

FENDT

The new dimension in recording operating data

MoDaSys

Modular Data Recording System



RTS

FENDT

Systempartner



Simple operation – a wish come true

MODASYS – DATA RECORDING FOR PROFESSIONALS

Modern farming businesses and agricultural contractors depend on thorough economic feasibility analyses to offset high cost pressures. MoDaSys automatically provides the data basis for these results.

The data that is gathered can also be used to fulfil legal accountability obligations.

No more scraps of paper

MoDaSys automatically supplies all operating data in electronic form. You immediately have all the information on your PC, correct and complete.

Basis for company data processing

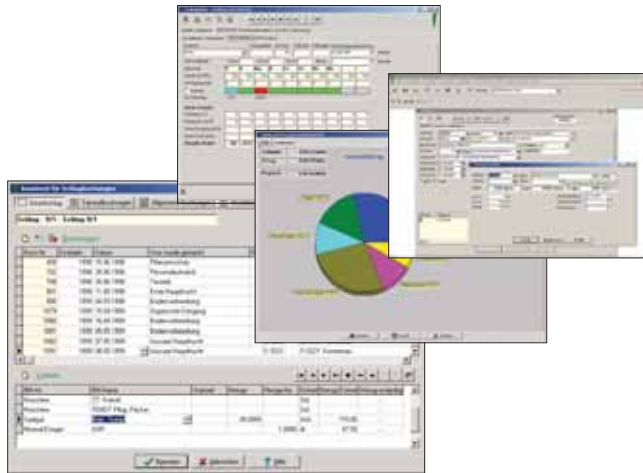
Higher cost pressures and changed farming legislation are forcing farmers and agricultural contractors to make systematic use of economic feasibility analyses. Data processing,

field files, billing and statistical analyses can be carried out efficiently with the data, which is generated by MoDaSys. Bookkeeping (invoices, payroll), controlling and documentation (expense records, billing, history) are simplified and you can make do without taking notes on paper.

Accountability made easy

Farmers are under legal obligation to record all production data to enable traceability of agricultural products to meet legal regulations such as the new EU Directive 178/2002. MoDaSys helps to fulfil this task, simply and cost-effectively. In cases of doubt, the recorded data can prove that regulations, for example, the distance regulation for pesticide applications, have been met.

MoDaSys provides basic data for the field file.



TROUBLE-FREE INTERFACING WITH ALL COMMON AGRICULTURAL SOFTWARE PROGRAMS

Modular design – simple handling

A modular design allows the system to be adapted to current requirements and upgraded at any time. The MoDaSys transfers data wirelessly, and therefore with utmost reliability, via Bluetooth or upon request per GSM. You don't need to use the usual memory cards. It is also not necessary to define a job before working. Jobs are created fully automatically on the Farm PC.

ADVANTAGES:

- Simplest handling
- Can be individually adapted to any business
- Wireless, wear-free data transfer via Bluetooth or GSM

MoDaSys has an open software interface

Data is available in the CSV format as standard and optionally in the up and coming XML format. MoDaSys data is therefore universally applicable and compatible with numerous programs. Data reading software is available for each module. This guarantees that data transfer runs smoothly.

ADVANTAGE:

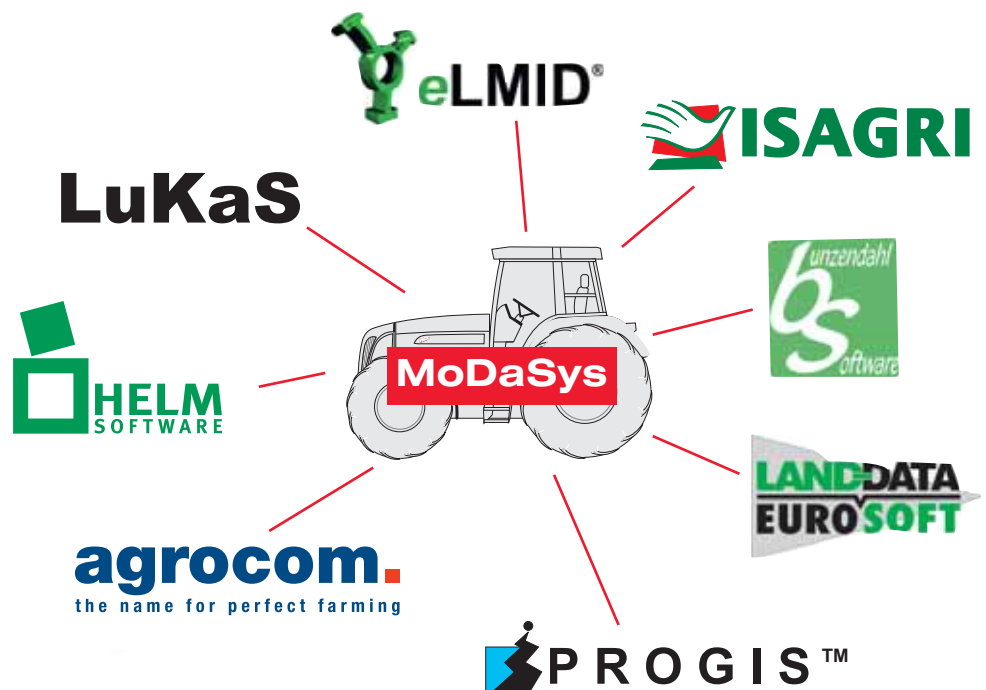
- Direct, and therefore easy, data transfer to common agricultural software packages and resource planning systems

