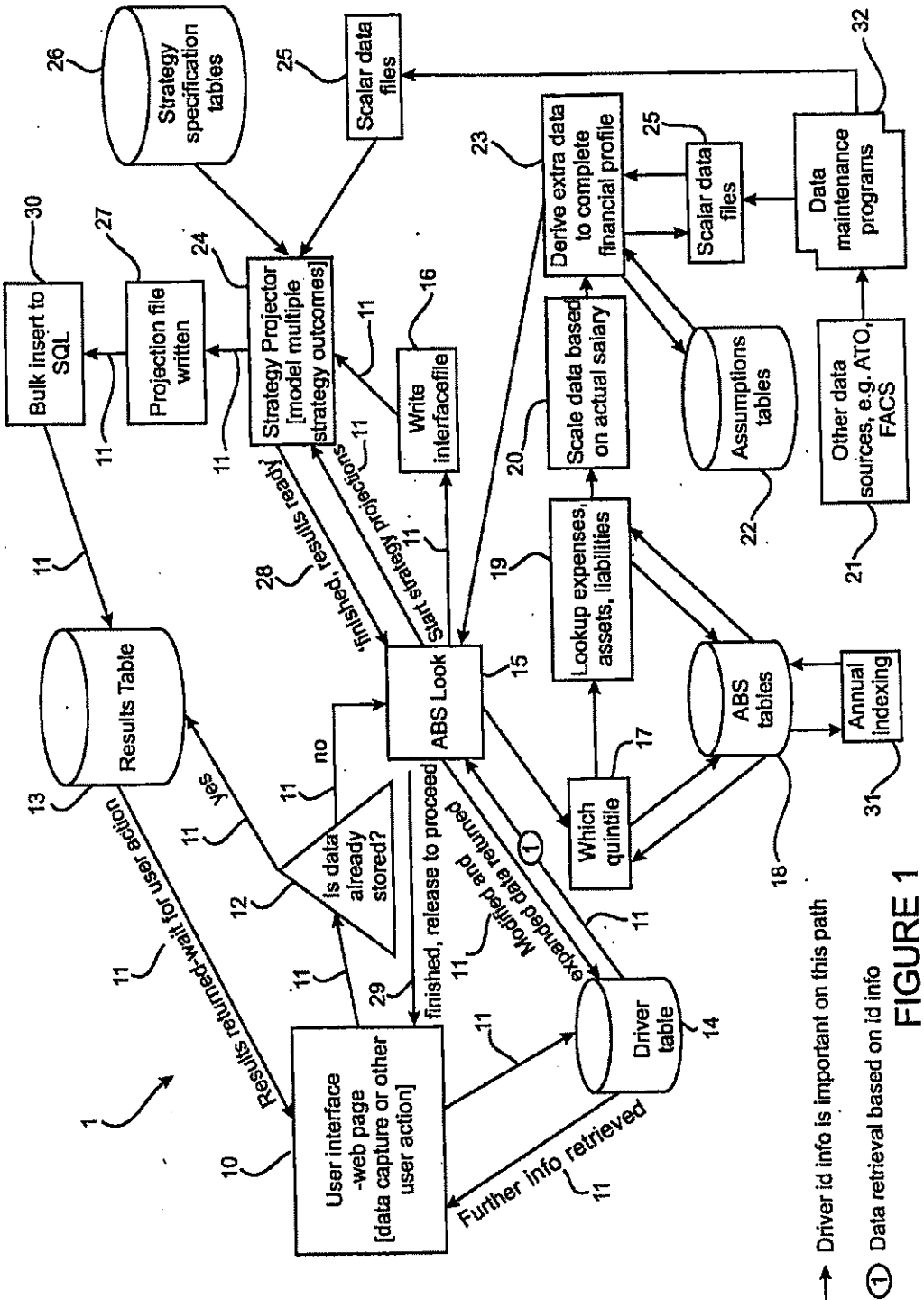

Strategy specification tables
Scalar data files
Bulk insert to SQL
Projection file written
Strategy Projector [model multiple strategy outcomes]
Write interfacefile
Derive extra data to complete financial profile
Scalar data files
Data maintenance programs
Scale data based on actual salary
Assumptions tables
Other data sources, e.g. ATO, FACS
Lookup expenses, assets, liabilities
Results Table
ABS Look
ABS tables
Annual indexing
Which quintile
Is data already stored?
Driver table
User interface -web page [data capture or other user action]
Results returned-wait for user action
yes
no
finished, release to proceed
Modified and expanded data returned
Further info retrieved
'finished, results ready'
Start strategy projections
Driver id info is important on this path
Data retrieval based on id info

FIGURE 1

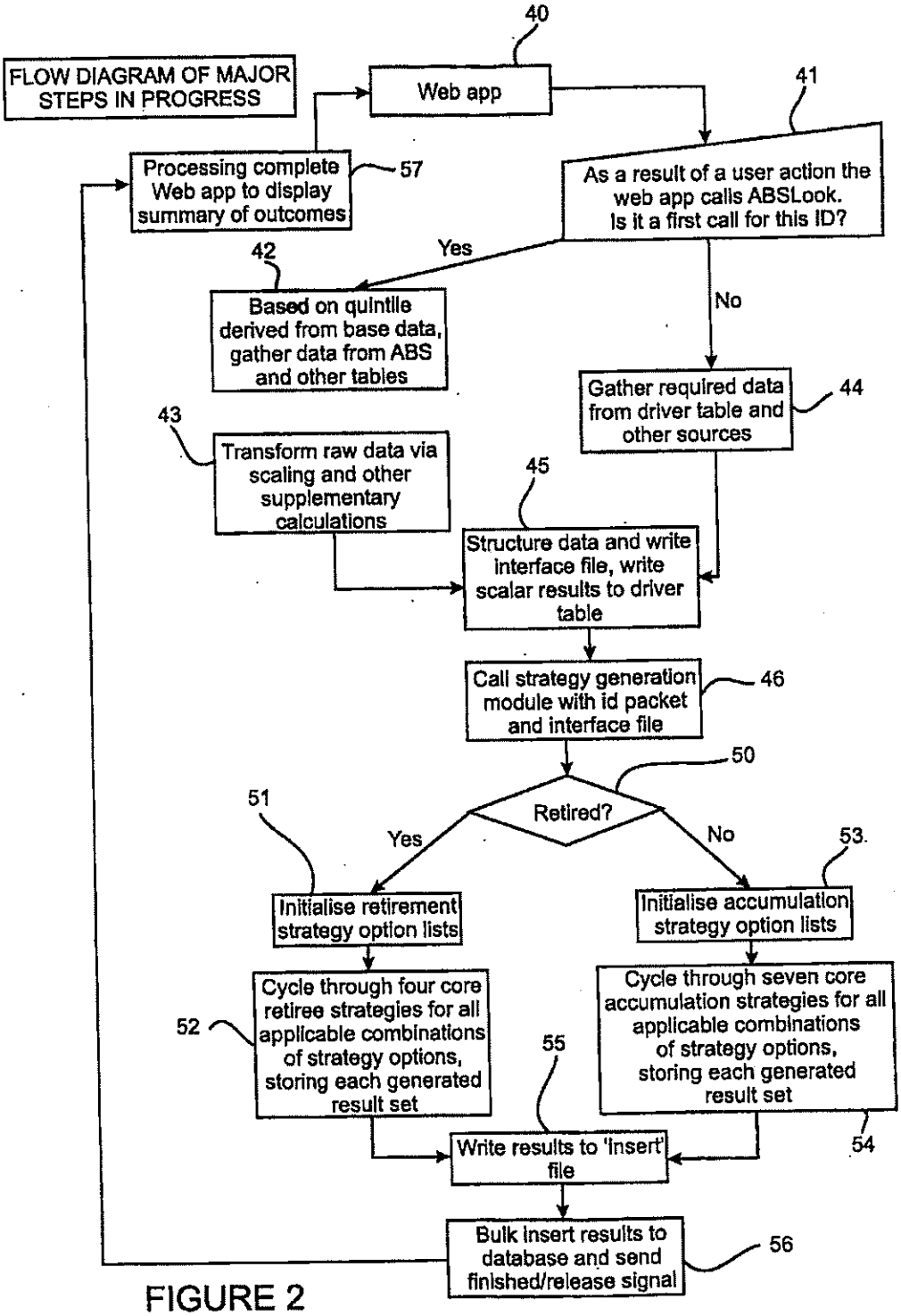

FLOW DIAGRAM OF MAJOR STEPS IN PROGRESS
Web app
40
41
As a result of a user action the web app calls ABSLook. Is it a first call for this ID?
Yes
No
Processing complete Web app to display summary of outcomes
57
42
Based on quintile derived from base data, gather data from ABS and other tables
Gather required data from driver table and other sources
44
43
Transform raw data via scaling and other supplementary calculations
45
Structure data and write interface file, write scalar results to driver table
Call strategy generation module with id packet and interface file
46
50
Retired?
51
Yes
No
53
Initialise retirement strategy option lists
Initialise accumulation strategy option lists
Cycle through four core retiree strategies for all applicable combinations of strategy options, storing each generated result set
52
Cycle through seven core accumulation strategies for all applicable combinations of strategy options, storing each generated result set
55
54
Write results to 'Insert' file
Bulk insert results to database and send finished/release signal
56

