

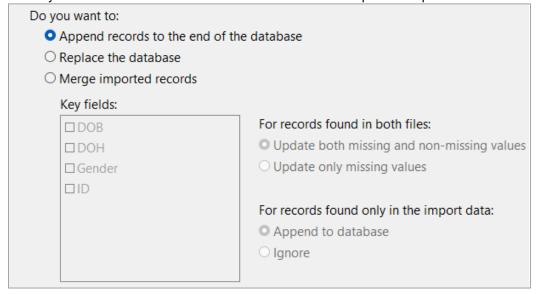
What's New in version 3.22 beta

July 2025

ProVal version 3.22 beta introduces filtering by liability basis in Sample Lives, improved Experience Study Output, SharePoint integration, Gain/Loss analysis for LTD plans, and many additional features. Full details plus many other new features listed below.

Census Data

◆ Import & Merge. You can now import your data and merge it into the current ProVal database in one step. This is especially useful when data is provided in multiple files. For example, if your client sends a revised file with updated pay information, you can import and merge the updated pay amounts directly into your valuation database, replacing the old values. Previously, you would need to import the data into a separate database before you could combine it with another database. This simplifies the process into one step.

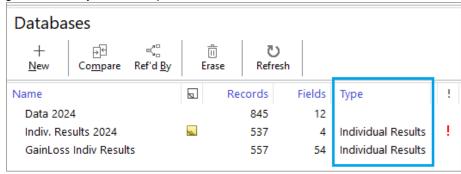


- Individual Results Audit Trail. An audit trail specific to individual results has been added.
 - Individual results databases are now locked. You can make manual changes to the database if you need to, but now you will see a warning message reminding you that these are individual results records and listing the run(s) that that generated the results. Whenever the individual results data changes, ProVal will add a flag to the Database library so it's clear that the data has been edited since the results were run.



- Changes to the input database(s) will trigger warning messages and the option to delete the individual results.
- A new column has been added to the Databases library to indicate when a database contains individual results. This label will be attached for any individual results run, including valuations, core projections,

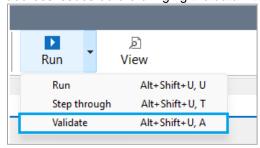
gain/loss analysis, and experience studies.



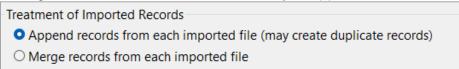
 Database change history now includes changes affecting the individual results with the option to log them as errors so they can be included when viewing errors or exporting them with ProVal's data questions tool.

Data Scripts

Import validation. When importing data into ProVal using Data Scripts, you can now validate the data before running the script. The validate option can be found using the arrow next to the Run button and will check for new database field codes as well as any errors in the import file, allowing you to catch and address issues before bringing the data into your ProVal client.



o Import folder. You can now import multiple files at the same time using a Data Script. The files must all be saved to the same folder and use the same record layout based on external column headings. To bring the files in at the same time, select the new command "Import folder" in your Data Script, and browse to folder where the files are saved. You can choose to append the records from each imported file or merge the records from each file based on key field(s).



- A command for "Delete Database" has been added to the Data Scripts tool.
- Error approvals by reason. When viewing records with errors in Spreadsheet Edit, you can now filter based on a specific approval reason. Previously you could filter to view all approvals but couldn't drill down further. This is useful when you provide descriptive reasons when approving an error. For example, if you have approved records with a change in hire date due to being rehired during the year, you can now select that approval reason from the dropdown and see only those rehire records with hire date changes.

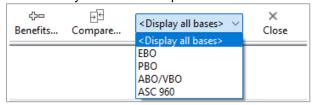


♦ Database notes icon. A Notes icon has been added to the databases library. Previously, your database notes were only accessible from Spreadsheet Edit or right-clicking on your entry. Now you can easily see at a glance when a note is attached to a database and hover over the icon to see a preview.

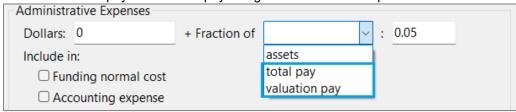
 A new parameter has been added to record layouts where you can specify the decimal separator for delimited and fixed-width files. This allows importing of csv and txt files from any region on one machine, without changing Regional Settings.

All Plans

Sample life liability filter. A liability dropdown box has been added to valuation and core projection sample lives to allow easier navigation. Selecting a liability measure will filter the reports shown in the tree on the left-hand side, showing only the reports that are applicable for that liability measure. This makes finding the information you care about quicker and easier.