Highest degree of security for your data

MoDaSys has been designed to transfer your sensitive operating data directly to the PC and is therefore only available to you. There is no central server over which the data is transferred or where data storage is handled.

ADVANTAGE:

- Sensitive business data is not stored on external servers



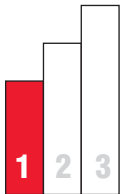


Your Vario is parked in the garage – the data is on your PC

Profi 10/2003
"Fendt is still the trendsetter with the Vario Terminal"

dlz 8/2000
"At the heart of the controls is the Vario Terminal. Fendt goes all out with the controls on its Vario tractors. (...) The Fendt engineers have gone a good job; this becomes obvious after a few hours."

FOR EVERY BUSINESS THE OPTIMUM SYSTEM SIZE



Data from the on-board computer can be transferred wirelessly from the Vario Terminal to the Pocket PC. Additional information can be added to it while working.



MODULE 1 – sophisticated utilisation of the benefits of the Fendt Vario Terminal

Fendt is the only manufacturer that offers a standard-equipped terminal – and that for many years now. The integrated on-board computer records all important parameters in four independent memories, simply and exactly. Using the MoDaSys you can increase the utilisation of this forward-looking concept and transfer data simply and quickly to the field file in your Pocket PC.

Additional information, such as the name of a field or application quantity, which is not recorded by the on-board computer, is entered directly in the Pocket PC. You no longer need to make notes on slips of paper, which are lost easily. A further advantage of the Pocket PC is that

you always have all field-specific data logs as well as other operating programs with you, including all details. That helps you make decisions fast and flexibly, right on location. You can add a telephone function to the Pocket PC, which allows you to control your business using only one device.

Advantages:

- Uses the standard-equipped Vario Terminal
- Error-free and simple data transfer from the on-board computer
- All data is available on the Pocket PC
- The Pocket PC can also be used for other applications (i.e. herd planning) or as a mobile phone.



With the aid of GPS, you can create your own maps and operating data is entered automatically for each specific field.



MODULE 2 – The logical entry into GPS technology

Using a GPS receiver, all data is recorded fully automatically. Your Fendt tractor, equipped with MoDaSys, carries out this work for you. Jobs do not have to be created before beginning work; jobs are generated automatically in the field file.

You can concentrate entirely on your work and the tractor settings. All data is tagged with an exact position and is assigned to the right fields in the field file automatically and error-free. Now you can record your fields yourself.

Advantages:

- Data is automatically assigned to fields
- Simple operation: the driver is freed of data recording duties – no operation is necessary
- Automatic area recording