FIGURE 2

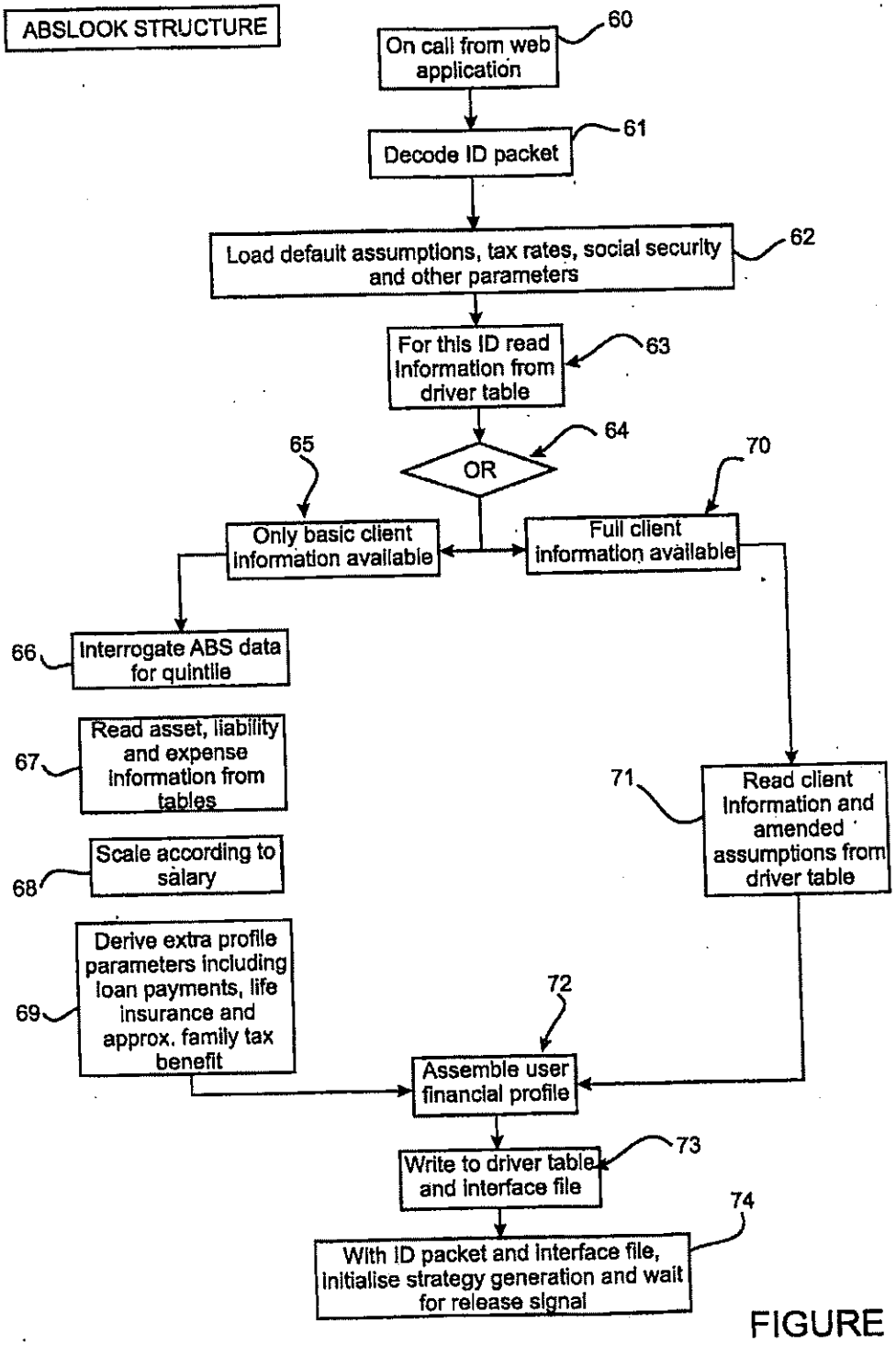

ABSLOOK STRUCTURE
On call from web application
60
Decode ID packet
61
Load default assumptions, tax rates, social security and other parameters
62
For this ID read information from driver table
63
OR
64
65
70
Only basic client information available
Full client information available
66
Interrogate ABS data for quintile
67
Read asset, liability and expense information from tables
68
Scale according to salary
69
Derive extra profile parameters including loan payments, life insurance and approx. family tax benefit
71
Read client information and amended assumptions from driver table
72
Assemble user financial profile
73
Write to driver table and interface file
74
With ID packet and interface file, initialise strategy generation and wait for release signal

FIGURE 3

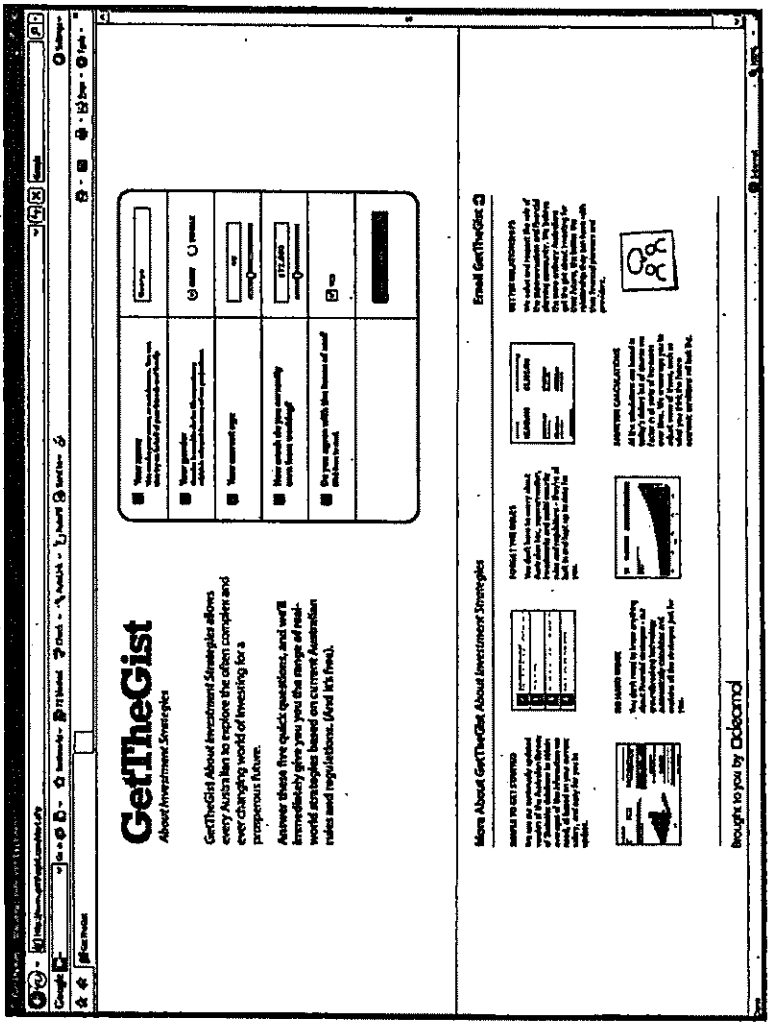

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About Investment Strategies
GetTheGist About Investment Strategies allows every Australian to explore the often complex and ever changing world of investing for a prosperous future.
Answer these five quick questions, and we'll immediately give you the range of real-world strategies based on current Australian rules and regulations. (And it's free).
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FIGURE 4

