

## ***New Arbitrage Features***

### ***Variable Rate Bonds***

The arbitrage regulations contain special provisions for the yield calculations of variable rate bond issues. While the arbitrage yield limit for a fixed rate bond is initially calculated over the life of the issue, the issuer of a variable rate bond issue has the option of calculating a separate yield for each computation period. The computation period can be for any bond year up to (or through) the end of the fifth year.

In prior releases, we required the user to create a separate bond issue for each of the computation periods for which a yield calculation was performed.

In this release, we no longer impose this additional burden on the user. If the user chooses to compute a separate yield for yearly computation periods, he/she can do so within the same bond issue. The user can choose any beginning and ending date for a computation period even if those dates do not fall on a coupon payment date. Mun-Ease will perform all necessary accruals of interest and credit enhancement fees for both the beginning and ending dates of the computation period. We also allow the issuer to pro-rate a share of upfront costs that are to be included in the arbitrage target value to the computation period.

The yield limit feature works in conjunction with the Mun-Ease future-value calculations. The future-value calculations can be performed by selecting only the rebate transactions that are relevant to the computation period.

### ***Data Entry Enhancements***

We have modified the window that displays rebate transactions. The new grid eliminates the amount column. Instead the user enters data in the two columns that were previously "read-only" and that were used to display the effects of the transaction amount. For nonpurpose investments, these columns are labeled "amount invested" or "amount received." For purpose expenditures, the columns are labeled "expenditure" or "adjustment to expenditure."

### ***Background:***

While our prior convention for the sign of the rebate transaction (+,-) was consistent with the way journal entries are recorded in the issuer's accounting system, many people (especially those who are not career accountants) found this convention confusing. In this release, the user no longer needs to be concerned about whether a transaction is entered as a positive or negative number. Instead Mun-Ease automatically adjusts the sign of the transaction based on the column that the transaction is entered.

### ***64-bit Processors and Mun-Ease***

We have modified our installation routines to recognize situations where Mun-Ease is being installed on a Windows computer with a 64-bit processor. Thus on a 64-bit computer, Mun-Ease, the Crystal Reports runtime engine, and related DLLs will be installed in *C:\Program Files (x86)* folder. We have also updated our hard key drivers so that they are compatible with the 64-bit operating environment.

Although Mun-Ease is currently a 32-bit application, we plan to release a native 64-bit version of Mun-Ease during the second half of 2010.

### ***New Features in the Allocations Module***

Before describing our new features in the Allocations module, we'll first provide a brief overview of the Allocations module.

### ***Background***

The Allocations module allows issuers to implement a charge-back system so that they can prorate debt service of a bond issue among funds, departments, cost centers, and/or projects. Some state entities also include an appropriation number and/or the legislative statute as part of their allocation coding scheme.

Mun-Ease provides two methods for allocating debt service. Under the first method, Mun-Ease allocates a portion of debt service of individual maturities in a bond issue. This method is often used when the projects

to be funded by the bond issue have varying useful lives and the issuer desires to charge a portion of debt service to reflect that fact.

The second method allocates in aggregate a percentage of gross debt service to the different allocation entities. For variable rate bond issues, this method is mandatory.

The allocation coding block is structured hierarchically much like a general-ledger account number. It is composed of four 10-character alpha-numeric segments. Each segment is associated with an 80-character description.

Most reports in the Allocation module have input options that allow the user to define the allocation hierarchy (i. e., the sort order for the four 10-character allocation segments) and the summarization level (the report can be summarized to (a) the top level, (b) top two levels, (c) top three levels, or (d) at the detail level (all four levels).

### *New Features*

In prior releases of Mun-Ease, the issuer chose one of the two methods for allocating debt service. Each method had its own reports. In this release, we allow the user to generate reports that merge calculations from both methods. Thus the issuer can use the gross debt service method for some bond issues and the maturity-by-maturity method for other bond issues and then create reports that combine both sets of calculations. Reports that can be merged include the 64d through 64m debt service schedules.

### ***Database Changes***

The features of the 13.75 release require that we update the structure of the Mun-Ease database. These changes include: (a) a new allocations table for gross debt service allocations (*Dsvalloc2*), (b) new data types for arbitrage tax forms database table (*arbforms*) to increase the precision of calculations included on the 8038 forms, and (c) additional fields in the report database tables on the SQL Server database (*Rptdtl* and *Rpthead*). The changes to the report database tables allow our Internet Add-On module to generate reports directly from the server instead of the report tables located on the client.

### *SQL Server Database Permissions*

The above changes are made to the database when the first user initiates Mun-Ease subsequent to the installation of the 13.75 release. Upon start-up, Mun-Ease asks the first user to verify that he has sufficient rights (*db\_owner* and/or *db\_creator*) before attempting to make these changes. Thus the first user must have *db\_owner* or *db\_creator* permissions or the changes cannot be made. After the database changes have been made by the first user, Mun-Ease will no longer inquire about permissions nor will users need them.

Note that the above discussion of permissions applies only to the SQL Server version of Mun-Ease. The BDE version of Mun-Ease can make database changes for any user regardless of their access rights.

### ***New Internet Add-On Module***

Our Internet Add-On module allows issuers to place their Mun-Ease database on a web server so that people outside of their immediate organization can obtain information about their debt. Among the reports that web users can run are individual and combined debt service schedules, combined indebtedness reports, and bond production reports. We also have features that allow an issuer to conduct a competitive bond sale over the Internet.

