# INTEGRAL LIFE BASE

# SYSTEM GUIDE

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**Publication History**

| Version | Date | Includes |
|---|---|---|
| 01 | March 2012 | INTEGRAL Life Admin V7.2 |
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# 1. INTEGRAL LIFE Calculation and Processing Methods

## 1.1 Introduction

Within the base system there are various calculation methods that form the basis of the delivered functionality. These methods need to be understood by the client prior to commencing the Product Definition and Integration Analysis process as it is important that the relevant people are aware of the base system prior to commencing the Development Phase. This may seem to be an obvious statement but experience has proved that very little time is spent investigating the base system prior to the Development Phase commencing.

The following items are some of the main methods that are further explained in the relevant functionality and Batch Processing areas of this document.

## 1.2 Agent Commission Processing

### 1.2.1 Commission Calculations & Payment Release Patterns

Commission is typically paid to the Agent(s) responsible for selling life assurance contracts. The amount of commission that is due depends on the coverage, term and the specific arrangement between the agent and the company issuing the contract. The system is able to handle different channel or Source of Business with different commission rate through table set ups, and with no further program change or new component set up required. Source of Business is part of key to retrieve the initial and renewal commission rates. Commission is normally divided into two parts, initial and renewal.

Initial commission is payable in respect of the first period of the coverage, this period being defined by the company. The commission calculation within the system is in three parts. Firstly, there is the calculation of the basic initial commission; the method to be used is specified in the coverage definition table. Secondly, this basic amount may be adjusted up or down according to the commission category held on the Agents record. Finally, the calculated amount of commission is released to the Agent.

Commission is released following receipt of the premium and it being applied to premium payment. The proportion that is released is governed by a Commission Release Pattern that may be defined at the Coverage level or Agent. In addition, this pattern also defines the amount deemed to have been earned, which is not to be recovered, “Clawback”, in the event that premiums cease.

In addition to the commission payable to the Agent(s) involved in the sale, there may be override commission payable to the person responsible for the selling Agent(s). This relationship is held on the Agents record with either a fixed or flexible override percentage of the calculated initial commission. This override commission is then released to the person receiving it according to the release pattern relating to that person. It is independent of the release pattern of the selling Agent(s). The agent receiving override commission may generate further override to their immediate supervisor and so on.

Unearned commission may be recovered if a policy lapses or is surrendered. If a premium is reversed after payment, any commission relating to that premium is also reversed. Accounting entries are generated on premium processing to cover all commissions earned and released.

The commission calculation and payment methods have been divided into separate functions. This enables additional commission methods to be added at a later date by writing new subroutines. This includes new methods of calculating initial commission that may use the existing payment calculation method and/or new methods of calculating commission payments for initial and renewable commission.

INTEGRAL LIFE allows the commission structure of certain riders attached to a particular product type to follow the commission structure of the coverage to which they are attached. For products in which component riders are to follow the coverage's commission, and which has more than one coverage on a contract, the component rider's commission shall be based on the coverage to which it is attached e.g.

Coverage 01 00
Rider 01 01 Commission follows Coverage 01/00
Coverage 02 00
Rider 02 01 Commission follows Coverage 02/00

If initial commission is to occur then this method is defined in the Coverage table T5687. This entry is then used to reference table T5647 where the subroutine for calculating the commission will be found. For commission payments to be made, subroutines must exist on table T5644. The subroutine accessed will process the payment method and produce the commission payable and the commission earned. Either Agent or Coverage type can control commission payments. Commission payment entries for the component will always override that set up for the agent.

The initial commission calculation methods access tables T5565 and T5576. T5655 is for Term/Age banded commission and T5576 is for Term/Time multiplier based initial commission. An enhancement rule's table T5692 can be used to increase or decrease the original rate that is applied in order to calculate the commission payable and earned. The enhancement applied to the commission is dependent on the "class" of agent. If there is no value present for the enhanced rates, then the original rates are not adjusted. For commission enhancement in a joint life case the age used will be the age of the first life.

The commission payment methods access T5694 and T5695. T5694 defines payment patterns based on the amount of the instalment premium actually paid. T5695 defines payment patterns to pay and earn the initial commission calculated earlier over a number of different commission periods.

The system release 9604 introduced to the base system the concept of flexible premiums for the Unit Linked contracts. Initial commission payments are calculated using a target premium basis, target frequency and actual amount paid. This means that from the outset the client selects a target premium and frequency and the system calculates commission based on these parameters. Where a premium is received which exceeds the annual target premium then over target commission is paid based on over target commission rates.

All of the commission routines have appropriate reversal subroutines.

### 1.2.2 Commission for Benefit Billed Component

Commission payment for the mortality charge collected for benefit billed component. Commission will be paid to those agents associated with the contract just as with any component receiving premium. Commission for benefit billed is included in a new subroutine Benefit Billing – with commission UBBLMT3.

### 1.2.3 Alternative Override Commission Structure

In Asia the override commission payment is normally by a structure based on the effective date and override percentages depending on the agent type. Originally, the base only supports a simple static hierarchy with a flat override percentage. The enhancement here provides an option to pay override commission based on a multi-tier agency structure. This structure can be maintained using the Agency Maintenance function (see also bullet point below). The override percentage to pay is stored in a table and is based on the agent types of the basic agent and the reporting to agent.

An OR rates table, TH622 is provided, which allow override percentages based on the component codes, agent types of the basic agent and the reporting to agent and can also be based on either premium, or commission amount.

Points to note before using this option:

- The override commission will only be computed at the transaction level and paid when the agent payment schedule (NEWAGTPY) is run.

- The agent details option in contract enquiry will not show the override structure of agents attached to that contract.

- The OR details on the agent maintenance screen has to be maintained by the users.

- The agency structure can be maintained using the Agency Maintenance function. However, if the Agency Movements facility is switched on, only the agency movement transactions like Promotion, Demotion, Transfer and Terminate can be used to maintain the structure in order for the Agency Career History to be constructed accurately.

### 1.2.4 Agency Movements

An on-line transaction is provided to promote, demote or transfer an agent from one agency structure to that of another. Reversals of these transactions are also provided.

Structures built by the Agent Production Update functionality are required by the Agency Movements transactions.

Transfer will allow the “reporting to” information on agents currently reporting to an agent to be updated to a new agent. No other processing will take place and it will not be possible to automatically reverse the transaction, i.e. reinstate the transferred agents to report back to the original leader, except via another transfer.

The promotion/demotion and transfer functionality will only cater for 4 levels.

The agency leader of the agent being Promoted or Demoted will be updated via these transactions, while the agency leader of any down liners should be considered on an individual basis as set out in the following tables:

**Upon Promotion:**

| Change Agent Type from | Change Reporting to | Change Reporting to of downline agents? |
|---|---|---|
| AG to UM | Agency entered on the promotion screen SM507 | No |
| UM to AM | Promotion | No |

**Upon Demotion:**

| Change Agent Type from | Update Reporting to | Change Reporting to of downline agents? |
|---|---|---|
| AM to UM | Agency entered on the demotion screen SM507 | AG (or any lowest-tier agents) are not affected<br>UM (or any intermediate-tier agents) reports to the agency leader entered in the demotion screen SM507 |
| UM to AG | Agency entered on the demotion screen SM507 (which can be the same leader). | N/A |

The user is required to maintain the ORC processing using the OR details.

### 1.2.5 Agent Production Enquiry

This new feature allows agents to enquire on their current production figures and also the production figures of their down liners.

This function pulls out the Personal, Direct and Group (where applicable) production figures for the accounting month and year entered by the user.

It will also accumulate the Calendar and Financial YTD Personal and Group (where applicable) production figures for this agent.

Financial YTD is the production made from accounting period 01 to the accounting period entered by the user of the same financial year.

Calendar YTD is the production made from January to the calendar month corresponding to the accounting month entered by the user. The mapping of the accounting period to the calendar period is based on the settings in T1698.

### 1.2.6 Agency Production Update

Capture Agency Production statistics to be used for Awards and Contests (e.g. Top Agency, Top Unit/Assistant Manager, Top Rookie Agent, etc.), Agency On-line Enquiry and Agency Income Summary report.

This is a Malaysian specific requirement that can be adapted by many life insurance companies.

Agent Effective Date and Product Type group the production information. By structuring it this way, it allows information to be reported by:

- Products – reports can be written to extract production figures for agents based on specific types of products

- Effective Date – reports can be written to extract production figures for an agent for a specific time frame when the agent was operating as a Manager, Supervisor, Standard Agent or Career Agent, etc.

Some features are added to enable the batch override payment functionality when the agent online production functionality is used and allows override percentages for direct and indirect reporting in case the level structure is more than two.

### 1.2.7 Agent "Black List" Indicator

In many countries there are a lot of agents moving from one company to another, many of which are "black listed agents". "Black Listed Agents" are those agents that have been rejected by life insurance companies or have been terminated for misconduct, etc.

To assist recruitment and control the "black listed agent" information is shared among the Life Companies.

To allow the Life Company to control their agents more effectively, INTEGRAL LIFE introduced some features to the Agency Records.

- An additional control flag on the agency appointment/ maintenance screen is required and use it to prevent from issuing a contract (I-flag) or preventing the commission payment (C-flag) or both (X-flag) depending on the agency management decision.
- The agency sub-system would have a control feature for contract issuing and commission payment processes.

### 1.2.8 Agent License

Life Agent License is a number given to those who pass the life agent professional examination organised by the various country authorities for example Malaysia Department of Insurance (DOI) and is mandatory for all agents who sell Life Insurance. Life agents are required to renew their licenses when they expire.

The Department of Insurance (DOI) requires agent license number to be printed on the policy schedule and kept in the Agent file for reference.

INTEGRAL LIFE maintains both the license number and expiry date field in its agent file

### 1.2.9 Agent & Premium Tolerance Amounts

Premium Tolerance Amounts will come as a result of a shortfall in the modal

premium collected. The System has been modified to allow the Life Company to collect the shortfall from the agent by deducting against his/her commission proceeds.

The premium tolerance amount to be deducted from the agent will be reflected in the Agent Statement.

The agent statement calculates the net commission payment as follows:

> Net Commission Payment
> = Net commission amount after withholding tax and other deduction – total premium tolerance.

The system also provides the reversal transaction for the premium tolerance.

The Agent Statement will also have an additional column to show the premium tolerance amount and the net commission payment amount. The total commission amount that can be paid to an agent should then be the net commission payment amount after withholding tax and other deductions in the Agent Statement.

### 1.2.10 Withholding Agent Commission

This feature allows the Life Company to withhold a certain portion of the agent commission payment amount as collateral.

The collateral withholding is required as Indemnity caused by agent dishonesty. It is automatically deducted from the agent's commission and passed to the Investment Department.

An additional process was added in order to:

- Calculate the Collateral Withholding from the net commission after premium tolerance.
- Maintain the cumulative balance for the collateral withheld amount.
- Check the priority for deducting from the net commission amount.

When the agent statement is performed, the system will check if the outstanding balance for the collateral withholding exceeds the maximum limit or not. If not, then calculate the withholding amount from multiple net commission payment amounts after premium tolerance. The total withholding collateral commission amount will be show in the agent statement and sum up to the outstanding balance. At the end of the period the collateral withheld will be passed to the investment department via a batch extract program.

Additional fields to capture and maintain the collateral withholding are added to the Tied Agent Details screen as the Collateral %, Maximum Limit and Outstanding B/L.

Collateral % - The percentage of net commission amount after premium tolerance is deducted as collateral.

Maximum Limits - The maximum accumulated amount allowed to be deducted from the net commission amount after premium tolerance.

Outstanding B/L - The current accumulated outstanding balance for the collateral.

### 1.2.11 Agent Commission & Withholding Tax

When the agency statement batch process is performed, the system will look up the tax related calculating factors in the Tied Agent detail screen S5036 and deduct from the total commission payment. The net commission after deduction will be used for calculating the commission withholding amounts. The priority of commission withholding tax should be the first item deducted from the commission payment amount. At the end of the period, the total withholding tax report for the related departments and the transaction for withholding tax and reversing transaction for commission payable will be created.

Table T5622 defines the tax calculation factor, which is defined as a percentage.

### 1.2.12 Downloading Agent Commissions

This feature enables download of all commission payments with the monies date, i.e. receipt date or cheque date (whichever is later). This commission information can also be downloaded by sales unit. The commission information is downloaded into a flat file that can then be transferred to a PC or other system for processing.

### 1.2.13 Bonus Workbench Interface

There is an interface with the Bonus Workbench system to calculate the various secondary compensation bonuses. Currently, there are eight outbound extraction files and one inbound extraction file that interfaces between INTEGRAL LIFE and Bonus Workbench.

Bonus Workbench requires the agent, agent hierarchy, policy, coverage, premium activity and commission activity data in order to calculate the various secondary compensation bonuses. Since all of the above data has already been captured and maintained in INTEGRAL LIFE system, an interface is required between INTEGRAL LIFE system and Bonus Workbench system. This interface will pass the above data from INTEGRAL LIFE to Bonus Workbench on a daily basis in the form of extract files.

Bonus Workbench has an import function that will read the extract files created by INTEGRAL LIFE and automatically populate into the Bonus Workbench database. For the outbound interface, the Agent information, Agent hierarchy information, Premium activity information, Commission activity information, Agency information, Company information, Policy information and Coverage information captured in INTEGRAL LIFE will be extracted and then feed into Bonus Workbench. This is done by the batch job BONWBEXT (Bonus Workbench Interface Extraction) on a daily basis.

For the inbound interface, the extracted file from the Bonus Workbench that contains the calculated bonus amount for those corresponding agents will be uploaded into INTEGRAL LIFE. The corresponding accounting postings are created to cater for those bonus allocations. This is done by the batch job BONPOST (Bonus Workbench Posting) daily.

### 1.2.14 Consolidated Cheques for Agents to an SMA

This enables the commission for agents belonging to the same Marketing Alliance to be lumped and then paid in single cheque. However, the override commission earned

by the Marketing Alliance will be generated on separate cheques. The set up will be on per agent basis. Consolidated Cheques information in Agent Maintenance screen can be set up by default in Company Default table TH602.

## 1.3 Contract Fees

A contract fee, in the base system, is a fixed amount charged against a life contract, which does not vary according to premium amount, but only according to premium frequency. It is possible however, for the fee to be waived on premiums in excess of a specified amount by creation of such a fee definition.

The fee is charged on the contract, not on its component coverage. It is payable in addition to the total premiums for the components of the contract. The amount collected is defined by the Contract Fee Calculation determined for the contract.

If Contract Fees are to be calculated then an entry will be found on table T5688. This entry is then used to reference table T5674 where the subroutine for calculating the fee will be found. The fee subroutine accesses table T5657, which holds the fee, based on frequency. The table is keyed on contract type and currency.

## 1.4 Premium Calculation and Processing

### 1.4.1 Premium Calculation Methods

When a life assurance contract provides a defined benefit, sum assured or disability payment, the premium payable for that benefit is defined according to the rules set out by the company issuing the contract. Within the INTEGRAL LIFE application the rule applicable to coverage constitutes the premium calculation method and the method to be used is specified in the coverage definition table T5687. There are currently four methods within the base system and these will be detailed later.

The premium calculation for a single life assured depends on the table of rates calculated in according to sex, age, mortality, category, and coverage duration. A similar calculation is required for joint life contracts where the age is defined according to the age and sex of the joint lives. Another method is the sum assured being calculated from a given premium. The premium calculation relates to the coverage that provides the benefit and there may be several different calculations within one contract.

System Functions

Premium calculation for a life assured is performed on-line within the coverage/rider screens S5123/6 or S5220, depending on the type of coverage. The calculation uses various parameters passed in the linkage section. As mentioned earlier the premium method for a given component must be set up in table T5687. This premium method provides access to table T5675 that contains the subroutines that perform the calculations. These subroutines or calculation methods are as follows:

| **Subroutines** | | **Table** |
|---|---|---|
| PRMPM01 | Single Life Term Based | T5658 T5659 |
| PRMPM02 | Joint Life Term Based | T5585 T5658 T5659 |

| | | |
|---|---|---|
| PRMPM03 | Sum Assured calculated by Premium | T5646 T5533 |
| PRMPM04 | Single Life Age Based | T5664 T5659 |
| PRMPM09 | Hospital Plan Benefit, Age Based | T5659 T5664 |
| PRMPM14 | Sum Assured Band, Term Based | T5659 TR696 TR697 |
| PRMPM15 | Sum Assured Band, Age Based | T5659 TR696 TR698 |
| PRMPM16 | Single Life, Table Look-up | T5658 T5659 TJ698 TJ699 |
| PRMPM17 | Joint Life, Table Look-up | T5585 T5658 T5659 TJ698 TJ699 |
| PRMPM18 | Waiver of Premium | T5664 T5659 TJ698 TJ699 |
| PRMPM19 | IRDA Premium Calculation | T5533 TR52R |
| ZRPRM03 | Sum Assured, Calculated by Premium (Unit Linked) | T5646 T5533 |
| TPRMPM1 | Accidental & Hospitalization | T5659 TT502 |
| TPRMPM2 | Hospitalization Weekly Indemnity | TT503 |
| TPRMPM3 | Payer Benefit, Term Based | T5659 TT504 |
| TPRMPM4 | Payer Benefit, Age Based | T5659 TT505 |
| TPRMPM5 | Non-Annual Term Based, Single Life | T5659 TT506 |
| TPRMPM6 | Non-Annual Age Based, Single Life | T5659 TT507 |
| RPRMRDT | Mortgage Reducing Term Assurance (MRTA) | T5659 TH615 TH617 |

The age at risk commencement date, obtained from the life details, and the age rates for the options/extra file, if they exist, are combined to form a rated age. This age is then used to read the basic annual premium table and a premium is obtained.

If a discount factor is to apply, table T5659 must be read. The key for this table is the concatenation of the discount method, held in premium rate table and the currency of the contract. The discount method is obtained by checking the sum assured against the sum assured ranges and when the applicable range is found, the discount amount associated with that range is subtracted from the basic premium. The discounted basic premium is then multiplied by the sum assured and divided by the risk unit held on the premium rate table.

Percentage loadings, from the options/extra record or LEXT record, are applied to the basic premium to yield a loaded basic premium.

The instalment premium is now calculated as the basic premium multiplied by the modal factor, held on premium rate table. This factor is based on premium payment frequency. The result is then rounded based on currency of the contract by obtaining the rounding factor from table T5659. If the premium unit from premium rate table is greater than zero, the instalment premium is the rounded instalment divided by the premium unit.

For joint lives' premium calculation additional processing is required. The life detail's record is accessed in order to obtain the joint life details. An equivalent age must be calculated. Table T5585 is accessed in order to obtain an adjustment amount. One, both or none of the lives may be adjusted, depends on there being a value in the sex indicator within the table. If both the lives are female and the sex indicator is set to ‘F’ then both lives will be adjusted according to the value found in table T5585, that is, the adjustment age is added to the age of each life respectively. The difference

between the higher and lower age is calculated and used to obtain the additional age from the table. The addition to age is added to either the highest age or the lowest age, according to the setting of the high/low age indicator.

Once this equivalent age is calculated then the premium is calculated as per the single life premium calculation described above.

### 1.4.2 Extra Premium Calculation Based on Mortality Rates

Provides the ability to calculate extra premiums based on mortality premium rates as a loading to a Substandard Contract.

### 1.4.3 Premium Discounts for Large Sum Assureds

For large sum assured, system provides the ability to calculate premium discounts for contracts with large sum assured amounts. It allows the system to extract / look-up different premium rate tables for different sum assured bands.

### 1.4.4 Cash Dividend Option – Premium Settlement

This allows billing of net premium when the installment premium is due instead of only applying the dividend amount when the full premium is received.

### 1.4.5 Non Annual Premium Calculation

This feature will allow the Life Company to automatically calculate non-annual premium by the Life Company's non-annual premium rate more effectively. The life company's premium rate is pre-calculated and manually smoothed out diversely.

An additional premium calculation method is required to look up the premium table in Basic Annual Premium Parameters – Term Table (T5658) or in Age Based Premium Rates table (T5664) by using Payment mode, Mortality and Sex as a key and to ignore the other value than yearly ratio (Y-field in Modal Factors section).

When creating the new coverage code for manually non-annual premium ratio, the specific premium calculation methods should be identified in order that the system will look up the premium table.

The structure of premium calculation item code in Basic Annual Premium Parameters – Term Table (T5658) or in Age Based Premium Rates table (T5664) should be as follows:

<u>Basic Annual Premium Parameters – Term Table (T5658)</u>

- The first four digits represent coverage code.
- The next two digits represent payment mode as 01 = Annually, 02 = Semi-Annually, 04 = Quarterly, 12 = Monthly and etc.
- The next two digits represent premium payment term such as 15 = 15 years.

<u>Age Based Premium Rates table (T5664)</u>

- The first four digits represent coverage code.

- The next two digits represent payment mode as 01 = Annually, 02 = Semi-Annually, 04 = Quarterly, 12 = Monthly and etc.

### 1.4.6 Advanced Premium Deposit

Some insurance products allow premiums to be paid in advance and give interest on this advance payment.

To support this requirement, INTEGRAL LIFE allows:

- Premiums to be accepted in advance of due date.

- Interest on the advance payment to be credited for such premiums paid. The interest credited may then be used for future premium payments.

To achieve the above objectives, the following has to be done:

- Set up an account for advance premium deposits, say, Premiums paid in Advance (LN VP). The balance sitting in this account will be the principal used for interest calculations. This account balance will be shown in the contract enquiries under sub account balances.

- The condition of putting the extra money into Advance Premium Deposit is only for some products. There is a need for a table to control the valid product types where this Advance Premium Deposit is applied. A table with contract type as the item has been designed. This table will have an extra data screen to control the amount that should be in suspense before which a transfer to Advance Premium Deposit can be done.

- The Contract issue should check if the product is part of the table and if yes should take the extra amount in suspense and put it into advance premium account. This will be controlled from the issue transaction and the sub-account details will be picked up from T5645 - P5074 entry.

- The Paid to date advance and Renewals collection processes will look at the advance premium deposit to settle the premium.

- The interest billing and capitalisation will process the advance premium deposit according to the set-up in the interest rates table T6633.

To withdraw from premium deposit account, money needs to be journal into suspense using the receipts – (payment type 4 for journals).

### 1.4.7 Premium Calculation Methods for Riders

The following additional Premium Calculation Methods has been introduced to the base system:

- Accidental Hospitalisation Rider is calculated by looking up the premium table (using the rider code and mode of payment as the keys). This table is banded by the coverage premium amount. It moves through the band using

the incremental coverage amount and finally adds the results together to get the premium.

- Hospitalisation Weekly Indemnity Rider is determined by looking up the premium table using the Sex, Sum Assured and mode of payment as the keys to point to the premium amount.

- Premium of Waiver of Premium is calculated using the main component premium and the policy fee. The summation is multiplied by a WP factor to produce WP premium. For WP the factor can be looked up from a table using the insured Age as a key.

- Payer Benefit Riders are calculated by multiplying the total premium (all of main coverage and other rider in the same contract) with premium rates. For PB, the insured (juvenile) age and the owner (normally the parent) age are the keys to look up the rate.

- Hospital and Surgical is determined by looking up as follows:
  1. Premium table using Sex and Insurer Age
  2. Mortality Loading factors using Mortality Class
  3. Billing frequency loading factors using Frequency

  Assuming A= Sum Assured, B = Premium rate from premium table, C = Mortality loading factors, D = Frequency Loading factors, then the:

  Yearly premium amount = A*B*C
  Non annually premium amount = A*B*C*D

- Calculation for O.P.D. Benefit, Major Medical, I.P.D. Benefit are determined by looking up premium table by using billing frequency and Mortality Class.

### 1.4.8 Premium Tables Upload

There are products whose premium rates are dependent on Cover/Term/Age/Mortality class/Sex. INTEGRAL LIFE supports this by utilising the rating tables T5658 and T5664. Since the premium rates are already held on PC files in Lotus and Excel formats, it would be convenient to have an uploading program to transfer the rates from PC file to INTEGRAL LIFE table file. The PC file in Excel format must be structured according to the file format to be accepted to make the uploading process easier.

**Tables**

T1688 - Transaction Codes Table
An ITEM, BA80, has been added to the table, for use in the PC upload Batch Schedule.

T1671 - Control Totals Table
An ITEM, EBH551, has been added to the table, to hold various control totals used in the PC Upload Batch Schedule.

**Batch Programs**

BH551
Batch Program to run the Premium Upload Batch Schedule: PRMUPLD

**Operations Procedure**

1) DFU one record into HRATPF so that the Timestamp field is in the correct format.
2) Download the HRATPF file into an EXCEL database, and save the file description.
3) Cut and Paste the downloaded record into the HRATPF spreadsheet, and ensure that each record has the timestamp field in the correct format.
4) Upload the updated HRATPF EXCEL file as a database file (Using the file description created as part of (2) above) using the replace option into the relevant environment.
5) Run the Batch Schedule UPLDPRM in the environment where the uploaded file is held.

### 1.4.9 T2240 Changes

It is possible that the client might wish to have different age definitions for the calculation of premiums. Examples of these different age definitions might be Age next birthday at risk commencement date, Age last birthday at risk commencement date and Age nearest birthday at risk commencement date.

The following is an example of the calculation of the age under each basis:

Date of Birth: 27/01/62
Risk Commencement Date: 01/07/95

a) Age next birthday at risk commencement date 34
b) Age last birthday at risk commencement date 33
c) Age nearest birthday at risk commencement date 33

### 1.4.10 Premium Discount Based on Frequency

This is a discount method, which is after volume discount and before applying risk units, to apply a rebate on BAP for the frequency of payment.

Instalment Premium = SA * (BAP- (100-FDrate)/100) * MF
Where,

| | | |
|---|---|---|
| SA | = | Sum Assured |
| BAP | = | Basic Annual Premium |
| FDrate | = | Frequency Discount Rate, obtained from Rebate Based on Frequency table TJ698 |
| MF | = | Modal Factor, obtained from Modal Factor Based on MOP table TJ699 |

The new premium calculation routines:

| | | |
|---|---|---|
| PRMPM16 | - | Term Based Premium Calculation method |
| PRMPM17 | - | Joint Life Calculation method |
| PRMPM18 | - | WOP Premium Calculation method |

## 1.5 Underwriting

Underwriting Medical requirements exist on a contract type basis, and depending on the contract type, different requirements may apply. The medical requirements are based on the total sum assured of all the proposals and in-force policies attached to the life assured being underwritten, and will vary according to the age of the life assured.

At pre-issue validation, each life assured attached to the policy will be processed to determine the medical requirements. If one does not already exist, an outstanding follow-up will automatically be created for each medical requirement. This will ensure that all requirements are received or waived by the underwriter before the policy can be issued.

The medical requirements will be re-evaluated each time pre-issue validation is invoked, since a change in sum assured on any proposal or in-force policy attached to the same life assured will affect the underwriting requirements of the proposal being processed. At contract issue, pre-issue validation will always be required, even if an earlier pre-issue validation has set the policy to 'available for issue'.

Underwriting Approval is a separate transaction rather than a field capture at New Business, hence risks above pre-ascertained levels must be underwritten otherwise the contract cannot be issued.

**Tables**

TH522 - Medical Underwriting Requirements
This table is used to capture the medical underwriting requirements, which correspond to certain sum assured and age bands. The table is keyed on contract type. Follow-ups that are to be created for that method are held on T5677, which is keyed on transaction code + follow-up method.

TH525 - Underwriting Conditions Table
This table is keyed on coverage code, and has an indicator to identify which components are to be included in the sum assured total when determining the medical underwriting requirements for a life assured.

TH523 - Currency Rates for Automatic Follow-ups
This table holds the currency rates used to convert the sums assured into a common currency for comparing against the sum assured bands on TH522. This Table is keyed on a concatenation of Contract Type and Sum Assured Currency.

### 1.5.1 Body Mass Index (BMI) and Underwriting Questionnaire

The Life Assured's Body Mass Index (BMI) and underwriting questionnaires are used to help in the underwriting process. The system provides the following functions:

- Using underwriting tables and codes to define related underwriting rule.
- Based on the product underwriting rules, capture Life Assured's height and weight, underwriting questionnaires during new business proposal creation.
- For products where underwriting is required, component added to the proposal is also able to have it's sum assured checked against age bands, to determine

what, if any, underwriting is required. *(N.B. Waiver of Premium and Hospital Benefit component has no such checking due to their specialty).*

- Automatic underwriting facilities associated with BMI, the answer for each underwriting questionnaire and each component's sum assured check against age bands are also introduced, such as where further information is required (follow-up records will be generated) or extra loading must be applied (Special Term will be added to all appropriate components etc).
- Underwriting can be confirmed for each life assured. Once the underwriting confirmation flag is set as 'Y', this life assured will bypassed for any future rule assessment in pre-issue validation. In order for the proposal to be issued, underwriting needs to be confirmed for all lives assured.
- For authorized users, enquiry for details of the underwriting questions and answers provided can be accessed via the Contract Enquiry facility.

Underwriting rules are defined in tables with user defined rule codes. The rules are defined in terms of any follow-ups, special terms and/or letters that are to be created if the underwriting rule is applied. Underwriting rules can either be generic or specific. Only one generic rule will be applied for each life assured whereas any number of specific rules could be applied.

BMI parameters and associated rules are also defined in tables, with a user defined BMI method. The BMI calculations using either metric or imperial values for height and weight are supported, which can vary by product type.

### 1.5.2 Underwriting Authority Limit

If a client is assessed as a substandard risk, then the contract may need to be rated. INTEGRAL LIFE allows individual coverage to be underwritten. The following ratings can be applied:

- ages can be adjusted
- percentage adjustments to premiums made, and
- rate per mille that the system looks up can be changed

Each of these ratings can be given a duration if required.

Underwriter Approval Level can be maintained in INTEGRAL LIFE at User Security via the Additional Sanction Menu. Table TR594 (User Authority Limit) stores the following authority parameters:

- Plan Type – Single Premium, Regular Premium, Mortgage and etc.
- Standard TRSA Limit
- Substandard TRSA Limit

The limit amount is calculated based on the Total Relevant Sum Assured (TRSA), which is the sum assured of all In-Force policies, on the Life Assured, within X number of months from the Risk Commencement Date. This limit is also validated against the Life Assured being a Standard or Substandard life.

Underwriting Authority Limit checking is conducted at:

- U/W Approval
- Withdraw Proposal
- Decline Proposal
- Postpone Proposal

- Not Taken Up Proposal (including batch NTU)
- Reverse Decline/Withdraw/Postpone/NTU

### 1.5.3 Underwriting Exclusion Clause at Component Level

Exclusion Clause at the coverage/component level allows an underwriter to exclude specific risk for a particular risk class such as:

TEN1 (Traditional Endowment)
CCPV (Crisis Cover Provider)
Dread Disease excludes Heart Valve Surgery

The exclusion clause updated in the system is captured and printed on the policy document and conditional acceptance letter. The exclusion clause is also kept at the contract level so that Policy Services is able to administer the policy in the event of a re-underwriting (e.g. due to revivals, inclusion of rider benefits, etc) and during Claims processing.

### 1.5.4 Underwriting & New Business Reports

INTEGRAL LIFE provides a number of reporting facilities. These reports are as follows:

**Daily Outstanding Proposal Report**
To aid the Life Administration Department, a daily report is required detailing submitted policies that remain Unissued due to outstanding information. Only those proposals which fall on either 21, 42, 63 or 84+ days, from the date the proposal was first received, are to be output. The report will include among other things, the current status of the proposal together with the number of days the proposal has been outstanding. **Program BH529** reports on policies that remain Unissued due to outstanding information required. Only proposals which fall on the 21st, 42nd, 63rd or later than the 84th day from the date the proposal was first received will be output.

**Weekly Sales Policy Status Report**
This is a weekly report used by the individual sales channel to monitor completion and the status of outstanding policies awaiting completion. Sales people will use this listing to follow-up their clients on outstanding cases. **Program BH530** reports on policies which have had one or more of the following transactions applied to them in the week prior to the running of the report - Issue, Cancel from Inception, Decline, Withdraw or Postpone.

**Daily New Business Production Report**
There is a requirement for reports to be produced for New Business transactions. These are to detail New Business transactions primarily on a daily basis, but as the report will be run daily, it will be possible to use it to accumulate information on a monthly, quarterly and annual basis. This report will contain such information as Sum Assured, Single and Regular Premium amounts as well as Product and Agency details. **Program BH531 ZSTRPF Extract** extracts data from various SMART files (PTRNPF, CHDRPF, AGNTPF, COVRPF etc.) and uses the extracted information to write to the ZSTRPF - New Business Reporting Master File. It is primarily this file, which is used in the other Reporting Programs.

**Weekly New Business Production Report**
There is a requirement for various reports to be produced for New Business transactions. This report will detail New Business transactions on a weekly basis, and will hold such information as Sum Assured, Single and Regular Premium amounts as well as Product and Agency details. This particular report will be run at the end of each week, and will produce updated figures for Month-to-date, quarter-to-date and year-to-date values. **Program BH533** is designed to produce a report of New Business transactions on a weekly basis. The report will contain such information as Sum Assured, Single and Regular Premium as well as product and Agency details. **Program BH532** reads through the ZSTRPF Physical File and extracts sufficient data to create a report detailing the various types to New Business transaction that occurred on the relevant transaction day. This report should only be run after the NBEXTR extraction batch job.

**Monthly New Business Comparison Report Over 12 Months Period**
A monthly report is required to display new business figures for the past 12 months. Flexibility is required to allow the report to display information pertaining to specific channels, districts, divisions, branches or products and/or to display totals at these different levels. **Program BH534** is designed to produce a report of New Business transactions on a monthly basis.

### 1.5.5 Underwriting Standard Letters

As there could be numerous requests for underwriting information to satisfy follow-ups, it is required that the printing of follow up letters be automated. This would avoid the manual tracking of letters and improve customer services. The type of follow-up, each of which relate to specific follow-up letter layout and wordings, identifies letters. Follow-up letters should be generated when they are added to the contract. These letters will be physically printed off-line. Reminders will be automatically generated three weeks after the first one is printed. Information should therefore be captured to determine when letters were sent and when the reminders are due. In the event that a previously printed follow up is claimed to be missing, a transaction to request the reprint of follow-up letters is required.

**Tables**

T5660 - Follow Up Status Codes
The following items have been added to this table:

| | | |
|---|---|---|
| L | - | Print Standard Letter |
| M | - | Print Reminder Letter |
| P | - | Letter & Reminder printed |

T5661 - Follow Up Codes
For those Follow-Up Codes where Standard Letters are required, the following values should be assigned:

| | |
|---|---|
| Default Initial Status | 'L' |
| Printed Status | 'M' |
| Printed Status (Reminder) | 'P' |

In the above cases, the Letter Type field should window to Table T3609.

T3609 - Generate Standard Letters Table

The extra data screen of this table has been amended. All of the follow up letters (HLAPP, HLAPS, HLMED, HRAPP, HRAPS, HRMED and XRATE) work by calling a subroutine whose name is found in the parentheses following the CALL SBR string. Each of the letters should have an entry on this table, and the ITEM name should be the same as that specified in the "Letter Type" field in Table T5661.

For the other letters (HLDCL, HLPSP, HLTRM and HLWDL) each work in the same way to those above, and each should have an entry on T3609, but in these cases, the ITEM name should be the same as that specified on the extra data screen of Table T6634.

## Batch Programs

BH521 - Generate Follow-Up Standard Letters

This Batch Program reads to FLUP file for a Follow Up Status of either "L" or "M", and for each one found, will write a LETC record via the LETRQST Subroutine.

B2650 & B2651 – XML Printing Generation Batch Program

This printing batch job will process any pending letter requests where the request date is on or before the batch effective date entered. A parameter prompt screen exists, which allows the user to refine the selection criteria further like to include or exclude certain letter types. This batch process will invoke the data extraction, formatting and document creation and will store the documents. However, it will not print the documents; this must be done using the Bulk Printing command (STRXMLPRT) or the online XML Printing submenu.

## Letter Types

HLAPP & HRAPP - Application and Application Reminder

Associating a follow up code of APP with a proposal produces this letter. The job FLUPLET should then be run followed by XMLPRT job, specifying a letter type of HLAPP. The follow up record for the reminder letter, HRAPP, will be generated a given number of days after the first follow up record was created. This number of days is specified in table T5661 (reminder days).

HLAPS & HRAPS - Attending Physician's Statement and Reminder

Associating a follow up code of APS with a proposal produces this letter. The job FLUPLET should then be run followed by XMLPRT job, specifying a letter type of HLAPS. The follow up record for the reminder letter, HRAPS, will be generated a given number of days after the first follow up record was created. This number of days is specified in table T5661 (reminder days).

HLMED & HRMED - Medical Examination Letter and Reminder

Associating a follow up code of MED with a proposal produces this letter. The job FLUPLET should then be run followed by XMLPRT job, specifying a letter type of HLMED. The follow up record for the reminder letter, HRMED, will be generated a given number of days after the first follow up record was created. This number of days is specified in table T5661 (reminder days).

HLPSP - Proposal Postpone Letter
This letter is produced by the creation of a LETC record upon the manual transaction of Proposal Postpone, and then running the XMLPRT batch job for letter type HLPSP. There is no reminder letter for this letter type.

HLTRM - Proposal Withdrawal Letter
This letter is produced by the creation of a LETC record upon the manual transaction of Proposal withdrawal, and then running the XMLPRT batch job for letter type HLWDL. There is no reminder letter for this letter type.

HLDCL – Proposal Decline Letter
This letter is produced by the creation of a LETC record upon the manual transaction of Proposal Decline, and then running the XMLPRT batch job for letter type HLDCL. There is no reminder letter for this letter type.

The above letters can then be printed using the Bulk Printing command (STRXMLPRT) or the online XML Printing submenu.

### 1.5.6 Underwriting Follow-ups by Risk Class

The system is able to generate New Business Underwriting follow-ups, to cater for medical underwriting limits and trigger by risk class rather than product type.

### 1.5.7 Underwriting Follow-ups by Risk Class and Multi-currency

In a multi-currency environment, the product risks can also be aggregated, and automatic follow-ups can be triggered off.

The logic is to aggregate by risk types defined against the product types to trigger automatic default follow-ups.

As INTEGRAL LIFE is also multi-currency enable, there was a requirement to aggregate the individual risk by ledger currency to cater for a multi-currency environment. Policies may be issued with various contract currencies. For aggregation, the various contract currencies amounts need to be converted to a base (ledger) currency to facilitate underwriters in the underwriting process.

The system will display existing in-force policies contract details by risk class.

## 1.6 Waiver of Premium

### 1.6.1 Waiver of Premium Calculation

The automatic Waiver of Premium Calculation Method enables the system to automatically calculate the Waiver of Premium “sum assured” if the user has not specified an amount. Accumulating each instalment on coverage/rider records for a proposal or a contract will do this. Whether these sum assured can be calculated or not will depend on whether or not the coverage/rider is present on the table TR517.

This table is keyed by coverage code and contains two flags and up to fifty coverage codes. The first of these flags indicate whether the premium can be waived for the particular coverage accessed and the second indicates whether the premium can be

waived for the coverage's for all lives or just the life for which the waiver is applicable.

For each of the coverage codes that is found on this table, the premium will be accumulated. These accumulated premiums will then be the sum assured for the Waiver of Premium rider. As Waiver of Premium is a common rider, a generic module is created. Apart from this generic module the other areas in which changes are required are common component add/modify, pre-issue validation and regular benefit payment processing.

### 1.6.2 Waiver of Premium Revised Sum Assured for Accelerated Crises Waiver

For Accelerated Crisis Waiver, the WOP Sum Insured (face value) should be the premium of the remaining face amount on claims admission. Some companies offer Accelerated Crisis Cover Waiver Benefit, where the premium of the remaining sum assured (the sum assured of main component less sum assured of Accelerated Crisis Cover Benefit) is waived. On Crisis Cover Claim processing, the Accelerated Crisis Cover Sum Assured accelerates the same amount on the Basic Plan as claims payment. The Basic plan's Sum Assured is then reduced to the remaining Sum Assured after Crisis Cover Claim is admitted. As such, the premium to be waived should be calculated based on the remaining Sum Assured. As such when processing the accelerated crisis cover waiver of premium claim, the premium to be waived and journal for premium application will be based on the premium of the remaining sum assured of the basic plan.

## 1.7 Accident Rider Aggregate Limits

In some instances three accident riders can be underwritten as one aggregate risk, for e.g. Accident Death, Dismemberment Disability and Accident Indemnity and Accident Death Benefit.

When the aggregate sum assured of these riders exceed the retention limits the sum reassured of these riders are pro-rated and adjusted. With this, the Life Company is able to generate the aggregate limit report to use as the information for manual adjustment.

## 1.8 Regular Processing

The Regular Processing batch schedule processes form a fundamental part of the INTEGRAL LIFE system and handles most scheduled events that are likely to take place with a contract. Much of the processing of life assurance contracts is controlled by the date, rather than being a transaction input at a terminal. Such processing as sending out premium due notices and overdue premium notices and so on comes into this category.

### 1.8.1 Renewals Processing

The Renewals Processing batch schedule (RENEWALS) forms a fundamental part of the INTEGRAL LIFE system and handles most scheduled events that are likely to take place with a contract. Much of the processing of life assurance contracts is

controlled by the date, rather than being a transaction input at a terminal. Such processing as sending out premium notices and overdue premium notices and so on comes into this category.

The batch schedule covers those premium aspects and scheduled changes. For more detailed information on the batch schedule please refer to section 6.4 of this document.

### 1.8.2 Surrender & Claims Overview

INTEGRAL LIFE system provides the functionality to deal with Claims Processing and this section covers the calculation processes of Full Surrenders, both Traditional and Unit Linked, Surrender of Traditional Reversionary Bonuses, Part Surrender on Unit Linked Contracts, Maturities and Expiries, Death Claims and Regular Payments.

### 1.8.3 Surrender Processing of Traditional Contracts

This process enables benefits arising at the surrender of a contract or the surrender of the accrued Reversionary Bonuses to be paid to beneficiaries. Once all the benefits accrued under the policy have been paid, the contract is complete and the contract header is updated to note the current status as Surrendered. Partial Surrenders, which is the partial surrender of the Sum Assured under Traditional Contracts, is not currently provided in the base system.

