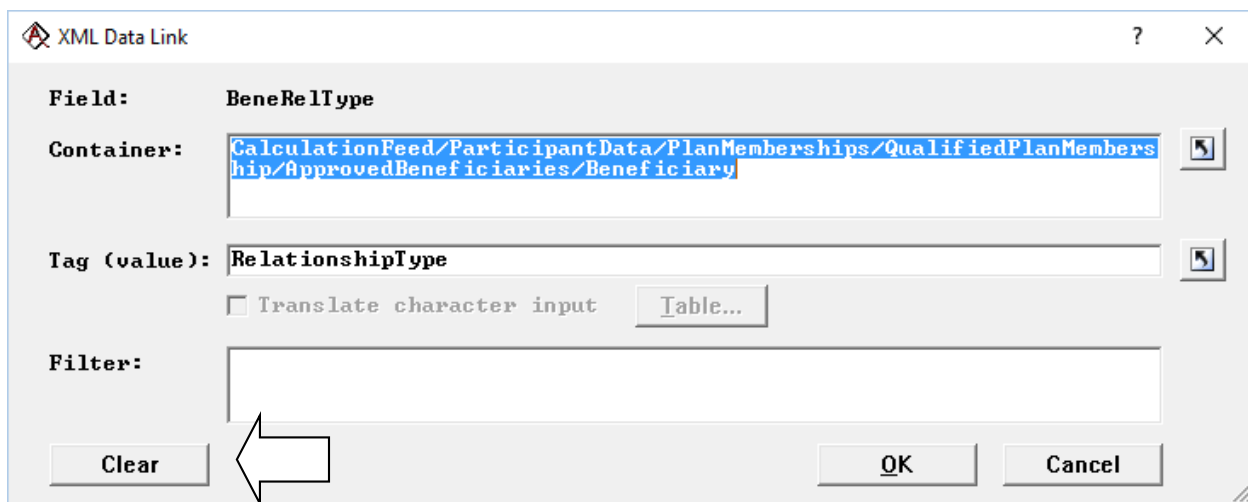


ProAdmin version 3.08 introduces redesigned Salary Definitions, enhancements to the Late Retirement Benefit Formula Component, additional Benefit Calculator user capabilities, true months certain payment forms, and many other features listed below.

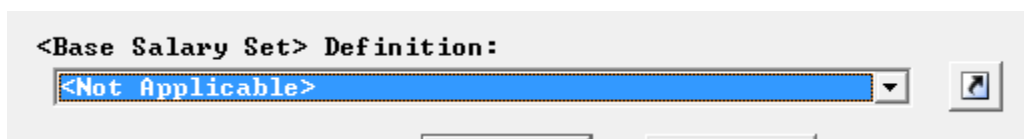
XML Database Linkage

- ◆ A **Clear** button has been added to the XML Data Link dialog box of an XML Database Linkage. Similar to the clear button on the Database Field Linkage dialog, this allows you to clear all of the dialog box entries at once for obsolete definitions.