Our 13.75 CD contains two new versions of this program - one written for the BDE database and the other for SQL Server. We also made improvements to the report generation process so that reports are generated in less time. The Internet Add-On module now automatically depopulates the report database tables when a user finishes his/her session.

### ***Miscellaneous Changes***

We've added fifteen new allocation reports (#64h-m, 67h-m, 71h-m). These reports display allocated debt service and outstanding debt across a range of years defined by the user. The new reports provide numerous options for how debt service is sorted, summarized, and displayed (*allocate | by individual maturities | allocation reports | multi-yr dsv/paying agt* or *allocate | by gross debt svc | allocation reports | combined debt svc on a cash basis*).

We have changed our help system to allow Mun-Ease to display help topics in either compiled HTML (.CHM) or classic help format (.HLP). Previously Mun-Ease only displayed help in classic help format. You

can select a format by clicking on the User Ops speed button and checking the desired format in the bottom left-hand corner of the first tabbed window. *Background:* By default, Windows Vista supports only help in a compiled HTML format. Vista requires the user to install a separate program to display classic help files. This new change eliminates the need to install the program under Windows Vista.

In previous versions of the 2008 version, the BDE version of Mun-Ease updated the private use database tables as defined by the *MuniDb* database alias instead of the *Mun-EaseMainDb* database. This problem affected only the BDE version and not the SQL Server version. We corrected this problem so that the correct database is updated.

We now provide an option for the user to include bond surety fees in the true interest cost (TIC) calculation. Previously, we included bond surety fees only in arbitrage yield limit calculation and NOT the true interest cost. *Background:* While we don't necessarily agree with this trend, we are seeing more and more reports where the underwriter includes bond surety fees in the true interest calculation. We provide this option to facilitate the reconciliation of the user's calculations to those of the underwriter. You can initiate this option by choosing the *file | fixed rate bonds | edit* menu option and clicking on the *day counts / misc info* tabbed window. This option is displayed in the *TIC Calculation Options* group box. (This group box also includes an option to include upfront credit enhancements in the All-Inclusive TIC target value and not the regular TIC target value.)

We added a new column to the grid that is displayed when a user is adding or editing a "maturity-by-maturity" allocation. This new read-only column displays the called switch in a "Y/N" format. This feature helps a user to determine the amount of allocations to be assigned to each maturity when a prior refunding called only part of one or more maturities.

In the BDE version of Mun-Ease, "Bond Copy" function now allows the user to enter a 4-character suffix. Previously, the suffix was limited to 3 characters. This limitation only affected the BDE version of Mun-Ease.

We modified the import/export function within Mun-Ease so that the user can select the folder where a bond issue is read or written. The default import/export location for previous versions was a user's personal directory (*file | database maintenance | import/export*).

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## RELEASE 13.50 FEATURES (JANUARY 2009)

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### ***New Commercial Paper (CP) Features***

We've added new features for the calculation and input of a commercial paper debt within Mun-Ease. Users can initiate these features by pressing the commercial paper button while in the *notes / variable rate bonds* grid. When you press the commercial paper button, Mun-Ease displays a popup window to calculate either the yield, purchase amount, or maturity amount of the CP transaction and a button to paste the results back to the variable rate /notes grid.

*Background:* Tax-exempt commercial paper is usually structured with maturities (tranches) ranging from 30 to 270 days. As a tranche matures, it is typically rolled over into a new maturity at prevailing interest rates.

For the purpose of calculating the arbitrage yield, the different tranches of a commercial paper program are treated as a single bond issue if they are issued within 18 months of the original issue date and are part of the same plan of financing. In general, rollovers after the initial 18-month period are also treated as part of the same issue if there is no increase in the amount of outstanding indebtedness.

We have included detailed instructions for using our commercial paper features in the *latest2008.pdf* file that resides in the user's personal directory. This .PDF file can be viewed through the *help | chgs to documentation* menu option.

### ***New Features in the Stand-Alone Reporting Module***

We have created two new reports in the Stand-Alone Reporting module (#4e, #4f) that can be included in an issuer's annual CAFR. These reports display yearly totals for combined debt service in the first five years; then summarize debt service in 5-year increments for the remaining years. Report #4f is similar to #4e except that is also sorted by the Issue Type code (*reports | combined debt service reports | combined in 5-year increments for CAFR*).

We've created a new combined debt service report that is sorted by Bond ID (#4g). This report is created along with the other combined debt service reports (#4a,b & c) when you choose the *report | combined debt service | by date and ID* menu option.

We modified the combined debt service report (#4c) in the Stand-Alone Reporting module to correctly compute outstanding indebtedness when the report includes bond issues composed solely of zero-coupon bonds (CABs). In prior releases, the outstanding debt was not computed correctly because Mun-Ease displayed the debt service of a bond issue composed solely of CABs only when a CAB matured.

### ***New Features in the Arbitrage Module***

We've added a new option that allows the user to calculate the internal rate of return (IRR) on nonpurpose investments or purpose expenditures that fall beyond the temporary period. If the user calculates the IRR on investments or expenditures falling beyond the temporary period, he can generate IRR verification report (#79c/d) (*arbitrage | rebate/penalty calculations*).

