

## Overview

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## 1. Cost/Maturity Tab in Case Summary

The Portfolio Valuation model has now been adapted to accommodate matured/maturing Cases remaining in the Portfolio. The Cost/Maturity tab in the Case Summary now adds a Policy Maturity section to the Cost Basis information:

Case Summary	
Case	Policy
Insured Lives	Illustrations
Verifications of Coverage	Document
Cost/Maturity	Comments
Premium Schedules	Valuations
Audit Log	Anti-Fr
Cost Basis	
Purchase Cost	15,000.00 \$
Purchase Date	16/06/2010
Policy Maturity	
NDB Payment	5,000,000.00 \$
Interest	23,567.00 \$
Return Of Premium	0.00 \$
Other Amounts	0.00 \$
<b>Maturity Total Amount</b>	<b>5,023,567.00 \$</b>
Payment Date	12/12/2012

The Policy Maturity section is used in Portfolio valuations (as outlined below) and in the new Actual to Expected analysis.

## 2. Valuing Portfolios containing matured/maturing Cases

Prior to this release, Portfolio Valuation failed if the Portfolio contained Cases which had matured. That has now been changed so that Cases in a Portfolio are valued as follows:

- Cases which have a Date of Death set for each Insured (and are therefore assumed to be “maturing”, i.e., working through the claims process) are valued at 100% of current Net Death Benefit, assumed to be payable at the NDB Lag after the Value Date. For example, if the NDB Lag is set to three months in the selected Valuation Template, the model will set the assumed date of payment to be three months after the Value Date.
- Cases which have “matured” (i.e., have a Payment Date and Maturity Total Amount specified in the Cost/Maturity tab) are valued at zero.

## 3. Valuation Settings: adds settings for Actual vs Expected

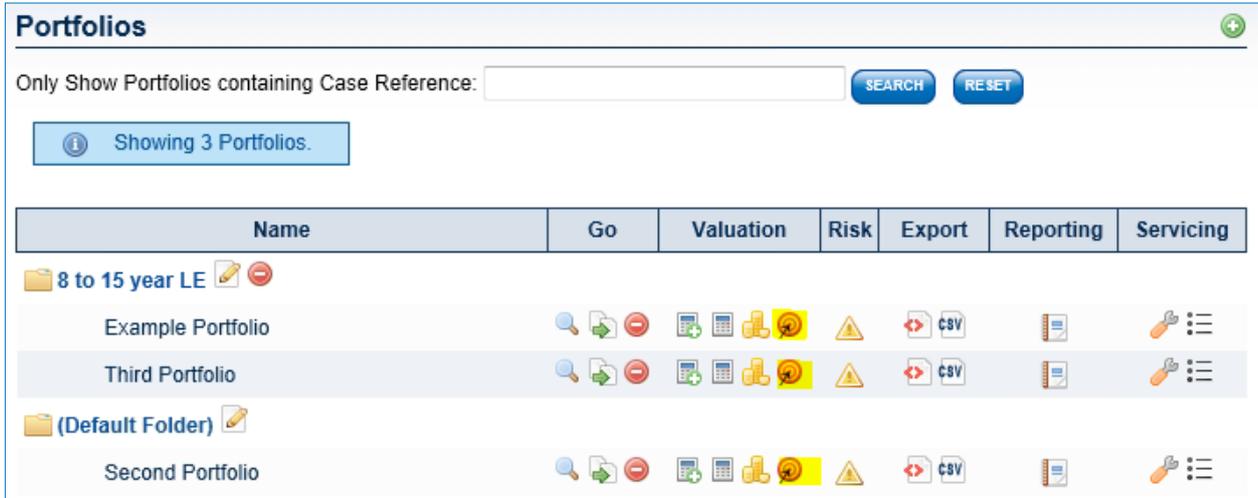
To support the new Actual vs Expected tool, the Valuation Settings tab for each Case now includes the option to specify alternative settings:

Case	Policy	Insured Lives	Illustrations	Verifications of Coverage	Documents	Servicing	Order Tracking and Follow Ups	Pricing Settings	Valuation Settings	
Cost/Maturity										
Comments										
Premium Schedules										
Valuations										
Audit Log										
Anti-Fraud/Compliance										
<b>Portfolio Valuation Settings</b>										
Show Settings for: <input checked="" type="radio"/> Valuations <input type="radio"/> Actual Vs Expected <input checked="" type="checkbox"/> Use same Settings for both										
<b>Life Expectancy Reports</b>										
Insured Life 1: IBCB301PAN										
	Underwriter	Report Date	Smoking Status	LE85	Median LE50	Mean LE50	Mortality	Mortality Table	Full Curve	
1	21st Services	10/08/2009	Non-Smoker	143.00		101.00	245			
2	AVS Underwriting, LLC	10/08/2009	Non-Smoker			111.00	121			
Use Most Recent Only (by Report Date)		-	-	-	4	1	2	<input type="checkbox"/> Use Impvt	2008 PRIMARY ANB	3

Users can elect to use the same settings for both Portfolio Valuations and Actual vs Expected, or change them to use different settings for each. This is done to accommodate subscribers with “aged” Portfolios, who may wish to base the Actual vs Expected calculations on an older set of LE reports to those used for routine Portfolio valuations.