Differing contract types require different treatment on early termination. Some, such as, Endowments, Whole Life and Single Premium Decreasing Term Assurances attract surrender values, whereas Term Assurances, Disablement and PHI Riders usually lapse without any value. The system allows you to distinguish between these and provides calculation logic to yield surrender reserves equal to unmodified net premium Actuarial Reserve Values. This provides opportunity, by appropriate customisation, to apply an Office Expense factor to modify the reserve figure for the actual surrender value. For Single Premium Decreasing Temporary Assurances, an expense loaded proportionate premium refund calculation is provided by the base system. Please note that, for increased flexibility, a sub routine is also supplied to calculate a similar Actuarial Reserve for Term Assurances. This routine is available for stand alone Reserve Calculations.

Reversionary Bonus surrenders applicable to In Force With Profit Permanent Assurances, but excluding Low Cost Endowments, are provided. These use single premium assurance encashment factors and if the Life Office needs to restrict the surrender of Reversionary Bonuses depending on the status of the contract then this can be simply achieved by the use of tables.

Please note that one other restriction applies to the surrender of Reversionary Bonuses and that is it is not permitted if there is any loan balance against the contract and if this does not comply with the Life Office's current contractual obligations then customisation will be required in this area.

For Traditional business the surrender value is based on the Actuarial Reserve of the policy being calculated as the present value of the Sum Assured less the current value of the net premiums, plus the current value of Reversionary Bonuses.

These reserves vary depending on some or all of the following:

- Contract type - WOL or Endowment Assurance
- Life type - Single Life, Joint Life, Male or Female
- Premium Basis - Single or Regular Premiums
- Premium Status
- Premium Paying Term
- Benefit Term
- Age of Life Assured
- Premiums Paid to Date
- Unexpired Contract Term
- Unexpired Premium Term

The Full Surrender transaction performs the following:

- Calculate and displays the Sum Assured Reserve and Reversionary Bonus reserve and the total amount payable.
- Allow for adjustments in the final payment both positive and negative.
- Makes postings to the General Ledger for each constituent part of the amount payable, at the contract or component level as required.
- Allow for the payment of the final amount by cheque or direct credit.
- Optionally produce a letter setting out the details of the payment.
- Evidence the transaction in the contract records.

### 1.8.4 Actuarial Valuation Download

This program will download specific data from INTEGRAL LIFE for valuation purposes. The information will be sufficient for any valuation system used by the client. It is necessary to interface this data with the client's actuarial valuation system.

Batch job ACTVALU will select the contracts based on the status codes define for download transaction code – BR77, in the Component Status table T5679 and the parameter entered. The parameter can be the contract issue date range, the contract number range or combination of both.

The job will produce the following extract files:

A. Contract Extract File (any calculation figures are effective the date the batch job was executed)
    - Contract Number
    - Contract type
    - Risk commencement Date
    - Owner Name
    - Payer Name
    - Original Issue Date
    - Correct Issue Date (Latest issue date)
    - Agent number
    - Agent Type
    - Billing Frequency
    - Risk Status Code
    - Premium Status Code
    - Paid To date
    - Billed to Date

- Total Coverage Instalment Premium
- Total Contract Premium
- Cash Value
- Current Loans Outstanding
- Surrender Charge
- Surrender Value

B. Life Assured Extract File
   - Contract Number
   - Life Details & Joint Life Details – Array with 5 occurrences
     *Note: The first occurrence will be primary life, second will be second life and so on*
     ⇒ Life Name
     ⇒ Joint Life Name
     ⇒ Life Assured's Sex
     ⇒ Life Smoking or Non Smoking
     ⇒ Joint Life Assured's Sex
     ⇒ Joint Life Smoking or Non Smoking
     ⇒ Life Age at Contract Commencement Date
     ⇒ Life Assured's Attained Age
     ⇒ Joint Life Age at Contract Commencement Date
     ⇒ Joint Life's Attained Age
     ⇒ Life Issue Age
     ⇒ Joint Life Issue Age

C. Component Extract File
   - Contract Number
   - Life Number (corresponds to the occurrence above in Life Extract)
   - Coverage Number
   - Rider Number
   - Component Code
   - Sum assured or Benefit Amount
   - Risk term
   - Premium term
   - Commencement Date
   - Extra Premium
   - Total Instalment Premium
   - Total Annual Extra Premium
   - Total Annual Premium
   - Substandard or Special Term - the following fields are in an array of 5 occurrences
     ⇒ Special Term Code
     ⇒ Loading %
     ⇒ Age loading
     ⇒ Rate Per mille
     ⇒ Duration of special term
   - Fund details – the following fields are in an array of 5 occurrences
     ⇒ Fund code
     ⇒ Fund Value (as on the effective date of extract job)
   - Annuity Information – the following fields are in an array of 5 occurrences

⇒ Payment Mode
⇒ Modal Annuity Payment
⇒ Nominated Annuitant Name
⇒ Current Age of Nominated Annuitant
⇒ Secondary Annuitant Name
⇒ Current Age of Secondary Annuitant
⇒ First Payment Date
⇒ Next Payment Date
⇒ Final Payment Date

## 1.9 Reserve Calculations

The formula, shown below, corresponds to unmodified net premium reserves. However, the structure of calculations is sufficiently modular to facilitate the introduction of modifications to the reserve values as individual Life Office's may require. This also applies to the factors that an office may choose to use to derive actual surrender values from these calculated reserves.

The calculations are provided for Term Assurance, Whole of Life and Endowments both with and without profit contracts are catered for. The structure of the system allows the Life Office to add routines for additional classes of business easily. The appropriate bonus reserve formulae are used equally for Full Surrender Calculations and for Reversionary Bonuses.

In order to provide increased flexibility to client sites, the calculations of actuarial factors used in the reserve formula have been written into a single sub routine, ACTCALC. The sub routine is passed various parameters relating to ages and terms and a particular function code. A number of function codes are provided in the base system. Others may be added by customisation.

The functions and the corresponding actuarial factors are returned are as follows:

| **Function Code** | **Factor Returned** |
|---|---|
| WBIGA | $A_x$ |
| WADUE | $a_x$ |
| WNEPT | $P_x = A_x / a_x$ |
| EBIGA | $A_{(x:n)}$ |
| EADUE | $a_{(x:n)}$ |
| ENEPT | $A_{(x:n)} / a_{(x:n)}$ |
| TBIGA | $A^{i}_{(x:n)}$ |
| TADUE | $a_{(x:n)}$ |
| TNETP | $P^{i}_{(x:n)} = A^{i}_{(x:n)} / a^{i}_{(x:n)}$ |

The factors themselves are calculated using $N_x$ commutation monetary functions as follows:

EADUE is calculated as $( N_x - N_{(x+n)} ) / ( N_x - N_{(x+1)} )$

EBIGA is calculated as $1 - d \times \text{EADUE}$ where $d = 1/(1 + i)$

TBIGA is calculated as EBIGA minus the survival benefit:

$$( N_{(x + n)} - N_{(x + 1)} ) / ( N_x - N_{(x + 1)} )$$

Values of $N_x$ for a given rate of interest are calculated automatically by the LIFE system batch job T6641CRT. The item key is a concatenation of the five characters Mortality Table item key (T6686) and a three-character interest rate. This allows rates of interest up to 9.99 to be used. T6686 contains manually keyed values of lx for the user defined character items. Thus 6770 could represent the Institute of Actuaries A 67-70 Mortality Tables, Single Life ultimate mortality values.

The parameters passed to ACTCALC by the various reserve calculation programs are:

- Initial Age
- Final Age (1)
- Final Age (2)
- Function Code
- T6641 Item

The initial and final ages are set up calling programs to reflect whether ACTCALC is to calculate values at inception or paid to date. For example, in calculating a Net Premium age would be those at inception whereas for the current value of the Sum Assured the ages would be at the paid to date, being ages next birthday at entry plus elapsed duration in force to the paid to date.

Note for joint life components, an equivalent Single Life age is calculated by means of entries on T5585 where the item is set up in T6642 that is keyed by the coverage code.

All the base functionality provided, and the underlying tables, assume yearly rather than continuous actuarial factors, with Sum Assured payable at the end of the year of death and makes no allowance for select or ultimate mortality experience.

## Whole of Life Assurance Formula

The sub routine PRESERV recognises Whole of Life Assurances by the presence of a risk cessation age equal to 110.

It calculates the following value:

**Value of Basic Benefit**

$$SA \times (A_{(x + t)} - (NP * a_{(x + t)}))$$

where SA is the sum assured for the component
NP is the Net Annual Premium for the component
x is the age next birthday at component commencement date
t is the elapsed duration

## Endowment Assurance Formula

The subroutine PRESERV recognises Endowment Assurance by risk cessation age less than 110.

It calculates the following value:

**Value of Basic Benefit**

$$SA * (A_{(x + t : n - t)} - NP * a_{(x + t : r - t)})$$

Where SA is the Sum Assured for the component
NP is the Net Annual Premium for the component $P_{(x : n)}$
x is the age next birthday at the component commencement date
t is the elapsed duration
r is the premium term
n is the benefit term

**Value of Bonuses**

$$BA * A_{(x + t)}$$

where BA is the accrued Reversionary Bonus for the component

As stated above bonuses can be valued at different basis from the basic benefit - see T6642. Linear interpolation is used to obtain values for non-integral elapsed duration's.

The ACTCALC sub routine is called to determine the actuarial factors with the function codes of EBIGA, EADUE and ENETP and again with EBIGA for the bonus encashment basis.

**Term Assurance Formula**

The formula for Term Assurance is as follows:

$$SA \times (A^{i}_{(x + t : n - t)} - NP * a_{(x + t : r - t)})$$

where SA is the Sum Assured for the component
NP is the Net Annual Premium for the component
x is the age next birthday at the component commencement date
t is the elapsed duration
r is the premium term
n is the benefit term

Straight-line interpolation is used to obtain values for non-integral elapsed duration's.

The sub routine ACTCALC is called to determine the actuarial factors with function codes TBIGA, TADUE and TNETP.

**Single Premium Decreasing Temporary Assurance**

A number of Life Offices provides for a payment of a surrender value for this type of product. Generally, reserve based calculations are inappropriate and an expense loaded refund of the single premium is offered. Accordingly in such cases the base system contains the following calculations using the sub routine PRPSPRM.

$$SP * ( (M2 - M1) / (M2 - MO) )^{2}$$

where SP is the Single Premium
MO is the age next birthday at component issue

M1 is the age next birthday at the component anniversary, which is equal to or greater than the effective date of the surrender

M2 is the age next birthday at component expiry

## 1.10 Surrender of Unit Linked Contracts

For Unit Linked contracts, the surrender sub system allows the facility to either take a full or partial surrender.

This action is achieved by entering the contract number into the relevant screen and after validation the coverage's and rider details are displayed for selection. Once selected, the surrender information is provided with the options to enter the effective date, adjustment amount and reason if required. In addition to this if the user enters a currency code, the fund values are adjusted to reflect the entered currency otherwise the contract currency is used.

Once the contract has been processed through the AT, the status of the contract on the contract header is updated to indicate that the contract has been surrendered and in addition to this the status of the coverage and riders are also updated. The surrender value is written to the contract header suspense, after the batch job NEWUNITD has been run, so that the cheque can be prepared for the beneficiary.

Agent's commission records are updated with the amount of the earned commission and if this is less than paid commission claw-back will apply.

The Part Surrender transaction allows partial fund value to be withdrawn either at a policy or plan level and can be a fixed amount or a percentage of units held. Contract definition determines if Part Surrenders are valid and if so the rules for part surrender are table driven for example minimum withdrawal amounts, withdrawal fees, etc. As with full surrenders the value of the withdrawal is written to the contract header suspense for disbursement after the completion of the batch job NEWUNITD. Again as with full surrender's commission records are updated and a PTRN record is written for contract history.

## 1.11 Life Traditional Bonuses

The system caters for two types of bonus allocation of Reversionary Bonuses on with profit contracts; those allocated on the anniversary of the contract and bonus allocation at a company's fixed day of the year but not necessary each year. Normally a Life Office will follow one of these practices rather than a mixture of both but the system can handle both methods simultaneously as the methods are table driven and defined at component level.

INTEGRAL LIFE system supports "true" premiums rather than instalment premium method so that for Reversionary Bonuses it is assumed that all due premiums are paid within the acceptable time period set in table T6654. Because of this assumption, for components where bonuses are allocated on a Fixed Date basis, calculation for part year bonus eligibility is incorporated within the system. This will only apply for the first bonus allocation for any qualifying components.

Bonuses may be calculated based on Sum Assured alone or on the Sum Assured and Bonuses already allocated to each component. Different rates of Reversionary Bonuses may be defined for each bonus method code. Thus, by setting the rates to be applied to existing bonuses to zero, simple bonuses are calculated, if the rate is not zero then compounded bonuses apply.

Further flexibility is available in that different rates of bonus may be defined for each component status code. In this way a contract that is Paid Up may receive, say, a lower rate of bonus from another otherwise similar component that is still premium paying. To complete the built in options available to the Life Office the tables that hold the relevant bonus rates may hold up to ten various rates depending on the length of time, in years, a component has been in force.

However, when Reversionary Bonus is declared for a component that has been made Paid Up and for which, therefore, a reduced Sum Assured now applies, the amount of Reversionary Bonus allocated at the next declaration date will be based on the Paid Up Sum Assured. In fact as a general rule the Bonus calculations are always based on the current component record. This means if the Life Office wishes to calculate and apply pro-rata bonuses on the original Sum Assured and now reduced Sum Assured then an adjustment could be made via the Bonus Journal functionality.

Other form of bonus calculation and allocation processing is also available for Maturities and Death Claims such as Interim, Terminal and Extra Bonus. The latter bonus method is similar to terminal bonus but with the added functionality of being able to define that only a proportion of the contract term qualifies for this type of bonus.

## 1.12 Maturity & Expiry Processing

Maturity processing enables benefits that fall due at the Maturity of a contract to be paid to the relevant beneficiaries. This may result from the Maturity of the whole contract or any constituent parts as and when they fall due. The value of the contract or the benefit due is calculated as part of the process together with any bonuses or adjustment payments to be made. Upon payment of the benefit due, part policy or whole contract, the components or contract is updated as Matured and all general processing will cease billing, etc.

Maturities and Expiries may be processed up to three months in advance of the contract risk cessation date so as to enable the administration area to complete, and receive from the client, all the necessary documentation so that the disbursement of the funds can be made on the due date. Contracts or components that have no monetary value arising at the completion of the contract term will go through the Maturity processing procedures but the contract or component is noted as Expired.

In order that clients may be notified of a pending Maturity or Expiry a batch job has been designed (PENDMATY) which allows a selection of the risk cessation date range to be processed as Pending Maturities. This batch job produces a report of the range of contracts requested and can be extended to produce the necessary letter of notification, assuming that the Life Office have designed the appropriate letter(s) and its key has been entered into the relevant table.

This report will show whether contracts will Expire or Mature and their estimated value broken down by component and by fund for Unit Linked products. This report could assist in planning workflow and later on identifying outstanding requirements.

In addition to the above there is the facility to reverse Maturity processing for both Unit Linked and Traditional contracts.

The above explains the system stages of informing the client of the contract or component Maturity and in this section we will deal with the process required to disburse the funds to the beneficiaries after the Life Office have receive all their requirements.

It is important to note that the system does not automatically Mature or Expire a contract or component upon attainment of the risk cessation date. It is a required on-line transaction and this task is currently held within the Surrender and Claims sub menu. During the entry stage of this on-line Maturity transaction the system will calculate the amount to be disbursed. This will include, for Traditional contracts, all bonuses due Terminal, Reversionary, Interim and Extra whichever is applicable (this is dependent on the contract definition) plus the Sum Assured less any Policy Loan or APL debts. Once the transaction has been committed and completed through the AT processing the Maturity value, gross or net, is placed into suspense for disbursement to the client completing all accounting entries as defined in table T5645. The contract and or component will then indicate a status of Matured.

For Unit Linked contracts the on-line Maturity screen will calculate an estimated value of the funds held based on the current unit price and once the transaction has completed through AT it will write the necessary UTRN's and await the running of the batch job NEWUNITD. Once the NEWUNITD has been completed the UTRN's will be satisfied and you are in the position to disburse the proceeds to the client. The on-line transaction and the completion of the batch job NEWUNITD with create all the accounting entries as defined in T5645. After the process has been completed the contract and/or the component will indicate a status of Matured.

To Expire components or contracts the same sub menu is accessed and instead of option A use option B. Once completed and committed through the AT will amend the status to Expired.

For both Traditional and Unit Linked Maturity transactions you have the ability to make adjustments to the value either a positive or negative amount. The system would normally expect a reason code to be captured in this event and this code must be held in table T5500.

All Maturity and Expiry transactions will produce letter records, LETC, MATCLAIM, TRDMATY and UNLMATY the latter two will produce a zero value as they are solely for Expiry of Traditional and Unit Linked Term type business respectively.

Maturity and Expiry reversal transactions are available through the Contract Servicing sub menu under Reversals (Windback). However, it is important to note that if the contract requiring re-instatement has components maturing over a period of time then each matured component will require individual reversal in the reverse order of Maturity.

## 1.13 Vesting

Vesting occurs on a deferred annuity contract at the date specified for the annuity to become payable. Early or late vesting may be available depending on the rules defined for the contract. The vesting transaction causes regular payments to be created which will continue for the rest of the annuitant's life. A cash option may be available whereby some, or all, of the annuity amount can be commuted into a cash lump sum.

The Vesting transaction within INTEGRAL LIFE forms part of the Surrender & Claims subsystem. The following Vesting functions are provided:

**Pending Vesting**

This function is performed by a batch schedule, PENDVEST. This produces a report of deferred annuity components due to vest and provides information to generate a standard letter, assuming the required entry is held in Automatic Letter table T6634, advising the contract owner the forthcoming event.

A date and contract range can be entered on the parameter prompt screen for the PENDVEST schedule so that Life Office's have the flexibility to control workflow. The schedule selects components with a risk cessation date that falls between the dates entered on the parameter prompt screen. Checking that the components exist on Annuity Details table T6625 identifies annuity components.

A Vesting Letter record is written for each contract that has one or more components due to vest between the dates specified. Note, that until the status of the component is changed, for example at Vesting Registration, Vesting Letters will continue to be written and the component will continue to appear on the Pending Vesting report.

The value of the components at vesting is calculated based on the sum assured, plus any bonuses if the component is with profits.

**Vesting Registration**

Vesting of a deferred annuity contract will usually occur when a component reaches its risk cessation date. This is an on-line function and if a contract number is entered the contract/component status is checked against T5679. At least one component within that contract must have a maturity method entered into table T5687, Coverage and Rider Details, and must be an annuity component set up in Annuity Details Table T6625.

The rules that apply to early or late vesting of annuity components are also held on T6625. The effective date of vesting cannot be earlier than the risk cessation date less the number of lead years entered in T6625 and cannot be later than the risk cessation date plus the number of years entered on T6625. It is possible to commute a proportion of the payable annuity to a lump sum payment, with a proportionately reduced annuity payable. The percentage of the total payable annuity that is allowed to be taken as a lump sum is validated against the values in T6625.

The annuity payable can be modified to an actuarial equivalent value payable within different parameters. For example, an annuity of $1000 per annum payable yearly in arrears for life may be modified at vesting to an annuity of $900 per annum payable

monthly in advance for a guaranteed period of five years and life thereafter. The annuity payable can be dissected to allow, for example, tax to be deducted from the gross amount, with a net payment to the annuitant and accounts accumulating the deductibles for payment to the taxation authorities.

If annuity details are altered a new annuity record is created. New Contract, Payer and Coverage records are created and the old records are set to a valid flag 2. The premium status on these new records is changed to Vesting Registered. Temporary Regular Payment Records are set up for each payment's dissection with a single frequency payment record for any lump sum payment taken. On a with profit deferred annuity, the Reversionary bonus will be zeroised.

Statistical records are produced.

**Vesting Approval**

Vesting Approval is used after the Vesting Registration to amend the contract and component premium status to an annuity in payment status and to authorise the regular payments. Information from the Vesting Detail and the temporary Regular Payment records created during the registration process is displayed for enquiry only.

The Contract, Payer and coverage record status are changed to indicate that the contract is now an In Force Paying Annuity. Vesting detail records associated with the transaction number are deleted.

A Regular Payment record with the status of approved or pending approval is created for every temporary record created at the vesting registration. This status setting depends on whether the generic subroutine, which approves the Regular Payment, is entered in the Coverage/Rider Switching table, T5671, for a given product for this transaction.

Once the Regular Payment has been approved then the batch schedule relating to Regular Payments, REGPAY will generate the payment and cheque or Direct Credit records.

## 1.14 Death Claims

The base system provides for six types of Death Claim Calculation Methods for determining the actual death benefits payable. These methods can provide for payment of the Sum Assured (DC01), the current value of Unit Holdings, if any, (DC02) and the greater of the Sum Assured or the Unit Holdings (DC03). For Annuity Contracts, Payment of Claim on Annuity in Payment (DC04 & DC06) and Death Benefits for Deferred Annuity not Vested (DC05).

For Traditional contracts the system will also pay Reversionary Bonus accrued to the effective date of the claim and in addition to this the system, where defined, will calculate and pay Interim, Terminal and Extra Bonuses. Any outstanding contract loan or APL will be deducted from the claim value leaving a net amount to be disbursed to the beneficiaries.

## Registration

For the registration of the death claim the transaction effective date must be entered into the screen and appropriate validation checks will be made. The effective date must be greater than the risk commencement date and the effective date must not be a future date. If a contract is not eligible for benefits on death then the system will reject the request. Where a contract has a mixture of components with and without a death benefit value then the transaction will be allowed but the ineligible components will be omitted from the calculations.

A death claim affects all the components for a contract that is each coverage and rider attached for a single life or joint life. In order to process a death claim on a joint life contract the life concerned must be selected and registered. A list of lives will be displayed for selection however, if the contract is a single life then this selection will be bypassed. When the transaction is committed and completes through the AT then the date of death will be registered in the client's record.

Contract details and coverage and rider information such as Sum Assured, Bonuses if applicable, or the value of the units held are displayed. These values may be an estimation or actual depending on whether final unit dealings have been calculated or not. The monetary amounts returned for each coverage is calculated in accordance to the calculation method held on the Coverage Rider detail's table T5687. This table and death claim method is used to access table T6598 that contains the actual calculation subroutines.

If a contract has any outstanding loans' theses together with outstanding interest to the claim effective date will be deducted from the claim value. Loan debts will always be repaid at the registration stage and if the Life Office wishes to charge interest up to the date of Claim Approval then this will currently have to be achieved through an on-line adjustment prior to the Claim Approval.

Finally the premium status and contract header record is updated to indicate Claim Registration and a PTRN record is written for transaction history.

## Adjustments

The registered death claim can be adjusted and the screen used is the same as the registration. Amendment details are compared with the data originally stored and if there are any amendments this is also be stored.

## Approval

A registered death claim is not realised for payment until it has been approved. Some time may elapse between registration and approval and therefore interest may be payable on the net claim amount. The system can calculate interest on a simple basis and the parameters are stored in table T6617. All that is required is to enter the number of day's credit is due and the system will calculate and display the amount increasing the value payable. In addition to these on-line amendments the claim header record is updated and the relevant postings are made to the defined sub accounts.

Once the claim has been approved then the claim proceeds can be disbursed via the Payment System.

**Reversal**

If it is necessary to reverse the registration then the appropriate transaction is located in the Contract Serving sub menu under Reversal (Windback). All contract information written at the time of registration is deleted and the records reversed. All unit transactions' records for the claim that have not been processed are deleted. For those records that have been processed through NEWUNITD the number of units and amounts are reversed. All the sub accounts that were updated for this contract are also reversed.

Please note a Death Claim reversal will only reverse the Registration and not the Death Claim Approval transaction.

### 1.14.1 Regular Payments

The Regular Payments system is an extension of the claims processing facilities provided by the INTEGRAL LIFE and it is designed to cater for the following types of regular payments.

1) Regular Claims that is a benefit that requires a regular payment, such as Permanent Health Insurance or Waiver of Premium.

2) Regular Payments that is Annuities where benefit payments commence on a defined date.

3) Regular Withdrawals that is a regular Part Surrender of an investment contract that will take place against a unit linked component.

In addition to the above, this claims processing facilities also supports pension payments and regular claim payments for Hospitalisation and Accident benefits which are paid on a reimbursement basis.

In cases where the amount is payable at a regular frequency and to ensure that the payments are not continued to ineligible claimants the system will place them into review at specified intervals or will set the last payment date for fixed term benefits. The Certificate of Existence letter verifies the continued eligibility of an annuitant for payment.

The system will allow the creation of payment details to be recorded against individual components of a contract. These will then be processed on a regular basis by a batch process that will invoke the appropriate processing to actually make the payments, surrender the units where relevant, update the accounts and create media requests as applicable. The system will make payments by cheque, direct credit or purely internally when they are being used to fund the source contract itself as, Waiver of Premium benefit, or to pay premiums on another contract.

The system will support multiple payment details for a given component. For benefit components against which a claim may be registered the system will support multiple claims that may be consecutive or concurrent as long as the maximum values of all claims in force and in payment at any one time do not exceed the Benefit Value for that component. Time limits may be imposed upon claims so that they may be created

to run for a given period of time or indefinitely. In the case of the limited period the system will automatically terminate claims when it reaches the specified date.

There is an Indexation facility built into the payment processing and again this has been implemented in a modular fashion so that new Indexation methods may be adopted with no coding changes to the existing software. For annuities there is a provision for dissections specifically for tax purposes. Similarly, when a deferred annuity vests, the Regular Payments subsystem is used to pay a lump sum when all or part of the annuity is commuted to a lump sum, as well as regular payments, net or gross of tax as required.

Payments may be made in any valid nominated currency defined in the system. In the case of a regular benefit claim the amount of the claim will always be held in the contract currency whereas the actual payment processing will make the conversion into the payment currency as each individual payment is processed. A running total will be held for information but only in the contract currency.

For Unit Linked Regular Withdrawals the client may nominate the amount, fixed or percentage of units and the currency. The system will surrender the appropriate number of units to meet the withdrawal. Therefore, the client will receive differing amounts due to the currency conversion fluctuations and where the client has selected a percentage of units to be withdrawn then again the value received will fluctuate due to the unit price fluctuations.

As far as possible the rules that the system employs to ensure that only valid data is recorded in the payment file are held on user defined tables thus enabling the end user to maintain a considerable level of control over the structure and running of the Regular Payments system.

# 2. Product Definition

## 2.1 Introduction

A product consists of a contract and one or more components within the contract structure. A component is a Coverage or Rider. Coverage is a benefit in its own right within the contract structure, for example, an Endowment or a Term Assurance. However, a Rider cannot stand-alone; it must be attached to Coverage, or alternatively given a Coverage status, for example a Waiver of Premium attached to Pension Coverage.

The contract header holds information common to all types of contracts, for example, the contract owner, the servicing agent and premium payment details. Assignees, Follow Up and accounting movements are at the contract level although the latter can be at the coverage level if so desired.

Each contract has at least one and up to ninety-nine single and joint lives attached. At the life assured level, information such as contract number, company and risk related attribute of the life assured is held. The contract number held on the LIFE file points to the client file that contains information such as name and address details. A client may have several roles defined, for example, life assured, payer, beneficiary, etc. and in addition to this the mandate and bank account details are held at the client level.

Components are classified as Coverage's and Riders and at Coverage and Rider level, information is held on special terms, reassurance, commission, bonuses, and investment and accounting movements.

Within the INTEGRAL LIFE system all products fall into three categories:

- Unit Linked
- Traditional
- Regular Benefit (payments to clients by regular instalments)

The system caters for the maximum age and term of a component up to age 110. All premium rates and mortality charges tables similarly support the capturing of the rates up to this age.

## 2.2 Tables

The INTEGRAL LIFE system makes extensive use of codes and information held on tables to define the rules and processes required for each type of product. A table may hold valid codes with additional information, or may have extra data screen containing further information for each of the code entries.

Some extra data screen tables are dated tables, that is, a “from” and a “to” date can be entered and the information contained on that particular table is valid for that date range. Dated tables cater for alterations to contract rules that apply to specific date range such as legally imposed changes or changes to premium or commission rates.

Some common functions require processing that is specific to a particular component type. In such circumstances, tables are used to point to processing subroutines, for example, surrender and claim processing. These subroutines in turn may also

reference other tables during processing. The subroutines delivered with the base system are method based and can be customised and created according to the product's requirements, for example claim calculation methods, premium calculation methods or rounding routines, etc. Since programs access tables to obtain the required subroutines, there is no need for hard coding of these subroutines and subsequent compilation of programs. This approach provides flexibility, since table entries and subroutines can be tailored to individual requirements.

Each code item on a table has a constant format and this format is referred to throughout the system and all documentation contained in the set of INTEGRAL LIFE manuals as the Key. In some tables, the item key may consist of asterisks where the key, or part of that key, applies to all cases.

Some table fields exist because an area of processing has been recognised, but little or no functionality has been added to the base system. This is due to the fact that there are so many differing insurance processes and practices that CSC provide the minimum and expect clients to customise these areas. In this regard the CSC system manual's terminology is that these fields are "Hooks" for customisation.

Certain table number ranges within the base system are reserved for specific areas of the system and these are as follows[1]:

- INTEGRAL FSU T2000 to T3799
- INTEGRAL LIFE T5000 to T5799 and T6000 to T6799

So that the above ranges can be preserved it is a CSC system standard that any tables developed on a client site use a numbering range outside the above. This will ensure that there will not be a duplication of table numbers when a new release of software is delivered from CSC.

The INTEGRAL LIFE system provides full on-line HELP facility giving a description of each field on a table. In addition, in many cases, a window facility is available for fields that require code items that exist on other tables.

Product definition will vary between Life Office's so it is important that CSC clients grasp the concept of Product Definition and the table relationships as quickly as possible so as to assist the smooth process of the preparation stage of an implementation. Attendance of the Product Definition Training Course is strongly recommended to provide the user with the necessary background information and experience to define a product within the system.

## 2.3 Product Definition Guide

There is a dedicated manual for Product Definition and individuals should be familiar with this documentation prior to attempting to define products within INTEGRAL LIFE.

## 2.4 Product Rules Cross Validation

The system supports a comprehensive set of product validations which are parameterized through various tables and subroutines. Product validations are focused

[1] refer to **Error! Reference source not found.**for full range of numbers

on the New Business (NB) and Policy Servicing (POS) modules. The following validations are currently supported:-

### 2.4.1 TR50X – Contract Rule Validation

Defines the validation subroutines that cross check for the Contract Type. Item key to the table is the Contract Type in table T5688 and allows up to 15 validation subroutines setting for each table item.

### 2.4.2 TR50Y – Contract vs. Component Rule Validation

Defines the validation subroutines that cross check for the Contract Type and its Components. Item key to the table is the Contract Type + Component Code where the Contract Type is in table T5688 and the Component Code in table T5687. This allows up to 15 validation subroutines setting for each table item.

### 2.4.3 TR50Z – Product Rules Validation (Component & Component)

Defines the validation subroutines that cross check the Rider Component against the Basic Component. Item key to the table is the Rider Component Code + Basic Component Code where both the Rider and Basic Component Codes are the Component Codes in table T5687. This allows up to 15 validation subroutines setting for each table item.

### 2.4.4 TR51A – Rider SA Cannot > Basic SA Validation

Defines the limits where the total of the riders' sum assured cannot exceed 'X' times of the basic sum assured and subjected to a maximum limit. The limits can vary by age band. Item key to the table is the Contract Type + Basic Component Code.

### 2.4.5 TR51B – Component SA must be < Other Component's SA

Defines the rules where a Component's sum assured cannot exceed another Component's sum assured and subjected to a maximum limit. Item key to the table is the Component Code + Component Code.

### 2.4.6 TR51C – Sum Assured Must Be In Multiples Of 'X' Amount

Defines the rules where a Component's sum assured must be in multiples of 'X' amount. Item key to the table is the Contract Type + Component Code. To allow Catch All (***) for the Contract Type.

### 2.4.7 TR51D – Product Valid Sales Channel

Defines the valid Source of Business for the product i.e. the channel through which the business can be solicited. Item key to the table is the Contract Type + Component Code. Allows up to 50 Agent Channel setting for each table item.

### 2.4.8 TR51E – SA of Rider & Basic <= % Income

Defines the rules where the total of the Basic sum assured and Riders' sum assured is dependent on the amount of the client's annual income. The limits can vary by age band. Item key to the table is the Contract Type + Basic Component Code. This

validation is referring to the component sum assured and can be either basic or riders or both and not necessarily basic only.

### 2.4.9 TR51F – Aggregate SA Per Product

Defines the rules where the aggregate of the Basic and Rider sum assureds are subjected to a maximum limit. Item key to the table is the Contract Type.

### 2.4.10 TR51G – SA Limit Based on Age Band

Defines the maximum sum assured allowed by age band for the Basic Component. For example, where a different sum assured limit is applicable for a juvenile and an adult life. Item key to the table is the Contract Type + Basic Component Code.

### 2.4.11 TR51H – Component Interdependence

Defines the rules where certain Components are mandatory i.e. Component must coexist whilst certain Components cannot be attached. Item key to the table is the Contract Type + Component Code.

### 2.4.12 TR51I – Term Limit Interdependence

Defines the rules where a Component's risk/premium's term can't exceed another Component's risk/premium's term. Item key to the table is Component Code + Component Code.

## 2.5 Products Supported

The base system supports the Traditional and Unit Linked Products as well as Interest Bearing Generic type contracts.

An Interest Bearing contract is basically a savings plan to which insurance benefits can be attached. Premiums are paid to an investment pot to which interest is added periodically. The costs of any insurance benefit deducted from the investment pot. There may be many lives associated with a contract; all with insurance benefits paid for by deduction from one investment pot. Additional lives may be added or removed throughout the term of the contract. An interest-bearing contract usually has flexible premiums and the basic product is often referred to as Universal Life.

Hospitalisation Cash Plan is an additional rider where the Assured can choose to have additional hospitalisation cover for himself or himself plus his spouse or himself plus his spouse and children (Family). The premium will be based on the main life assured. The maximum death benefit (ie. Sum Assured) is the benefit amount of the 'Daily Room & Board" multiplied by the Timing Factor as defined in the Hospital Benefit Plan Table, TR687.

Hospital and Surgical Claims is to check for the maximum benefits allowed on a per claim incurred basis. System is also able to check for Annual Limits, Lifetime Limits, Coinsurance and Deductibles at the benefit as well as plan level. Overwriting of the claim amount is only allowed at the benefit level subject to the overwritten amount being less than or equal to the maximum benefit amount as defined in the system. For

Annual Limits checking, the component year will be based on the Hospitalisation component's risk commencement date and the claim incurred date.

INTEGRAL LIFE also supports Accident benefits. Like the Hospitalisation Plan, this product is an additional rider where the Assured can choose to have additional accidental cover for himself. Accident claims are paid on the basis of reimbursement. A screen is provided to allow user to input the claim benefit details. Overwriting of the claim amount is only carried on each benefit level, subject to the overwriting amount being less than or equal to the maximum benefit amount defined in the system. However, overwriting of the amount is not allowed at the plan level.

The age at entry can be from 0 years (using Age Nearest Birth basis).

## 2.6 Mortgage Reducing Term Assurance

The Mortgage Reducing Term Assurance or MRTA products in INTEGRAL LIFE have been designed as Single Premium products with the added facility to allow payment of the premium by instalments.

The premium for Mortgage Reducing Term Assurance or MRTA products is based on the:

- Age next birthday
- Term of policy
- Interim (construction period of buildings covered by loan)
- Frequency of repayment of loan interest
- Loan interest rate and whether self-financed or included in the loan.

The contract can be issued upon receipt of the first instalment. The remaining instalments are held in an Outstanding Instalment sub-account (say, LP OI in the example below) by managing receipting as follows:

Receipt Amount 300.00
Dissected into:

| | | |
|---|---|---|
| LP S | 00001380 | 2300 |
| LP OI | 00001380 | 2000- |

Instalment payments are limited to six instalments or less, with no interest element. Instalment amounts may be variable.

If instalment payments are overdue, the system will not automatically lapse the contract. A report is provided to track and manage the outstanding instalment premiums. If warranted, the user may then decide to surrender the policy. The base system does not provide surrender values on MRTA products.

Most of the reducing sums assured for MRTA contracts follow a formula but some lender figures cannot be reconstructed. Therefore, the Sum Assured amount for each anniversary is calculated and stored at New Business as a schedule. The setting in rest indicators table (TH615) determines whether premium and benefit schedule entry is manual for the rest indicator specified in the reducing term details. The Sum Assured amount for the component will be available via a window from Contract Enquiry.

Where the benefit schedule is not manual, the system applies the following formula to derive the reducing sums assured benefit schedule:

In RLMRTRD the Sum Assured at each policy year n is:

$SA_0 * ((T – n + c + 1) / T)$

where T is the Risk Term of the policy
c is the number of coverage's on the policy
$SA_0$ is the original Sum Assured

In RPRMRDT the Sum Assured at each policy year n is:

$SA_0 * ((T – n + 1) / T)$

where T is the Risk Term of the policy
$SA_0$ is the original Sum Assured

Rerating will pick up the sum assured from the schedule according to the anniversary year and change the component's sum assured. Rerating is invoked by the renewals batch job.

Claims and surrender processing will be as per the component set-up and will use the component's sum assured.

Component Add/ Modify processing is not allowed on MRTA type of products. To disable component Add/Modify function the T5671 items related to component Add/Modify should be omitted.

MRTA will be supported only for a term type of component. Using the above MRTA concept we can set-up-reducing sum assured type of components.

## 2.7 Interest Bearing Funds

The processing definition of Interest Bearing Generic is as follows:

- An Interest Bearing Generic contract is basically a savings plan to which Insurance Benefits can be attached.
- A pot of money is built up by the application of premiums, which may be Regular or Single.
- Interest Bearing Generic contracts normally operates with flexible Premiums, allowing the policyholder to pay what they want and when they want.
- The pot of money has its value enhanced by the periodic application of interest.
- The cost of any insurance Benefit and policy administration charge may be deducted from the pot.
- Should the value of the pot become exhausted and after a grace period, the contract lapses.
- The investment can be divided and invested into interest bearing funds and unit linked funds.
- Investment vehicle (interest bearing funds and unit-linked funds) is defined at coverage level.

- Progress of the account needs to be reported periodically to the policyholder with appropriate statement production.

The interest is calculated on a daily basis and the interest rate entered should be annual rates.

This interest maintenance has a facility to capturing the new rate and the old rate. The new rate for the period is picked up if the calculation is done when the period is current otherwise the old rate is picked up.

This is the same vein as US mutual fund calculations but the money is kept in one bucket and there will be no differential treatment when the money was deposited.

New Business and Product Set Up

The interest-bearing fund will need to be captured and attached at coverage level. The definition of the interest bearing funds is the same as the unit linked funds except that they are not unitised. The fund split can be a combination of interest bearing funds and unit linked funds. Premium fee (a percentage of premiums) is levied in the same way as for unit linked funds.

Interest Rates Declaration

On-line facility will be required to enter, modify, enquire and activate interest rates for interest bearing funds. These interest rates will be dated and there will be only one rate per fund per day. Each rate is expressed in annual rate and may be defined and stored with up to 5 decimal places.

Benefit Billing

Insurance Charge calculation is based on Sum Assured or Sum At Risk.

Debt Processing

Both unit-linked fund balances and interest bearing fund balances should be considered for deduction of insurance charge and administration fees. The debt should be proportionally deducted from all funds.

Component Change

Allow changes to either premium or sum assured.

Partial Surrender

Be able to withdraw a portion of the fund balances.

Premium Re-direction

Policyholder has the option to re-direct premium to a different set of investment funds. The changes are effective from the next premium collection date and would not affect the existing holdings.

Fund Switching

Allow switching of the following combinations:

- interest bearing funds to interest bearing funds
- interest bearing funds to unit linked funds
- interest bearing funds to interest bearing funds and unit linked funds
- interest bearing funds and unit linked funds to unit linked funds

- interest bearing funds and unit linked funds to interest bearing funds and unit linked funds
- interest bearing funds and unit linked funds to interest bearing funds
- unit linked funds to interest bearing funds
- unit linked funds to unit linked funds
- unit linked funds to interest bearing funds and unit linked funds

Switch can be by unit, amount or percentage.

**Batch Programs**

BH508 - Interest Bearing Transaction Splitter

This is a splitter program and it is responsible for extracting all unprocessed HITR's. The extracted records are held in the HITXPF members created in the prior program. It has three functions that will invoke separate SQL select statements. The functions are defined in the system param 01 within the schedule process, as follows: **DEAL: This** function will extract all undealt HITR's of any type. **DEBT:** This function will extract only unprocessed HITR's which have been created by the new Coverage Debt Settlement (B5104) program. **SWCH:** This function will pick up undealt HITR's which have been created as part of a fund switch. Typically this program will be called three times at various stages of the NEWUNITD schedule.

BH509 - Interest Bearing Fund Dealing

This program is responsible for reading and processing all the unprocessed HITR's from the extract files created by the splitter program BH508. The main processing functions are to perform accounting for the fund movements, update the HITS balance for the appropriate Fund/Coverage and update the feedback indicator on the HITR to indicate that it has been processed. Control totals are updated for various processing taken.

B5104 -Coverage Debt Recovery

This process program follows the Coverage Debt Splitter program B5103. The splitter program will have extracted from COVRPF all coverage with a non-zero coverage debt. Each coverage key will have been written to the COVU temporary file. This program will read the COVU file and process each coverage present. Previously, the debt recovers from only Unit Linked funds. This has now been modified to cater for recovery from Interest Bearing funds as well.

BR512 - Partial Withdrawals Batch Process

This program will adjust the sum assured of a component that has been through a partial surrender, based on the new value of units on the UTRS record. It must be amended to also include the fund values of any interest bearing funds attached to the component in the recalculation of the sum assured, by reading the HITS record.

