

# Rubicon Newsletter

January 2006

## Rubicon Toolbox: New Release, Version 2.4

Version 2.4 of Rubicon Toolbox contains several new features and modifications. The new features include: Grading Evaluation Tool, Multiple Strip Map Tool, Transfer Functions for Thick Asphalt Bases, Photo Importing in the Trial Pit Report, Customized User Settings, Checklist Tool and Templates. These new features, and the modifications, are briefly described overleaf. The latest version of the program is Version 2.4.4 and can be downloaded from the website from 25 January.

### Changes to the Maintenance Costs

We have made some changes to the method of calculating the maintenance payments, mainly to the benefit of clients with several licenses. The new details are as follows:

- 1 module to 1 full package: The minimum of 15% of the purchase price or R 5 000.
- 2 full or partial packages: The minimum of 15% of the purchase price or R 9 000.
- 3 or more full packages: The minimum of 15% of the purchase price or R 12 000.

### Obtaining New Tools Included in your Maintenance Contract

When new tools are included in the software, they typically require a licence before you can access the full functionality of the tools. However, under your maintenance contract this licence may well be available to you *at no cost*. To find out which new features are available to you, contact the MAS office.

## Rubicon Toolbox Feature: Multiple Trial Pit Report

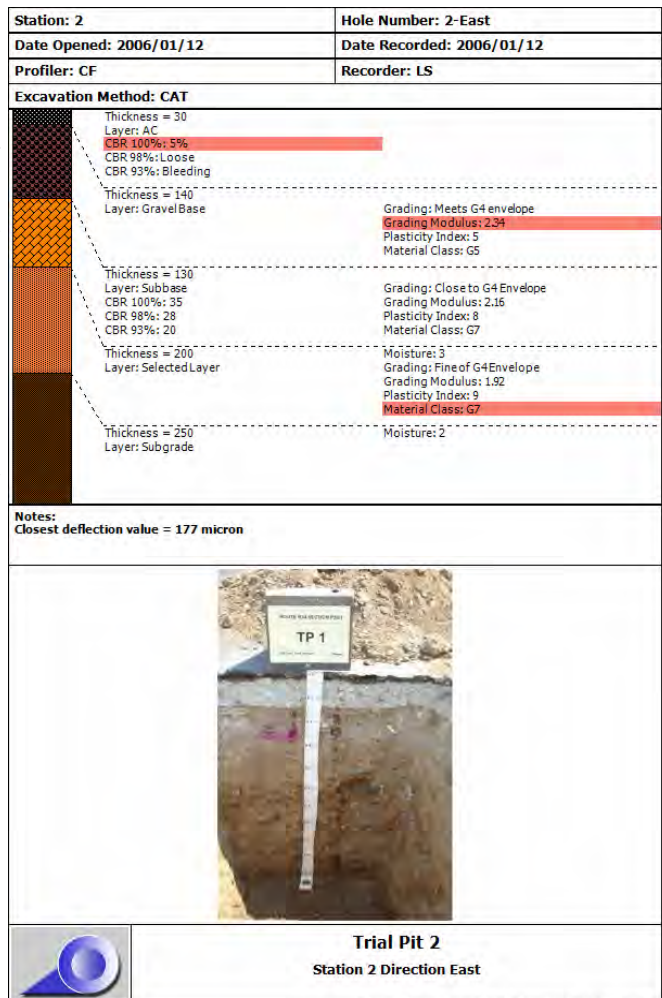
The Multiple Trial Pit Report Tool allows you to compile a series of Trial Pit Reports in one operation. To use this tool, the trial pit results are entered into a Microsoft Excel template, which is then imported into Rubicon Toolbox. The template can be downloaded from our website.

A maximum of seven layers can be used. If less than seven layers are used the program will scale the pavement plot accordingly. Up to 10 items of information on each layer can be included (e.g. CBR, density, moisture, etc) for each layer. The titles for the fields are specified in the "fields" worksheet in the template file. Note that it is not necessary to include all 10 information fields per layer. As seen in the example to the right, only the entered information is shown, with blank spaces for the remaining fields. You will notice that some fields have been highlighted in the example. This is easy to do by simply putting a # sign after the data for that field!

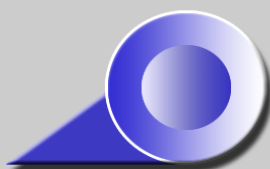
The legends for the layers are specified within Rubicon Toolbox, and not in the template spreadsheet. Both the colour and the hatching pattern can be selected. When selecting legends there is an option to make the legends applicable to all the trial pits, or just to one.