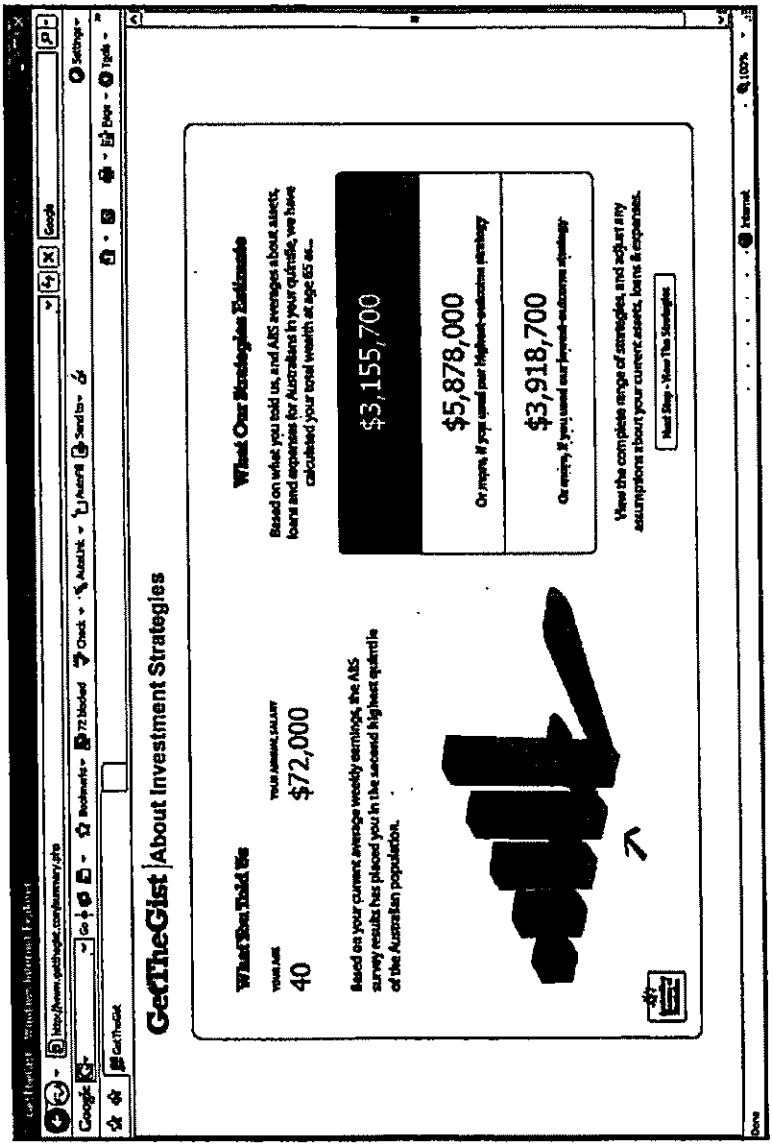

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What Else Should We Know
YOUR AGE
40
YOUR ANNUAL SALARY
$72,000
Based on your current average weekly earnings, the ABS survey results has placed you in the second highest quintile of the Australian population.
What Our Strategies Recommend
Based on what you told us, and ABS averages about assets, loans and expenses for Australians in your quintile, we have calculated your total wealth at age 65 as...
$3,155,700
$5,878,000
$3,918,700
View the complete range of strategies, and adjust any assumptions about your current assets, loans & expenses.

FIGURE 5

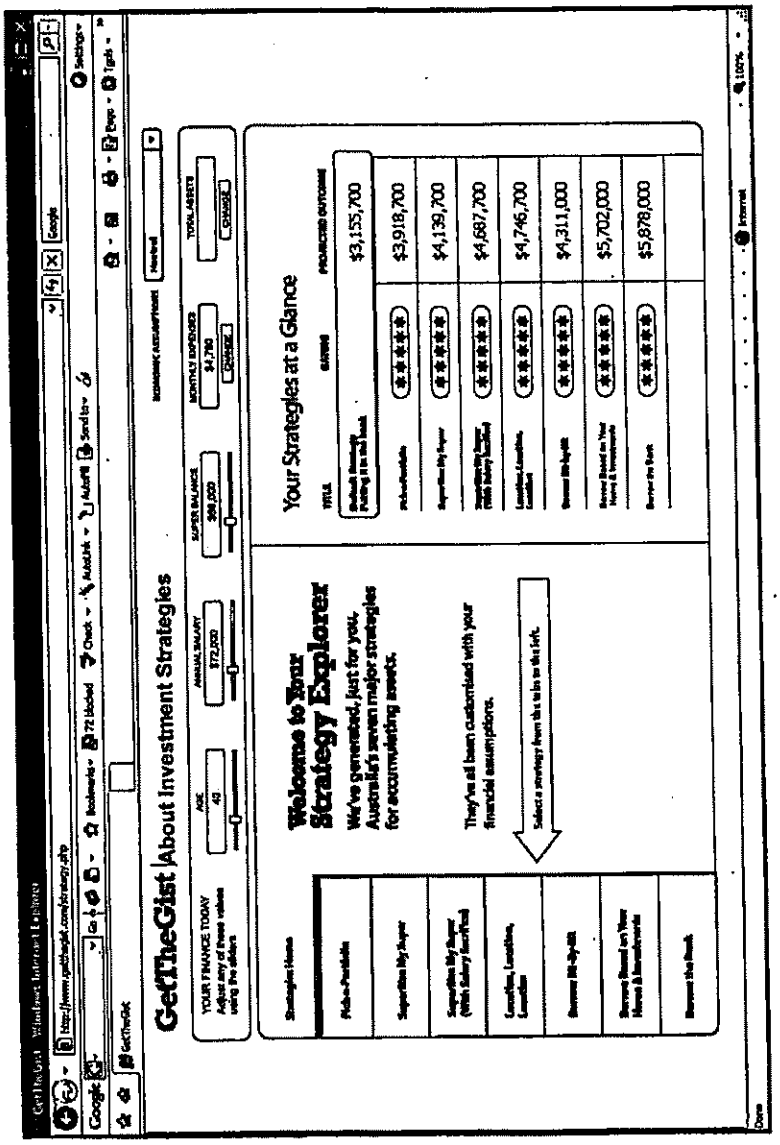

GetTheGist
About Investment Strategies
Welcome to Your Strategy Explorer
We've generated, just for you, Australia's seven major strategies for accumulating assets.
They've all been customised with your financial assumptions.
Select a strategy from the tabs to the left.
Your Strategies at a Glance
$3,155,700
$3,918,700
$4,139,700
$4,687,700
$4,746,700
$4,311,000
$5,702,000
$5,878,000