BH511 - Interest Bearing Fund Interest Calculation Splitter

This is a Transaction Splitter Program and it is responsible for extracting all HITDPF records due for interest allocation. Before the Splitter process is invoked the, the program CRTTMPF. Should be run. The CRTTMPF (Create Temporary File) will create a duplicate of the HIDXPF physical file (created under SMART and defined as a Query file), which will have as many members as are defined in, that processes subsequent threads field. The temporary file will have the name XXXXDD9999 where XXXX is the first four characters of the file which was duplicated (in this case

'HIDX'), DD is the first two characters of the 4th system parameter (in this case 'IN') and 9999 is the schedule run number. Each member added to the temporary file would be called THREAD999 where 999 are the number of the thread. This program will read records from HITDPF and for each record it selects it will write a record to the temporary file member. Exactly which temporary file member is written is decided by a working storage count. The objective of the count is spread the transaction records evenly across the thread members.

BH512 - Interest Bearing Fund Interest Calculation Batch

This program will read HIDX records, HIDX's being HITD records on which interest is due, created by the Interest Bearing Fund Interest Calculation Splitter program, BH511. For each HIDX record read, the following processing will be performed: Read through all HITR's which may belong to the previous allocation period (due to reversals) and calculate the interest due; add the fund amounts and interest calculated to the existing fund balance. Calculate the interest on the existing fund balance. Read through all HITR records created and completed by unit deal since the last interest allocation date, and calculate the interest due on their fund amounts. Calculate the new fund balance by adding in the interest calculated above and the fund amounts of all the HITR's read.

## Tables

T5515 - Unit Linked Fund - Create

The main difference between the way Interest Bearing and Unit Linked accounts is defined in the fund definition. Existing Unit Lined Funds are defined using T5515. This table has been modified in order to incorporate the definition of Interest Bearing Funds. The heading will change from 'Unit Linked Fund - Create' to 'Non-Traditional Fund Definition'. A new field, Fund Type, will be added to the XDS and need only be set for Interest Bearing Funds. Although no validation is required in the table program, it is expected that the new field will accept the following values:

'D' - Interest Bearing (deposit) Fund
'U' - Unit Linked Fund
' ' - Unit Linked Fund

Should the value be set to 'D', the only other relevant entry on the screen is the Fund currency. All remaining fields relate solely to Unit Linked funds. All tables and screens which refer specifically to Unit Linked details where the screen is now 'dual purpose' will be changed to replace 'Unit Linked' with 'Non-Traditional' where appropriate Tables that are currently identified to fall into this category are: T5536, T5521, T5537, T5520, T6647, T5545, T5540, T5551.

T5543 - Available Funds Table

This table holds a series of Available Funds Lists. Any newly created Interest Bearing funds will need to be added to one of these available lists, so that they can be selected at component set-up stage.

T1688 - Transaction Codes Table

An ITEM of BA73 has been set up to denote Interest Bearing Interest Calculation.

T6647 - Non-Traditional Contract Details Table

This table holds a series of rules that apply to non-traditional contracts. The key to the Table is Transaction Code and Contract type. An ITEM on this Table must be set

up for a concatenation of BA73 (the transaction for Interest Bearing Calculation, and the relevant Contract Type)

T6661 - Reversals Parameters Table
Information in this table information is used by reversal transactions. An ITEM on this table needs to be set up to specify the name of the Subroutine used to reverse the interest calculation done as part of Interest Bearing Processing.

T5671 - Coverage/Rider switching Table
This table is used by reversals, among other parts of the system, to specify subroutines used by the particular combination of Transaction Code and Component type as specified in the Table ITEM. It is necessary to add the Subroutine ZGREVINC to the series of Reversal Subroutines already specified if there are any. This will allow the generic reversal of any interest calculations done.

As well as Transaction Code T642, similar Item's should be set up on this Table for the following transactions: BA73XXXX, B634XXXX, T510XXXX, T512XXXX, T514XXXX, T525XXXX, T539XXXX, T542XXXX, T555XXXX, T557XXXX, T575XXXX, T668XXXX and T676XXXX, where XXXX denotes the appropriate component code which will use Interest Bearing finds.

T3695 - Sub Account Types Table
This table holds all possible types of Sub Account Types used by the system. An ITEM of FI, denoting Interest Bearing Fund Interest has been added to this Table.

TH507 - Int. Bearing Funds - Int. Rate
A new dated table exists. It is expected that either the Annual Interest Rate or the Daily Interest Rate will be entered but not both.

TH510 - Interest Bearing Interest Definition
A new Table has been created to hold the interest calculation details for Interest Bearing funds. This table is referred to during creation/update of HITDPF file and at interest application.

## 2.8 Group Master Policy

Policies that are under group billing can be identified with the master policy of which they are attached to. It maintains the master policy number information together with the group details at the time of new business and contract servicing.

## 2.9 New Business

The purpose of new business processing is to set up a correct record of each application received, to monitor it through the required steps and complete the contract producing all the appropriate documentation.

The input required is the entry of the data for a new application and it normally specifies the product chosen/sold, the amount(s) of premium and sum assured. It defines all the people known to be connected with the contract such as the Life Assured, Payer, Contract Owner, Trustees, Assignees, etc. All this information is

edited by the system ensuring that it complies with the contract definition rules set in the various tables and can calculate premiums for the given volume of life cover.

Commission is calculated and Statistics are produced to allow for production of reports of sales by agents, whether company agents or brokers.

When an application is entered into the system it is available for subsequent amendment and addition. Each time such an amendment is entered the edit checks are repeated. These amendments may be due to client request or may be imposed by the Company's Underwriting procedures such as mortality, occupation or pursuit loadings.

The Life Office may reassure part or all of the risk with another company and if this is the case then the details are retained so that future processing of premium payments and claims can be maintained.

New business also requires the entry of premium payment mode either cash, standing order or directs debits. The details of what is required vary between Life Office's and therefore, the system is sufficiently flexible so that the edit rules can be set up accordingly.

There is a facility to log progress on processing an application and to report outstanding requirements. These requirements and their receipt may be logged and reported according to the rules that the Life Office defines. If required, further processing can be inhibited if the outstanding requirements are mandatory.

There is also a facility to capture any comments which the user wishes to have tagged to the contract. This is a free format Policy Notes function. The notes are captured at the contract level and once created, no further editing, overriding or deleting of the notes is allowed. Furthermore, the policy notes can be classified into different categories and can be enquired from various modules such as from New Business, Surrender and Claims, Contract Servicing and Contract Enquiry.

There are two ways to complete the processing of an application, one by issuing the contract and bring the policy into force or by not proceeding with the application and any money received is refunded. An application not proceeded with is retained for statistical reporting and remains within the client details but no further processing occurs.

A policy can be cancelled from inception to void a contract that has been set in force or if the client takes up his statutory right to cancel the policy during the allowed “Cooling Off” or “Free Look Period”. All accounting entries and premiums are reversed automatically so that the premium(s) can be disbursed to the payer. In the situation where a clerical error has allowed a contract to be issued with incorrect details there is a facility to reverse the contract back to proposal and amend the error, subsequently re-issuing the correct contract details.

When the contract issue transaction is performed the record is again validated to ensure that it is complete and conforms to the product definition and if this is not so then the contract issue is inhibited. When the contract is issued on-line the system submits the job to the AT queue and once it has completed all the necessary processing then the contract is in force. The subsequent collection of premiums and

commission payments will be subject to the rules and processing relevant to that type of contract.

The contract issue transaction should also initiate the printing of the schedules and accompanying documentation as defined by the Life Office.

Throughout the whole process of creating proposal and amendment there is full windowing facility to view and create clients and view tables for code checking. In addition to this full HELP information, either on individual fields or general areas is available.

## 2.10 New Contract Proposal

This subsystem provides the facilities to enter and maintain New Business Proposals. A life contract, and thus a new business proposal, is structured as follows:

One plan header. A plan may consist of many separate and optional coverages and riders but only one plan header is written. Information maintained at this level includes:

- Owner, payer, addresses for communication, etc.
- Follow Ups of documentation required before the contract can be issued
- Commission split between agents
- Cash required prior to issue
- Future instalment billing control

Each contract may have one or many lives assured up to a maximum of ninety-nine. Each life may have a joint life associated to it.

Each life (with a joint life) assured might have one or many coverage's attached to it. For joint lives, the rider may attach to one or both lives. Some, none or all of these coverage's and riders may be mandatory.

For these multi-policy plans, variations may only exist at the component level, coverage and riders. Therefore, all components of the plan are billed and paid together at the header level.

Within the subsystem table T5688 is used to control contract header level information. This includes the validation of lives assured. Table T5673 is used to control the coverage and riders allowed on a contract and it is possible to denote on this table any mandatory components. The processing required for table T5671 control each component. This defines which generic components' programs are called to process the required coverage and riders.

Automatic number allocation is used to control the issuing of a new proposal number. As the INTEGRAL LIFE system does not have a separate numbering system between the proposal and contract therefore, the number given is ultimately the contract number. Separate ranges of contract numbers must be set up for each branch within table T3642, if required.

At contract level, one or many Follow Up records may be written and maintained.

Defaults can be automatically created for specific contract types. The setting up of default Follow Up codes are controlled by table T5677, which gives a list of the Follow Ups required keyed by transaction number and contract type code. For example T600 is the transaction code for proposal, END is the code for Endowment therefore the key is T600END. T5661 is used in conjunction with the previous table to set the follow up status by type of Follow Up. The item key on this table is a three-letter code such as AGE for the requirement of Age Admission, MED for Medical Evidence, etc. The extra data screen for those tables holds the default information such as initial status. In addition this extra data screen holds the rules relating to the allowed complete status, F for finalised, W for waived. Additional information or details required for each follow code can be captured in the Follow-Up Extended Text screen SR50V and printed onto the Follow-Up Letter. Defaulted extended text for each follow-up code can be user defined in the Follow-Up Codes table T5661 and the user has the option to create, update or overwrite the entire text when creating the follow-up. The contract issue subsystem checks that all Follow Up records written are in a satisfactory state before allowing the contract to be put in force.

Beneficiary and Trustee details may also be written and maintained at the contract header level. If no specific beneficiaries are created then the owner is assumed to be the beneficiary. These records are used in the claim systems in the event of a claim. The system will default the contract original commencement date to the Beneficiary Effective Date during registration of beneficiary at proposal stage.

Each contract must have a servicing agent or agency defined. This service agent may or not be the commission-receiving agent however, unless further agents are specified the system assumes that the servicing agent is also the commission receiving agent or agency. It is possible to split the commission generated by the contract between two or more agents specifying the agreed commission split.

Each contract must have a least one life assured. The contract definition table T5688 controls the maximum number of lives, and whether a joint life is allowed. During proposal maintenance additional lives may be added to the proposal or incorrect lives may be deleted if required. Whenever a life is added, the contract structure table T5673 is used to prompt the user to select and complete the coverage and riders for that life.

Coverage and rider transactions are written at the proposal stage after the user has completed the proposal transaction. These coverage and rider transactions create temporary coverage records, COVT's. When the contract is issued these COVT's are changed to COVR's, coverage records. Table T5687 controls standard processing for all components.

During proposal maintenance, coverages and riders may be added and or deleted subject to the rules contained in table T5673. Generic programs complete the addition of a component but the deletion of component transactions is performed by the new business subsystem. During the deletion of a component the system will call the required component proposal deletion subroutine, if any, as defined in table T5671.

Special terms may be added to any component. The maintenance of additional premiums and or discounts is provided by this subsystem. These special terms and extra premiums are based on the type of extra risk and there are tables, T5651 and T5657 that can hold default values keyed by component type and reason. For example, END1HP - Endowment Coverage and Hazardous Pursuits. The default

values can be all or a combination of Age, Percentage and a Rate per mil. These default values would be based on general rules but can be overwritten on individual components during new business proposal. In addition to these three methods of extra premiums you can indicate if you require the loading to cover just the main component, Reassurance or both and the duration of the loading. For Traditional Products INTEGRAL LIFE allows the gross premium at component level to be separated into basis and loaded premium to enable the Life Office to have the choice whether or not commission is paid on the life extra or loaded portion of the premium. This functionality is defined in table T5687.

A proposal transaction may generate financial movements. Prior to the system allowing a contract to be put In Force the required premium amount must be available in contract suspense. This subsystem provides an on-line facility to apply cash held in the company suspense account to the contract header.

There is a facility in apply cash function of proposal creation to search through the company suspense receipts based on the application form number. This application number should be entered in the transaction description during receipting.

The total amount for a given receipt is transferred to the contract suspense according to the accounting rules held in table T5645. However, it is possible to issue contracts without any money held in suspense and the rules for this situation are held in the billing table T6654. In the situation where the contract has been issued prior to receipt of the premium the system will, in the next billing run, start the billing and collection process depending on the method of payment of the individual contract.

The entry and modification of proposals are batched using the standard on-line batching system. Batch control totals are updated and a policy transaction written each time a proposal is entered or modified. Soft locking controls the maintenance of a contract. This soft lock procedure means that only one workstation can create or modify a particular proposal at any one time, whereas any number of workstations can enquire on a proposal that is not being created or modified.

Tables assigned to Subsystem

Refer to the notes on Product or Contract Definition

Transaction Codes

| | | |
|---|---|---|
| M600 | - | Life New Business Master Menu |
| S600 | - | New Contract Proposal Submenu |
| T509 | - | Proposal Enquiry |
| T600 | - | New Business Proposal |
| T6A0 | - | Underwriting Approval |
| T6A1 | - | Proposal Follow Up Status |
| T6A2 | - | Underwriting Approval Reversal |

## 2.11 Change Proposal Contract Type

Currently the contract type cannot be changed after the proposal has been created. When the client wants to change his proposal to another contract type before contract issue, underwriter has to withdraw the original proposal and then create another proposal with the new contract number and re-enter all the contract information.

## 2.12 Fast Track Issue

Fast Track provides a method of inputting high volumes of New Business without going through the proposal data entry screens. With Fast Track, there is no proposal stage; the contract is input and then issued in one transaction. Therefore, it is not possible to save a Fast Track contract as a proposal and equally a contract that cannot be immediately issued should not be entered into the system using the Fast Track option. Fast Track is suitable for 'off the peg' or packaged contracts that have common specifications with a limited number of components. This functionality is able to support both traditional and non-traditional products.

It is important to note that any product you wish to allow through Fast Track must already be able to be issued through the normal new business process. Fast Track creates the same contract structure and life assured data as the normal Proposal and New Business Issue. It is not possible to change the contract data within the Fast Track subsystem. If changes are required prior to issue, the option is available to switch to proposal maintenance to change any maintainable data fields.

The benefit of Fast Track is the reduced number of data entry screens to be completed by the input clerk. In Fast Track, one data entry screen is used. A large proportion of the data required completing the issue of a Fast Track contract is defaulted from pre-defined table entries.

Therefore, a Fast Track contract issued solely within this system consists of the following:

- One contract header. Information maintained at this level includes:
- Contract owner, addressee for communication, etc.
- Servicing Agent
- Payment details
- One life assured only. The life assured may have one or many components attached, as predetermined by the contract definition

In addition, a Fast Track contract that has been amended using the Proposal subsystem may include:

- Beneficiaries, assignees, special terms and reassurance details as for a normal new business contract.

Fast Track allows the input clerk to perform the following functions:

- Create a contract
- Perform pre-issue validation and providing there are no errors, issue the contract
- Maintain Direct Debit details, if required in order to issue the contract
- Apply cash to the contract
- Make adjustments to the contract.

<u>Fast Track Tables (in addition to normal Product Definition)</u>

T5705 - Fast Track Contract Defaults
T5704 - Fast Track Contract Structure
T5703 - Fast Track Component Defaults

Transaction Codes

| | | |
|---|---|---|
| M600 | - | New Business Master Menu |
| S600 | - | Proposal Submenu |
| T642 | - | Contract Issue |

## 2.13 Contract Issue

This subsystem provides the facilities to convert a proposal to an In Force contract. Due to the amount of processing required once the input clerk confirms the input the transaction is completed asynchronously. Prior to allowing a contract to be put in force, the system will check that it is available to issue. As mentioned earlier regular premium contracts can be issued either before or after the first premium is collected. The contract is made available for issue when it successfully passed the pre-issue validation.

The conversion of the proposal involves changing the risk and premium status as defined on T5679 on the contract header, life and component records. Temporary Component records, COVT's are deleted and COVR's are written. For each component written, optional generic processing may be required. T5671 defines the generic subroutines to be called.

If separate commission receiving agent(s) have not been set up then the system defaults the servicing agent to the commission paying agent by writing a single commission split record with 100% commission to the servicing agent. Initial commission is then calculated, assuming premium is paid on issue, for each commission agent on a component by component basis from the initial commission method held on table T5687. Initial commission will be released according to the payment method also defined on table T5687 or as held against the agent records. Renewal and Service commission is also paid if applicable. If an agent receiving commission reports to another agent, overriding commission is also generated at this stage.

If the contract is issued with a premium paid, the required premium is transferred from contract suspense and split between the premium and contract fee accounts. The contract fee is calculated from the method held in table T5688. The issue program, P5074, in accordance with the items held in table T5645 keyed by the program number generates the actual accounting entries. If no premium is paid then no accounting entries are made under the transaction contract issue. These will subsequently be made when the instalment has been collected and premium paid.

The issue transaction is generic and will look to T5671 to obtain any special processing required for a component. Transaction code, T642, and coverage code key this. For unit linked components, the table should be set with the subroutine UNLISS, Unit Linked Issue, which will create the relevant unit linked contract data. For Traditional term based policies, the extra data screen should include the subroutine TRADISS. The subroutine will create the appropriate traditional fields on the component records and in particular will create the correct values in these fields to permit application of Reversionary Bonuses through the structure. For annuity components, the ANNYISS subroutine is used via T5671. For immediate annuity components, two further subroutines, REGPAPP and REGPAYIS, are used to create the regular payment records.

Throughout the whole process of contract issue the system will automatically validate the input parameters, age of life assured, to ensure that the contract modal premium payable is not less than a pre-defined level or more than a per-defined level. Etc.

Within the Contract Issue Subsystem is the facility to flag a proposal as Declined, Postponed, Not Taken Up or Withdrawn. To do this the status is changed as defined in table T5679. Withdrawn, Not Taken Up or declined proposals can be reinstated to Proposal status if required.

Transaction Codes

| | | |
|---|---|---|
| M600 | - | New Business Master Menu |
| S610 | - | Contract Issue Submenu |
| T642 | - | Contract Issue |
| T643 | - | Withdraw Proposal |
| T644 | - | Decline Proposal |
| TA63 | - | Postpone Proposal |
| TR6V | - | Not Taken Up proposal |
| T645 | - | Reverse Decline/Withdrawal |

## 2.14 Cancel and Alter from Inception

This subsystem provides two separate but related facilities to reverse the effects of an In Force contract. The first is to cancel it from inception. If this option is taken, once processed, the situation is final. A contract cancelled by CFI, Cancelled from Inception, may not be revived. The second option is to perform an alteration from inception, AFI. In many respects the two choices are similar, in validation, record reversal and deletion, etc. However, the end results are quite different. A contract that is Altered from Inception is converted to a proposal record, even if it was issued via the Fast Track method. Once the record is again a proposal it may be amended as required using the Proposal Maintenance option. When the input clerk is satisfied that all the correct amendments have been completed then the proposal may be re-issued.

**Cancel from Inception**

The system operates in the same way as a Full Contract Reversal except that the issue transaction is selected, by the system, as the earliest transaction that must be reversed. Prior to allowing this action to be taken the system checks the CFI limit, held in months within table T5688.

The next stage is that all valid transaction history records are checked to ensure that they may be reversed or bypassed. That is, the pertinent entry in T6661 has a ‘Y’ or ‘N’ in the Processed by Full Contract Reversal flag. If this is not the case, the CFI is not permitted and an error message advises that other reversal transactions must be applied first. Due to the amount of processing required, once the clerk confirms the cancellation request, the transaction is completed asynchronously. Here, each transaction is processed or bypassed according to the setting of T6661 until the issue transaction record is reached. At this point T6799 is accessed and the CFI subroutine is called. This subroutine performs the actual issue reversal and this involves changing the Risk and Premium Status on the contract header, life and component records.

All the monetary, (that is Billing and Commission) and statistical entries are reversed. This is achieved by reading all the issue accounting movements, ACMV's and RTRN's, and posting equal and opposite amounts. The agent commission records are amended using the standard commission reversal subroutines obtained from T5644.

For each component attached to the contract, additional processing may be required. T5671 define what generic subroutines must be called to complete the cancellation. A transaction history record, PTRN, is written each time a contract is cancelled.

**Alter from Inception**

Much of the processing is identical to that for CFI. The real difference occurs with the reversal processing of the issue transaction. The same on-line validation is carried out for AFI as CFI and when it is confirmed by the clerk the transaction moves into the AT for processing.

Once again T6799 is accessed and the AFI Issue Reversal subroutine is accessed. This subroutine performs the actual Issue reversal and recreates proposal records. This involves logically deleting all Contract Header, Life Assured, Options and Extra's and Payer records, except each first one. Each first such record will be revalidated (in the case of Contract Headers this involves revalidating to a value of "3"). Reassurance coverage records are processed in this way also. Agent's Commission records are logically deleted. The effect of all these changes is to restore the records to Proposal status. Reverse Issue statistical records will be written.

All other processing, within the sub routine, is identical to that for Cancel from Inception.

Transaction Codes

| | | |
|---|---|---|
| M600 | - | New Business Master Menu |
| S631 | - | Cancel from Inception Submenu |
| T607 | - | Alter from Inception |
| T646 | - | Cancel from Inception |

## 2.15 Free Look Cancellation

Currently INTEGRAL LIFE provides the Cancel from Inception (CFI) facility to cancel any issued policies. It will basically reverse any transactions that have been done on the policy up to the policy issuance stage as if the policy has not been issued. However the current functionality has some drawbacks:

- The cancellation can be done at any time since there is no validation of cooling off period for the cancellation.
- System always refunds all the premiums that have been paid
- There is no facility to deduct admin charges for the cancellation

## 2.16 Substandard Lives

Life Insurance Associations (LIA) of each respective country collates sub-standard risk details for their local life insurance industry. These details are passed on to the rest of the life insurance companies in the form of a flat file on a weekly or fortnightly basis.

These files can be retrieved from the Internet and uploaded to INTEGRAL LIFE for use by the underwriters and to handle this we have developed two batch jobs, one to upload and another to download.

Details on sub-standard risks captured anew on the system are flagged for download to LIA, also in the form of a flat file.

Sub-standard risk is managed as follows in the system:

Contract Issue
Upon contract issue, loadings on a life where the reason code is denoted as sub-standard (set in table T5657) is deemed as a substandard risk and is written to the Substandard Risk File with Risk Type=2.

If the sub-standard life is pre-existing on the LIA file as a result of a previous contract purchased, then the system should inform LIA of the latest update e.g. special terms (medical codes) loaded, new contract number, etc.

Decline
Sub-standard cases declined are updated to the LIA file with Risk Type=1.

Postponed/Withdrawn
Sub-standard cases postponed/withdrawn are updated to the LIA file with Risk Type=2.

Death Approval
When a death claim on a sub-standard life is approved, the LIA file is also updated.

Regular Claims
When Health Claims module is made available in the base system then upon registering a Health Claim on a sub-standard life, details like the Hospitalisation Period, Application (Hospitalisation) Date should also be passed on to the LIA and the Risk Type is set to 3 (i.e. hospitalisation).

AFI
If the Proposal/Policy No. is the same as the contract being Altered From Inception, then delete the record from the LIA file if the record has not been downloaded. If it has already been downloaded, then leave the record alone.

Add/Modify Component Approval
Loadings with reason code denoted as sub-standard would make this life known to the industry as a sub-standard risk.

If a Special Term or sub-standard risk loading is removed, the LIA file is updated accordingly. The Action Code to LIA should be ‘2’ (i.e. ‘Correction’). However, if all Special Terms are removed, then this life becomes a standard life. In this case, the Action Code is ‘3’ (i.e. ‘Deletion’).

Follow-ups
Follow-ups are automatically triggered if a sub-standard risk is underwritten.

In addition to these batch jobs there is on-line functionality to allow, Create, Modify, Delete and Enquire on LIA Records.

Transaction Codes

| | | |
|---|---|---|
| SR60 | - | Substandard, Hospitalisation & Death |
| T6A6 | - | Create |
| T6A6 | - | Modify |
| T6A6 | - | Delete |
| T6A6 | - | Enquire |

## 2.17 Policy Schedule

A schedule document is required for each policy issued, which will be forwarded onto the client. In addition to the actual printing of the schedule, there is an option to print the necessary labels for the envelopes that deliver the schedules. Two different policy schedules have been created one for Interest Bearing policies, and one for non-interest bearing policies.

**Tables**

T6634 - Automatic Letters Table
The ITEM of XXXT642 should be set to contain the POLSCHD letter type where XXX is the product type.

T3609 - Standard Letters Table
An extra ITEM, POLSCHD, representing the non-interest bearing policy should be set up.

## 2.18 Medical Provider & Medical Bill

### 2.18.1 Medical Provider Maintenance

This functionality provides for the creation and maintenance of Medical Providers, who have in some way or another conducted a medical examination or who has furnished a medical report on a client of the Life Office.

In order to create a new Medical Provider, a corporate client must be created, and information such as Name, Address, etc. is captured into client details. Doctors attached to the Medical Provider must likewise also be created as a personal client.

Medical Provider records will be maintained in the Medical Provider database, including detail information such as Provider status, Area code, Appoint Date, Termination Date with reason, doctors attached, type of medical facilities that are provided and standard fees charged, etc.

Payment method for the Medical Provider is also captured, where for Direct Credit payment, the Medical Provider's bank details will also required.

### 2.18.2 Medical Bill Processing

This functionality is used to create, modify, approve or disapprove medical bill payments that had been incurred for medical examinations conducted or for medical

reports that had been furnished to the Life Office. These medical bill payments have to be paid either to the Medical Provider or reimbursed to the Agent or Client.

Medical bill details can be captured either by the contract number or by the invoice number.

For approved medical bill payments, the batch job MEDIPAY will create the payments to the corresponding Provider, Agent and Client accordingly as below:

- Payment to Agent will be credited into the Agent's commission account
- Payment to Client will be credited into the Medical Payment account
- Auto cheque will be automatically generated to the Medical Provider, if the default payment type is Computer Cheque

Two reports will be also produced from the batch job:

1. Medical Bill Payment Report
2. Medical Payment Exception Listing

## 2.19 Automatic Increases

### 2.19.1 Introduction

The ability is given to amend premium and/or Sum Assured, for given components within a contract, on an automatic basis. These changes are at regular intervals expressed in years: commonly such escalations take place annually. To achieve these goals, the amounts of each automatic increase are recorded by component so that they may be capable of identification when the time comes to bill for the increased premium, and then actually implemented on the due date of the increase.

Two types of automatic increases are catered for within the system. These are Contractual and Optional. Contractual Increases are common in such circumstances as Low Start Endowment type products and these can be either Traditional or Unit Linked. The increase normally applies only to the premium payable.

Optional escalations may apply to almost any kind of product, Unit Linked or Traditional and further, may be Sum Assured or Premium based. Since, such increases are optional, the facility is provided to enable a contract owner to refuse an increase. The effects of such a refusal are at a Life Office's discretion. It could mean the cancellation of future Increase Offers after a predetermined number of refusals.

These increases may or may not be subject to Commission, in a similar fashion, Statistical records may or may not be created.

In addition to refusing an Increase it is possible that the need will arise to reverse an Increase. This is achieved using the same on-line screens as for Refusal. Since it is a true reversal, it is more fully described in the Reversals Guide.

### 2.19.2 Automatic Increase Definition

When a component is defined to the system, LIFE tables are used to determine whether Automatic Increases apply and to set out the rules that govern how each relevant component is processed. These rules encompass:

- Whether such increases are permitted, optional or mandatory, during Proposal Processing.

- The frequency of such escalations and whether they cease at a maximum age, or if a minimum term, to premium cessation date.

- If the increases are simple or compound, and also whether they apply to Sum Assured, Premiums or both.

- The rules to apply with regard to Optional Increases in the event of a refusal.

- Whether commission is to apply to the increase.

- The decision as to whether Statistics are to be generated for each Increase.

- If there is a fixed number of Increases.

- The rules that govern the maximum and minimum percentage increases permitted at any one time.

### 2.19.3 New Business Processing

Contracts may be issued both Unit Linked and Traditional, tagged as requiring Automatic Increases. Where such increases have been defined as optional, Proposal Processing includes a question as to whether escalation is to apply.

In all cases where a contract is subject to Automatic Increases LIFE tables define the nature of the increase. If a case is subject to special terms it is excluded from the automatic increase process when the increase rules indicate that increases are to be effected by creating new components. However, if the existing component were to be amended, then any special terms would apply to the newly amended component.

### 2.19.4 Impending Automatic Increase

The batch program within the daily processing run RENEWALS detects all components where the next increase date is imminent.

The tasks performed are:

- To calculate the amounts of increases by reference to component records and table data.

- To create records to ensure that the next Billing takes into account the expected increase.

- To permit letters to be produced to notify the contract owner or payer that the increase is approaching.

Each group of increase rules is linked, via tables, to a specific subroutine. Three subroutines are supplies to handle the following:

- Low Start Contracts.

- Premium Increase and Sum Assured Calculation.

- Sum Assured Increase and Premium Calculation.

  Please note that the Effective Date of the Increase is used to access table T5648, Automatic Increase Rate, when determining the interest rate to be used in the calculations. Naturally, the Billing process itself checks for pending increases and incorporates the increased premiums into the records created. If such a component is the subject of special terms, imposed at issue, such components are normally excluded from Automatic Increases. The exception to this rule is when the selected method for effecting the increase is to amend the existing component as opposed to creating a fresh one. This is to permit the issue of rated Low Start Contracts.

### 2.19.5 Actual Automatic Increase

This too is effected by means of a batch job. It is incorporated into the daily RENEWALS processing. This automates the process of the actual increase by giving effect to the changes in contractual Regular Premiums and/or Sum Assured.

Depending upon different business criteria, the process may simply be to create new versions of the existing records, thus effecting the increase. However, in many situations, each increase is given effect to by the creation of additional records. For Traditional Products, with the possible exception of Low Start Contracts, this is to facilitate actuarial valuations. Another probable reason is to allow for more precise processing of commission rules on increasing policies.

Therefore, for reasons of commission calculations and release, and premium allocation patterns, there is a need to treat such increase as "top slices" subject to separate controls. As has already been mentioned, this is controlled by entries in Product Definition tables, so that Life Offices can opt for no commission on increases if they so wish.

An important point to note is that for increasing components that are subject to Reassurance, the system makes no automatic changes to the amount reassured.

### 2.19.6 Automatic Increase Refusal

By its nature an optional increase must be capable of refusal by the owner/payer of a contract. Such refusal may occur before, on, or after the actual due date of the increase. The system provides transactions whereby the implications of such refusals may be handled. If the refusal occurs before the increase has been implemented, the system deletes the temporary pending increase records, ensuring that re-billing occurs by reversing that too if it has occurred. If the component is subject to a maximum number of refusals, the logic monitors this and if relevant switches off future increase processing.

When refusing an increase, the facility is given to stop all future increases even when the maximum number of permitted refusals has not been reached. If the actual increase has been processed, it is necessary to determine whether any partial premium

refund applies. At all events the system reverses the effects of the refused increase by deletion and reinstatement of component records in the same fashion as normal reversal processing. As above, if the component is subject to a maximum number of refusals, the system checks this, and where appropriate, inhibits all future increase processing.

### 2.19.7 Effects of a Pending Increase

Some existing transactions, namely Component and Billing Changes, may be affected by the presence of a pending increase. In these cases, if the transaction is permitted to proceed, any pending increases are deleted. The effect of this is that the contract is reprocessed within the daily batch job, a fresh pending record is created. Such new transactions may differ from those originally created and therefore, will have implications on Billing of the next premium due.

### 2.19.8 Reversing an Automatic Increase

There is no separate transaction to perform the reversal of an automatic increase within Full Contract Reversals. Indeed, the Automatic Increase transaction should be defined to the system as a "show stopper," that is a transaction that not only may not itself be reversed, but one that prevents the reversal of any prior transactions.

The method to be used when an automatic escalation must be reversed is to reverse the contract back to the first reversible transaction that was processed after the increase. Then reverse the increase itself using the "Refusal" transaction described above.

When this occurs, the reversal is not counted as a "Refusal" and thus eligibility for future discretionary increases is not affected. Another difference from the Refusal is that whereas a Mandatory Increase may not be refused such an increase may be reversed.

### 2.19.9 Paid to Date Advance Considerations

Since the possibility exists that when a Paid to Date Advance transaction is performed, an attempt is made to advance over an Automatic Increase date, changes have been made to the processing. The Paid to Date Advance screen will now shows the next increase date and any attempt to advance beyond that date is prevented. If it is required to advance the Paid to Date past the next increase date then the contract should be advanced up to the next increase date and then:

- The next Increase may be achieved by running the batch job (POLRNWL that is a single contract RENEWALS).

- The next Automatic Increase may be refused if required, using the on line transaction and then continue with a further Paid to Date Advance.

### 2.19.10 Conversion of Existing Contracts

For Life Office who wish to introduce Automatic Increases on contracts already written a batch program is available to perform the conversion. This job is run with an "Effective Date" and by reference to this date and Product Definition Life tables, all components are inspected, regardless of status and Valid Flag settings. All

components that, as at the first Increase Date after the batch job effective date, qualify for an Automatic Increase, have that date set. So, when that date is reached, these components enter the normal Automatic Increase processing. Because all components are processed, it does not matter if, between the conversion and the next increase, some reversals are performed.

Tables used by the Subsystem

| | | |
|---|---|---|
| T5648 | - | Automatic Increase Rates |
| T5654 | - | Auto. Increase Contract Rules |
| T5655 | - | Automatic Increase Control |
| T5671 | - | Coverage/Rider Switching |
| T5687 | - | Coverage and Rider Details |
| T6647 | - | Unit Linked Contract Details |
| T6658 | - | Ann. Auto. Increase Processing |
| T6661 | - | Transaction Reversal Parameters |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S501 | - | Auto. Increase Refusal Submenu |
| T501 | - | Auto. Increase Refusal |
| B523 | - | Pending Automatic Increase |
| B524 | - | Actual Automatic Increase |

## 2.20 Reassurance

### 2.20.1 Introduction

The Life Reassurance functions within the INTEGRAL LIFE system will provide the facility of reassuring sums assured for individual components within contracts. It will handle the definition of reassurance details against coverage and riders, cede periodically and create accounting movements necessary in order to process payments to the Reassurer.

Reassurance will be created by the system at component level. It will be based on the sum assured of each component on a plan basis. In other words the reassurance specified for a given component will apply to every policy within the plan for the specified component. When adding reassurance to a contract it will be added to a specific component and it will apply to the total sum assured for that component on all the policies within the plan.

The Reassurer is held in the system as a Corporate Client who has been registered as a Reassurance Account in the Reassurance Accounts subsystem. An account number will identify the Reassurer and this will be used when defining reassurance against a component.

### 2.20.2 Reassurance

Reassurance is the process by which a risk underwritten by one assurer is shared with one or more other assurers who are each in turn paid for their share of the risk. The reassurance contracts are between one assurer and the other and do not involve the assured party. (Where the assured party is involved, the process is Co-assurance.)

Reassurance is often arranged as a standing agreement between a life assurance company and another assurance company (the reassurer) who specialises in accepting reassurance business. This agreement is known as a Treaty and the following details normally outline the arrangement:

- the life assurance company retain a certain portion of each risk underwritten.
- the remainder of the risk is accepted by the reassurance company, under the terms the original insurer has underwritten the business.

Where business underwritten by the life assurer falls outside the parameters of the treaty (perhaps because the sum assured is larger than the reassurer is willing to accept automatically), specific terms need to be arranged between the life assurer and the reassurer. This type of reassurance is known as facultative reassurance.

In the event of a claim, the reassurer may be liable for part of the claim amount, or where premiums have been paid in advance; moneys may need to be recovered. This is known as reassurance recovery.

### 2.20.3 Reassurer Definition

This section describes the building blocks required to set up the Reassurance arrangements, treaties and Accounts, in order to allow reassurance processing to occur.

### 2.20.4 Reassurer Details

Reassurer details are created, amended and enquired upon using the Reassurers Maintenance Submenu, which is accessed from the Reassurance Accounts Master Menu. This processing is an existing function, which has been enhanced as part of this development.

The input screen has been amended to allow the capture, amendment and display of some additional information relating to the Reassurer. All of the data relating to a reassurer is stored within the Reassurance Account File (RASAPF).

In order for the Reassurer Account to be used to reassure contracts the Reassurer should be entered against a Reassurance Arrangement on table T5449.

In Create mode all fields are available for input, except the Termination Date field. In Modify mode all fields are available for input except the Commencement Date field. In Enquiry mode, all fields are protected, although Client Details and Bank Account details can be selected for Enquiry.

### 2.20.5 Retention

A contract is reassured when the amount of the sum assured is in excess of a limit for which the Life Company is prepared to be on risk. The amount of risk the company is prepared to accept is called Retention. The excess of the sum assured above the retention limit is then ceded to reassurers, who in turn have their own retention's.

Retention limits are applied to individual risk classes, i.e. Permanent Health and Critical Illness. Risk Classes can be further broken down into risks per line of

business, e.g. Disability for Unit Linked business and Disability for Traditional Business. Different risk classes can be classified under one risk type. As a component can belong to different risk classes, each component has one risk type.

Whilst a retention limit is set it may be that the amount of sum assured in excess of this limit is not worth reassuring and therefore a Discretionary Retention limit must be set. If the amount in excess of the retention limit is within the amount set for the discretionary limit the excess is covered by the Life Company. Should the Life Company change its retention limits, these new limits will only apply to New Business.

### 2.20.6 Multi Risk Classes

A component can be classified into more than one risk class. To allow a component to have two mortality risk classes say death and disability, multiple risk classes for each component are classified into one risk type.

- At Table T5448, each component is attached to one risk type. This window out to Table TH618 which is the grouping of different risk classes for each risk type.

- Each risk class can have its own arrangement hierarchy. Therefore each arrangement hierarchy at T5448 becomes an arrangement type which windows out to TH619. This shows the actual arrangement hierarchy for each risk class.

- In T5449 for each treaty or facultative arrangement, the premium basis could have different calculation methods for different risk class (termed as premium class). TH621 is used to define the premium class and is used in T5450.

### 2.20.7 Automatic Reassurance

Reassurance is set automatically at New Business, depending on the Company retention limit. If reassurance is not to occur for a certain product, details must be inserted upon a Reassurance Product Bypass table T5447.

### 2.20.8 Treaty

A Treaty is a defined agreement between the Life Company and the Reassurance Company. Both companies agree to share the risk for a Life Assured and a particular classes of business within given limits. The reassurer also has retention limits on the amount of risk it is willing to accept. The method applied to proportioning the sum assured between the Life Company and the Reassurance Company will vary from Treaty to Treaty.

Within this development two Treaty types are covered, Surplus and Quota Share:

### 2.20.9 Surplus

A Surplus Treaty dictates that the Life Company will cede all risks above the company's retention limits, for a particular class of business (e.g. Death or Disability).

In return the Reassurance Company will accept the excess risk up to its own retention limit. There may be more than one reassurer within a Treaty, creating a tiered effect. Each of the limits within the tier must be exhausted before the next one is taken up.

### 2.20.10 Quota Share

Within this type of arrangement the life and Reassurance Company agree to accept a percentage of the risk. Whilst the retention amount is a set percentage there is also a maximum amount of risk that is acceptable by each party. Once all the limits have been exceeded a facultative agreement is required.

As treaties may be defined separately for individual risk classes e.g., Disability and Death, due to different costing periods it must be possible to create more than one treaty for the same risk class. For example, you may have two PHI treaties created where the first has a costing period of annually in advance and the second monthly.

If a contract has been rated the treaty must be able to recognise this; there may also be a limit to the amount of rating acceptable to the reassurer. If the risk is rated beyond this limit the risk may not be accepted and facultative cover may be required. In some circumstances risks with ratings may be excluded from a treaty.

If ratings have been applied to the sum assured, this should also be taken into consideration against the sum reassured as well. Age additions and percentage loadings can be applied to the sum reassured as it is for the sum assured. However flat extras must be proportioned for the actual reassurer's share of the risk.

### 2.20.11 Facultative Reassurance

When a risk exceeds all retention limits for a treaty another reassurer may be sought to accept part or all of the remaining risk. Again the conditions and costing arrangements will be agreed between the insurer and reassurer. This arrangement is known as Facultative Reassurance.

A Treaty can have more than one reassurer associated with it. When defining a treaty arrangement it should be possible to attach a default facultative treaty. The absence of either a treaty or facultative arrangement should indicate that any excess risk for a product will require facultative arrangement on a case by case basis. Therefore there must be flexibility to create ad hoc agreements specify the exact sums to be reassured, with whom and under what agreement.

The same processing required for Treaty arrangements is utilised for a facultative arrangement.

### 2.20.12 Costing

The Life Company pays premiums to the reassurer for each sum assured ceded to them, this is known as Costing. The treaty must specify the method used to cost premiums (Original Terms or Risk Premium) and the frequency of such costing. The following frequencies are the most commonly used:

- Annually in advance
- Same Billing Frequency as the risk

There are two types of costing methods used for calculating the premiums payable for ceded sums assured.

They are:

> **Original Terms** - The premium for the reassured amount is a proportion of the premium for the whole sum assured, based on the rates of the Life Company.
>
> **Risk Premium** - The premium for the reassured amount is determined using a set of rates from the reassurance company.

Under Original Terms, costing is based on either the sum reassured or the sum reassured at risk. If costing is not based on the sum at risk, the premium for the sum assured and subsequently the sum reassured will be known immediately. However for costing based on sum assured at risk, more detailed calculations are required, taking into account unit values held on the Unit Linked Contract or reserves that have accumulated for the Traditional Contract.

Therefore when costing is calculated on a sum at risk basis the premium may differ, on each costing, due to the possible change in the fund value or reserves accrued.

### 2.20.13 Costing processing

Each 'tranche' or cession of reassurance is costed separately, i.e. for a Contract that has two components, each of which are reassured, premiums will be costed separately. Costing could take place at different frequencies, using different basis (sum reassured or sum reassured at risk), different Premium and tax methods.

Costing Frequency, costing basis and tax basis is defined on table T5448 that is keyed on a Contract/Component combination.