With the latest version of Rubicon Toolbox, a photo can be included in the report. The report will be scaled to accommodate the picture size automatically. Remember that you can also use the Photo Logger Tool to store, organize and report photos.

As with all other Tools in Rubicon Toolbox, on the report you can select the title, sub-title, include a logo and page numbers.



Rubicon Toolbox: Multiple Trial Pit Report / Ver: 2.4.3 / (Licensed)



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## Brief Summary of New Features

**Grading Evaluation Tool**, which plots gradings and compares a grading to selected grading envelopes. This is useful for summarizing grading tests from trial pits. The grading evaluation tool is available free of charge to maintenance paying users who have the Trial Pit report.

**Multiple Strip Map Tool**, which allows the compilation of several sets of strip maps in one operation. An example of how this can be used is if pavement condition data needs to be plotted over a long section of road, too long to summarize the full road length on one page. Identical strip maps can be compiled, showing different segments of the road on separate sheets. To use this tool, the layout of the strip map set is compiled using the Data Viewer Tool, and a Microsoft Excel template is used to specify the changes between the different sheets. The strip map sets are then compiled in one operation.

**Transfer Functions for Thick Asphalt Bases** have been included in the defaults database. To use these transfer functions, import them from the MAS defaults database using the Customize, Failure Criteria option, or contact MAS for more information.

**Photo Importing in the Trial Pit Report:** it is now possible to include a photo in the reports generated with the Multiple Trial pit report (see article).

**Customized User Settings** are now stored under a username, which you will be prompted for when starting up the program. These settings include the appearance of tips, and the list of projects under the File option.

**Checklist Tool**, which allows you to quickly compile a checklist or procedure list for Quality Control / Quality Assurance. This tool is available at no extra cost to all maintenance paying customers.

## Brief Summary of Modifications

**Material and Pavement Definition** changes include:

- For the material definition, only the required material properties need to be provided as input (as opposed to all possible material properties).
- Ability to change all layers' variability in one operation.
- The thickness of a second phase layer is automatically obtained from the first phase thickness.
- When in the LET: Standard Axle or AASHTO Tools, changes to the pavement structure can now be made directly from these tools without specifically opening the Pavement Definition Window.

**DCP Tool** improvements involve the usability of the DCP Tools, including the multiple importing functions. When using the Multiple DCP Processing Tool it is now possible to specify all the analysis and graph settings during the import process. The settings are valid for all the DCP points in that import.

**LET: Standard Axle Tool** now states more clearly the cumulative traffic for all phases on the analysis results screen, and on the printed report, for each phase.

**Printing** from Tools with multiple importing capabilities has been improved.

## Training

- We have decided to change the format of the Office Hours and are no longer holding monthly discussions. The Office Hours are being incorporated into our training workshops.
- Our workshops deal with the fundamentals of pavement data analysis and pavement design, by means of brief lectures and worked assignments. Rubicon Toolbox is used for the assignments, thereby providing an environment for learning how to use the program.
- If your maintenance is up to date, you will receive a discount on workshop attendance fees.
- A workshop is being held in Cape Town in February, and workshops are being planned for Gauteng in May, and KwaZulu-Natal in June. Contact the MAS office if you are interested in attending.
- We are also available to hold in-house customized workshops at your offices. We have found an intensive one-day workshop works well. Again, contact the MAS office if you are interested.
- We are investigating having our courses certified for Continued Professional Development (CPD) points. Watch this space!

## Tutorials

There are now 10 tutorials to help get you up to speed with Rubicon Toolbox. Since the last newsletter, the following tutorials have been prepared, and can be downloaded from our website:

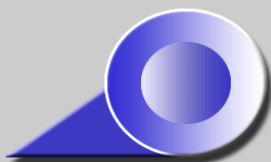
- *Introduction to Databases for Use with the Data Viewer Tool*
- *Photo Logger Tool*
- *DCP Tool (this has been updated to include the Multiple DCP Processing Tool)*

## MAS News

- We are working on a project for SABITA and Gautrans to update the foamed bitumen and emulsion guideline documents.
- We will shortly start working on a project for WCPA to develop guidelines for network surveillance methods.
- Marlou Bredenkamp has joined MAS as an office assistant.
- The MAS postal address has changed, note the new one at the bottom of this newsletter.
- Previous newsletters can be downloaded from the Software page on our website.

## Comments and Suggestions

We welcome your ideas for improving Rubicon Toolbox. Please share them with us, and notify us if you find any bugs or errors. You are our best source of ideas for new features in the software.



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