FIGURE 6

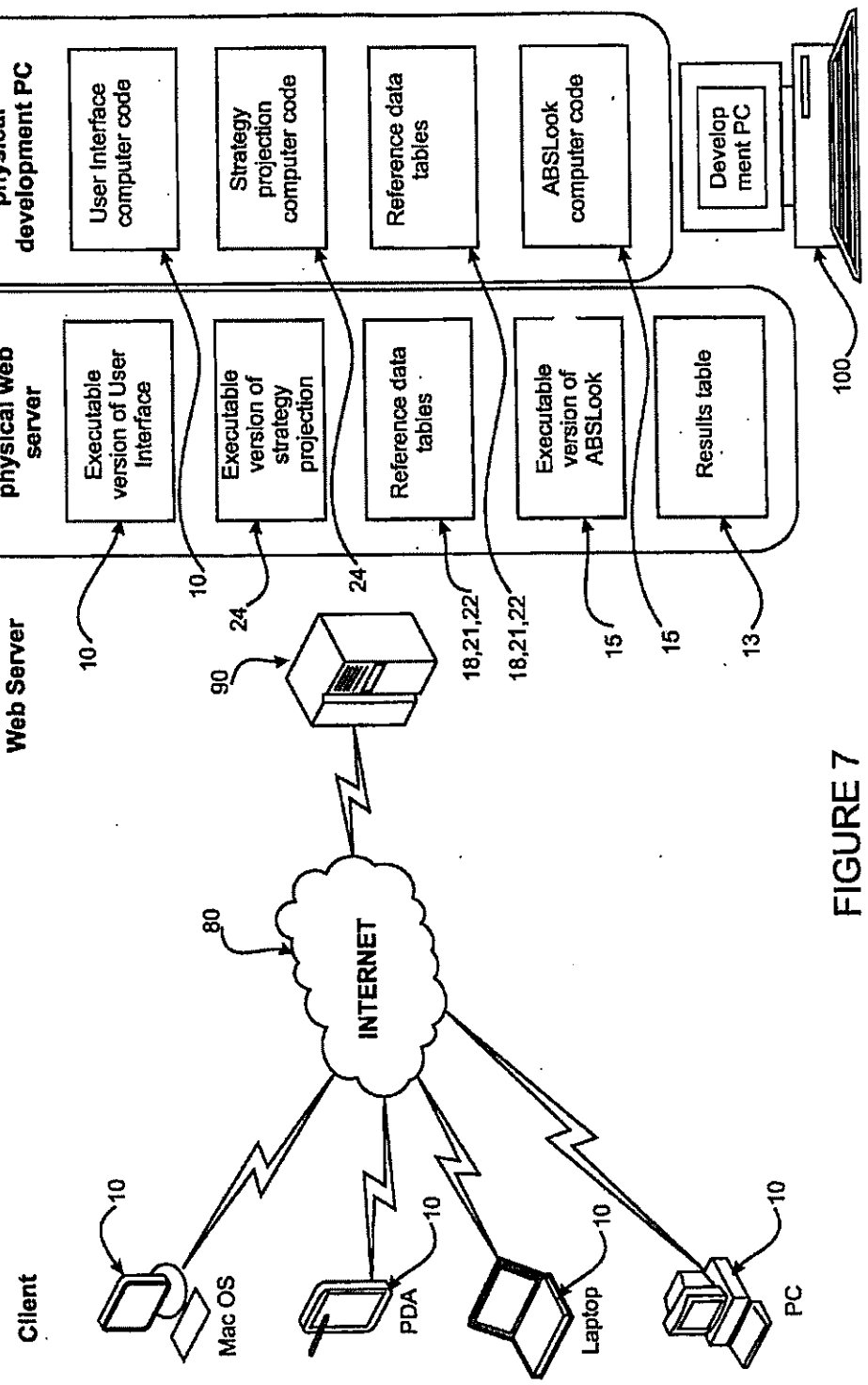

Components created on physical development PC
User Interface computer code
Strategy projection computer code
Reference data tables
ABSLook computer code
Develop ment PC
Components maintained on physical web server
Executable version of User Interface
Executable version of strategy projection
Reference data tables
Executable version of ABSLook
Results table
Web Server
10
10
24
24
18,21,22
18,21,22
15
15
13
90
100
80
INTERNET
Client
Mac OS
PDA
Laptop
PC
10
10
10
10

FIGURE 7

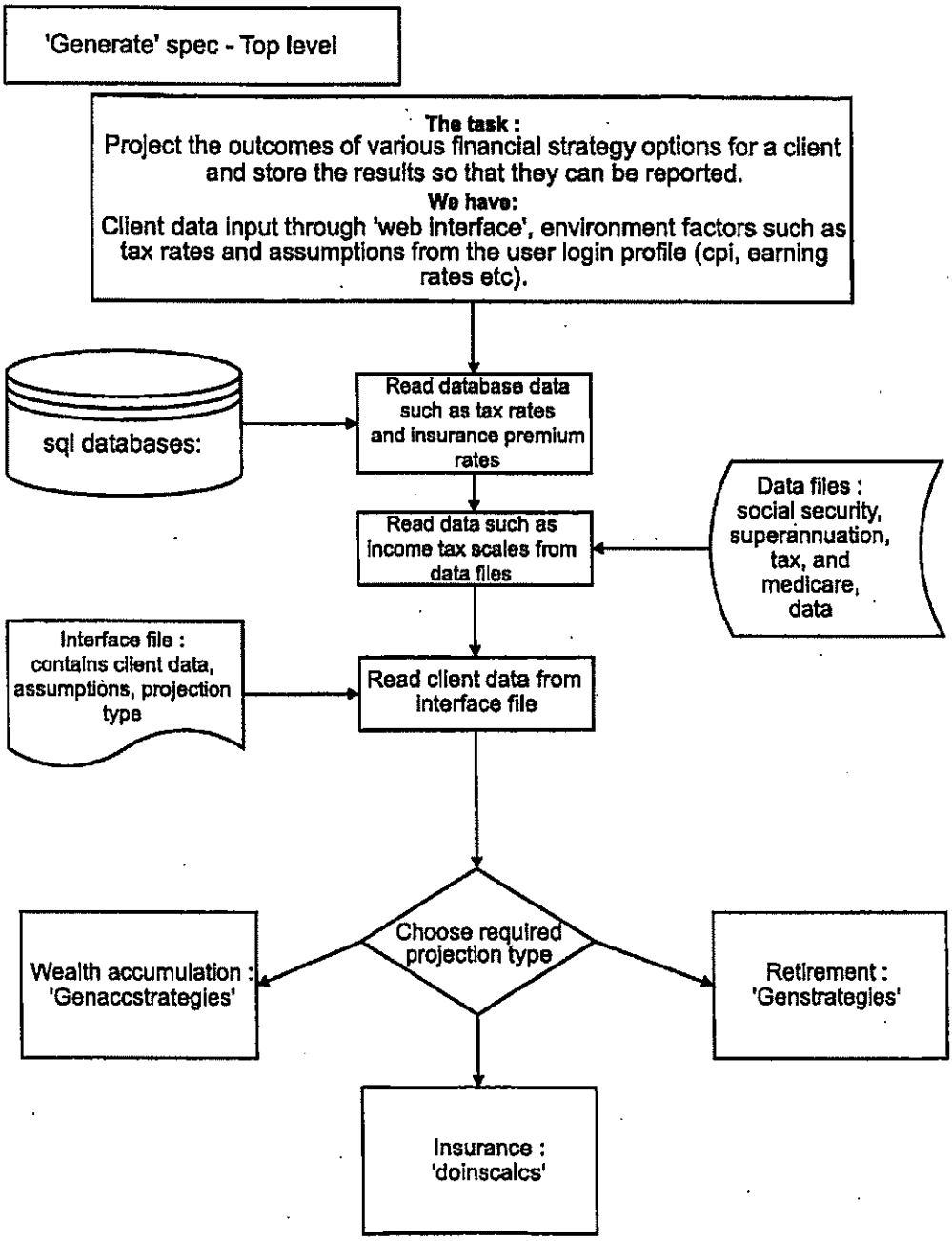

'Generate' spec - Top level
The task :
Project the outcomes of various financial strategy options for a client and store the results so that they can be reported.
We have:
Client data input through 'web interface', environment factors such as tax rates and assumptions from the user login profile (cpi, earning rates etc).
sql databases:
Read database data such as tax rates and insurance premium rates
Data files : social security, superannuation, tax, and medicare, data
Read data such as income tax scales from data files
Interface file : contains client data, assumptions, projection type
Read client data from interface file
Choose required projection type
Wealth accumulation : 'Genaccstrategies'
Retirement : 'Genstrategies'
Insurance : 'doinscalcs'

