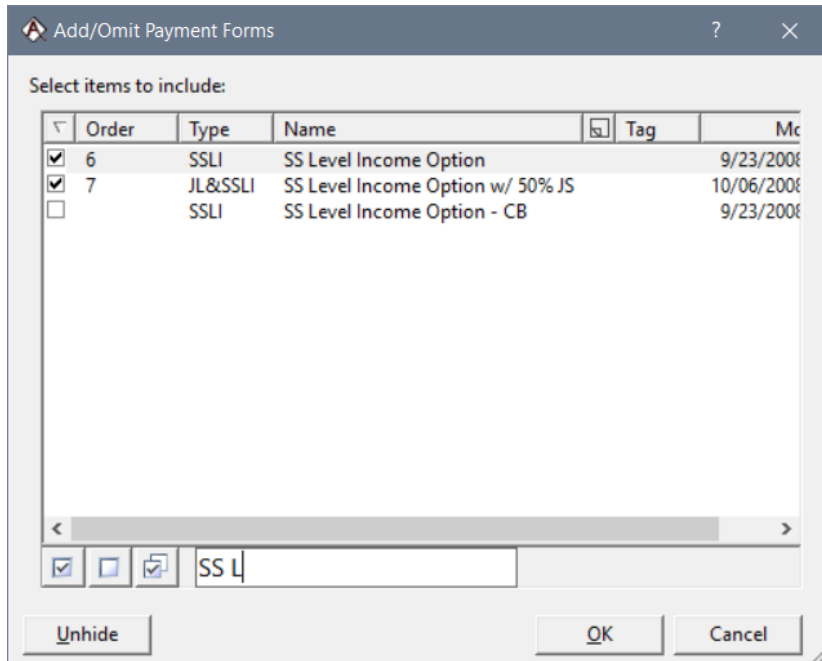


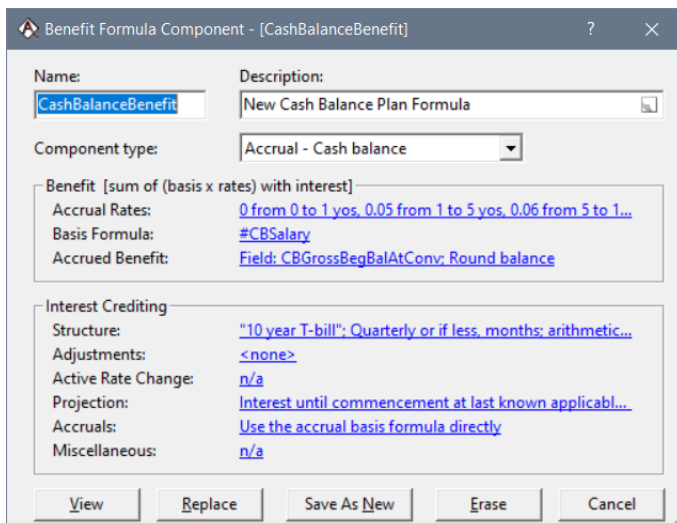
### Interface

- ◆ **Quick search** has been added to many lists, including where you Add/Omit Payment Forms in a Benefit Definition, Add/Omit Error Warning Message in Census Specifications, and more. This lets you quickly find specific items in long lists, especially if you're not sure what name ProAdmin uses (e.g., "SS Level Income Option" vs "Social Security LI").

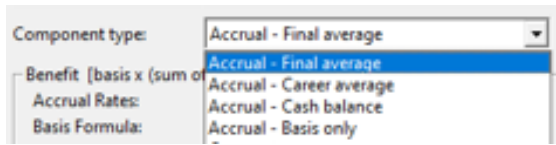


- ◆ **Flatter Benefit Formula Components**

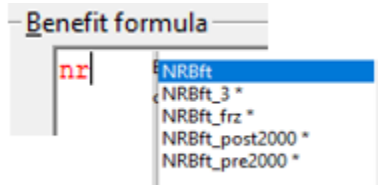
- Links now display summary information that previously could only be seen by clicking into another screen. For instance, at a glance you can see that the cash balance benefit component below accrues interest quarterly based on the 10-year Treasury bill.



- There are now separate component types for Final Average, Career Average, Cash Balance, and Basis Only. This removes the unnecessary and unintuitive step of having to first choose “accrual definition” before choosing the accrual format.



