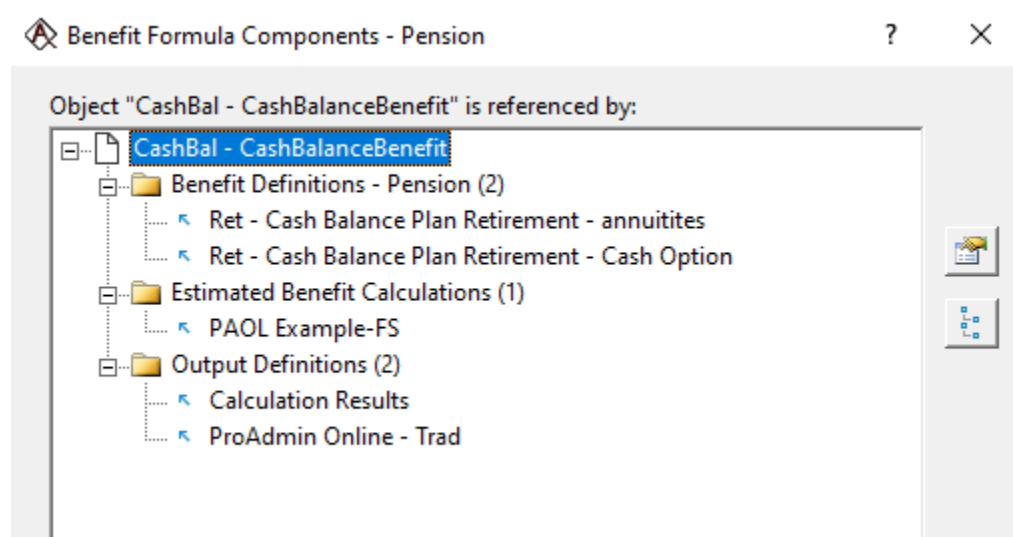


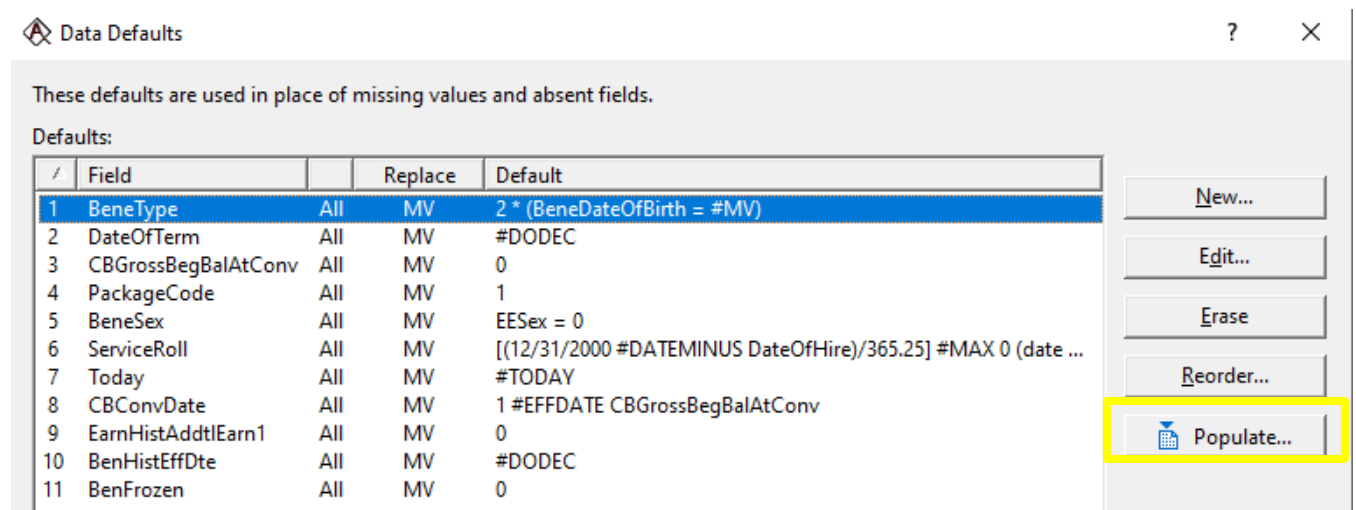
ProAdmin version 3.18 introduces interface enhancements for Ref'd by and Data Defaults, plan constants by multiple coded fields, and a new late retirement annual calculation option. Full details plus many other new features are described below.