Census Specifications

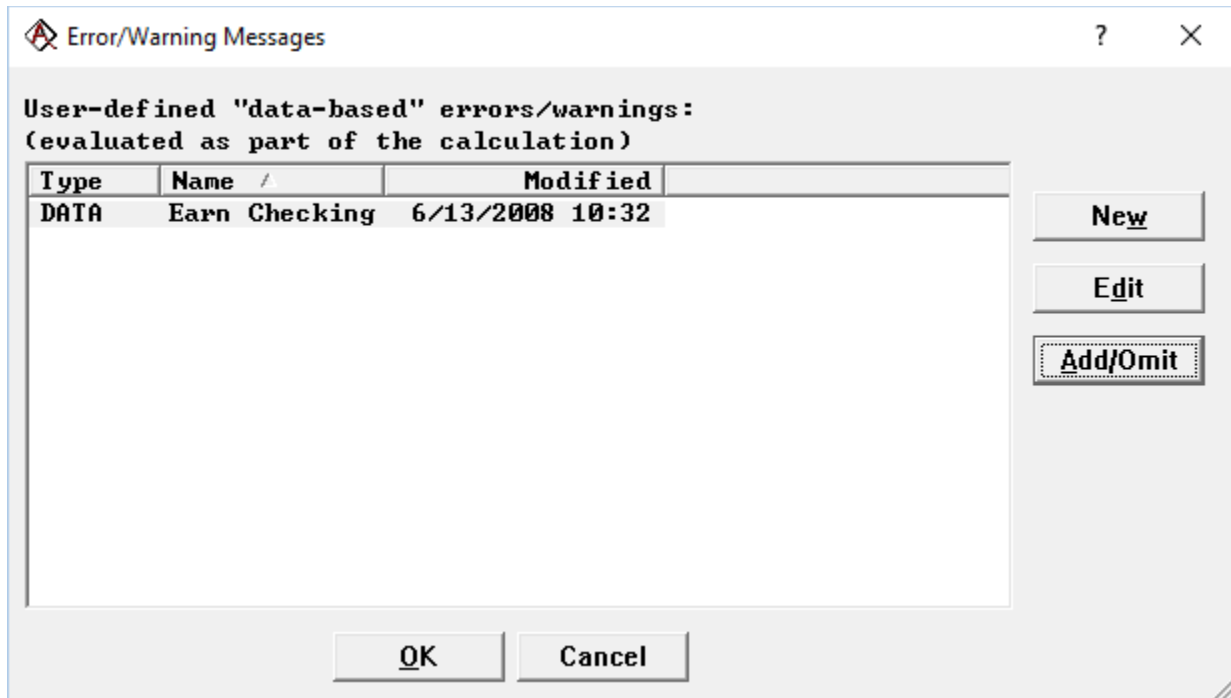
- ◆ The "<Base Salary Set> Definition" can now be set to <Not Applicable> for calculations where no salary is required. This will be useful, for example, for flat dollar plans and frozen plans with stored benefits.



- ◆ **#GETTABVAL** is now available for Data Defaults. There is also a special syntax available only in Data Defaults, a question mark after the name, which allows you to read in the entire table. This can be helpful, for example, for working with regulatory data or interest rate tables. For example, 'RegMaxComp.txt?' #GETTABVAL (1) returns all the values in the first column found in the file RegMaxComp.txt.

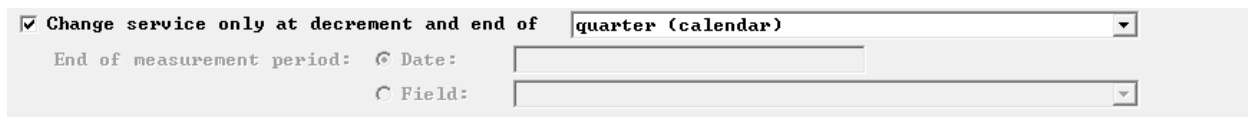
Error/Warning Messages

- ◆ The Error/Warning Messages dialog box in Census Specifications and Plan Definitions now has **New** and **Edit** buttons that allow you to add and edit Error/Warnings library entries. You can also now select an error/warning message in the list and click on it to edit it.



