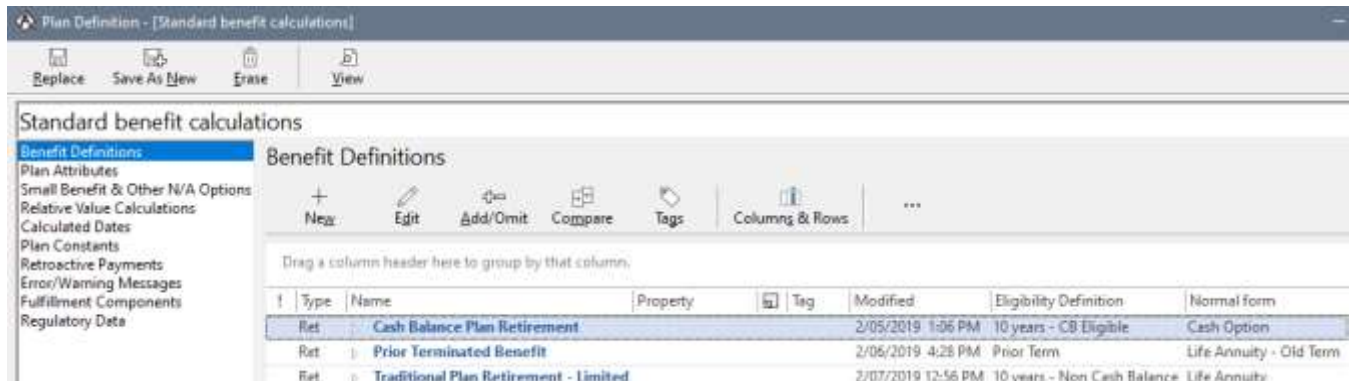


ProAdmin version 3.16 introduces a new plan editor interface, new array operators and user-friendly output. Full details plus many other new features below.

Interface

- ◆ **Plan editor interface.** The interface for plan setup and review is richer and more interactive than ever before. It is easy to:



- **See the forest.** You can compare properties across benefits, such as normal form, eligibility conditions, etc. Click Columns & Rows to select properties you want to view.
- **See how pieces fit together.** Expand a benefit to see its formula and components.

Ret	Traditional Plan Retirement - Limited	2/07/2019 12:56	1
	RetBen * Erf * Vest ;RetBen = 2% of FAE max 30 years;E...	Benefit formula	
	RetBen - Retirement Plan Benefit	Component - FAS	1/12/2012 15:02
	Erf - Early Retirement Table	Component - Ta...	8/03/2004 11:42
	Vest - Vesting Schedule	Component - Ta...	8/26/2008 10:54

- **Drill into details.** Expand a component to see its properties. You can even double-click it to edit it directly without having to go through its benefit.

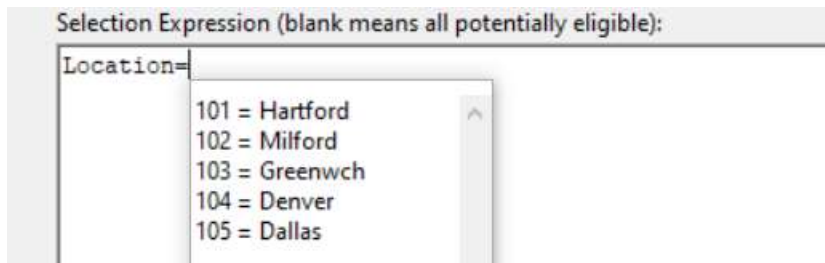
Ret	RetBen - Retirement Plan Benefit	Component - FAS	1/12/2012
	0.02 from 0 to 30 yos, 0 after	Accrual rate	
	FinalAvgSal ; highest 3 out of the last 5 years bas...	Accrual basis for...	

- **See what's missing.** Easily spot where inputs are incomplete by looking for look for !.

!	Type	Name	P
	Ret	Cash Balance Plan Retirement	
	Ret	Prior Terminated Benefit	
	Ret	Traditional Plan Retirement - Limited	
!	Ret	Traditional Retirement - Unlimited	

Incomplete inputs:
You must specify a normal form of payment

- **Organize.** You can sort or group benefits by any property, such as by selection expression.
- ◆ **Autocomplete for codes.** When using a coded field in an expression, e.g., "Location=...", a list of valid codes now appears to choose from now. You can also hover over a code to see its label.

