



# The OMP-GIS Module

The Geographic Information System for Oil Palm Plantations

## The easy way towards spatial plantation analysis!

### What is a GIS?

A Geographic Information System (GIS) is "a set of tools for collecting, storing, retrieving at will, transforming, and displaying spatial data from the real world for a particular set of purposes" (Principles of geographical information systems for land resources assessment. P. A. Burrough. Oxford University Press 1986).

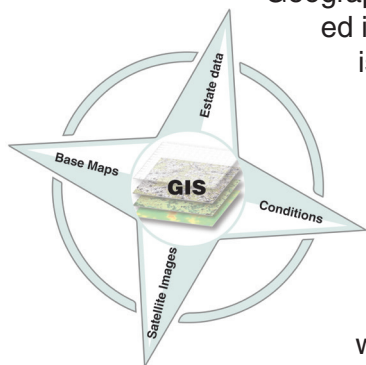
### What is OMP-GIS?

An easy to use menu driven GIS specially geared towards the needs of oil palm plantations.

A powerful and easy to use decision support tool for managers and agronomists.

A comprehensive toolbox for advanced GIS operations and spatial analysis modelling.

Nearly all modern plantations have access to satellite maps and images of their planted area, often including infrastructure, block layout and sometimes even individual palm planting points. While such basic maps form the foundation of a Geographic Information System (GIS), static maps are limited in their usefulness and a link with live plantation data is required to perform proper spatial analysis.



With the OMP Software Suite you have access to a comprehensive agronomic data set, which can be used to create informative thematic maps that provide answers to the question of "what's happening where, when and why?"

Even with suitable data, creating thematic maps is usually a time consuming and demanding task which has to be carried out by specialized IT staff.

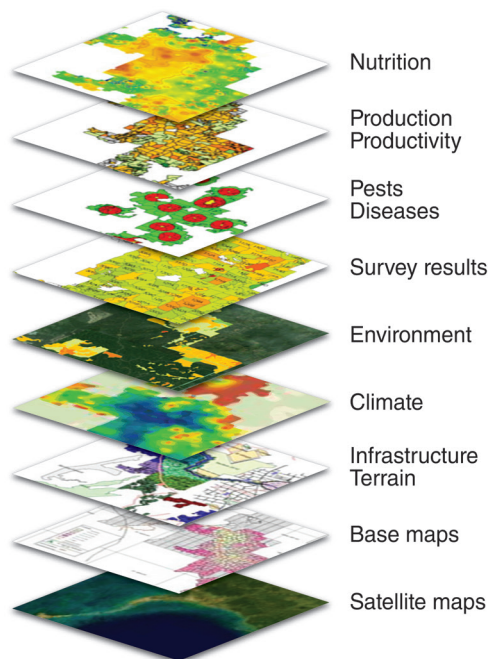
This often severely restricts the use of GIS maps for spatial analysis, as agronomists or managers have to request maps to be prepared hours or days in advance. OMP-GIS solves this problem and unlocks the full power of GIS spatial analysis for all users.

### With OMP-GIS thematic maps are just a mouse click away!

We provide you with a huge set of predefined maps covering all relevant parameters of the plantation. Thematic maps can be opened by simply selecting the data to show in the OMP-GIS menu. All maps are fed with the latest data from the OMP database. In combination with quick filtering features this provides the tools to create nearly any desired thematic map within seconds, without requiring any coding or map algebra!

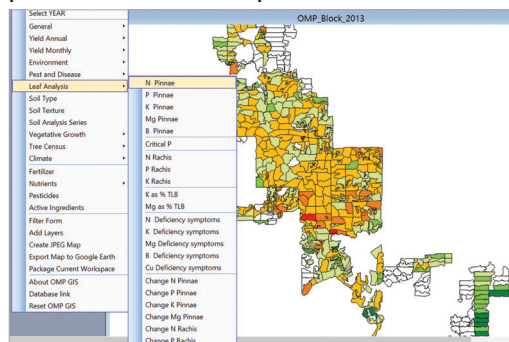
An integrated comparison tool allows you to contrast maps of related parameters and identify spatial or temporal trends.

GIS experts can also use OMP-GIS maps as a basis for creating more advanced maps such as e.g. surface model maps, greatly speeding up this process.



## Technical facts

OMP-GIS is a plugin designed for use with a host mapping software, and is compatible with MapInfo or ArcGIS. It is part of the OMP Software Suite and links the plantation base maps to the OMP back-end database, where all agronomic data is stored and maintained.

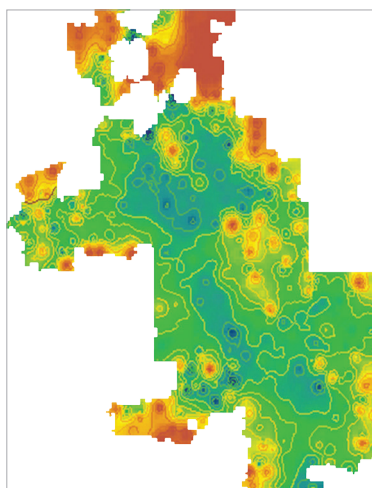


The maps themselves and a set of comparison tools can be accessed via additional menu points that OMP-GIS adds to the toolbar of the host mapping software.

All maps created with OMP-GIS are open map layers which can easily be modified further or combined to high-light specific issues.

## Benefits of using OMP-GIS — An example

The spatial representation of management and agronomy parameters provided by OMP-GIS makes it possible to visually analyse spatial correlations. This can provide important pointers towards causes of block underperformance and can help you to make changes that directly affect the profitability of the plantation. For example, consider a comparison of the fertilizer recommendations and the actual applied amounts. Creating a map of this differences for each management unit is an easy task with OMP-GIS — just one click on the menu button! The image on the right shows an example of such a map (random demo data). A look at the map immediately shows that problems are concentrated in certain areas of the plantation. Why is this? By using OMP-GIS to overlay an infrastructure map of the plantation it would be possible to check whether these problem areas correlate to larger distances from stores and offices, where field teams might be more negligent with the application. In this case one could attempt to supervise fertilizer application more stringently — leading to a better nutrient balance in the field, larger yields and therefore to an increase of the plantation profit!



*“OMP-GIS uncovers spatial trends and helps me pinpoint where exactly I need to take action!”*

*“OMP-GIS has saved me many hours while producing thematic maps for meetings and presentations.”*

## OMP-GIS training

Agrisoft Systems offers special trainings focused on making best use of the many features of OMP-GIS. Topics can be selected as required and can range from preparing your basic block maps for use with OMP-GIS over analysing, comparing and printing of thematic maps to using map algebra and creating advanced custom maps with the OMP data. As usual, trainings can be held either at the Agrisoft Systems office or on location depending on your preferences.

## OMP-GIS covers:

- Production
- Yield
- Yield gap
- Bunch number
- Bunch weight
- Harvester productivity
- Leaf analysis results
- Nutrient levels
- Soil analysis results
- Erosion status
- Soil status
- Fertilizer recommendations
- Fertilizer application
- Rainfall
- Water deficit
- Drainage
- Planting status and density
- Tree census
- Tree height
- Pruning status
- Pest & disease outbreaks
- Pesticide recommendations
- Pesticide application
- and much more ...

## Contact us

For further information on our products and services please visit our website or contact us under

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