

# What's New in version 3.21

January 2025

ProVal version 3.21 introduces info tips to the gain/loss summary output, enhanced comparison detail, deep erase, and CAS accounting for valuation sets and forecasts. Full details plus many other new features listed below.

## Gain/Loss Analysis

**Gain/loss info tips** with common causes for each source have been added to the gain/loss summary output. Armed with this quick reminder, you can quickly gauge whether each gain or loss makes sense. In the example below, the info tip indicates that a loss is expected if fewer actives terminate than expected – which tracks with this example's 10 actual vs. 40.27 expected terminations. It's like having context sensitive help built into the output.

### Liability gain/(loss), by source

Source	Gain/(Loss)	Percent of expected liability	Underlying Source Value		
			Actual	Expected	Actual over Expected
1. Data correction		0.00%			
2. Active decrease					
(a) Retirement	More...	(0.06%)	3.00	9.04	0.332
(b) Termination ⓘ	(107,554)	(0.33%)	10.00	40.27	0.248

Generally, a loss will be generated if fewer actives terminated than expected or more actives were vested at termination than expected. The opposite is true for a gain.

## Interface

### Enhanced Comparisons

- Differences are now color coded to make them easier to see. You will see this when comparing entries as well as when viewing the change history for an entry.

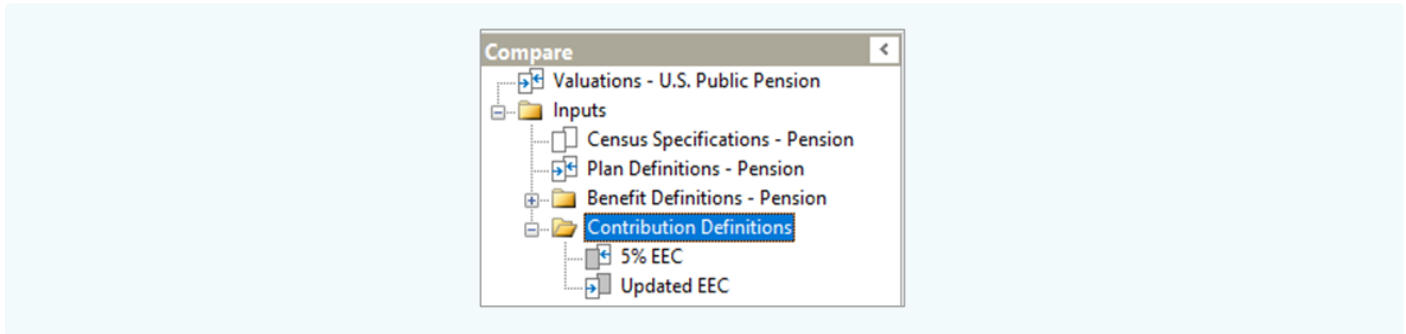
```

Comparison key:
-----
[-] 2024 Valuation w/ new assumptions
[+] 2024 Valuation
-----

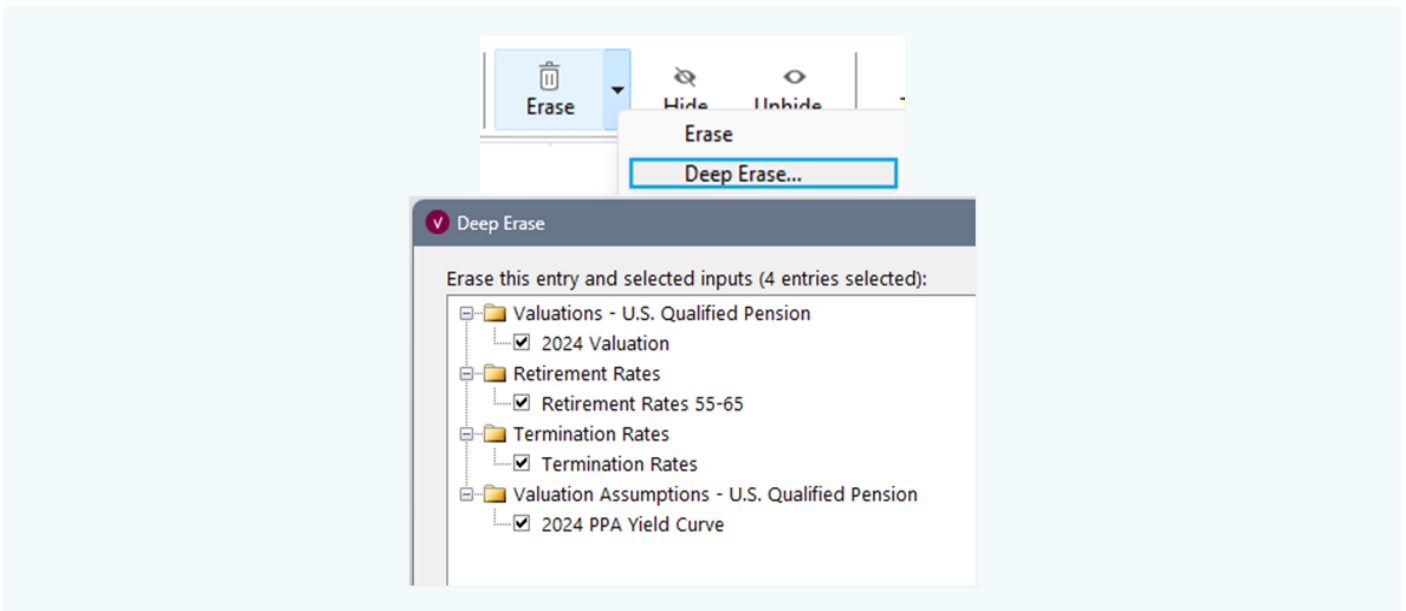
Valuations - U.S. Qualified Pension
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[-] Name: 2024 Valuation w/ new assumptions
[-] Date created: October 7, 2024 9:34 AM
[+] Name: 2024 Valuation
[+] Date created: May 22, 2024 11:07 AM
    
```

