



Agrisoft Systems NEWSLETTER

Twenty-seventh edition, Oct.— Dec. 2018

Message from the Management

A look back at 2018 and outlook for the coming year

Dear Customers and Friends,

On behalf of the entire Agrisoft Systems team I would like to wish you all a happy and successful new year 2019! The change of years is typically a good time to pause and take stock of past process and future challenges. As always, we would like to take the opportunity in this last newsletter of 2018 to take a look back at the past year and discuss our general aims and plans for 2019.

Looking back, the overriding topic that has dominated the thoughts of the Agrisoft Systems development team (at least over the past 6 months) is our migration to an SQL Server back-end database and the associated challenges and opportunities. However, let's take a step further back and start the review of 2018 in chronologically correct fashion by looking at what we did in the first half of the year.

In the early part of 2018, we were working in parallel two main development projects. The first project, leading to the release of OMP 9.2 in late February, mainly focused on the two add-ins OMP Harvest Round Recording (OMP-HRR) and OMP Fertilizer



Planner (OMP-FP). In OMP-HRR, we focused on improving the reporting and data analysis features for the daily harvest process, incorporating many improvements and options that were explicitly requested by our customers. These include a completely new “Daily production



overview” report, which gives field managers a succinct summary of the daily key performance indicators related to production and harvesting. Another major improvement in OMP-HRR version 9.2 is right-click filtering on all data analysis forms. On the OMP-FP side, the headline change was the option of entering dynamic formulae for dose amounts instead of only constant amounts. This option greatly enhances the flexibility and power of the FP nutrient recommendation generator routine. For example, it is now far more straightforward to define nutrient doses which increase continuously for higher-yielding blocks, in the spirit of nutrient balance concepts. Other important changes include the possibility of importing organic fertilizer recommendations from Excel and correct display of user-defined captions for the spatial levels within the plantation.

The second major release in 2018 was the OMP 9.3 release in August. As mentioned above, we had actually been working on this release for quite a while, in parallel with the OMP 9.2 release and even the 9.1 release before that. The biggest improvement in OMP 9.3 is completely revamped multi-language support for the OMP-DBMS main application as well as OMP Field Survey (OMP-FS) and the associated smartphone data collection app. The necessity of



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supporting a user interface in other languages than English (particularly in Spanish and Indonesian) is a testament to the continued success of OMP in all parts of the oil palm-growing world. While multi-language support at first sight might seem a relatively trivial problem from a programming perspective, it is actually a major challenge within the existing OMP framework of a Microsoft Access application. This is because all controls (labels, buttons, combo boxes etc.) within Microsoft Access user interfaces are sized and positioned in an inherently static manner. This is a huge problem when trying to define a user interface for multiple languages where texts have different lengths. While of course some compromises have had to be made, overall I am very happy with the solutions our team has found and this is supported by the highly positive feedback we have received from our Spanish and Indonesian users. Please refer to the 24th edition of this newsletter (Jan-Mar 2018) for a more detailed discussion of this issue. Besides multi-language support, OMP 9.3 includes significant additions to the OMP Field Survey add-in. In particular, the new option of defining specific “offender thresholds” for each surveyable question and/or calculated expression makes OMP-FS a far more powerful tool for exception reporting. A selection of customized reports make it par-

ticularly easy for managers to quickly get an accurate picture of which blocks or fields are improving, which are getting worse and which require immediate intervention with regards to any given survey parameter.

The two OMP versions described above were the last versions built in the “traditionend built al” OMP framework with both front- and back-in Microsoft Access. Starting in September 2018, the entire Agrisoft Systems development team has been working on the exciting next step for OMP, with back-end database hosted in SQL Server. As outlined in more detail in a dedicated article in the last edition of this newsletter, the SQL Server migration promises a number of significant advantages, beginning with the capacity of storing and processing far larger quantities of data than is possible in MS Access. SQL Server is also far more suited to a modern client-server application architecture, where many client users access a shared database hosted on a central server. In particular, a significant portion of the data processing can be done on the server side, reducing the amount of data that needs to be transferred over the network and speeding up the application in a network-based use scenario. Of course, these advantages are accompanied by corresponding challenges, and many parts





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of the OMP Plantation suite need to be recoded significantly to work correctly and efficiently in the new system. While there are many challenges to tackle, we are very happy with the progress we have made over the past few months.

As we move into 2019, we are still very much in the middle of the SQL Server migration. As this is new terrain for our entire development team, we have made the conscious decision to avoid trying to set out detailed development plans for the coming year. While many of the critical points relating to the SQL Server migration have actually been tackled already, we want to keep our options open to be able to investigate and maybe take advantage of new possibilities. For example, we are planning to look into new SQL Server-based technologies for synchronizing data between different copies of an OMP database. This would be very helpful for so-called “occasionally connected” distributed data entry, where multiple OMP operators working on different computers all need to enter and share data but without the option of being constantly connected to a central server. Another exciting possibility is to use the OMP SQL Server database as a data source for web reporting services, to make the most important OMP reports accessible in a platform-independent manner. We feel that this

would greatly enhance the reach of OMP particularly for top management, who could easily pull up the most important reports even on their smartphone or tablet.

While the points mentioned above are more related to program infrastructure and aim towards improving ease-of-use, speed and accessibility of OMP, we are of course also continually working on improving and adding more content. Although the topic of fertilizer and nutrient management is already one of the absolute strong points of OMP, we are aiming to further add to this starting by implementing a more flexible system for defining site-specific critical leaf and rachis nutrient levels. On the production side, we want to make use of the newly unified database to include more information from the OMP Crop Budget into the main OMP dashboards and production reports. We are also aiming to add an entire new module to OMP focusing on field work/upkeep and recording of the consumption of material, equipment, fuel, machine hours and so on. Please see the section “From the developer’s desk” for more ideas and plans.

Yours sincerely,

Max Kerstan





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From the developers desk

A selection of the on-going developments and plans which are part of our constant efforts to continue to improve Agrisoft products.

SQL Server back-end

- Better way of applying version updates to data files, with no need for manually importing data from the previous version
- User configuration settings saved in config files
- Improved multi-user support with locking for avoidance of write conflicts
- Increased speed in client-server setups
- Easier connection with BI applications and other third-party tools

OMP data analysis features

- Active filtering instead of reloading on activate for more responsive program
- Data analysis form for monthly yield distribution by parameter
- Export form data to Excel for OMP-DBMS forms
- Option for viewing multiple reports side by side
- Include production budget vs actual on dashboard reports
- Record usual harvest method for each block and analyze productivity by harvest method

Palm nutrition and vegetative growth

- Critical leaf and rachis nutrient levels defined by age group
- Additional fertilizer relative agronomic effectiveness (RAE) field for Nitrogen
- Flexible charts to compare palm nutrients with other block parameters
- Editable calculation method for leaf area index calculation
- Predicted optimal palm stand based on measured leaf area
- Additional charts and DA forms for vegetative growth parameters
- Add calculated field for light interception