We have modified the yield-reduction payment calculation in the Arbitrage module to exclude computation credits.

We now provide an option to perform the arbitrage yield-to-call test using either the current rules under Section 1.148.4(b)-3 or the rules proposed by the IRS in September 2007. We anticipate that the new rules will be finalized during 2009. This option is available when you choose the *arbitrage | yield tests | yield-to-call test* menu option.

We've enhanced the report selection options for the rebate / penalty calculations menu option (*arbitrage | rebate/penalty calculations*). In previous versions, users only had the option of performing rebate / penalty calculations for all transactions in a bond issue or for selected funds. In this release, we have included a new selection option that allows the user to perform calculations for all or a range of Group IDs.

Users should find this feature useful when they choose to perform separate rebate calculations for each bond year in a variable rate bond issue. For example, you could assign rebate transactions for the 2009 bond year with group IDs ranging from 20090000 to 20099999. Then by selecting this range, you can perform rebate calculations for just the 2009 bond year.

### ***New Features in the Allocations Module***

We added new reports to the Allocations module that summarize combined debt service to a level defined by the user.

*Background:* The allocation coding block is structured hierarchically much like a general-ledger account number. It is composed of four 10-character alpha-numeric segments. When the user generates report #64, Mun-Ease requires the user to define the allocation hierarchy (i. e., the sort order for the four 10-character allocation segments) and the summarization level (the report can be summarized to (a) the top level, (b) top two levels, (c) top three levels, or (d) at the detail level (all four levels). To use this feature, choose either the *allocate | by individual maturities | allocation reports | multi-year debt service* menu option or the *allocate | by gross debt service | combined debt service on a cash basis (#64d)* menu option.

We modified the combined debt service report (#64) in the Allocations module to include an additional column showing outstanding indebtedness as of each coupon payment date (*allocate | by individual maturities | allocation reports | multi-year debt service*).

We added a new feature in the Allocations module to allow the user to update the description of an allocation coding block across bond issues. *Background:* Initially the allocation description is entered for a single bond issue. This new capability allows the user to update "in-mass" all allocations instead of modifying them individually for each bond issue (*allocate | by individual maturities | edit/view/delete allocations | add a global description*).

We made cosmetic changes to the single-year indebtedness reports in the Allocations module. In some instances, the date column was truncated.

### ***New Performance Enhancements for the SQL Server version***

We've modified the SQL Server version of Mun-Ease to use client data sets for the Rebate transaction table. *Background:* Previous versions of Mun-Ease updated the Rebate transaction table directly on the network

server. Users who have a large number of rebate transactions reported that they were experiencing slow response time. To enhance performance in these situations, Mun-Ease now filters the rebate transaction data by Bond ID, and moves the filtered rebate transactions to a temporary table residing on the user's PC. The user makes all changes to this temporary table. Once he has finished updating the rebate data, all modified transactions are applied back to the server.

In certain instances, the SQL Server database cache was not emptied before a user would generate a report through Crystal Reports. We modified Mun-Ease to force SQL Server to apply all updates in its database cache prior to calling Crystal Reports.

### ***New Features for Variable Rate Bonds***

We've added new date fields to the initial setup window for the *file | variable rate bonds | setup* menu option. We've added these fields in case the user desires to override the calculated fields from the variable rate debt service table.

We now save the variable rate ceiling field to the variable rate bond issue. Because many banks calculate letter of credit (LOC) fees based on the interest rate ceiling instead of the effective interest rate, Mun-Ease now provides similar LOC fee calculation options.

We now save the tranche identifier to the bond master file. Previously the tranche identifier was only saved to the variable rate database table.

We now allow you to duplicate the periodic disbursements of credit enhancements by pressing the F12 function key while in the variable rate grid. The amount is duplicated for all remaining payment periods of the note or variable rate bond.

### ***Miscellaneous Changes***

We now provide an option to disable the bankers' rule for rounding interest. If the bankers' rule is enabled, half-penny amounts are rounded to the nearest even number. If the rule is disabled, half-penny amounts are rounded to the nearest penny (*setup | user options | edit your own profile*).

We have added new security features that can be optionally implemented by the Mun-Ease administrator. If the administrator restricts a user to only reporting functions and the user has purchased modules in addition to the stand-alone reporting module, then the user is allowed to run reports within the modules that he has purchased. However, the user is restricted from the update functions of the modules that he has purchased.

We corrected the spreadsheet interface for loading bond transactions. Previously call information was not loaded from the spreadsheet.

We changed the default location for the databases in the BDE version so that it does not exceed 30 characters. *Background:* The Mun-Ease interface with Crystal Reports requires that we pass the folder path to Crystal through DDE (dynamic data exchange). Crystal limits the length of the path to 80 characters. Also the utility that we use to backup the database to a zip file limits the path to 30 characters. Note that these length limitations apply only in the BDE version and not the SQL Server version. (The SQL Server version of Mun-Ease uses UDL file connection strings which can store path names of unlimited length.)

Please feel free to call us if you need assistance in changing the location of your BDE database(s).

We have changed the way line items for the *other issuance costs* field are entered. Users now have the option of entering either a fixed amount for each line item or a percentage of par amount. Thus amount of the line item and the total of other issuance costs are determined during the sizing process and not during the input process. All of the line items are saved to a refunding/sizing profile. (*Sizing and Refunding modules*).