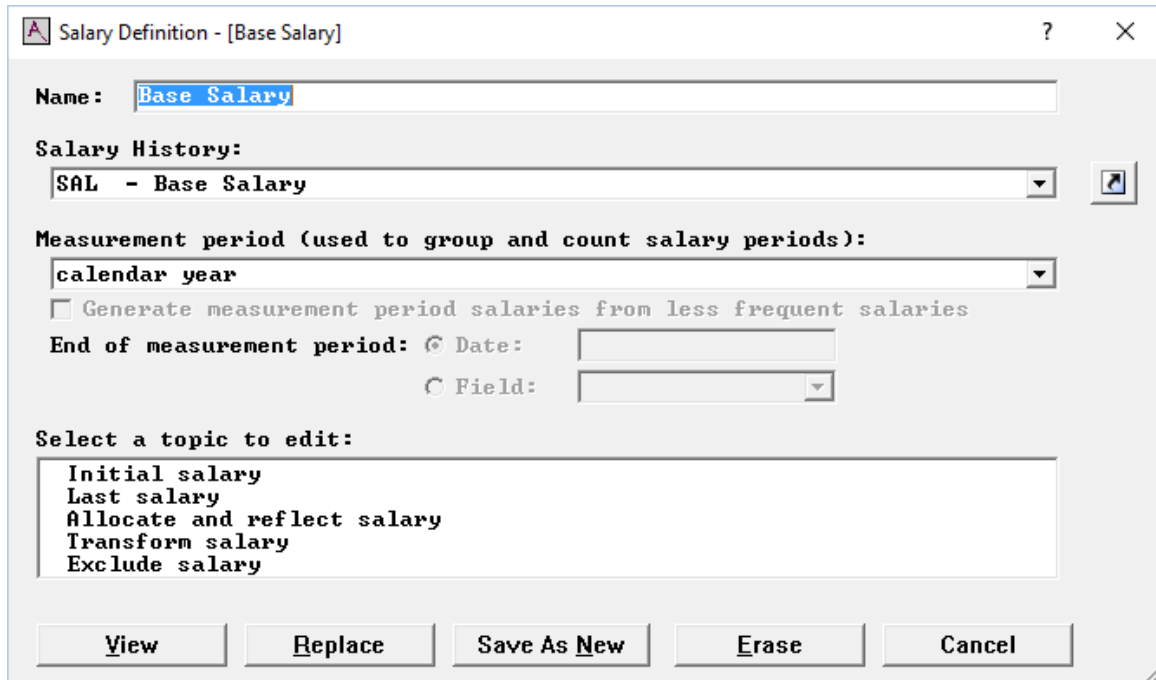
Service Definition Sets

- ◆ You can now **control when service changes** in a Service Definition Set. This is particularly helpful for ensuring accurate cash balance plan calculations. ProAdmin generally processes a cash balance accrual whenever service changes, so cash balance service (specified under the Accrual Rates topic) should only be allowed to change at plan crediting period ends.



Salary Definitions

- ◆ The Salary Definitions library has been redesigned from (nested) tabs into a topic format for ease of set up and understanding. The salary parameters have been reorganized into a more concise and logical order. While no new functionality has been added, the re-organization and significantly improved context-sensitive and command reference help should dramatically illuminate ProAdmin's salary capabilities and flexibility.





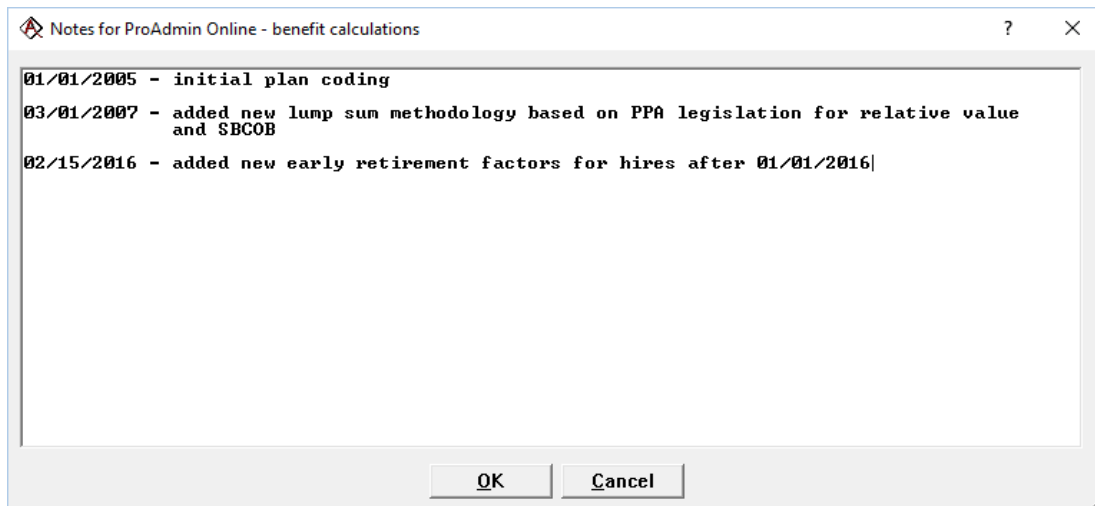
The screenshot shows a dialog box titled "Salary Definition - [Base Salary]". It contains the following fields and options:

- Name:** Base Salary
- Salary History:** SAL - Base Salary
- Measurement period (used to group and count salary periods):** calendar year
- Generate measurement period salaries from less frequent salaries
- End of measurement period:** Date: Field:
- Select a topic to edit:**
 - Initial salary
 - Last salary
 - Allocate and reflect salary
 - Transform salary
 - Exclude salary

At the bottom, there are five buttons: View, Replace, Save As New, Erase, and Cancel.

Plan Definitions

- ◆ A **Notes** feature has been added to the Plan Definition dialog box. This new feature allows you to enter information for documentation purposes. The Notes feature can be accessed by clicking on the icon  to the right of the Plan name. When notes have been entered and saved the icon will have a red exclamation point. 