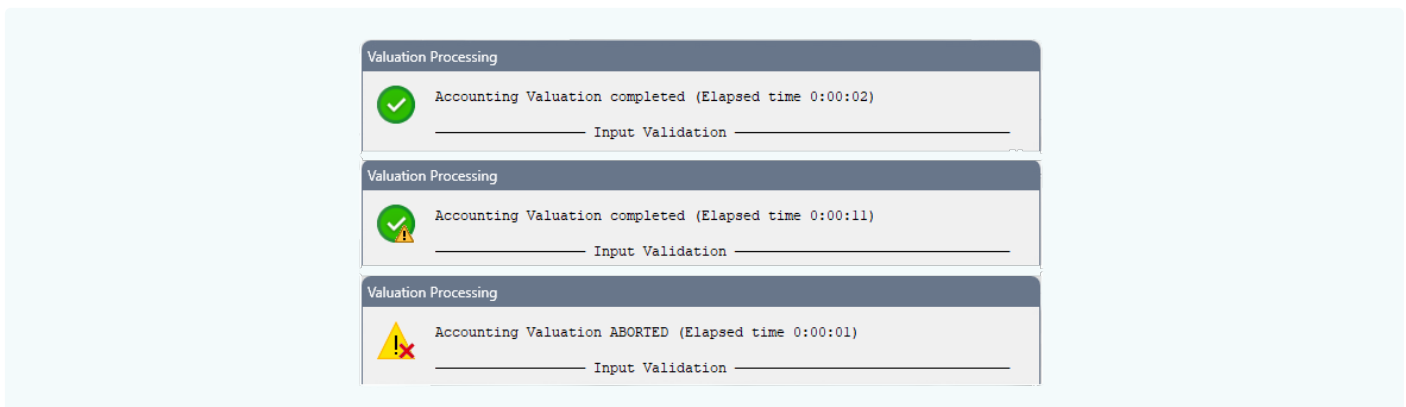
- When comparing more than 2 items, you can now specify the order of all entries. Previously you could only specify which entry was listed first. (The initial order is still set by the sort order of the library you're comparing entries in.)
- When comparing Plan Definitions (or comparing something that references Plan Definitions, like Valuations), any Employee Contributions are now compared automatically too. Just as with Benefit Definitions, ProVal makes an intelligent guess when matching the contributions but you can modify that by clicking the Contribution Map button.