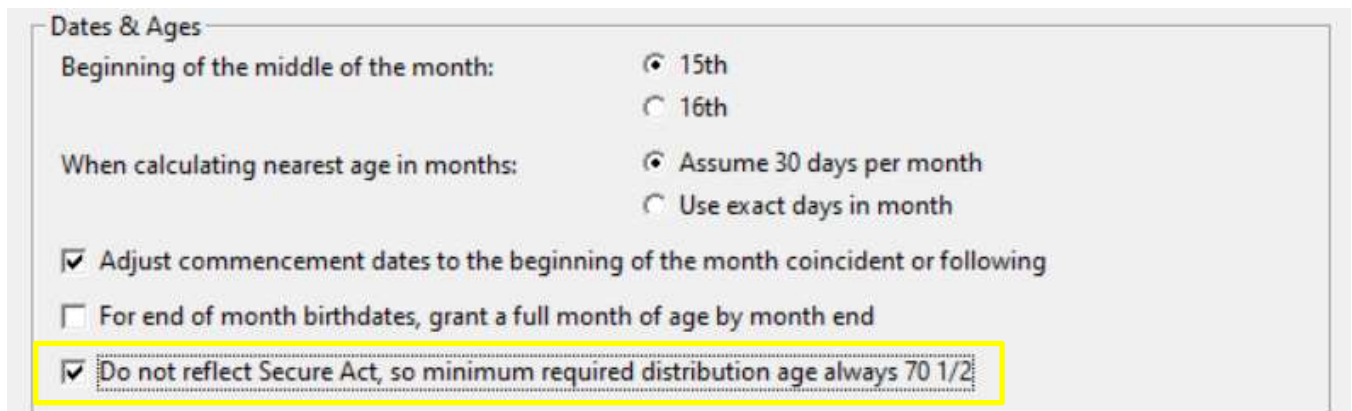


- ◆ **Library entry buttons.** Standard buttons for library entries (Replace, Save As New, Erase, ...) have been moved for a more modern look and placed next to related buttons such as Refresh data & re-run.



Plan Definitions

- ◆ **MRD age 70 1/2.** The miscellaneous parameters section of plan attributes includes a new checkbox to not reflect the 2019 Secure Act, thereby always using age 70 1/2 for minimum required distributions.



- ◆ **Summing of benefits.** When <sum of benefits> is selected for the relative value denominator of a Benefit Definition, now only the selected benefits that are of the same contingency will be considered. (This enhancement was released as a 3.15 patch but is included here in case you missed it.)
- ◆ **PEP plans.** An article entitled "Coding Pension Equity ("PEP") Plans" has been added to the Plan Definition FAQs section of the help. These plans are easily coded in ProAdmin and do not require use of a special accrual definition as was needed in ProVal.

Benefit Formula Components

- ◆ **Table-based late retirement.** Late retirement calculations can now be based on age-based conversion tables from the Benefit Component Table library. Note that the table need not include a value of 1: ratios will be taken based on the member's normal retirement age.

The screenshot displays the configuration interface for a Benefit Formula Component. The 'Name' field is 'LateRet' and the 'Description' is 'Illustrative by table'. The 'Component type' is 'Late Retirement'. Under the 'Accrued Benefit' section, the 'Benefit Formula Component' is 'LATE_BEN_01_04_ALL_NONVAP' and the 'Normal Form Type' is 'Life Annuity'. The 'Actuarial equivalence for late retirement' section includes options for 'Normal Retirement Date (NRD) defined by:' (Plan Attributes selected), 'Using Service Definition Set:' (<Base Service Set>), and 'Actuarial Equivalence assumptions:' (<Based on a conversion table> selected). The 'Conversion table' is set to 'Late Table VII'. The 'Calculation performed' options are 'At commencement age' (selected) and 'Annually'. A 'Reflect constant COLA rate:' checkbox is also present.

- ◆ **Interest rate at decrement.** Annuity factor component interest rates can now be frozen at the decrement date.

The screenshot shows the 'Interest' configuration dialog box. It has two main sections. The top section is titled 'Interest' and contains three radio button options: 'Static rate:', 'Based on Interest Rate Table', and 'Based on Interest Rate Table'. The 'Based on Interest Rate Table' option is selected. Under this section, there is a dropdown menu showing '417eRates', a checkbox labeled 'Apply PPA phase-in from this GATT Interest Rate Table' which is checked, and another dropdown menu. The bottom section is titled 'Use alternative interest rate in the deferral period' and is currently unchecked. It also has radio button options for 'Constant' and 'Based on Interest Rate Table'. At the bottom of the dialog, there is a checkbox labeled 'Freeze at decrement' which is checked and highlighted with a yellow rectangular box.