The screenshot shows a dialog box titled "Notes for ProAdmin Online - benefit calculations". It contains a text area with the following text:

```
01/01/2005 - initial plan coding
03/01/2007 - added new lump sum methodology based on PPA legislation for relative value
and SBCOB
02/15/2016 - added new early retirement factors for hires after 01/01/2016|
```

At the bottom, there are two buttons: OK and Cancel.

Benefit Formula Components

- ◆ Late Retirement components can now be referenced in subformula benefit formula components.
- ◆ Late Retirement components have new options allowing you to **control age and rounding** assumptions.

Age
Calculate factors using age last birthday in years and months:
 Completed
 Nearest
 Started

Rounding
Round: None
 Final factor only
 All steps
Using rounding rule:
Amount:
Direction:

- ◆ **Additional interest crediting options** have been added for Cash Balance component Active Rate Changes and Projections, comparable to what was previously available for the primary interest crediting. Active rate changes and projections can now reflect an interest rate that is a constant from a database field, or, when based on an interest rate table, the table can be defined as "<rates by coded database field>".

Interest Crediting [?] [X]

Structure | Adjustments | Active Rate Change | Projection | Accruals | Miscellaneous

Change crediting rate upon:

Attainment of Eligibility Definition:
Age 18 and 1 year of service [v] [f]

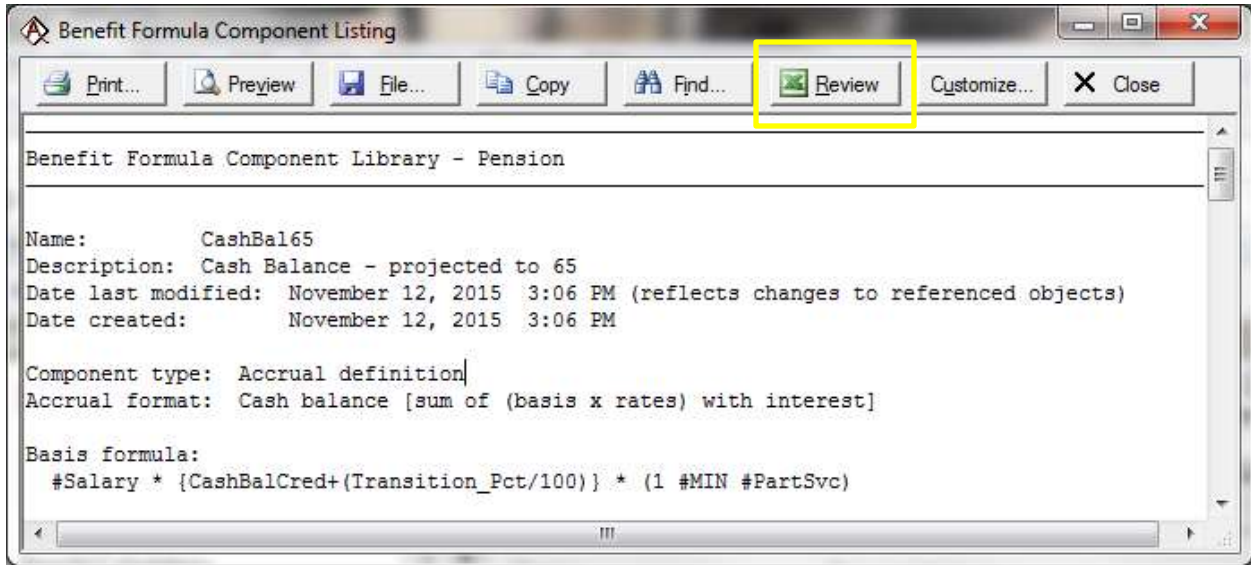
Based on Service Definition Set:
<Base Service Set> [v] [f]

To new crediting rate:

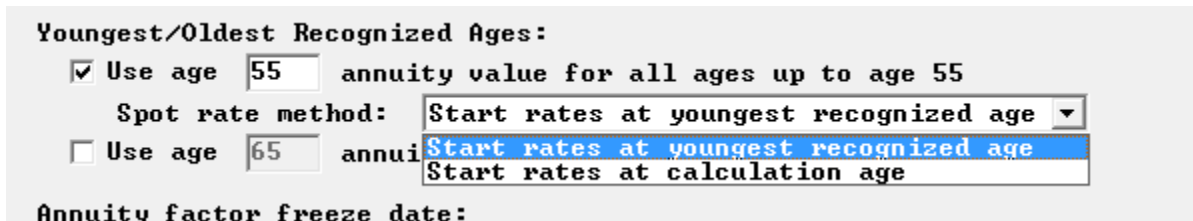
Constant [text]
 Constant from database field [text]
 Based on Interest Rate Table
[v] [f] [Params...]