- ◆ **Autocomplete in expressions** now suggests unhidden components before hidden ones (marked with an \* in the picture below). Similarly, fields in the current database are suggested before those which are not. For clients with lots of unused components/fields, this helps you find the intended item faster. This preference is also reflected in expression help (F1).



- ◆ **Regulatory Date Increase rate assumptions.** More information is now shown for these assumptions (e.g., rate, rates by year, etc.) to give you a sense of the rates at a glance, without having to click into each one.

Name /	Rate	Edit
Maximum Benefit	0, 0.03, 0.025	
Maximum Compensation	0.03	
Soc. Sec. National Average Wage	0.03	
Social Security CPI (PIA only)	0.03	
Canadian ITA Maximum	0	
Canadian YMPE	0	
U.K. Lower Earnings Limit (LEL)	0	
402g	0	

- ◆ **Keyboard shortcuts**

- You can use the menu key (if your keyboard has one, or Shift+F10 if not) as an alternative to right-click throughout ProAdmin.



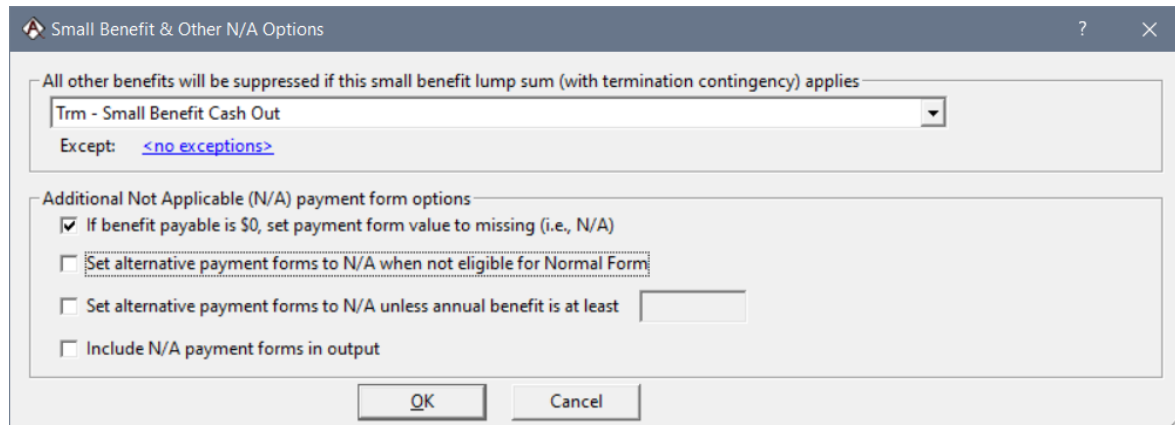
- ◆ **Plan Constants** can now be referenced in more locations:

- Temporary periods, certain periods, and survivor percentages for payment forms
- Projection age and freeze age for accrual benefit formula components
- Youngest and oldest recognized age for table benefit formula components

## Plan Definitions

- ◆ **Small Benefits automatically handled.** The new Small Benefit & Other N/A Options topic allows easier suppression of benefits when a small benefit situation occurs. Include a termination type Benefit Definition in the Plan Definition that includes a lump sum payment form with a maximum lump sum value (e.g., \$5,000). If this termination benefit is selected on the small benefits dialog and the lump sum benefit is under the maximum value, all of the other payment forms referenced in the Plan Definition will be suppressed. If appropriate, such as for a return of employee contributions, you can specify Benefit Definitions that should be valued even when the small benefit situation applies.

In order to keep all parameters together that potentially make payment forms N/A, the other Not Applicable (N/A) payment form parameters that were previously on the Miscellaneous Parameters dialog box have been moved to this new topic.



## Actuarial Equivalence

- ◆ **12/31 for 1/1 commencement.** Actuarial equivalence calculations for commencement on the first day of the plan year (whether or not it's a calendar year plan year) can now reflect interest and mortality as if commencement was the last day of the prior plan year. The new checkbox is found in both Actuarial Equivalence and Annuity Factor component library entries.