FIGURE 8

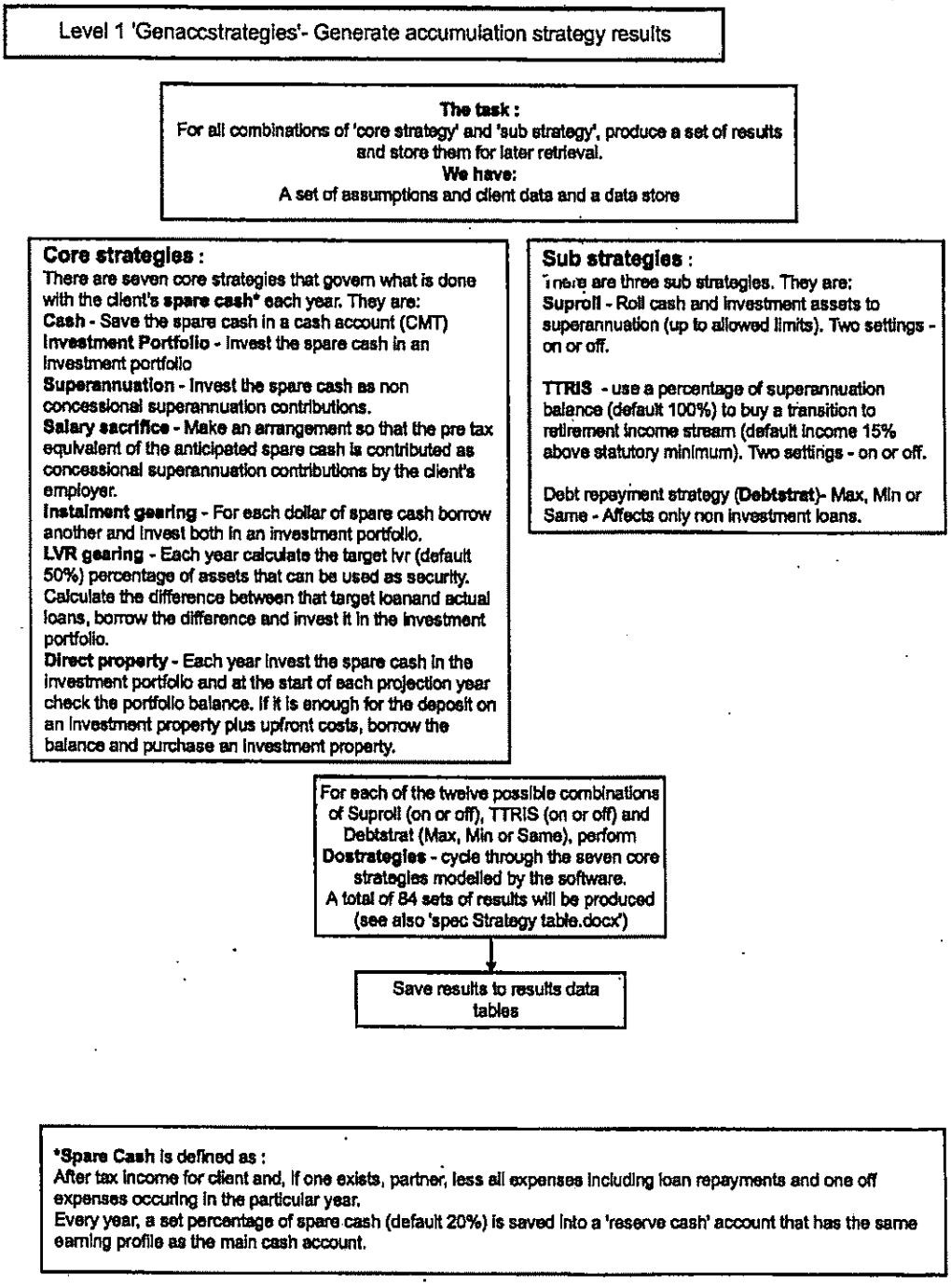

Level 1 'Genaccstrategies'- Generate accumulation strategy results
The task :
For all combinations of 'core strategy' and 'sub strategy', produce a set of results and store them for later retrieval.
We have:
A set of assumptions and client data and a data store
Core strategies :
There are seven core strategies that govern what is done with the client's spare cash* each year. They are:
Cash - Save the spare cash in a cash account (CMT)
Investment Portfolio - Invest the spare cash in an investment portfolio
Superannuation - Invest the spare cash as non concessional superannuation contributions.
Salary sacrifice - Make an arrangement so that the pre tax equivalent of the anticipated spare cash is contributed as concessional superannuation contributions by the client's employer.
Instalment gearing - For each dollar of spare cash borrow another and invest both in an investment portfolio.
LVR gearing - Each year calculate the target lvr (default 50%) percentage of assets that can be used as security. Calculate the difference between that target loanand actual loans, borrow the difference and invest it in the investment portfolio.
Direct property - Each year invest the spare cash in the investment portfolio and at the start of each projection year check the portfolio balance. If it is enough for the deposit on an investment property plus upfront costs, borrow the balance and purchase an investment property.
Sub strategies :
There are three sub strategies. They are:
Suproll - Roll cash and investment assets to superannuation (up to allowed limits). Two settings - on or off.
TTRIS - use a percentage of superannuation balance (default 100%) to buy a transition to retirement income stream (default income 15% above statutory minimum). Two settings - on or off.
Debt repayment strategy (Debtstrat)- Max, Min or Same - Affects only non investment loans.
For each of the twelve possible combinations of Suproll (on or off), TTRIS (on or off) and Debtstrat (Max, Min or Same), perform Dostrategies - cycle through the seven core strategies modelled by the software.
A total of 84 sets of results will be produced (see also 'spec Strategy table.docx')
Save results to results data tables
*Spare Cash is defined as :
After tax income for client and, if one exists, partner, less all expenses including loan repayments and one off expenses occuring in the particular year.
Every year, a set percentage of spare cash (default 20%) is saved into a 'reserve cash' account that has the same earning profile as the main cash account.