Administrative expenses can now be defined as a percent of pay. Previously if your administrative expense assumption was based on pay, you would have to convert it to a dollar amount to enter in the Asset & Funding Policy. This was not ideal when running a forecast where salary merit scales apply. Now you can select either total pay or valuation pay using the "fraction of" dropdown in the Asset & Funding Policy.



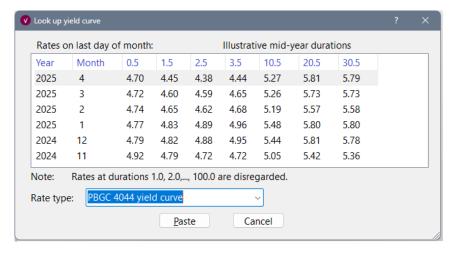
A new accounting weighted average retirement age exhibit has been added for valuation sets.

Pension Plans

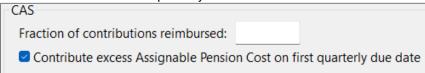
- ♦ **Lump sum installments** can now be determined by a fixed number of installments, by a database field with the number of installments, or by a database field with the payment stop age. Previously, only the first option was available.
- ♦ Cash Balance benefit formula components now include an option to apply interest credits during the deferral period between decrement and commencement age, as defined in the payment form. Previously you had to include the post-decrement interest credits separately in the benefit formula.

US Qualified Pension Plans

♦ ERISA 4044 yield curves. When populating a Yield Curve library entry in U.S. Qualified mode, you now have the option under the Lookup button to populate from either the published monthly PPA corporate bond yield curve rates or the new ERISA 4044 yield curve rates.



- New Multiemployer output variables for the Multiemployer vested liability effective interest rate and average benefit timing have been added for valuations and core projections.
- For plans with PPA & CAS law type, a checkbox has been added to allow excess Assignable Pension Cost to be contributed on the first quarterly contribution date.

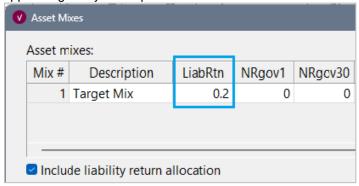


- An option has been added for PPA and PPA & CAS law types to use the pre-map-21 minimum required contribution for the maximum taxable contribution calculation.
- Government Forms update. The Schedule SB form has been updated for 2024 to export the benefit payment schedule using the benefit payments associated with the effective interest rate for plans where annuity substitution applies. This change was made based on clarifying language provided in the 2024 Schedule SB instructions.

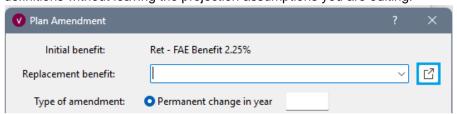
Note that this enhancement was included in an update to ProVal 3.21 but included here in case you missed it.

Forecasting

◆ Liability Return Allocation. In stochastic assumptions, a new checkbox allows you to easily define an asset class based on liability returns. The liability basis is defined in the Asset & Funding Policy>Forecast Analysis. Previously, this could only do this by saving out the liability return trial detail from your forecast and manually appending it to your Capital Market Simulator.



- ♦ In Stochastic Assumptions>Benchmark Yields, the corporate bond yield is now automatically an option for all benchmark yields when it is available from your Capital Market Simulator.
- For U.S. qualified plans, when smoothing funding assets based on excess return over expected, you can now limit the expected return to the 3rd segment rate under all available return options.
- In pension modes, post-termination benefits can now be used in a plan amendment.
- In projection assumptions, a new backdoor button has been added to the Plan Amendments topic taking you to the benefit definition library. This is available in pension modes and allows you to see the available benefit definitions without leaving the projection assumptions you are editing.



Canadian Registered Pension Plans

♦ An option has been added to the Asset & Funding Policy that increases the normal cost by interest only when running a triennial valuation set.

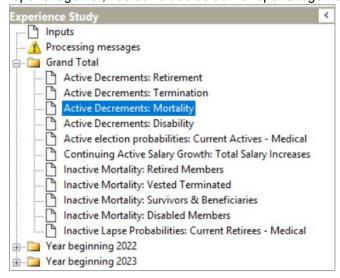
OPEB Plans

- ◆ The Gain/Loss Analysis tool has been enabled for LTD plans in OPEB mode.
- In stochastic forecasts, APBO has been added as a standard stochastic output variable. Previously, you had
 to set this up as a custom variable to view the results in ProVal.
- In stochastic assumptions, you can now vary the funding interest rate assumption based on the asset mix's expected return. Previously, this functionality was only available in Canadian and U.S. Public modes.

Experience Studies

Several updates have been made to the Experience Study tool in ProVal to streamline your experience, making it easier to navigate and review.