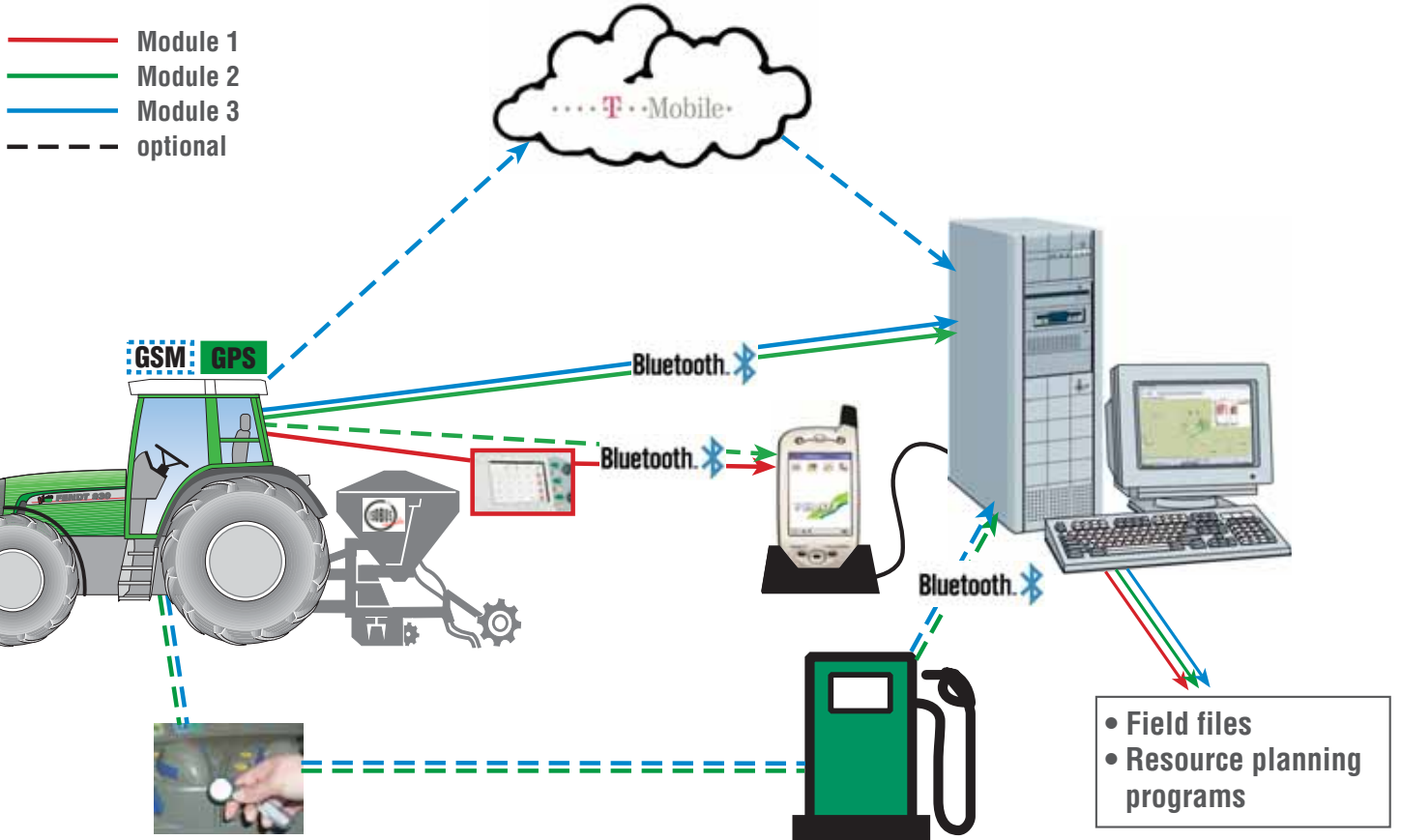
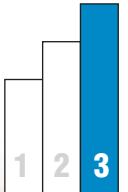
MODULE 3 - The entire fleet under control

Do you have a fleet of vehicles, and would you like to be informed constantly about operating procedures so that you can manage the vehicles effectively? No problem. With the optional GSM module, you can remain in contact with every tractor in your fleet from your Office PC – or, even better, with your Master Pocket PC - everywhere and whenever you like. You have access to the current vehicle, operating and position data and therefore always have the latest information.

The recorded data builds the basis for exact statistics and makes simple and realistic billing of your contract work possible.

Advantages:

- **Complete and simple overview of the entire fleet**
- **Basis for exact billing of contract work**
- **Using the vehicle statistics, vehicle data can be processed and clearly presented in a graph or table**





INNOVATIVE PROFESSIONAL FEATURES FOR HIGHEST DEMANDS



Data from implements with ISO-BUS capability is recorded automatically.

Integration of implements with ISO-BUS capability

Implements, which are equipped with an ISO-Bus interface, process information using numerous sensors. The job computer on a fertiliser spreader, for example, always knows the current application quantity. Using MoDaSys, you can now also record this data. This is carried out fully automatically and therefore provides the highest recording reliability.

standard in Module 2 and 3



Using the "virtual ISO-BUS implement", implements that do not meet the ISO-Bus standard can use all MoDaSys functions.

"Virtual ISO-Bus implement"

Do you have an implement without ISO-Bus control? Then you can use MoDaSys's „virtual ISO-Bus implement". Additional information is entered into a universal data entry mask in the Vario Terminal.