We now provide a new option to users who are sizing a new-money or refunding bond issue using an existing profile. Users can request Mun-Ease to use the rate scale specified during data entry or the rates that were saved in the profile from previous analysis. (*Sizing and Refunding modules*).

We have added a new monthly accruals report (#105) that can be used to book journal entries for the monthly accruals of current interest and accretions of zero-coupon interest. We provided this report at the request of users who are working with enterprise funds. (*Stand-Alone Reporting Module*).

We have added new options for the calculation of letter of credit (LOC) fees. LOC fees can now be calculated as a percentage of outstanding debt or outstanding debt plus interest. Because LOC fees for variable rate bonds are often calculated based on the maximum interest rate allowed (the ceiling), we provide an option to input an interest rate to be used in the calculation of the LOC fees. Users can request the calculation of the LOC fee on a 30/360, actual/actual, or actual/360 day basis. (*Base, Sizing, and Refunding modules*).

We now provide an option to save all of the periodic fees to a sizing or refunding profile. Previous versions only saved only the first two periodic fees. (*Sizing and Refunding modules*).

We've included a new version of BDE version of Mun-Ease. This version will run in a "locked-down" environment. The new BDE database has the same architecture as our SQL Server version. In other words, the database tables, data fields, and the field sizes are the exactly the same in both versions. (*All Modules*).

*Importing Coupon Rates* - We added a routine to initialize coupon rates for all 40 years even if the rate scale to be imported does not contain rates for certain years. Background: The rate scales in the Wall Street Journal do not display rates for all the years after year 20. (*Base Module*).

We enhanced the rounding routines in the sizing module. We also eliminated a disk IO error message that occurs when a user is resizing a bond issue using a bond ID that currently exists. (*Sizing Module*).

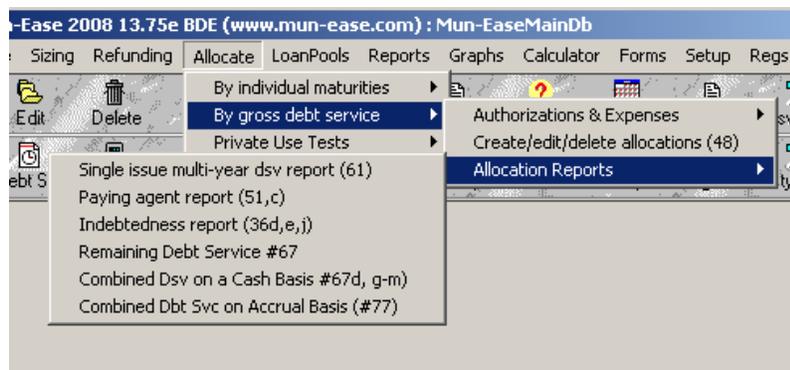
We corrected a bug that occurs when a user attempts to merge two or more variable rate bond issues into a single bond issue. (*Base Module*).

We corrected a bug in the combined indebtedness report. The accruals and accretions were not computed correctly if the report date occurred within a bond's initial stub period. (*Stand-Alone Reporting Module*).

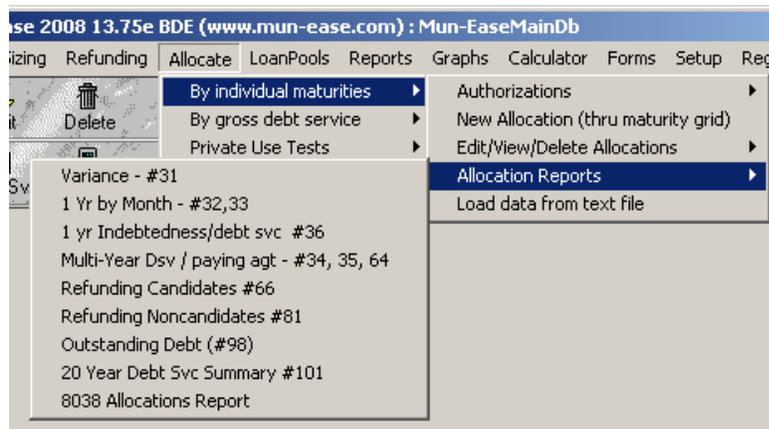
We provide a new option to disable the database browse window that the SQL Server version displays at startup. We also provide another option to disable the backup reminder that Mun-Ease displays when you exit Mun-Ease. Both options can be disabled by clicking on the *User Ops* speed button below the main menu. (*All modules - SQL Server version*).

In prior releases of Mun-Ease, the issuer chose one of the two methods for allocating debt service. Each method had its own reports. In this release, we allow the user to generate reports that merge calculations from both methods. Thus the issuer can use the gross debt service method for some bond issues and the maturity-by-maturity method for other bond issues and then create reports that combine both sets of calculations. Reports that can be merged include the 64d-m and 67d-m debt service schedules.

Step 1: Generate the 67d-m reports for the bond issues for which you have allocated on a “gross debt service” basis. Choose the *Allocate* | *By gross debt service* | *Allocation Reports* | *Combined DSV on a Cash Basis* menu option. *Important:* When asked if you would like to select the bond issues to be included in the report, enter “yes” and select only those bond issues that you have allocated a “gross debt service” basis. (If you do fail to filter your selections, Mun-Ease will assign a default allocation of ‘zzzz-zzz-zzz-zzzz’ to all bonds for which there are no allocations.)