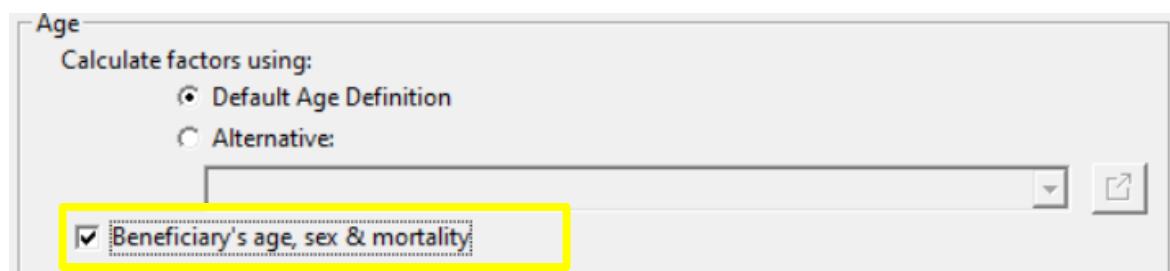
Use prior day interest & mortality for 1st plan year day commencement

## Benefit Formula Components

- ◆ **Interest-only.** Late Retirement components can now be based on interest only, ignoring the mortality table included in the Actuarial Equivalence assumptions.



- ◆ **Survivor late retirement adjustment.** Late Retirement components can now be based on beneficiary age, gender and mortality. This allows for actuarial increases on death benefits.



## Interest Rate Tables

- ◆ **First Spot Rate.** If a spot rate table is selected, you can now choose to only reflect the initial spot 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.

Interest Rate Table - [417(e)(3) 2 mo lookback from January FIRS... ? X

Name: 417(e)(3) 2 mo lookback from January FIRST SEGMENT ONLY

Historical Interest Rate Table:  
PPA\_Segment Rates\_SPOT.csv View

Only use initial spot rates

Average rates: Averaging Period: Months  
Start of Averaging Period: Jan  
Averaging approach: Arithmetic

Increase rates by  
 Multiply rates by

Minimum rate: -0.02  
 Maximum rate: .05

Apply rounding rule: Amount: Direction: Nearest

- ◆ **Minimum/maximum rate.** You can now specify a minimum or maximum value for each rate in an interest rate table. In addition, the minimum value can be negative.

## Payment Forms

- ◆ **Joint Life & Social Security Level Income** payment forms have been enhanced to provide more flexibility:
  - When leveling only the member benefit, you can now have independent assumptions (actuarial equivalence or tables or both) for the social security leveling and the joint and survivor portion of the benefits. This enhancement was primarily designed so that the joint life reduction can be done on the plan basis, mirroring the regular joint life payment form, while the leveling is done on the 417(e) basis.
  - Age difference tables can now be used to calculate the joint life portion of the benefit when leveling only the member benefit.
  - You can now ignore the joint and survivor reduction when leveling the benefit. When checked, the member benefit will be calculated using only the assumptions selected for the SSLI leveling with no J&S reduction. This would be appropriate when an unreduced J&S benefit is the normal form for married participants.

Ignore J&S reduction when leveling the benefit

- The minimum actuarial equivalence can now be applied to only the member benefit. When checked, the settings under the "Calculate J&S conversion factor using" section are used to convert the normal form to a J&S form and the minimum actuarial equivalence assumptions are used only to level the member's reduced benefit. This keeps the survivor benefit the same as for a regular joint payment form regardless of whether the minimum actuarial equivalence controls the leveled member benefit.

## Output

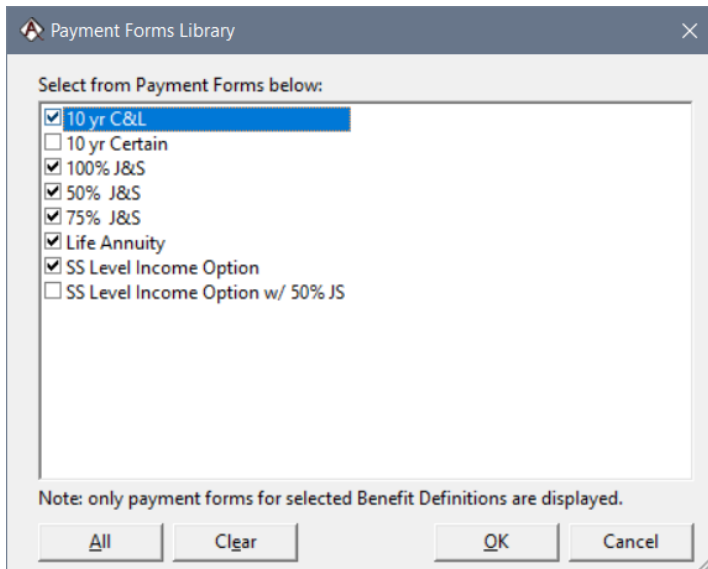
- ◆ **Processing message differences.** When a calculation is rerun through the Run & Compare features, a new option shows any differences in processing messages if checked. In addition, the default when a calculation is rerun directly (without using Run & Compare) is to show any changes in processing messages if there are changes in the Summary Results.