## 4. Actual vs Expected Scenario Analysis on Portfolio

This release adds a new analysis tool under the Valuation column on the Portfolios page, named Actual vs Expected. It is triggered from the “target” icon at the right of the column:



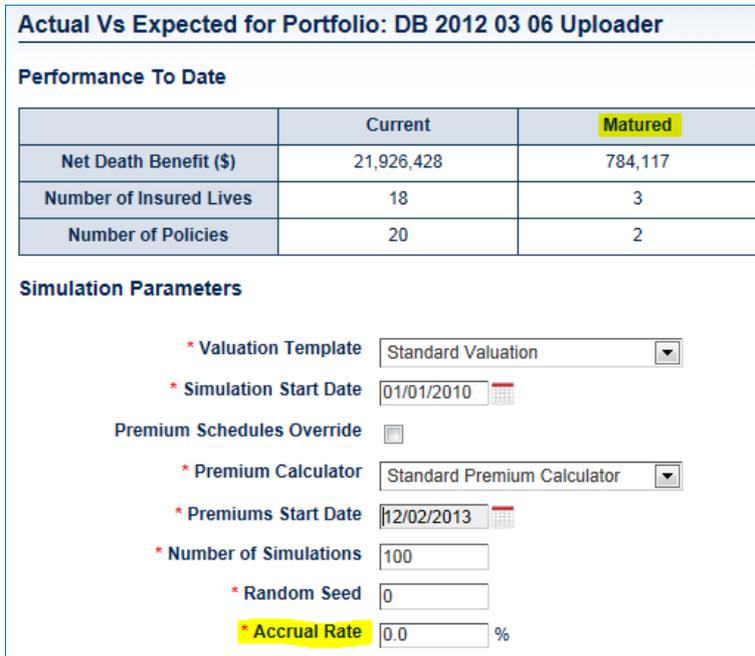
**Portfolios**

Only Show Portfolios containing Case Reference:  **SEARCH** **RESET**

**Showing 3 Portfolios.**

Name	Go	Valuation	Risk	Export	Reporting	Servicing
8 to 15 year LE						
Example Portfolio						
Third Portfolio						
(Default Folder)						
Second Portfolio						

This opens the new Actual Vs Expected page, which looks quite similar to the Monte Carlo page:



**Actual Vs Expected for Portfolio: DB 2012 03 06 Uploader**

**Performance To Date**

	Current	Matured
Net Death Benefit (\$)	21,926,428	784,117
Number of Insured Lives	18	3
Number of Policies	20	2

**Simulation Parameters**

- \* Valuation Template: Standard Valuation
- \* Simulation Start Date: 01/01/2010
- Premium Schedules Override:
- \* Premium Calculator: Standard Premium Calculator
- \* Premiums Start Date: 12/02/2013
- \* Number of Simulations: 100
- \* Random Seed: 0
- \* Accrual Rate: 0.0 %

The key differences (other than output) between this page and Monte Carlo are:

- Performance To Date: this table shows the NDB for all current Cases (including any which are “maturing”, i.e., in the claim process). It shows the aggregate Maturity Total Amount (i.e., including interest, premium returns and other amounts) for all Cases which have a Payment Date set in the Policy Maturity section of the Cost/Maturity tab. The Number of Insured Lives in this column is simply the sum of all Insureds for all matured Cases.
- Use of Simulation Start Date rather than Value Date (as there is no valuation being undertaken – Valuation Template settings are used to build mortality curves for each Case in the Portfolio); and