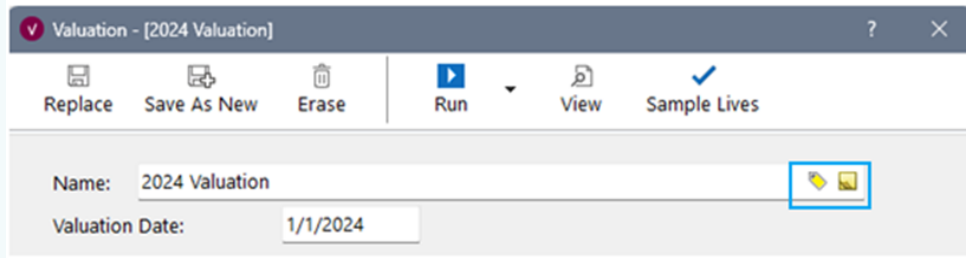
**Deep Erase.** Deleting entries in bulk is now more efficient and intuitive. Simply select an entry and then click Erase > Deep Erase. This not only lets you delete the selected entry but also gives you the option to delete its inputs too as long as they aren't referenced elsewhere in your ProVal client.



**Run completion icons** now indicate whether your run succeeded, succeeded with warnings, or aborted. This tells you immediately whether your run needs additional attention. You will see this whenever you execute or validate a run in ProVal (Valuations, Valuation Sets, Core Projections, Gain/Loss Analysis, etc).



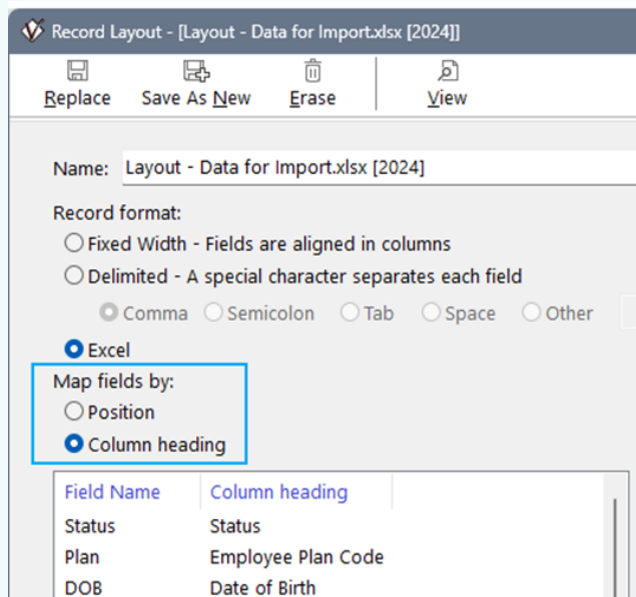
**Tags and Notes** for library entries are now easier to edit and access – either for selected entries in the library or within an individual entry. This means you don't have to stop what you're doing to jot down a note or tag. This also means Notes can now be edited (or deleted) for multiple entries at once. If you haven't used tags and notes, tags are a great way to group like entries together and notes are a great place to keep supplemental information or reminders.



**Inactive Benefit Mapping.** A check mark on the Map button now indicates when inactive benefit definitions have been mapped to a coded database field in Census Specifications>Inactive Data.

## Census Data

**More flexible record layouts.** When importing data from Excel or delimited files and saving the underlying Record Layout for reuse, the Record Layout's field mapping is now based on column headings rather than positions. This makes it way more flexible. For example, you might use it to import next year's data file with the same column headings even if the field positions differ. Or, you could set up a "master" Record Layout to import a set of files, where this master Record Layout contains the superset of fields across all of the files (fields not found in the file will be ignored).



**Screen Data.** Additional options have been added to ProVal's screen data tool.

- You can now specify the age range for ProVal's invalid age screening tests without having to set up custom tests.

Type	Description	Custom Description	Min	Max
Error	Missing or invalid status code			
Error	Active/Vested as Active - missing date of birth (or attained age)			
Error	Active/Vested as Active - invalid age	Valid age range (18-99)	18	99

- Several new standard tests have been added:
  - Surprise Vested Terminations – checks for participants with a terminated vested code that were not expected to be vested based on prior year data.

Surprise Vested Terminations  
 Error if vested term in current year and active in prior year but not vested as of prior year valuation date

- Status change to survivor, but no date of birth change – checks for member deaths where the beneficiary's information was likely forgotten to be updated.
- Leavers, Joiners, and Cross-Check - lists participants found only in the prior year database, only in the current year database, or found on both based on key data fields. These are not errors or warnings, per se, but can be useful reports to have the client review for reasonableness. vested based on prior year data.