- ◆ **Dynamic mortality effective year.** A new processing message has been added that shows the year through which the dynamic mortality tables have been updated. In addition, if there are commencement dates beyond the current 417(e) effective year, a warning message reminds users that the mortality has been projected. The addition of these two messages, along with the automatic display of message differences above, should make it easier to be comfortable with a change in results (or not) when the IRS releases a new applicable 417(e) table.

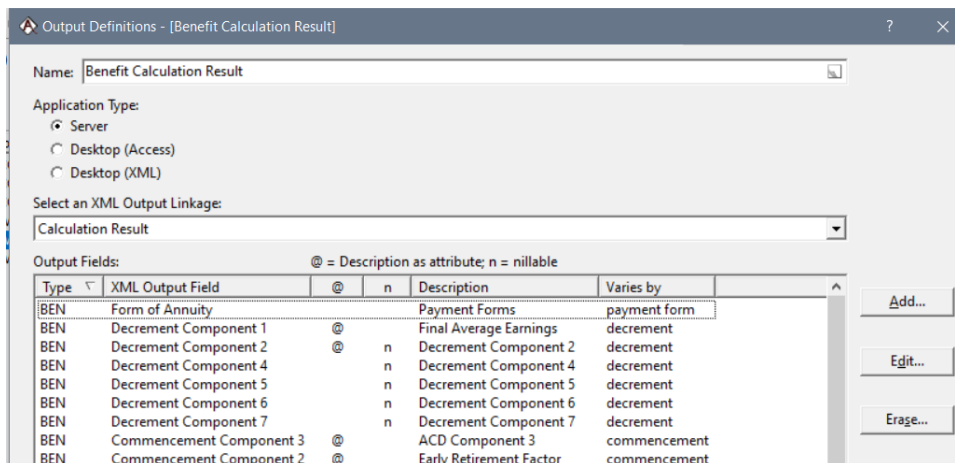
417(e) mortality is projected for the following commencement date:  
10/01/2028

- ◆ **Minimum actuarial equivalence details.** Payment form detailed results now include an additional table detailing the minimum actuarial equivalence calculations whenever they are applicable.

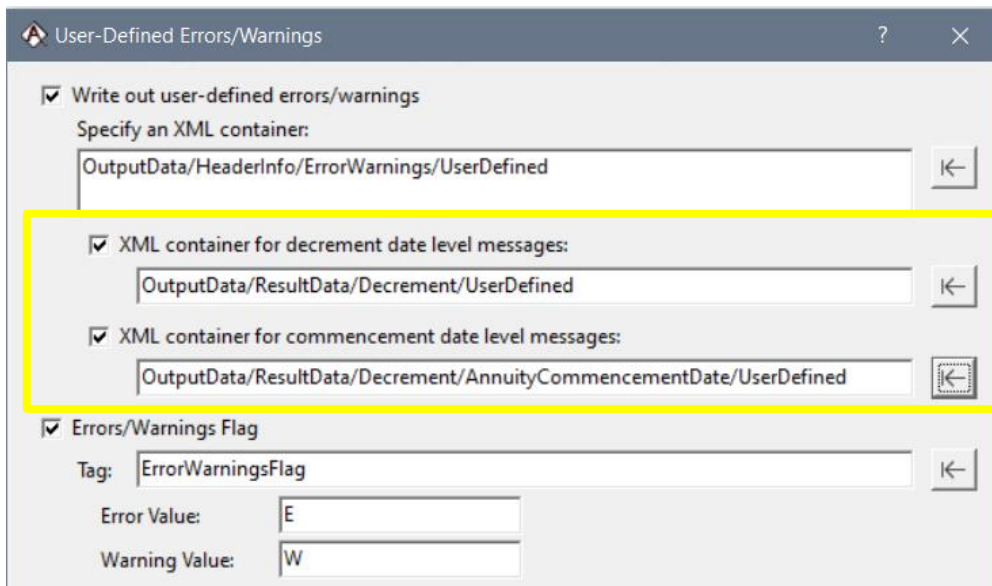
- ◆ **Output Definitions.** The interface for the Output Definitions library has been enhanced:
  - When selecting benefit detail results for “Selected benefits” and “Selected payment forms” only payment forms for the applicable selected benefits are displayed. Previously all payment forms from the library were displayed.



