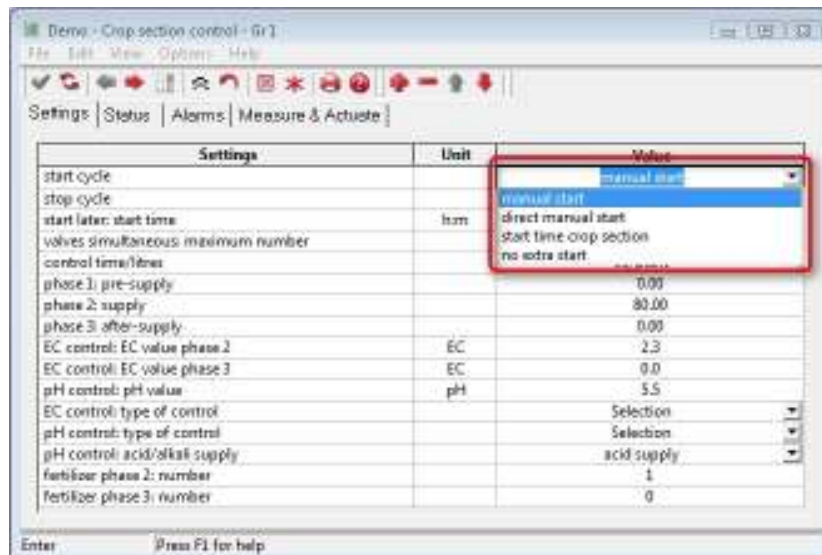
This setting is used to control the water supply in l/m2.

type of valve

You can choose for example: rain valve.

4. Crop section control

The setting list of 'Crop section control' you can adjust to the following list:



start cycle

You can give an extra cycle with a manual start or start time.

stop cycle

If this setting is set to 'yes' while the crop section is active with the pump, the current cycle is stopped completely.

start later: start time

This enables you to specify in the morning that a cycle must be started in the afternoon or evening. In the 'start cycle' setting you must choose start time crop section.

valves simultaneous: maximum number

This setting is used to specify the maximum number of valves that may be opened simultaneously.

control time/litres

You can choose:

- volume in m3
- litres per m2
- cc per plant
- time
- cc per m3

phase 1: pre-supply

During Phase 1, no fertilizer given. This is always clean water.

This phase is often used in open ground to wet the ground, so water and fertilizer during Phase 2 disappears not directly in the soil.

phase 2: supply

During Phase 2 fertilizer is given.

phase 3: after-supply

Phase 3 is used, for example, to give spreader.

EC control: EC value phase 2

EC control: EC value phase 3

pH control: pH value

The target value for the EC in phase 2 and 3 and the target pH.

If the water stops due alarm, and the alarm is not canceled within 15 minutes, it is automatically started Phase 3: after-supply with clean water.

EC control: type of control

You can choose one or more options in this setting:

- phase 3 EC supply
- phase 2 EC supply
- phase 3 EC recirculation
- phase 2 EC recirculation
- phase 1 EC recirculation

pH control: type of control

You can choose one or more options in this setting:

- Phase 3 pH active
- phase 2 pH active

pH control: acid/alkali supply

You can choose one or more options in this setting:

- supply alkaline
- supply acid

fertilizer phase 2: number selection

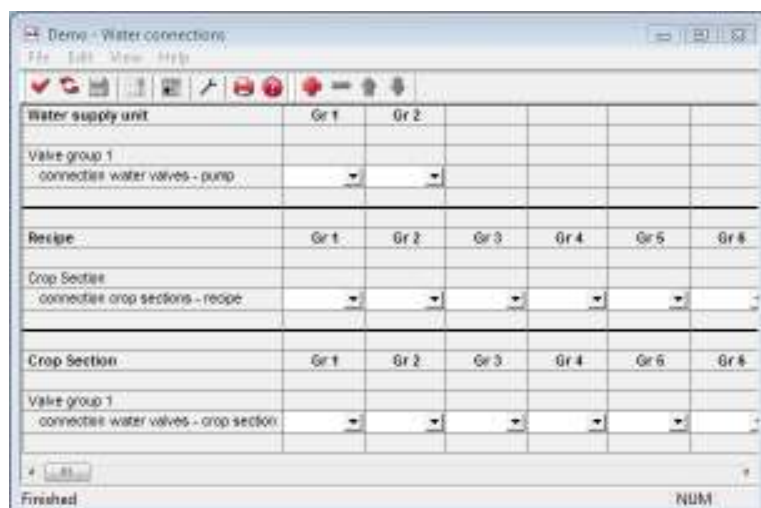
fertilizer phase 3 number selection

Different fertiliser types can be used for phases 2 and 3.

An option can be chosen for each phase in these settings.

5. Water connections

You can adjust the group connection survey of the Water connections as follows:



Then the valves and crop sections can be connected as the following example:

Demo - Water connections			
File Edit View Help			
Water supply unit	Gr 1	Gr 2	
Valve group 1			
connecter water valves - pump	Gr 1 ▾ Gr 2 Gr 3 Gr 4 Gr 5 Gr 6 Gr 7	▾	
Recipe	Gr 1	Gr 2	Gr 3
Crop Section			
connecter crop sections - recipe	Gr 1 ▾ Gr 2	Gr 3 ▾	▾
Crop Section	Gr 1	Gr 3	Gr 3
Valve group 1			
connecter water valves - crop section	Gr 1 ▾ Gr 2 Gr 3 Gr 4	Gr 5 ▾ Gr 6	Gr 7 ▾