## MUN-EASE FEATURES - NEW IN 2018

Our 2018 release has many new features including:

New Reports for Year-End Comprehensive Annual Financial Report (CAFR) – We have created new reports that can be inserted in an issuer's year-end CAFR. These reports are contained in the Stand-Alone Reporting and Allocations modules. They include reports 04L and 67N.

New Windows 10 User Interface – Microsoft refers to the features and appearance of its Windows 10 operating system as the Metropolis Interface. Our 2018 release is developed with the Delphi 10.1 Berlin compiler and contains many features that take advantage of Metropolis including the use of Themes. We have implemented the "Sky" theme from Metropolis in this release.

Video Tutorials (to be released in second-half of 2018) – We will be releasing over 7 hours of video tutorials in 2018. Each tutorial is based on an example in our Tutorials Guide and is 5-15 minutes in length. You can view some examples of our tutorials on the Mun-Ease web site by clicking the on the Videos option from the Mun-Ease Main Menu.

*Updated Tutorials Guide* – We have updated many of the examples in our Tutorials Guide.

New Commercial Paper Features – Commercial paper (CP) loans are short-term, unsecured, promissory notes with durations less than 270 days. CP notes do not have a period longer than 270 days because they would then need to be registered with the Securities and Exchange Commission. In practice though, CP loans usually have a duration than much shorter than 270 days. The duration of the loan is determined by the needs of the borrower and market conditions.

An issuer usually institutes a commercial paper program as an interim short-term financing measure for one or more capital projects while those projects are in the construction phase. Once the project(s) are complete, the issuer usually swaps out the commercial paper borrowings for long-term debt. Issuers often maintain several ongoing commercial paper programs at the same time.

## New Mun-Ease Database Architecture for Commercial Paper

Mun-Ease maintains all rollovers in a commercial paper program within a single bond issue. Each CP rollover consists of two transactions (the amount issued and the amount redeemed). These two transactions of the rollover are identified and linked to each other by a CUSIP number. Each rollover can finance multiple projects and the projects associated with each rollover are defined in the Allocations module.

The issuer can define separate allocations for each of the rollovers in a bond issue. The Mun-Ease 2018 release contains the following new features for CP Rollovers:

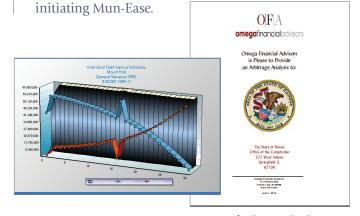
- Ability to link parent and child CP rollovers (a rollover can have more than one parent and can have more than one child). As mentioned earlier, all rollovers for a CP program are contained within a single bond issue. Each rollover within the bond issue is identified by the Bond ID and a CUSIP number. Note that the linkages between the current and past CUSIPs allow the user to create an audit trail of the rollovers in a CP program.
- Ability to allocate debt service of rollovers to projects. The allocations are linked to a specific rollover through the Bond ID and a CUSIP number. Mun-Ease can display a window with a dual view of rollovers and associated allocations. This window displays the individual rollovers in a top grid and the related allocations for the rollovers in the bottom grid. As you scroll through the rollovers in top grid, Mun-Ease will update the view of the associated allocations in the bottom grid.
- Ability to import CP rollovers and the allocations for the rollovers into Mun-Ease from a spreadsheet saved as a comma-delimited (.csv) file.

## New Features for Maturity-by-Maturity Allocations

The maturity-by-maturity method of allocations allows the user to apportion a share of the principal and interest of individual bond maturities to the various projects that are funded by the bond. This method of allocating debt service provides enormous flexibility for the user.

While this method is flexible, it is also easy for the Report and Allocations database tables to become quite large. In some situations the number of allocations is so large that it takes 30 minutes or more to generate a report.

We have added some new features to help users who are in this predicament. We now have the ability to back up the allocations stored in the Report database table as of a certain date and time and we have created custom Crystal Report specifications that allow users to generate reports directly from these database backups without first



Sizing, Refunding, and Arbitrage analyses can now include a cover page.