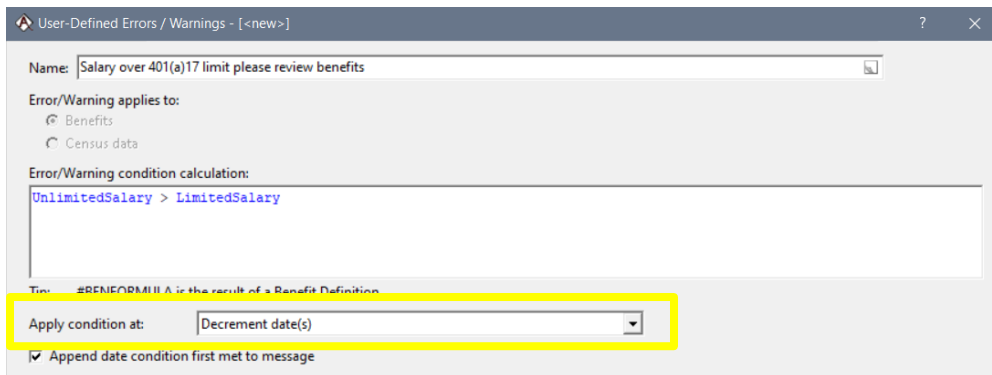
- The dialog box is now a sortable list view with additional information at your fingertips.



- ◆ **User-defined errors/warnings at decrement/commencement level.** The XML Output Linkage has new options that allow user-defined errors/warnings to be written at the appropriate decrement and/or commencement date level if desired and provides for the decrement date and/or commencement date to be written out with each error/warning. Previously all user-defined errors and warnings were collected in once section of the XML output and it wasn't clear to which dates they applied. After your XML output schema has been verified to include these new sections and imported into ProAdmin, use the following parameters to complete the mapping:



For example, using the new XML Output Linkage parameters, the following User-Defined Error/Warning which is evaluated at decrement date,



will now generate the following XML output:

```

<ResultData>
  <Decrement>
    <DecrementDate>2014-12-31</DecrementDate>
    <AgeAtDecrement>54</AgeAtDecrement>
    <UserDefined>
      <ErrorWarningsFlag>W</ErrorWarningsFlag>
      <Code/>
      <Message>This person may be in excess of the 401(a)17 limits calculation needs to be
        reviewed. (condition first met: 12/31/2014)
      </Message>
      <ErrorTypeCode>User</ErrorTypeCode>
      <DecrementDate>2014-12-31</DecrementDate>
    </UserDefined>
  </Decrement>
</ResultData>

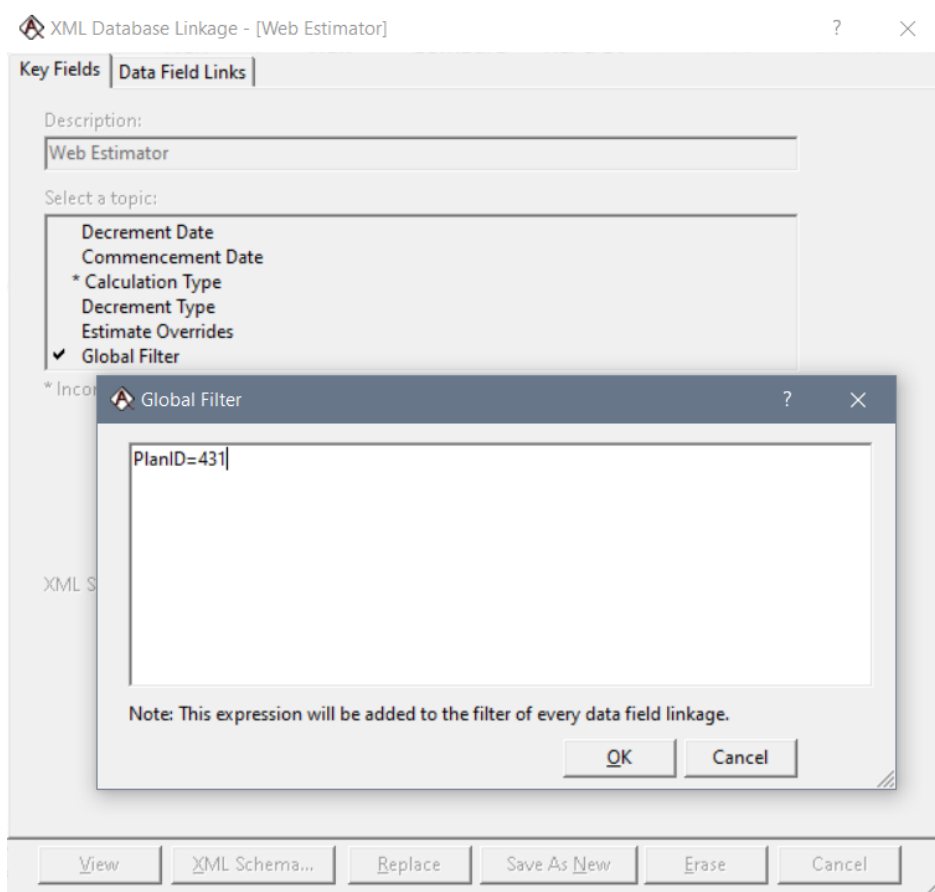
```