Step 2: Generate the 64d-m reports for the bond issues for which you have allocated on a “maturity-by-maturity” basis. Choose the *Allocate* | *By individual maturities* | *Allocation Reports* | *Multi-Year DSV / paying agt* menu option.



**Multi-Year Debt Service Allocations Report Inputs**

**Dates**

Report Title:

1st month in fiscal year:

Exclude maturities with a called switch set to "Y"?

Show debt service from:

Show debt service through:

Do not display detailed progress of calculations

*(choose this option to speed-up report process.)*

**Sort Sequence (1-4, 1=highest level)**

Allocation fund:

Allocation entity:

Allocation sub-entity:

Allocation project:

**General ledger charge codes for debt payments**

Description of codes (to be displayed in report headings)

Charge codes (to be displayed in report body (60 chars))

*(for example, X1235-P9999-F98765)*

**Reports**

**Multi-Year Debt Service Allocation Reports**

#64 g, h, i, j Summarized/totaled to a level defined by you:

    Summarized to the 1st "X" levels; "x" =

#64 Not summarized; totals by date and fiscal year

#64a Not summarized; totals by bond issue, date, and fiscal yr

#64c Not summarized; sorted by allocation, bond, and date

#64e Summarized to highest level; totals by date & month

#64f Summarized to highest level; totals to highest level

**Paying Agent Reports**

#34d - Not summarized; bond issue totals

#35c - Not summarized; - no bond issue totals

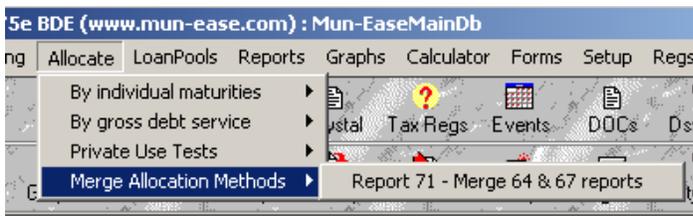
#34e - Summarized to two top levels in hierarchy

    Customized Version?

When generating the reports for both methods, you must choose the same fiscal year, date range, allocation sort sequence (hierarchy), and summarization levels. If the inputs are different, then reports will contain invalid information.

*Important:* Your input options for both methods must be consistent. Thus you should choose the same fiscal year, date ranges, sort sequences for the allocation coding block, and summarization levels for both methods.

Step 3: Choose the Allocate | Merge Allocation Methods | Report 71 – Merge 64 and 67 reports menu option. Mun-Ease will generate reports that merge information for both allocation methods.



6.3 VARIABLE RATE BONDS - ARBITRAGE YIELD LIMIT  
CALCULATION FOR A COMPUTATION YEAR

Assume that you are computing the arbitrage yield limit for a computation year that begins on 4/15/2005 and ends on 4/15/2006. The variable rate transactions for this bond issue are shown below.

Date	Eff. Int. Rt.	Interest	Principal	Cred. Enh.	Tot Debt Service	Keeper?
05/01/2005	3.00000	\$24,741.00	\$160,466.91	\$0.00	\$185,207.91	Y
06/01/2005	3.00000	\$25,151.16	\$160,002.81	\$3,307.55	\$188,461.52	Y
07/01/2005	3.00000	\$23,939.83	\$161,373.44	\$0.00	\$185,313.27	Y
08/01/2005	4.00000	\$32,427.92	\$160,942.21	\$3,209.39	\$196,579.52	N
09/01/2005	6.00000	\$47,810.35	\$161,412.66	\$0.00	\$209,223.01	N
10/01/2005	7.00000	\$53,037.85	\$162,741.79	\$3,004.16	\$218,783.81	N
11/01/2005	8.00000	\$61,514.07	\$162,360.17	\$0.00	\$223,874.24	N
12/01/2005	3.00000	\$21,917.75	\$163,661.44	\$2,889.54	\$188,468.73	N
01/01/2006	5.00000	\$37,042.59	\$163,313.16	\$0.00	\$200,355.75	N
02/01/2006	6.00000	\$43,607.32	\$163,790.53	\$2,874.74	\$210,272.59	N
03/01/2006	3.00000	\$19,311.45	\$166,610.48	\$0.00	\$185,921.93	N
04/01/2006	3.00000	\$20,950.13	\$164,756.31	\$2,762.20	\$188,468.64	N
05/01/2006	3.00000	\$19,862.42	\$165,987.06	\$0.00	\$185,849.48	N
06/01/2006	3.00000	\$20,095.70	\$165,723.10	\$2,509.25	\$188,328.05	N

Note that letter of credit fees (*cred. Enh.* column) are paid every other month while interest is paid every month. Thus Mun-Ease must use different day counts for the accrual of interest and letter of credit fees. Also note that the bond year that we have chosen does not fall on an coupon anniversary date.

*Choose the Arbitrage | Yield Limit Calculation (plain par bonds)* menu option. In the *Bond ID* window, select a variable rate bond issue. Mun-Ease will display a tabbed window allowing you to compute the arbitrage yield limit for the full five-year period or for individual computation years. Choose the *AYL for Individual Bond Year* tabbed window.

