

# GPS- Fleet Management for your Irrigation Equipment



# raindancer - GPS Fleet Management

Using [raindancer](#), you are able to monitor and to control irrigation via smartphone or pc.

Using [raindancer](#) is very easy and it is available for **every irrigation machine.**

## What is it about?

- Information at a Glance
- Fault Detection and Notification
- Dispatching and Scheduling Relocations
- Team Management
- Remote Control
- Documentation





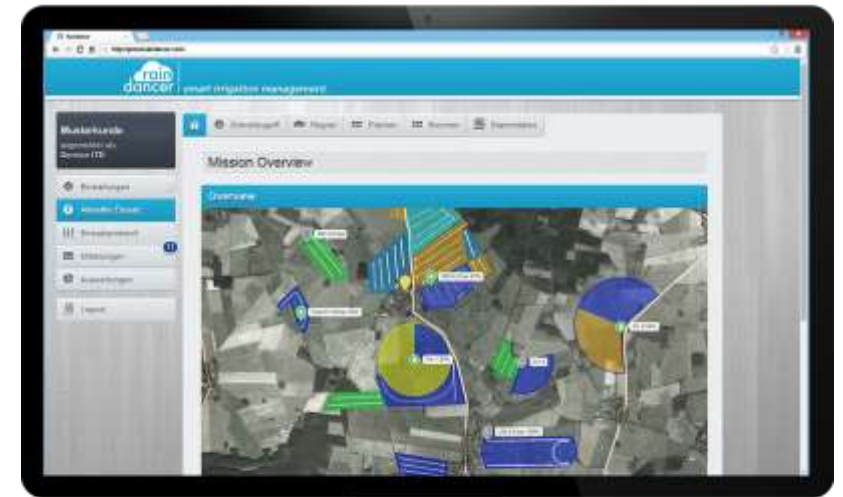
## GPS Solar Module with Pressure Sensor

Continuous Transmission of Position and Pressure



## Smartphone

iPhone / Android



## Maintain Master Data

Web-Browser (Internet Explorer, Firefox, Chrome)

- Fields with Field Boundaries
- Irrigators, Wells and Pumps
- Teams, Users and Farms

- GPS Receiver with Solar-Powered Energy Supply  
(5 Days of Battery Life)
- Pressure Sensor with Connection Cable
- Installation Only on the Gun Carriage  
(No Installation on the Hose Reel)
- Suitable for All Irrigation Machines

Current position and pressure are transmitted to the [raindancer](#) software continuously.



