



OASIS



*Professional Internet enabled
controller for single irrigation head*

The **OASIS** is the next generation of stand-alone DC irrigation controllers offering 24vAC or 12vDC latch output commands.

The **OASIS** is an **Internet enabled controller**, it allows the user to control everything from everywhere via the internet on any platform. (Windows, Linux, Android, iOS...)

The **OASIS** has **Radio Remote Terminal Unit** capability (RF RTU). This allows controlling small to medium size projects without wires in the field.

The **OASIS** is a professional feature packed controller offering the same robustness, user friendliness and low power consumption which our users have grown accustomed to for many years worldwide.



OASIS - General Features

Outputs:

- Modular structure 4, 8, 12, or 16 outputs (12vDC 2-wire latch)
- Additional interface 8 or 16 outputs (24vAC)
- Outputs may be configured as:
 - 0 or 1 main valve
 - 0 or 1 fertilizer injector
 - 0 to 9 filter stations
 - Irrigation valves – as many as available outputs

Inputs:

- Standard inputs:
 - Water meter
 - Fertilizer meter
 - Pressure sensor
 - Differential pressure sensor
- Optionally 1 input can be converted into a start contact

Irrigation:

- Water dosage either by time or by volume
- By days of the week or by cycle of days
- Single cycle or pulse irrigation
- Start: by time , by start contact or manually
- Allows irrigating valve by valve or by valve groups
- Main valve operation can be delayed, advanced or together with the irrigation valves

Fertilization:

- Fertilizer dosage by time or by volume
- Injecting fertilizer continuously or proportionally
- Proportional fertilization modes: time/time; volume/volume; time/volume; volume/time
- Fertilizing in three stages: pre-watering, fertigation and post- watering

Filter back flush:

- Flushing by time, by DP or by both
- Definable parameters: Flushing interval; Dwell time
- Endless looping detection and prevention
- Accumulation of flushing cycles

Alarms:

- High flow, Low flow, Water leakage, Low pressure
- Fertilizer leakage, No pulses from fertilizer meter
- Endless looping due to DP sensor failure
- Low battery

Communication

- GPRS modem allows complete control from via internet
- Email alarm notifications

RTU (remote radio unit):

- License free
- Up to 16 radio RTU's
- Single cycle or pulse irrigation
- Range up to 3km
- Radio RTU's are modular allowing 1, 2, 4, 6, or 8 outputs
- Radio RTU's can be powered from mains 240vAC, alkaline batteries or by solar panel

Energizing options:

- 4 x standard "D" type alkaline batteries 6vDC (Outputs 12vDC 2-wire latch)
- Solar panel and rechargeable battery 12vDC (Outputs 12vDC 2-wire latch)
- Mains 240vAC (24vAC outputs)

OASIS Radio RTU system

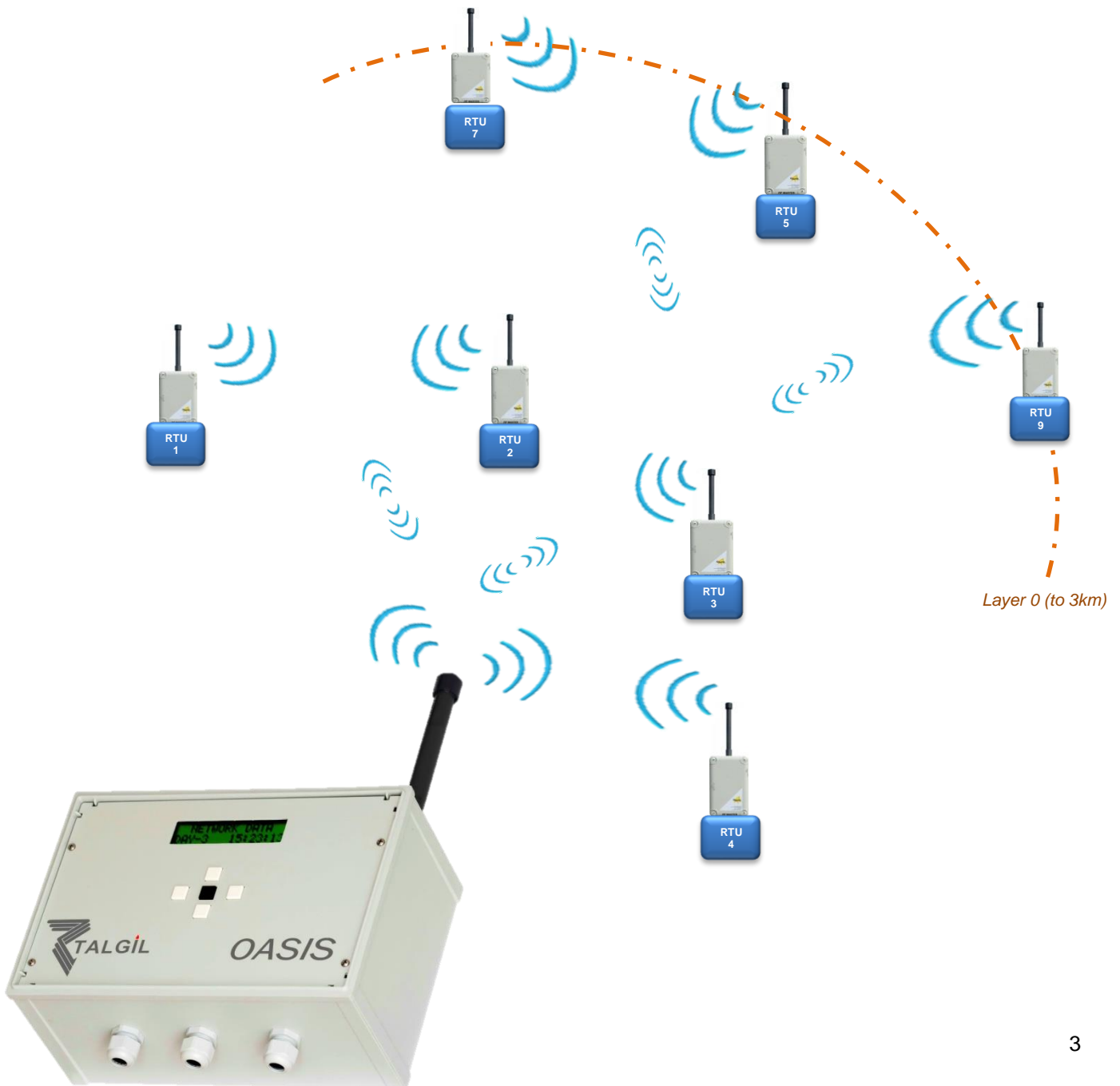
The radio RTU system of Talgil offers a perfect solution for controlling distributed irrigation systems, when using cable is impossible or undesirable.