OK Cancel

- ◆ Comprehensive cash balance interest crediting rate details are now included in the Excel spreadsheet created by the Review button when viewing a cash balance component.



- ◆ Annuity Factor components based on spot interest rates (e.g., segment rates) and for which there is a youngest recognized age now allow you to specify whether the **spot rates start at the calculation age or the youngest recognized age**. This is useful, for example, for cash balance whipsaw calculations where it is necessary to calculate age 65 immediate annuities, and desirable to calculate them using the same underlying forward rates as are reflected in an immediate annuity commencing at the calculation age. Previously ProAdmin only calculated the youngest recognized age annuities assuming that the spot rates commenced at that youngest age.



- ◆ When double-clicking on an undefined Benefit Formula Component, ProAdmin will default to a “database field” component rather than an “accrual definition” component if the name matches a data dictionary entry.



Benefit Formula Component - [<new>]

Name: zenBenefitAt12312015 Description:

Component type: Database field

Field: FrozenBenefitAt12312

Return the most recent value
 Return all values

Expression:

View Replace Save As New Erase Cancel

Custom Operators

- ◆ A #PIA custom operator can now be calculated as if the participant had attained the **computation age at decrement** (i.e., each calculation date) regardless of their actual age at the calculation date.

Computation Age

SSNRA
 Age y m
 Decrement age if later

Reduce (increase) PIA for early (late) commencement
 Allow CPI increases after decrement
 Assume computation age attained at decrement

- ◆ A #PIA custom operator now allows the **salary at the computation age** to be included in the calculation.

Include the computation age salary

- ◆ If a #PIA custom operator projects salaries backwards based on changes in the NAW, the projection no longer reflects NAW amounts that are not “known” as of the calculation date. Thus, a 12/31/2014 PIA calculation should remain consistent even if decrement occurs after 2014.
- ◆ The #AVGWB custom operator can be parameterized to end the averaging period up to 5 years prior to decrement.

Payment Forms


- ◆ ProAdmin now allows for the setting of **true months certain** for forms of annuity with a certain period. Under the Basic Form you can enter years and months (integer 0 – 11) and the dialog box will show the actual months. For example 131 months certain would be entered as 10 years and 11 months.

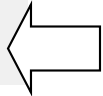
Certain period: y m (131 months)

- ◆ A back door button to open the Custom Operator library has been added to the Social Security Benefit topic of level income payment forms.

Social Security benefit for calculation:

#PIA

#PIA custom operator 



Projection Assumptions

- ◆ **Power editing.** You can now set assumptions for multiple items at once in the “Regulatory Data Increase Rates” topics of Projection Assumptions. Assumptions you don’t change are not affected, which allows you to retain intended differences. For example, to change interest from 0.05 to 0.06 for Maximum Benefit and Maximum Compensation select both rows and click Edit, change the interest rate to 0.06, and click OK.

Mortality Tables

- ◆ When linking to mortality base rates, sex-distinct rates can now be transformed to unisex rates by blending male and female rates by a specified percentage.

Mortality Table Base Rate Linkage Parameters

Base rates drawn from:

Mortality table:

Transform to unisex, blending % male and % female rates

Age setback: Male: Female:

Adjustment factor: Male: Female:

- ◆ **SOA mortality improvement scale MP-2015** has been added to ProAdmin's Mortality Improvement Scales library. To use MP-2015 in one of the ways published by the SOA:
 - Create a new, blank Mortality Rates table
 - Check "Link mortality base rates" and draw rates from one of the eight "SOA RP-2014..." or eight "SOA RPH-2014..." tables.