Pivots and linear irrigation machines

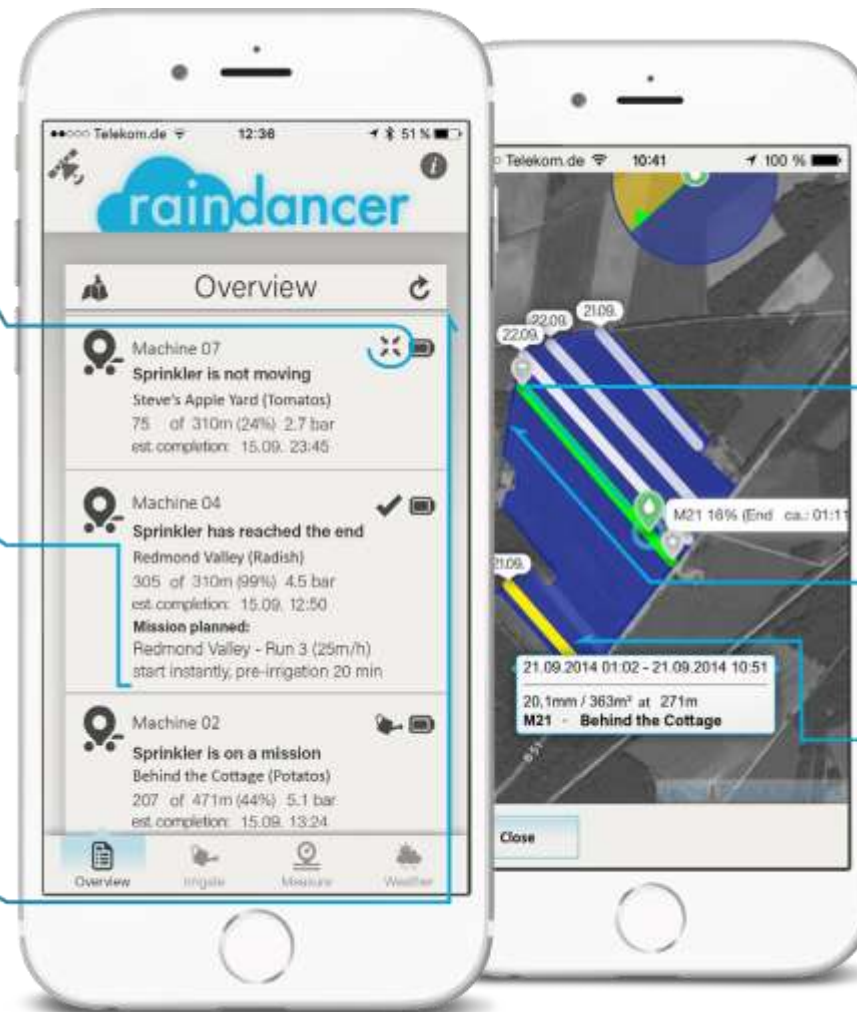


Hose reels




# Operation Overview

Irrigation runs are detected automatically, providing a comprehensive monitoring experience.





## Current States of All Your Machines

-  Malfunctions
-  Completed, Ready for Relocation
-  Active Irrigation

## Every Detail About the Current Operation

- Field
- Distance and Current Progress
- Current Water Pressure
- Estimated Completion
- Scheduled Relocation
- Field, Lane, Irrigation Amount

## Intelligent Order

- Sorted by the Need for Attention

## Monitor the Progress

- Location of the Machine
- Estimated Completion
- Water Pressure

## Keep an Overview

- Completed Irrigation Runs
- Pending Lanes

## Details About Completed Operations

- Time of Completion
- Amounts, Distances

## Order:

- Machines with Malfunctions
- Machines Awaiting Relocation
- Operating Machines Ordered by Estimated Time of Completion
- Machines Currently Not Operating

## Status Information

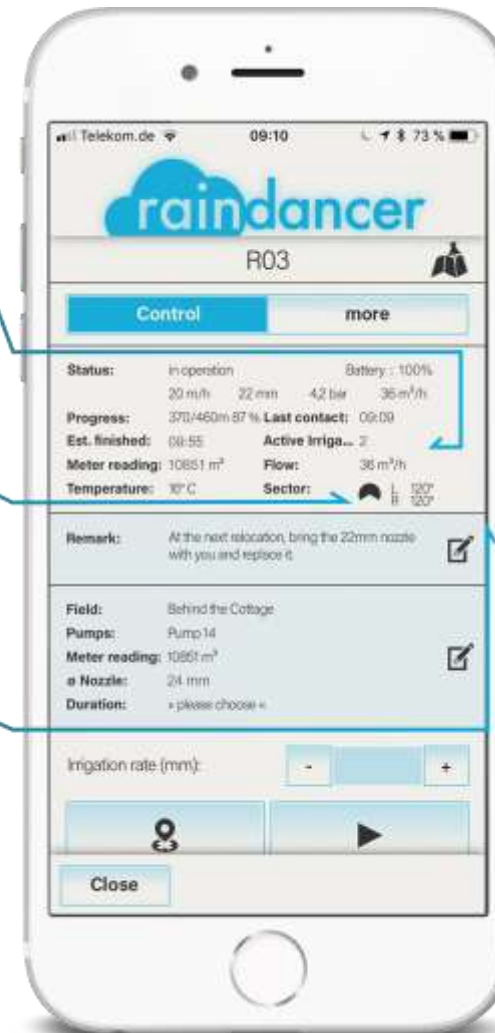
- Pressure
- Irrigation Quantity
- Speed
- Flow Rate
- etc.

## Advanced Functions of the raindancer PRO Module

- Temperature at the Machine
- Current Water Meter Reading
- Sectors of Current Irrigation

## Operation Details

- Irrigation-Related Remarks Help to Organize Daily Work Routine
- Operation Details, Such as Fields or Pumps Recognized Automatically



# Text Messages on Malfunctions

- No Movement
- Pressure Too Low or Too High
- The Gun Carriage Has Fallen Over
- Critical Areas Will Be Reached  
(Building, Street, etc.)