The system utilizes low transmission energy and therefore no licensing is required. Under good conditions a distance of 3 km can be covered.

The radio RTUs are energized by standard batteries or solar cells and they activate energy saving latching solenoids, therefore they are suitable for use where no electric energy exists.

The bidirectional communication between the RTUs and the control unit enables not only activating remote outputs but also reading remote input, and because each communication gets a confirmation signal the information transfer is highly reliable.

The radio RTU has a modular structure with a maximum capacity of 8 outputs.



OASIS Radio RTU - General features

- Communication radius of 3km
- Bidirectional communication
- Powered by battery, solar energy or mains
- 16 options for channel frequency selection
- License exempt
- RF test mode
- Flexible scanning rate
- No. of outputs -2,4,6,8 (12vDC 2 wired latching)
- No. of outputs -2,4,6,8 (24vAC)
- I/O test mode
- Automatic shutdown of outputs on communication loss and automatic recovery when communication regained
- Visual and sound signaling of statuses by LED and buzzer
- Reporting RTU low battery

OASIS example of web browsing information as displayed on a PC, Tablet or Phone

Targets

1545321131
v0.58
12:39:00
13.5V

Irrigation
Flushing
Hardware
Comm

Irrigating
Not connected
OK
OK

Status
v0.58, 12:40

Battery **13.5V**

Main valve **Opened**

Valves	01 & 02 & 04	irrigating
	02 & 03 & 04	Finished
	03 & 04	Finished
	04	Finished

Water flow 225.00 m3/h

Settings
v0.58, 12:45

System Main valve
01 02 03 04

Current time of controller 12:45

Controller name Fenton Forrest

User name of Affiliate in charge of the controller Ian Penno

Program cycling enabled Yes

Fertigation time format hh:mm

Continue irrigation if no fertilizer No

Requested behavior on High Flow Stop valve and continue

Combine valves into groups Yes

Accumulation by volume for time-based valves Yes

Skip station with high flow No

Water meter ratio 1.00 m3/pulse

Daily irrigation run list length 7

Current irrigation day in the run list 6

Time of stopping all activities 00:00

Limit for water and fert leakage detection 5 pulses

Period of detecting 'no water' 10m

Percentage to min/max flow definitions 75 %

Solenoid voltage 16.00 V

Solenoid pulse duration 100ms

Start contact selector None

v0.58, 11:27

Event log Status Irrigation

I/O Accs Settings

Valve #1
irrigating

01 02 03 04

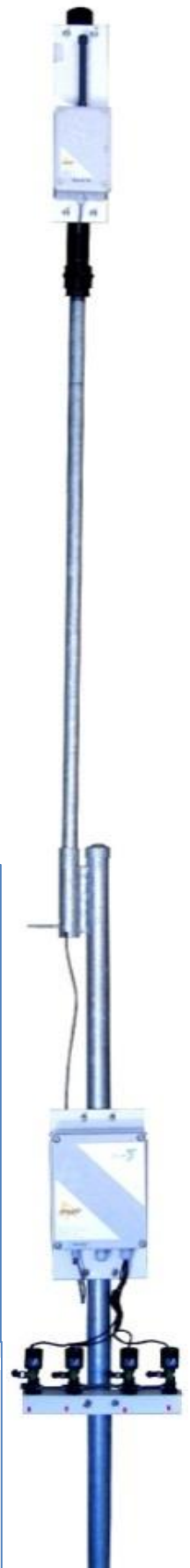
Stop irrigation

Dosage and state >

Schedule >
No schedule

Cycles >
Single cycle

Combining valves >
Grouped 01 & 02 & 04



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