### Interface

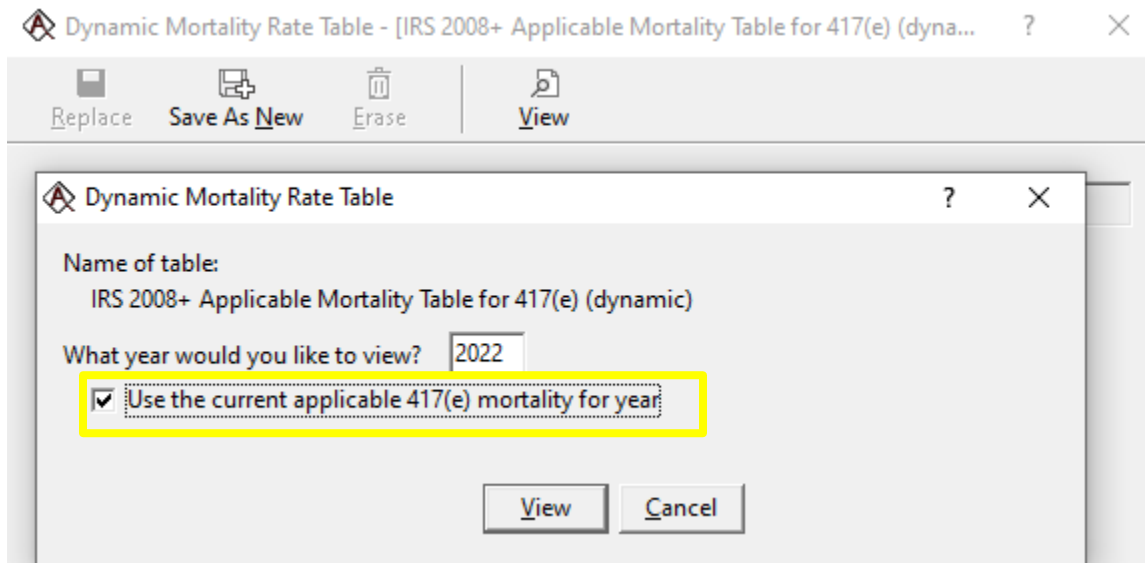
- ◆ **Ref'd by.** The Ref'd by listing is now displayed in a tree and referenced entries can be conveniently opened read-only.



- ◆ **Data defaults.** In Census Specifications, a new populate button has been added to data defaults allowing you to copy in the data defaults from another set of Census Specifications. You have full control over whether to simply copy all the defaults or you can individually select which defaults to copy.



- ◆ **Mortality tables.** When viewing a dynamic 417(e) mortality table, the table can now be viewed as the current applicable 417(e) mortality for the year indicated. The new checkbox will display correct Q's for that year.



In addition to displaying the correct Q's, it will show the IRS basis and Improvement Scales used.

```
Name: IRS 2018-2023+(MP16-21) Applicable Mortality for 417(e) (dynamic)
Client: ProAdmin Desktop SQL
Project: traditional plan
Date last modified: January 26, 2008 19:36 *
* This table is protected and cannot be modified.
Date created: January 26, 2008 19:36
```

```
IRS base rates and projection methodology: 2018
Blend type: Unisex pre/post combined (417(e))
Improvement scale:
```

From	To	Rate table
-	2018	SOA Scale MP-2016
2019	2019	SOA Scale MP-2017
2020	2020	SOA Scale MP-2018
2021	2021	SOA Scale MP-2019
2022	2022	SOA Scale MP-2020
2023	-	SOA Scale MP-2021

```
Do not zero out pre-commencement rates/probabilities
Do not freeze improvements
```

```
Display year for dynamic mortality: 2023
Use the current applicable mortality for year
```

## Plan Definitions

- ◆ **Extend calculation dates.** Plan Attributes, under Misc. Parameters, has a new option to extend calculation dates through a specified date field value. A row for the selected date (and all intervening plan year ends) is added to the Calculation Results exhibits when it is later than the second plan year end following the last benefit commencement date. This feature may increase calculation time significantly, but it is useful, for example, if you always need to output a benefit value at NRD.