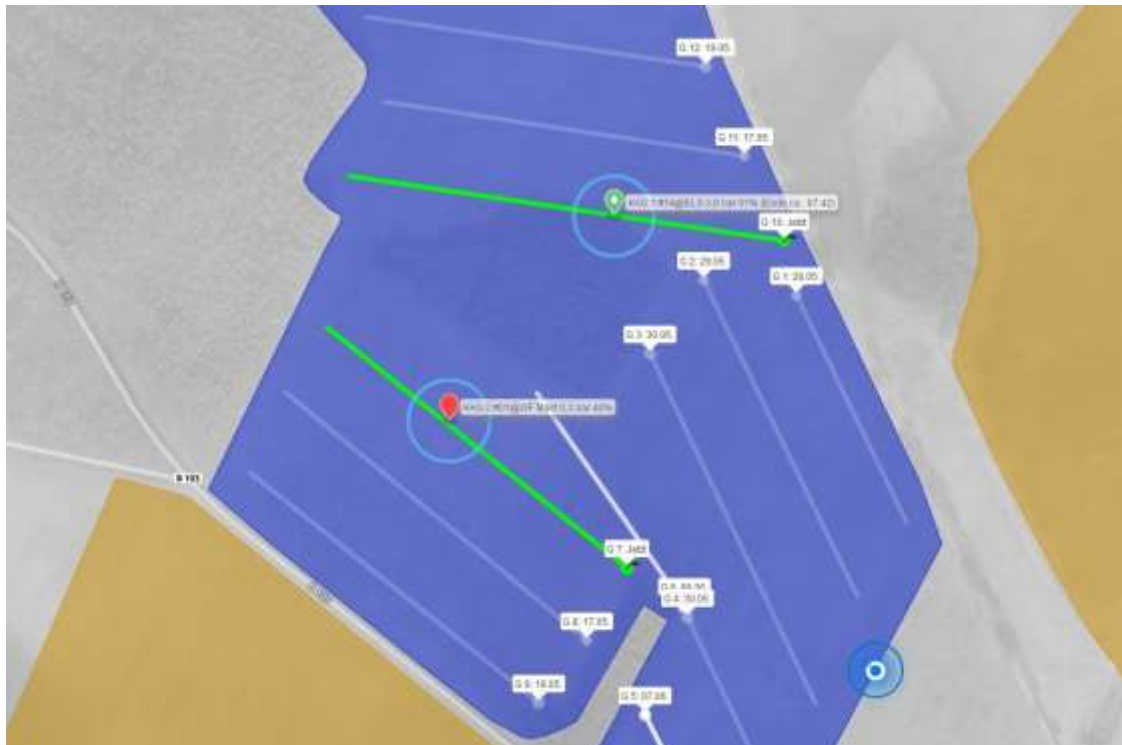


|                               | Alarm areas | Reached Destination | Errors | Warnings |
|-------------------------------|-------------|---------------------|--------|----------|
| <a href="#">mehcötelek.at</a> |             |                     |        |          |
| John Dow                      | ✓           | ✗                   | ✗      | ✓        |
| Max Power                     | ✓           | ✗                   | ✗      | ✓        |
| Reese Field                   | ✓           | ✗                   | ✓      | ✓        |
| Administrator User            | ✗           | ✗                   | ✗      | ✓        |
| Service User                  | ✗           | ✗                   | ✓      | ✓        |

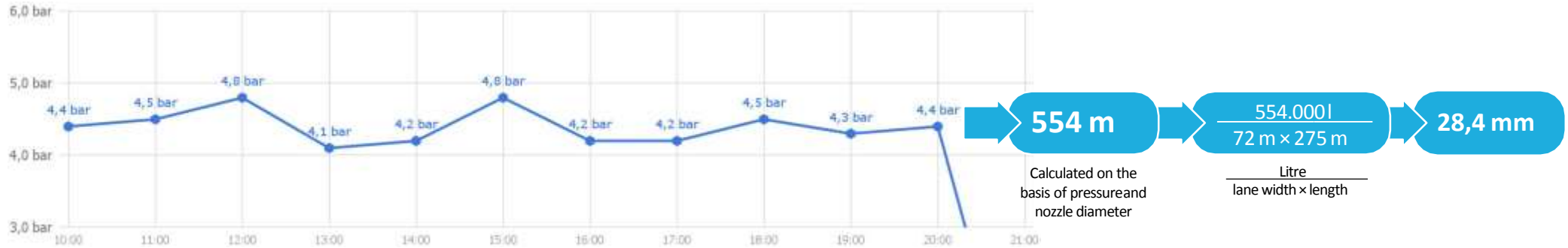
# Planning Relocations



- The App Shows to the Employees Where the Machine Has to Be Relocated to (Field, Lane, etc.)
- The Employees Will Find the Correct Lane Without Any Problem, Even on Difficult Fields