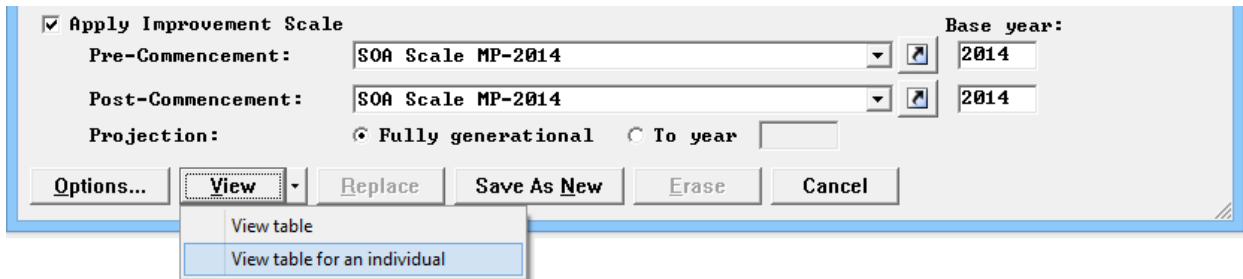
```
SOA RP-2014 Adjusted to 2006 Blue Collar Mortality (base rates only)
SOA RP-2014 Adjusted to 2006 Disabled Retiree Mortality (base rates only)
SOA RP-2014 Adjusted to 2006 Total Dataset Mortality (base rates only)
SOA RP-2014 Adjusted to 2006 White Collar Mortality (base rates only)
SOA RP-2014 Blue Collar Mortality with Scale MP-2014
SOA RP-2014 Disabled Retiree Mortality with Scale MP-2014
SOA RP-2014 Total Dataset Mortality with Scale MP-2014
SOA RP-2014 White Collar Mortality with Scale MP-2014
SOA RPH-2014 Adjusted to 2006 Blue Collar Headcount-weighted Mortality (base rates only)
SOA RPH-2014 Adjusted to 2006 Disabled Retiree Headcount-weighted Mortality (base rates only)
SOA RPH-2014 Adjusted to 2006 Total Dataset Headcount-weighted Mortality (base rates only)
SOA RPH-2014 Adjusted to 2006 White Collar Headcount-weighted Mortality (base rates only)
SOA RPH-2014 Blue Collar Headcount-weighted Mortality with Scale MP-2014
SOA RPH-2014 Disabled Retiree Headcount-weighted Mortality with Scale MP-2014
SOA RPH-2014 Total Dataset Headcount-weighted Mortality with Scale MP-2014
SOA RPH-2014 White Collar Headcount-weighted Mortality with Scale MP-2014
```

- Check "Apply Improvement Scale" and select SOA Scale MP-2015.
- Specify the base year corresponding to the base rates you picked, either 2006 for the "... Adjusted to 2006 ..." tables or 2014 otherwise.
- Name the table and save it.

Alternatively, you can import the desired table from the MP-2015 Mortality Tables Template available on our [website](#).

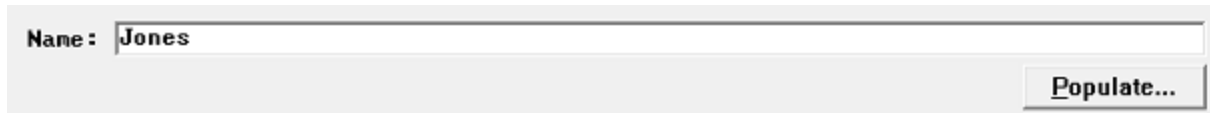
Note that the eight mortality tables entitled "RP[H]-2014 Adjusted to 2006 ... (base rates only)", which back out scale MP-2014 prior to 2014, *should not be used directly*. They are provided only as a source table from which the *Link base rates* feature can draw relevant mortality base rates.

- ◆ **Individual mortality tables.** A new option lets you view a mortality table which has fully generational improvement scales applied for an individual of age x in year y. This combines the base mortality and improvement scale factors to form the individual table. This is useful in checking payment form values in sample lives, administration factors, etc.