Extra calculation dates (#DATE)

Include End of:  Months  Bi-weeks, with an end date

Include dates associated with field:

Extend calculation dates through: MinReqDist\_DT

- ◆ **Plan constants** can now be defined by separate coded fields. This eliminates the need to create a master coded field with all code permutations.

Set values for Plan Constants

Location × BeneType × +

Based on coded field: Location

- ◆ **Retroactive Payments** has a new option to suppress all payments before a selected date. This removes retroactive payments for benefit commencement dates prior to the selected date.

Standard benefit calculations

Benefit Definitions  
Plan Attributes  
Small Benefit & Other N/A Options  
Relative Value Calculations  
Calculated Dates  
Plan Constants  
Retroactive Payments  
Error/Warning Messages  
Fulfillment Components

Accumulate missed payments from calculation commencement date(s)  
to actual payment start date of PayStartDate

Suppress if commencement date(s) are before DateOfNormalRetire

Apply interest using (annual rate):  
 Constant

## Benefit Formula Components

- ◆ **Late Retirement components** now have two approaches available for calculating annual increases: using factors from the beginning of each plan year (the new option) or using factors from NRD. The two methods are mathematically equivalent with non-dynamic mortality and static interest. When mortality and interest rates vary, the new beginning of plan year method has the advantage of using a plan year's mortality and interest rate for just that plan year rather than prior plan years as well.

Actuarial equivalence for late retirement

Normal Retirement Date (NRD) defined by:

- Plan Attributes
- Eligibility Definition:

Using Service Definition Set:

Actuarial Equivalence assumptions:

Conversion table:

Calculation performed:

- At commencement age
- Annually using factors from

Reflect constant COLA rate:

Stop actuarial increases at date in field:

Using the original "Annually using factors from NRD" calculates the increase factors based on immediate annuities at NRD and annuities deferred from NRD. The alternative methodology "Annually using factors from beg of plan year" calculates the plan year increase factors based on immediate annuities at the beginning of the plan year and annuities deferred from the beginning of the plan year to the benefit commencement date. A detailed description of the methodologies including numerical examples can be found in ProAdmin's command reference help Technical Reference: Late Retirement calculations.

- ◆ **Mortality method.** Annuity Factors now allow you to select a mortality method for the youngest and oldest recognized age parameters when using dynamic or fully generational mortality tables. When there is a youngest and/or oldest recognized age, the age is frozen (e.g., all ages up to age 50 assume the participant is age 50), but if the mortality is dynamic or fully generational, the age 50 annuity factors (in this case) would still vary based on the applicable mortality if “rates at calculation age” are used. With the new “rates at the youngest/oldest recognized age” method, the age 50 annuity factors would be level for ages from hire to age 50, all based on the age 50 mortality.