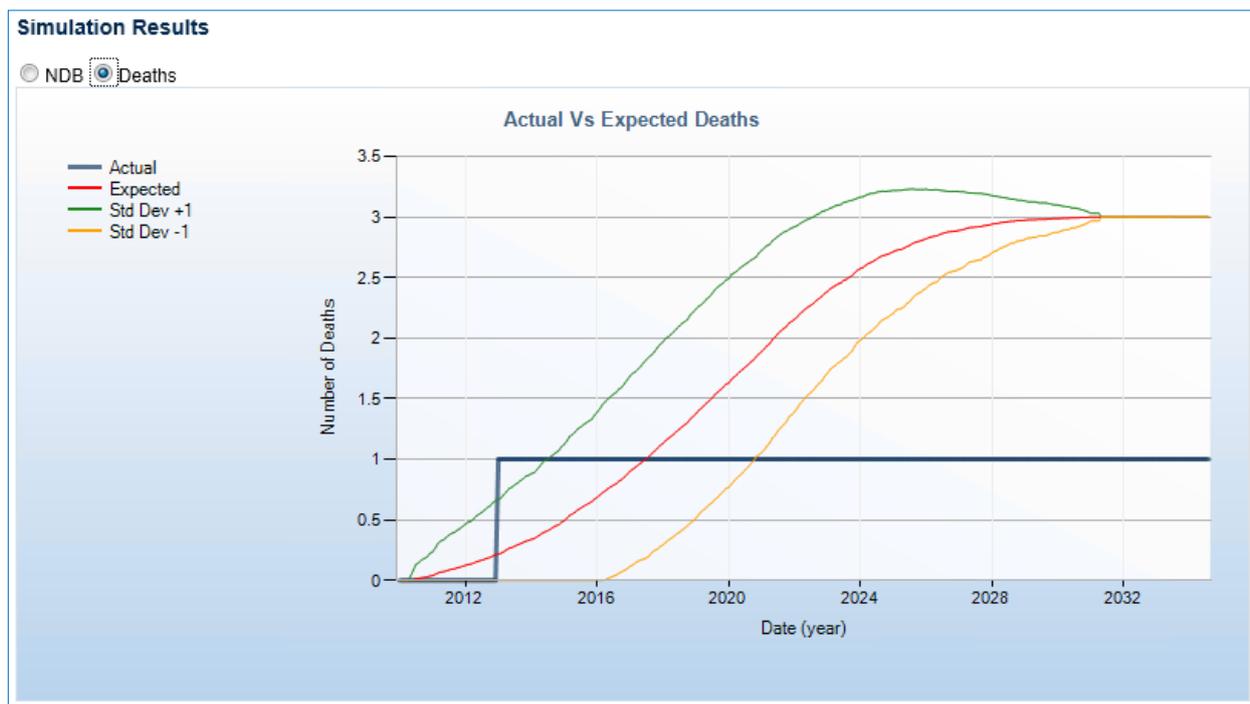
- **Accrual Rate:** If set to a number other than zero, this will accrete expected NDB receipts forward between assumed payment date and the start of the next calendar month at this interest rate. Note that the Valuation Template settings govern any interest payable between date of death and assumed date of NDB payment.

This new function looks at the actual maturity performance of the Portfolio by comparison with expectations, for both NDB receipts and deaths. It uses the LE reports specified in the new Actual/Expected settings to generate a distribution of maturities using ClariNet's Monte Carlo model, assuming that the survival probability for each Case is set to 100% on the Simulation Start Date. Within that distribution, it calculates a mean and standard deviation and projects that over time. As with the Monte Carlo model, the expected cashflows are bucketed on the first calendar day of each month.

The results of the analysis are displayed as a graph, first based on NDB/Total Maturity Amount:



Second, based on individual deaths:



There are some important points to bear in mind when using the Actual vs Expected tool:

- The model disregards any Insured dates of death; in calculating actual maturities, it will only assume that a Case has matured if the Payment Date is set in the Policy Maturity section on the Cost/Maturity tab.
- In this release, the model disregards any Purchase Dates for the Cases in the Portfolio. It assumes that all Cases are owned and are “current” on the Simulation Start Date. We expect to include a switch to accommodate the use of Purchase Dates in a future release.
- All Cases in the Portfolio (surviving and matured) must have at least one “used” LE report with a Report Date on or prior to the Simulation Start Date. As with Portfolio valuation, the Valuation Settings tab determines which LE reports are used; see above for the change to Valuation Settings which accommodates different settings for Actual vs Expected.

## 5. Addition of LE50 to Life Expectancy Graphs

A dotted red line representing the LE50 has been added to the Life Expectancy graphs:



This will show the LE50 for the selected LE report or the blended LE50, depending on which graph you elect to display. A tooltip pops up when mousing over the red line which displays the value.