The Premium Basis is held against each Reassurance Account for each Reassurance Arrangement, as defined on table T5449.

Costing is processed automatically by a Batch schedule (RACOST). Reassurance premiums are costed in advance and costing will cover the period between the current Costed To date and one costing frequency as specified on Table T5448. The Costing batch processing will not 'catch up' on any outstanding premiums.

The Costing Batch schedule will select all Cessions due for processing based on the Costed To date on the Reassurance Cessions Detail File (RACD) being less than or equal to the Batch schedule Effective Date.

For each cession the premium will be calculated.

The Premium Basis for each Reassurance Account is ascertained from table T5449. This Premium Basis method is then used to obtain further costing processing held on the Reassurance Premium Basis table T5450.

### 2.20.14 Risk Premium Costing

Risk Premium Costing uses rates supplied by the Reassurer and processing is similar to standard coverage premium calculations.

T5450 provides the Reassurance Premium Calculation subroutines per premium class. Premium class is a term used for the same treaty but different risk class. There are three Reassurance Premium Calculation subroutines:

RPRMM01 Premiums are calculated on a Single Life Basis, using the Premium Rates (Term Based) Table, T5658.

RPRMM02 Similar to the first subroutine but calculated on a Joint Life Basis.

RPRMM04 The Premium Rates used in this calculation are held on the Premium Rates (Age Based) Table, T5664.

Reassurance Premiums are costed on either a Sum Reassured or Sum Reassured at Risk basis. The basis used is held on table T5448. If the Sum Reassured at Risk basis is used, a Reserve calculation method is also entered, with subroutines held on T6598 under this method.

If the Sum Reassured at Risk basis is defined for a Cession, before any premium calculations are processed, the Sum Reassured at Risk is calculated. Premium rates are then applied to this figure instead of the Sum Reassured.

The Premium Rates fields held on T5450 provide the code with which to look up Tables T5658 or T5664 to acquire the Premium Rates for the Reassurance Premium.

The code in the Select field will be used to look up Premium Rates during the Initial Discount/Commission period (also held on T5450). For the remainder of the Cession duration, the code in the Ultimate field will be used to look up rates.

After the Reassurance Premiums has been calculated using either T5658 or T5664 the Rate Factor held on T5450 will be applied to the premium to make the final Reassurance Premium.

### 2.20.15 Original Terms Costing

Original Terms Costing calculates a proportion of the coverage premium to charge as the Reassurance premium. Calculations for Original Terms costing will be processed if on Table T5450 fields ‘Select’ and ‘Ultimate’ are blank.

As in Risk Premium costing, the Sum Reassured or Sum Reassured at Risk is calculated. The instalment premium for the coverage per cessation is then ascertained but is converted to the premium appropriate to the Costing Frequency.

The Rate Factor entered on table T5450 is then applied to this converted premium to arrive at the Original Terms premium.

Special Terms

For either Reassurance Premium Basis Special Terms should be checked to see if any ratings apply to the Reassurance premium as well as the coverage premium.

### 2.20.16 Commission

Commission is payable to the life company, by the reassurer. For Original Terms costing commission is usually calculated and then deducted from the Reassurance premium due to the reassurer. For Risk Premium Costing, the reassurance premium rates provided by the Reassurer usually take into account commission and are therefore slightly discounted. In this instance commission would not be shown to be deducted from the premium.

### 2.20.17 Joint Lives

In the case of Joint Lives, the amount retained by the Life Company should be the lesser of the remaining retention for either life. Assuming the retention limit is exhausted for one life the entire sum assured should be reassured. The amount retained covers both lives and therefore, any future retention calculations on either life will take into account this amount.

### 2.20.18 Alterations

The treaty arrangement must take into consideration contractual and non-contractual alterations to the sum assured and subsequent retention limits. Where contractual increases in sums assured occur i.e., Automatic Increases; the retention limits must also be increased proportionately.

If the current sum assured is not reassured then the increase will not be i.e. amount will remain with the life company and similarly if all or part of the sum assured is reassured the increase will be reassured in the same proportions as the original. Decreases may cause the retained amount to decrease in proportion to the overall decrease.

Non-Contractual changes are treated like new business.

### 2.20.19 Recovery

As mentioned earlier, the function of reassurance is for reassurers to help insurers cover amounts arising from claims. Recovery is therefore an important consideration of any Reassurance processing being developed.

The maximum cover will be agreed between the assurer and the reassurer. Any claim amount, which exceeds the reassurers' maximum limit, will fall back into the hands of the Life Company.

Upon any type of claim/termination the reassurer should be notified. Claim recovery will not be known until the end of the cover period when a report detailing the costing premium, premiums actually paid by the policyholder and the amount of claim paid will be produced.

Upon a Death Claim the amount to be reclaimed should be the sum reassured on the date of the claim. If the risk is calculated on a sum at risk basis, the fund value reduces the claim amount proportionately.

Upon Surrenders and Maturities it may be necessary to recover some of the claim value from the reassurers in proportion to the amount reassured.

For Regular Benefits it maybe necessary to debit the reassurer for their proportion of the claim on the frequency that the regular benefit amount is paid.

Should a policyholder hold several contracts, upon the termination of a contract there may be a knock on effect with the reassurance risks maintained on existing contracts. Therefore, manual recalculation of reassurance risk maybe required. Notification is required, identifying in force contracts, with reassurance, for lives that have had contract terminations during the reporting period.

Costing of Reassurance is normally paid in advance. Therefore, if cover is no longer required for a period, which has already been paid for, the over paid reassurance premiums are reclaimed, by the life company from the Reassurance Company. Arrangements can be made by the life company to pay a set fee to the Reassurance Company to cover the administration costs of the refund.

A different refund basis can be specified for each reassurance arrangement. As well as the refund of premiums to the Life Company, the Life Company should refund commission to the reassurer upon terminations.

The costing of premiums payable in advance, to the reassurer, must still be maintained regardless of whether or not the policyholder has actually paid the premium. The payment of Reassurance premiums will only cease upon the contract status being shown as terminated. Should any interest be due on a claim then a proportioned amount can be claimed from the reassurer.

If a terminated contract is reinstated, the reassurance is not automatically reinstated, but recalculated and ceded as if it was a new contract being issued.

### 2.20.20 Cash Calls

It was mentioned above that Reassurers would be notified of Claims processing either during the registration or upon the actual completion of the claim. In some circumstance i.e. large claims, the insurer may require immediate recovery of the reassured amount from the reassurer. Therefore the ability to record a Cash Call event is required.

This process will debit the reassurers account and the necessary statement will be forwarded to the reassurer requesting payment. Upon receipt of the money the reassurers account will be credited. The status of a Cash Call should be noted on the regular statements.

### 2.20.21 Reversals

In the same way that normal contract reversals are processed, i.e. equal but opposite processing, so should reassurance transactions be reversed. Therefore, adequate history of all reassurance processing is required. However if the forward transaction

that is being reversed terminated the contract and therefore the reassurance, the reversal which in fact 'revives' the contract should process the Reassurance from first principles, i.e. reassessing the sum assured or sum assured at risk and creating new Cessions.

### 2.20.22 Review Processing

Regular review processing must exist to determine if the reassurance levels need adjusting.

### 2.20.23 Reports

Due to the amount of processing now involved with reassurance, it is important to produce reports on a regular basis for both the insurer and the reassurer. These reports can assist in the reconciliation of accounts, auditing, payment of premiums and commission due, and the recovery of claim payments.

### 2.20.24 Reassurance Product Bypass Table

Reassurance is now created automatically at New Business, depending on the Arrangement Type and the Company retention limits. If reassurance is not to occur for a certain product, the Product type must be created as an item on the Reassurance Product Bypass table, T5447. This table does not have an extra data screen.

### 2.20.25 Reassurance Retention's

Retention's are stored on table T5446, Reassurance Risk Class Retention's.

This table is keyed on the user defined Reassurance Risk Class (up to 4 characters), which in turn should be entered on T5448 and T5449 to link Contract/coverage combinations and Reassurance Arrangements to specific Risk Classes and retention's. A risk class can be defined per line of business. Table T5446 is a dated table allowing different values to apply for different date ranges.

### 2.20.26 Reassurance Arrangement

The Reassurance Arrangement defines the Treaty and Facultative agreements between the Life Company and the Reassurer(s). The arrangement details are stored on a new SMART table, T5449, Reassurance Arrangement Table. This is a dated table, with the key being a four-character user defined code. (This code is subsequently entered on Table T5448 to define a specific arrangement against a Contract/Coverage combination.).

### 2.20.27 Reassurance Method

The reassurance method is a means of linking together the various reassurance arrangements, which form the hierarchy of rules for reassurance for the product and coverage combination. It also links the administration rules for the arrangements together. This information is held on the Reassurance Method Table, T5448. The item code for this table is a concatenation of the Product code (3 characters) and the coverage code (4 characters). It is a dated table.

### 2.20.28 Sub Standard Life Retention's

There is an option in Client Details Screen, which allows creation of Client specific Retention's limits. This would typically be used if a Client has had sub standard underwriting and the Life company is therefore unwilling to accept the standard retention's against him and would be likely to set retention's lower.

There is a checkbox at the foot of the Client screen; 'S/S Retention's' and entering an 'x' will display the initial sub standard retention's window. There follows the option of creating sub standard retention details or modifying, deleting or enquiring on any existing Sub standard retention details. Additional retention details may be added, although these must be for a different risk class. The Sub Standard Retention Details screen is similar to T5446, Reassurance Retention Limits table.

The client specific retention details are stored on the RACRPF Physical file.

### 2.20.29 Sub Standard Rating Limits

Whether or not a Reassurance Arrangement includes sub-standard lives depends on the Sub Standard lives allowed indicator on Table T5449, Reassurance Arrangements. If reassurance is accepted on sub-standard lives, i.e. those with an extra rating or loading, this might only include certain rating or loading limits. These limits are held on the Sub-Standard Life Limits table T5451. This table is accessed using the Sub-Standard Limits code entered on T5449.

### 2.20.30 New Business

Reassurance is automatically created during New Business and is dependent on the risk and retention limits.

During pre-issue validation a number of different calculations and processes are performed to assess the risk and need for reassurance based on the Reassurance definition tables.

Essentially, during pre-issue validation, the risk (for the component and the Life Assured) is calculated and checked to see if it is above the retention limits for the Life Company and therefore whether the remainder of the risk needs to be reassured. If the risk is in excess of the Life Company retention limit, Treaty Reassurance Cession Details records are then created on the RACDPF file, with cession amounts based on the SMART table definitions for sequential Reassurance Arrangements.

After the company retention has been calculated together with any Treaty Reassurers cessions, if there is still excess risk a Facultative record is set up for either an arrangement held on the Reassurance Arrangement table or if there are no Facultative reassurers defined, a 'dummy' record with blank Reassurance Account number. If

facultative reassurance has been created the contract cannot be issued until the Facultative Reassurance record has been visited and either viewed to confirm or Reassurance details added if it was initially just a default record.

On issue the Reassurance Cession records are activated.

The processing is described below in more detail.

### 2.20.31 Treaty Reassurance

Firstly, the Contract type is checked against the Reassurance Product Bypass table, T5447. If the Contract type exists as an item on the table, no Reassurance Processing is necessary.

If Reassurance is necessary, for each component the following steps are processed. Each component is dealt with, in sequence of priority as held on the Reassurance Method table (T5448), e.g. Contract/component combination LCELCE1 has a priority of 1, whereas LCEDTRL has a priority of 2, therefore Reassurance processing on an LCE contract will process the LCE1 component before the DTRL component.

### 2.20.32 Calculation of Sum to be Reassured

The Reassurance Arrangement code(s) for the contract/coverage combination is obtained from the Reassurance Method table (T5448) and the details and definition for this Arrangement code are then obtained from the Reassurance Arrangement table (T5449). Table T5449 will specify, if the Treaty is Quota Share or Surplus, whether the Arrangement includes sub standard lives and which Reassurer Accounts are to be used in which sequence, together with the percentage share and retention limits for these accounts.

The Sum Assured or Sum Assured at risk is ascertained for that component. Whether Cession calculations use the Sum Assured or the Sum Assured at Risk is defined on the Reassurance Arrangement Table (T5449). Although at New Business the Sum Assured at Risk is likely to be the same as the Sum assured because no units or bonuses have been allocated to reduce the risk.

For cessions based on the sum assured at risk, the reserves held on the contract is calculated and therefore the amount that is currently at risk is ascertained. The Reassurance Arrangement Table (T5449) defines a Reserve Calculation method and this method, held on T6598 (General Calculation subroutines table), defines the subroutines to be used. The Sum at Risk is then calculated by the subroutine and returned to the Cession Calculation processing.

As well as the amount of risk on the component, it is necessary to assess the risk that the Life Assured already has with the Life Company, for that Risk Type and whether any previous risks were reassured. Both in force contracts and proposals are checked, together with risk reassured within the contract currently being processed, on a component with a higher priority.

If the Contract is on a Joint Life basis, it is necessary to assess the risk held by both Lives for the Risk Type.

Once the amount at risk has been obtained, it is necessary to ascertain the Life Company retention of that risk and subsequently the additional cessions required to reassure the remainder.

Processing is slightly different depending on whether the Reassurance arrangements are Quota Share or Surplus.

Quota Share Treaty

If the Reassurance arrangement for a contract/coverage combination is Quota Share, a certain proportion of the risk is retained, regardless of whether the risk is below the Life Company retention limit. The remaining proportion is reassured.

The sum assured or sum assured at risk is calculated, together with the total risk amount for that Life (See above).

The Quota Share percentage, specified on T5449 for each Reassurance Arrangement code, (where arrangement is Quota Share based), is used to calculate the risk retained by the Life Company.

If the percentage share of the risk is in excess of the Company retention held on the Reassurance Retention Limits table (T5446) for the Risk Type, the table defined retention limit is used (e.g. 75% of the risk may be retained by the company up to £120,000 which is the table defined Retention limit for the Risk Type).

Any sub standard retention limits that exist for the Life Assured (held against the Client record) must be checked initially and these retention limits, if any will be used in preference to the table defined retention limits.

After assessing the amount of risk retained by the Life Company, the next stage is to ascertain what amounts are to be reassured by which Reassurance arrangements and Reassurers.

Again the Reassurance Method table (T5448) and Reassurance Arrangement table (T5449) are used to obtain the necessary information.

The Reassurance Arrangement table (T5449) defines the Reassurer Accounts that are included in the Reassurance Arrangement, together with the percentage of the risk that each Reassurer is willing to accept up to the retention limit specified. Each Reassurer takes a proportion of the risk, unlike Surplus arrangements where an additional Reassurer will only take the risk after the first Treaties retention limit is exceeded.

If all Reassurer Accounts have been used and there is still part of the risk left unprotected, Facultative Reassurance is automatically created.

Surplus Treaty

Processing is similar to a Quota Share Treaty in the creation of Reassurance Cession records but the retention and cession amounts are calculated differently. If the Reassurance arrangement is a surplus treaty only risk that is above the Life Company retention limit for the Risk type, held on T5446, is reassured.

The sum assured or sum assured at risk is calculated, together with the total risk amount for that Life.

Any sub standard retention limits that exist for the Life Assured (held against the Client record) must be checked initially and these retention limits, if any will be used in preference to the table defined retention limits. If there are no sub-standard retention limits, the Life Company retains the risk up to the Company retention limit for that risk (T5446).

If the Sum Assured is equal or lower than the retention limit plus any discretionary retention limit, no reassurance is required.

However if the Sum Assured is above these limits, anything above the Company retention limit is reassured (the discretionary retention limit is not included).

Again, the Reassurance Arrangement is used to ascertain the relevant sequential Reassurer Accounts and the applicable Retention Limits. Once these limits are exhausted for each Reassurer, the next sequential Reassurer is used. A Reassurance Cession Detail record is created for each Reassurer Account, per arrangement, per component.

### 2.20.33 Reassurance Cession Detail File (RACDPF)

A Reassurance Cession Detail record (RACD) is set up for each Reassurer, per arrangement per component.

The Reassurance Cession Details file contains information such as:

- Commencement Date of the Cession
- Reassurance Arrangement code
- Reassurer Account Number
- Client Number of Life Assured.
- Whether the arrangement is on a Surplus or Quota Share basis
- Whether it is Treaty or Facultative
- The Date the cession has been costed to
- The Reassurance amount for that cession and the percentage of the sum assured.

This is the most significant file in Reassurance processing and is used for enquiries, costing, reviews, terminations, reversals and other functions.

### 2.20.34 Special Terms/Sub Standard Lives

If there are special terms on the contract, the Sub Standard lives field is checked on table T5449 to see if the Reassurance Arrangement includes sub standard lives. If it does then the sub standard lives limits are checked against table T5451. If the special terms are within these limits then the Treaty Arrangement continues with the cession. If the arrangement does not accept sub standard lives, or the special terms are in excess of the table defined limits, Facultative Reassurance record is created and a message is displayed in pre-issue validation to revisit Facultative record.

On creating Special Terms, there is now the option to specify for each loading, whether the loading is for the component (Reassurance Indicator 1), reassurance

(Reassurance Indicator 2) or both (3). If the loading is for just the component i.e. Indicator 1, the Reassurance cession calculation processing does not consider the Component as sub standard and skips the processing.

Facultative Reassurance

When all Treaties are exhausted but there is still some risk exposed, Facultative Reassurance is required. It is also required if the Treaty Reassurance arrangements will not accept Sub Standard Lives or the Sub Standard Limits are exceeded.

If a Facultative arrangement is held on the Reassurance Method Table T5448, a Facultative Cession record is automatically created with the Arrangement details, including the Reassurance Account number. If however no Facultative arrangement has been defined on the table, a 'dummy' Cession record is created with the Reassurer account left blank for manual input. In either case during Pre-issue validation, a message is displayed 'Revisit Facultative Reassurer' and the Proposal cannot be issued until this has occurred.

It is only in this scenario that the Reassurance Check Box on the benefit screen is displayed and an 'x' must be entered to display the Facultative Reassurance Arrangement.

The Facultative Cession Maintenance screen will be displayed initially, with the facultative cession record automatically created displayed. This will either be the default arrangement as specified on T5448 or a dummy record with the Arrangement code and Reassurer blank.

In either scenario the record should be selected, using 1 for Modify. The Facultative Cession Details window will be displayed with the cession details. The only fields that allow input are 'Reassurer Number', 'Arrangement Code' and 'Sum Reassured'. If the default facultative arrangement from T5448 has been created it is just necessary to view the facultative arrangement as confirmation (although it can be updated if necessary).

If a dummy record has been set up it is mandatory to enter a Reassurer Arrangement Code and Reassurer Number. These two fields must agree with the Arrangement definition on T5449, with regards to the Risk Class and Reassurers attached to the Arrangement.

Once entered and validated, the facultative details are created as an RACD record, in the same way as Treaty Reassurance details. If the Arrangement details are modified, the field 'Manual Override', should be set to 'Y' to indicate an alteration has occurred.

### 2.20.35 Deleting Components/Proposal Withdrawal

All RACD records will be deleted if the Component or Proposal is deleted or withdrawn.

If a component is deleted, when re-entering pre-issue validation, the amount at risk together with any cessions should be recalculated based on the new proposal details.

### 2.20.36 Contract Issue

On issuing a contract all Reassurance Cession records on RACDPF will be activated and will change from valid flag 3 to valid flag 1.

A record on the **Life Retention and Reassurance History file** (LRRHPF) record will be created. This file records details of the total risk for a Risk Class per Life, the amounts retained by the Life company and cession amounts for both Treaty and Facultative Reassurance. The file contains the following information:

- Client Number of Life Assured
- Risk Class
- Treaty amount reassured
- Facultative amount reassured
- Amount retained by Life Company

The Life Company uses this file to ascertain the current retention for the Life Assured for a particular Risk Class. It can be enquired upon on line from the Reassurance Experience submenu. See the On-line Enquiries section for further details.

The **Reassurance Experience History file (LIRRPF)** record is also created. This file also records details of the amount reassured per Life Assured per Risk Class but also includes a breakdown by Reassurer and Reassurance Arrangement. The following information is held:

- Client Number of Life Assured
- Risk Class
- Reassurance Account Number
- Reassurance Arrangement Code
- Amount Reassured

This file is used in on-line enquiries from the Reassurance Experience Enquiry submenu. See On-line Enquiries for further details.

### 2.20.37 Contract Auto Cession

From the Reassurance Master menu, there is a submenu option 'Contract Auto Cession'. This transaction allows the addition, modification and deletion of ***inactive*** Facultative Reassurance cessions, which also enables the switching of Reassurance arrangements.

Treaty Reassurance cannot be maintained as part of this transaction. See Cession Maintenance.

Contract Auto Cession Submenu. The Contract number and Effective Date are required. The Effective date will become the Commencement Date of Reassurance Cession records (RACD). The Effective date must be less than the Paid to date but greater than the Risk Commencement Date.

There must be at least one inactive facultative cession already on the Contract to continue with the transaction. If there are no inactive Facultative cessions, the screen will display a message 'No Facultative Review required. Press Enter to continue', pressing enter will then return you to the submenu.

If there are existing inactive facultative cessions on the Contract, the first screen displayed is the Facultative Cession Component selection. Once the relevant component is selected, the next screen is the Facultative Cession Maintenance screen. This screen displays the existing inactive facultative cessions, with Commencement Date, Reassurer, Reassurance Arrangement and Sum Reassured. There is also an Override flag, which is displayed if the Cession has already been altered in some way. From this screen you can select the appropriate cession for Modification or Deletion or add an additional cession.

### 2.20.38 Modify Cession

If a cession is selected with the Modify action, the Facultative Cession Details screen will be displayed. (as in New Business, see above). The screen displays the Cession details:

- Reassurer Number
- Arrangement code
- Commencement Date
- Costed To Date
- Component Sum Assured
- Sum Reassured

Only the Reassurer Number, Arrangement Code and Sum Reassured can be altered.

The following screen validation exists:

1. The Reassurer Number must be included on T5449 for that Reassurance Arrangement Code.

2. Both the Reassurer Number and the Arrangement Code must be valid.

3. The Reassurer must be of the correct Status to accept Cessions.

4. The Reassurance Arrangement must be Facultative.

5. The Reassurance Arrangement code must exist on Table T5448, for the Contract/component combination.

6. The Reassurance Arrangement code must be valid for the Contract/Component Risk Class.

7. The Sum Reassured must be entered and must not be greater than the Component Sum Assured.

The Arrangement code field windows to table T5449. The Reassurer Number field windows to the Client Scroll, filtered by Clients with the role of Reassurer.

### 2.20.39 Delete Cession

If a Cession is selected with the Delete action, the Facultative Cession Details screen will be displayed but all fields will be protected. There is a confirmation message at the foot of the window ‘Press ENTER to confirm Delete’.

If the record is to be deleted, press Enter and the Facultative Cession Maintenance screen is displayed with the previously selected Cession deleted.

### 2.20.40 Add Cession

The Facultative Cession details screen will display as in the previous actions, and input is mandatory in the Reassurer Number field, the Arrangement Code field and the Sum Reassured.

Screen Validation and windowing is the same as in Modify.

A record on the RACDPF file is created. The Add Cession transaction will automatically activate this RACD record.

Contract Enquiries is an additional submenu option. The Effective Date must not be entered if the Contract Enquiries Action, Action B, is selected.

### 2.20.41 Cession Maintenance

The Cession Maintenance submenu is accessed via the Reassurance Master Menu.

This transaction allows maintenance of all in force/active Cessions on a Contract, both Treaty and Facultative. It is possible to create new Cessions, Modify and Enquire on existing Cessions and delete Cessions.

Due to the high risk involved in being able to freely update these automatically created records, User sanctioning to this transaction should be strictly limited.

To access this transaction both the Contract Number and Effective Date must be entered. The date entered must be less than the Paid to date but greater than the Risk Commencement Date. The Effective Date will become the commencement date of any RACD records created within this transaction. There is only one Action because all other choices are within the transaction.

On entering details on the submenu and pressing enter, the first screen displayed is the Work with Reassurance Cessions screen. This screen displays the Life and Component(s) held on the Contract, together with all active Cessions that exist on the contract, together with Costed to Date of each, the Arrangement Code and the Sum Reassured.

There are four Actions within this Work With screen, Create (1), Modify (2), Enquire (3) and Delete (4). The Life details are only there for information purposes and the field is therefore protected.

The Reassurance Cession Details file (RACDPF) is updated and the validflag will reflect the different Actions taken.

<u>Additional Files Updated</u>

In addition to the Reassurance Cessation Details file, the other reinsurance files are updated:

Reassurance Experience History file (LIRRPF). A new record is created for any new arrangements or Reassurers on the component.

Life Retention and Reassurance History file (LRRHPF). The previous record is flagged 2 and a new record is created with updated Sums Reassured, Facultative or Treaty and new sums retained.

### 2.20.42 Tax and Stamp Duty

Tax can be calculated and deducted from Reassurance Premiums. If there is no Taxation Basis entered on T5448, Reassurance Method table, no taxation calculations are required and Commission is calculated. If there is a code entered in the Tax Basis field on T5448, this code is used to ascertain the Taxation subroutines held on T6598, Calculation Methods table.

Two Tax Calculations have been developed Government Sales Tax and Stamp Duty.

The Government Sales Tax calculation uses the Government Sales Tax Rate table, T5443, using an item of Currency Code plus coverage code (or **** as a catch all for coverage code). This table then determines the tax rate percentage for a specified Annual Premium Band. The tax is then deducted from the gross Reassurance Premium.

Stamp Duty calculation uses the Stamp Duty Calculation table, T6650, using an item of Contract currency. This table then determines the Stamp Duty factor used to apply to the range of Sum Assured. The Stamp duty is then deducted from the gross Reassurance Premium.

### 2.20.43 Commission

Before any premium is posted to the Reassurance companies, commission is deducted to provide the net Reassurance premium. The Commission Calculation Basis code is entered on the Reassurance Premium Basis Table T5450 and this code is then used to ascertain the subroutine to use in the calculation, held on T5647.

The Commission Calculation Rates code is entered on the Reassurance Premium Basis table T5450 and this code is then used to ascertain the Commission rates on T5565. Commission is calculated against the gross Reassurance Premium.

For premiums paid on a Risk Premium Basis, the commission is usually already accounted for in the premium rates provided by the Reassurer. If this is the case, the Commission Basis and Rates field on should remain blank and no commission will be processed.

After deducting any Tax, Stamp Duty or Commission, the net Reassurance Premium is given.

### 2.20.44 Files Updated

Reassurance Costing Details File (RECOPF)
This is a new file used to maintain Costing Details. A record is created for each Cession per Component that is costed in the Batch Schedule run.

Reassurance Cession Details File (RACDPF)
A new RACD record is created for each Cession that was processed in the Costing run. The previous RACD record is flagged as 2 and the new record has the Costing Transaction number and a new Costed To date (last date plus 1 frequency).

Policy Transaction Records File (PTRNPF)
A PTRN record is created for each Costing Run per Contract.

Contract Header Details File (CHDRPF)
A new CHDR record is created with an incremented Transaction number to match the Costing transaction.

Accounting Movements File (ACMVPF)
Accounting movements are created for the gross reassurance premium, commission, tax or stamp duty deducted and the net Reassurance Premium payable, for each Cession per component on a contract. The ACMV's created by the Reassurance Costing batch schedule, have the Reassurance Account number as the Subsidiary Ledger Entity Key. Table T5645, item RECOPOST, details the accounting movements that are required.

### 2.20.45 Reassurance Premium Refund

Costing of Reassurance normally covers an advanced period. If the cover should then not be required for the period which has been paid for, for example where a reduction of sum assured has occurred or a Risk had been terminated, a refund of premiums may be in order to the Life Company. Each arrangement will have its own refund basis, which has been agreed between the Life Company and reassurers involved.

On the Reassurance Arrangements Table T5449, there is a Premium Refund Basis field. The value entered here must be an item on table T5445, Reassurance Premium Refund Basis. Table T5445 has four-character user defined codes as items. The extra data screen allows the Refund processing to be defined:

Whenever a transaction is processed where a contract with Reassurance has the Risk reduced, including down to zero if a Termination has occurred, Refund Processing should occur. If there is no Premium Refund Basis on Table T5449 then no premium refunds are due. If there is a Premium Refund Basis specified table T5445 is checked for details and the following processing occurs.

The Reassurance Costing file is checked to ascertain the Reassurance premiums that were paid in advance. The new sum reassured for the Cession is also ascertained (either reduced or zero) to determine the amount of premium to be refunded, if the sum reassured has been reduced, the refund of premium may be proportionate. Commission that the Reassurer paid to the Life Company also needs to be refunded back to the Reassurer. The refund due will therefore be net of Commission and refund fee.

**Files Updated**

Accounting Movement File (ACMV's)
Account Movements are created for the gross premium to be refunded any commission or refund fees and the net refund due. The accounting movements are created according to Table T5645 for the item of 'RFNDPST'.

Reassurance Costing File

A new record is created on the RECOPF file for the premium that is to be refunded. This will be a negative amount.

### 2.20.46 Tables used by the Subsystem

Tables used by Subsystem

| | | |
|---|---|---|
| T3609 | - | Reassurance Facultative Schedule |
| T3616 | - | Sub Ledger Codes |
| T3642 | - | Auto Allocation |
| T3698 | - | Dissection Codes |
| T5443 | - | Government Sales Tax Rates |
| T5445 | - | Premium Refund Basis |
| T5446 | - | Reassurance Risk Class Retensions |
| T5447 | - | Reassurance Product Bypass |
| T5448 | - | Reassurance Method |
| T5449 | - | Reassurance Arrangement |
| T5450 | - | Reassurance Premium Basis |
| T5451 | - | Sub Standard Limits |
| T5452 | - | Reassurance Claims Basis |
| T5453 | - | Treaty Type Table |
| T5454 | - | Reassurance Arrangement Type Table |
| T5455 | - | Reassurance Account Status |
| T5458 | - | Allowable T. codes for Prop. Processing |
| T5472 | - | Claim Calculation Routines |
| T5645 | - | Financial Accounting Rules |
| T6661 | - | Reversals |
| TH618 | - | Risk Type Split into Risk Class |
| TH619 | - | RI Risk Class – Arrangement Reln |
| TH620 | - | Reassurance Premium Class |
| TH621 | - | Premium Class of a Risk Class |

Transaction Codes

| | | |
|---|---|---|
| M635 | - | Reassurance Master Menu |
| S639 | - | Reassurance Accounts |
| S650 | - | Costing Enquiry |
| S651 | - | Reassurance Experience |
| S652 | - | Reassurance Cession Maintenance |
| S653 | - | Contract Auto Cession |
| S654 | - | Cash Call Maintenance |
| T529 | - | Reassurance Costing Enquiry |
| T530 | - | Reassurance Experience Enquiry |
| T531 | - | Cession Maintenance |
| T532 | - | Auto Cession Component Select |
| T558 | - | Reassurance Account Create |
| T559 | - | Reassurance Account Modify |
| T560 | - | Reassurance Account Enquiry |
| T710 | - | Reassurance Cash Calls |
| T711 | - | Cash Call Reversal |
| B540 | - | Reassurance Costing Batch Job |
| B541 | - | Reassurance Review Batch Job |
| B542 | - | Facultative Reassurance Schedule |

B543 - Reassurance Cessions Report
B544 - Reassurance Costing Report
B545 - Reassurance Redistribution
B546 - Reassurance Statements and Payment
B547 - Claims Paid Report

# 3. Batch Processing

## 3.1 Introduction

There are three methods of processing within INTEGRAL LIFE, On-Line Real Time, AT Processing and Batch Processing. The latter is the subject of this part of the document. The first part of this note will explain the base system batch jobs with a note of relevant programs and tables called or referenced by the batch programs together with any comments on run dependencies. The second part will show a typical batch schedule for a Life Office.

Most batch jobs can be run as often as required however, some have an impact on the on-line system and should only be run outside the normal business day when the system is inactive. Most batch jobs need to complete satisfactory before they can be run again. In some cases this is not true and the rules for batch job schedule and processes can be defined by the Life Office in the Run Dedicated area of the individual batch job definition.

In order to enhance the efficiency of the batch schedules, selected processes were rewritten to allow for the enabling of multi-threading capability. These processes will be identified under their respective batch jobs. In general, for each of the processes to be transformed, three standard batch processes are created for a suite of multi-thread enabled function. The first process is the creation of a temporary file for storing the primary records selected for processing. The second process is a splitter program for selecting primary records based on a set of criteria. Finally, the third process is the core process for processing the selected primary records.

The following points have to be taken into consideration when multi-threading is switched on:-

- A multi-thread enabled process can be split into a maximum of 20 threads.
- The optimal multi-threading setup may vary with the size of the database and the hardware configurations.
- The 'No. Cycle per commit' is also a determining factor in affecting the batch performance. The value chosen is a trade-off between performance/throughput and the rollback time required in the event the batch job abnormally ends.

A job that updates files must complete properly, for example General Ledger Update, GLUPD. However, a report type Batch Job that does no updating can be submitted into the batch queue without any dependency on the success of the previously submitted job, for example, General Ledger Unlinked Report, GLUNLNK.

The batch jobs listed below may not be delivered in exactly the same naming convention as these batch job names can be amended should the Life Office or even the CSC Model Office feels that they should have a more appropriate name. In addition to this the current batch schedule definitions will have a prefix of #x, x being the Company numbering practice; for example CSC has nominated Company 2 for the INTEGRAL LIFE application. Therefore, the system batch jobs reference when will be #2AGENTCHG. What are important are the program processes and not the batch name.

## 3.2 Base System Batch Jobs (In Alphabetical Order)

**ACSTAPST** - Accounts Related Statistics Posting
This job accumulates and summarises the Government Statistics Posting records (GVST) into two accumulation files, GVAH and GVAC. GVAH is the accumulation file by contract type while GVAC is by component type.

Please note that GVST records are created by the Additional Government Statistics Extraction job (NEWSTEXT). Hence, NEWSTEXT job must be run prior to this job.

| | |
|---|---|
| Programs | B0237 B0321 BJ521 |

**ACSTATRP** - Accounts Related Statutory Reports
This job generates the following accounts related statutory reports:

1. RJ522 - Premium Details
   This report lists all premiums due during the specified accounting year and month, segregating them into first year premium, renewal premium and single premium. It is reported at coverage level and an accumulated figure will be printed for each source of business.

2. RJ523 - Commission Details
   This report lists all commissions paid during the specified accounting year and month, segregating them into first year commission, renewal commission and single premium commission. It is reported at coverage level and an accumulated figure will be printed for each source of business.

3. RJ524 – Reassurance Details
   This report lists all premiums on reassurance ceded and commissions paid on reassurance premium ceded for the specified period.

4. RJ525 – Benefit Payment Details
   This report lists all benefit payments during the specified accounting year and month.

5. RJ526 - Bonus Payment Details
   This report lists all bonus payment details for the specified period. Allocation of bonus refers to reversionary bonus only.

| | |
|---|---|
| Programs | BJ522 BJ523 BJ524 BJ525 BJ526 |
| Tables | T3615 T3589 T5685 T5684 T5687 T6625 TJ675 |

**AGENTCHG** - Bulk Agent Portfolio Transfer
The main processing of this batch job is to alter all Agent Commission records for an Agent to a new Agent for all contracts held by the original Agent. A parameter screen that requires the entry of Agent From and Agent To and a selection of the three types of commission held within the system, Initial, Servicing and Renewal Commission drives the program.

This batch job should be run when the system is inactive. If the batch job is run during the working day you may encounter problems if a contract being transferred from one agent to another is being used.

A point to note is that the new agent will only receive the appropriate commission on receipt of premiums after the completion of this batch job. If there are any commission payment adjustments to be made to the new agent, or the old, then these should be completed by Direct Journals.

| | |
|---|---|
| Programs | B5001 |
| Tables | T1692 T1693 T5679 T6688 |

**AGENTPIS -** Agent Premium Income Statement
The Agents' Premium Income Statement is a summary report on the production levels attained by each of the agencies on a month-by-month basis. It will provide a breakdown on the production levels achieved by each agent for a given agency. Agency movements within and without an agency structure like promotions; demotions, terminations and transfers are also reflected in this report.

| | |
|---|---|
| Programs | BM511 |
| Tables | T1692 T1693 T3629 T5696 |

**ANENDRLX -** Anticipated Endowment Release batch job
Traditional Anticipated Endowment product is the same as an Endowment contract but allows contractual withdrawals at certain times, client's age or set duration, during the contract life.

The original ANENDRLS job has been replaced by this new ANENDRLX job that runs in multi thead.

This batch job produces payment records.

| | |
|---|---|
| Programs | BR538 |
| Tables | T3629 T3695 T5645 T5688 |

**ANNIVPRC** - Anniversary Unit Statement
This report is basically a clone from B5105, the base system Anniversary Statement that has been enhanced for the INTEGRAL LIFE clients.

This statement is based on the Singapore requirements and is a Bank Statement style of unit statement. This means that each transaction that deals with units is recorded as a separate event unlike the base system statement where things such as coverage debts are "rolled up" into one charge. This statement itemises each part of the coverage debt and therefore if a contract has four riders that are benefit billed then the statement will show four separate deductions.

| | |
|---|---|
| Programs | BR542 BR547 |
| Tables | T3629 T3645 T3695 T5515 T5645 T5679 T5687 T5688 T6578 T6647 T6649 T6659 |

**ARCACM** - Archive ACMV's to Optical Disc
Some of CSC's more mature clients have found that to maximise performance and disc space they need to archive some of the larger files.

This batch job will move ACMV (Accounting) records from the ACMV file to file ACMVYYMM, where YY is the batch accounting year and MM is the batch accounting month as selected in the batch job parameter screen.

Once the archive files have been established and the ACMV records copied and deleted from the ACMV file, a reorganise physical file command is performed, RGZPFM, so as to take advantage of the system space created by this archive task.

| | |
|---|---|
| Programs | B0250 B2000 |
| Tables | T1697 T3715 |

**ARCUPDM & ARCUPDS** - Archiving Update Process – Multithread and Single thread.

| | |
|---|---|
| Programs | B3335 B3336 B3337 |
| Tables | - |

**ATLIST** - List AT Request Queue
This job generates the list of all AT requests in the system sorted by the status flag that is either Awaiting, Bad (bomb) or Complete.

| | |
|---|---|
| Programs | B0111 |
| Tables | - |

**AUTOALOC** – Automatic Number Allocation
This batch job will automatically allocate numbers, contracts, receipts, agents, to the ANUM file according to the parameters set in table T3642. It is advisable to keep the number packets topped up so that numbers are not exhausted at any time during a working day. It is suggested that this batch job be completed out of business hours on a monthly basis as part of the Computer Operations housekeeping routines.

| | |
|---|---|
| Programs | B2283 |
| Tables | T3642 |

**AUTOPMT** - Auto Refund Batch for Terminated Policies
The batch job is based on the submitted policy range to access ACBL file for non in-force policies (valid contract status held in table TR630) with balance amount in LP/S account and if the payment criteria is fulfilled, an auto payment will be raised.

| | |
|---|---|
| Programs | BR631 |
| Tables | TR630 |

**AUTONTU** - Automatic NTU

The batch job will auto trigger the change in contract risk status from "PS" (Proposal) or "UW" (Underwrite) into "NT" (Not taken), when the full premium is not received and/or the pending follow ups (non-financial) are not received within the holding period. An exception NTU listing will be also printed, if any.

| | |
|---|---|
| Programs | BR50H BR50I |
| Tables | T3588 T3623 T5500 T5645 T5679 T5681 T5682 TH506 |

**BONCMPY** - Reversionary Bonus Company Anniversary
This batch job processes the contracts that have a Reversionary Bonus due on a Company Anniversary date. The mainline program will call the Reversionary Bonus subroutine dependent on its component method, this is table driven. This subroutine will write the appropriate ACMV's and update the bonus figure held by the individual contract. The ACMV figures can be used to produce the notice to the client.

There is a parameter screen provided with this batch job so that the Life Office can select a contract number range to ease the processing load. Batch job should be run outside the normal working day.

| | |
|---|---|
| Programs | B5018 |
| Tables | T5679 T5687 T6625 T6634 T6639 T6640 |

**BONPOLY -** Reversionary Bonus Allocation
This is the same type of batch job as above but based on individual contract anniversary.

| | |
|---|---|
| Programs | B5023 |
| Tables | T5679 T5687 T6625 T6634 T6639 T6640 |

**BONPOST** - Bonus Workbench Bonus Posting
This batch job is created to upload daily the extracted file from the Bonus Workbench that contains the calculated bonus amount for those corresponding agents. The corresponding accounting postings to cater for those bonus allocations are also created by this batch job daily.

| | |
|---|---|
| Programs | BR655 BR656 |
| Tables | - |

**BONWBEXT** - Bonus Workbench Interface Extraction
This batch job will capture the Agent information, Agent hierarchy information, Premium activity information, Commission activity information, Agency information, Company Information, Policy information and Coverage information, which are used to derive the agency compensation bonus, from INTEGRAL LIFE and then feed into Bonus Workbench on a daily basis.

| | |
|---|---|
| Programs | BR665 BR666 BR667 BR668 BR669 BR670 BR671 BR672 |
| Tables | TH605 TR654 TR657 TR658 TR659 TR660 TR661 |

| | |
|---|---|
| | TR662 TR663 TR664 |

**CASHLIST** - Receipt Reporting
This job reports on the Cash Receipts processed through the system and if required will produce actual receipts for the clients of moneys entering the system. It also produces a Bank Deposit listing that has been designed to be run whenever it is required to bank money that has been received. This listing is intended to be used to balance the payments received against the cash and cheques. This job also produces a CashBook Receipt List that is a list of moneys received by either method, Banked Receipt or Receipt to be banked.