# Calculating Irrigation Amounts



The used nozzle can be adjusted on the smartphone



- The Irrigation Amount Will Be Calculated Based on Pressure and the Gun's Nozzle Diameter
- The Amount of Water Will Be Assigned to the Irrigated Run and Field

# Documentation and Reports



- Automatic Recording  
(Wells, Fields, Irrigator, Amounts, etc.)
- Reports for Authorities
- Management Views
- Accounting Among Several Farms
- Export as Excel
- Access via API Possible  
(Farm Software or Own Applications)

**Mission Protocol**

**Missions**

| Mission Time                               | Irrigator  | Field              | Well    | mm   | m <sup>3</sup> | h    | m   |  |  |
|--|------------|--------------------|---------|------|----------------|------|-----|--|--|
| 09.06.2016 12:04:47<br>09.06.2016 22:09:59 | Machine 01 | Behind the Cottage | Well 1  | 26,1 | 318            | 7,5  | 133 |  |  |
| 09.06.2016 10:42:37<br>10.06.2016 06:38:25 | Machine 02 | Behind the Cottage | Well 1  | 23,8 | 895            | 19,8 | 486 |  |  |
| 09.06.2016 09:44:56<br>10.06.2016 01:43:29 | Machine 08 | Behind the Cottage | Well 1  | 21,1 | 656            | 15,9 | 396 |  |  |
| 09.06.2016 08:57:25<br>09.06.2016 18:38:22 | Machine 05 | Behind the Highway | Well 15 | 21,8 | 444            | 9,7  | 247 |  |  |
| 09.06.2016 06:37:51<br>09.06.2016 08:12:11 | Machine 01 | Behind the Highway | Well 15 | 28,9 | 475            | 0,4  | 192 |  |  |
| 08.06.2016 21:20:39<br>09.06.2016 07:19:29 | Machine 05 | Behind the Cottage | Well 1  | 25,8 | 328            | 10,3 | 167 |  |  |
| 08.06.2016 20:44:06<br>09.06.2016 04:54:24 | Machine 01 | Redmond Valley     | Well 23 | 21,9 | 448,5          | 9,9  | 249 |  |  |
| 08.06.2016 15:49:24<br>09.06.2016 08:16:24 | Machine 01 | Redmond Valley     | Well 23 | 26,3 | 870            | 16,3 | 423 |  |  |
| 08.06.2016 12:09:53<br>09.06.2016 05:04:51 | Machine 02 | Behind the Cottage | Well 1  | 22,2 | 722            | 17,0 | 416 |  |  |

## Export Reports to Excel

Select by Time Spans, Fields, etc.