Enter 5/15/2005 as the date for beginning of the computation period and 5/15/2006 as the date for the end of the computation period.

Press the *Refresh* button. Note that Mun-Ease computes the day counts and interest and LOC fee accruals for both dates.

Press the *Calculate* button and Mun-Ease calculates the arbitrage yield limit for the computation period.

**Variable Rate Arbitrage Yield Limit (AYL) Calculation for YARRT-2005-1**

AYL Calculation For All Years | AYL By Individual Bond Year

**Step 1: Select the Calculation Period:**

Date: Outstanding Indebtedness

Start of Calculation Period: 0 | 5/15/2005 | \$9,735,934.58

End of Calculation Period: 1 | 5/15/2006 | \$7,778,982.54

Pct of upfront costs allocated to time pd: (b) | 20.0000000

FV factor for allocating upfront costs to time pd: (c) | 4.1170864

Accrual Date Range - Override if necessary

Beg. of Period:	From	Thru	
Interest	5/ 1/2005	6/ 1/2005	14/30
LOC Fees	4/ 1/2005	6/ 1/2005	44/60
End of Period:			
Interest	5/ 1/2006	6/ 1/2006	14/30
LOC Fees	4/ 1/2006	6/ 1/2006	44/60

Prorata share of interest/LOC Fees on 05/15/2005 = 11,737.21 / 2,425.54

Prorata share of interest/LOC fees on 05/15/2006 = 9,377.99 / 1,840.12

**Step 2: Press the Refresh Button:**

	Costs/Amounts @ Date of Issue (a)	Pct of Costs Allocated to Pd. (b)	Amt. Allocated to Time Period (a*b)	Future-value Factor (c)	Amt Allocated to Time Period (a*b*c)
Beg. Indebtedness:	10,000,000.00				9,735,934.58
+ DIP (+) / OID (-):	0.00	20.0000000	0.00	1.0154161	0.00
- Upfront Insurance:	0.00	20.0000000	0.00	1.0154161	0.00
- Bond surety fees:	0.00	20.0000000	0.00	1.0154161	0.00
+ Accrued interest:	0.00	N/A			11,737.21
+ Other Costs:	0.00	20.0000000	0.00	1.0154161	0.00
		N/A			2,425.54
= Arb. Target Value:	10,000,000.00				9,750,097.32

**Step 3: Press the Calculate Button to Calculate the Arbitrage Yield Limit for Time Period:**

The arbitrage yield limit for transactions between 05/15/2005 and 05/15/2006 is 03.3734121

Buttons: Calculate, View Debt Svc, 8038's, Report, Ok, Cancel, Help, Fast Navigation Buttons, Arb Trans., Rebate calcs, IRR calcs

Step 1: Enter the beginning and end of the computation period.

Step 2: Press the Refresh button. Mun-Ease calculates (a) the days counts for accrual of interest and LOC fees, and (b) the accruals of interest and LOC fees. Note that the day counts differ for interest and LOC fees.

Step 3: Press the Calculate button. Mun-Ease calculates the arbitrage yield limit for the computation

Press the *Report* button and Mun-Ease provides a new arbitrage yield limit report (#1n) showing a verification report for selected computation period.

<i>Interest Payment</i>	<i>Credit Enhancements</i>	<i>Misc Fees</i>	<i>Periodic Debt Service</i>	<i>Present Value Factor</i>	<i>Discounted Debt Service</i>
25,151.16	3,307.55	0.00	188,461.52	0.9859696	185,817.33
23,939.83	0.00	0.00	185,313.27	0.9832057	182,201.05
32,427.92	3,209.39	0.00	196,579.52	0.9804494	192,736.28
47,810.35	0.00	0.00	209,223.01	0.9777009	204,557.53
53,037.85	3,004.16	0.00	218,783.81	0.9749602	213,305.50
61,514.07	0.00	0.00	223,874.24	0.9722271	217,656.59
21,917.75	2,889.54	0.00	188,468.73	0.9695016	182,720.74
37,042.59	0.00	0.00	200,355.75	0.9667838	193,700.70
43,607.32	2,874.74	0.00	210,272.59	0.9640736	202,718.26
19,311.45	0.00	0.00	185,921.93	0.9613711	178,739.96
20,950.13	2,762.20	0.00	188,468.64	0.9586760	180,680.37
19,862.42	0.00	0.00	185,849.48	0.9559886	177,669.98
9,377.99	1,840.12	0.00	7,790,200.65	0.9547370	7,437,593.00
<del>542,950.83</del>	<del>519,887.70</del>	<del>0.00</del>	<del>10,171,773.12</del>		<del>89,750,097.29</del>
5.8997821					Face Value of Bond Issue . . . . . \$9,735,934.58
3.3734121					Pro-rata Share of Interest (+) . . . . . \$11,737.21
					Original Issue Premium/Discount (+) . . . . . \$0.00
					Lump-sum creditenhancements (-) . . . . . \$0.00
					Bond Surety Fee . . . . . \$0.00
					Other Arbitrage Costs (+) . . . . . 0.00
					Pro-rata Share of LOC Fees (+) . . . . . 2,425.54
					= AYL Target . . . . . \$9,750,097.32

The last line of the debt service schedule displays the pro-rata share of interest and LOC fees in the ending computation period.