FIGURE 9

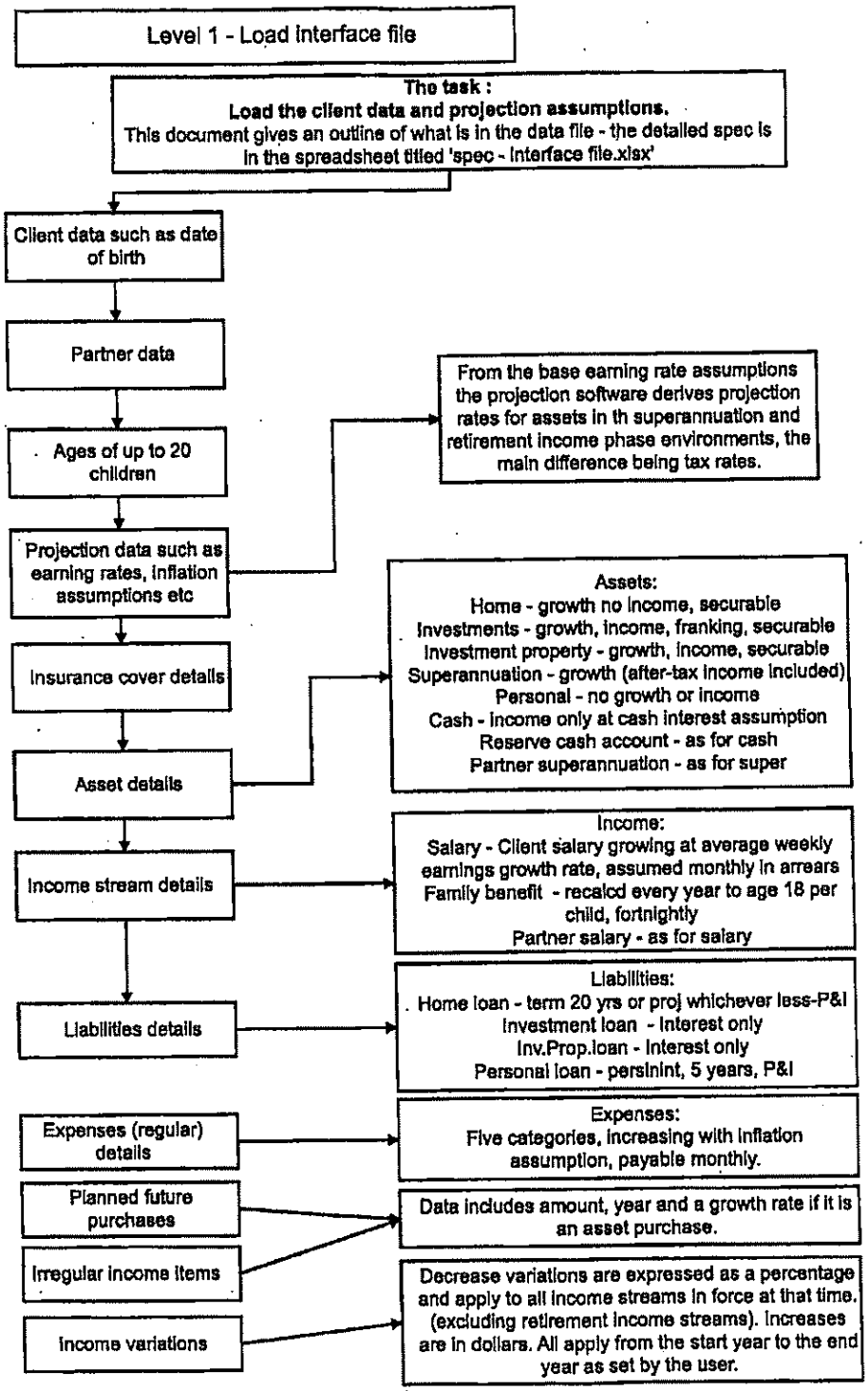

Level 1 - Load interface file
The task :
Load the client data and projection assumptions.
This document gives an outline of what is in the data file - the detailed spec is in the spreadsheet titled 'spec - interface file.xlsx'
Client data such as date of birth
Partner data
Ages of up to 20 children
Projection data such as earning rates, inflation assumptions etc
Insurance cover details
Asset details
Income stream details
Liabilities details
Expenses (regular) details
Planned future purchases
Irregular income items
Income variations
From the base earning rate assumptions the projection software derives projection rates for assets in th superannuation and retirement income phase environments, the main difference being tax rates.
Assets:
Home - growth no income, securable
Investments - growth, income, franking, securable
Investment property - growth, income, securable
Superannuation - growth (after-tax income included)
Personal - no growth or income
Cash - income only at cash interest assumption
Reserve cash account - as for cash
Partner superannuation - as for super
Income:
Salary - Client salary growing at average weekly earnings growth rate, assumed monthly in arrears
Family benefit - recalcd every year to age 18 per child, fortnightly
Partner salary - as for salary
Liabilities:
Home loan - term 20 yrs or proj whichever less-P&I
Investment loan - Interest only
Inv.Prop.loan - Interest only
Personal loan - persinint, 5 years, P&I
Expenses:
Five categories, increasing with inflation assumption, payable monthly.
Data includes amount, year and a growth rate if it is an asset purchase.
Decrease variations are expressed as a percentage and apply to all income streams in force at that time. (excluding retirement income streams). Increases are in dollars. All apply from the start year to the end year as set by the user.

FIGURE 10

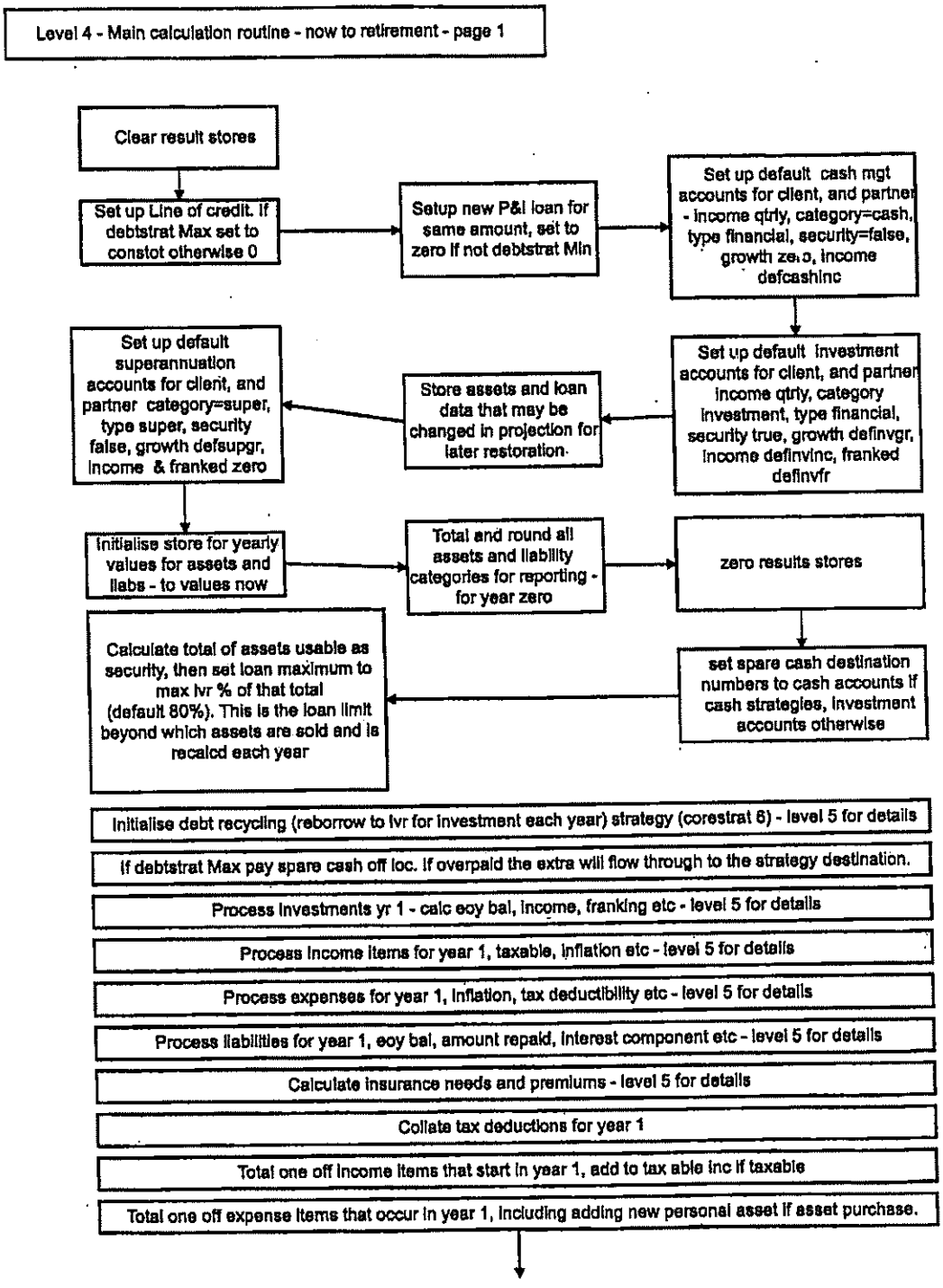

Level 4 - Main calculation routine - now to retirement - page 1
Clear result stores
Set up Line of credit. If debtstrat Max set to constot otherwise 0
Setup new P&I loan for same amount, set to zero if not debtstrat Min
Set up default cash mgt accounts for client, and partner - income qtrly, category=cash, type financial, security=false, growth zero, income defcashinc
Set up default investment accounts for client, and partner income qtrly, category investment, type financial, security true, growth definvgr, income definvinc, franked definvfr
Store assets and loan data that may be changed in projection for later restoration
Set up default superannuation accounts for client, and partner category=super, type super, security false, growth defsupgr, income & franked zero
Initialise store for yearly values for assets and liabs - to values now
Total and round all assets and liability categories for reporting - for year zero
zero results stores
set spare cash destination numbers to cash accounts if cash strategies, investment accounts otherwise
Calculate total of assets usable as security, then set loan maximum to max lvr % of that total (default 80%). This is the loan limit beyond which assets are sold and is recalcd each year
Initialise debt recycling (reborrow to lvr for investment each year) strategy (corestrat 8) - level 5 for details
If debtstrat Max pay spare cash off loc. If overpaid the extra will flow through to the strategy destination.
Process investments yr 1 - calc eoy bal, income, franking etc - level 5 for details
Process income items for year 1, taxable, inflation etc - level 5 for details
Process expenses for year 1, inflation, tax deductibility etc - level 5 for details
Process liabilities for year 1, eoy bal, amount repaid, interest component etc - level 5 for details
Calculate insurance needs and premiums - level 5 for details
Collate tax deductions for year 1
Total one off income items that start in year 1, add to tax able inc if taxable
Total one off expense items that occur in year 1, including adding new personal asset if asset purchase.