This job may be run daily, twice a day, every second day, etc. You must ensure that when this batch job is run that contracts are not being issued or Single Premium Top Ups are not being applied as these transactions reference the receipt file and can cause "soft locks". It is suggested that this job is run during the lunch break or if not convenient then bring the system "down" until the job has completed successfully

| | |
|---|---|
| Programs | B0236 B2064 B2065 B2486 |
| Tables | T3629 T3688 T3695 |

**CHQLST** - Automatic Cheques Update and ChequeBook Report
In the base system there is offered an automatic machine cheque production system. To be able to keep a track of the machine cheques used then there has to be a control and this batch job is that control. The batch job CHQPRN1 will extract all payments from the CHEQ file and the output from this job is needed as the parameters for the batch job CHQBOOK. This job should only be run when the system is inactive.

| | |
|---|---|
| Programs | B2127 |
| Tables | T1692 T1693 |

**CHQMURCN** - Daily Cheque Register Audit Log
Cheque Reconciliation Functionality provides both on-line and batch facilities to reconcile the ‘Present’ status of cheques that have been issued. This Report selects all the Payment Requisitions Records that have been cancelled or reconciled by the User manually on a particular business day.

| | |
|---|---|
| Programs | BH541 |
| Tables | T1692 T1693 T3629 T3688 TH543 TR396 |

**CHQPRN01** - Cheque Production
This is the first of the cheque production jobs and creates the print files ready for production of cheques. Manual intervention is then required to print the file on the special format cheque stationery. This job should only be run when the system is “down."

| | |
|---|---|
| Programs | B2126 |
| Tables | T3616 TR900 |

**CHQRCUPL** - Update Bank Data To Cheque Register
This program uses the Bank Upload File as input. For each record, it will try to locate the corresponding record in the Payment Requisition File (CHEQPF) and reconcile with it. If the record is found in CHEQPF, the program will check the PRESFLAG as well as the Cheque Amount. If everything is ok, the PRESFLAG will be updated as "H" and the PRESDATE will be updated as the Cheque Present Date. A control report will be output to show all the successfully reconciled records plus any error that may occur during the process.

| | |
|---|---|
| Programs | BR211 |
| Tables | T1692 T1693 T3629 T3688 |

**CHQUNPRS** - Unpresented Cheque Report
This report is in two parts; the first part will come in three versions. Print cheques in date printed order, latest first. A total line and a page break after seven days, then another page break after the first month and monthly thereafter.

The first version will show only those unprocessed cheques with a "large" value. This "large" amount is selected through a parameter screen. Version two show only those unprocessed cheques, which were printed within or earlier than the entered accounting period. This will include cheques that are presented after the nominated accounting period. Version three will list all unpresented cheques irrespective of date or amount.

Part two is a summary report. This will print a one-page summary it has six lines and three columns. Lines are This Week, This Month, Last Month, 2 Months Ago, 3 to 12 Months Ago and Greater than 12 Months. The Columns are Small Amount, Large Amount and Total.

| | |
|---|---|
| Programs | B2607 |
| Tables | - |

**CLNTREG** - Client Register Report
This batch job prints client details from the CLNT file. The program will select clients to be printed according to the parameters entered from program P2078. The selected clients will then be printed in the sequence of Company, Client Type, Client Number or Surname and Given name.

This job is reports only but with mature sites it may be wise to run this report overnight.

| | |
|---|---|
| Programs | B2077 |
| Tables | T1692 T3643 T3644 T3645 |

**COSTREP** - Reassurance Costing Report
This job reports the risk level costing that has occurred within the specified period. The report will be grouped by reassurer, arrangement and currency. Totals will be printed for each currency type within each reassurer within each arrangement.

| | |
|---|---|
| Programs | B5457 |
| Tables | T5449 |

**CREDITS** - Direct Credit Payments
This process is in two stages. One is the extraction of all the payments from the CHEQ, Cheque file with the relevant pay method. The second stage is to transfer this information to the tape for delivery to the factoring house and eventually crediting the client's bank accounts. The tape format is in the style required by the UK Banking authority BACS. This batch job should be run outside the normal working day.

| | |
|---|---|
| Programs | B2499 B3286 B3288 B3289 |
| Tables | T1692 T1693 T3629 T3684 T3699 |

**DDAPLYnn** - Direct Debits Apply
This batch schedule will apply money to contracts through the creation of pseudo receipts for contracts that have been extracted by the Direct Debit batch. By separating the tape extraction process (in Direct Debits) and the application of requested amounts (Direct Debits Apply), the tape extract date and the due date or expected receipt date from the clearing bank may be differentiated.

| | |
|---|---|
| Programs | B3290 B3291 B3721 B3722 |
| Tables | T1688 T1692 T1693 T3629 T3678 T3688 T3698 T3699 |

**DDnn**- Direct Debits
This batch job is very similar to BACSCR the difference being that the information transferred to the tape is amounts to be debit from the clients' accounts. The tape extracted by this batch schedule is passed to the Factoring House for processing. No account postings are made within the Direct Debits batch schedule. This is done is a separate batch job – DDAPLYnn.

The batch job should only be run when the system is “down”.

| | |
|---|---|
| Programs | B2498 B3288 B3289 |
| Tables | T1688 T1692 T1693 T3629 T3678 T3684 T3688 T3697 T3698 T3699 |

**DISHGRUP** - Group DD Dishonour Processing
This batch job is for the processing of Group Payments collected by Direct Debit requiring to be recorded as dishonoured. Group Dishonours will only complete a representation and not a reversal. Dishonour processing has two stages. The first part is to register the dishonour, which is an on-line transaction; the second part is the actual processing required which takes place in this batch job.

As this is a processing type batch job it will need to be run overnight when the system is “down”.

| | |
|---|---|
| Programs | B2814 |
| Tables | T1692 T1693 T3678 |

**DISHnn** - Direct Debit Dishonours
This batch job is exactly the same as above only dealing with Direct Debit Dishonours. The rule relating to the dishonour is defined in tables, rebill, cancel mandate, etc.

| | |
|---|---|
| Programs | B6282 |
| Tables | T1692 T1693 T3678 T6626 T6661 |

**DIVALOC** - Cash Dividend Allocation
This batch job is responsible for performing the processing for the dividend option chosen by the policyholder after each dividend allocation. The processing is driven by the dividend option held on the extract record from HDPXPF. Each HDPXPF represents one-dividend allocation from a participating coverage, including its associated paid up addition coverage. The actual processing is done in a subroutine held on TH500 and there is a different subroutine for each dividend option.

| | |
|---|---|
| Programs | BH519 BH520 BH521 BH522 BH523 BH524 BH525 BH526 |
| Tables | T1688 T5645 T5679 T5688 T6639 TH500 TH501 |

**DRYRNCVT** - Diary Portfolio Conversion for Multi Threading

| | |
|---|---|
| Programs | BR598 BR599 |
| Tables | T1671 T1672 |

**DRYGLUPDTE** – Diary General Ledger Update
This batch job is an alternate solution for client who wishes to replace GLUPDATE. This new job can be run concurrently with the on-line window and can be run multiple times in a day in different time slot, so that the data volume for each job is reduced

It can also be used by non-DIARY client (by removing the last process, which is to schedule the next Diary GLUPDATE).

| | |
|---|---|
| Programs | DRY3611 DRY3612 |
| Tables | - |

**DUTYRPT** - Stamp Duty Report

| | |
|---|---|
| Programs | BT500 |
| Tables | T1692 T1693 T3629 TR206 |

**DYOUTRP** - Daily Outstanding Proposal Report

To aid the Life Administration Department, a daily report is required detailing submitted policies that remain Unissued due to outstanding information. Only those proposals which fall on either 21, 42, 63 or 84+ days, from the date the proposal was first received, are to be output. The report will include among other things, the current status of the proposal together with the number of days the proposal has been outstanding.

| | |
|---|---|
| Programs | BH529 |
| Tables | T1692 T1693 T5661 T5674 T5679 T5688 TH506 |

**ERORREP** - System/Database Error Report

This job generates the error log reporting from the specified period. There is also an option to select generate either online errors only, batch errors only or both online and batch errors.

| | |
|---|---|
| Programs | B0055 |
| Tables | - |

**FLUPLET** -

This batch job generates Follow Up letters for cases where the FLUP file for a Follow Up is set to status "L" or "M" and for each one found will write a LETC record via LETRQST Subroutine.

| | |
|---|---|
| Programs | BH579 |
| Tables | T1692 T1693 T3609 T3628 T3629 T5661 |

**FNDVALRP** -

To assist fund valuation a range of reports have been designed listing all contracts in proposal stage with the premium amount held in suspense, the unit reserve date and fund to be invested. With this report Actuarial are aware of the money to be taken into account and "buy" units on account for those contracts prior to issue.

In addition to this proposal report the above will also be required to inform Actuarial of contracts that have been cancelled prior to contract issue, Declines and Withdrawals, with the same information, premium amount, fund, unit reserve date. With this list Actuarial can "sell" the units the purchased on account.

As the majority of the "buy" and "sell" transactions will take place over valuation dates the difference in dollar terms between the appropriate unit rates, fluctuations or profit or loss, will have to be recorded and journals completed to the fund accounts.

Generally there will need to a check on the suspense reports for "on's" and "off's" so that Actuarial are satisfied that the departments have used the same unit rate when purchasing units off the record and when the system purchases units at contract issue. Therefore, a Contract Issue report is required to check this fact and this should contain the contract premium, number of units purchased, rate date used and the unit fund.

| | |
|---|---|
| Programs | BR506 BR507 BR508 |
| Tables | T3623 T3629 T5515 T5645 T5679 |

**GLALOCL** - General Ledger Automatic Allocation Rules Report
There is an option within the General Ledger Submenu to allow for automatic methods so that it is possible to automatically transfer moneys between accounts. The report will list all Automatic Rules within the system. This report is a read only report and will not post any items to the General Ledger.

| | |
|---|---|
| Programs | B2122 |
| Tables | T3629 |

**GLALOCR** - General Ledger Automatic Allocation Report
This batch job extracts records from the "ALOC" file and uses them for the basis for automatic journal creation for the General Ledger. Each allocation record that is extracted contains the details of the allocation method, required figures and calculation basis. This is then used to calculate an amount that will actually be posted to the appropriate General Ledger account.

This report again is a "read only" and as such it will not post any items to the relevant accounts. It is suggested that this batch job be run prior to the GLALOCU as part of the General Ledger controls.

| | |
|---|---|
| Programs | B2122 B2123 |
| Tables | T3626 T3629 |

**GLALOCU** - General Ledger Automatic Allocations
This is the batch job that actually posts the automatic allocations as explained above and can be run daily, weekly or monthly. It is important that this job is run when the business day is over so that the job can run without data being added as may happen during the working day.

It will actually post the extracted records to the appropriate account and provide a report for audit purposes.

| | |
|---|---|
| Programs | B2122 B2123 B2124 |
| Tables | T3626 T3629 |

**GLAUD** - General Ledger Audit Report
This report extracts data created from the GLUPD, General Ledger Update or Posting Batch Job. The purpose of this report is to allow the user access to this information in a number of ways by completion of a parameter screen. Therefore, a number of Audit Reports can be processed against the same data file but extracting different combinations of data and displaying it in several different ways.

This job can be run anytime but if it is important to have Audit style reports on the most up to date information then obviously these should be run the next business day after the General Ledger Update batch job GLUPD.

| | |
|---|---|
| Programs | B3614 B3615 |
| Tables | T1692 T1693 |

**GLBALST** - General Ledger Balance Statement
This job requires a parameter to be entered normally the Trail Balance or Profit & Loss Account. The report will list all entries for the entered account number and all those accounts linked below it in the Chart of Accounts. It will display this information showing current month to date and year to date actuals together with last year to date results.

As this job does not process any information it can be run at any time.

| | |
|---|---|
| Programs | B2150 |
| Tables | T3629 |

**GLCLONCO** - General Ledger Company Clone
This is the batch job to clone the General Ledger structure from one company to another within the system. This job can be run at any time if required.

| | |
|---|---|
| Programs | B2428 B2429 B2430 B2431 |
| Tables | - |

**GLCLONCU** - General Ledger Account Clone for Currency
This job will clone a General Ledger structure from one currency to another. If required this job can be run at any time.

| | |
|---|---|
| Programs | B2427 B2429 B2430 B2431 |
| Tables | - |

**GLCLONST** - General Ledger Structure Clone
This is the batch job to clone a new General Ledger structure from an existing one within the same company. If necessary this job can be run at any time.

| | |
|---|---|
| Programs | B2426 B2429 B2430 B2431 |
| Tables | T1680 |

**GLDWNLD** - GL Balance Extract for Downloading
This job extracts monthly account balance of each GL account from GENV and GENL records and writes them into GLEXPF. The audit trail is then printed by reading GLEX as primary and they are summarised at Alternate Reference (ALTREF) of the GL account into SACCPF on condition that the accounts balance, that is debits equal to credits. SACCPF can then be downloaded into PC side.

| | |
|---|---|
| Programs | BR245 BR246 |
| Tables | |

**GLCMPST** - General Ledger Comparison Statement
This job_enables you to obtain a hard copy of any account figures to compare to the corresponding budgets or last year's performance, etc. As this report is a read only and therefore, does not complete any processing it may be run at any time.

| | |
|---|---|
| Programs | B2148 |
| Tables | T3626 T3629 |

**GLCMYST** - General Ledger Multi Currency Comparative Statement
This report will display the General Ledger Account, Account Description, Account Original Currency, Foreign Currency Amount held in this account, Current Exchange rate, Local Currency Rate and Exchange difference. This batch job can be run at any time.

| | |
|---|---|
| Programs | B2415 |
| Tables | T3628 T3629 |

**GLEXPLR** - General Ledger Explosion Report
This report requires that a valid General Ledger account is entered at the parameter screen and all accounts below that account in the Chart of Accounts are listed showing the relationship. This batch job can be run at anytime.

| | |
|---|---|
| Programs | B2136 |
| Tables | T3629 |

**GLEXPSL** - General Ledger Expense Sub Ledger Report
This report is run on accounts specified in table T3669. The report lists all the activities in accounts specified and all accounts linked below the account within the chart of accounts. This report is designed to report on Expense type entries.

Again as this report does not complete any data processing and is just a report it may be run at anytime.

| | |
|---|---|
| Programs | B2108 |
| Tables | T3629 T3669 |

**GLIMPLR** - General Ledger Implosion Report
This job requests that a valid General Ledger account be entered into the parameter screen and all accounts above that account are listed showing the relationship. This job can be run at anytime.

| | |
|---|---|
| Programs | B2138 |
| Tables | T3629 |

**GLINIT** - General Ledger Initialise

This batch job initialises accounts according to their account types. This job is normally completed during the Development and Customisation process so that when the Model Office testing commences all accounts have been initialised and ready for receiving data. This job should be completed as part of the preparation of environments after a data "clear down" exercise.

| | |
|---|---|
| Programs | B2139 |
| Tables | T3629 |

**GLMTHST** - General Ledger Monthly Statement

This job is similar to GLBALST with the difference being the showing of the Year to Date figures against budgeted figures. This batch job is a read only and therefore, can be run as and when required either during on-line processing or in overnight run.

| | |
|---|---|
| Programs | B2148 |
| Tables | T3628 T3629 |

**GLROLL** - General Ledger "Roll Over"

This job "Rolls Over" the account that has an appropriate balance forward flag to show the brought forward balance as the new opening amount in the account and initialises those accounts with a Balance Brought Forward flag of Z. This job requires an Appropriation Account be entered in table T3698 item ****GL.

This job is run at the end of the financial year and can be run any number of times. However, it is strongly suggested that this job is not run until the on-line system is inactive.

| | |
|---|---|
| Programs | B2609 |
| Tables | T3629 |

**GLUNLNK** - General Ledger Unlinked Report

This job extracts all the accounts that exist in the General Ledger, whether created manually or by batch run, which are not linked within the Chart of Accounts. The criteria are that Posting Accounts that are not linked to Summary Accounts are listed, as are Summary Accounts that do not have posting accounts linked below them.

This job can be run at anytime.

| | |
|---|---|
| Programs | B2507 |
| Tables | T3629 |

**GLUPDATE** - General Ledger Update (Replacement for the batch job GLPOST)
This job can be run daily, weekly or monthly and will extract batches to post to the General Ledger accounts in accordance with the item B3610 in table T1697. Once extracted these batches are "flagged" as having been processed so they are not selected again. The extract information is restructured into GTRN's and then the amounts are posted to the General Ledger.

In addition this job will create balancing transactions, should a one sided entry enter the system, create accounts should an account be used that is not set up in the Chart of Accounts. However, before the system can complete these actions certain information has to be entered into the appropriate tables and Chart of Accounts. Please refer to the section on General Ledger update procedures where these entries are explained in more detail.

Due to the sensitivity of this data this job should only be run when the on-line system is inactive.

| | |
|---|---|
| Programs | B0237 B0321 B3610 B3611 B3612 |
| Tables | T1692 T1693 T3605 T3629 |

**GLUPDONE** - General Ledger Update – Single Thread

| | |
|---|---|
| Programs | - |
| Tables | - |

**GLYTDST** -
This is the General Ledger Year to Date Report. It lists transactions in the specified account, and any subsidiary accounts, for the current month and year. This job can be run as and when required.

| | |
|---|---|
| Programs | B2150 |
| Tables | T3629 |

**GRPSTMT** - Group Statement of Account
This job produces a report on the schedule dates, according to each Group's billing frequency, to be sent to each Group Administrator. It has two main functions. One, to advise the Administrator of the amount of money expected by the Life Office and two, to provide a checklist of the individual amount expected from each contract within the Group. This report will take into account any unreconciled items, journals, outward payments and will state the total amount to pay. If the Group payment method is by Direct Debit then this is for information only.

This batch job should be run when the system is inactive.

| | |
|---|---|
| Programs | B2804 |
| Tables | T1692 T1693 T3620 T3629 T3698 |

**HELPALL** - 'HELP' Details Report
This job generates a report on the Help texts of all screens, fields and errors in the system.

| | |
|---|---|
| Programs | B0066 |
| Tables | - |

**HELPSEL** - Selected 'HELP' Details Report
This job generates a report on the Help texts for the specified screens. There are also options whether to print screen help, field help and error help.

| | |
|---|---|
| Programs | B0064 |
| Tables | - |

**IFBCRPT** - In-Force Business Comparison Report over 24 months
This is a production reports and it will report the Monthly Regular Premium Business as well as Single Premium Business at individual product level and/or at sales channel level.

| | |
|---|---|
| Programs | BH599 |
| Tables | T1692 T1693 T3629 T5688 TH565 |

**IFSEXTR** - In-Force Status Extract Report
This is a monthly extract program for pertaining to all in-force policies (both for single and regular premium policies) as at month-end. So this program is suggested to run on the last day of every month.

| | |
|---|---|
| Programs | BH602 |
| Tables | T1692 T1693 T3629 T5679 TH506 |

**INCRCONV** - Increase Conversion
The base system includes Automatic Increase functionality for Sum Assured or Premium or both. The Automatic Increase method is defined at the Coverage or Rider level in the Product Definition tables. The system handles an Automatic Increase by writing an Increase date within the Coverage. The batch job RENEWALS extracts the relevant coverages and flags them as being pending changes. The job INCRCONV actually completes the conversion and resets the new values, Sum Assured, Premium or both and was designed for CSC clients that have existing contracts and wished to add this automatic increase facility retrospectively.

| | |
|---|---|
| Programs | B5034 |
| Tables | T5687 T6658 |

**MEDIPAY** - Medical Bill Payment Processing
This batch job is used to post the approved Medical Bills for Agent, Client and Provider, and also to auto generate the cheque for Medical Provider, if its default payment is computer cheque.

For successful payment postings, a Medical Bill Payment Report will be produced for Agent, Client and Provider. For terminated Provider or Client who are either inactive, or bankrupt, a Medical Payment Exception Listing will be produced.

| | |
|---|---|
| Programs | BR644 BR645 BR646 BR647 BR648 BR649 BR559 |
| Tables | T3695 T3698 T5645 TR650 |

**MTHNBRP** - Monthly New Business Comparison Report Over 12 Months Period
A monthly report is required to display new business figures for the past 12 months. Flexibility is required to allow the report to display information pertaining to specific channels, districts, divisions, branches or products and/or to display totals at these different levels. BH534 This Program is designed to produce a report of New Business transactions on a monthly basis.

| | |
|---|---|
| Programs | BH564 |
| Tables | T1692 T1693 T3629 T5688 T5696 TH565 TH566 |

**NBEXTR** - Daily New Business Production Report
There is a requirement for reports to be produced for New Business transactions. These are to detail New Business transactions primarily on a daily basis, but as the report will be run daily, it will be possible to use it to accumulate information on a monthly, quarterly and annual basis. This report will contain such information as Sum Assured, Single and Regular Premium amounts as well as Product and Agency details.

BH531 ZSTRPF Extract Program. This Program extracts data from various SMART files (PTRNPF, CHDRPF, AGNTPF, COVRPF etc.) and uses the extracted information to write to the ZSTRPF - New Business Reporting Master File. It is primarily this file which is used in the other Reporting Programs

| | |
|---|---|
| Programs | B0237 B0236 BH531 |
| Tables | TH506 TH536 |

**NBBUSSTS** - Monthly Total New Business Status Report
This is the monthly report, detailing all New Business transactions for that month by Policy Status. The Outstanding case from the previous month are brought forward to the current month, to which are added all of the new cases submitted this month. The current month's transactions are split into three categories, Completed, Cancelled and Outstanding. These are subtracted from the months brought forward transactions to produce what will be the subsequent months brought forward transactions.

In all cases the Basic Sum Assured, the Annualised Premium and the Single Premium values are shown as well as a total of the cases for each category. This program reads the extract file HTMPPF produced by BH597 and sorts the records in the following order, Company, Channel and Product.

| | |
|---|---|
| Programs | BH579 BH600 |
| Tables | T1692 T1693 T3629 T5674 T5688 TH506 TH565 |

| | |
|---|---|
| | TH596 |

**NBUSTUR** - Monthly New Business Turnaround Report
This report is aimed to show turnaround times detail for New Business Transaction on a monthly basis. The outstanding cases from the previous month are brought forward to the current month; to which are added all of the new cases submitted this month. The current month's transactions are split into three categories, Completed, Cancelled, and Outstanding. These are subtracted from the months brought forward transactions to produce what will be the subsequent months brought forward transaction.

| | |
|---|---|
| Programs | BH598 BH602 |
| Tables | T1692 T1693 T5688 TH601 |

**NEWBUSRP** - Weekly New Business Production Report
There is a requirement for various reports to be produced for New Business transactions. This report will detail New Business transactions on a weekly basis, and will hold such information as Sum Assured, Single and Regular Premium amounts as well as Product and Agency details. This particular report will be run at the end of each week, and will produce updated figures for Month-to-date, quarter-to-date and year-to-date values.

BH533 This Program is designed to produce a report of New Business transactions on a weekly basis. The report will contain such information as Sum Assured, Single and Regular Premium as well as product and Agency details.

BH532 This Program reads through the ZSTRPF Physical File and extracts sufficient data to create a report detailing the various types to New Business transaction that occurred on the relevant transaction day. This report should only be run after the NBEXTR extraction batch job.

| | |
|---|---|
| Programs | BH562 |
| Tables | T1692 T1693 T3629 T5688 TH565 TH566 |

**NEWINTBL** - New Interest Billing for Anticipated Endowments
The client upon attainment of an anticipated endowment instalment has the option of leaving the proceeds on account and interest is granted to this deposit. This batch job informs the client that interest is due and creates the actual payment and accounting entries.

| | |
|---|---|
| Programs | BR539 |
| Tables | T1692 T1693 T3629 T5645 T6633 |

**NEWINTCP** - New Interest Capitalisation for Anticipated Endowments
This batch job capitalises interest due.

| | |
|---|---|
| Programs | BR535 |
| Tables | T1692 T1693 T3629 T5645 T6633 |

**NEWSEXT** - Additional Government Statistical Extract

The job reads and summarises accounting movement records (ACMV) at the policy and component level to accumulate the regular premium, single premium, first year commission, renewal commission, single premium commission, RI premium ceded, RI commission, terminal bonus, reversionary bonus, extra bonus, interim bonus, death claim benefit, maturity benefit, bonus surrender, claim recovery, etc. The details are then written into GVST records. GVST is a new statistical file which will be used later for updating to the new accumulation files, GVAH and GVAC. These two new files are mainly used for the accounting related statutory reports.

| | |
|---|---|
| Programs | B0237 B0321 BJ518 |
| Tables | T5645 T5687 T5540 T6640 |

**NEWSEXT** - Unit Dealing (9606 & Singapore Withdrawal Calc)

The job reads and summarises accounting movement records (ACMV) at the policy and component level to accumulate the regular premium, single premium, first year commission, renewal commission, single premium commission, RI premium ceded, RI commission, terminal bonus, reversionary bonus, extra bonus, interim bonus, death claim benefit, maturity benefit, bonus surrender, claim recovery, etc.

The details are then written into GVST records. GVST is a new statistical file which will be used later for updating to the new accumulation files, GVAH and GVAC. These two new files are mainly used for the accounting related statutory reports.

| | |
|---|---|
| Programs | B0237 B0321 BJ518 |
| Tables | T5645 T5687 T5540 T6640 |

**NEWUNITD** - Unit Dealing

This job performs all processing required for unit linked and interest bearing policies. It basically performs the following:

- Calculate interest due on the Interest Bearing Funds
- Process all outstanding (un-dealt) Unit Linked transactions
- Generate Unit Linked Fund Movement report
  - print total value of the funds extracted
  - print outstanding transactions extracted grouped by fund / type
- Process outstanding (un-dealt) Unit Linked transactions created by of Fund Switch transactions
- Process all outstanding (un-dealt) Interest Bearing transactions
- Generate Interest Bearing Fund Movement report
  - print total value of the funds extracted
  - print outstanding transactions extracted grouped by fund
- Process outstanding (un-dealt) Interest Bearing transactions created by Fund Switch transactions
- Coverage Debt recovery by either selling Unit Linked or Interest Bearing funds
- Process outstanding (un-dealt) Unit Linked transactions created by the previous Coverage Debt settlement process
- Process outstanding (un-dealt) Interest Bearing transactions created by the

previous Coverage Debt settlement process

- Generate Unit Linked Fund Movement Listing to print all Unit Linked transactions that have just been processed
- Generate Interest Bearing Fund Movement Listing to print all Interest Bearing transactions that have just been processed
- Generate Unit Dealing Run – Error report
- Update Sum Assured of components having Partial Withdrawal transaction

The original UNITDEAL job has been replaced by this NEWUNITD job that runs in multi thread.

| | |
|---|---|
| Programs | B5100 B5101 B5102 B5103 B5104 B5106 B5107 B5108 BR512 BR607 BR608 BH508 BH509 BH511 BH512 BH517 BH518 |
| Tables | T1688 T1693 T3629 T5515 T5519 T5539 T5544 T5540 T5645 T5679 T5687 T5688 T6597 T6646 T6647 T6626 TR52R |

**NOTEPAD** - Notepad Report

There is a facility within the system that allows the administration to add notes to individual contracts in addition to normal Follow Up procedures. This batch job is a report only basis and lists all Note Pad items where the reminder date is equal to or less than the batch job effective date.

| | |
|---|---|
| Programs | B3710 B3711 |
| Tables | T1658 T1692 T1693 T3590 T3592 |

**OCCGUIDE** - Monitor Agents to OCC Guidelines (Malaysia)

This report monitors agent's benefits for compliance to Operational Cost Control guidelines set by the central bank of Malaysia, Bank Negara.

In particular, there are maximum Basic Commission and Overriding Commission levels provided as part of OCC guidelines. The guidelines provide rates for Basic and Overriding commission for 10 years of the policy varying by the initial term up to 20 years.

Compensations and benefits paid to agents are monitored in three broad categories:

A) Commission
- Basic Commission
- Override Commission
- Production Bonus
- Persistency Bonus

B) Agents Related Expenses

| | |
|---|---|
| • 1st 5 mil FYP | • Retirement |
| • > 5 mil FYP | • Agency Allowance |
| • Renewal | • Recruiting |
| • Insurance | • Seminar & Convention |
| • Interest - Car | • Contest |

| | |
|---|---|
| • Interest - House | • Agent Training Allowance |
| • Clerical | • Agency Office |
| • Car Park | • Breakaway |
| • Medical | |

C) Management Expenses
- FYP 28%
- Single Premium 10%
- Renewal Premiums are banded i.e. 1st RM5mil is 19%, 2nd RM10mil is 14%, and so on.

| | |
|---|---|
| Programs | BM501 |
| Tables | T1692 T1693 T3627 T3629 TM600 TM601 |

**OSBALINS** - Listing O/S instalment
This job prints total outstanding instalment of all in-force policies. This job also caters for Mortgage products where the instalment details are kept in the Instalment Schedule details (MINS).

| | |
|---|---|
| Programs | BR568 |
| Tables | TH616 T5645 |

**OWNCHG** - Policy Owner Change for Juvenile
This job is to conduct auto Policy Owner change for Juvenile policy, when the child attains a certain age, usually an age when the child is self supporting. The Policy Owner is transferred to the child either on the exact attained age or the policy anniversary following the child's defined age. This attained age varies from country to country.

| | |
|---|---|
| Programs | BR628 BR629 |
| Tables | TR627 |

PASTAPST - Policy Admin Related Statistics Posting
This job accumulates and summaries the Statistical Movement records (STTR) into a new accumulation file, GOVE. This file is used for producing the policy admin related statutory reports.

This is similar to the existing GOVR except with a different accumulation key. This is an addition to the existing GOVR. The online government statistics enquiry and journal functionality is not changed. There is no online enquiry or journal provided for the new statistical file.

| | |
|---|---|
| Programs | B0237 B0321 BJ533 |
| Tables | T6625 |

**PASTATRP** - Policy Admin Related Statutory Reports
This job generates some policy related statutory reports based on the information from GOVE and GVAC. Even if no accounting reports are required, the new schedule

ACSTAPST must be run prior to this job because some of the actuarial reports require accounting information.

1. RJ522 - New Business Activities
   This report lists all New Business transacted during the year segregating them into regular premium contracts, single premium contracts (includes immediate and deferred annuities). It also takes into account proposals created during the specified account year regardless of the proposal status at the end of the accounting year.

2. RJ528 - Premium Details
   This report lists all policy movements for the specified period.

3. RJ529 - Persistency
   This report lists policies that lapsed and/or reinstated as at the specified accounting year and month.

4. RJ530 - Overall Business Portfolio (Product level and Business level)
   This report lists all the accounts for overall business portfolio as at the specified accounting year and month.

5. RJ531 - Total In-force Business
   This report lists all In-force business and identify those that have been reassurance ceded for the specified period. It is segregated into regular premium contracts, single premium contracts (includes immediate and deferred annuities and Others (fully paid and paid up contracts) at the end of accounting year.

6. RJ532 - Claims (Linked/Health Insurance at product and business level)
   This report lists the following claim for the specific period:
   - Claims benefits payable on Insurance Products segregating them into regular premium, single premium (includes immediate and deferred annuities), fully paid up and paid up contracts
   - Claims benefits payable on Rider Benefits
   - Loaded premiums on claimed policies
   - Reassurance ceded on claimed policies

| | |
|---|---|
| Programs | BJ527 BJ528 BJ529 BJ530 BJ531 BJ532 |
| Tables | T3615 T3589 T5685 T5684 T5687 T6625 T6697 TJ675 |

**PAYDUE** - Anticipated Endowments Payments processing
The batch process reports on the payment records.

| | |
|---|---|
| Programs | BR536 |
| Tables | T1692 T1693 T3629 T5688 |

**PAYOS** - Outstanding Payments Report
This report will list all the authorised and unauthorised outstanding payment requests. It will extract from the CHEQ file all payments with a status of RQ, Requisition and AU, Authorised. This is a read only report and therefore, can be run when the on-line system is active or inactive.

| | |
|---|---|
| Programs | B2203 |
| Tables | T1692 T1693 T3629 T3672 |

**PAYRPT** - Processed Payments Report
This batch job extracts transaction records for all on-line payments and cheque batches and sorts this information into bankcode, requisition number and payment method.

| | |
|---|---|
| Programs | B0237 B0236 B2199 |
| Tables | T1692 T1693 T3572 T3629 T3672 |

**PDCHQPOS** - Post Dated Cheque Posting
This batch job is created for automatic posting of the cheque details when the cheque date falls due, and corresponding receipts will be generated accordingly. This batch job will be run by user on an adhoc basis.

| | |
|---|---|
| Programs | BR22V |
| Tables | T3642 TR22X |

**PENDMATY** - Pending Maturity Report
This report extracts all contracts that are due to Mature or Expire between selected input dates in advance of the run date. This ensures that the company has adequate time to contact the client and disburse the Maturity proceeds on time or the client has time to select any other contractual options. In addition to providing a list of contracts the process will produce client letters with the estimated Maturity Value excluding Terminal Bonuses, if applicable. This batch job would normally be run overnight but it is possible to run during the business day if required.

| | |
|---|---|
| Programs | B5024 |
| Tables | T1692 T1693 T5679 T5687 T5688 T6598 T6625 T6634 |

**PENDVEST** - Pending Annuities Report
This is part of the annuity functionality and as it is a report only process it can be run at any time. The job will select any annuity component with a risk cessation date that falls between the dates entered on the parameter prompt screen, S5231.

One record will be written for each contract that has at least one component due to vest between the dates specified. This record will hold the information for all components, including the anticipated value of the component(s) at vesting.

| | |
|---|---|
| Programs | B5231 |

| | |
|---|---|
| Tables | T1692 T1693 T5679 T5687 T6598 T6625 T6634 |

**PLDTYRPT** - Policy Loan Stamp Duty Report
Stamp duty is charged to the policy owner when applying for the policy loan. Therefore added functionality has been introduced to INTEGRAL LIFE. This facility automatically calculates the Policy Loan Stamp Duty, and deducts from the loan amount and posts to the stamp duty payable.

This batch jobs reports on Policy Loan Stamp Duty after calculation from on line loan creation.

| | |
|---|---|
| Programs | BT501 |
| Tables | T1692 T1693 T3629 T5645 |

**POLACK** - Policy Acknowledgement Processing
This job extracts all policies with outstanding acknowledgement slip and generates either the acknowledgement reminder letter or deemed received letter based on the policy despatch rules defined in TR52Q. It excludes contracts having delivery modes that have been set under excluded delivery modes in TR52Q.

| | |
|---|---|
| Programs | BR52P |
| Tables | T5679 TH605 TR52Q |

**POLRGT** - Register of policies
This job list all policies having First Issue Date between the From and To Date specified in the parameter prompt screen. It prints some policy information like life assured name, age, sex, contract commencement date, maturity/expiry date, premium, sum insured, owner name, nominee names, etc.

| | |
|---|---|
| Programs | BM500 |
| Tables | T5679 T6654 T6597 T5687 T3627 |

**PYPNDAUT** - Payment Pending Authorisation/Authorised Requisition Report
This job allows the user to the print the following report:
1) Lists all payment requisitions awaiting approval or authorisation sorted by branch, bank code and payment number.
2) Lists all payment requisitions that have been authorised or processed sorted by branch, bank code and payment number.

| | |
|---|---|
| Programs | BR412 BR413 BR414 |
| Tables | T3688 |

**RACOST** - Reassurance Costing Processing
Each tranche of reassurance may be related to a distinct reassurance arrangement and this may be subject to different premium collection and rates, commission and taxation. This job creates the collections from reassurance coverage type records.

The output from this will be the appropriate accounting movement records (ACMV) that reflect the moneys due from each reassurance component. Reassurance premiums will be billed in advance and will cover the period from the current billed to date to a date one costing frequency in advance.

The premium will be re-calculated depending on the reassurance arrangement. There are two types of premiums, Original Terms and Regular. This is a processing batch job and should only be run overnight.

| | |
|---|---|
| Programs | B5457 |
| Tables | T1688 T5448 T5449 T5450 T5647 T5679 T6598 TH621 |

**RASAPAY** (9606 Release) - Reassurer Statement and Payment
This is a two-stage process. The first stage extracts all outstanding reassurance transactions from the account movement file, ACMVPF, to a temporary file. It then checks to see if the total amount outstanding for a reassurer account is equal to or greater than the minimum statement amount on the RASA file. If the amount passes this initial minimum statement amount test each individual ACMV record will be printed as a statement and stored on a temporary physical file.

The second stage will extract the information from the temporary file and update the ACMV file by setting the reconciled date. For each individual reassurer, post a balancing ACMV record for the total amount and call PAYREQ to create payment records. This batch is of a processing nature and therefore, should be run overnight.

| | |
|---|---|
| Programs | B5470 B5471 |
| Tables | T1688 T1693 T3629 T5632 T5645 T6657 |

**REACESS** (9606 Release) - Reassurance Cessions Report
This batch job will report on all the cessions that are associated with a particular reassurer within the specified accounting year. The cessions will be grouped by reassurer, the currency and by transaction type. Total will be printed for each transaction type within each currency within each reassurer.

The required RACD and PTRN records are selected by using SQL. This is a report only batch job and can be at any time.

| | |
|---|---|
| Programs | B5469 |
| Tables | T1688 T1693 T3629 T5449 |

**REACLMS** (9606 Release) - Reassurance Claims Paid Report
This process will read the RACD file and select all records that are valid flagged 4. SQL is used to retrieve all records that satisfy the selection criteria. A parameter screen is available for users to specify the date range. This again is a report only process and can be run at any time.

| | |
|---|---|
| Programs | B5473 |
| Tables | T1688 T1692 T1693 |

**REARDIST** (9606 Release) - Reassurance Redistribution Report
This program uses SQL to extract life and joint life client numbers from the INTEGRAL LIFE file that have terminated RACD records attached to them. Then, it will then read through the LIFERENQ records for each client number extracted to find any other cessions attached to the life. The details will only be printed if the reassured amount is greater than zero that indicates a current record.

A parameter screen is included to allow users to specify the transaction date range. Records within that date range will be selected for printing. This job can be run at any time.

| | |
|---|---|
| Programs | B5441 |
| Tables | - |

**REASREV** (9606 Release) - Reassurance Reviews Report
Regular processing to determine if the reassurance levels need adjustment. In arrangements where only the sum at risk is assessed for reassurance, rather than the whole sum assured, the amount reassured must be adjusted at regular intervals to reduce sums reassured as reserves build up and thus offset the sum at risk.

This batch job has been designed to adjust the current reassurance position of the contract with reference to the current retention's for the life based on the treaty effective at new business for the contract. Thus if termination's or reductions in sum assured for the related benefits for the same life have occurred, then the reassurance for the contract being reviewed may take up any slack in retention that may exist.

The timing of reviews is determined by the reassurance method review frequency held in table T5448. This will be used to calculate the next review date for each cession at date of cession.

This batch job will select all cessions that are due for on a given date, where the next review date on the RACD file is less than or equal to the effective date of the batch job. Logically this process should be run before any costing to ensure the correct cessions are costed. However, if costing should be run first, a refund will be calculated for any terminated cessions. This job should only be run overnight when the on-line system is not being accessed

| | |
|---|---|
| Programs | B5464 |
| Tables | T1692 T1693 T5446 T5448 T5454 T5679 |

**REGPAY** - Regular Payments
This job process Regular Payments that are due to make the next payment. It will be run periodically, perhaps daily although this is not strictly necessary. Where media runs are processed on a less than daily basis it may not be necessary to run REGPAY each day. A consideration is that the job should be run prior to any Premium Collection run so that any Waiver of Premium claims are able to post the moneys to the appropriate contract suspense accounts ready for the collection run to pay the premium.

The process will be driven by details held on the Regular Payments File. Checking its Payment Status against the Allowable Codes set in the appropriate table will screen each payment. The risk and premium status of the contract and associated components will also be checked. The batch job will also produce the payment requisitions duly authorised however; the batch job CHQPRN1 will actually produce the cheques.

This procedure will also control the payments that are due to fall into review and termination. When the review and termination date are equal to or less than the effective date of the run then the status of the Regular Payment record will be altered to reflect this. No payment will be made whilst the record is in review or terminated. A report will be produced of contracts in this category.

Batch job should only be run when the on-line system is inactive.

| | |
|---|---|
| Programs | B5227 B6681 B6682 B6683 |
| Tables | T1692 T1693 T5671 T5679 T6625 T6634 T6689 T6693 |

**RENEWALS or POLRNWL** - Contract Renewals or Regular Processing
This is the full contract Renewal run and can consist of twelve distinctive steps. Premium Re-rating, Flexible Premium Billing & Collection, Pending and Actual Automatic Increases, Billing, Due Date Accounting, Collection, Cancellation of Initial Units, Overdue Processing, Unit Linked Benefit Billing, Anniversary Processing, and Unit Statements. This job would normally be run daily but can be run at other intervals should the Life Office so wish.

This process is in a modular format so each step can be "broken out" into separate batch jobs if required. Obviously if a Life Office only requires the Tradition Processing then the Unit Linked items can be removed. In addition to this there is the ability by use of a parameter screen of selecting contracts for this batch run. This gives the Life Office the flexibility of updating an individual contract during the working day without effecting the rest of the database. It also assists the development cycle as programmers and users alike can take advantage of updating contracts in a testing environment.

The followings renewal processes have been multi-thread enabled:-

- Component re-rate
- Waiver of Premium (WOP) re-rate
- Anniversary
- Unit Statement trigger

Renewal transaction can now be scheduled as a background process rather than in a batch run.