♦ Enhanced output. The output tree allows you to quickly and easily jump between the different reports with each table on its own page. If you want to see the active mortality results, you can now just click that report from the tree. Previously, you would have to scroll through other active decrement tables before you got to the mortality results. Additionally, the reports are sorted to make reviewing them more intuitive with all active reports together, vested valued as active reports together, etc.



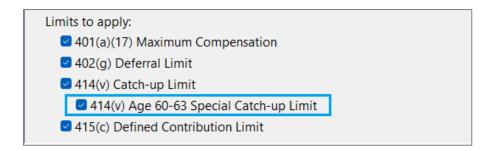
New processing messages with run completion icons are now displayed when you run an experience study before displaying the output, consistent with runs elsewhere in ProVal. Additionally, the option to show RecIDs for data defaults is no longer under the Databases & Census Specs topic. It is now available from both the processing message as well as in the output Viewer.



- Backdoor buttons have been added for census specifications, valuation assumptions, and plan definitions.
- The applicable mode dropdown box has been moved to the main dialog, allowing you to make your selection once to apply to all topics.
- ♦ In OPEB mode, you can now analyze the lapse assumption as part of your experience study.

U.S. Defined Contribution Plans

♦ Special catch-up contributions. Secure 2.0 Act introduced a higher catch-up contribution limit effective January 1, 2025. A new option has been added to the D.C. Allocation tool, under the Regulatory Data topic, that allows you to reflect the increased catch-up limit for participants aged 60-63.

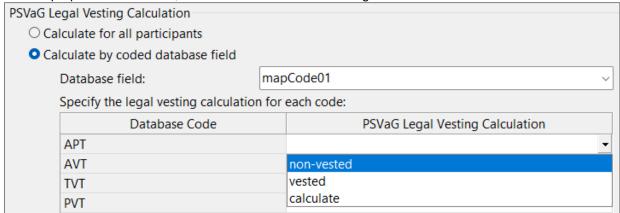


German Pension Plans

Pensionskassen, funded by both employer and employee contributions, can now be handled in ProVal. When you check the new Pensionskasse box in valuation assumptions, ProVal will use the special funding methods required, as well as produce output items specific to this type of plan, including Pensionskasse Reserve and Risk Capital. For more information on these calculations, see Help > Help Topics > Technical Reference > German Pensionskassen.



- "Zulagenbewertung" Method has been added for spouse benefits, which assumes 100% married and beneficiary determined at valuation date.
- o Richttafeln 1983 is now available as an option for biometric formulae in valuation assumptions.
- PSVaG legal vesting can now be calculated by coded database field. Under the Legal Vesting topic in your plan definition, you may now select whether a participant is calculated as non-vested or vested for PSVaG purposes, or you can tell ProVal to calculate service for the participant to determine if they are vested for PSVaG purposes. In addition, a new individual result returning the PSVaG status is now available.



- Mortality rates can now be specified by calendar year of valuation.
- Experience studies have been enabled for German mode, including an option specific to this mode that analyzes the assumptions for spouse age difference and proportion married

• Rerun changed records in a database. The valuation can then be run on only those records, and individual results will be overwritten (prerequisite is individual results audit trail).

Report Writer

♦ The default file type when saving exhibits to file has been changed to Access Database (.accdb).

System

- SharePoint integration. ProVal folders synced with SharePoint can now be automatically checked out upon opening and checked in upon closing. This functionality helps prevent multiple users from simultaneously accessing and modifying the same ProVal client files, ensuring data integrity and reducing the risk of version conflicts.
- Read/write Excel documents without having MS Office installed. This is especially useful for servers (accessing ProVal's API), where running MS Office is frowned upon.
- Mod file documentation is now included in output, indicating the mod file that was used, if any.

ProVal API

- ♦ The new functions *BatchGetJobs*, *BatchGetWorkerStatus*, *BatchRunVal*, *BatchRunValSet*, *BatchRunCore*, and *BatchRunDetFore* let you execute and monitor runs via ProVal's Batch server.
- ◆ You can now import data correction directly via the API with the new function *ImportDataCorrections*.
- ♦ Administration Factors API. This new API tool allows you to use the assumptions found in an existing Administration Factor Library entry to calculate Annuity Factors, Conversion Factors, and Commutation Functions from within another application (e.g., Excel). For pricing information and details, contact us at sales @winklevoss.com.

Help

♦ Video clips. Several ProVal screens now include a new icon () that links to a short video demonstrating how the feature works in real-time. You can currently find this in Descriptive Statistics, Resolve Duplicates, and Accrual Definitions with more expected in future updates.

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.