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New functionalities of Sophas 3.0

This short memo presents main updates included in the version 3.0 compared to the latest release of version 2.5.

1. Print of a project configuration

Function that creates report either for selected variables or for all variables of (one or more) selected groups.

The screenshot shows the 'Project configuration : Training model for demo' window. The menu bar includes 'Save', 'Linkg check', 'Code check', 'Find', 'Table', 'Print', and 'View'. The 'Print' button is circled in red. Below the menu bar, there are tabs for '1. Constant parameters', '2. Parameters from tables', '3. Global variables', '4. Input table (MPS)', '5. Calculations from input data', '6. Temporary variables', '7. Calculator', and '8. After calculator calculations'. The main area displays a list of variables with columns for Name, Y, Calculation, and Description (comment). The variables are grouped into categories like 'Dates and ages', 'Logical variables', 'Interest rates', 'Inflation', 'Lapses', and 'Mortality'. A 'Filter and legend' section at the bottom left shows checkboxes for 'active', 'blocked', 'not-valid', and 'changed'. The bottom status bar indicates 'Variables: 124' and 'List of calculator variables'.

According to the selected option the report could be as simple as a plain list of variables or could include detailed information about reported variables.

Calculator variables		Data type
Variable name	Description	Status
Kind of calculation		Output field
		In annual calc.
		Calculator level
ACTUAL_DATE	current date	date
		valid
		ACTUAL_DAT
		BS = last value in the year
		0
ExitCalculator	Ends calculator if ACTUAL_DATE is behind the end of policy period	logical
		valid
		BS = last value in the year
		0
CALENDAR_YEAR	Actual year	integer
		valid
		BS = last value in the year
		0
POLICY_MONTH	Actual policy month	integer
		valid
		BS = last value in the year
		0
POLICY_YEAR	Actual policy year	integer
		valid
		BS = last value in the year
		0
MONTH_IN_POLICY_YEAR	Number of months from the last anniversary to ACTUAL_DATE	integer
		valid
		BS = last value in the year
		0
MONTH_MODELLED	Number of modelled months	integer
		valid
		BS = last value in the year
		0

2. Actuarial functions

There are several pre-defined actuarial functions that can be used in the variable code definition. Using them significantly reduces the effort and time spent on project creation.

Information about available variables and functions...

1. Variables | 2. Functions | 3. Procedures | 4. Special functions | **5. Actuarial functions** | 6. Table lookup functions | 7. Reserved keywords

Special constants 4
 Special functions 2
 Basic functions 3
 One person - standard life tables ...

AF_n_p_x
 AF_D_x
 AF_C_x
 AF_N_x
 AF_M_x
 AF_S_x
 AF_R_x
 AF_A_xn
 AF_E_xn
AF_A1_xn
 AF_ann_xn
 AF_k_A_xn
 AF_k_E_xn
 AF_k_A1_xn
 AF_k_ann_xn
 AF_I_A_xn
 AF_I_E_xn
 AF_I_A1_xn
 AF_I_ann_xn
 AF_k_I_A_xn
 AF_k_I_E_xn
 AF_k_I_A1_xn

Syntax:
 AF_A1_xn (LifeTableVar, Age, Sex, Duration, Interest)

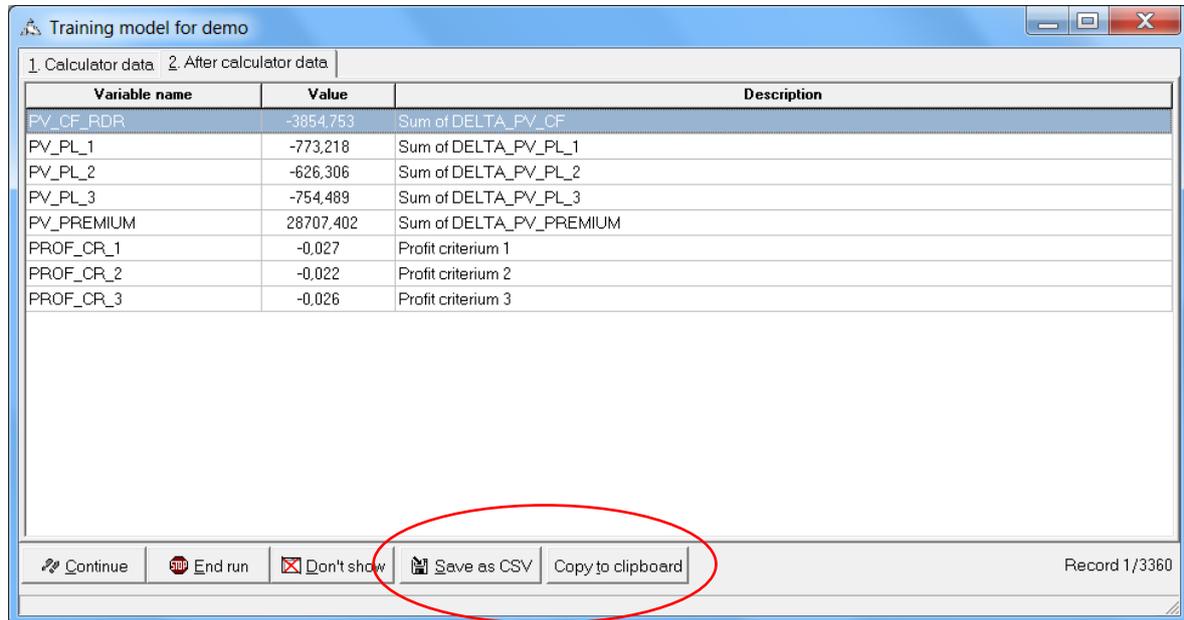
Description:
 Single netto premium for pure death cover (term)

Parameters:
 LifeTableVar = name of variable defined in the part Parameters from tables with result lx (real) and indexes sex (integer)
 Age (integer); Sex (integer); Duration (integer); Interest = annual interest rate for discounting (real)

Function returns real number as result.

3. Save results (or copy to clipboard) in demonstrative mode

This new functionality helps especially during the project debugging – makes it possible to save the results for variables that are not intended to be saved in the output. Further analyses and checks can be then carried out.



4. New structure of run setting form

The run setting form is reorganized to provide better orientation as a number of parameters that can be set up has increased since the first introduction of the *Sophas* system. Now the form consists of four separate sections:

‘Project run settings’ section with general run parameters,

‘Input / Output data’ section with the definition modelpoints’ scope that are to be processed,

‘Output files’ section where pre-defined output files can be selected to be saved and

‘Other output settings’ section with the possibility to save additional information about the run.

Sophas 3.0 contains the above-mentioned and **other updates which mostly improve the system handling and its flexibility.**

We will be happy to discuss all the improvements and their practical applications personally.

If you are interested, **contact us at sophas@sophas.eu.**

Your *Sophas* team