## 6. Single Policy Valuation: Probabilistic/Deterministic IRR

The IRR Calculation tab has been extended to add a graph showing the expected returns for the Case at annual intervals after the Value Date:

Valuation
Scratch Pad
IRR Calculation
Assumptions
COI

**Probabilistic IRR Calculation**

Assumed Purchase Cost:  COPY TO CASE

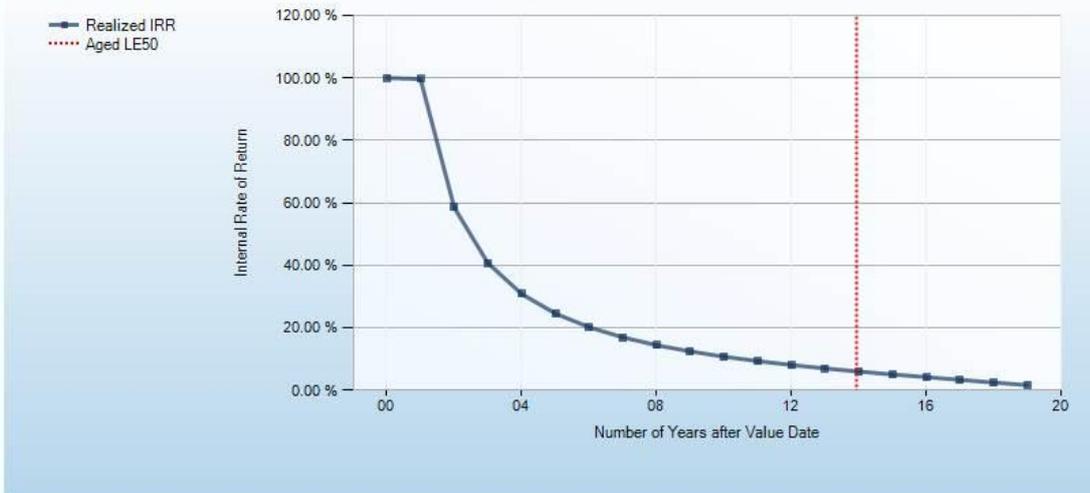
Assumed Purchase Date:  [Calendar Icon]

IRR 7.77 %

**Deterministic IRR Calculation**

Based on Purchase Cost and Purchase Date from the Case 'Cost/Maturity' tab.

Realized IRR



Internal Rate of Return

Number of Years after Value Date

Year	Realized IRR
1	274.99 %
2	99.69 %
3	58.54 %
4	40.72 %
5	30.83 %
6	24.55 %
7	20.17 %
8	16.93 %
9	14.43 %
10	12.41 %
11	10.74 %
12	9.32 %
13	8.07 %
14	6.96 %
15	5.96 %
16	5.05 %
17	4.18 %
18	3.31 %
19	2.46 %
20	1.62 %

The Probabilistic IRR calculation uses values set in the Assumed Purchase Cost and Assumed Purchase Date fields on the tab – these default to the values set in the Cost Basis section of the Cost/Maturity tab in the Case. It then uses the settings from the Valuation Template selected for the Valuation to build a specific mortality curve and calculate mortality-adjusted cashflows across that curve – hence, the IRR is calculated probabilistically. Note that the Assumed Purchase Date must be equal to or later than the Value Date:

**Probabilistic IRR Calculation**

Assumed Purchase Cost:  COPY TO CASE

Assumed Purchase Date:  [Calendar Icon]

IRR Assumed Purchase Date (30/01/2013) must be greater than Value Date (14/02/2013).

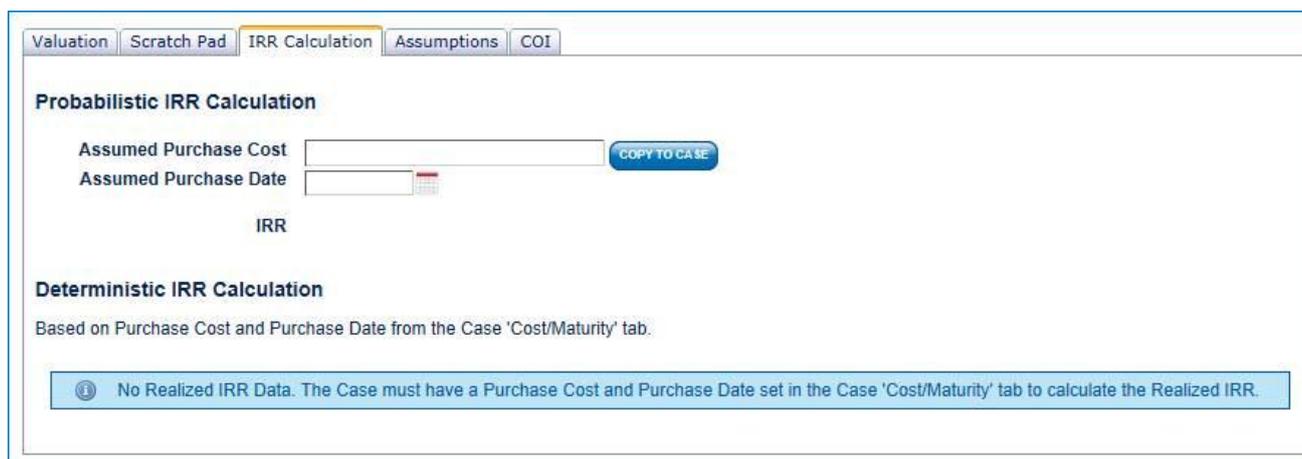
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Version 3 dated 14 February 2013