Leavers & Joiners - List participants in only prior year or current year databases  
 Cross-check possible matches between leavers and joiners based on: [ID No](#)

- Invalid age and date checks specific to German mode for active and terminated vested participants.
- When Screen Data finds no errors but there are errors previously logged in the database, you now have the option to clear out the Error Log.

**Data Questions.** You now have more flexibility when formatting your client data questions using ProVal's Data Questions tool.

- **Custom instructions.** You can now enter specific instructions to the client for each question in place of the default "For each record, provide corrected data...". Instructions give you a place to say something longer, perhaps even in a few lines, while keeping the error's description relatively short.

**1: Inactive - missing beneficiary date of birth**

For each record, provide corrected data, a comment, or both

- **Irrelevant codes.** For coded database fields, you can now omit codes from the dropdowns in the data questions spreadsheet. This is useful when you want the client to see only relevant codes but the data dictionary includes old codes that are no longer in use.
- **Record sorting.** You can now choose the sort order for records, choosing from among the fields to help the client identify records. For instance, you might sort records by name.
- **Column filtering.** Column filters are now automatically added for any error sheet that lists two or more participants.
- **Index of records.** An index tab has been added to the data questions spreadsheet, letting you view all data questions in one list sorted by participant with links to the corresponding error sheets.

**Errors and Warnings, by record**

2 resolved  
7 unresolved

RecID	ID_No	Errors and warnings
1	264	3: Inactive benefits less than minimum
2	268	2: Inactive benefit changes
3	279	2: Inactive benefit changes
4	282	2: Inactive benefit changes
5	312	1: Inactive - missing beneficiary date of birth
6	333	1: Inactive - missing beneficiary date of birth
7	354	1: Inactive - missing beneficiary date of birth
8	363	1: Inactive - missing beneficiary date of birth
9	520	3: Inactive benefits less than minimum

Dashboard 1 2 3 **Index** +

You can access the Index from a link on the dashboard for quick access.

**9 Errors and Warnings** [See Index](#)

Or by clicking "... " next to a participant record on each error sheet.

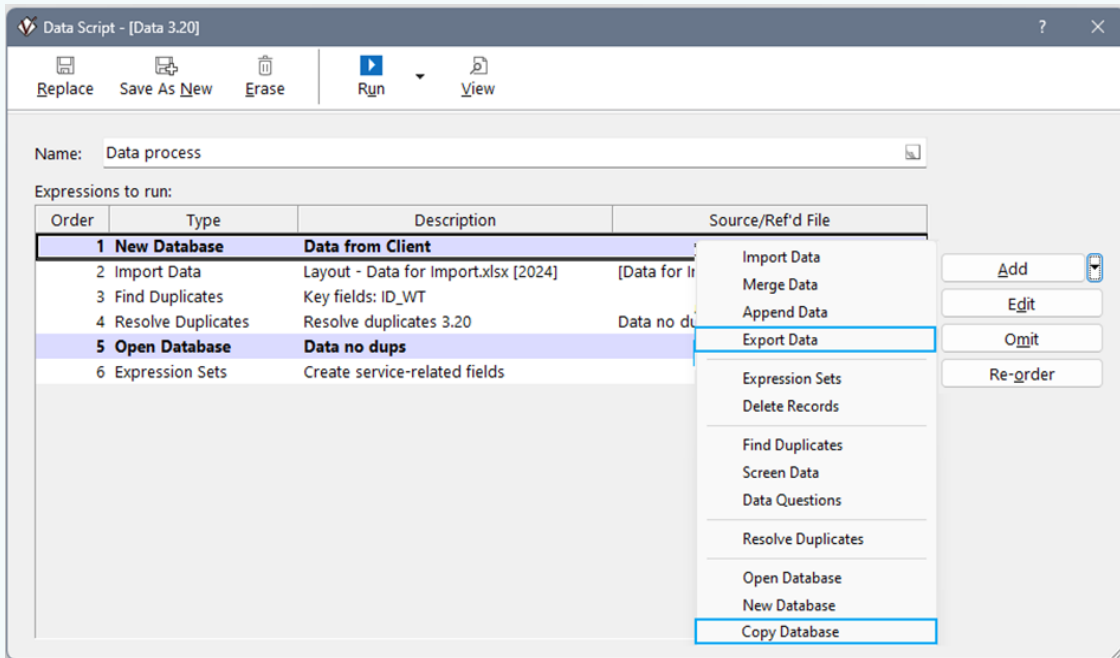
RecID	ID_No	Benefit	Comment
1	264	264.00	18.00

**Database change history** now records when fields are renamed. Previously this change was not specifically recorded in the Change History.