- ◆ **Null XML elements.** Output Definition results can now include null XML elements from ProAdmin Server or when saving XML results in ProAdmin Desktop.

For more see [Null Elements in XML](#) on page 12.

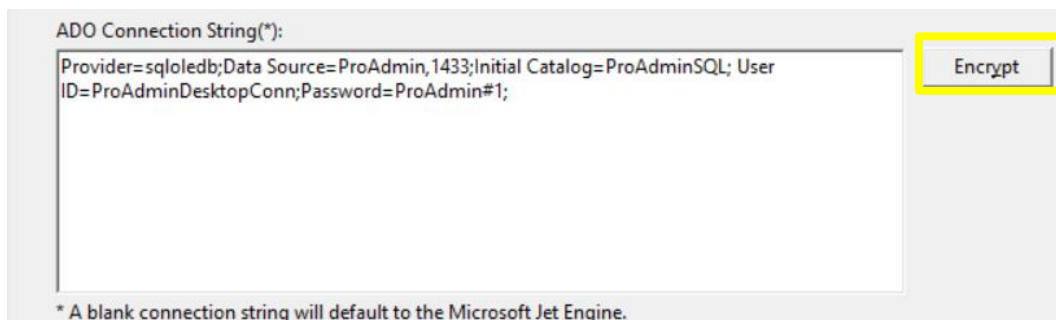
## Data

- ◆ **Global filter.** The XML Database Linkage now allows a new global where filter that is applied to all data field links. This is comparable to the global WHERE option that exists in the Database Linkage.



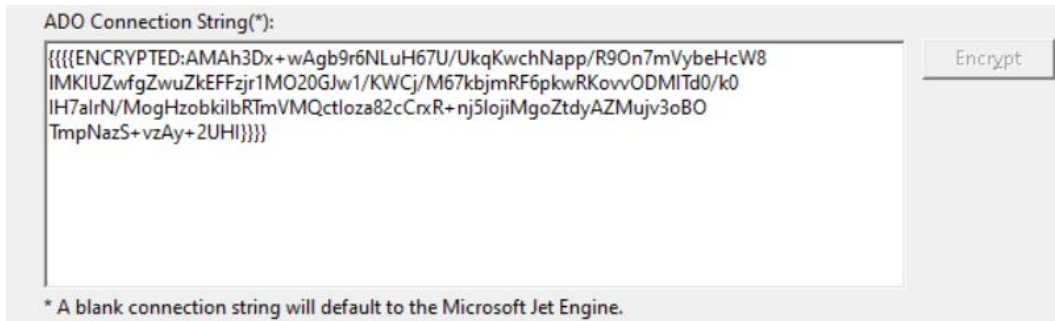
- ◆ **Encrypt.** The Database Linkage can now encrypt the ADO connection string. The encrypted connection will automatically be accessed for calculations and the data load tool and can also be copied to use when saving Output Definition results to an SQL database. Once encrypted, the connection string cannot be decrypted other than by ProAdmin.