The individual programs within this batch job are explained in greater depth in the Regular Processing area of the document.

| | |
|---|---|
| Programs | B5360 B5361 B6210 B5032 B5033 B5348 B5349 B5350 B5351 B5352 B5353 B5358 B5359 B6269 B5334 B5355 B5362 B5363 B6527 B6528 B5094 B5105 BH592 B5372 BH594 |

| | |
|---|---|
| Tables | T1688 T1692 T1693 T3620 T3629 T3695 T5399 T5447 T5519 T5534 T5540 T5645 T5655 T5671 T5667 T5679 T5688 T5729 T6634 T6647 T6654 T6658 T6659 T6597 T6687 T5675 T5687 TR517 |

**RETAPPnn** - Return bank tape upload (Approve) for factoring house nn
This job processes direct debit bank return file containing only approved records. It also generates the following reports:

- Approved Debited Listing
- Discrepancy Listing

| | |
|---|---|
| Programs | BR21W BR21X BR21Y |
| Tables | TR371 TR22A TR22B T3684 |

**RETBNKnn** - Return Bank Tape Update (Approve & Reject) for factoring house nn
This job processes direct debit bank return file containing both approved and rejected records. It automatically registers Dishonour transaction for the "Rejected" Direct Debit request. It also generates the following reports:

- Auto-Dishonour Listing
- Unsuccessful Auto-Dishonour Listing
- Auto-Dishonour Listing
- Unsuccessful Auto-Dishonour Listing

| | |
|---|---|
| Programs | BR21W BR21X BR21Y BR21T BR21U BR21V |
| Tables | TR371 TR22A TR22B T3684 |

**RETREJnn** - Return bank tape upload (Reject) for factoring house nn
This job processes direct debit bank return file containing only rejected records. It automatically registers Dishonour transaction for the "Rejected" Direct Debit request. It also generates the following reports:

- Auto-Dishonour Listing
- Unsuccessful Auto-Dishonour Listing

| | |
|---|---|
| Programs | BR21W BR21T BR21U BR21V |
| Tables | TR371 TR22A TR22B T3684 |

**STAAGPST** - Agents Statistical Movements
This batch job is for posting Agent Statistical records in accordance with the parameters set in table T6627/8 and 9. This job can be run daily, weekly or as often as required. This job could be run during the working day but would suggest, for system efficiency, to be run overnight.

| | |
|---|---|
| Programs | B0237 B0236 B6522 B6523 |
| Tables | T1692 T1693 T3629 |

**STAGVPST** - Government Statistical Movements
This is for Government or Statutory Statistical postings in accordance with the relevant table listed above in STSAGPST. Same comments as above when this job is run.

| | |
|---|---|
| Programs | B0236 B0237 B6524 B6525 |
| Tables | T1692 T1693 T3629 |

**STATROLL** - Statistical Year End Rollover
This job basically read through accumulated figures in all accumulation files (GOVE, GVAH and GVAC) to be rolled over to the following year with the brought forward figures. This job should only be run once at the end of the year and when all the statistics for the year have been verified to be correct.

**SUBSDWLD** -
Download Substandard Risks from INTEGRAL LIFE to LIA. Details on sub-standard lives in the industry are passed to the system and vice-versa using this interface.

The Life Insurance Associations (LIA) of each respective country collates sub-standard risk details for their local life insurance industry. These details are passed on to the rest of the life insurance companies in the form of a flat file on a weekly or fortnightly basis.

These files can be retrieved from the Internet and uploaded to INTEGRAL LIFE for use by the underwriters.

Details on sub-standard risks captured anew on the system are flagged for download to LIA, also in the form of a flat file.

Sub-standard risk is managed as follows in the system:

Contract Issue
Upon contract issue, loadings on a life where the reason code is denoted as sub-standard (set in table T5657) is deemed as a substandard risk and is written to the Substandard Risk File with Risk Type=2.

If the sub-standard life is pre-existing on the LIA file as a result of a previous contract purchased, then the system should inform LIA of the latest update e.g. special terms (medical codes) loaded, new contract no, etc.

Decline
Sub-standard cases declined are updated to the LIA file with Risk Type=1 (Decline).

Postponed/Withdrawn
Sub-standard cases postponed/withdrawn are updated to the LIA file with Risk Type=2.

Death Approval
When a death claim on a sub-standard life is approved, the LIA file is also updated.

Regular Claims

When Health Claims module is made available in the base system then upon registering a Health Claim on a sub-standard life, details like the Hospitalisation Period, Application (Hospitalisation) Date should also be passed on to the LIA and the Risk Type is set to 3 (i.e. hospitalisation).

AFI
If the Proposal/Policy No. is the same as the contract being Altered From Inception, then delete the record from the LIA file if the record has not been downloaded. If it has already been downloaded, then leave the record alone.

Add/Modify Component Approval
Loadings with reason code denoted as sub-standard would make this life known to the industry as a sub-standard risk.

If a Special Term or sub-standard risk loading is removed, the LIA file is updated accordingly. The Action Code to LIA should be '2' (i.e. 'Correction'). However, if all Special Terms are removed, then this life becomes a standard life. In this case, the Action Code is '3' (i.e. 'Deletion').

Follow-ups
Follow-ups are automatically triggered if a sub-standard risk is underwritten.

Upload
Upload sub-standard risks details captured by other insurance companies.

Download
Download sub-standard risk details captured anew into a flat file for circulation to other insurance companies.

**SUBSUPLD** -
Upload Substandard Risks to INTEGRAL LIFE.

**SUSPREP** - Suspense Reports
There are two options with INTEGRAL LIFE for reporting on suspense items and it is up to the client which one he chooses, as the reporting is slightly different.

| | |
|---|---|
| Programs | BR501 BR543 |
| Tables | T1692 T1693 T5687 T5688 |

Or

| | |
|---|---|
| Programs | BR543 BR544 BR545 |
| Tables | T1692 T1693 T3623 T3590 T3629 T5645 |

**TABLIST** - Table List Report
This batch job will list, in hard copy form, all the tables within the system together with any HELP information and explanation of the table items. It is possible, by use of a parameter screen, to select All Tables or a specific table number. This job can be run at any time.

| | |
|---|---|
| Programs | B0071 |

| | |
|---|---|
| Tables | - |

**TERMRPT** - New Business Termination Report
This program selects policies, which have had terminating action performed against them within the selected accounting month/year, and summarises the Annual Premium, Single Premium and Sum Assured. The details are sorted and presented for the appropriate Company under the following criteria:

- Company
- Transaction Code (Termination Reason)
- Branch
- Contract Type

Earlier processes make use of the SMART batching programs B0237 and B0236 to close and extract the relevant batches. (See T1697 - Item BH604 for Termination Transaction codes).

| | |
|---|---|
| Programs | B0236 B0237 BH604 |
| Tables | T1688 T1692 T1693 T3629 T5679 T506 |

**TOPAGT** - Top Agency Report
This function reports the top performing agent/agency for each agency category (e.g. Top General Manager, Top Unit Manager, Top Agent, etc.) and are based on the following key result areas:

Minimum Group FYP
Any leader agents meeting the minimum Group FYP criteria is selected. This field is also used as selection criteria against the minimum Personal FYP for non-leaders.

Minimum Direct Group FYP
This is the leader Group FYP less any sub-group FYP. Sub-group FYP comprises of assistant leader agents (also called Unit Managers) and the production produced thereof.

Minimum Cases
Any leader agent meeting the minimum Cases criteria (i.e. number of new policies sold during the reporting period) is selected. For non-leaders, this field is also used as selection criteria on minimum Personal Cases sold.

| | |
|---|---|
| Programs | BM505 |
| Tables | T1692 T1693 T3629 TM604 |

**TRMBUS** - New Business Termination Report
This Program BH563 is designed to produce a report of New Business transactions on a weekly basis. The report will contain such information as Sum Assured, Single and Regular Premium as well as product and Agency details.

| | |
|---|---|
| Programs | BH563 |

| | |
|---|---|
| Tables | T1692 T1693 T3629 T5688 TH535 TH536 |

**T6641CRT** - Mortality Factors Creation
This batch job has been designed to assist the input of table T6641. It takes an item from table T6686 and will calculate the monetary function Nx for table T6641 and create an item. The item key is eight characters, the first five are the name of the item and the last three is the percentage rate for that item. For example 400 is 4%. This batch job would be run as and when required.

| | |
|---|---|
| Programs | B5017 |
| Tables | T1692 T1693 T3629 T6641 T6686 |

**UNAPPR** - Unapproved Requisition Report
This job lists all unapproved requisitions created from a specified date range.

| | |
|---|---|
| Programs | BR301 BR302 |
| Tables | T3672 |

**UNAUTRP** - Requisition Approved, Not Authorised Report
This job lists all requisitions that have been approved but not authorised from a specified date range.

| | |
|---|---|
| Programs | BR301 BR302 |
| Tables | T3672 |

**UNAUTHR** - Unauthorised/Unapproved Requisition Report
This job lists all unauthorised/ unapproved cheque requisitions for the specified bank accounts. It can be run at any time but it is recommended to be run a few days before month end so that the unauthorised requisitions can be dealt with is either authorisation or cancellation.

| | |
|---|---|
| Programs | B2510 |
| Tables | T1692 T1693 T3629 T3672 |

**UNITPRIC** - Unit Fund Prices Report
This program is a price history of Unit Linked Funds. There are five versions of this report available, which one to print is dependent on the parameters entered in the parameter prompt screen P5430.

This is a report only batch job and therefore can be run at any time.

| | |
|---|---|
| Programs | B6230 |
| Tables | T1693 T5515 |

**UNTRESRP** - Unit Reserve Report

At certain times the Actuarial function of an organisation will require to calculate the net risk of Unit Linked Contracts so that he/she may reserve for this exposure.

This report extracts all Unit Linked Contracts calculates the net risk, sum assured less unit surrender value and reports this figure at clients attained age. This report can be run at any time when this system is in use or overnight.

| | |
|---|---|
| Programs | BR502 BR503 |
| Tables | - |

**UNITSTMX** - Unit Statement Print
There is functionality within the system to request Unit Statements for clients via an on-line transaction. This batch job will print Unit Statements as and when required.

The original UNITSTMT job has been replaced with this new UNITSTMX job that runs in multi-thread.

| | |
|---|---|
| Programs | B6505 B6506 BR541 |
| Tables | T3629 T3681 T5515 T5688 T6578 T6649 |

**UNITSTM2X** - Unit Statement Reprint
As there are occasions where the client does not receive a requested Unit Statement this batch job facilitates reprinting.

The original UNITSTMT2 job has been replaced by this new UNITSTM2X job that runs in multi-thread.

| | |
|---|---|
| Programs | B6505 B6506 B6508 BR541 |
| Tables | T3629 T3681 T5515 T5688 T5678 T6649 |

**UPLDDIV** - Upload of Dividend Rates
This job will upload dividend rates from PC file into ITEMPF (TH527). The format of the PC file must be in the same format as DIVRPF. To create the PC file in the same format as DIVRPF, down load DIVRPF to PC in Excel format.

To add records to the PC file, first open the file in Excel, cut and paste data from other Excel worksheets into the DIVR format file. To convert the data to ITEMPF dividend rate upload the Excel file (as Database file with replace option) back to DIVRPF and then run the batch schedule.

**UPLDPRM** - Upload of Premium Rates
There are products whose premium rates are dependent on Cover/Term/Age/Mortality class/Sex. INTEGRAL LIFE supports this by utilising the rating tables T5658 and T5664. Since the premium rates are already held on PC files in Lotus and Excel formats, it would be convenient to have an uploading program to transfer the rates from PC file to INTEGRAL LIFE table file. The PC file in Excel format must be structured according to the file format to be accepted by the AS/400 to make the uploading process easier. The actual uploading of file is done via RUMBA. A

process on the AS/400 will be required to convert the data from the uploaded file to SMART table file.

Operational Procedure

- DFU one record into HRATPF so that the Timestamp field is in the correct Download the HRATPF file into an EXCEL database, and save the file description.
- Cut and Paste the downloaded record into the HRATPF spreadsheet, and ensure that each record has the timestamp field in the correct format.
- Upload the updated HRATPF EXCEL file as a database file (Using the file description created as part of (2) above) using the replace option into the relevant environment.
- Run the Batch Schedule UPLDPRM in the environment where the uploaded file is held.

**WFANNIVY**, etc - Windforward Batch Jobs

CSC Europe introduced the Windforward following Reversal Functionality in 1997. Windforward is the process by which transactions that have been reversed by Full Contract Reversal can be wound forward, in order to return the contract to its pre Full Contract Reversal state. Only automatic scheduled events are eligible for Windforward Processing i.e. batch processing and the following is a list of batch jobs available.

These batch jobs will have the same programs and tables attached to them, as would the originating batch process. For example Anniversary Processing program is B5094, WFANNIVY process is also B5094.

WFANNIVX Windforward Anniversary processing (new multi-thread Anniversary Processes)

WFBENBIL Windforward Benefit Billing

WFBILLING Windforward Flexible Premium Billing

WFCANCIU Windforward Cancellation of Initial Units

WFCOFEXI Windforward Certificate of Existence

WFFODUE Windforward of Flexible Premium Overdue

WFFPANNY Windforward of Flexible Premium Anniversary Processing

WFFPCOLL Windforward of Flexible Premium Collection

WFPAYMTS Windforward of Regular Payments

WFREGPAY Windforward Regular Payments (No Cert of Exist'ce)

WFRERATX Windforward ofRerate (new multi-thread re-rate processes)

WREVACC Windforward of Revenue Due Accounting

WFREVIEW Windforward of Regular Benefits in Review

WFRPCOLL Windforward of Premium Collection

WFRPODUE Windforward of Overdue

WFTERMED Windforward of Regular Benefits Terminations

WFUDDEAL Windforward of Unit Deal

WFFUDDEBT Windforward of Unit Debt

WFUDFNDS Windforward of Fund Switch

WFUDREPT Windforward of Unit Deal Report

WFUDTIDY Unit Deal File Tidy Up

WFUNISTX Windforward of Unit Statements (new multi-thread Unit Statement Processes)

**WKNBRP** - Weekly New Business Production Report
There is a requirement for various reports to be produced for New Business transactions. This report will detail New Business transactions on a weekly basis, and will hold such information as Sum Assured, Single and Regular Premium amounts as well as Product and Agency details. This particular report will be run at the end of each week, and will produce updated figures for Month-to-date, quarter-to-date and year-to-date values.

BH563 This Program is designed to produce a report of New Business transactions on a weekly basis. The report will contain such information as Sum Assured, Single and Regular Premium as well as product and Agency details.

| | |
|---|---|
| Programs | BH563 |
| Tables | T1692 T1693 T3629 T5688 TH565 TH566 |

**WKSLSRP** - Weekly Sales Policy Status Report
This is a weekly report used by the individual sales channel to monitor completions and the status of outstanding policies awaiting completion. Sales people will use this listing to follow-up their clients on outstanding cases.

BH530 This Program reports on policies which have had one or more of the following transactions applied to them in the week prior to the running of the report - Issue, Cancel from Inception, Decline, Withdraw or Postpone.

| | |
|---|---|
| Programs | BH560 |
| Tables | T1692 T1693 T3623 T5661 T5674 T5679 T5688 T5696 TH506 TH565 |

**XMLPRT** -
This printing batch job will process any pending letter requests where the request date is on or before the batch effective date entered. A parameter prompt screen exists, which allows the user to refine the selection criteria further, e.g. to only produce letters of a particular type. This batch process will invoke the data extraction, formatting and document creation and will store the documents. It will not print the documents; this must be done using the bulk printing command or using the on-line print transaction.

| | |
|---|---|
| Programs | B2560L B2561L |
| Tables | TR383 T2634 T2635 T2636 T2642 T2652 T2659 T2667 |

## 3.3 Batch Schedule

The batch schedule below is a recommended approach for completing New Business and General Policy Service type transactions on a daily basis, Collection of Direct Debit payments daily, Unit Dealing and General Ledger postings from the system.

There are no specific End of Quarter reports within the INTEGRAL LIFE system. However, there is no reason why many of the General Ledger reports cannot be run on a quarterly interval to produce a summary of the previous three-month's business.

**During the Day:**

Close Cash Receipts Batches and run CASHLIST UNITEXT, if Unit Pricing completed on daily basis

**Daily (in this order after normal business hours):**

| | |
|---|---|
| AGENTCHG | Agent Change |
| NEWAGTST | Agent Statement |
| RACOST | Reassurance |
| REGPAY | Regular Payments |
| CHQPRN01 | Auto. Cheque Production |
| DISHGRUP | Group Dishonours |
| GROUPSMT | Group Statements |
| POLRNWL | Regular Processing |
| POLACK | Policy Acknowledgement Processing |
| NEWUNITD | Unit-Dealing |
| STAAGPST | Agents Statistics |
| STGVGPST | Government or Statistics |
| NEWINTBL | New Interest Billing |
| NEWINTCP | New Interest Capitalisation |
| GLUPDATE | General Ledger Update |
| GLBALST | GL Balance Statement |
| NOTEPAD | Notepad Report |
| XMLPRT | XML Printing Solution |
| CREDITS | Direct Credits |
| DDnn | Direct Debit Extract |
| DDAPLYnn | Direct Debit Apply |

| | |
|---|---|
| DISHnn | DD Dishonour Processing |
| RETAPPnn | Return bank tape upload (Approve) for factoring house nn |
| RETBNKnn | Return bank tape upload (Approve & Reject) for factoring house nn |
| RETREJnn | Return bank tape upload (Reject) for factoring house nn |

**Weekly New Business Reports:**

| | |
|---|---|
| UNAUTHR | Unauthorised Requisition Report |
| UNAPPR | Unapproved Requisition Report |
| UNAUTRP | Requisition Approved but Not Authorised Report |

**Month End (Daily plus below):**

| | |
|---|---|
| NEWAGTPY | New Agent Statement Payments |
| PENDMATY | Pending Maturity Report |
| PAYOS | Outstanding Payments Report |
| PAYRPT | Processed Payments. Report |
| GLEXPSL | GL Expense Report |
| GLMTHST | GL Monthly Statement |
| GLYTDST | GL Year to Date Report |
| GLCMPST | GL Comparison Statement |
| POLRGT | Register of policies |

**Year-End:**

| | |
|---|---|
| BONCMPY | Company Anniversary Reversionary Bonuses |
| GLROLL | GL "Rollover" |
| STATROLL | Statistical Year End Rollover |

**Ad Hoc General Ledger:**

| | |
|---|---|
| GLAUD | Audit Report |
| GLCURCON | Multi Currency Conversion Report |
| GLEXPLR | Chart of Accounts Explosion |
| GLIMPLR | Chart of Accounts Implosion |
| GLUNLNK | Unlinked Accounts Report |

**Ad Hoc General:**

| | |
|---|---|
| HELPALL | "Help" Details Report |
| HELPSEL | Selected "Help" Details Report |
| TABLIST | Table Listing Report |

**Housekeeping:**

| | |
|---|---|
| F9AUTOALOC | System Numbering (FSU/Asia) |
| AUTOALOC | System Numbering INTEGRAL LIFE |
| ARCACMV | Archiving ACMV's to Optical Disc |
| ATLIST | List of AT Queue |
| ERORREP | System Data Base Error Report |

JOBPERF Job Performance Listing

## 3.4 Renewals Processing

The Renewals Processing batch schedule (RENEWALS) forms a fundamental part of the INTEGRAL LIFE system and handles most scheduled events that are likely to take place with a contract. Much of the processing of life assurance contracts is controlled by the date, rather than being a transaction input at a terminal. Such processing as sending out premium notices and overdue premium notices and so on comes into this category.

The batch schedule covers those premium aspects and scheduled changes. It covers several different processes that can also be split and run independently. The steps are as follows:

### 3.4.1 Flexible Premiums Anniversary Processing - B5360 & B5361

UK Release 9604 introduced Flexible Premiums to INTEGRAL LIFE for Unit Linked Products. The main feature of this new functionality is that any amount of premium can be paid at any time; a fixed premium on a fixed date is not required. Although fixed premiums are not required, it is a normal practice to define a Target Premium and a Target Frequency for the contract that will provide the basis for the calculation of commission, and where appropriate, the percentage of each premium received that is to be invested.

Flexible contracts are reviewed annually to compare the expected premium flow, Target Premium, with the premiums received. This step in the Renewals batch job completes this review. If the Target Premium has not been reached or not all the premiums have been billed then the indicator on the Flexible Premium Coverage record (FPCO) will remain as "Y" so that any premiums received in the next period can be applied to this period until the Target Premium has been reached. Once the Target Premium has been reached then the indicator on old record is set to "N" and the next year Target Premium record is created to record subsequent receipt of premiums.

The above processes will complete this review and must be run prior to the Billing process.

Tables used by Programs

T5679 - Transaction Status
T5688 - Contract Processing
T5729 - Flexible Premium Variance
T6654 - Billing Control

Transaction Code

B537 - Flexible Premium Anniversary Processing

### 3.4.2 Rerate - Program BR612 & BR613

The main objective of this process is to recalculate any premiums that require re-rating prior to billing. A contract may require re-rating in the following cases:

- Expiry of an Option or Extra Loading
- Periodic Re-Rating of Renewable Term Contracts
- Component becoming Fully Paid

All contracts to be re-rated have a product type that governs the lead-time, days in advance of the due date, for re-rating to commence. Depending on this date, components are selected by query utility and re-rated if the premium is due for revision. This query will view both the contract header and component records in order to carry out the select/omit processing.

Generic premium calculation routines are called to recalculate the component premium and the difference is accumulated by contract until all components are processed in which time the contract header is updated. Where an Option, Premium Loading or Discount has expired, the premium calculation module for the component is simply called to recalculate the instalment due.

On cessation of a component premium the contract header and PAYR file records are rewritten with the relevant premium change, added or subtracted, from the overall contract amount. In addition, the system may alter the premium status of a component to 'fully paid' as defined in table T5679. In this way different actions may be taken on components with 'fully paid' premium status, than one that is still premium paying, such as Reversionary Bonuses.

The contract status will not be altered to 'fully paid' until all components have completed their premium paying terms. Similarly, these processes must be run prior to the Billing process.

The Multi Thread programs are:

| | |
|---|---|
| CRTTMPF | Create Temporary Re-rate file |
| BR612 | Component Re-rate Splitter Program |
| BR613 | Component Re-rate Updating |

Tables used by Program

| | | |
|---|---|---|
| T5655 | - | Automatic Increase Rerate Lead Time |
| T5671 | - | Coverage Rider Switching |
| T5679 | - | Status Transaction Requirements |
| T5687 | - | Coverage and Rider Details |
| T6658 | - | Anniversary Processing Rules |

Transaction Code

| | | |
|---|---|---|
| B672 | - | Component Rerating |

### 3.4.3 Pending Automatic Increases - Program B5133 & B5134

This process extracts all contracts where the next increase date is imminent. The business tasks performed are to calculate the amount of the increase by reference to component records and table data to create records to ensure that the next billing takes account of the expected increase. In addition to this, it can generate letters to notify the contract owner or payer that an increase is approaching.

The Multi Thread processes are:

| | |
|---|---|
| B5144 | Clear Automatic Increase Report file |
| CRTTMPF | Create Temporary Pending Automatic Increase file |

B5133 Pending Automatic Increase Splitter
B5134 Pending Automatic Increase Process
B5135 Pending Automatic Increase Report

Tables used by the Program

T5565 - Automatic Increase Control
T5679 - Transaction Status Requirements
T5687 - Coverage and Rider Details
T5688 - Contract Processing Rules
TR384 - Automatic Letters
T6658 - Anniversary Processing

Transaction Code

B523 - Pending Automatic Increase

### 3.4.4 Actual Automatic Increase - Program B5136 & B5137

This program will process the Increase Pending record, created by the previous program, on the actual increase date. At this stage processing to update the contract records with the calculated new amounts will take place. This will involve writing new Contract Header, CHDR, Coverage or Rider, COVR, and Payer, PAYR, details and rewriting the old records with a valid flag of '2'.

The increased portion will write Increase records, INCI, that will hold the details of the increase amount and any commission that is payable.

The Multi Thread programs are:

B5144 Clear Automatic Increase Report file
CRTTMPF Create Temporary Actual Automatic Increase file
B5136 Actual Automatic Increase Splitter
B5137 Actual Automatic Increase Process
B5138 Facultative Reassurance Report

Tables used by Program

T5447 - Reassurance Product Bypass
T5671 - Coverage/Rider Switching
T5679 - Transaction Status Requirements
T5687 - General Coverage/Rider Details
T5688 - Contract Processing Rules
T6658 - Anniversary Processing Rules

Transaction Code

B524 - Actual Automatic Increase

### 3.4.5 Waiver of Premium Rerate - Program BR614 & BR615

This is one of the processes in Renewals schedule for rerating Waiver of Premium (WOP) components of contracts. The contracts fall in the criteria to re-rate, that is when re-rate date is before the effective date of the run and maximum lead days in T5655. New coverage (COVR) records are written with the re-rated premium and new re-rate dates if applicable.

The reason that this program is introduced is because re-rating on individual component will affect the total sum insured for WOP, also the automatic increase processes will result in new instalment premiums for components, therefore this program is run after all relevant coverages have been re-rated, to write new COVR records for WOP components.

While reading through COVR records, skip processing on non WOP components. For WOP components, find the earliest re-rate dates from all the related components. Also, accumulate for the correct WOP Sum Insured before calling the premium calculation routine for new renewal premium.

The Multi Thread programs are:

| | |
|---|---|
| CRTTMPF | Create Temporary Waiver of Premium Re-rate file |
| BR614 | Component Re-rate Splitter Program |
| BR615 | Component Re-rate Updating |

Tables used by Program

| | | |
|---|---|---|
| T5655 | - | Automatic Increase Rerate Lead Time |
| T5671 | - | Coverage Rider Switching |
| T5674 | - | Contract Management Fee |
| T5675 | - | Premium Calculation Method |
| T5679 | - | Status Transaction Requirements |
| T5687 | - | Coverage and Rider Details |
| T5688 | - | Contract Processing Rules |
| T6658 | - | Anniversary Processing Rules |
| TR517 | - | Waiver of Premium Component |

Transaction Code

| | | |
|---|---|---|
| BH65 | - | Waiver of Premium – Rerate |

### 3.4.6 Billing - Programs B5348 & B5439

This process bills all contracts that fall due at the effective date of the billing taking into account of the billing lead days defined in table T6654. A temporary file, PAYXPF, is created which adds the required numbers for the subsequent process B5348. B5348 uses SQL, Structured Query Language, to select the required PAYR records and write the records in turn to the members created above. The main processing is performed directly afterwards by B5349. All contracts due, including past instalments, produce instalment records, LINS, which are used later for collection, B5353.

Each contract that is due is checked for outstanding suspense premium to assess how much will be available to settle the outstanding amount. If the available suspense is not enough to cover the outstanding instalment amount, an INTEGRAL FSU subroutine, BILLREQ1, is called to create the Billing Extract record (BEXT).

Where Premium Relief at Source applies, this is calculated by means of its own subroutine, accessed from table T6687. The amount of tax relief is deducted from the amount billed.

Tables used by Programs

| | | |
|---|---|---|
| T3615 | - | Source of Business Table |
| T3620 | - | Billing Channels |

T3629 - Currency Details
T3684 - Factoring Houses
T3695 - Sub Account Types
T5645 - Transaction Accounting Rules
T5679 - Transaction Status Requirements
T6654 - Billing Control Table
T6687 - Premium Tax Relief Method

Transaction Code
B521 - Billing

### 3.4.7 Revenue Accounting - Programs B5350 & B5351

The system caters for two types of accounting methods, Cash and Revenue or Due Date Accounting. Cash Accounting requires that the premiums are only accounted for when the money is available. Revenue Accounting requires the premiums to be accounted for when they are due. The contra entry for the Revenue posting is made to the Premium Due Control Account. After posting, when the money is made available, then the contract's suspense sub account is debited and the moneys credited to the Control Account, during the Collection process.

The choice of Cash or Revenue Accounting can be made at the product level by notation in table T5688. This program performs Revenue Due Account Postings.

Table used by Programs
T3629 - Currency Details
T5645 - Transaction Accounting Rules
T5679 - Transaction Status Requirements
T5688 - Contract Processing Rules

Transaction Code
503 - Revenue Accounting

### 3.4.8 Premium Collection - Programs B5352 & B5353

This module selects unpaid premiums from the outstanding instalments file and attempts to settle them from the contract suspense account. A temporary file, LINXPF, is created which adds the required number of members for the subsequent process, B5352. B5352 uses SQL to select the required LINS records and write the records in turn to the members created above. The main processing is performed by B5353.

When there are sufficient funds available in the contract's suspense account, the instalment, payer and contract header records are updated accordingly and the General Ledger accounting records are written.

Tables reviewed by Programs
T3695 - Sub Account Types
T5644 - Commission Release Methods
T5645 - Transaction Accounting Rules
T5667 - Premium Tolerance Limits
T5671 - Coverage/Rider Switching
T5679 - Transaction Status Requirements

T5688 - Contract Processing Rules
T6654 - Billing Control Table
T6687 - Premium Tax Relief Method

Transaction Code
B522 - Premium Collection

### 3.4.9 Premium Tolerance

Premium Tolerance has two premium shortfall tolerance field. If the shortfall is greater than the first shortfall tolerance limit, but less than or equal to the second shortfall limit, the full amount of the shortfall will be deducted from the Agent Commission account. The shortfall limit is specified in Table T5667 – Tolerance Limits.

### 3.4.10 Flexible Premium Collection - B5358 & B5359

Flexible Premium Collection processes premium received that is held in suspense and will apply any amount held assuming that the amount in suspense is within the flexible premium variance. The amount processed from suspense may be added to more than one target period, for example if the previous target period is active because the target premium for that period has not been received.

These batch programs will produce two reports as follows:

- The Over Maximum Premium Variance Report that will detail premium, which cannot be allocated because the suspense amount exceeds the maximum acceptable premium as, defined in table T5729.

- The Under Minimum Premium Variance Report, which will detail premiums that cannot be allocated because it is below the minimum premium as defined in table T5729.

Tables used by Programs
T3620 - Billing Channels
T3695 - Sub Account Types
T5644 - Commission Payment
T5645 - Transaction Accounting Rules
T5671 - Coverage/Rider Switching
T5679 - Transaction Status
T5688 - Contract Processing Rules
T6654 - Billing Control

Transaction Code
B536 - Flexible Premium Collection

### 3.4.11 Canc. of Unit Linked Initial Units - Program B5372

This is a contract anniversary process on Unit Linked Contracts that have Initial Units. The program selects all components that are due for initial unit cancellation based on the initial unit cancellation date of the coverage. It will calls generic routines as determined by table T5540 to process any components due. The initial unit

cancellation date on the coverage will then be increased by one frequency based on the setting in table T5519.

Tables used by Program

| | | |
|---|---|---|
| T5519 | - | Initial Unit Discount Factor |
| T5540 | - | Contract Unit Linked Details |
| T5679 | - | Transaction Status Requirements |

Transaction Code

| | | |
|---|---|---|
| B678 | - | Cancellation of Initial Units |

The original program B6269 for Cancellation of Unit Linked Initial Units module has been replaced with program B5372.

### 3.4.12 Overdue - Programs B5354 & B5355

This module extracts contracts in the system, with overdue premiums, selecting all Payers that have a paid to date less than the billed to date. A temporary file, PAYXPF, is created which adds the required number of members for the subsequent process, B5354. B5354 selects the required PAYR records and writes the record in turn to the members created above. The main processing is completed by B5355.

Depending on the billing method of the contract, there may be a grace period that is table driven, T6654, and referred to in the processing to decide what form of overdue action is to be taken. All overdue processing is controlled initially but Billing Control table, T6654 and this will either enforce:

- Overdue Letters
- Overdue Processing at the component level
- Automatic Premium Loans, at the contract level

The Billing Control table T6654 controls the action to be taken by Method of Payment; Contract Type and these two data items form the key to the table. From the extra data panel can be found the appropriate overdue action to be taken for the contract. Different action can be taken depending upon how long the premium is overdue. If, say, one week, then an overdue letter can be sent therefore, the entry in the first overdue line, on table T6654, would be seven days followed by the name of the appropriate letter production subroutine. Up to four different periods of actions can be specified.

The field Contract Arrears Processing will determine whether the contract is permitted an Automatic Premium Loan or whether component level processing is to apply. If blank, then component level processing will be applied. If present, then true Non-Forfeiture processing in the form of APL will be applied.

Overdue Processing at Component Level

The system will look to table T5687 to determine the overdue processing to be applied to the component. If the component has a method in the Non-Forfeiture routine field, then the appropriate method is put into action. The system will look to table T6597, Non-Forfeiture Methods and execute the appropriate subroutine for the method detailed. This may be an instruction to lapse the component, or automatically

to make it paid up, etc. Each component is processed in turn and different components under the same contract may have different action applied.

Overdue Processing at Contract Level

If the billing control table, T6654, has an entry in the field Contract Arrears Method, then this means the contract is eligible for a premium loan to pay outstanding premiums. The system will again reference T6597 to obtain the processing sub routine to implement the loan. The system will automatically calculate the total available surrender value, calculate the sum of existing loans both contract and APL including interest to date. These two figures will be compared and if the surrender value exceeds the loans by an amount equal to or greater than the outstanding premium(s), then the loan will be granted. In the event the loan debt plus interest is greater than the contract surrender value then the premium loan will not be advanced. The system will inform you of this situation within report R6244, Overdue Processing, so that the appropriate Non Forfeiture Surrender action can be taken.

The loan when granted will debit the loan principal account and credit contract suspense. The next RENEWALS run will debit suspense and credit the premium account and move premium paid to date to the billed to date.

The APL processing will trigger a change in the billing frequency of the contract to the next more frequent billing frequency if the total surrender value is insufficient to APL for the current modal premium. The payment frequency will be reduced until the revised APL installment can be advanced or monthly frequency is reached, and advance that revised premium installment.

If the revised monthly installment cannot be advanced, then system will produce an exception listing for user to do further processing (i.e. lapse the contract or refund the balance surrender value through surrender transaction).

This change assumes that all riders attached to this policy/contract will have their premium advanced under APL if premiums are not paid, as non-forfeiture options are held at contract header level and not at component level.

Extended Term Insurance (ETI) and Reduced Paid-Up (RPU) are provided to the Client to choose from in addition to Automatic Premium Loan (APL). If the cash value is insufficient to cover an Automatic Policy Loan (APL), there should be an option to use the cash value to purchase ETI or RPU instead.

The User can choose to create the Non-Forfeiture Option (NFO) during New Business data capture. After the contract is issued, the User can also change the NFO via one of the options in the Minor Alteration Submenu.

There will always only be one NF option invoked after the grace period. This is either client defined or by company default. Therefore there is no hierarchy of non-forfeiture options.

**ETI**

For a contract with an ETI NFO, the ETI NFO will be exercised when premium has not been received for a defined period of time. Any outstanding loans or loan interest will be settled using the cash value (including accumulated dividend and paid-up

additions) before the ETI cover is purchased, and the remaining cash value will be used to purchase the ETI cover. The extended term will be calculated based on the remaining cash value and death benefit as at the date of termination (as outlined below), and the existing coverage will be extended by the calculated amount of time. The coverage will have a new status of ETI, which will make it ineligible for any further regular processing. The ETI coverage is assumed to be non-participated, i.e. no dividend allocation is required.

**RPU**

For a contract with an RPU NFO, the RPU NFO will be exercised when premium has not been received for a defined period of time. Any outstanding loans or loan interest will be settled using the cash value (including accumulated dividend and paid-up additions) before the RPU cover is purchased, and the remaining cash value will be used to purchase the RPU cover. The Sum Assured will be calculated based on the remaining cash value and the remaining term as at the date of termination (as outlined below), and the existing coverage sum assured will be reduced to zero. The coverage will have a new status of RPU, which will make it ineligible for any further regular processing, except for dividend allocation (optionally). A new paid up addition record (HPUA) will be written for the reduced paid-up coverage.

**Automatic Cash Surrender (ACS)**

For a contract with an ACS NFO, the ACS NFO will be exercised when premium has not been received for a defined period of time. Any outstanding loans or loan interest will be settled using the cash value (including accumulated dividend and paid-up additions) before the remaining cash value surrendered.

In the system, the automatic cash surrender non-forfeiture option can be set up by two methods:

- First method is specified when the contract is defined.
- Second is specified at the product definition depending on the billing channel; e.g., Cash, direct debit and contract type.

Tables used in Programs

| | | |
|---|---|---|
| T5645 | - | Transaction Accounting Rules |
| T5679 | - | Transaction Status Requirements |
| T5687 | - | Coverage/Rider Details |
| T6597 | - | Non-Forfeiture Methods |
| T6647 | - | Unit Linked Transaction Rules |
| T6654 | - | Billing Control Table |

Transaction Code

| | | |
|---|---|---|
| B673 | - | Overdue Processing |

### 3.4.13 APL Billing Frequency Change - Program BR588

This process will perform the Billing Frequency change for policies having Non-Forfeiture method of APL with Billing Change. It will basically read the Billing Frequency Change Details file (BFRQ) and process sequentially for all records found in this file. For each record read, do a Billing Frequency Change and invalidate the BFRQ record by setting the Validflag to '2'.

The BFRQ records are created during the Overdue processing, when the Surrender Value of these policies is not enough to cover the instalment premium and the Billing Frequency is not Monthly.

Tables used in Programs

| | | |
|---|---|---|
| T5541 | - | Frequency Conversion Factors |
| T5567 | - | Contract Fee Parameters |
| T5664 | - | Premium Rates (Age Based) |
| T5671 | - | Coverage/Rider Generic Processing |
| T5679 | - | Transaction Status Requirements |
| T5687 | - | Coverage/Rider Details |
| TR517 | - | Waiver of Premium Component |

Transaction Code

| | | |
|---|---|---|
| BR74 | - | APL Billing Change |

### 3.4.14 Automatic Non-Forfeiture Surrender - Program BR525

This process will perform the Non-Forfeiture Surrender for policies having Non-Forfeiture method of NF Surrender. It will basically read the Contract Non Forfeiture Surrender file (CNFS) and process sequentially for all records found in this file.

The CNFS records are created during the Overdue processing, when the Surrender Value of those policies is not enough to cover the instalment premium.

Tables used in Programs

| | | |
|---|---|---|
| T5679 | - | Transaction Status Requirements |
| T5687 | - | Coverage/Rider Details |
| T6598 | - | Calculation Methods (Various) |
| TR691 | - | Surrender Tax |

Transaction Code

| | | |
|---|---|---|
| BR78 | - | Automatic Non Forfeiture Surrender |

### 3.4.15 Overdue Flexible Premiums - B5362 & B5363

When premiums are received for a Flexible Premium contract, the system assumes that the amount received pays the contract up to date. Overdue batch processing for regular premiums uses the difference between the Billed to and Paid to Dates to identify overdue contracts. This processing is not applicable to Flexible Premium contracts since the receipt of any premium pays the contract to date.

Therefore, Flexible Premium contracts are excluded from the overdue batch processing via T6654, Billing Control Table. The overdue premium lag time should be set to the maximum number of days e.g. 999, within T6654 in order to prevent overdue letter production and automatic non forfeiture processing.

The above batch programs create a report on components that have not received the minimum premium required so that manual action can be taken such as manual lapsing of the component.

Tables Reviewed by the Programs

| | | |
|---|---|---|
| T3629 | - | Currency Codes |

T5679 - Transaction Status

Transaction Code

B536 - Flexible Premium Overdue Processing

### 3.4.16 Benefit Billing - Program B6527 & B6528

Benefit Billing is a Unit Linked term where the units purchased on the main coverage are used to pay for the life cover of that component and any other components attached to that main coverage. The system calculates either the net amount at risk or the gross amount at risk, dependent on the product definition settings, and holds that amount as a debt against the units held. This debt awaits the next unit purchase and sale batch job, NEWUNITD. During the NEWUNITD process the system will attempt to clear the debt by surrender of units. In the event that the coverage does not have sufficient unit value to clear the debt in full then the remaining debt continues to be held as outstanding until future unit purchases are sufficient to clear this debt.

Benefit billing is normally completed on a monthly basis irrespective of the frequency of premium payments.

Tables used by the Program

T5534 - Benefit Billed Method
T5679 - Transaction Status Requirement
T5687 - Coverage/Rider Details

Transaction Code

B674 - Benefit Billing

### 3.4.17 Deferred Agent Postings - Program B6688 & B6689

This program updates the sub account balances (ACBL) for agents if this processing has been deferred from the Collections process.

When Collections process runs in multi-thread, it is possible for the processing to abort if one of the threads tries to access an agent account balance (ACBL) record which is already held for update by another thread. To avoid this situation, the ACBL updates have been deferred and the Deferred Agent Details records (ACAG) are created to store the update details.

This program will basically read through all ACAG records sequentially to update the corresponding Agent sub account balances.

Transaction Code

B522 - Benefit Billing

### 3.4.18 Anniversary Processing - Program BR618 & BR619

This module selects all components that are due for anniversary processing. This could be for Unit Linked and/or Traditional contracts and could include such things as Statement of Account, Premium Certificates, etc.

The extract is similar to benefit billing in that the components have a schedule date for this action. Again generic routines carry out any processing dependent on the

method held in T5687. The Anniversary/Automatic Increase Processing table, T6658, contains the generic subroutine and after processing the schedule date on the component is incremented by one year.

Tables used by Program

| | | |
|---|---|---|
| T5519 | - | Initial Unit Discount Factor |
| T5540 | - | Contract Unit Linked Details |
| T5679 | - | Transaction Status Requirement |
| T5687 | - | Coverage/Rider Details |
| T6658 | - | Anniversary Processing Rules |

Transaction Code

| | | |
|---|---|---|
| B675 | - | Anniversary Processing |

The Multi Thread programs are:

| | |
|---|---|
| CRTTMPF | Create Temporary Anniversary Processing file |
| BR618 | Anniversary Processing Splitter Program |
| BR619 | Anniversary Processing |

### 3.4.19 Unit Statements - Program BR616 & BR617

This process is for Unit Linked contracts to provide the client with a unit statement either at the anniversary of the contract or at premium payment dates, depending on the definition held in table T6659.

All contracts due for such processing are then processed by calling the generic subroutine as determined by the method held in T6647.

Tables used by Program

| | | |
|---|---|---|
| T5679 | - | Transaction Status Requirements |
| T6647 | - | Unit Trans. Processing Rules |
| T6659 | - | Unit Statement Details |

Transaction Code

| | | |
|---|---|---|
| B676 | - | Unit Statements |

The Multi Thread programs are:

| | |
|---|---|
| CRTTMPF | Create Temporary Unit Statement file |
| BR616 | Unit Statement Splitter Program |
| BR617 | Unit Statement Processing |

### 3.4.20 Premium Notice Creation - Program BH594

This process generates premium notice letter requests (LETC) for those contracts with cash paying method for premium collection and the associated next instalments are due immediately.

Please note that there is no premium notice for Flexible Premium contracts.

Tables used by Program

| | | |
|---|---|---|
| T5729 | - | Flexible Premium Variance |
| TR384 | - | Automatic Letters table |

Transaction Code

BH74 - Premium Notices

### 3.4.21 Deferred Agent Production Update - Program BR623 & BR624

This program updates the Agency Production record (MAPR) balances for agents if this processing has been deferred from Revenue Due Accounting and Collections processes.

When Revenue Due Accounting or Collections runs in multi-thread, it is possible for the processing to abort if one of the threads tries to access an agent production record (MAPR) which is already held for update by another thread. To avoid this situation, the MAPR updates have been deferred and the Deferred Agent Production Details records (AGPR) are created to store the update details.