The Deterministic IRR Calculation graphs the actual returns to the investor which would be realized if the Policy matured on the first, second, third ... *n*th anniversary of the Value Date. The table to the right of the tab displays the actual values; the graph is cut off at a return of 100% (so as not to introduce scaling problems). Note that the calculation assumes payment in full of all premiums scheduled up to the relevant anniversary, and that 100% of the Net Death Benefit is paid on the anniversary. There is therefore no mortality curve used in this analysis, hence it is described as deterministic.

In this release, the Case must have values entered in the Cost Basis section of the Cost/Maturity tab (see 1 above for a screenshot) in order to generate the Deterministic IRR Calculation:

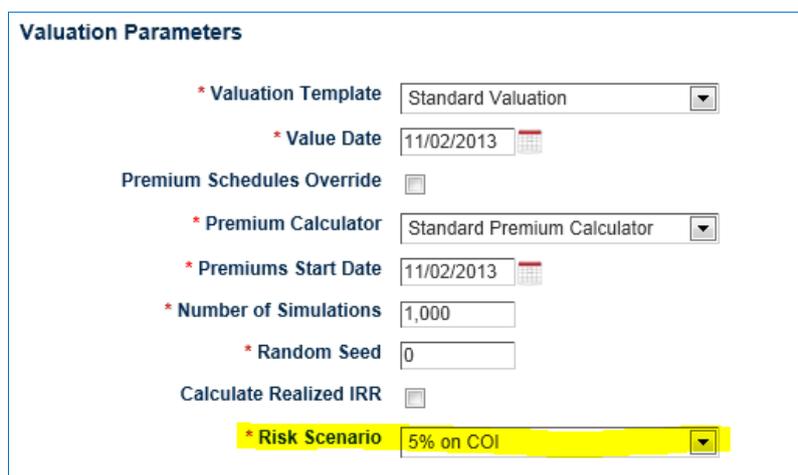


The screenshot shows a software interface with tabs for 'Valuation', 'Scratch Pad', 'IRR Calculation', 'Assumptions', and 'COI'. The 'IRR Calculation' tab is active. It contains two sections: 'Probabilistic IRR Calculation' with input fields for 'Assumed Purchase Cost' and 'Assumed Purchase Date', and a 'COPY TO CASE' button. Below this is the 'Deterministic IRR Calculation' section, which is based on the purchase cost and date from the 'Cost/Maturity' tab. A blue message box at the bottom states: 'No Realized IRR Data. The Case must have a Purchase Cost and Purchase Date set in the Case 'Cost/Maturity' tab to calculate the Realized IRR.'

Clicking on the “Copy to Case” button will copy the values shown in the Assumed Purchase Cost and Assumed Purchase Date fields into the Cost Basis section of the Cost/Maturity tab.

## 7. Risk Scenarios in Monte Carlo model

Running a Monte Carlo simulation on a Portfolio can now be done with Risk Scenario stresses applied. Once one or more Risk Scenarios have been created in the Pricing & Risk page (under the Administration menu), they will appear in the dropdown list at the bottom of the Valuation Parameters section. Select a Risk Scenario to run with its stresses applied, or select “None” to run the simulation without stresses:

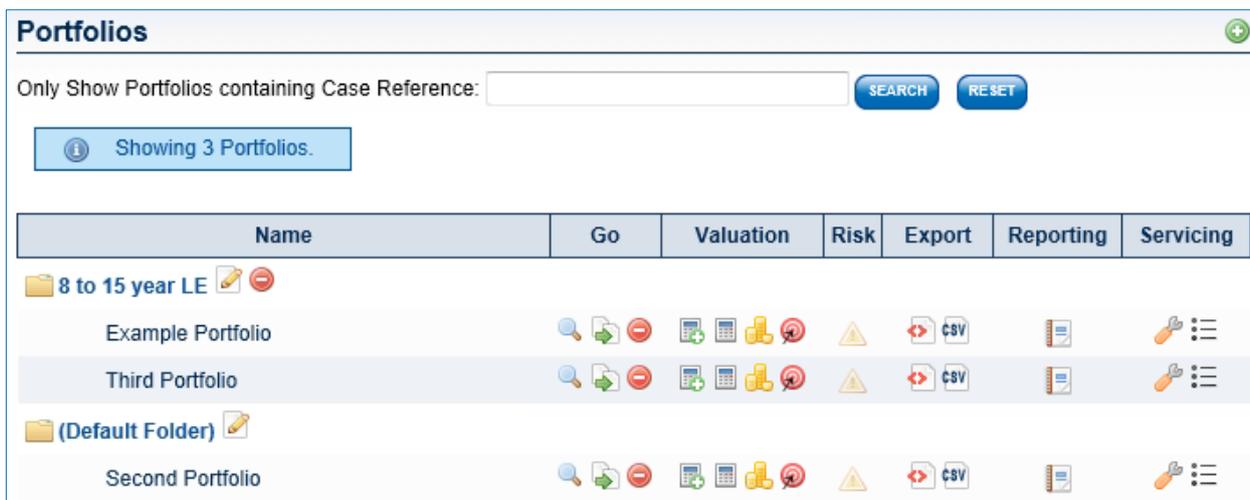


The screenshot shows the 'Valuation Parameters' section with the following settings:

- \* Valuation Template: Standard Valuation
- \* Value Date: 11/02/2013
- Premium Schedules Override:
- \* Premium Calculator: Standard Premium Calculator
- \* Premiums Start Date: 11/02/2013
- \* Number of Simulations: 1,000
- \* Random Seed: 0
- Calculate Realized IRR:
- \* Risk Scenario: 5% on COI (highlighted in yellow)

## 8. Folders in Portfolio View

You can now create Folders within the Portfolios page to allow you to organise your Portfolios more efficiently. Portfolios which are not yet added to a named Portfolio are included under the “Default Folder” heading:



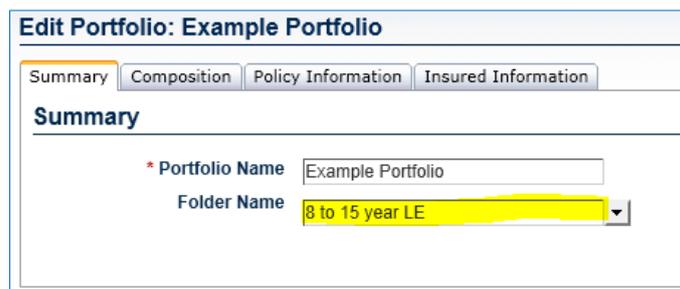
**Portfolios**

Only Show Portfolios containing Case Reference:  **SEARCH** **RESET**

Showing 3 Portfolios.

Name	Go	Valuation	Risk	Export	Reporting	Servicing
8 to 15 year LE  						
Example Portfolio						
Third Portfolio						
(Default Folder) 						
Second Portfolio						

To create a new Folder, either Add a new Portfolio or Edit an existing Portfolio. Clicking on the Edit icon from the Portfolio Summary screen allows you to select an existing Folder name in the dropdown window, or just type a new name straight into the window:



**Edit Portfolio: Example Portfolio**

Summary | Composition | Policy Information | Insured Information

**Summary**

\* Portfolio Name

Folder Name

You can expand and contract the Folders by clicking on the Folder icon. You can move Portfolios between Folders by clicking on the Portfolio name and dragging it into the new Folder (i.e., “drag and drop”).

Folders can be renamed or deleted by clicking on the appropriate icon next to the Folder name. Deleting a Folder does not delete any of the associated Portfolios; these will then move automatically to the Default Folder. Note that if you drag all Portfolios out of a Folder, the Folder is automatically deleted.

## 9. View Portfolios linked to a Case

From any Cases list, you can now see which Portfolios contain a particular Case. There is a new icon in the Go column:

Cases In Progress							
Case Reference	Carrier	Policy Number	Face Amount	Last Status	Status Date	Go	
Dummy test case 4	AXA Equitable Life Insurance Company	Policy 4	5,000,000	Redaction	11/02/2013		
Dummy test case 5	Prudential Life Insurance Company, Ltd.	Policy 5	10,000,000	Redaction	11/02/2013		

Clicking on this icon opens the Portfolios page, with the Case Reference for the relevant Case pre-populated in the filter. Those Portfolios which contain that Case are displayed automatically:

### Portfolios

Only Show Portfolios containing Case Reference:  SEARCH RESET

 Showing 1 Portfolio containing the Case Reference above.

Name	Go	Valuation	Risk	Export	Reporting	Servicing
 (Default Folder) 						
Example Portfolio						

## 10. Closing Transaction: new fields and process improvements

We have made several changes to the Closing Transaction tabs and process in order to improve flexibility and add new data capture. Prior to this release, it was necessary to complete work on one tab in order to start on the second tab; when work on a tab was complete, it was non-editable.

The Closing process remains sequential – in that you still complete one tab to open the next – but all completed tabs remain fully editable at all stages of the process. Furthermore, individual documents within the Contract Package (or the entire Contract Package itself) can be reissued at any stage of the Closing process, prior to the Case Status “Complete” (which is set once the Closing Checklist is Complete).