**Payment / Calculation Period**

**Certain:**  
 none    to age     for years

**Deferral:**  
 none    to age     for years     to NRD    to SSNRA

**Temporary:**  
 none    to age     for years     to NRD    to SSNRA

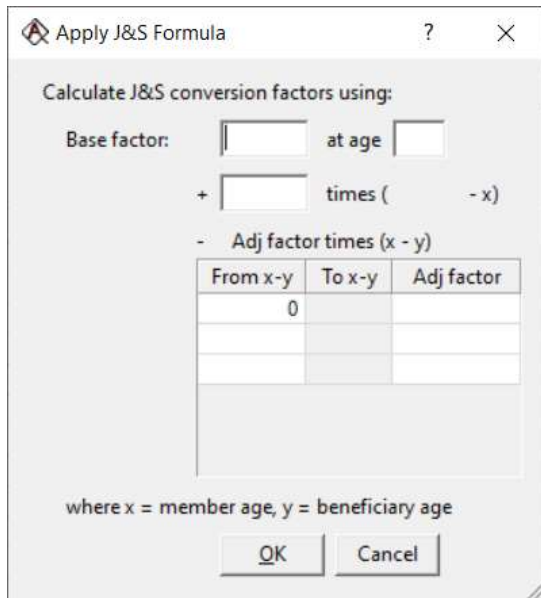
Refine deferral / temporary period using Date Adjustment

**Youngest/Oldest Recognized Ages:**

Use age  annuity value for all ages up to age 55  
 Spot rate method:   
 Mortality method:

Apply oldest recognized age using:  
 Age     Age at date field   
 Use age 65 annuity values for all ages after age 65  
 Mortality method:   
 Annuity factor freeze date:   
 Do not freeze  
 Freeze at decrement  
 Freeze at date field

- ◆ **Age by Beneficiary Age tables.** In the “Apply J&S Formula” tool under the Options menu for age by beneficiary age tables, you can now include breakpoints for the difference between the member and the beneficiary ages. This feature is available for both benefit formula component tables and conversion tables.

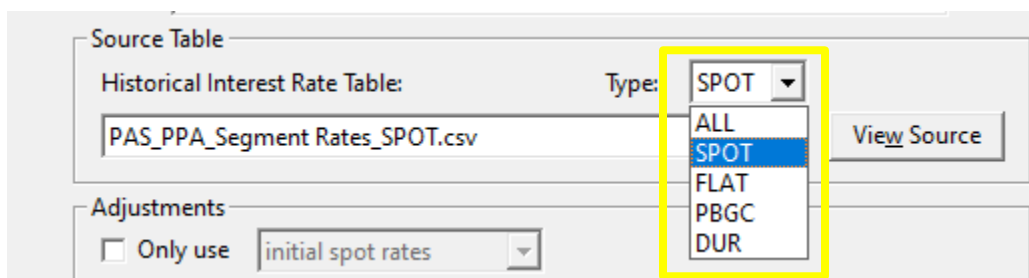


## Interest Rate Tables

- ◆ **Source table.** The interest rate table library display has been enhanced with two new columns: a problem indicator and the name of the source table. The first column now has an asterisk (\*) if ProAdmin cannot find the referenced source table in the interest rate table directory. The new Source Table column shows the name of the interest rate source table. These enhancements allow you to quickly see where there may be a problem and name(s) of any table missing from the interest rate table directory.

Name	Tag	Source Table	Modified
* 1 year Treasury 3 mo average		1 year Treasury Rate.csv	12/09/2021 9:52 AM
1 yr t-bill monthly		1_Year_TBILL_Rates.csv	11/02/2011 11:16 AM
10 year T-bill		PAS_10_Year_CB_Treas_Rate.csv	12/09/2021 9:58 AM
30 Year Treas Rate w/2 mo lookback from Jan		PAS_30_Year_Treas_Rate.csv	12/09/2021 9:58 AM
30 Yr Treasury w/ 2 mo lb from January		PAS_30_Year_Treas_Rate.csv	12/09/2021 9:52 AM

- ◆ **Table filter.** To facilitate selecting the source historical interest rate table, there is now a table type drop-down to filter the table choice list to only tables of the selected type. The options are ALL, SPOT (for spot rate tables), FLAT, PBGC, and DUR (for duration-based tables). This simplifies locating the appropriate table when the interest rate table directory contains a lot of tables.



## Payment Forms

- ◆ Plan Constants are now available for use as minimum and maximum lump sum amounts.
- ◆ Pop-Up and Certain & Pop-Up annuities now allow you to apply a minimum actuarial equivalence (including the 417(e) early retirement adjustment if desired).