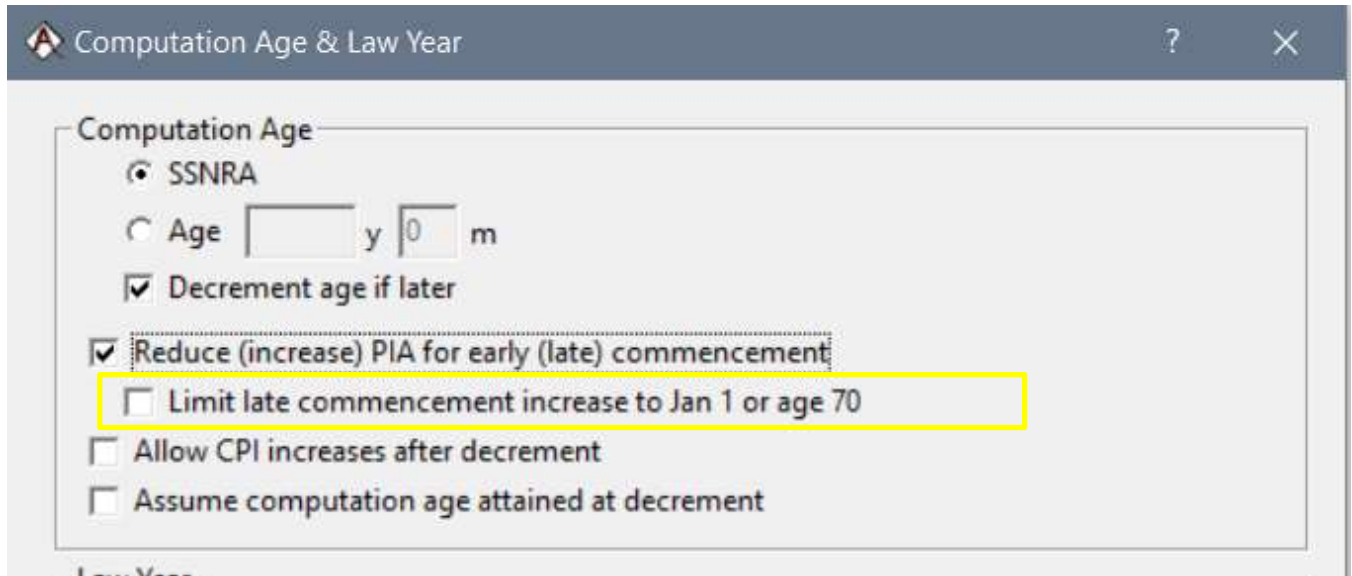
Operators

- ◆ **#INLEAPYR** is a new date operator that indicates whether the date is in a leap year. The left argument is optional and indicates whether to check on a calendar year (a=1) or plan year (a=0) basis, where calendar year is the default. The right argument is the date or dates to be evaluated. The result is 1 for dates in a leap year, 0 otherwise.
- ◆ The following measurement period array operators have been added:
 - **#MPGEN** is available in Data Defaults to generate measurement period dates for use in creating or modifying array fields. The left argument is the measurement date period, where 1=annual, 2=semi-annual, 4=quarter, 12=month, 24=semi-month, 26=bi-week, and 52=week. The right argument is one or more sets of starting and ending dates. For example, to generate annual 12/7 anniversary dates from 12/7/2010 to 06/15/2021, use the expression "1 #MPGEN (12/7/2010, 06/15/2021)".
 - **#MPMAX** and **#MPMIN** take the maximum or minimum, respectively, of the values within each measurement period. The optional left argument is the measurement period, and the right argument is the array to be processed. The available measurement period arguments are consistent with the other #MP operators. For example, "2 #MPMAX Hours" returns the maximum hours reported to date in each calendar year.

Please see the F1 expression help and command reference help for more details and examples.

Custom Operators

- ◆ **#PIA** can now reflect the Social Security Administration rule that limits the late commencement increase to that in effect at the prior or coincident January 1 or age 70 if earlier. This is consistent with how the Social Security Administration's AnyPIA tool calculates benefits.



Mortality

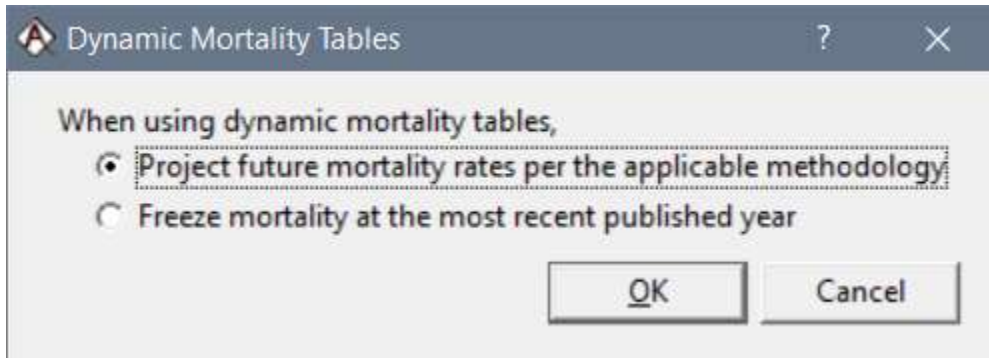
- ◆ ProAdmin now supports the ERISA 4044 Mortality (dynamic) table. This may be useful as a minimum valuation basis for certain lump sums.
- ◆ **Ignore recent dynamic mortality tables.** A new ProAdmin.ini file setting, `IgnoreDynMortTblsYr=YYYY`, works with "Use the current applicable mortality for 417(e)" checkbox in actuarial equivalence, annuity factors, etc., to allow you to ignore 417(e) dynamic mortality table changes published for years after the year specified.

This is a great tool to use when testing old/new results (e.g., when you upgrade to a new version of ProAdmin). Using this setting, a prior IRS 417(e) dynamic table can be considered the "current applicable table", making it easier to identify any version changes. Once any version changes are reconciled, the test bed can be re-run with the actual current mortality (by eliminating the setting or making it blank after the equals sign).

Note that this setting does not freeze the projection into the future; it just changes the starting point.

ProAdmin will look for the `IgnoreDynMortTblsYr=` setting in the [Config] section of ProAdmin.ini. For server runs, it will also check the [Server] section of ProAdmin.ini as an override to whatever may have been set in the [Config] section.