A new tab has been added to the Closing Transaction called Closing Summary. This is the first tab displayed if you click on the View icon next to the Closing Transaction:

**Case Closing Transaction**

Closing Summary | 
 Price Allocation | 
 Case Participants | 
 Contract Package | 
 Document Verification | 
 Closing Checklist

**Closing Summary**

Closing Analyst -

**State Audit**

Date Offer Accepted 12/02/2013  
 Life Settlement Contract Date 13/02/2013  
 Account Value at Closing 235500 \$  
 Cash Surrender Value at Closing 185500 \$  
 Net Death Benefit at Closing 10000000 \$  
 Retained Death Benefit at Closing 0 \$

**Event History**

Recorded Event	Event Date	Recorded On	Recorded By	Modified On	Modified By
Closing Process Started		13/02/2013 10:31	companya_admin		
Price Allocation Completed		13/02/2013 10:34	companya_admin		
Case Participants Completed		13/02/2013 10:34	companya_admin		

The Closing Analyst and State Audit sections are editable inline. The Closing Analyst field is a dropdown which lists all users in your Organization. The State Audit section records information specifically for state reporting purposes – note that all of these fields are independent of other fields in the Case. The Event History table shows the date that each Event is completed in the Closing Transaction; note that the Event date is only set once and does not change even if fields in the relevant tab are edited subsequently. The exception to this is the “Closing Complete” Event, which does reset if the “Closing Checklist is Complete” checkbox at the base of the Closing Checklist tab is unchecked.

The Case Participants tab adds a new field for each Case Participant, “Relationship to Insured”:

**Case Closing Transaction**

Closing Summary | 
 Price Allocation | 
 Case Participants | 
 Contract Package | 
 Document Verification | 
 Closing Checklist

**Case Participants**

Role	Organization/Individual	Organization Type	Relation to Insured
Seller	Matt Andreou	n/a	Son

It is now also possible to add multiple Seller Spouses into the Case Participants – previously, this was limited to one.

The Closing Checklist tab now displays the Bid Conditions from the associated Sent/Received Transaction:

**Closing Checklist** + ↻

**Price Allocation** +

Recipient Type	Payment Type	Organization/Individual	Payment Method	Amount \$	% Gross Price	% Face Amount	Payment Date	Paid	Go
Seller	Compensation/Fee	Matt Andreou		1,500,000	100	15			
<b>Total</b>				<b>1,500,000</b>	<b>100</b>	<b>15</b>			

**Bid Conditions**

Min % of Gross Price paid to the Seller - %  
 Max % of Gross Price paid to the Broker/Agent - %  
 Min % of Face Amount paid to the Seller - %  
 Max % of Face Amount paid to the Broker/Agent - %  
 Min Account Value at closing - \$  
 Min Cash Surrender Value at closing - \$  
 Bid Documents -

The Closing Checklist is empty. Please use the green Refresh icon to populate this list from the available Closing Checklist Templates defined by the Closing Supervisor.

Closing Checklist Is Complete

**DONE**

## 11. Survival Factor Interpolation Type Options

New options for Survival Factor Interpolation Type have been added to the Valuation Template:

**Valuation Template**

Name: Standard Valuation (copy 1)  
 Model: ClearLife  
 Fees Template: Zero Fees  
 Q(x) Adjustment: None  
 Mortality Table Name: 2008 PRIMARY ANB

Description	Value
Improvement Rate (Male,Non-Smoker)	0.00 %
Improvement Rate (Male,Smoker)	0.00 %
Improvement Rate (Female,Non-Smoker)	0.00 %
Improvement Rate (Female,Smoker)	0.00 %
<b>Survival Factor Interpolation Type</b>	Piecewise Constant Qx
Interpolate VBT Table Row Based on DOB at LE Review Date	<input type="checkbox"/>

Previously the options were Qx and Force of Death. There are now four options:

- Piecewise Constant Qx;
- Piecewise Constant Force of Death;
- Piecewise Linear Qx; and
- Piecewise Linear Force of Death.

A full explanation of the differences between these options has been published on ClariNet's FAQ page under the title "Pricing Model: Interpolation of Mortality Curves".