FIGURE 11

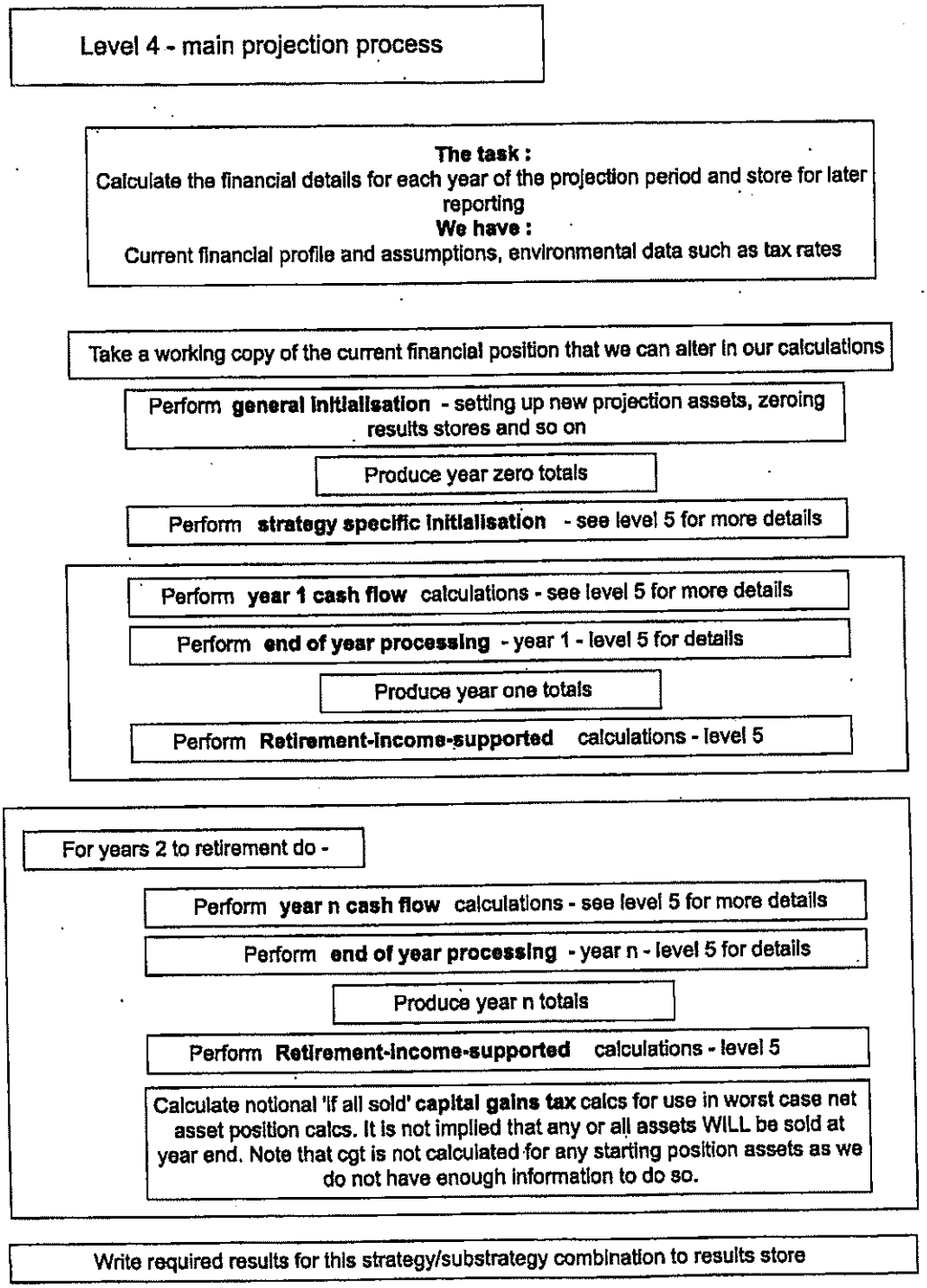

Level 4 - main projection process
The task :
Calculate the financial details for each year of the projection period and store for later reporting
We have :
Current financial profile and assumptions, environmental data such as tax rates
Take a working copy of the current financial position that we can alter in our calculations
Perform general initialisation - setting up new projection assets, zeroing results stores and so on
Produce year zero totals
Perform strategy specific initialisation - see level 5 for more details
Perform year 1 cash flow calculations - see level 5 for more details
Perform end of year processing - year 1 - level 5 for details
Produce year one totals
Perform Retirement-income-supported calculations - level 5
For years 2 to retirement do -
Perform year n cash flow calculations - see level 5 for more details
Perform end of year processing - year n - level 5 for details
Produce year n totals
Perform Retirement-income-supported calculations - level 5
Calculate notional 'if all sold' capital gains tax calcs for use in worst case net asset position calcs. It is not implied that any or all assets WILL be sold at year end. Note that cgt is not calculated for any starting position assets as we do not have enough information to do so.
Write required results for this strategy/substrategy combination to results store

FIGURE 12

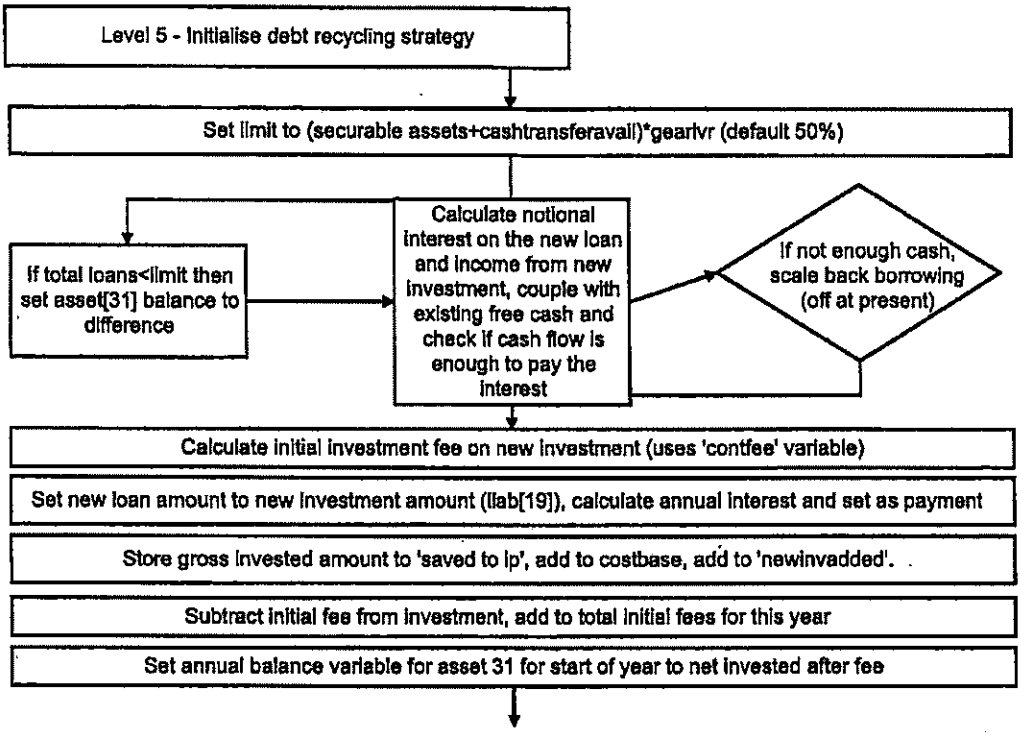

Level 5 - Initialise debt recycling strategy
Set llmit to (securable assets+cashtransferavail)*gearlvr (default 50%)
If total loans<llmit then set asset[31] balance to difference
Calculate notional interest on the new loan and income from new investment, couple with existing free cash and check if cash flow is enough to pay the interest
If not enough cash, scale back borrowing (off at present)
Calculate initial investment fee on new investment (uses 'contfee' variable)
Set new loan amount to new investment amount (llab[19]), calculate annual interest and set as payment
Store gross invested amount to 'saved to ip', add to costbase, add to 'newinvadded'.
Subtract initial fee from investment, add to total initial fees for this year
Set annual balance variable for asset 31 for start of year to net invested after fee