General Change History Notes			
Date Modified	Tool	Description	
10/04/2024 5:49 PM	Renamed Field From	Field Renamed To: ID_No	
10/04/2024 5:49 PM	Renamed Field To	Field Renamed From: ID_WT	

**Data Scripts.**

- The commands "Export Data" and "Copy Database" have been added to the Data Scripts tool.



- When importing data using data scripts, you can now import .csv files. Previously only Excel files were allowed.
- When screening data using data scripts, a new parameter specifies whether to replace or merge existing errors with new ones. Previously, a prompt was given at runtime that would require user intervention.

**Expression Sets.** There is a new checkbox on the Individual Results screen in a valuation or core projection that allows you to run expression sets on the Individual Results database after it has been run. This is useful if you want to define fields based on the individual results. For example, if you want to include the Total normal cost by individual, you can run an expression set to combine the net employer normal cost and expected employee contributions.

## Pension Plans

**Improved Assumption Listings.** When viewing Valuation Assumptions and Projection Assumptions, the listing has been streamlined for the following:

- **Cost-of-Living Adjustments (COLAs).** When the same COLA override is used for more than one benefit, the listing now shows the COLA assumption once with a list of all the benefits it applies to. Previously all COLAs were always listed by benefit.
- **Conversion Factors.** For lump sum components and optional forms when the conversion assumptions are the same, the listing now shows the assumption once with a list of all components and payment forms it applies to. Previously each component and optional form were always listed separately.

```

— Optional Payment Forms —
Payment Forms:
  100% J&S Immediate
  50% J&S Immediate
  Immediate Lump Sum

Description:
  Convert from the normal payment form using specified interest and mortality

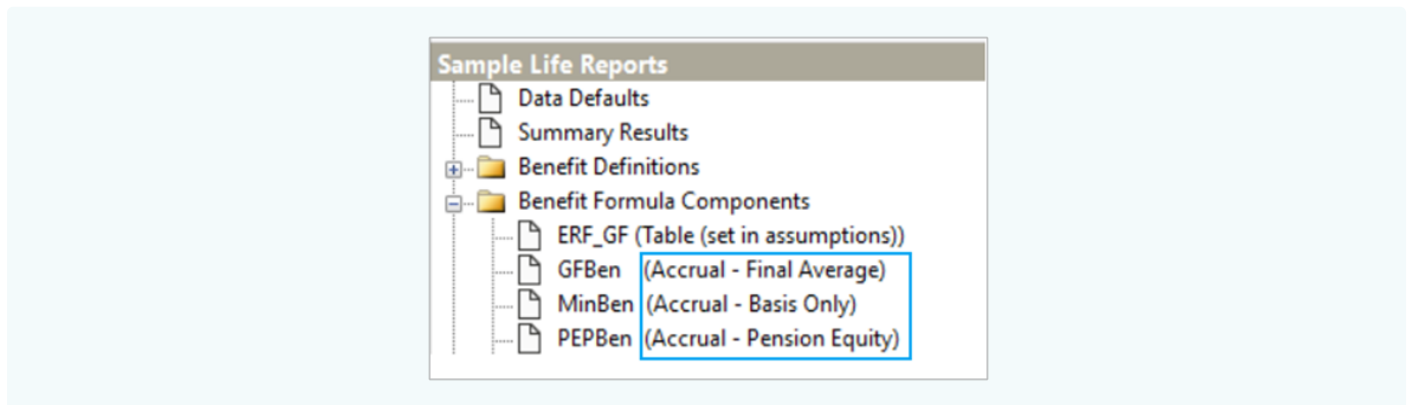
Interest rate: 0.07
Interest assumption sensitivities applicable

Primary annuitant mortality rates:  IRS 2024+ Applicable Mortality Table for 417(e) (dynamic)
Contingent annuitant mortality rates: IRS 2024+ Applicable Mortality Table for 417(e) (dynamic)

```

**Salary Bonuses.** In salary definitions, bonus percentages can now vary by calendar year. This is useful if the current year bonus information is already known but an assumption is used for future years.