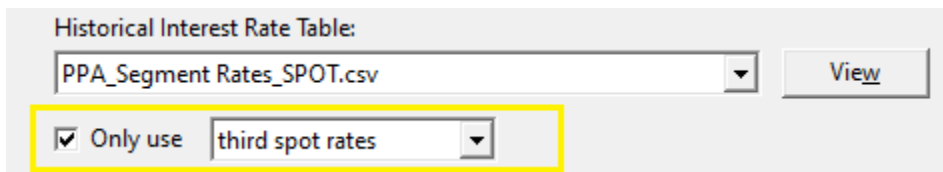
- ◆ **Dynamic mortality projection.** A new projection assumptions topic allows you to freeze mortality at the most recent published year rather than projecting the table through commencement. (The processing messages continue to indicate what published year was used.)



Note that the `IgnoreDymortTblsYr` ProAdmin.ini file setting mentioned above works with this projection assumption. For example, if `IgnoreDymortTblsYr=2021` is specified in the [Config] section of ProAdmin.ini and "Freeze improvements at the most recent published year" is defined in the projection assumptions, when "Use the current applicable mortality for 417(e)" applies, the dynamic mortality table improvements are frozen at 2021 instead of the most recent published year (which is 2022 at the time of this release).

Interest Rate Tables

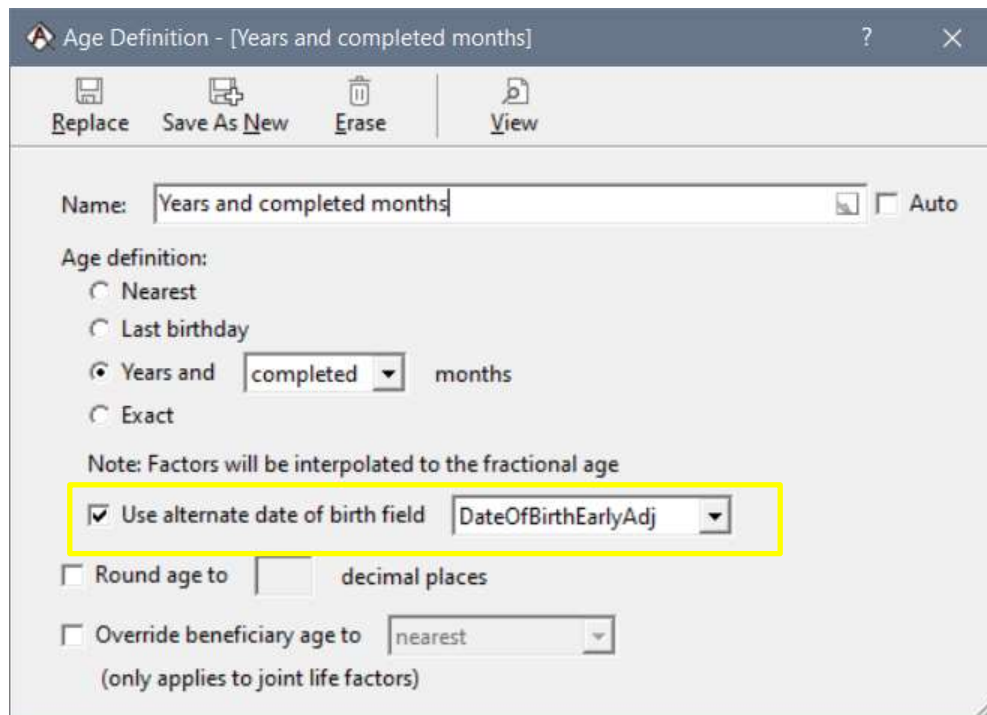
- ◆ If a spot rate table is selected, you can now choose to use only the third segment rate for each date. This makes the table into a "scalar-type" table that is accessible in places that spot rate tables are not, such as cash balance crediting.