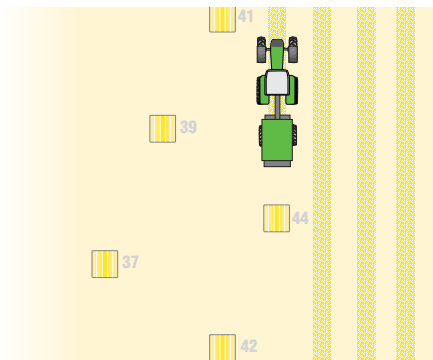
Subsequent, error-prone transferring of data from slips of paper to the PC is no longer necessary. You no longer need to note information on fly-away paper notes, which are lost easily. It is possible to document the application quantity through the change in

standard in Module 2 and 3

ground speed with every fertiliser spreader, slurry wagon or pesticide sprayer – even older implements.

ADVANTAGES:

- No more time-consuming and error-prone entering of data
- No more note-taking required



Recording events gives you an overview of the number of operations carried out and the location of work done.

Event recording:

In addition to recording agricultural and vehicle data, other events can also be recorded. This provides reliable information as to where and when, for example, a control valve was actuated for tipping or bales were laid down during baling. That simplifies billing of contract work.

standard in Module 2 and 3

ADVANTAGES:

- Basis for exact billing of contract work
- Simple documentation



SIMPLE OVERVIEW FOR LARGE BUSINESSES

RFID security function

An RFID chip (Radio Frequency Identification) serves for driver recognition. You can be sure that only drivers with the appropriate driving licence and proper instruction and your authorisation, can drive the tractor.

**optional for
Module 2 and 3**

ADVANTAGES:

- **Tractor can only be operated by authorised people**
- **Fully automatic recording of working time – manual recording is no longer necessary.**

The RFID chip ensures that only authorized people can use the tractor.



Fuel documentation

The filling station can be integrated in the logging system. This prevents unauthorised access by outsiders. Together with the fuel consumption measurement feature in the tractor, you obtain the most exact information. Daily overview of fuel stock levels makes timely reordering possible.

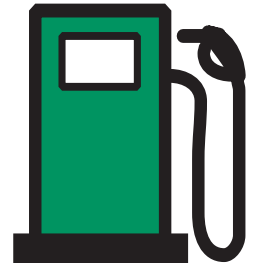
**optional for
Module 3**

ADVANTAGES:

Simple and time-saving recording of

- **who**
- **where**
- **when and**
- **how much fuel was tanked.**

Fuel documentation permits precise breakdown as to who tanked how much, when and in which machine.



MoDaSys software:

For each module, you can choose a software package customised to your requirements. You don't have to purchase software that you don't need. The software line spans from simple

data transfer for the Pocket PC, to complete field file and extensive fleet management, comprising GSM communication, machine statistics and GIS area management.



MoDaSys offers innovative data recording solutions for all sizes and types of farming and agricultural contracting businesses. You choose which module and features are useful for your business – the ones that will decrease your workload effectively and save you time while creating economic analyses and meeting legal documentation obligations. Take advantage of the convenience of your Fendt Vario!

			MODULE 1	MODULE 2	MODULE 3
Data recording	partially automatic	Data recording from the Variotronic on-board computer	✓	–	–
		Data recording via the “virtual ISO-BUS implement“	–	✓	✓
	fully automatic	Integration of implement data according to ISO 11783	–	✓	✓
		Agricultural data (e.g. area, time, position, etc)	–	✓	✓
		Vehicle data (e.g. engine speed, ground speed)	–	–	✓
		Events (e.g. actuation of hydraulic control valve or EPC)	–	✓	✓
Data transfer	Bluetooth	✓	✓	✓	
	GSM	–	–	optional	
File format	CSV	✓	✓	✓	
	XML	–	–	optional	
RFID security feature	Driver recognition	–	optional	optional	
	Fuel documentation at the filling station	–	–	optional	
Software	Pocket PC software for reading data from the on-board computer for Pocket PC	optional	–	–	
	Pocket PC software for reading the data logger for Pocket PC	–	optional	–	
	Desktop PC software for receiving data via Bluetooth (Windows 98 and higher)	–	optional	–	
	Desktop PC software for receiving data via Bluetooth and / or GSM, vehicle statistics (Windows 98 and higher)	–	–	optional	
	Desktop PC software for receiving data via Bluetooth and / or GSM, vehicle statistics, GIS, fleet management (Windows 98 and higher)	–	–	optional	

Tractor system requirement > Fendt Variotronic 2.0 or higher. All MoDaSys modules can be retrofitted.

RTS is a powerful Fendt system partner.

Sales agent:

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