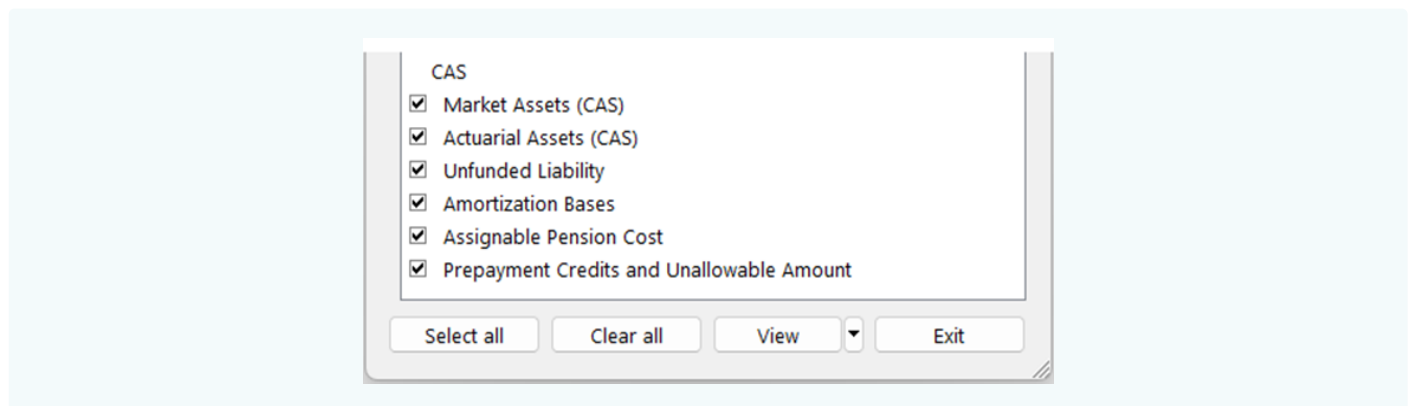
In sample lives, the tree now displays the type for Accrual components.



## US Qualified Pension Plans

**CAS accounting for valuation sets and forecasts.** Cost Accounting Standards for government contractors has been expanded to valuation sets and forecasts. The "PPA and CAS" law type has been added to the Asset & Funding Policy, Deterministic Assumptions, and Stochastic Assumptions allowing you to calculate the reimbursable pension cost in ProVal.

- In the Asset & Funding Policy, you will find parameters specific to CAS accounting. This includes separate asset development for market and actuarial value of assets, reimbursable portion of contributions, PBGC premiums, and other expenses.
- Several new exhibits have been added for valuation sets and forecasts that detail CAS results.



The Maximum Tax Deductible Liability exhibit now displays the max tax effective rate of interest for valuation sets and forecasts.

## OPEB Plans

**Sample Life Navigation** has been improved for OPEB mode.

- Links have been added to the benefit definition reports to allow easier navigation to the corresponding benefit formula component reports.

**Benefit Definitions (Actives at Decrement)**  
**Benefit: Current actives <Member>**

RecID: 1

Year	Member Age	Claims Table	Aging Table	Gross Benefit	Contrib Table	Partic. Contrib.	Net Benefit
2020	21	4,278.05	0.220102	941.61	177.70	2,132.37	-1,190.76
2021	22	4,491.96	0.227805	1,023.29	183.03	2,196.34	-1,173.05
2022	23	4,716.55	0.235779	1,112.06	188.52	2,262.23	-1,150.17

- Sample life reports have been added for all inactive benefit formula components. Additionally, increase rates are now displayed for all applicable components. Previously, detail was only displayed for table components with increase rates.
- Service amounts are now shown for service-based benefit component tables including expanding the decrement ages shown.
- Expanded Limits and Spending Account report to show details for Annual Limits, Lifetime Max and spending accounts without increase rates; previously only showed details for Spending Accounts with increase rates applied.

On the Accounting Methodology topic of the Asset & Funding Policy, there is a new option for the amortization basis for ASC 715 that reflects inactives and fully eligible actives. This is useful if you want fully eligible actives to be considered as inactive for purposes of life expectancy.

**Amortizations**

Amortization basis: Life expectancy (fully eligible actives & inactives)

Average future service to full eligibility includes:

- only those participants not yet fully eligible
- all active participants

## Forecasting

**Administrative expenses** can now be adjusted for future years in a forecast. This is useful if you are modeling a plan with a pension risk transfer event that is expected to alter the administrative expenses paid by the plan. The adjustment is multiplicative so if you expect the expenses will be cut in half after 2 years, enter a factor of 0.5 in the table for the appropriate year.