This program will basically read through all AGPR records sequentially to update the corresponding Agent productions (MAPR).

# 4. Online Processing

## 4.1 Contract Enquiry

### 4.1.1 Introduction

Contract Enquiry is an on-line facility that displays all relevant data about an issued contract and its components. It comprises a basic contract header information screen and subsequent screens giving more detailed information.

The system first displays the contract header and from here the user may select various aspects of the contract for more detailed enquiry. The contract header will contain the following:

- Contract Number
- Contract Type
- Contract Currency
- Contract Status
- Contract Premium Status
- Life Assured
- Joint Life
- Contract Owner
- Joint Owner
- Payer
- Servicing Agent
- Branch
- Assignee Flag, Assignee Information is given in more detail under Extra Details screen
- Marketing Route
- Payment Method
- Payment Frequency
- Risk Commencement Date
- Last Instalment Date
- Next Billing Date
- Contract Premium
- Paid to Date
- Billed to Date
- 1st Policy Issue Date
- Policy Issue Date
- Proposal Date
- Proposal Received Date
- Underwriting Decision Date

At the bottom of the Contract Header screen, number S6363; there are various selections that will take the user into a different screen for a more detailed enquiry.

The options available are as follows:

### 4.1.2 Claims Enquiry, Screen S6685

This area is to enquire on Regular Benefit type claims such as Waiver of Premium, Permanent Health Payments and Regular Withdrawals from Unit Linked Contracts.

This initial screen will detail the Coverage's and Riders under the plan. Selection of the appropriate Coverage and Rider will bring up another screen that will hold the information relating to Regular Benefit Payments, Date of Payment, Amount, Next payment due, etc.

### 4.1.3 Plan Components, Screen S6239

The initial screen will display the Life Assured, Coverage and Rider details. Select the Life Assured will bring up the Life Assured details captured at the new business proposal. If it is a joint life case then scrolling between each life detail is available.

For the Coverage and Riders there are three options, 1, Component Details, 2, Fund Holding of Unit Linked Contracts and 3, Reassurance.

Select Component Details will bring up screen S6259 which at the top of the screen displays the Contract Header information, Contract Number, Currency, etc. In addition to this it displays the following:

- Life Number, Coverage Number, Rider Number and Lien Code
- Age Next Birthday, ANB, at Risk Commencement Date, RCD
- Statutory Fund, Section and Subsection (Statistical Codes)
- Benefit Amount
- Single Premium (If applicable)
- Premium and Premium Cessation Date
- Coverage RCD and Risk Cessation Date
- Anniversary Processing Date
- Re-rate Date and Re-rate From Date
- Mortality Class and Extra Premium Details (If applicable)

Select Reassurance and the system will display a pop up window of screen S6263. It displays the details as follows:

- Reassurance Account Number
- Reassurance Payment Frequency
- Reassurance Type
- Total Sum Assured for Component
- Reassured Amount
- Premium Payable
- Currency and Billed to Date

### 4.1.4 Client Roles, Screen S6240

This screen will display all the clients attached to this contract with the role notated, for example, Life Assured, Beneficiary, Trustee, etc. Click on the client number hyperlink and the system will display the Client Details screen, S2465, which hold all the relevant client information.

### 4.1.5 Sub Account Balances, Screen S6235

The screen displays all the account balances in accordance with the selections required and requested in T5645, item P6235. If you select one of these balances then the system will move into screen S6236 and display a breakdown of the overall balance of the requested sub account type. The information shown on this screen is as follows:

- Effective Date
- Transaction Number
- General Ledger Code
- Document Prefix
- Document Number
- Original Amount
- Accounting Amount (these last two items could differ in a multi-currency environment)

This enquiry function can further display the document related to this financial transaction such as payment, receipt or journal by selecting the transaction with the document attached.

### 4.1.6 Transaction History, Screen S6233

This screen displays all the Policy History information (PTRN) in descending transaction number order. This screen will display Transaction number, Date, creation user for each Transaction, PTRN Code and Description. The cursor will only allow entry to a history item that has some financial information. If you select one of these transaction history items then screen S6234 will be displayed with the account posting Entity information, e.g. for Agent commission posting, Agent number would be displayed for that transaction. This screen has also been enhanced to allow enquiry on the proposal transaction history and posting at the proposal stage from the Contract Header screen S5004.

The display includes the Fund Transactions Details screen, SR50U, if the selected transaction has related fund movements.

### 4.1.7 Agent Details, Screen S6237

This screen shows the Servicing Agent and any Agents that receive commission in relation to this contract. There are two selections available 1, Initial Commission Status and 2, Agent Details.

Select Initial Commission Status and the screen S6238 will show the following:

- Effective Date
- Annualised Premium
- Commission Paid
- Commission Earned

Select Agent Details and the System will bring up the Agent Record screen S5035.

### 4.1.8 Extra Details, Screen S6354

This screen will show the Contract Header details plus Direct Debit mandate details and Dispatch Address. There are four further options within this screen, Trustee, Contract Beneficiaries, Contract Assignees and Group Details.

Select Trustee and you will move into screen SR626 that displays all trustees appointed and recorded in the contract either via Proposal or Contract Trustee transaction maintained in the Minor Alterations submenu. The trustee's name, client number, trustee type and the trust effective dates are displayed.

Select Contract Beneficiaries and you will move into screen S6247 that displays all beneficiaries named and recorded in the contract either via Proposal or Beneficiary Change transaction maintained in the Minor Alteration submenu. If you select one of the beneficiaries then you can view the client details of the beneficiary, screen S2465.

Select Contract Assignee will create a pop up window of screen S6228. The information contained is the name and address of the assignee together with the Assignee type and From and To Date. If there is more than one assignee scrolling facilities are available.

Select Group Details and screen S5110 will be displayed. The information held is the Group Number and Member reference Number.

### 4.1.9 Follow Ups, SR589

This screen shows the follow up description and details for each follow up item. Follow ups can be created during new proposal creation, at policy servicing transactions as well as during claims processing.

Select any of the follow up item and the Standard Exclusion Clauses screen SH583 will display the exclusion clauses which were previously created. User can browse the exclusion records by pressing the ROLLUP and ROLLDOWN keys.

### 4.1.10 Policy Notes, Screen SR50E

This screen shows any comments or notes that have been appended to the contract. Besides displaying the free format notes, the date timestamp and user who created the notes are also shown.

### 4.1.11 Reducing Term, SR563

This screen is used to display the reducing term details for a Mortgage Reducing Term Assurance product. These details are necessary for calculating the reducing benefit schedule as well as the required premium.

### 4.1.12 Output, S2661

This screen is to display all the contract related correspondences. The details of all the letter request records related to the contract are displayed such as the letter type, the addressee of the letter, letter status as well as the last status change date.

### 4.1.13 Component History, SR50N

This screen is to display the transaction history of changes on the component and despatch address at the policy level.

# 5. Contract Servicing

## 5.1 Introduction

Once a contract has been issued there are many events that a Life Office has to record against the contract during the life span of that particular policy such as beneficiary amendments, change of billing status, change of premium frequency, etc.

The following notes are a brief description of the servicing on-line functionality of the INTEGRAL LIFE base system. All the following transaction can be located in the Contract Servicing Master Menu. For information relating to Lapse and Paid Up Processing due to non-payment of premiums please refer to the Regular Processing section.

## 5.2 Minor Alterations

The Minor Alterations Subsystem consists of transactions that are used to update the records of in force contracts. Minor Alterations affect only items that refer to the whole contract and are referred to as minor as they do not have any immediate financial implications.

These transactions fall into two distinct groups, the first update information about clients who have a role in the contract, except for the life or lives assured. The roles covered are those of Contract Owner, Dispatch Address, etc., whereas the second group of transactions temporary or permanently suppress such things as initial commission, overdue notices, etc.

These alterations have no accounting or statistical implications for the contract and the roles may be amended or added in the following areas:

- Beneficiary
- Trustee
- Assignee, the assignment 'To Date' will be defaulted to the main benefit risk cessation date
- Dispatch or mailing address
- Contract Serving Agent, the agent receiving commission may not be altered in this subsystem (this functionality is in the Agent Subsystem) and the servicing agent may not be deleted
- Contract Owner amendment but not deletion

The following transactions may be suppressed and re-instated as required:

- Overdue processing
- Billing
- Notices
- Renewal Commission
- Initial Commission
- Non-forfeiture Option
- Suppress Interest Bearing Fund Interest
- Change of Dividend Option

For Non-forfeiture option, Extended Term Insurance (ETI) and Reduce Paid-Up (RPU), are provided to the Client to choose from on top of Automatic Premium Loan (APL). If the cash value is insufficient to cover an Automatic Policy Loan (APL), there should be an option to use the cash value to purchase ETI or RPU instead.

The User can choose to create the Non-Forfeiture Option (NFO) during New Business data capture. After the contract is issued, the User can also change the NFO via one of the options in the Minor Alteration Submenu.

There will always only be one NF option invoked after the grace period. This is either client defined or by company default. Therefore there is no hierarchy of non-forfeiture options.

**ETI**

For a contract with an ETI NFO, the ETI NFO will be exercised when premium has not been received for a defined period of time. Any outstanding loans or loan interest will be settled using the cash value (including accumulated dividend and paid-up additions) before the ETI cover is purchased, and the remaining cash value will be used to purchase the ETI cover. The extended term will be calculated based on the remaining cash value and death benefit as at the date of termination (as outlined below), and the existing coverage will be extended by the calculated amount of time. The coverage will have a new status of ETI, which will make it ineligible for any further regular processing. The ETI coverage is assumed to be non-participated, i.e. no dividend allocation is required.

**RPU**

For a contract with an RPU NFO, the RPU NFO will be exercised when premium has not been received for a defined period of time. Any outstanding loans or loan interest will be settled using the cash value (including accumulated dividend and paid-up additions) before the RPU cover is purchased, and the remaining cash value will be used to purchase the RPU cover. The Sum Assured will be calculated based on the remaining cash value and the remaining term as at the date of termination (as outlined below), and the existing coverage sum assured will be reduced to zero. The coverage will have a new status of RPU, which will make it ineligible for any further regular processing, except for dividend allocation (optionally). A new paid up addition record (HPUA) will be written for the reduced paid-up coverage.

Each transaction above will produce a history record (PTRN) and the contract header; CHDR is updated in each event except for beneficiary amendments.

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S604 | - | Minor Alterations Submenu |
| T618 | - | Suppress Overdue |
| T622 | - | Change Contract Owner |
| T623 | - | Suppress Billing |
| T624 | - | Suppress Notices |
| T625 | - | Change Servicing Agent |
| T626 | - | Suppress Renewal |
| T627 | - | Suppress Commission |
| T628 | - | Amend Dispatch Address |
| T631 | - | Assignee, Add, Modify, Change |
| T632 | - | Beneficiary Add, Modify, Change |

TA80 Non forfeiture change

## 5.3 Component Add/Modify Proposal

Due to work security practices, the component add/modify functions have been separated for proposal and approval. There are 2 ways to process component add/modify, either as a one step process or 2 steps process. For 1 step process, upon add or modify the component, the system immediately effects the change. For 2 steps process, the component add/modify request works as a proposal. The component changes can then be approved later. In order for the base system to handle these 2 types of process, the set-up is in T1691 – disable the unused one.

The contract status reflects that the contract is under component add/mod request. By doing so, processes like billing, re-rating etc. can be controlled to pick up or skip such contracts for processing through the usual table settings of T5679.

The Component Add/Modify approval function checks that the underwriting date is keyed in based on the TH506 setting.

## 5.4 Component Changes

The Component Change option allows modification of generic coverage and rider components. Changes may also be made to related records such as, Special Terms and the ability to split commission to ten valid agents. Access to these components is through the plan selection screen. From this point the user can select the component concerned and either add a new component or amend existing component.

As amendments or additions to components re-create the new business process, it normally generates commission and adds an increase to the contract header premium. Therefore, all changes are initially written to the coverage/ rider temporary file, COVT, for later extraction by the relevant AT module. Whilst awaiting extraction the record is "soft locked" or protected so that no other type of processing can take place on that particular contract. After processing through the AT the record is released from "soft lock" and the temporary files are deleted.

Component Add On

These can be Coverage's, Riders or both depending on how the product has been defined within the system. The components defined within a product are the only one allowed to be selected. The addition of a component has the effect of either increasing the billable premium or in the case of a Unit Linked contract where the coverage or rider is benefit billed (premium paid by surrender of units) keeping the same premium. Therefore, in the majority of cases the billing extract records, commission records and relevant allocation entries (Unit Linked) will be written out along with a number of other records to record the transaction fully within the system.

The policy holder is also able to purchase another new rider of the same type that had earlier lapsed.

Component Modify

The purpose of Component Modify is to allow changes to an existing component. It allows alteration of the expiry date of the component; the premium, sum assured and the mortality class if applicable. It also allows alteration of existing special terms in components; it also allows additions of special terms to existing components.

If the premium is being increased then the new element commission can be either paid to the original agent(s) or if applicable it can be split to up to ten other valid agents.

As mentioned previously both Modify and Add will be validated against the product definition tables and will not allow processing if there are any validation problems. A point to note on component changes that the effective date of the change will always be the next premium due date.

Add Supplementary Life

The supplementary Life add function allows users to add another life to an in force contract. This is a function that is provided as part of the component changes functions. Once another life has been added, the component add function may be used to add coverages to that new life.

Life Assured Changes

In INTEGRAL LIFE, changes to the client detail, such as gender, date of birth and occupation can be done at the Modify Client at Client Maintenance Submenu. However, these changes are not reflected on the premium for the client's existing policies, if the client is the Life Assured.

Besides updating the client detail record with changes on the Life Assured's gender, date of birth, occupation or smoker status, the system is also able to reflect these changes to the premium for the client's existing policies, i.e. to re-calculate the premium. The system will list all the IF/PP (Inforce/Premium Paying) contracts of the client and the user is able to select some or all of them to reflect the required changes.

Tables used by Subsystem
Product definition tables for validation

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S636 | - | Component Alteration Submenu |
| T556 | - | Component Modify |
| T557 | - | Component Add |
| TA61 | - | Add Supplementary Life |
| SR6X | - | Life Assured Changes Submenu |
| TR6Y | - | Life Assured Changes |

## 5.5 Component Add Anytime for Disability Components

In Asia, there is a practice to allow addition of components to the contract at an effective date lesser than the paid to date of the contract. Currently, the base system does not allow this facility as it check for the bill to date to be same as paid to date

and the addition is effective only from the paid to date. This enhancement is to facilitate the system to add a component effective from a date in the last payment period i.e. the effective date should be between the current paid to date and last paid to date.

Please Note - This component add anytime will only support disability type of Components (this was the criteria in the client site from where we retrofitted this functionality)

The premium for the component added anytime would be prorated in the following basis:

*Prorated premium Calculation formula*
The calculation is prorated to the number of days. The formula used is:

Prorate Factor =

$$\frac{\text{(Number of days between effective date and the current paid to date)}}{\text{(Number of days between last paid to date and the current paid to date)}}$$

Prorate Premium = Prorate Factor * Instalment Premium

The collection validation check should look into T5645 entry to check the subaccount code/type whether the money has been paid (the sub-account codes/types to be considered should be for suspense).

The rule is to look into suspense for the available amount.

If say, the money in suspense not enough and there is money in the advance premium deposit – then to transfer money from advance premium account to suspense do a Receipt with payment type – 4 journal

*Prorated premium Posting*

Once there is enough money in suspense, the collection for the prorated premium is done in the same basis of collection of premium in renewals.

Has the appropriate entries in T5645 like Renewals premium collection and uses the same basis for account posting. **Please note this is a one off posting for collection of prorated premium of the contract and has no effect on the contract's Billed-to-date & Paid-to-date.**

Reversal of the component added on an effective date will reverse the accounting entries.

## 5.6 Component Journals

The Component Journals area consists of two types of journals, one for Unit Linked business and the other for traditional style of contracts.

For Unit Linked components it permits journals of units to and from any investment fund already used by the relevant component. Whereas for Traditional contracts it

permits journals to and from Reversionary Bonus sub account on the with profit components. It also allows adjustment to the Bonus date to allow Life Office's to control or override the date of the next bonus allocation to the component if necessary.

The business reasons for this functionality generally relate to the exceptional rather than day-to-day adjustments. In the case of a Unit Linked component the client may point out to the Life Office that a single premium entered the system and purchased units at a certain rate that was above the rate when the client issued his cheque. Therefore, because of administration delays the client has been penalised. It is of course possible to reverse this transaction and correct the unit allocation position. However, to do this you may have to reverse, say, two years worth of regular premiums and it is more cost effective just to increase the clients' units via this option to satisfy the policyholder.

In the situation of the with profits contract you may wish to make an adjustment to the clients Reversionary Bonus as the sum assured was reduced just prior to the Bonus allocation so the whole year's bonus was based on the reduced sum assured.

In either event there are standard checks within the system and the transactions will produce a transaction history record and a complete audit trail.

Tables used by Subsystem

| | | |
|---|---|---|
| T5679 | - | Status Transaction Requirements |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S635 | - | Component Journals Submenu |
| T527 | - | Trad. Contract Bonus Journals |
| T553 | - | Unit Linked Unit Journals |

## 5.7 Unit Linked & Interest Bearing Funds Premium Redirection

Unit Link and Interest Bearing contracts have a special way of accumulating the investment in a life assurance contract and as such require additional information to be captured at the proposal stage. Unit Linked processing is added to the appropriate generic component, usually a Term Product, to enable this additional information to be captured and processed. The rules for this are defined in a separate set of tables.

The distinctive feature of Unit Linking is that premiums are mainly used to purchase units in one or more notional funds administered by the Life Company. The rules defined in the tables control what proportion of the premium is invested and in what type of unit, Capital/Initial or Accumulation.

The purpose of Premium Redirection subsystem is to allow re-allocation of future premiums to another fund on Unit Linked components. When a Unit Linked component is initially defined during proposal the distribution of premiums is set and determines the investment made by the Life Office on the client's behalf. At any stage during the lifetime of the contract the company may wish to give the client the opportunity to re-direct his premiums to other funds. This area caters for this eventuality.

The fund redirection may be effected over either, the whole plan or selected policies within the plan. If individual policies are chosen then several may be selected for processing at once and will be dealt consecutively by this function.

For each policy the clerk must select the components for which redirection is to take place. After which the new funds may be entered. Any input will be subject to the normal rules that apply during proposal or unit linked component changes or addition. That is, the clerk must select valid, current funds and if there is an available fund list allocated to the component then the selected fund must be from that list.

As with all amendments within the system the premium redirection change will take effect from the next premium due.

Tables used within Subsystem
The subsystem uses the same table range as Product Definition

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S629 | - | Premium Redirection Submenu |
| T551 | - | Premium Redirection Modify |
| T552 | - | Premium Redirection Enquire |

## 5.8 Fund Switching

Unit Fund Switching allows for the transfer of money's from one set of funds to another on a Unit Linked contract. This transaction takes place at the component level and in the event of a contract with multiple Unit Linked components it is not possible to switch units from one component to another, only fund within components. It is recognised that a large majority of clients when switching funds also require a premium redirection. So as to cater for this eventuality it is possible to indicate from this subsystem that the clerk wishes to go into the Premium Redirection transaction after completing the switching details.

The process is straightforward in that the clerk selects the policy within the plan, if plan processing is a feature, and then the component within the policy from which the fund switches are to be made. After selection of the component the Source Funds screen displays all the current fund holdings for the component along with their estimated values. The most recent unit price is used to calculate these values using either the Bid or Offer price. This is determined by the entry in table T5544 that is accessed using the switch rule and contract currency held on the Unit Linked Contract detail's table, T6647. The amount to be switched out of a fund is entered either as a percentage of the fund holding, or as a value expressed in the fund currency.

After entering these details the next screen is displayed which is the Target Funds that holds the previous screen details and allows the clerk to specify the funds into which the moneys are to be switched. The money may be distributed into the target funds only by percentage as the real value of the switch may change by the time the transaction is processed by the batch job NEWUNITD. (The majority of Unit Linked transactions are dealt with on a deferred basis that is at the next unit price otherwise there could be selection against the Life Office and the fund if transactions were allowed using known unit prices.)

Unit switch header and detail, USWH and USWD, records are created. Unit transaction selling records for the selected source funds are created either with a negative contract amount or a percentage, depending on the selection, in the surrender value field. These records are used for further processing in order to establish the actual values of all the source funds and switch values for the switch transaction.

Charges may be associated with the switch. Table T5544 holds the details of the number of free switches allowed per period, measured in policy years, and the number of unused free switches that may be carried forward to the following period. Using this information, the system determines whether or not this is a free switch. If a switch charge applies, either a flat fee or a percentage of the total value of the selling transaction, subject to minimum and maximum parameters, is used. This information is also obtained from T5544. If a charge applies, it is spread across the calculated values used to buy into the target fund and the ACMV record is written for posting the charge to the General Ledger.

Finally, the buying unit transactions are created. A UTRN record is written for each target fund and type with the calculated value in the contract amount. If there is a mixture of capital/initial and accumulation units in the source fund then two UTRN records are written for each target fund. The total raised from the sale of initial units is allocated to initial units across the target funds, and the total raised from accumulation units is allocated to accumulation units across the target funds. A policy transaction, PTRN, is also written.

The UTRN records are used in the Unit Dealing batch run, NEWUNITD, which will complete the transaction.

The system can switch between funds in terms of whole units, from one fund to another.

Tables used by Subsystem
The subsystem uses the Product Definition Tables

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S629 | - | Unit Switch Submenu |
| T551 | - | Premium Redirection |
| T676 | - | Unit Switch |
| T677 | - | Component Enquiry |

## 5.9 Paid to Date Advance

This is normally a Unit Linked transaction as Unit Linked policies are very date sensitive in relation to unit purchases however there is no reason why it cannot be used for traditional contracts. The business reason that this transaction could be used is that the unit price has fallen and the client takes the risk that this situation will continue in the short term. So he pays the Life Office, say twelve monthly instalments to take advantage of the lower offer price.

In this case the administration area dealing with this request would enter the contract number and the system will inform them how much money is in suspense and the user is expected to enter the date to which premiums are to be paid. The system validates

this date against the money held in suspense and will inform the user if there is not sufficient to pay premiums to the selected date.

The user will also enter the effective date however, if it is not completed the system will default the transaction to the business date of the machine. Once completed any commission due in that Paid to Date Advance period will be generated together with all the other accounting movements, Premiums, Policy fees, etc. The overnight batch job NEWUNITD will purchase units at the applicable rates as defined in the appropriate tables.

## 5.10 Single Premium Top Up

This again is a Unit Linked transaction where the client injects cash into his unit-linked component again possibly to take advantage of current low unit offer prices. The transaction is straightforward in that the user will select the relevant component(s) and the following screen will inform the individual of the amount in suspense and the user is expected to complete the process selecting the funds the client wishes to invest in.

This Single Premium Top Up will generate commission in accordance with the product definition and the batch job NEWUNITD will allocate the actual units.

Due to Singapore statutory requirements Single Premium injections in that country have to purchase extra life cover based on 125% of the single premium unless the client is a sub standard life then this minimum percentage can be reduced to 110%. There is a separate option within this sub menu to cater for Single Premium Top Up's in Singapore.

Tables used by Subsystem
Specific tables are not assigned to this transaction

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S679 | - | Single Premium Top Up Submenu |
| T679 | - | Single Premium Top Up |
| TA69 | - | Singapore Single Premium Top Up |

## 5.11 Paid Up Processing

The Paid up Processing subsystem provides the facility to make Paid Up, contracts, and policies within contracts or individual components of the contract. This applies to both Unit Linked and traditional business and can be achieved by on-line transaction or automatically by non-forfeiture processing. (Non-forfeiture processing is explained earlier in the Regular Processing section.)

If all of the coverage's and riders are Paid-Up then the contract premium will be reduced to nil and the premium status of the contract header will be set to In Force, Paid Up. However, if only one component or rider among a number requires the Paid Up action then only that component or rider status will be notated Paid Up, the overall contract premium status would remain unchanged.

When a Traditional contract is made Paid-Up its sum assured is reduced according to an Actuarial formula. These may be based on net premium reserves or on a proportion of the original term that has elapsed. The reduced sum assured still could have a surrender value attached to it albeit now on a reduced basis. In addition to the surrender value the contract may, depending on the Office, still have reversionary bonuses accrue but normally this again would be on a reduced basis.

Whereas for Unit Linked business when the contract is made Paid Up the processing will calculate the value of units accumulated to date, deduct any fees charged for the transaction, and retain the remaining units under the contract as a reduced benefit until one of the following events occurs:

- The contract Maturity date and therefore units are cashed
- Client death and then the value of units is paid as a death benefit
- The value of units expires prior to the previous events. This later occurrence could be brought about by units being surrendered over a period of time to pay, via benefit billing, policy fees, mortality charges if the life cover is still in force or to pay for the benefits of a rider.

The on-line process is quite simple and can be achieved via the appropriate transaction and all that is required is completion of the contract number. The second screen requires you to select the relevant components or riders. Once the screen(s) have been completed the calculation procedures will display the existing sum assured, the new sum assured, value of funds, transaction fee if applicable and the Paid up Method.

There are three Paid Up Methods within the base system and these are follows:

**PUPM001**

This method is for Unit Linked contracts and the first calculation performed determines the fee to be charged by referencing table T6651. If the values within this table are zeros then the sub routine moves into the second calculation reducing the sum assured as below.

Paid Up Sum Assured = Sum Assured * Term in Force/Original Premium Term

**PUPM003**

This method is for Traditional Contracts. It is the method to be used when the calculation of the Paid Up Sum Assured is to be based upon actuarial reserve of the contract.

Paid Up Sum Assured = Sum Assured * $(1 - NEPT_{(t)} / NETP_{(t-x)})$

Where NETP is the net premium obtained by calling ACTCALC
t is the original term
x is the term in force

**PUPM004**

This method is also for Traditional Contracts. Its calculation is based solely on the number of premiums that have been paid divided by the number that would have been

payable throughout the whole term. This fraction is then applied to the original Sum Assured to give the reduced value.

Paid Up Sum Assured = Sum Assured * T / N

The subroutine that completes the relevant postings to the General Ledger is PUPTRAD.

Tables used by Subsystem

| | | |
|---|---|---|
| T5679 | - | Transaction Status Requirements |
| T5687 | - | Coverage/Rider Table |
| T6598 | - | Calculation Methods Table |
| T6651 | - | Paid up Processing Rules & Fee |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S575 | - | Paid Up Processing Sub Menu |
| T575 | - | Paid Up Processing |

Transaction TH6C provides the ability to quote the paid-up value for a contract.

## 5.12 Contract and Component Lapse

During the early stages of a Unit Linked contract, often in the first and second years, the amount of premium allocated to purchase units in investment funds is minimal. Consequently, it is unlikely that a significant surrender or paid up value will have accumulated within this period. In the case of Traditional contracts, the situation is similar but for different reasons. Clearly units do not feature for this type of arrangement, but simply because recovery of the set up costs, commissions, etc., accounts for a significant proportion of the early premiums and for these reasons minimum Paid Up Sum Assured are specified.

Whenever an attempt is made to make a contract or component Paid Up, and the value or calculated Paid Up Sum Assured is less than this specified minimum, the form of termination is referred to as Lapse.

The INTEGRAL LIFE system provides two approaches to lapsing contracts and components. The first is via automatic non-forfeiture processing where the contract has fallen into arrears. This procedure will be explained in more detail in the Regular Processing section. The other method is an on-line transaction to lapse a component or contract.

The facilities for selecting the contract, the whole plan, or some of the policies within a plan or some or all of the components, are based on the same principles as the on-line Paid Up processing transaction mentioned above. The functions of the transaction will be to perform commission clawback when this is relevant and where processing occurs on a Unit Linked contract negative UTRN records will be written to zeroes on all unit holdings on the coverage selected. All components, up to and including the whole contract, have their risk and premium status set to reflect the lapse processing.

Once the processing has been completed a PTRN record will be written for the contract history. Various amendments will be made to the contract header and coverage record, CHDR and COVR, creating new valid flag 1 records and amending records prior to the transaction to 2. In addition to this the system will check the status of commission and if there any amounts of commission advanced that has not be earned then commission clawback will occur, together with the AGCM adjustments.

Tables used by Subsystem

| | | |
|---|---|---|
| T5679 | - | Status Requirement Table |
| T5687 | - | Coverage/Rider Details |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S514 | - | Manual Lapse Submenu |
| T514 | - | Manual Lapse |

## 5.13 Lapse Reinstatement

Although currently the INTEGRAL LIFE system supports the reinstatement of a lapsed policy, some clients require this to be enhanced to incorporate a fee based on the outstanding premium amount at the time of the reinstatement. The fee is calculated as an annual interest rate, which is applied to the premium at regular frequencies, normally monthly.

Reinstatement should not be permitted if there are insufficient funds in the billing currency Suspense Account to cover both the outstanding premium and fee, although the outstanding amount can be amended at the discretion of the user. However once the condition fulfilled, it will generate the Lapse Reinstatement Letter to the contract holders for acknowledgement.

The ability to perform an enquiry on a Lapsed Contract, with a projected reinstatement date is also available.

It should be noted that the reinstatement fee will be levied against the contract at the time of the reinstatement action, but the outstanding premiums will not be collected until the next execution of the billing cycle.

Tables used by Subsystem

| | | |
|---|---|---|
| T3588 | - | Contract Premium Status |
| T3623 | - | Contract Risk Status |
| T3695 | - | Sub Account Types |
| T5645 | - | Transaction Accounting Rules |
| T5667 | - | Tolerance Limits |
| T5679 | - | Status Required by Transaction |
| T5688 | - | Contract Processing Rules |
| T6634 | - | Automatic Letters |
| TH614 | - | Lapse Reinstatement Interest Rules |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| SR70 | - | Lapse Reinstatement |

TR71 - Lapse Reinstatement
TR72 - Lapse Reinstatement Enquiry

There is also an additional field in the Lapse reinstatement transaction to provide an adjustment field so that partial interest or any additional fees (medical examination fees, etc) can be deducted or added to the reinstatement requirements when processing.

## 5.14 Re-instatement for Re-Dating

The main business objective of this function is to allow contracts that had lapsed for a considerable period of time to be reinstated.

This is done in the following steps:

1. Reinstate the lapsed contract for re-dating.
   This has the effect of putting the contract back into force (no accounting movements involved).

2. Reverse contract for re-dating.
   The contract is rolled back to the status just prior to Contract Issue in preparation for the next step. All associated accounting entries are reversed accordingly.

3. AFI for re-dating.
   The contract is AFI'd to proposal status.

Once the contract is in proposal status, the risk commencement date can be re-dated to commence at a pre-agreed date. Any outstanding premiums relative to this date will need to be collected from the policyholder for the contract to be re-issued.

## 5.15 Premium Holiday

Premium Holiday has become a common Non-Forfeiture Option (NFO) for Unit Linked Regular Premium products. When a contract has accumulated sufficient fund value after the preliminary period, it allows a policyholder to temporarily stop premium payment until:-

- the funds are exhausted and the contract then auto lapses; or
- policyholder requests to resume premium contribution.

INTEGRAL LIFE supports both Automatic Premium Holiday as well as On Line Registration of Premium Holiday. Automatic Premium Holiday is triggered by the overdue process which is invoked when regular premium has not been received upon expiry of the grace period of the contract. With sufficient cash value (refer to table, TR51P, Premium Holiday Rule), the contract and coverage will have their statuses set to Premium Holiday, which will make it ineligible for some transactions such as billing and premium collection processing.

On Line Registration of Premium Holiday, on the other hand, is initiated by the policyholder and is subjected to the ‘Minimum Months In force’ rule defined in the Premium Holiday Rules table, TR51P. The contract must satisfy the minimum

number of in force months or the fund value must be able to support 'X' number of months of mortality charges before the request can be processed.

When a contract falls into Premium Holiday and if there is any premium paying rider attached, then the rider will be auto lapsed according to its NFO method, while for benefit billing riders, most of them will remain in-force as long as there is available fund balance.

Client may request to resume premium contribution by either paying all premiums in arrears or without paying any premium arrears. Riders lapsed in Premium Holiday can be reinstated subject to the rules defined by the user in table TR51P, Premium Holiday Rules as follows:-

- For Premium Paying riders:
  - whether to allow or disallow reinstatement
  - if reinstatement is allowed, then the date of reinstatement must be in line with the contract's paid-to-date

- For Benefit Billing riders:
  - upon reinstatement, the Benefit Billing Date will be set as the Reinstatement Date regardless of whether arrears of premium are paid

Premium Holiday Reinstatement can be registered via the Pending PH Reinstatement where both auto and manual follow ups can be requested from the client as part of the reinstatement process. User is also given the options to select the components to be reinstated, whether to back pay arrears of premium or to do a manual adjustment to the total reinstatement amount. Premium Holiday Reinstatement is only confirmed when there is no outstanding follow-ups and with sufficient reinstatement amount.

A Premium Holiday Reinstatement Quotation is also available where the system allows the reinstatement date to be set as a future date, as long as it in line with the contract's paid to date.

Premium Holiday enquiry function provides a complete view of the premium holiday history for a contract, if any.

Tables used by Subsystem

| | | |
|---|---|---|
| T5688 | - | Contract Definition |
| T6597 | - | Non-Forfeiture Methods |
| TH584 | - | Non-Forfeiture Method by Contract/Component |
| TH586 | - | Client Defined Non-Forfeiture Option |
| TR51P | - | Premium Holiday Rules |

Transaction Codes

| | | |
|---|---|---|
| SR7A | - | Premium Holiday (PH) Reinstatement Submenu |
| TR7B | - | Pending/Modify PH Reinstatement |
| TR7C | - | Pending PH Reinstatement Inquiry |
| TR7D | - | PH Reinstatement Issue |
| TR7E | - | Delete Pending PH Reinstatement |
| TR7F | - | PH Reinstatement Quotation |

## 5.16 Reversals (Windback)

The Reversal subsystem provides facilities to reverse many transactions that have occurred under a contract, or in some situations, transactions processed against individual policies within a contract or plan. The options currently held in this subsystem are as follows:

**Billing Reversal**

Billing Reversal provides the facility to "Windback" the billed to date of the contract. The date can be wound back either to the premium paid to date or to a date of a premium yet unpaid. There are no accounting implications with this transaction, since only dates are reset so that one or more premium may be billed again. Billing can be suppressed up to an entered date, while any necessary amendments are carried out on the contract. Once past this date billing will restart including any premiums missed while the billing was suspended.

**Full Contract Reversal**

Full Contract Reversal allows a contract to be wound back to a selected transaction. Some of these transactions will be reversed others will be bypassed and these transactions can be defined within the reversal table T6661. The presence of some transactions may prevent any attempt to reverse an earlier transaction.

As with Billing Reversal there is a facility to suspend billing while necessary amendments are performed on the contract. Prior to performing a full contract reversal the paid to date and the billed to date must be equal. Note that the Full Contract Reversal operates by calling sub routines that apply to specific transactions. At present the sub routines required for the following transactions are operational.

- Benefit Billing (Accounting)
- Benefit Billing (Unit Dealing)
- Billing
- Collection
- Unit Dealing
- Partial Surrender
- Fund Switch
- Billing Changes
- Reversionary Bonus Surrender
- Policy Loan
- Revenue Due Accounting
- Single Premium Top Up
- Component Add
- Component Modify
- Cede Reassurance
- Regular Payments in Review
- Regular Payments Automatic Termination’s
- Regular Claim Payments
- Lapse/Paid Up
- Maturity
- Expiry
- Full Surrender
- Non Forfeiture Surrender

- Death Claim Registration
- Vesting Reversal

Those for which no subroutines exist are:

- Unit Journal
- Agent Commission Change
- Rerate and
- Anniversary Processing

Tables used by Subsystem

| | | |
|---|---|---|
| T5644 | - | Commission Release Methods |
| T5645 | - | Transaction Accounting Rules |
| T5671 | - | Coverage/Rider Switching |
| T5679 | - | Transaction Status Requirements |
| T6647 | - | Unit Linked Contract Details |
| T6661 | - | Transaction Reversal Parameters |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S633 | - | Reversal Submenu |
| T503 | - | Rev. of First Death Registration |
| T506 | - | Vesting Reversal |
| T513 | - | Full Surrender Reversal |
| T526 | - | Non-Forfeiture Surrender Reversal |
| T537 | - | Paid Up Reversal |
| T538 | - | Lapse Reversal |
| T540 | - | Expiry Reversal |
| T543 | - | Maturity Reversal |
| T656 | - | Full Contract Reversal |
| T659 | - | Billing Reversal |
| T670 | - | Death Claim Reversal |

## 5.17 Billing Changes

The Life Billing subsystem provides the Life Office with the functionality required changing the billing details of an In Force, Premium Paying contract.

From the main Billing Change screen the Frequency, Billing Method and Billing Date may be altered. If it is necessary to change the contract Payer, Direct Debit Mandate details or Group Payment details then the appropriate screens from which these details may be altered are accessed by the window facility indicated at the foot of the main transaction screen.

The transaction is initiated from its own sub menu by entering the desired contract number and table T5679 is checked to see if the contract has a valid status before the transaction is allowed to proceed.

When changing one of the details in the main screen the usual edit rules that are relevant to New Business and Component Change still apply. For example the Billing Date may only be changed to a day allowed according to the rules set in table T5689, etc. If the Billing Method is changed to Direct Debit then the transaction

automatically places an X against the Direct Debit window and forces the user to set up the mandate details as in New Business. The usual window facilities for the selection and creation of mandates also apply to this transaction. With a change of Payer on a contract paid by Direct Debit a cross check will be made against the mandate details.

When the Payment Frequency is altered then an AT module is called and the system automatically visits all the components for the contract and those with a status of premium paying will have the premium adjusted by the factor in table T6630. A key composed of the Frequency Conversion code and the current premium frequency will read this. This Frequency Conversion code is held at the component level in table T5687 and the screen of table T6630 then provides a list of conversion factors to be applied to the existing premium. A generic subroutine will also be called for Unit Linked components as INCI records are affected.

All component records, COVR's are updated in this way will have the existing record(s) changed to valid flag 2 and the new valid flag 1 records written with the new TRANNO from the contract header. A new contract header, CHDR, will also be created with the new TRANNO. As with all other transactions a PTRN record will be written to mark the event.

There is a validation check to ensure that the new billing frequency is a multiple to the anniversary month/year.

For example, to change a monthly paying premium contract with inception date 1/1/96 and paid to date 1/2/96 to a quarterly paying premium, the quarterly due dates are going to be 1/2/96, 1/5/96, 1/8/96, 1/11/96, 1/2/97. This will not tie up with the anniversary date of 1/1/97. This validation check ensures that this situation does not occur.

The validation check is introduced in both the Billing Change and Frequency Change Quotation functions. If changing from a lower frequency to a higher frequency, the new billing frequency should be a multiple from the paid to date to the anniversary month/year. A new screen is designed with a facility to calculate the new instalment premium based on the new billing frequency.

The Billing Change and Frequency Change Quotation functions also include a validation on the revised instalment premium to ensure that it is not less than the required minimum instalment premium limits. The Billing Changes screen SR674 displays the instalment premium for all components and for all frequencies ie. Yearly, Half-Yearly, Quarterly and Monthly frequency and if any of above frequency is not allowed, zero amount will be displayed for that frequency. The Gross Premium, Contract Fee and Total Premium amount will be calculated and displayed for all the above frequencies

For the Frequency Change Quotation, a Print indicator is added to indicate whether Billing Change Quotation letter is required. Letter will be generated when indicator is set to ‘Y’ and letter type found on table TR384.

Tables used in Subsystem

| | | |
|---|---|---|
| T5541 | - | Frequency Alteration Basis |
| T5671 | - | Coverage/Rider Switching |
| T5679 | - | Transaction Status Requirements |

T5687 - Coverage/Rider Details
T5689 - Method Payment/Frequency

Transaction Codes

M602 - Contract Servicing Master Menu
S522 - Billing Change Submenu
T105 - Billing Change Mandate Create
T522 - Billing Changes

## 5.18 Contract Windforward

Windforward following Reversal is the process by which transactions that have been reversed by a Full Contract Reversal can be wound forward, one transaction at a time, in order to return the contract to its pre Full Contract Reversal state.

Only automatic scheduled events are eligible for Windforward processing, i.e. batch transactions. Windforward of non-scheduled event i.e. on-line transactions must be undertaken manually by the user.

Individual Transactions are selected and registered for Windforward on-line. Each registered Windforward transaction must be confirmed in order to process the Windforward. As a result of this confirmation, one or more batch schedules will be submitted automatically for each confirmed Windforward transaction. This batch schedule(s) will contain the processes, which normally perform the transaction as part of overnight processing.

It is important to note that Windforward is a powerful transaction and authorisation to this transaction should be restricted. Any user authorised to Windforward must have a comprehensive understanding of the implications of Windforward for a particular contract and must have detailed knowledge of the Batch Processing System.

Tables used in Subsystem

T5679 - Transaction Status Requirements
T6757 - Windforward Transaction Schedule
T6760 - Windforward Batch Parameters

Transaction Codes

M602 - Contract Servicing Master Menu
S655 - Windforward
T674 - Windforward Register
T675 - Windforward Confirm

## 5.19 Policy Loans

Traditional Life Assurance Contracts, those that are Permanent Assurance, have long been useful as a means of providing collateral security for loans for a wide range of uses. This is most frequently seen in the mortgage market, but is certainly not confined to this. These loans may be granted simply because the life policy has equity in the form of the surrender value. This applies to Endowments and Whole Life contracts. It is true that Unit Linked contracts also have a surrender value which has not often been used as security for contract loans due to the vulnerability to

fluctuation in surrender value. The system as delivered does not preclude this but it is assumed that most Life Office's would only use this subsystem for Traditional Contracts.

The system provides for the administration of two types of loans, APL as explained in Regular Processing area of this document and Contract Loans. For both types of loan the system will automatically calculate and bill for interest at variable intervals as specified within the appropriate tables. If the billed interest remains unpaid for a given period, on both types of loan, it can be capitalised and added to the loan principal and therefore, future interest will be charged on the original principal sum(s) plus unpaid interest. The system will regularly check to see whether existing loans plus interest exceeds the available contract surrender value. The check is done at each capitalisation date, whenever a request is made for a new loan, both APL and Contract Loan, and each time a claim value is requested.