Accruals of interest and LOC fees in the beginning period affect the arbitrage target value.

**Step 1: Choose the *File / Notes & Variable Rate Bonds / Variable Rate Setup Options / New* Menu Option**

In the Bond ID window, enter a bond ID to identify the transactions that will be part of the commercial paper program. Mun-Ease displays the *variable rate loan initial setup* window (Figure 1).

Enter the appropriate values for the commercial paper program. We recommend that you leave the *Face Amount* field to a value of zero.

Press the *OK – Go to Variable Rt Grid* button. Mun-Ease displays a warning that the Face Amount is zero (Figure 2). Ignore this warning. Mun-Ease then displays an empty variable rate grid (Figure 3).

Figure 1 Initial Setup Screen For Commercial Paper Transaction

Because the commercial paper transactions include both the purchase amount and the maturity amount, we recommend that you leave the Face Amount field to a value of \$0.00.

Figure 2 Warning of Zero Amount in Face Value Field - IGNORE THIS WARNING

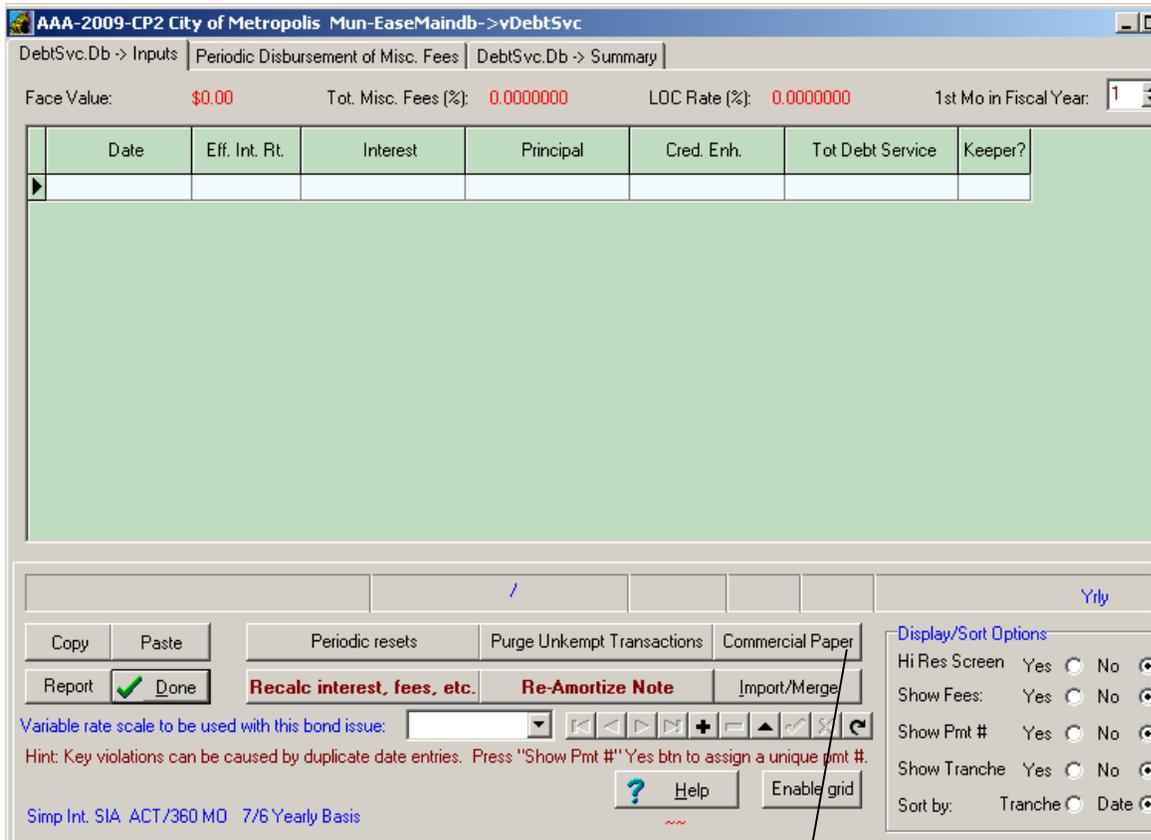


Figure 3 Empty Variable Rate Grid

Press the Commercial Paper button to create a new commercial paper tranche.

## Step 2: Create a New Commercial Paper Tranche

Mun-Ease provides three calculations options for the new commercial paper tranche. You can:

- calculate the yield from the purchase and maturity amount,
- calculate the purchase amount after entering the yield and maturity amount,
- calculate the maturity amount after entering the purchase amount and yield.

After choosing the calculation option, enter the other fields and press the *Calculate* button. Mun-Ease displays the results in the *Commercial Paper Calculator Results* group box. Note that the *Tranche Identifier* incorporates the date of purchase into its 10-character description. If you have more than one commercial paper transaction occurring on the same date, be sure to change the *Tranche Identifier* to a unique ID (e. g., 20090115-B). If the calculations are correct, press the *Paste Data* button to paste the results into the Variable Rate Grid.

The screenshot shows a window titled "Commercial Paper Calculator". It has two main sections: "Calculation options: (choose one)" and "Commercial Paper Calculator Inputs".