**Administrative Expenses**

Dollars: 0 + Fraction of assets: 0

Increase dollar expenses with inflation during a forecast.

Multiply dollar expenses by a factor: Params...

**Multiply dollar expenses by a factor**

Enter multiplicative factor to apply to dollar expenses

From	To	Factor
-	2025	1
2026		0.5



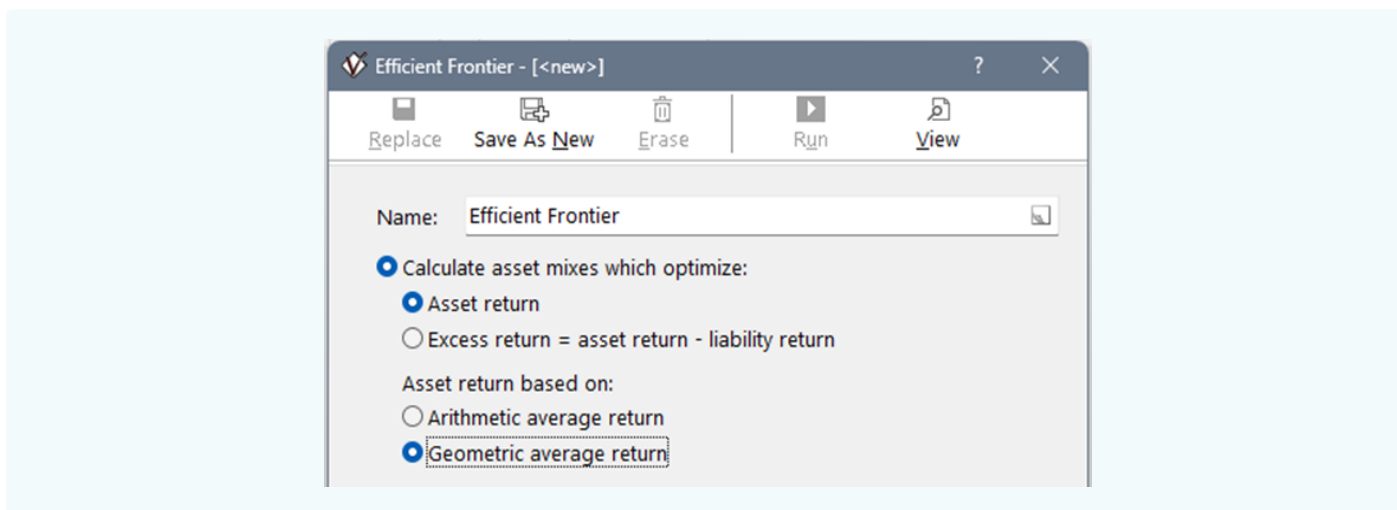
**AFTAPS.** For PPA plans, you can now enter known annuity purchase amounts for the valuation year and first forecast year to get more accurate AFTAP calculations in a forecast. This is particularly useful when modeling a pension risk transfer that has occurred in the current year.

**Custom variables.** A new forecast custom variable, CUMFYCONT, has been added for cumulative fiscal year contributions.

**COLA Sensitivities.** The checkbox in valuation assumptions for whether COLA sensitivities apply is now honored for experience in a core projection. Previously, COLA assumptions always varied with the inflation or alternate benchmark sensitivity runs in a core projection.