Age Definitions

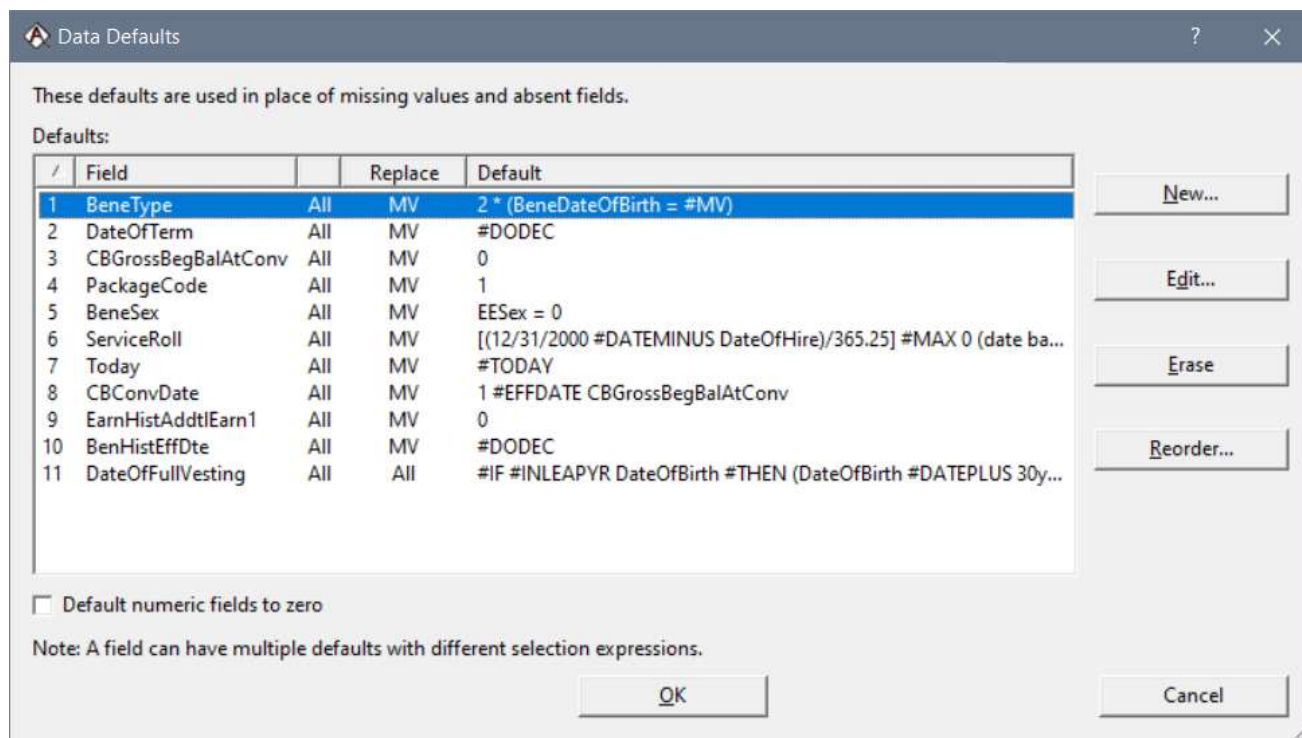
- ◆ **Alternative member DOB.** Age Definitions now allow you to reference an alternate member date of birth field. This feature is useful for plans that calculate age in a way that does not neatly fit into one of the age calculation approaches ProAdmin handles (e.g. granting a month of age if the member is born after the 15th of the month). Now, you can modify the date of

birth in a Data Default expression and reference the modified date field to get the desired age calculation result.



Data Defaults

- ◆ In Census Specification, data defaults are now listed with the field, applicable to and replace parameters, and default expression in separate columns. This allows for sorting on any column, e.g., to find defaults for a particular field. Additionally, deleting an entry is much more direct – simply select the defaults and press the Delete key or Erase button.




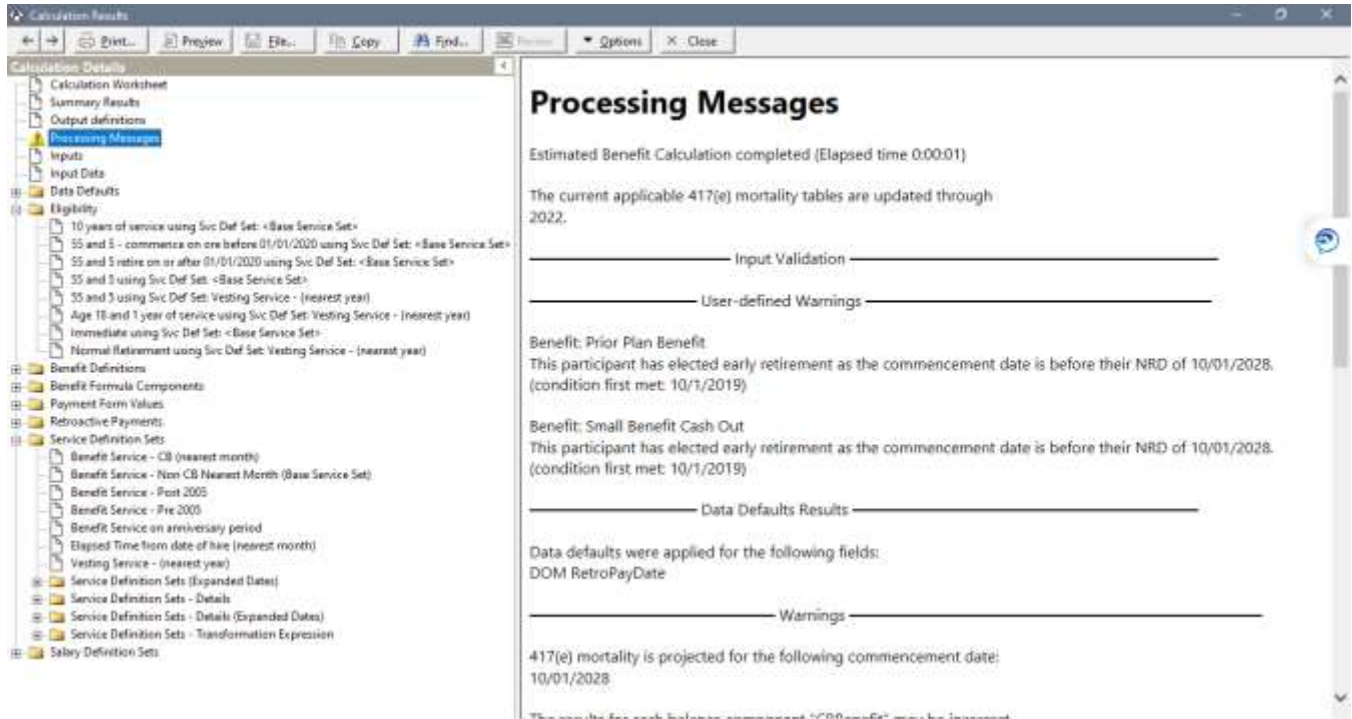
- ◆ The replace missing and zero values option within Data Defaults is now available for non-array date and coded fields. Previously, this option was only available for non-array numeric fields.