**Calculation options:**

- (a) Calculate the yield after entering the purchase amount and maturity amount.
- (b) Calculate the purchase amount after entering the yield and maturity amount.
- (c) Calculate the maturity amount after entering the yield and purchase amount.

**Commercial Paper Calculator Inputs:**

- Amount Invested: \$1,000,000.00
- Amount at Maturity: \$1,001,562.50
- Yield: 1.250000
- Round yield to 3 places? Yes  No
- Date of purchase: 1/15/2009
- Maturity date: 3/1/2009
- Day Count Rule: Actual/360
- Tranche identifier: 20090115-A

**Results:**

- Interest = 1,562.50
- amount @ maturity 1,001,562.50

**Buttons:** Calculate, Paste data, Cancel

**Summary:** Days between payments: 45, Days in calculation period: 360

Figure 4 Commercial Paper Popup Window For Calculations

The Tranche Identifier incorporates the purchase date into its 10-character description. If you have more than one commercial paper transaction occurring on the same date, change the identifier to a unique description (e.g., 20090115-B).

### Step 3: Review Results, Print Report, Repeat the Process

Mun-Ease creates two new variable rate transactions when you paste the results of the commercial paper transaction to the variable rate grid (Figure 5). The first transaction is the purchase amount. The second transaction reflects the amount at maturity (interest plus principal). Note that the total of the principal amounts of both transactions equal zero (the purchase amount is the negative of the maturity amount). Repeat Step 2 for each additional tranche. Press the *Report* button to view a report of all commercial paper transactions for the bond issue (Figure 6).

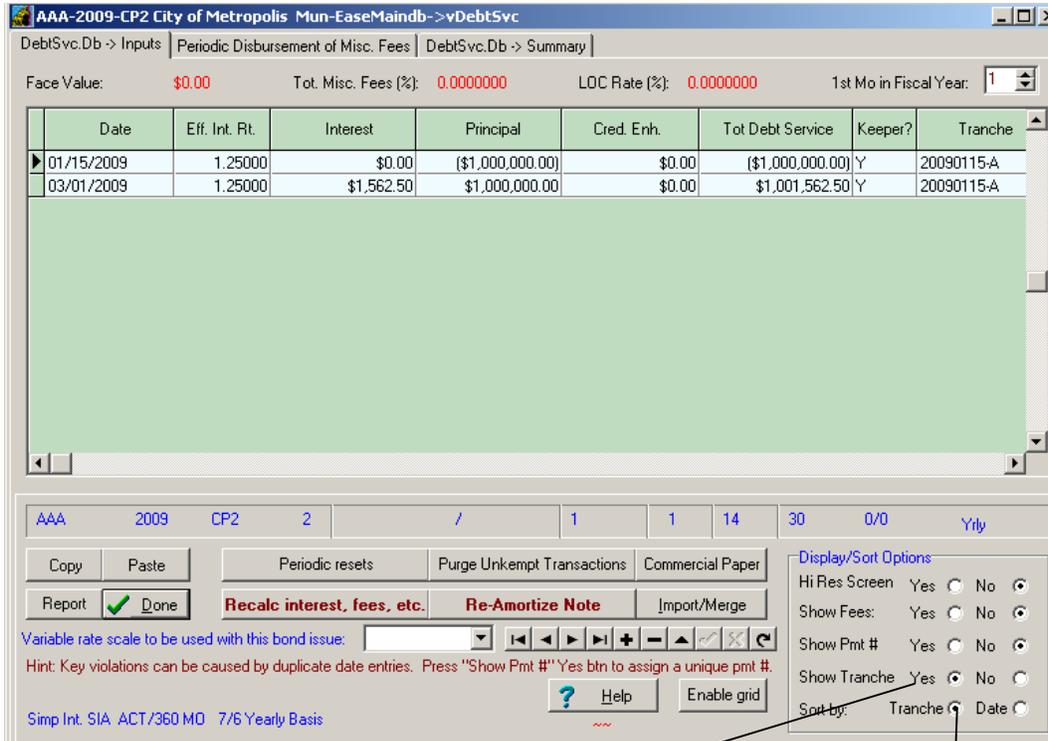


Figure 5 Results of Commercial Paper Calculation

Click on the **Show Tranche** button to view the Tranche Identifier.

Click on the **Sort by Tranche** button to sort the transactions by Tranche. This option is currently available only in the SQL Server version.

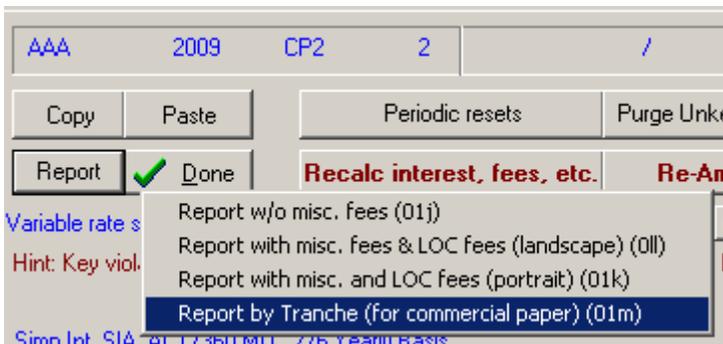


Figure 6 Create a Report of Commercial Paper Transactions for the Bond Issue