Whenever a claim is made in the form of Surrender, Death or Maturity then the existing loan plus any outstanding interest up to the date of the transaction will be deducted from the claim value leaving a net amount to be disbursed to the beneficiaries.

To register a Contract Loan is a straightforward on-line transaction via the Policy Loan sub menu that is currently held in the Contract Servicing menu. The available surrender value is calculated on all available components and applied to this is the maximum loan percentage available. After deducting any previous loans plus interest gives you the new maximum value that can be disbursed.

If the Loan amount keyed into the system exceeds system calculated value it will not allow you to proceed with the transaction. However, if the amount requested is equal to or below the system calculated figure then the loan principal would be debited with the figure entered with a corresponding credit to suspense so that a cheque can be prepared for the client. The system will write a policy transaction, PTRN, to record the transaction.

As mentioned earlier, interest is billed automatically on the anniversary date of the loan, or the contract anniversary, or any fixed date at any frequency. The system permits interest to be varied by loan method and this can therefore, be different for each type of component or contract type. All these items are table driven and can be defined by the Life Office.

Interest is always calculated in arrears and can be at a fixed rate or variable. If a fixed rate is defined then you have further flexibility to state the term of this fixed rate by a given number of months from the loan registration.

Loan interest is calculated and the relevant accounting postings are performed in the batch job LOANINT together with the necessary BEXT (Billing Extract) records so that the life office can bill their clients.

Capitalisation works in exactly the same way as interest calculations but the batch job that completes all the relevant accounting postings is LOANCAP.

Repayment of loans is made automatically within claims processing or by Cash Receipt procedures. Within Cash Receipts the rules should be defined in such a way that you are able to indicate what part of the loan you wish to repay, Loan Principal,

Loan Interest, etc. In addition to the above there is also functionality within the Reversal (Windback) sub menu to reverse a registered loan.

The Loan Debt Enquiry feature is an option within the Contract Servicing menu. This functionality gives a summary total of all loans and interest outstanding displayed together with individual loan details showing the current balance and interest outstanding.

As loans can be granted in a variety of currencies, summary totals will initially be displayed in contract currency, but the loan enquiry screen can allow the summary totals displayed in any currency selected.

## 5.20 Policy Loan Stamp Duty

In some circumstances stamp duty is charged to the policy owner when applying for the policy loan.

The system automatically calculates the Policy Loan Stamp Duty, and deducts from the loan amount and posts to the stamp duty payable.

The policy loan registration screen has the policy loan stamp duty and net policy loan amount fields to store the policy loan duty stamp amount and net policy loan amount.

Tables used by Subsystem

| | | |
|---|---|---|
| T3695 | - | Sub Account Types |
| T3697 | - | Receipt Processing Subroutines |
| T3698 | - | Dissection Codes |
| T5645 | - | Transaction Accounting Rules |
| T5679 | - | Transaction Status Rules |
| T6632 | - | Loan Method Codes |
| T6633 | - | Loan Interest Rules |
| T6654 | - | Billing Control Table |
| T6661 | - | Transaction Reversal Parameters |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S618 | - | Policy Loans Submenu |
| B510 | - | Loan Interest Billing |
| B511 | - | Loan Interest Capitalisation |
| T606 | - | Loan Registration |
| TA79 | - | Loan Enquiry |

## 5.21 Automatic Increases

The ability is given to amend premium and/or Sum Assured, for given components within a contract, on an automatic basis. These changes are at regular intervals expressed in years: commonly such escalations take place annually. To achieve these goals, the amounts of each automatic increase are recorded by component so that they may be capable of identification when the time comes to bill for the increased premium, and then actually implemented on the due date the increase. (The

processing of Automatic Increases is within the Regular Processing batch job RENEWALS.)

Two types of automatic increases are catered for. These are Contractual and Optional. Contractual Increases are common in such circumstances as Low Start Endowment type products and these can be either Traditional or Unit Linked. The increase normally applies only to the premium payable.

Optional escalations may apply to almost any kind of product, Unit Linked or Traditional and further, may be Sum Assured or Premium based. Since, such increases are optional, the facility is provided to enable a contract owner to refuse an increase. The effects of such a refusal are at a Life Office's discretion. It could mean the cancellation of future Increase Offers after a predetermined number of refusals.

These increases may or may not be subject to Commission, in a similar fashion, Statistical records may or may not be created.

## 5.22 Refusing an Automatic Increase

By its nature an optional increase must be capable of refusal by the owner/payer of a contract. Such refusal may occur before, on, or after the actual due date of the increase. The system provides transactions whereby the implications of such refusals may be handled. If the refusal occurs before the increase has been implemented, the system deletes the temporary pending increase records, ensuring that re-billing occurs by reversing that too if it has occurred. If the component is subject to a maximum number of refusals, the logic monitors this and if relevant switches off future increase processing.

When refusing an increase, the facility is given to stop all future increases even if the maximum number of permitted refusals has not been reached. If the actual increase has been processed, it is necessary to determine whether any partial premium refund applies. At all events the system reverses the effects of the refused increase by deletion and reinstatement of component records in the same manner as normal reversal processing. As above, if the component is subject to a maximum number of refusals, the system checks this, and where appropriate, inhibits all future increase processing.

In addition to refusing an Increase it is possible that the need will arise to reverse an Increase. This is achieved using the same on-line screens as for Refusal. Since it is a true reversal, it is more fully described in the Reversals area of this document.

## 5.23 Effects of a Pending Increase

Some existing transactions, namely Component and Billing Changes, may be affected by the presence of a pending increase. In these cases, if the transaction is permitted to proceed, any pending increases are deleted. The effect of this is that the contract is reprocessed within the daily batch job and a fresh pending record is created. Such new transactions may differ from those originally created and therefore, will have implications on Billing of the next premium due.

Tables used by Subsystem

| | | |
|---|---|---|
| T5648 | - | Automatic Increase Rates |
| T5654 | - | Auto Increase Contract Rules |
| T5655 | - | Automatic Increase Control |
| T5671 | - | Coverage/Rider Switching |
| T5687 | - | Coverage and Rider Details |
| T6647 | - | Unit Linked Contract Details |
| T6658 | - | Ann. Auto Increase Processing |
| T6661 | - | Transaction Reversal Parameters |

Transaction Codes

| | | |
|---|---|---|
| M602 | - | Contract Servicing Master Menu |
| S501 | - | Auto Increase Refusal Submenu |
| T501 | - | Auto Increase Refusal |

## 5.24 Surrenders & Claims

### 5.24.1 Introduction

The INTEGRAL LIFE system provides the functionality to deal with Claims Processing and this section covers Full Surrenders, both Traditional and Unit Linked, Surrender of Traditional Reversionary Bonuses, Part Surrender on Unit Linked Contracts, Maturities and Expiries, Death Claims, Vesting of Deferred Annuities and Regular Payments.

### 5.24.2 Surrender Processing

The Full Surrender subsystem provides for the full surrender of a contract at plan or policy level. After selection of a policy, coverage and rider information is displayed such as the value of investment funds, for Unit Linked components or actual surrender values, in the case of Traditional components. The clerk may enter information relevant to the surrender, the surrender date, and a negative or positive adjustment to surrender amount and the reason code for the adjustment. If the clerk enters a currency code the values are adjusted to reflect that currency. The surrender amount returned for each coverage depends on the calculation method held on T5687. This method is then used to access table T6598.

For Unit Linked contracts, initial and accumulation units are accumulated for each fund on each component. Therefore, the surrender returned is the number of deemed units multiplied by the bid price less any surrender fee. (Please note that the value stated is, in the majority of cases just an estimate based on the current bid prices. The actual value will not be known until the next unit price has been calculated as the majority of Life Office's would base their contracts on the deferred pricing approach.)

A surrender fee is applied dependent on a minimum and maximum surrender fee held on table T5542, Unit Withdrawal Rules. The surrender fee can be a flat fee or percentage of the surrender.

The system also supports calculation and imposition of tax when a policyholder surrenders a policy within 3 years of policy commencement.

The non-traditional full surrender charge is based on table set up. The surrender charge factor is obtained from table T6656 using item key is a concatenation of surrender calculation method and component premium status. The surrender charge method is defined in the Unit Linked Edit Rules table T6656. With this change, the system will be able to cater for different computation methods like:

1. Surrender Charge = Estimated Surrender Value * Surrender Charge factor

2. Surrender Charge = Total Premium Paid (till surrender effective date) * Surrender Charge factor.

For Traditional Components, which are defined on table T6640, the calculation subroutines may calculate actual values directly, or where the value is Net Premium Reserve based, table T6642 is used to define the reserve calculation factors to be utilised. The returned amounts are always in the contract currency.

For Unit Linked contracts, the returned amounts may be held in different currencies, depending on the Fund currencies. These are then converted to the claim currency or, if no claim currency are present, to the contract currency.

Surrender claim header and detailed records are created and are used for posting to the General Ledger. They are also used, for Unit Linked surrenders, by further surrender subroutines, for the creation of unit-linked transactions and sub account postings. Unit transactions are passed to the Unit Dealing subsystem where unit linked sub accounts are updated. Sub accounts for posting are obtained from table T5645 and are updated with the necessary amounts.

If the complete contract is surrendered, the status on the contract header will be updated and a new version of the contract header is created. The status of the coverage and rider affected by the surrender is also updated. For full surrenders an optional letter may be provided. In practice the system always attempts to produce a letter. To avoid this, the entry in table T6634, for the product code should be left blank. The same is true for the surrender of Reversionary Bonuses and for Non-Forfeiture Surrenders. Letters for Surrender and Reversionary Bonus Surrender quotations are optional at the processing stage. A Y/N question is provided on the screens.

Agent's commission records are updated with the amount of earned commission or the amount of commission to be clawed back. Policy transaction records, PTRN's are written to keep track of events and the batch header is updated.

Traditional contracts may be permitted to bear policy loans. Interest is calculated periodically and this may be paid or capitalised. Certain contract types may also have APL, Automatic Premium Loan as a Non Forfeiture process. Whenever a contract is surrendered with either of these types of loans outstanding special processing applies. The surrender amount is first applied to repay the loans in full with interest charged up to the effective date of surrender. In these circumstances, two subroutines are used. TOTLOAN is called during the on-line processing to give the current value of all loans on the contract. The same subroutine will be also used when called with a function of 'Post' to bring interest up to date of the claim. A second sub routine, LOANPYMT, is used here and throughout the system, whenever a loan is fully or partially repaid.

Once the transaction has been completed all the accounting is finalised, loan debts repaid and the amount to disburse to the beneficiary(s) is placed in contract suspense awaiting clerical cheque requisition procedures.

There is the facility to reverse full Surrenders and this is held in the Contract Servicing subsystem under Reversals (Windback).

Tables used by Subsystem

| | | |
|---|---|---|
| T3000 | - | Currency Conversion |
| T3629 | - | Currency Code Details |
| T3695 | - | Sub Account Types |
| T5500 | - | Adjustment Reason Codes |
| T5585 | - | Joint Life Parameters |
| T5606 | - | Disablement Based Edit Rules |
| T5608 | - | Term Based Edit Rules |
| T5551 | - | Unit Linked Edit Rules |
| T5645 | - | Transaction Accounting Rules |
| T5671 | - | Coverage/Rider Switching |
| T5679 | - | Transaction Status Rules |
| T5687 | - | Coverage/Rider Details |
| T5688 | - | Contract Structure |
| T6598 | - | Calculation Methods |
| T6634 | - | Automatic Letters |
| T6640 | - | Traditional Business details |
| T6641 | - | Mortality Factors of Nx |
| T6642 | - | Reserve Calculation Basis |
| T6647 | - | Unit Linked Details |
| T6655 | - | Surrender Value Penalty |
| T6656 | - | Surrender Value Penalty Discount |
| T6686 | - | Mortality Factors Value of 1x |

Transaction Codes

| | | |
|---|---|---|
| M608 | - | Surrender & Claim Master Menu |
| S611 | - | Surrender Master Menu |
| T512 | - | Full Surrender |
| T524 | - | Full Surrender Enquiry |

### 5.24.3 Part Surrenders Unit Linked, Interest Bearing Contracts

For Unit Linked and Interest Bearing contracts the subsystem allows the partial surrender at a plan or policy level. Component definition determines if part surrenders are valid, and if so, tables drive the rules governing these. Therefore, minimum amounts, withdrawals' fees, etc. may be specified. Partial withdrawals can be a percentage of the fund held or a monetary value. Please note that the actual units cancelled will depend on the next pricing date and fund holdings will only be adjusted after the completion of the batch job NEWUNITD. Once this job has been completed then the amount to be disbursed to the client is placed in the relevant suspense.

The system is also able to compute for surrender charges similar to those supported in non-traditional full surrender.

In Singapore, any Single Premium Top Up, requires to purchase life cover based on 125% of the premium paid therefore whenever a partial surrender is paid the

Singapore clients require a reduction in the sum assured equal to the payment * 125: %. To cater for this requirement a new batch process has been added to NEWUNITD to make the calculation and reduce the Sum Assured. This new batch process is #BR512.

Tables used by Subsystem

| | | |
|---|---|---|
| T3000 | - | Currency Conversion |
| T5542 | - | Unit Withdrawal Amount |
| T5551 | - | Unit Linked Edit Rules |
| T6647 | - | Unit Linked Rules |
| T6656 | - | Surrender Value Penalty |
| T6598 | - | Surrender Calculation |

Transaction Code

| | | |
|---|---|---|
| M608 | - | Surrender & Claims Master Menu |
| S622 | - | Part Surrender Submenu |
| T510 | - | Part Surrender |

### 5.24.4 Traditional Part Surrender

When the policyholder chooses to decrease the basic plan's Sum Assured of a participating traditional policy, it is treated as surrender on a portion of the policy, hence part surrender. A participating traditional policy can attract company surplus in the form of Cash Dividend or Reversionary Bonus. The basic plan's Sum Assured would also have a Cash Value and the level of amount depends on the in-force duration of the policy. Therefore if the basic plan's Sum Assured decreases, surrender processing should be carried out for the decreased portion in addition to changing the Sum Assured. This is to refund the Cash Value of the decreased portion of the Sum Assured into the policy surrender suspense. Payment requisition is then initiated and drawn against this suspense. General Ledger entries will need to be generated automatically. When the Sum Assured changes, the instalment premium should be re-calculated automatically based on the original issue age and commission adjusted accordingly.

**SH519 / PH519 - Traditional Part Surrender**

After a component is selected from P6351, this program will call the surrender calculation routines from T6598 and display the surrender value details for the component and any bonuses attached to the component. It will calculate a new premium based on the decreased sum assured by calling the appropriate premium calculation routine on T5675. A COVT record will be created with the new sum assured and premium details to be processed later by P5132AT, the component change AT module (which will adjust commission and reassurance and write a new COVR record based on the COVT details).

**PH520 - Traditional Part Surrender End Processing**

This program will perform all the traditional part surrender processing by calling the processing routines from T6598, which will in turn write the necessary accounting entries. There is no screen attached to this program. (Note: this program is a cross between P5084AT, Full Surrender AT, and P5022AT, Bonus Surrender AT).

**Tables**

T1688 - Transaction Codes

TA70 - Traditional Part Surrender

T1690 - Sub Menu Switching

ITEM P6306 - Part Surrenders Sub Menu

T5671 - Generic Component Processing

New items are required on T5671 for all components that will be eligible for traditional part surrender. Items are transaction code (TA70) concatenated with component code. The items should contain PH519 as the first program, as shown below, where XXXX denotes the relevant Component Code. The program called is PH519.

T5679 - Status Req. by Transaction

TA70 - Traditional Part Surrender

### 5.24.5 Reversionary Bonus Surrender

The surrender of Reversionary bonuses attaching to a with-profit Traditional component, may be surrendered in full, or in part. To complete this process the clerk enters the amount of reversionary bonus to surrender and the system calculates the actual bonus surrender amount. Once this transaction has been completed the amount is posted to the contract header, for disbursement to the client, and the reversionary bonus account balance is reduced accordingly. Optionally a bonus letter can be produced.

If a contract has an outstanding loan debt bonus withdrawal will not be allowed.

Transaction Codes

| | | |
|---|---|---|
| M608 | - | Surrender & Claims Master Menu |
| S611 | - | Surrender Submenu |
| T523 | - | Bonus Surrender Enquiry |
| T541 | - | Bonus Surrender |

### 5.24.6 Non-Forfeiture Surrender

If a contract surrender value is found to be insufficient to cover all loans and interest due it should be surrendered under the Non-Forfeiture Surrender transaction. This transaction has a similar function to full surrender, except that there is no option to surrender part of a plan. The whole contract will be surrendered under this option.

Contracts in this state are normally reported by the overdue processing batch job, which is part of RENEWALS, and it gives the Life Office an option to review the situation prior to taking the decision to cancel the contract. In the event that a contract is cancelled by this procedure there is a facility to re-instate or reverse this transaction in the Contract Servicing subsystem under Reversals (Windback).

Transaction Codes

| | | |
|---|---|---|
| M608 | - | Surrender & Claims Master Menu |
| S611 | - | Surrender Submenu |
| T525 | - | Non-Forfeiture Surrender |

### 5.24.7 Maturity & Expiry Processing

Maturity processing enables benefits that fall due at the Maturity of a contract to be paid to the relevant beneficiaries. This may result from the Maturity of the whole contract or any constituent parts as and when they fall due for both Unit linked and Traditional Contracts. The value of the contract is calculated as part of the process together with any bonuses or adjustment payments to be made. Upon payment of the benefit due, part policy or whole contract, the components or contract is updated as Matured and all general processing will cease billing, etc.

Maturities and Expiries may be processed up to three months in advance of the contract risk cessation date. This is to enable the administration area to complete, and receive from the client, all the necessary documentation so that the disbursement of the funds can be made on the due date. Contracts or components that have no monetary value arising at the completion of the contract term will go through the Maturity processing procedures but the contract or component is notated as Expired.

In order that clients may be notified of a pending Maturity or Expiry a batch job has been designed (PENDMATY) which allows a selection of the risk cessation date range to be processed as Pending Maturities. This batch job produces a report of the range of contracts requested and can be extended to produce the necessary letter of notification. (This assumes that the Life Office has designed the appropriate letter(s) and its key has been entered into the relevant table.)

This report will show whether contracts will Expire or Mature and their estimated value broken down by component and by fund for Unit Linked products. This report could assist in planning workflow and later on identifying outstanding requirements.

It is important to note that the contracts will not Mature or Expire automatically within the INTEGRAL LIFE system. The individual contracts have to be entered into the system. If a contract that has a mixture of components with benefits payable at maturity and components and riders that do not have any benefits at risk cessation date then those with benefits will be matured and those without will be cancelled as expired. This happens whether or not the expiring benefit has reached the risk cessation date, but the transaction must be within three months of expiry.

Upon completion of the maturity transaction all contract types will have a maturity letter produced detailing the amount payable. The system will realise all benefits, sum assured, relevant bonuses arising and will deduct or add any adjustments, as defined by the clerk at the maturity transaction, and will, for traditional contracts, deduct any outstanding loans and interest from the maturity sum. The balance available will be transferred to contract suspense, ready for disbursement to the beneficiary.

For unit linked contracts, the on-line maturity request will create the relevant records in order that all units are realised in the next run of NEWUNITD.

In addition to the above there is the facility to reverse Maturity processing for both Unit Linked and Traditional contracts.

Tables used by Subsystem

T3609 - General Standard Letters

T5645 - Transaction Accounting Rules
T5679 - Transaction Status Requirement
T6635 - Additional Bonus Rates
T6636 - Terminal Bonus Rates
T6637 - Interim Bonus Rates
T6639 - Traditional Bonus Calc. Routines

Transaction Codes

M608 - Surrender & Claims Master Menu
S542 - Maturities & Expiries Submenu
T542 - Maturity Processing
T539 - Expiry Processing
B507 - Pre Maturity/Expiry Report

### 5.24.8 Vesting

Vesting occurs on a deferred annuity contract at the date specified for the annuity to become payable. Early or late vesting may be available depending on the rules defined for the contract. The vesting transaction causes regular payments to be created which will continue for the rest of the annuitant's life. A cash option may be available whereby some, or all, of the annuity amount can be commuted into a cash lump sum.

The Vesting transaction within INTEGRAL LIFE forms part of the Surrender & Claims subsystem.

The following Vesting functions are provided:

**Pending Vesting**

This function is performed by a batch schedule, PENDVEST, which produces a report of deferred annuity components due to vest. This report provides information to generate a standard letter, assuming the required entry is held in Automatic Letter table T6634, advising the contract owner the forthcoming event.

A date and contract range can be entered on the parameter prompt screen for the PENDVEST schedule so that Life Office's have the flexibility to control workflow. The schedule selects components with a risk cessation date that falls between the dates entered on the parameter prompt screen. Checking that the components exist on Annuity Details table T6625 identifies annuity components.

A Vesting Letter record is written for each contract that has one or more components due to vest between the dates specified. Note that until the status of the component is changed, for example at Vesting Registration, Vesting Letters will continue to be written and the component will continue to appear on the Pending Vesting report.

The value of the components at vesting is calculated based on the sum assured, plus any bonuses if the component is with profits.

**Vesting Registration**

Vesting of a deferred annuity contract will usually occur when a component reaches its risk cessation date. This is an on-line function and if a contract number is entered

the contract/component status is checked against T5679. At least one component within that contract must have a maturity method entered into table T5687, Coverage and Rider Details, and must be an annuity component set up in Annuity Details Table T6625.

The rules that apply early or late vesting of annuity components are also held on T6625. The effective date of vesting cannot be earlier than the risk cessation date less the number of lead years entered in T6625 and cannot be later than the risk cessation date plus the number of years entered on T6625. It is possible to commute a proportion of the payable annuity to a lump sum payment, with a proportionately reduced annuity payable. The percentage of the total payable annuity that is allowed to be taken as a lump sum is validated against the values in T6625.

The annuity payable can be modified to an actuarial equivalent value payable within different parameters. For example, an annuity of $1000 per annum payable yearly in arrears for life may be modified at vesting to an annuity of $900 per annum payable monthly in advance for a guaranteed period of five years and life thereafter. The annuity payable can be dissected to allow, for example, tax to be deducted from the gross amount, with a net payment to the annuitant and accounts accumulating the deductibles for payment to the taxation authorities.

If annuity details are altered a new annuity record is created. New Contract, Payer and Coverage records are created and the old records are set to a valid flag 2. The premium status on these new records is changed to Vesting Registered. The premium status on the coverage is changed to Annuity Paying. Temporary Regular payment Records are set up for each payment's dissection with a single frequency payment record for any lump sum payment taken. On a with profit deferred annuity, the reversionary bonus will be zeroised.

Statistical records are produced.

**Vesting Approval**

Vesting Approval is used after the Vesting Registration to amend the contract and component premium status to an annuity in payment status and to authorise the regular payments. Information from the Vesting Detail and the temporary Regular Payment records created during the registration process is displayed for enquiry only.

The Contract, Payer and coverage record status are changed to indicate that the contract is now an In Force Paying Annuity.

A Regular Payment record with the status of approved or pending approval is created for every temporary record created at the vesting registration. This status setting depends on whether the generic subroutine, which approves the Regular Payment, is entered in the Coverage/Rider Switching table T5671, for a given product for this transaction.

Once the Regular Payment has been approved then the batch schedule relating to Regular Payments, REGPAY will generate the payment and cheque or Direct Credit records.

Tables used in Subsystem

T3609 - Generate Standard Letters

T5645 - Transaction Accounting Rules
T5671 - Coverage/Rider Switching
T5679 - Transaction Status Requirements
T6598 - Calculation Methods
T6623 - Vesting Commutation
T6625 - General Annuity Details
T6634 - Automatic Letters
T6639 - Traditional Bonus Calculations
T6690 - Default Regular Payment Types
T6691 - Regular Payment Types
T6692 - Regular Claim Reason Codes
T6693 - Allowable Action for Status
T6694 - Regular Payment Methods
T6696 - Reg. Payment Validation Rules

Transaction Codes

M608 - Surrender & Claims Master Menu
S643 - Vesting Submenu
B526 - Pending Vesting Batch Job
T504 - Vesting Registration
T505 - Vesting Approval
T506 - Vesting Reversal

### 5.24.9 Death Claims

The following transactions are available within this subsystem: Registration, Adjustment, Approval, Register First Death and Enquiry. In conjunction with the action code relevant to each of these transactions, entry of the contract number applicable will be required. The status codes of the contract will be validated prior to the transaction screen being provided.

When notice is received of the death of a client, the Registration transaction will enable the contract where the client has a suitable role to be updated. Where the client is a life assured, once the death has been registered, and the contract is a Traditional Product, the potential death claim amount will be determined. For Unit Linked products the potential liability will be known after the surrender of the units following the batch schedule NEWUNITD. Once the amount has been determined accounting entries are generated to the pending death claim account.

The calculations of the pending death claim amount will be subject to the type of Death Calculation Method applicable to each coverage and rider present on the contract.

The following Death Claim Calculations are supplied with the base system:

- The total of the Sum Assured and all allowable bonuses, Reversionary, Interim, Terminal and Additional as specified
- The cash value of Unit Holdings
- The greater of the Sum Assured and any Unit Holdings
- The total of the Sum Assured and any Unit Holdings

- The amount payable on a benefit paying Annuity
- The amount payable on a Deferred Annuity which has not vested
- A death value of zero

When processing a death claim for traditional cases, logic exist which repays any Policy Loan and/or Automatic Premium Loan with interest calculated to the date of death. Therefore, only the net proceeds are presented as payable. In addition to calculating the potential death claim, the registration transaction will also update the client's contract and the client's record with the date of death.

For contracts with more than one life, either joint life or multiple life contracts, it is possible to register the death of one life. This transaction will update the date of death on the clients' records. If the contract on which the death of a life is being registered is an annuity, the payment amounts may be reduced in accordance with the component rules.

Once the death has been registered the details can be adjusted. The forms of adjustment permitted can relate to creating financial adjustments to reduce or increase the pending death claim amount as required. Additionally, the transaction can be used for updating the claim details as further details or items are received, such as the cause of death or an item that was recorded as an outstanding follow up.

Once satisfied that the claim can be paid, the approval transaction will calculate the net claim proceeds, taking any financial adjustments into account. During the approval transaction the facilities of amending the currency of payment, applying interest to the net claim and charging any Office Expenses are also available. Where any of these fields is used, the total claim proceeds will be duly amended.

Where significant errors have occurred which cannot be resolved by the adjustment transaction, the reversal transaction will remove the registration of the claim and restore the contract to the status applicable before the death claim was registered. Additionally this transaction will remove the date of death from the clients file and reverse all accounting transactions that occurred as a result of the death registration and any adjustments. However, a point to note is that once the contract is Death Claim Approved there is no transaction, currently, that re-instates the contract.

The death claim subsystem also provides an Enquiry facility on contracts that have been registered with a death claim. The enquiry screen will display all the details entered and calculated to date regarding the death claim and can also display any Follow Up details if required.

Tables used by Subsystem

| | | |
|---|---|---|
| T5679 | - | Transaction Status Requirements |
| T5687 | - | Coverage/Rider Details |
| T5982 | - | Cause of Death |
| T6598 | - | Calculation Methods |
| T6693 | - | Allowable Action for Status |

Transaction Codes

M608 - Surrender & Claims Master Menu
S623 - Surrender Submenu
T502 - Register Death of Life Assured
T668 - Register Death Claim
T669 - Approve Death Claim
T671 - Adjust Death Claim
T672 - Enquire on Death Claim

### 5.24.10 Anticipated Endowments - Alterations

Traditional Product Anticipated Endowments is basically an Endowment that allows benefits payments throughout the term of the contract. The product definition process allows certain options for the client to select at the inception of the contract such as the benefit is paid in cash, held on account, etc.

As it is recognised that the client's requirements may alter from incepting the contract and subsequent benefit payment dates, there is now an option to amend the payment option.

### 5.24.11 Regular Payments

The Regular Payments system is an extension of the claims processing facilities provided by the INTEGRAL LIFE and it is designed to cover three basic types of regular payment. The first of these is a regular Part Surrender of a Unit Linked contract where the client wished to withdraw either a percentage of units or a fixed amount at regular intervals such as monthly, quarterly and annually as an income from his initial investment. By using this method it saves the Life Office having to remember to and complete these withdrawals at the agreed frequencies. The second use is in respect of a benefit that requires a regular payment such as a Permanent Health or Waiver of Premium claims and the third is payment of Annuities. In addition to the above, this claims processing facilities also supports pension payments and regular claim payments for Hospitalisation and Accident benefits which are paid on a reimbursement basis.

In all the regular payment cases, the amount is payable at a regular frequency and to ensure that these payments are not continued to ineligible claimants the system will place them into review at specified intervals or will set a last payment date for a fixed benefit term.

The system will allow the creation of payment details to be recorded against individual components of a contract. These will then be processed on a regular basis by a batch process that will invoke the appropriate processing to actually make the payments, surrender the units where relevant, update the accounts and create media requests where applicable. The system will make payments by cheque, direct credit or purely internal when they are being used to fund the source contract itself as Waiver of Premium benefit or to pay premiums on another contract.

The system has been designed to be flexible so that it will be able to cope with all types of regular payments due to the modularity of its construction. This will include such payments as Annuities but these will no doubt have to be modified with extra processing to deal with local tax regulations and the individual Life Office requirements. However, these can be met quite effectively without altering the existing structure of the system.

The system will support multiple payment details for a given component. For benefit components against which a claim may be registered the system will support multiple claims that may be consecutive or concurrent. However, the system checks that the maximum values of all claims in force and in payment at any one time do not exceed the Benefit Value for that component. Time limits may be imposed upon claims so that they may be created to run for a given period of time or indefinitely. In the case of the limited period the system will automatically terminate claims when it reaches the specified date.

There is an Indexation facility built into the payment processing and again this has been implemented in a modular manner so that new Indexation methods may be adopted with no coding changes to the existing software.

Payments may be made in any valid nominated currency defined in the system. In the case of a regular benefit claim the amount of the claim will always be held in the contract currency whereas the actual payment processing will make the conversion into the payment currency as each individual payment is processed. A running total will be held for information but only in the contract currency.

For Unit Linked regular withdrawals the client may nominate the amount, fixed or percentage of units and the currency and the system will surrender the appropriate number of units to meet the withdrawal. Therefore, the client will receive differing amounts due to the currency conversion fluctuations and where the client has selected a percentage of units to be withdrawn then again the value received will fluctuate due to the unit price fluctuations.

As far as possible the rules that the system employs to ensure that only valid data is recorded in the payment file are held on user defined tables. This enables the end user to maintain a considerable level of control over the structure and running of the Regular Payments system.

Tables used by Subsystem

- T5671 - Coverage/Rider Switching
- T5679 - Transaction Status Rules
- T6663 - Regular Payment Status
- T6689 - Regular Payment Exceptions
- T6691 - Regular Payment Types
- T6692 - Regular Claim Reason Codes
- T6694 - Regular Payment Methods
- T6695 - Regular Claim Indexation Rules
- T6696 - Regular Payment Validation Rules
- TR584 - Accident Benefits
- TR585 - Accident Benefit Plan
- TR687 - Hospital Benefits
- TR50A - Benefit Codes
- TR50B - Benefit Plan
- TR50H - Diagnosis Code

Transaction Codes

- M608 - Surrender & Claims Master Menu
- S640 - Regular Payments Submenu
- B515 - Regular Payments Run

B516 - Regular Payments Processing
B517 - Regular Payments in Review
B518 - Regular Payments Auto Termination
T515 - Regular Payment Register
T516 - Regular Payment Adjustment
T517 - Regular Payment Approval
T518 - Regular Payment Cancellation
T519 - Regular Payment Termination
T520 - Regular Payment Enquiry

## 5.25 Cash Dividends

Cash dividend is only available with the basic plan and a number of supplementary benefit riders can be attached to the basic plan. At New Business, the Policyholder can elect to take any of the following dividend options:

1) accumulate dividend to attract interest; transfer the cash dividend to settle future premium
2) withdraw the cash dividend after each allocation
3) utilise the cash dividend to purchase paid-up addition

A user defined default option is available if the policyholder indicates no preference. For the second option, payment method, currency and payee details are required.

The dividend is always allocated yearly in arrears at policy anniversary. The dividend is normally derived from a formula of various variable factors. In this case, however, the dividend amounts are held on tables. This means that the dividends are pre-calculated outside the system. The dividend table is keyed as follows:

The policyholder is allowed to change the dividend option at mid term (as long as the policy is in-force). The change will be effective on the next dividend allocation date (i.e. anniversary date). In the case of changing from accumulating dividend & interest to any other options, the existing dividend and interest balance will remain unaffected i.e. continue to attract interest.

System allows capture of the relevant Cash dividend details at New Business, the modification of existing Cash Dividend details and the addition of new Cash Dividend components at mid term, and enquiries on existing components with Cash Dividend options.

Change of Dividend Option

To allow change of the dividend option via Minor Alterations

Dividend Allocation

To enable dividends to be allocated on contract anniversary date

Dividend Option Processing

To enable the processing of the following dividend options:

- Interest calculation & allocation
- Settle future premiums
- Cash Withdrawal
- Paid Up Addition

Manual Withdrawal Facility

To cater for the subsequent withdrawal requirement for all dividend options there should be a manual withdrawal function to allow the policyholder to withdraw any amount up to his allocated dividends plus interest.

Full Surrender, Death & Maturity

Includes the functionality of calculating dividends in the event of a full surrender, death or maturity claim.

## Tables

TH500 - Cash Dividend Options Table

This Table is keyed by Dividend Option. It drives the processing required to process the dividend after declaration. A value of "N" is assumed if nothing is entered for the "Payee details required" value. If a "Y" is entered here, details of the payee on the Coverage Screen are mandatory.

TH501 - Cash Dividend Methods Table

This is a description only table, which contains all possible Cash Dividend Methods on the system. There is no extra data screen.

TH502 - Bonus/Dividend Allocation Basis Table

This Table is used to define the meaning of the allocation basis, e.g. Reversionary Bonus to be allocated at Company Anniversary, Contract anniversary etc.

TH505 - Term Based (Dividend) Edit Rules Table

This Table is used to allow users to specify the valid ranges of values for the life assured in terms of age ranges and term ranges. This table is cross-referenced when the proposal screens are used to create a traditional Cash Dividend Coverage. The Cash Dividend option entered must exist on Table TH500, and the Coverage Screen during proposal creation picks up the default option. Before a traditional Cash Dividend coverage can be attached to a particular Life Assured the Coverage must exist on this Table, otherwise an error will be generated if you try to allocate this Coverage to a Life. The Table is keyed on a concatenation of Component Code and Currency.

T6640 - General Traditional Business Details

This Extra Data Screen of this Table has been altered to include options for Cash Dividend Processing. A typical set up for Cash Dividend processing is shown below. The Cash Dividend Method field windows to Table TH501, and although there is no validation, it is expected that either the Reversionary Bonus Method or the Cash Dividend method should be entered, but not both. The Cash Dividend Withdrawal Method windows to Table T6598. Although there is validation, it is expected that either the Surrender Bonus Method or the Cash Dividend Withdrawal Method should be entered but not both.

T1675 - Secondary Program Switching Table

The following ITEMS should be set up on this Table as follows:
T600H504 - Cash Dividend Proposals
T509H504 - Cash Dividend Proposal Enquiry
T555H515 - Cash Dividend Component Modify

T556H515 - Cash Dividend Component Enquiry
T557H515 - Cash Dividend Component Add

T5671 - Coverage/Rider Switching Table

The following ITEMS should be set up on this Table as follows,
Where

XXXX denotes the relevant Component Code:

T600XXXX - Proposal Input XXXX – Program PH504
T509XXXX - Proposal Modify for XXXX. – Program PH504
T555XXXX - Component Modify for XXXX – Program PH515
T556XXXX – Comp. Change Enquiry for XXXX – Program PH515
T557XXXX - Component Add for XXXX – Program PH515
T609XXXX - Contract Enquiry for XXXX – Program PH514

## 5.26 Unit Pricing

### 5.26.1 Introduction

Unit Linked contracts differ from Traditional contracts in that the portion of the premium pertaining to the life and/or disability cover is separate and distinct and the balance remaining is used to purchase units in one or many funds.

A Unit Fund is a separately identified pool of assets, a share of which is allocated to policy owners who own units in the Unit Fund. Several Unit Funds are usually available to the policy owner such as Equity, Fixed Interest, Property and normally a composite of funds that comprise a mixture of investments fixed by the Life Office. These funds are normally referred to as Managed Funds.

A major feature of this type of contract is that the policy owner has a greater control over the overall investments as he/she can switch units from one fund to another from time to time.

### 5.26.2 Unit Pricing and Unit Price Entry

The Life Office to operate this type of business require a way of fixing the unit price, which is normally completed outside the INTEGRAL LIFE, so that they are able to transact the purchase and selling of units on a daily or weekly basis. How the units are priced very much depends on the level of buying and selling transactions and before the price is calculated the Fund Manager requires to know the transactions outstanding for both selling and buying units in the various funds available. The system will provide this information by means of a report generated from the batch job UNITEXT.

However, the above system batch job does not take into account any proposals that are within the system as UNITEXT only deals with unprocessed UTRN's and these are only produced for in force contracts. To improve this reporting stage prior to Unit Price calculation, a batch job FNDVALRP, Fund Valuation Report is used.

This batch job gives three distinct reports as follows:

**Proposal Report**

This report lists all contracts in the proposal stage with the premium held in suspense, the unit reserve date and the fund to be invested. With this report the Fund Manager is aware of the money banked that should be taken into account and "buy" units for these contracts out of the system.

**New Business Cancellations**

Equally the Fund Manager requires to know the new business cancellations, postponements, withdrawals and declines so that the Fund Manager may "sell" the units he purchased when the proposal was first reported on.

**New Business Report**

When the contracts are issued there will be a need to check that the same unit rate was used when the units where initially bought of the system and the rate used at contract issue. If the rates are the same then no action needs to be taken. If the rates differ then a journal may be required to account for the profit or loss caused by the differing rates.

Once the fund manager has received all the relevant information the valuation exercise can be completed. There then is a need to input into the system the Bare Unit Price that is used in the calculation of the virtual Bid/Offer Price. The Unit Linked Pricing subsystem provides the facilities for entering and maintaining prices for the virtual funds held within the system. (Virtual Funds must be set up in table T5515.) The first stage is to enter the Bare Price, this price may be modified if required, and the system will calculate the Bid and Offer prices from this in accordance with the rules defined in the various units pricing tables. Prices may be input for single fund or a selection of various funds as required. The scroll feature of available funds may be left to default to the start of the full list of funds, or a fund or partial fund identifier may be input to prompt the system to begin its display from there.

All price inputs are batched by the use of a job number entered from the sub menu. This job number must be unique within any given date so both the date and the number identify entries. The prices under any job number may then be reviewed and amended directly if necessary before calculation takes place.

For any Bare Prices entered under a specific date and job number the user can select to calculate and enter the corresponding Bid and Offer prices. Alternatively the Bid Price can be entered directly and the system uses this as the Bare Price to calculate the Offer Price. In each transaction the system will refer to tables T5515 and T5509 for rounding and calculation rules.

The calculated Bid and Offer prices may be modified directly through the sub menu option. Once again the entry date and number must identify the particular list of prices.

Prices do not become effective for use by the system until using the activation option within the submenu has activated them. An enquiry facility is provided on the existing activated prices as a history of price input from a given date to and optionally from a given date.

Tables used by Subsystem

T5509 - Virtual Fund Bid Offer Spread

T5515 - Virtual Funds
T5543 - Available Virtual Funds

Transaction Codes

M606 - Unit Prices Master Menu
S613 - Unit Price Submenu
T511 - Unit Price Activate
T660 - Unit Bare Price Create
T661 - Unit Bare Price Modify
T662 - Unit Bid Offer Create
T663 - Unit Bid Offer Modify

### 5.26.3 Unit Pricing Report

The Unit Pricing Reporting function allows the user to obtain a hardcopy of fund prices. This may be a history of fund prices from a specified date, or a list of all fund prices entered within a specific date or job number batch.

The parameters, which influence the content of the report, are the effective date that must always be entered. The fund which may be entered if the report is to be restricted to only one fund and the job number, which should only be entered if the report is to list all the prices, input during the specified date/job number combination. If the job number has not been entered, the report defaults to print a history of price input since the specified effective date. It may be changed to print the prices as at the effective date and this will cause the program to search backwards from the effective date and for each fund, pick up the most recently dated price. As default, the bare price will appear on the report, but it may be excluded.

The program that extracts this information is B6230 and the batch job requires parameter screen P5430 to make the necessary selections.

### 5.26.4 Unit Statements

As with all other types of business, Life Office's require to inform their clients the current state of the contract normally on an annual basis. However, due to the nature of the unit linked business it is possible, especially during fund value fluctuations, those clients' request ad hoc statements of current value and premium position.

This subsystem provides the facility, in addition to the normal annual statement produced at the anniversary of the contract, to request Unit Statements on-line. The user can request to print or re-print statements previously forwarded to the client, review outstanding statement requests not yet processed and make portfolio summary enquiry.

The Unit Statement batch job produces the statements dependent on a schedule date held at the contract level. This date is used to select all due contracts. Note that the parameter date used within the selection is incremented by three days to allow any imminent unit transactions to be processed through unit dealing. The Unit Linked detail table T6647, holds unit statement method that is the key to the unit statement's table T6659.

This table holds various processing parameters such as whether the statement is to be produced on an anniversary or after premium receipt. Table T6659 also holds an

outstanding unit indicator that stops the production of statements if any units are outstanding awaiting a unit price. To process the statement, a generic subroutine as held on the table is called. After completion the schedule date is incremented by the factor, number of months, which is also held on table T6659.

Tables used by Subsystem

| | | |
|---|---|---|
| T6647 | - | Unit Linked Contract Details |
| T6659 | - | Unit Statements |

Transaction Codes

| | | |
|---|---|---|
| M605 | - | Unit Price Master Menu |
| S637 | - | Unit Price Submenu |
| T566 | - | Unit Statement Reprint Request |
| T570 | - | Unit Statement Print Request |
| T571 | - | Outstanding Statement Requests |