Projection Assumptions

- ◆ Plan Constants are now available for use as a salary inflation constant value, as well as an override to the salary inflation constant.

Output

- ◆ **Output tree.** Upon the completion of an estimate, final or dates/age/service calculation, ProAdmin now brings you immediately to a tree that includes all output rather than requiring a choice. One of the many benefits of this new approach is that processing messages are now more visible and easier to access. When Processing Messages contain warnings, a  appears beside it as a visual clue that there's something important to read. Customizations, such as selecting inputs, are still available from the options button. For more information, see [Output Improvements](#) on page 11.



The screenshot displays the 'Processing Messages' window in ProAdmin. The window title is 'Calculation Results' and it features a standard menu bar with options like 'Print...', 'Copy', 'Find...', 'Options', and 'Close'. On the left, a tree view shows the 'Calculation Details' structure, with 'Processing Messages' highlighted. The main content area is titled 'Processing Messages' and contains the following information:

- Estimated Benefit Calculation completed (Elapsed time 0:00:01)**
- The current applicable 417(e) mortality tables are updated through 2022.**
- Input Validation**
- User-defined Warnings**
- Benefit: Prior Plan Benefit**
This participant has elected early retirement as the commencement date is before their NRD of 10/01/2028. (condition first met: 10/1/2019)
- Benefit: Small Benefit Cash Out**
This participant has elected early retirement as the commencement date is before their NRD of 10/01/2028. (condition first met: 10/1/2019)
- Data Defaults Results**
Data defaults were applied for the following fields:
DOM RetroPayDate
- Warnings**
417(e) mortality is projected for the following commencement date:
10/01/2028

- ◆ **Calculation Worksheet.** A customizable calculation worksheet is now automatically produced for all calculations. It includes lots of useful information designed to facilitate review of the calculations by someone not familiar with the coding such as a call center representative. For more information, see [Output Improvements](#) on page 11.

Calculation Worksheet

Estimate: SQL Test - SQL ID

Processed by: Colleen King, Wed 8/25/2021 11:17 AM

PersonID: 111-11-1111

[Member Data](#)

[Projection Assumptions](#)

[Dates/Ages/Service](#)

[Benefit accruals](#)

[Traditional Plan Retirement - Limited](#)

[Traditional Retirement - Unlimited](#)

Member Data

CBCConvDate	Cash Balance conversion date	1/01/2005	
CBGrossBegBalAtConv	Cash Balance member gross beginning balance @ conversion	1/01/2005	0.00
DateOfHire	Member date of hire	7/14/1989	
EarnHistBase	Earnings History base earnings	1/01/1993	12/31/1993 28,209.00
		1/01/1994	12/31/1994 26,109.50
		1/01/1995	12/31/1995 29,875.01
		1/01/1996	12/31/1996 30,937.50
		1/01/1997	12/31/1997 32,531.25

- ◆ **Navigation improvements.** The summary results, output definitions and new calculation worksheet include a table of contents at the top that allows a direct jump to the desired information. These sections also have the capability to minimize and maximize the sections displayed and jump back to the top. For more information, see [Output Improvements](#) on page 11.
- ◆ **Eligibility Exhibits** have been improved to show the development of calculated date fields used as benefit commencement dates as well as an "Unadjusted Elig. date" column when a date adjustment is referenced. (These enhancements were released as a 3.15 patch but are included here in case you missed them.)

System

- ◆ An option to "**Copy with Titles**" has been added to spreadsheet dialog boxes submenu.
- ◆ **#IF ... #THEN expressions** now evaluate much faster, especially when there are #ELSEIF conditions.
- ◆ Extended Error Logging is now available to help WinTech track down hard-to-reproduce issues, typically with the interface. If directed by ProAdmin support, you can use File > Options > Extended Error Logs to capture logs for specific errors.
- ◆ Database Linkage validation messages have been improved when there is a Person ID problem with at least one of the tables. (This enhancement was released as a 3.15 patch but is included here in case you missed it.)

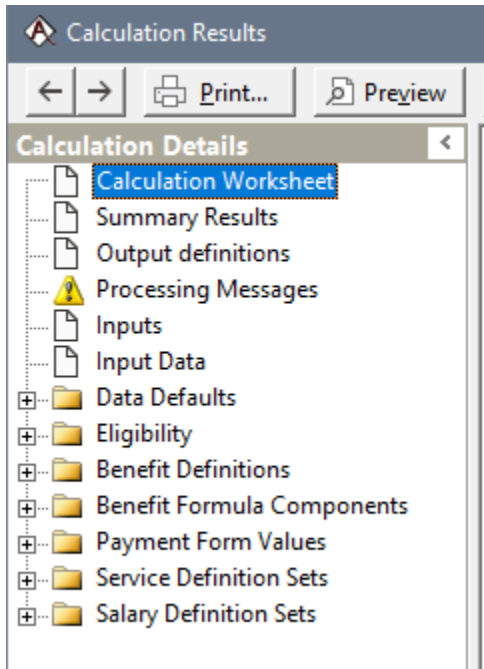
- ◆ The version and update date for ProAdmin are now part of the **System Information**. (This enhancement was released as a 3.15 patch but is included here in case you missed it.)