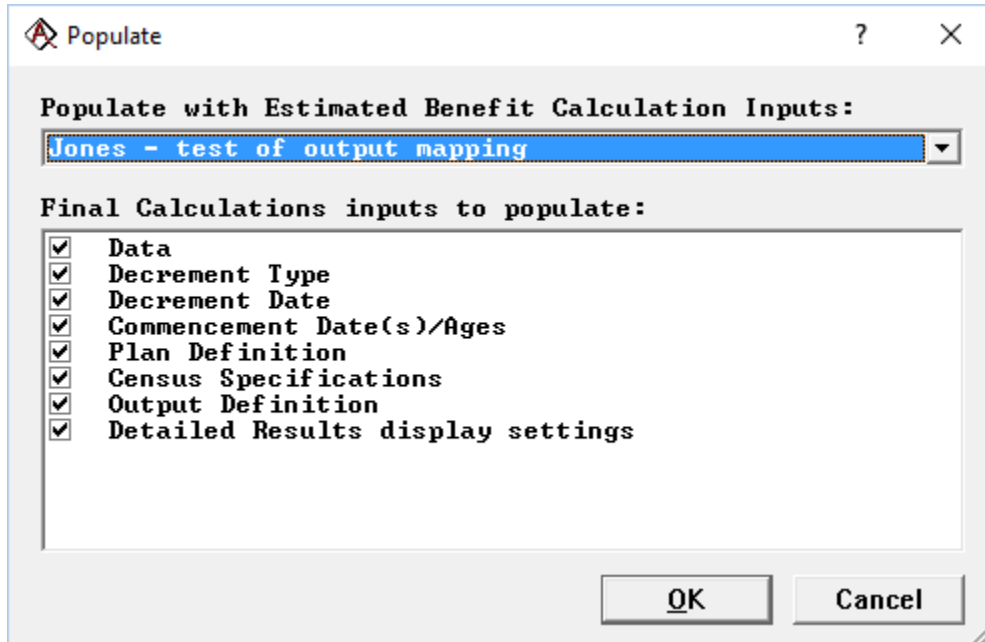
Final Calculations

- ◆ A **Populate** button has been added to the Final Benefit Calculation dialog box that allows you to populate inputs from an entry in the Estimated Benefit Calculations library.



Name:

When you click on the new Populate button a dialog box is displayed that allows you to select which information from the referenced Estimate should be used to create the new Final calculation.



Populate

Populate with Estimated Benefit Calculation Inputs:

Final Calculations inputs to populate:

- Data
- Decrement Type
- Decrement Date
- Commencement Date(s)/Ages
- Plan Definition
- Census Specifications
- Output Definition
- Detailed Results display settings

Output

- ◆ **Monthly payment amounts** can now be shown when viewing Summary Results for non-lump sum forms.



View Output

Select type of output

Summary Results

Show monthly annuities

- ◆ **Certain period end date** is now displayed within Output Definitions for Certain & Pop-up forms of payment.
- ◆ **XML's pretty-print format** is now used instead of a flat text file when saving Output Definition Results as an XML file.

- ◆ **Interest Rate table views** now contain the base rates for ease of testing. For example, when viewing a table based on the 30 year Treasury rate with a two (2) month lookback from January and an annual stability period, the view will show two (2) sets of rates: the base rate and a plan rate.

Year	Month	Base Rate	Plan Rate
2016	12		0.0303
2016	11		0.0303
2016	10		0.0303
2016	9		0.0303
2016	8		0.0303
2016	7		0.0303
2016	6		0.0303
2016	5		0.0303
2016	4		0.0303
2016	3		0.0303
2016	2		0.0303
2016	1	0.0286	0.0303
2015	12	0.0297	0.0304
2015	11	0.0303	0.0304
2015	10	0.0289	0.0304
2015	9	0.0295	0.0304
2015	8	0.0286	0.0304
2015	7	0.0307	0.0304
2015	6	0.0311	0.0304
2015	5	0.0296	0.0304
2015	4	0.0259	0.0304
2015	3	0.0263	0.0304
2015	2	0.0257	0.0304
2015	1	0.0246	0.0304

Administration Factors

- ◆ **Lump sum payment form.** The Administration Factor Tool can now generate lump sum payment form values. When the lump sum is immediate, the value is just "1", but this feature is useful for generating deferred lump sum values, particularly so when segment-style rates are applicable. When combined with a deferred annuity normal form, the resultant conversion factor is the value of an annuity payable immediately at the deferral age, but reflecting that the spot rates commence at the current age. This is useful for checking the new "spot rate method" annuity factor component option when there is a youngest recognized age.

- ◆ **Factors for an individual.** You can now generate factors for an individual age x in the valuation year based on a mortality table with a fully generational improvement scale applied or for a specific year of birth with an age by year of birth mortality table. Factors at younger or older ages relate to this same individual, e.g., if the participant is age 65 in 2015, then the age 60 factor is for that individual in 2010 rather than someone age 60 in 2015.