### Register

| Entnahmestelle / Brunnen | Abrechnungsart | Benutzername | Schlag    | Startzeit           | Endzeit             | mm   | h  | m <sup>3</sup> | m <sup>3</sup> Zaehlerstand Start | m <sup>3</sup> Zaehlerstand Ende | Entfernung Start |
|--------------------------|----------------|--------------|-----------|---------------------|---------------------|------|----|----------------|-----------------------------------|----------------------------------|------------------|
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 03.07.2015 16:27:59 | 04.07.2015 11:56:06 | 27,4 | 20 | 975            | 56773                             | 57097                            | 458              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 03.07.2015 16:28:26 | 04.07.2015 16:05:56 | 29,6 | 24 | 1180           | 57097                             | 57421                            | 517              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 04.07.2015 12:21:35 | 04.07.2015 23:10:07 | 25,7 | 11 | 540            | 57421                             | 57745                            | 256              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 04.07.2015 16:53:01 | 05.07.2015 12:59:36 | 29,3 | 20 | 1005           | 57745                             | 58069                            | 440              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 05.07.2015 05:02:44 | 06.07.2015 00:47:32 | 27,4 | 20 | 985            | 58069                             | 58393                            | 464              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 05.07.2015 13:45:12 | 06.07.2015 13:31:01 | 29,7 | 24 | 1190           | 58393                             | 58717                            | 521              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 06.07.2015 05:55:07 | 07.07.2015 00:58:08 | 27,4 | 19 | 955            | 58717                             | 59041                            | 448              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 06.07.2015 14:46:02 | 07.07.2015 14:13:54 | 30,1 | 24 | 1175           | 59041                             | 59365                            | 507              |
| Brunnen 1                | m3             | Max Muster   | Waldinsel | 07.07.2015 05:08:48 | 08.07.2015 00:19:36 | 27,3 | 19 | 960            | 59365                             | 59689                            | 453              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 07.07.2015 16:07:12 | 08.07.2015 06:32:52 | 28,5 | 14 | 720            | 59689                             | 60013                            | 315              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 05:08:11 | 17.06.2015 21:05:43 | 21,9 | 16 | 880            | 60013                             | 60337                            | 522              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 05:08:30 | 17.06.2015 19:23:54 | 25,2 | 14 | 786            | 60337                             | 60661                            | 397              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 05:08:50 | 17.06.2015 22:12:01 | 22,5 | 17 | 941            | 60661                             | 60985                            | 545              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 19:24:16 | 18.06.2015 18:35:20 | 25,2 | 23 | 1276           | 60985                             | 61309                            | 668              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 22:36:25 | 18.06.2015 16:30:26 | 22   | 18 | 984            | 61309                             | 61633                            | 584              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 17.06.2015 22:37:09 | 18.06.2015 13:33:31 | 22   | 15 | 820            | 61633                             | 61957                            | 482              |
| Brunnen 4                | m3             | Max Muster   | Talrand   | 18.06.2015 13:46:03 | 19.06.2015 00:04:42 | 21,3 | 10 | 566            | 61957                             | 62281                            | 333              |



- Start, Stop and Change the Machine's Speed

Only raindancer compatible units



# Pump Remote Control



- Can Be Retrofitted to Most E-Pumps
- Communication via Internet  
(3G/LTE Cellular or Existing LAN)
- Monitor Status in Realtime  
(Flow, Meter Reading, Power, Pressure)
- Remote Control  
(Start, Stop, Adjust Pressure)
- Notification about Malfunctions

Optional: automatic regulation according to pressure requirements of the irrigator.



The raindancer Beacon should be installed by a professional technician. The available features depend on the conditions at the pump station. In most cases, existing GSM/SMS-based controls can also be integrated into the raindancer software.

## 1. Overview

Using your smartphone or pc, observe via lists or maps at any time and from anywhere: Where are your irrigators? When will they complete their current operation?

## 2. Malfunctions

When the irrigator stops moving or the water pressure falls below / exceeds a set range, a text message will be sent. A text message will also be sent when approaching critical areas, such as roads or railways near the edges of a field.

## 3. Relocation

All irrigation runs are displayed color graded, accompanied by detailed information, basis for scheduling future operations.

## 4. Remote Control

The irrigator(s) can be started or stopped from anywhere. Will it begin to rain? Is it too hot? Just stop the running irrigation via your smartphone. The wind up speed is adjusted automatically, based upon configured soil composition.

## 5. Pumps

Pumps can be started or stopped via smartphone. This can be performed automatically in an optimized manner in water supply networks!

## 6. Reports

All irrigation operations are logged automatically and are available permanently. As a report to authorities, the data can be exported to and processed in Microsoft Excel.





Increased free time and fewer miles driven to check machines.

It is a pleasure to work with [raindancer](#).

Quote of a customer:

**„The first and the last I did every day in summer: I’ve thought of you.“**

If you like, we would be happy to get you in contact with customers, to talk about their experiences using raindancer.

Arrange a non-obligation consultation today!

## raindancer Module



- Position via GPS
- Pressure Sensor
- Tilt Sensor
- Acceleration Sensor
- Data Transmission via Internet

## Pressure Sensors

- Compact and Robust  
Stainless Steel Housing
- Optional:
  - » Better Frost Resistance
  - » Ceramic Measuring Cell
  - » Pressure Resistant up to 75 Bar



## raindancer PRO Module



- Temperature Sensor
- Water Meter
- raindancer  
Sector Adjustment\*
- Open Interface for  
Additional Sensors

## Water Meter

for connection to the  
PRO module



## Mounting Kit

for simple  
mounting on  
the irrigator



## raindancer Beacon



- Pump Control
- Remote Control  
via Internet
- Monitoring
- If Applicable,  
Automatic Control

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