Changes Log

- ◆ Be sure to read the changes log (see the "changes log.doc" file in the ProAdmin directory) about updates to certain calculations that may change results.

Output Improvements

In ProAdmin version 3.16, the output is redesigned and consolidated to provide a more user-friendly look and feel. The Summary, Detailed, Output Definitions, and Inputs exhibits are combined along with a new Calculation Worksheet that provides additional details about the calculation.



This output will also be presented automatically upon completion of a calculation request, saving several "clicks" for ProAdmin users.

The Calculation Worksheet, Summary Results, and Output Definitions now have a menu section at the top with hyperlinks that allow you to jump to a specific section of the exhibit. These output reports also allow you to minimize and maximize the sections displayed and/or jump back to the top. The following is an example of the Output Results menu.

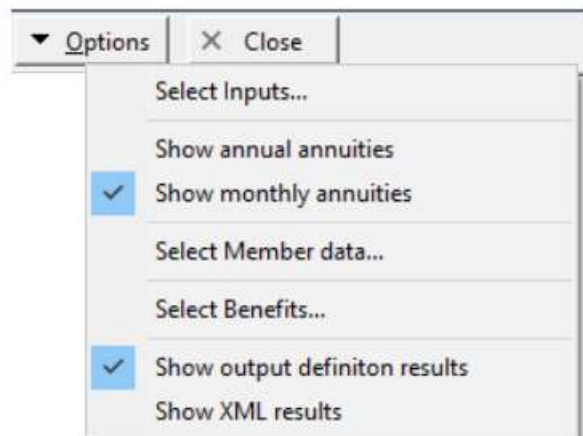
Output Definition Results

- [Results which do not vary by commencement date](#)
- [Results which vary by commencement date](#)
- [Results which vary by payment form within commencement date](#)
- [FAS detail results](#)
- [Benefit Formula Component details](#)
- [Interest rate details](#)
- [Interest rates in use](#)
- [Processing messages](#)

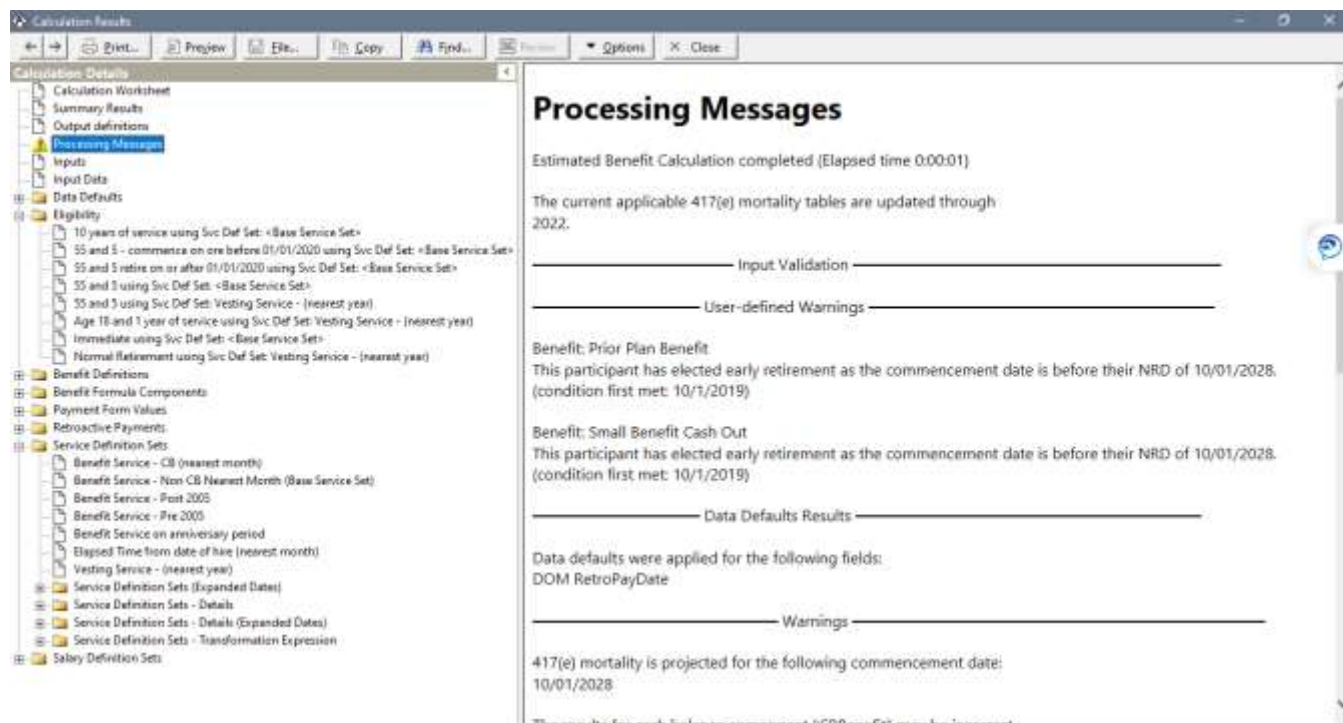
The minimize and maximize are shown as a - or + on the section title, and the jump back to the top is shown as an up arrow to the far right. In addition, clicking on a section heading will minimize or maximize the section.



