XLActuary® 1.2a

Release Notes

Product:	**XLActuary**
Release Version:	**1.2a**
Release Date:	**December 2010**

ARMON
Technologies, LLC

http://www.armontech.com/

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1. Introduction

Version 1.2a is an upgrade release with some significant changes. Users of previous releases should upgrade to this version.

2. New Features

This release contains the following new features:

a. A new function has been added that calculates the complete expectation of life.

Syntax:	**LifeExpect**(mortTable, mortAgeShift, calcAge, numberOfDigits)
Required Inputs:	
1. mortTable	Mortality assumption
2. mortAgeshift	Age adjustment for mortality table
3. calcAge	Calculation age
4. numberOfDigits	Number of decimal places to round result

b. The toolbar has been modified to allow the user to compose a life expectation calculation, by clicking the following buttons:

c. The toolbar has been modified to allow the user to enter the registration key *(only for non-network installations)*, by clicking the following buttons:

d. The toolbar has been modified to allow the user to send an email to technical support, by clicking the following buttons:

e. The toolbar has been modified to allow the user to visit the website of ARMON Technologies, by clicking the following buttons:

3. Bug Fixes

The following table lists various items that were fixed in this release. The column labeled "Version 1.1" describes how the prior version handled the particular item.

	Version 1.1	Version 1.2a
a.	The calculation of the actuarial equivalence factor by the **ActEquiv** function using *deferred and immediate interest rates* incorrectly takes into account only the immediate interest rates (i.e. the deferred interest rates are not used).	The **ActEquiv** function has been modified to correctly include the interest rates for both the deferred and immediate periods.
b.	The methodology used by the **ActEquiv** function to calculate *actuarial equivalence factors for fractional ages* used a linear interpolation of factors based on integral values of the ages. This method has produced inconsistent results under certain situations. For example, the factor for cases where the calculation age and the new age are non-integral and equal to each other was incorrectly calculated to be a factor not equal to 100%.	The methodology used by the **ActEquiv** function for fractional ages has been changed, as follows: • Present value (PV) factors are calculated using non-integral ages • The actuarial equivalence factor is calculated by dividing one PV factor by the other. *Note: This modification does not affect ActEquiv results for integral ages, other than as a result of the changes due to the fix in 3.a above.*
c.	The functions return an error when performing calculations using segmented interest rates whenever the sum of the calculation age and the total *number of years for all segments (other than the last segment) is at least 130*.	This has been fixed.
d.	Calculations using a *large age setback* result in a few ages at the end of the mortality table to be excluded from the calculations.	This has been fixed.
e.	Calculations where the *benefit start age exceeds the highest age* of the mortality table: • If there's no guarantee, the calculations incorrectly return the value of one year payment • If there's a guarantee, the calculations incorrectly return the value of an annuity certain for the guarantee period, with no payments beyond age 130.	If the benefit start age exceeds the highest age of the mortality table, the present value functions return zeros and the conversion functions return errors.
f.	For calculations involving guaranteed payments where the benefit start age is prior to the highest age of the mortality table but the *guarantee period extends beyond the highest age of the table*, the functions incorrectly excludes guaranteed payments beyond the end of the mortality table.	For calculations involving guaranteed payments where the benefit start age is prior to the highest age of the mortality table but the guarantee period extends beyond the highest age of the table, the functions include all the guaranteed payments, even those beyond the end of the mortality table.
g.	When running toolbar routines that create named ranges in a *sheet whose name contains non-alpha-numeric characters* (spaces, dashes, etc.), the named range is not defined properly.	This has been fixed.

4. Other Modifications

This new release incorporates the following additional changes:

a. The calculation routines and algorithms have been streamlined resulting in much faster calculations.

b. Custom mortality tables can now handle ages beyond 130 (up to age 200). Mortality rates less than 0 are automatically set to 0 and rates greater than 100% are automatically set to 100%. *Note: under version 1.1, custom mortality tables are limited to age 130 and mortality rates less than 0 or greater than 100% resulted in calculation errors.*

c. Under version 1.1, whenever the benefit start age is at least 130, the function returned an error. This has been changed so that when the benefit start age is greater or equal to the highest age of the mortality table, the present value functions return zero. *Note: conversion functions continue to return error when the calculation age is greater than or equal to the highest age of the table.*

d. The toolbar has been changed such that the Help facility can be activated by clicking on the following buttons:

e. The toolbar has been changed such that the About facility can be activated by clicking on the following buttons:

f. The About form has been changed to include the hardware fingerprint of the machine.

g. The set of installation information that is displayed when the 

button in the About form is clicked has been modified, as follows:

- ID05: displays "Permanent" or "Evaluation"
- ID06: displays "Network" or "Regular"
- ID08: displays the expiration date of the current registration in “Mmm d, yyyy” format
- ID13: displays the computer name of the registered machine
- ID14: displays the user name of the registered machine

h. The listing of standard (built-in) mortality table files has been modified to include the names and dates of all the mortality table (mtf) files used by the add-in.

5. How to Upgrade and Install this Release

Users of previous releases of XLActuary can upgrade to this version by running the updated setup program on the machine where the add-in is currently installed, as follows:

- Go to the XLActuary 1.2a page in the ARMONTech website using the following link:

  http://www.armontech.com/XLActuary12a.html

- Click on the **"Download the Setup Program"** link then save the setup program in any folder on your computer. The name of the setup program is **XLActuarySetup12a.exe**.

- Run the setup program.

- For the "Destination Folder", select the location where XLActuary is currently installed.

6. Frequently Asked Questions

#1 **Q:** Is this upgrade compatible with previous releases?
A: Version 1.2a of XLActuary is compatible with previous releases. This means that calls to all the XLActuary functions inside existing workbooks will continue to work.

#2 **Q:** Will this version produce the same results as previous versions?
A: The XLActuary functions will produce the same results as previous versions except to the extent that the calculations are affected by the fixes described above.

#3 **Q:** Do I have to un-install the current version before upgrading to this release?
A: You do not have to un-install the current version.

#4 **Q:** Do I need to re-enter the key for the current registration?
A: You do not need to re-enter the registration key. The new version will automatically use the latest valid key entered in your machine.

#5 **Q:** After running the setup program, how can I tell if the installation of the upgrade is successful?
A: Click **XLActuary** **Help** **About XLActuary...** to display the About form which will contain the version of the currently installed add-in: **XLActuary 1.2a**. In addition, you can check if the new features (particularly items 2b, 2c, 2d and 2e) and the additional modifications (particularly 4d, 4e, 4f, 4g and 4h) are available in the installed version.

#6 **Q:** How do I determine when my current registration ends?
A: Click **XLActuary** **Help** **About XLActuary...** to display the About form. Then click the button labeled **Info...** to display the form containing the installation information.

- The ID08 item represents the end date of the current registration.
- The ID09 item represents the number of days to the end of the registration date.

7. Technical Support

Phone Support:	**978-264-4635** 8:30 AM to 5:00 PM Eastern Time Monday – Friday
Email Support:	**support@armontech.com**