

# PC MAPPING PERFORMS MULTI PICKER, MULTI FIELD YIELD MAP PROCESSING, CALIBRATION

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## Abstract

The task of processing yield maps, from raw data collected in pickers, is tedious. It requires knowledge of the fields and pickers used, it demand that all the monitors are calibrated, the fields are defined. Then it demand the person who process the data spend hours on the computer, collecting, processing, reprocessing and organizing the data in a usable form. The Agrippa Professional software is designed to alleviate many of the boring task and process multiple file at once, in the background, with the need of user interface. This package also provides means of post calibration multiple pickers which work in same field such that they are “balanced”. Re-calibration, combining files into fields, defining fields by boundaries are simplified tasked.

## Introduction

The traditional process for processing yield files is labor intensive. The person who process the files needs to have knowledge of the fields, knowledge of the pickers were the data was collected from, the calibration setting, where are the files for the specific fields, etc. All that information helps construct the field of interest from the data available.

The professional software is designed to help performing these tasks with minimum interaction of the user. It saves time and eliminates errors.

## Discussion

The Professional package provides means of processing multiple files from multiple pickers (or multiple growers) in a batch mode. You select the files to be processed and along side the boundary files of the field for which the maps should be created, click on the process button and let the PC do the processing while you attend your other daily business. The resulting files include the yield maps of the selected fields, all combined ready for print. While running, the software search for all the data points, from all the files, which belong within the areas defined by the fields’ boundaries.

The second most important capability of the package is to perform picker calibration and propagate the calibration through the entire system files. When calibration is performed manually, the traditional way, the pickers will be calibrated individually, and then the data collected form each is considered *calibrated*. From experience it is known that many times the hardware is not calibrated, loss calibration or has been modified in the middle of the harvest without re-calibration. In those instances, the portion of the field of the un-calibrated picker need to be corrected, typically by *balancing* the files of those pickers against other calibrated pickers. For example if an un-calibrated picker has an average lower by 10% then a calibrated one, its files date should be increased by 10% to correct the error. The professional package enables the user to make those corrections automatically, without the need to calculate the variations, and propagate the new calibration coefficients to other files of the same picker.

| Yield Files                          |                       |
|--------------------------------------|-----------------------|
| YIELD FILE NAME                      | PROCESSED YIELD FILES |
| ▶ C:\Sandara\McClendon\Data\LMP1.agp |                       |
| C:\Sandara\McClendon\Data\LMP10.AGP  |                       |
| C:\Sandara\McClendon\Data\LMP11.AGP  |                       |
| C:\Sandara\McClendon\Data\LMP3.agp   |                       |
| C:\Sandara\McClendon\Data\Lmp12.agp  |                       |
| C:\Sandara\McClendon\Data\LMP2.agp   |                       |

  

| Boundary Files     |                               |
|--------------------|-------------------------------|
| BOUNDARY FILE NAME | PROCESSED YLD WITHIN BOUNDARY |
|                    |                               |

  

|                 |                    |                        |             |
|-----------------|--------------------|------------------------|-------------|
| Add Yield Files | Add Boundary Files | Start Batch Processing | Close Batch |
|-----------------|--------------------|------------------------|-------------|

Figure 1. Files selection screen.