## 12. Servicing Tab: New Servicing Settings

To facilitate data capture for display on the newly extended Verification of Coverage tab, a new Servicing Settings section has been introduced on the Servicing tab in the Case Summary:

**Case Summary**

Case | Policy | Insured Lives | Illustrations | Verifications of Coverage | Documents | **Servicing** | Order Tracking and Follow Ups | Pricing Settings | Valuation Settings

Cost/Maturity | Comments | Premium Schedules | Valuations | Audit Log | Anti-Fraud/Compliance

**Servicing**

**Servicing Settings** 

Policy Carrier AXA Equitable Life Insurance Company  
 Policy Number Policy 4

Registered Owner Investoria Corp  
 Address Investoria Corp, Happy Valley, New York, New York, 91423-1111 (Public)

Servicing Carrier Servicing Carrier Co  
 Carrier Telephone 203 555 1212 (Main CSR)  
 Payment Method Premiums  
 CSR Ms Virginia Woolf  
 CSR Telephone 203 555 1213 (Main)

**Servicing Tasks**

Task Description	Setting Level	Last Activity Date	Next Activity Date	Alert	Go
Premium Payment	Subscriber				
Illustration Order	Subscriber	20/08/2009	20/11/2009		

Policy Carrier and Policy Number are drawn from the policy tab and displayed on this tab as an *aide memoire*. The Registered Owner name/address is drawn from all Organizations and Individuals saved in the subscriber's CRM data. The Servicing Carrier information is drawn from all Organizations of Type=Carrier in the subscriber's CRM data.

Note that this tab feature inline editing; clicking on the Edit icon in the top right corner of the tab opens all fields in edit mode, avoiding the need to click through to another page:

**Servicing Settings**

Policy Carrier AXA Equitable Life Insurance Company  
 Policy Number Policy 4

Registered Owner   

Address

Servicing Carrier   

Carrier Telephone

Payment Method

CSR

CSR Telephone

We will continue to introduce inline editing across other tabs and pages in ClariNet in future releases.

## 13. Verification of Coverage improvements

The data capture and information display on the Verification of Coverage page has been extended. New fields have been added and the information captured on the Servicing Settings tab is now displayed on the right side of the page:

Verification Of Coverage	
Current	Most Recent VOC Information
* Verification Date: 12/02/2013	15/01/2013
* Type: Unknown	Verbal
Verification Document: +	-
CSR Name: [ ]	Virginia Woolf
Policy in Force: <input type="checkbox"/>	<input checked="" type="checkbox"/>
Policy in Grace: <input type="checkbox"/>	<input type="checkbox"/>
Account Information Date: 12/02/2013	15/01/2013
Account Value: [ ] \$	12,534.00
Surrender Charge: [ ] \$	2,534.00
Cash Surrender Value: [ ] \$	10,000.00
Face Amount: [ ] \$	5,000,000.00
Loan Amount: [ ] \$	0.00
Net Death Benefit: [ ] \$	5,000,000.00
Death Benefit Type: -- please select --	Level
Current Premium Mode: -- please select --	Monthly
Total Premiums Paid To Date: [ ] \$	365,534.00
Last Premium Payment Amount: [ ] \$	12,500.00
Last Premium Payment Date: [ ]	23/12/2012
Next Premium Payment Amount: [ ] \$	12,500.00
Next Premium Payment Date: [ ]	23/01/2013
Current COI: [ ] \$	10,745.00
COI Includes Fees/Loads: <input type="checkbox"/>	<input type="checkbox"/>
Current Crediting Rate: [ ] %	3.5
Notes: [ ]	

Carrier	
Policy Carrier	AXA Equitable Life Insurance Company
Policy Number	Policy 4
Servicing Carrier	Servicing Carrier Co
Carrier Telephone	203 555 1212 (Main CSR)
CSR	Ms Virginia Woolf
CSR Telephone	203 555 1213 (Main)

Registered Owner	
Name	Investoria Corp
Tax ID	534-665-2323
Address	Investoria Corp, Happy Valley, New York, New York, 91423-1111 (Public)

Insured 1	
Name	Mary Random
DOB	24/03/1932
SSN	234-62-1789

Payment Method	
Method	Check
Description	Premiums
Payee	Servicing Carrier Co
Reference	Policy No and Insured Names

The number of required fields has been relaxed, so now only the Verification Date and the Type are required. Documents can be attached for both Verbal and Written VOC types (to allow for telephone call scripts to be attached). The Most Recent VOC Information column now displays the Verification Date, Type and any Document information, as well as the core data.

## 14. Other improvements and fixes

- **IMPROVEMENT:** Added Irrevocable Beneficiary onto the Case tab.
- **FIXED:** Independent Aging: simple bug that is applying aging a second time in calculating the Used LE and Aged LE display values when the curves are aged independently. No P&L impact.
- **FIXED:** Portfolio Face Amount by Carrier chart on the Portfolio Summary tabs not showing correct Carrier name.
- **FIXED:** Bid Management: re-sending by email a Case which has already been submitted can cause an issue which prevents the email being received.
- **FIXED:** AuditLog not tracking the four Modified/Created attributes.