There is a new Options drop down selection on the menu that allows you to control what is shown in the Inputs exhibit, whether to show monthly or annual annuities on the Calculation Worksheet and Summary Results exhibits, which Member data is displayed on the Calculation Worksheet, select Benefits to be displayed in detailed reports and, if applicable, whether output or XML results are shown.



The Processing Messages are now displayed in an easier to read font and the calculation details menu has an icon that brings attention to the topic when there are warning or error messages.



Calculation Worksheet

The calculation worksheet was designed to provide more detail than a benefit statement but remain participant or benefit analyst friendly. It has sections for the member data, projection assumptions, date/age/service calculations, benefit accruals, and the specific benefits processed.

The member data section, by default, displays the data fields referenced by the calculation that have been parametrized to "Display first when reviewing data" in the Data Dictionary. These selections can be customized for the participant either by modifying the data field in the Data Dictionary or by using the "Select Member data" item under the Options button.

Member Data - ↑

CBCConvDate	Cash Balance conversion date	1/01/2005	
CBGrossBegBalAtConv	Cash Balance member gross beginning balance @ conversion	1/01/2005	0.00
DateOfHire	Member date of hire	7/14/1989	
EarnHistBase	Earnings History base earnings	1/01/1993	12/31/1993 28,209.00
		1/01/1994	12/31/1994 26,109.50
		1/01/1995	12/31/1995 29,875.01
		1/01/1996	12/31/1996 30,937.50
		1/01/1997	12/31/1997 32,531.25
		1/01/1998	12/31/1998 33,593.75

The projection assumptions section displays the salary increases that were used in an estimate calculation.

Projection Assumptions - ↑

Salary Increases ↑

Salary inflation constant rate: 0.04

The dates/ages/service section displays the values associated with any date, age or service calculations that were performed. This includes many eligibility definitions as well.

Dates/Ages/Service - ↑

Decrement Date	9/30/2019
Normal Retirement Date	10/1/2028
Calculated Dates:	
Plan NRD (NRD)	10/1/2028
Eligibility Dates:	
55 and 5 using "Vesting Service - (nearest year)"	10/1/2018
Age 18 and 1 year of service using "Vesting Service - (nearest year)"	1/1/1990
Normal Retirement using "Vesting Service - (nearest year)"	10/1/2028
Age at decrement	56y 0m
Social Security Normal Retirement Age	67y 0m
Service:	
Benefit Service - CB (nearest month)	30.250000
Benefit Service - Non CB Nearest Month	30.250000
Benefit Service - Post 2005	14.750000
Benefit Service - Pre 2005	15.500000
Benefit Service on anniversary period	30.166667
Elapsed Time from date of hire (nearest month)	30.250000
Vesting Service - (nearest year)	30.000000

The benefit accruals section shows the component name, the accrual type and the rate formula. The intent of this section is to give the participant or analyst a high-level view of the plan type.

Benefit accruals - ↑

Accrual definition	Type	Rate
CBBenefit	Cash balance	0 from 0 to 1 yos, 0.05 from 1 to 5 yos, 0.06 from 5 to 10 yos, 0.07 from 10 to 15 yos
CurrentPlanRetBen	Final average	0.02 from 0 to 30 yos, 0 after
PriorPlanRetBen	Final average	0.015 from 0 to 30 yos, 0 after

The benefit sections display the payment forms and the benefit formula expression for each Benefit Definition returning a result. The results are annual or monthly amounts depending on the selection under the Options button.

Traditional Plan Retirement - Limited

Benefit commencing at 8/1/2021

Age at commencement	60y 11m
Beneficiary age at commencement	58y 0m

Forms of payment (monthly annuities)	Member Benefit	Beneficiary Benefit	Other Benefit	Beneficiary Benefit 2	Change Date	Lump Sum Equivalent	Relative Value
Life Annuity	8,578.66					1,131,692	1.0000
10 yr C&L	8,437.46					1,158,846	1.0240
50% J&S	7,547.87	3,773.94				1,125,887	0.9949

The benefit formula expression is shown with the component names and then with the names replaced with the actual calculated values.

Benefit formula expression for normal form:

$$= \text{RetBen} * \text{Erf} * \text{Vest}$$

```

;RetBen = 2% of FAE max 30 years
;Erf = the early retirement table 4% for the first 5 years
; and 6% for the next 5
;Vest is the vesting schedule

```

$$= 123,035.6168017083 * 0.8367 * 1$$

$$= 102,943.92 \text{ (8,578.66 as a monthly payment)}$$