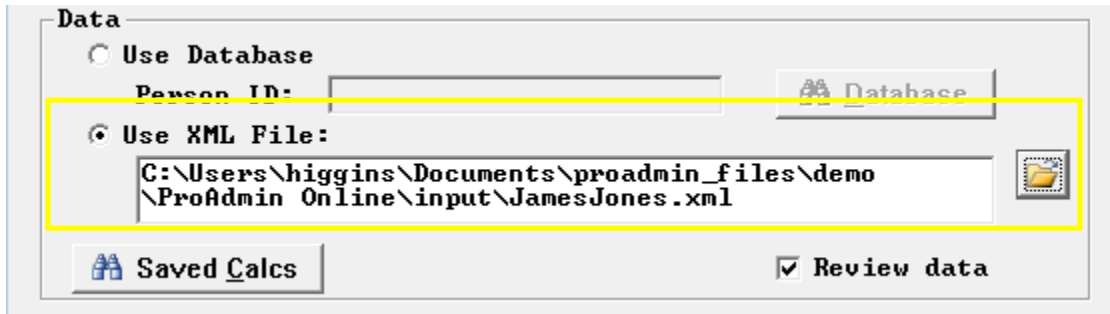
Fulfillment Tool

- ◆ **Percent Format** has a new type to format from a decimal. Previously the Fulfillment Tool expected all values for formatting were integers.

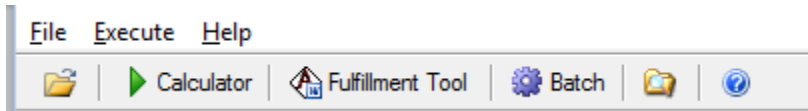
- ◆ **Explore Database Folder** has been added to the File menu. A short cut to this feature has also been added to the tool bar.
- ◆ **Import Field Map** has been added to the File menu. This new selection allows you to import all of the Field Mapping information from a previously set up Fulfillment Tool database.
- ◆ Within the Package Map dialog, **.docx** files are now supported within the selection of input document files.
- ◆ The icons within the Fulfillment Tool have been updated to be consistent with those used in the rest of ProAdmin. Additionally, the Clone button has been renamed Copy on the Field Map dialog.
- ◆ Sample fulfillment documents and a related illustrative client are now included with ProAdmin. For more information about how to access these files, consult the ProAdmin Help article [How to access sample Fulfillment Tool files](#).

Benefit Calculator

- ◆ **Use XML** has now been added as a data source choice for individual calculations.



- ◆ **Saved calculations can now be re-run** with either saved or refreshed data. The Run button on the Benefit Calculator dialog has been replaced by a split button with a default action of "Load data & run". If a Saved Calc is selected, this button allows the user to "Re-run with saved data" or "Refresh data & re-run".
- ◆ **Batch Calculations** have been enabled.
- ◆ **Explore Client Folder** short cut has been added to the tool bar.



ProAdmin Server

- ◆ A new method, SysInfo, has been added to ProAdmin Server. When called it will return the system information for the computer running ProAdmin Server. This replicates the information obtained from within ProAdmin Desktop by clicking Help | System Info.

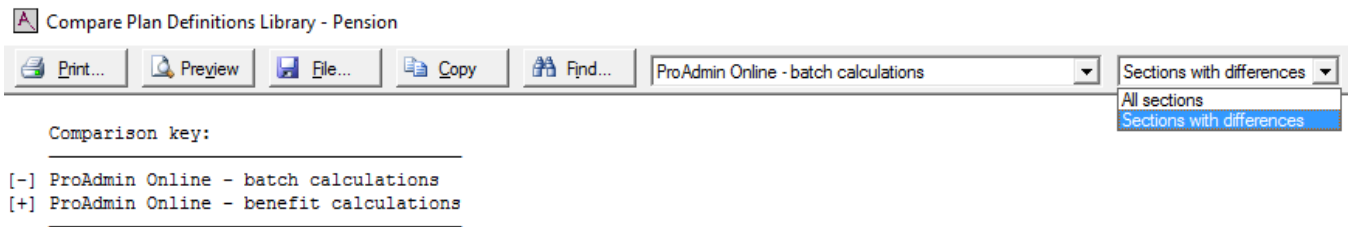
Processing Speed

- ◆ Speed up the reading and scanning of XML input documents in ProAdmin Desktop and Server. (This was released in a 3.07 patch but is included here in case you missed it.)
- ◆ #IF #THEN #ELSE has been sped up dramatically when used in benefit formulas and accrual basis expressions.

System

- ◆ Using File > Import from client is now much faster for clients with a large number of calculations.
- ◆ In File > Open Client, you can now double-click on a client name to open it. Also, when Browsing for a folder, your Favorites are now listed for easy access.
- ◆ A potential delay opening and closing clients when usage tracking is turned on ([Config] UsageLogFile= in ProAdmin.ini) has been eliminated by writing to this log asynchronously.

- ◆ When comparing entries, such as Plan Definitions, a new option only shows sections of the listing that differ.



- ◆ A Pack File command has been added to the Manage button on the Repository File Maintenance dialog box.

Changes Log

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