## Projection Assumptions

- ◆ **Future service.** Plan Constants are now available for specifying constant future service assumptions including elapsed time multipliers and hours and service units assumed annual accruals.

## Calculation Results

- ◆ **Calculation results exhibits.** Now when a row is highlighted yellow in a table, you can click the specific cell you are interested in to add a darker shading to that cell. This can make it easier to reorient if you temporarily scroll off the page. A third click will remove all shading.

Date	Member Calc. Age	Accrued Benefit	Change in Accrued Benefit	Interest Rate	2nd Interest Rate	3rd Interest Rate	Immediate Annuity at NRD	Annuity deferred from NRD	Incremental Late Retirement Factor	Factor Adjusted Benefit	Benefit Component
12/31/2016	53y 0m	98,322.45	7,219.48	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	98,322.45	98,322.45
12/31/2017	54y 0m	105,973.73	7,651.27	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	105,973.73	105,973.73
12/31/2018	55y 0m	114,079.79	8,106.06	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	114,079.79	114,079.79
12/31/2019	56y 0m	120,653.88	6,574.09	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	120,653.88	120,653.88
09/30/2020	57y 0m	124,257.82	3,603.95	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	124,257.82	124,257.82
10/01/2020	57y 0m	124,257.82	0.00	0.020400	0.030900	0.036800	0.000000	0.000000	0.000000	124,257.82	124,257.82

- ◆ **Interest Rate details.** When the Output Definition checkbox to “include interest rate details in the output” is checked, the interest rate table details will now include a “Projected” column for each date. The column value will be 0 if the rate is known (i.e., comes directly from the historical interest rate tables library after any manipulation parameterized for the table) or 1 if it is projected.

Table name: 30 Yr Treasury w/ 2 mo lb from January

Table type: static

Date	Rate	Projected
12/31/2024	0.033600	1
01/01/2033	0.033600	1

This projected indicator can be written to the new XML tag <Proj> when added to the XSD. Sample XML code for the tag can be found in the “Reserved XML Elements” article of the Technical Reference within the ProAdmin Help Topics.

For this new detail to be included in output, please insert the highlighted line below into your XML Output Linkage schema:

```
<xsd:sequence>
  <xsd:element name="Date" type="xsd:date"/>
  <xsd:element name="Rate" type="xsd:decimal" minOccurs="0"/>
  <xsd:element name="Dur" type="xsd:decimal" minOccurs="0"/>
  <xsd:element name="Proj" type="xsd:decimal" minOccurs="0"/>
  <!-- (1=yes, 0=no) -->
</xsd:sequence>
```

- ◆ **Saving to Excel.** When saving a single exhibit to an Excel workbook, the exhibit will now save directly to an Excel file without prompting you for a worksheet tab name. The name of the exhibit will be used for the tab name.

## Tools

- ◆ **Administration Factors** now includes the check box “Use the current applicable 417(e) mortality for year” under the Mortality and Timing Parameters topic. This allows you to select a 417(e) dynamic table and have the correct factors calculated for the entered calculation year.

The screenshot shows a 'Mortality' settings panel. It contains two dropdown menus for 'Primary Annuitant' and 'Contingent Annuitant', both set to 'IRS 2008+ Applicable Mortality Table for 417(e) (dynamic)'. Below these is a 'Calculation year' text box containing '2023'. At the bottom, there is a checked checkbox labeled 'Use the current applicable 417(e) mortality for year'.

## Licensing

- ◆ The license manager interface has been refreshed to show more details about the current license and any supplemental licenses.

## Changes Log

- ◆ Be sure to read the changes log about updates to certain calculations that may change results. You can easily access the file by clicking on Help, Changes Log.

## New WinTech Team Member!

We are pleased to introduce **Erik LaBranche** who recently joined our team. He is an experienced calculation analyst with a degree in Actuarial Science. Among other responsibilities, Erik will be working on customer support and testing ProAdmin enhancements. Please say hello to Erik if you reach him at ProAdmin support.