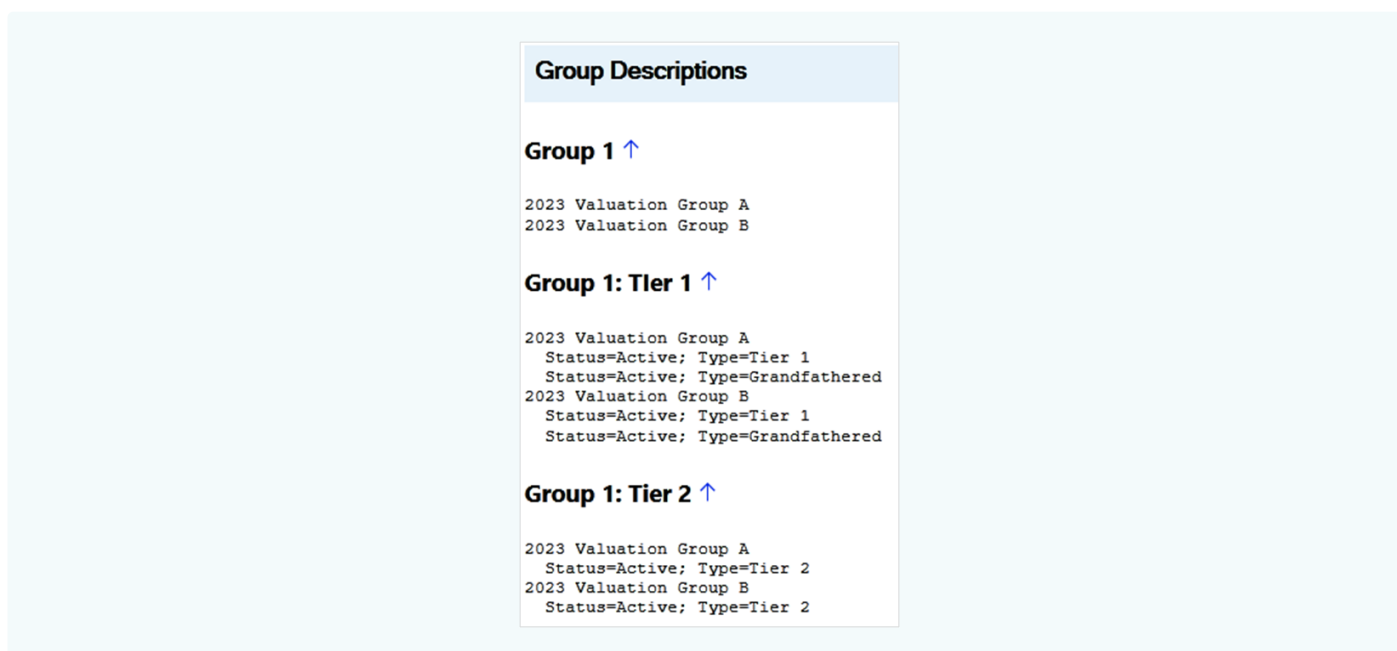
**Ultimate Cost.** You now have the option to exclude the surplus from the present value of unfunded liability in the ultimate cost calculation.

**Efficient Frontier** calculations have been updated to more accurately optimize the asset return when a geometric average is selected. The interface has also been updated to allow the selection of arithmetic vs geometric returns.



## Output & Reporting

**Group descriptions** of selected subtotals are displayed in the valuation and core projection output when viewing results for only certain subtotals or certain groups.



**Subtotal Aggregate Results** checkbox is now available in valuation and core projection output to show the sum of all selected subtotals. You can use this in conjunction with "Aggregate Subtotals by Group" to display subtotals by group along with the sum of all selected subtotals.

**Average benefit timing.** In pension modes, new average benefit timing output variables are available for PVFB, EBO, PUC NC, and UC NC.

## US Public Pension Plans

In GASB Valuation Sets with an end of year event, the Balance Sheet exhibit now splits the end of period inactive liability between in-pay and deferred. Previously, only the total inactive GASB liability was shown.

## German Pension Plans

You can now save and view sensitivities by subtotal in Core Projections and Core Projection output.

The contributions library, where you can store and reuse employee and employer contribution definitions, has been enabled in German mode. If added to a Benefit Promise in the Contributions topic, ProVal will automatically calculate the present value of future employee and employer contributions, separately, and subtract the expected employee contributions from the normal cost.

The Age Method for determining the benefit amounts of risk benefits has been added under Valuation Assumptions > Decrements. Under this method, risk benefits will be calculated at valuation anniversaries, with no averaging applied.

## System

The full path of the folder for the ProVal client is now always reported when providing output. This was already the case for most output, but now has been extended to all output. For example, in stochastic detail output by trial, the filename was documented in the output file, but previously the complete location was not.

**Sorting library entries with two clients open at once.** Now if you have two clients open, sorting library entries in the first client won't affect the sorting in the second client.

## ProVal PS

When viewing results for "All Plans" in ProVal PS, custom variables that are ratios are now correctly determined by calculating the combined numerator and denominator before taking the ratio. Previously, the ratios for the individual plans were added together.

## ProVal API

You can now run data scripts from the ProVal API. When doing so, the API will return a summary report of files uploaded, number of records imported, number of errors and warnings, etc.

## Licensing

Multiple ProVal sessions are now allowed for software licenses (maximum 5 sessions).

## Changes Log

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