Before:





After:



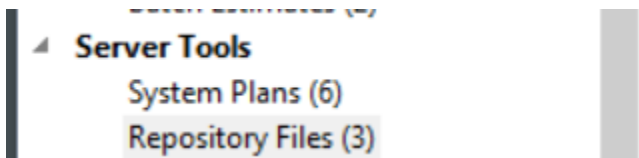
- ◆ **Password prompt.** The ADO connection string can now prompt for the user id and/or password for the connection by replacing the user id in the connection string with <promptuserid> and the password with <promptpassword>. These placeholders must be entered exactly as shown with no difference in case. For example, the following is a SQL Server connection string that prompts the user for both:

```
Provider=sqloledb;Data Source=some server;Initial Catalog=ProAdminData; User ID=<promptuserid>;Password=<promptpassword>;
```

When used, the userid and/or password is requested the first time you connect to the database and is then remembered for the remainder of your ProAdmin session.

## Server Maintenance

- ◆ **Server Tools** is a new left menu topic, elevating the Sever Maintenance commands for easier access.



- ◆ **Repository Files** are now a library accessible on the left menu, allowing you to easily select the repositories you regularly use.
- ◆ When updating an existing System Plan in the Repository, the Repository File Changes report produced only shows details for items that changed or were added.

```
Summary of differences by library -----
Date Adjustments Library:
[t] FOMCWF
[+] FOMCWF (ERD or Calculation Run Date)

Eligibility Definitions Library:
[*] ER Eligible

Plan Definitions Library - Pension:
[*] PRT Example Plan Setup

-----
[*] Items that have been modified (2):

Eligibility Definitions Library
[-] ER Eligible (7/21/2020 14:23:23)
[+] ER Eligible (1/25/2021 14:40:51)
    -[10] FOMCWF
    +[10] FOMCWF (ERD or Calculation Run Date)
```


- ◆ **Interest rate problems.** When updating a Repository, if there is a missing interest rate, the update will now continue with a warning rather than aborting with an error. This enhancement was released as a 3.14 patch but is included here in case you missed it.

## System

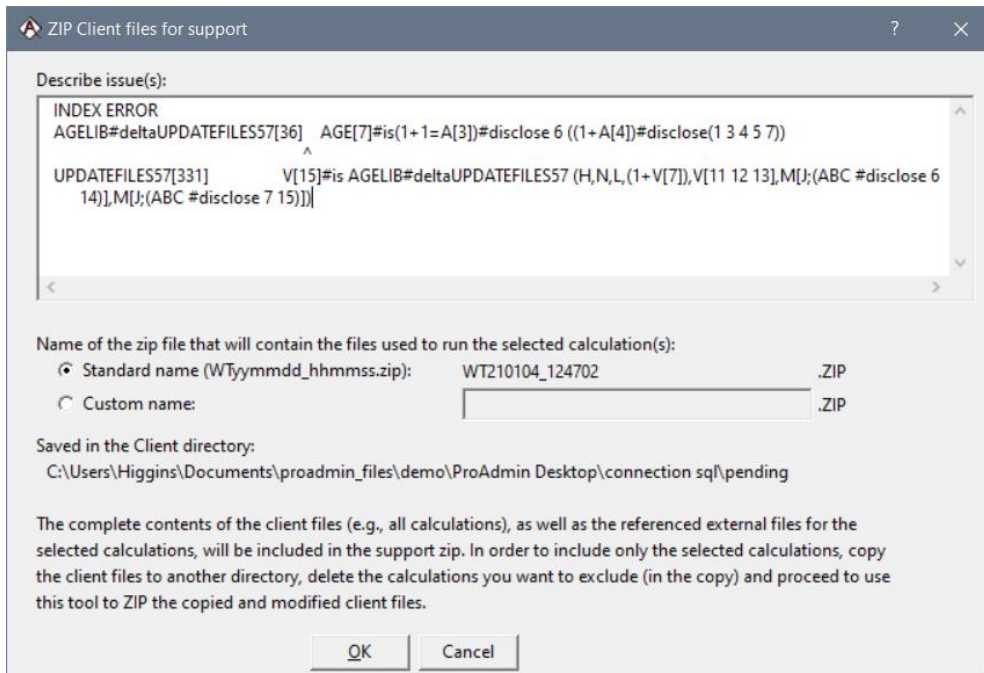
- ◆ **Start with no client.** By default, when ProAdmin starts up it opens the last client automatically. Unchecking this new checkbox in File > Open Client lets you start ProAdmin without opening a client. This is useful, for instance, if you are working remotely and the connection to your client files is slow, or may not always exist.

Automatically open last client

- ◆ **Show in Folder.** After saving results to a file, you can now "Show in Folder". This might be useful, for instance, if you've saved more than one file and you want to compare them, open them both, etc.
- ◆ **Zip4Support** is a new menu choice within the calculation libraries (Finals, Estimates and Dates/Age/Service) that will create a zip file with the four (4) ProAdmin sf files as well as any referenced interest rate tables and external files (i.e., #GETTABVALUE and/or custom regulatory files). To use this new feature, select a calculation, right click the entry and click on Zip4Support, or click on the 3 dots to the right of the menu bar and choose Zip4Support.

 Zip4Support...

Either of these actions will open the Zip4Support dialog box where you can describe your issue, choose a standard or custom name for the zip file, and then click on OK and the file is created.



Describe issue(s):

INDEX ERROR  
 AGELIB#deltaUPDATEFILES57[36] AGE[7]#is(1+1=A[3])#disclose 6 ((1+A[4])#disclose(1 3 4 5 7))  
 UPDATEFILES57[331] V[15]#is AGELIB#deltaUPDATEFILES57 (H,N,L,(1+V[7]),V[11 12 13],M[;](ABC #disclose 6 14)),M[;](ABC #disclose 7 15))]

Name of the zip file that will contain the files used to run the selected calculation(s):

Standard name (WYymmdd\_hhmmss.zip): WT210104\_124702 .ZIP

Custom name: .ZIP

Saved in the Client directory:  
 C:\Users\Higgins\Documents\proadmin\_files\demo\ProAdmin Desktop\connection sql\pending

The complete contents of the client files (e.g., all calculations), as well as the referenced external files for the selected calculations, will be included in the support zip. In order to include only the selected calculations, copy the client files to another directory, delete the calculations you want to exclude (in the copy) and proceed to use this tool to ZIP the copied and modified client files.

OK Cancel

- ◆ For ProAdmin license server users, if you have a previous license that was stranded (perhaps due to a connection issue), ProAdmin now detects this and prompts you to release it at startup. In most cases, this relieves administrators of ProAdmin license servers from having to clean up stranded licenses manually.
- ◆ The Help menu now has convenient links to What's New, Updates Log, Changes Log, as well as online support and training.

- ◆ Deep Copy can now be used on items with a huge number of children (e.g., a large plan definition) without using nearly as much memory. Speed has also been improved.

### **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 results.

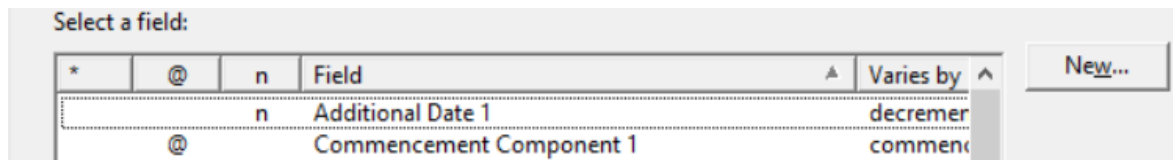
# Null Elements in XML

Previously, ProAdmin would omit any XML Output field for which a value wasn't calculated. This may have caused a problem when inserting values into tables where some fields required a null value. You may now set up the XML Output Linkage so that ProAdmin returns these as valid XML null fields.

The first step is to declare the required elements as nillable in the XML Schema Document (XSD). The following sets the AddtlDate1 element as a required element that can be set to NULL.

```
<xsd:element name="AddtlDate1" type="xsd:date" nillable="true"/>
```

When the XSD is imported into the XML Output Linkage this field will now be denoted with an 'n' in the null column of the appropriate tab (Plan Dependent, Input Pass Thru, or Standard)



When this XML Output Linkage is referenced within a server type Output Definition, any nillable fields that are setup will have an 'n' in the null column.

Output Fields:		@ = Description as attribute; n = nillable				
Type	XML Output Field	@	n	Description	Varies by	
BEN				CB Details		Add...
BEN				FAS Details		
BEN				FAS Details_Highest		
DAS	Additional Date 1		n	CB Start Date	decrement	Edit...
BEN	Commencement Component 1	@		Accrued Benefit	commencement	
BEN	Commencement Component 2	@		Early Retirement Factor	commencement	

When this Output Definition is used by a calculation, any field with the 'n' designation where a value hasn't been calculated will now be returned as a valid XML null element. The XML Output Field Additional Date 1 will now return as:

```
<AddtlDate1 xsi:nil="true"/>
```

Note also that fields with the nillable attribute in the XSD that are not directly referenced in the Output Definition will also appear in the XML Output if they are within a node that has non-null values for other fields.