FIGURE 13

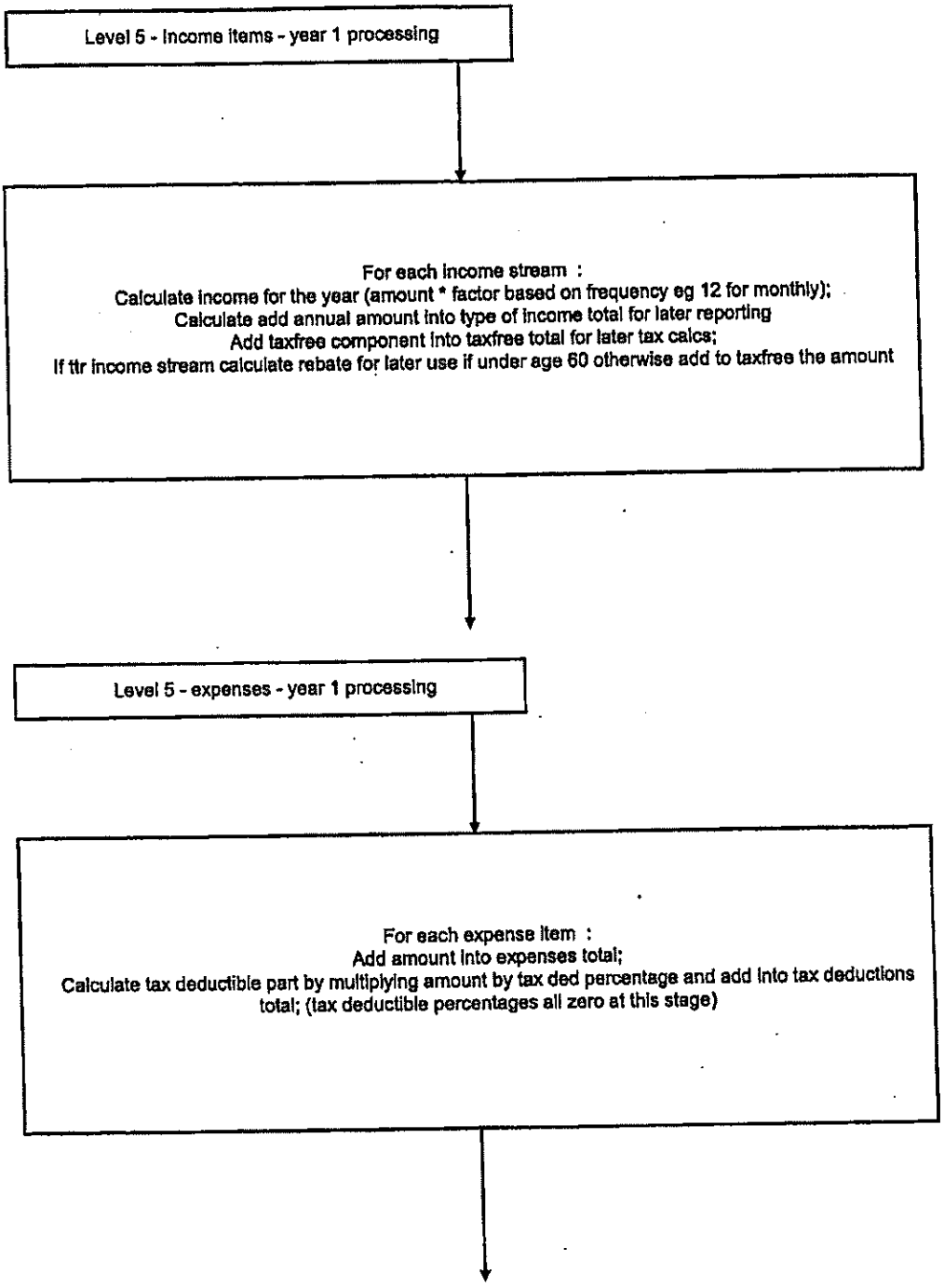

Level 5 - income items - year 1 processing
For each income stream :
Calculate income for the year (amount * factor based on frequency eg 12 for monthly);
Calculate add annual amount into type of income total for later reporting
Add taxfree component into taxfree total for later tax calcs;
If ttr income stream calculate rebate for later use if under age 60 otherwise add to taxfree the amount
Level 5 - expenses - year 1 processing
For each expense item :
Add amount into expenses total;
Calculate tax deductible part by multiplying amount by tax ded percentage and add into tax deductions total; (tax deductible percentages all zero at this stage)

FIGURE 14

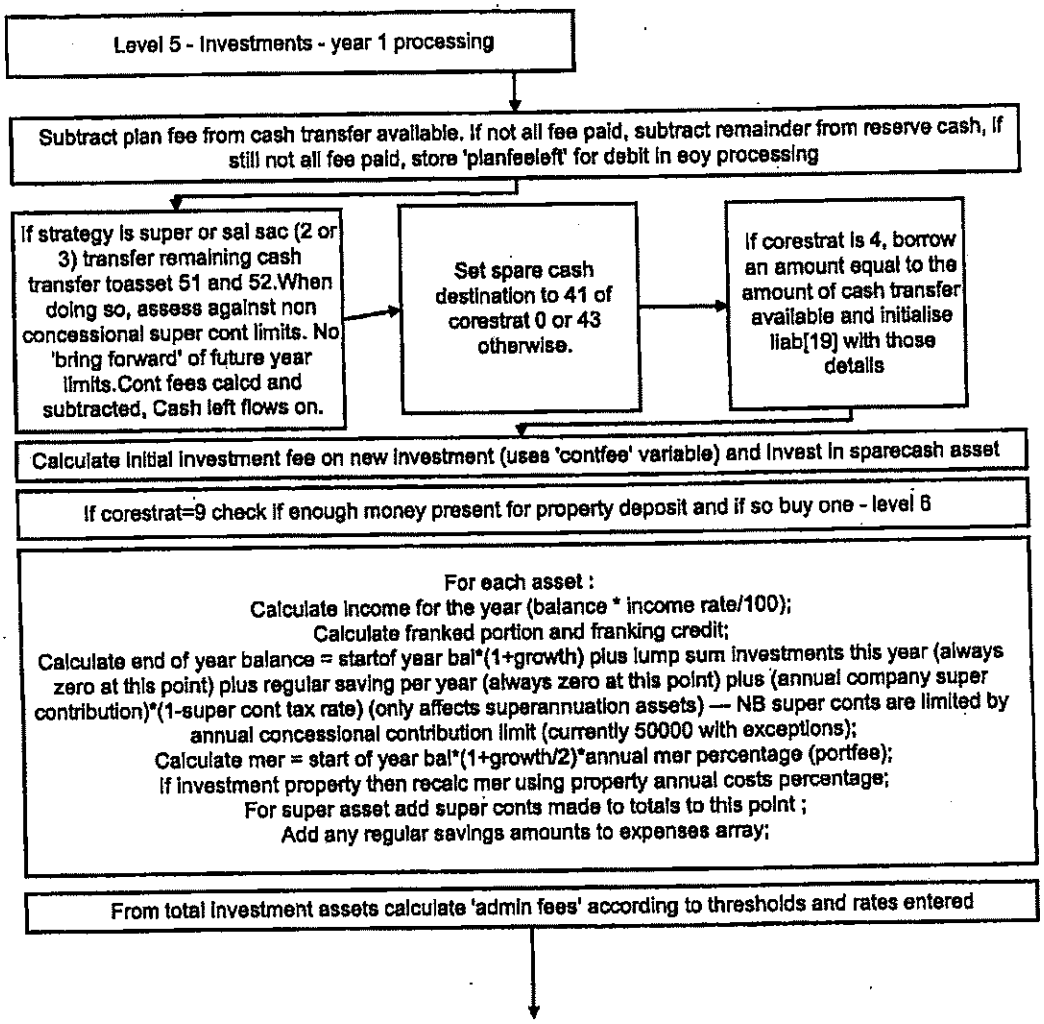

Level 5 - Investments - year 1 processing
Subtract plan fee from cash transfer available. If not all fee paid, subtract remainder from reserve cash, If still not all fee paid, store 'planfeeleft' for debit in eoy processing
If strategy is super or sal sac (2 or 3) transfer remaining cash transfer toasset 51 and 52.When doing so, assess against non concessional super cont limits. No 'bring forward' of future year limits.Cont fees calcd and subtracted, Cash left flows on.
Set spare cash destination to 41 of corestrat 0 or 43 otherwise.
If corestrat is 4, borrow an amount equal to the amount of cash transfer available and initialise liab[19] with those details
Calculate initial investment fee on new investment (uses 'contfee' variable) and invest in sparecash asset
If corestrat=9 check if enough money present for property deposit and if so buy one - level 6
For each asset :
Calculate income for the year (balance * income rate/100);
Calculate franked portion and franking credit;
Calculate end of year balance = startof year bal*(1+growth) plus lump sum investments this year (always zero at this point) plus regular saving per year (always zero at this point) plus (annual company super contribution)*(1-super cont tax rate) (only affects superannuation assets) — NB super conts are limited by annual concessional contribution limit (currently 50000 with exceptions);
Calculate mer = start of year bal*(1+growth/2)*annual mer percentage (portfee);
If investment property then recalc mer using property annual costs percentage;
For super asset add super conts made to totals to this point ;
Add any regular savings amounts to expenses array;
From total investment assets calculate 'admin fees' according to thresholds and rates entered

FIGURE 15

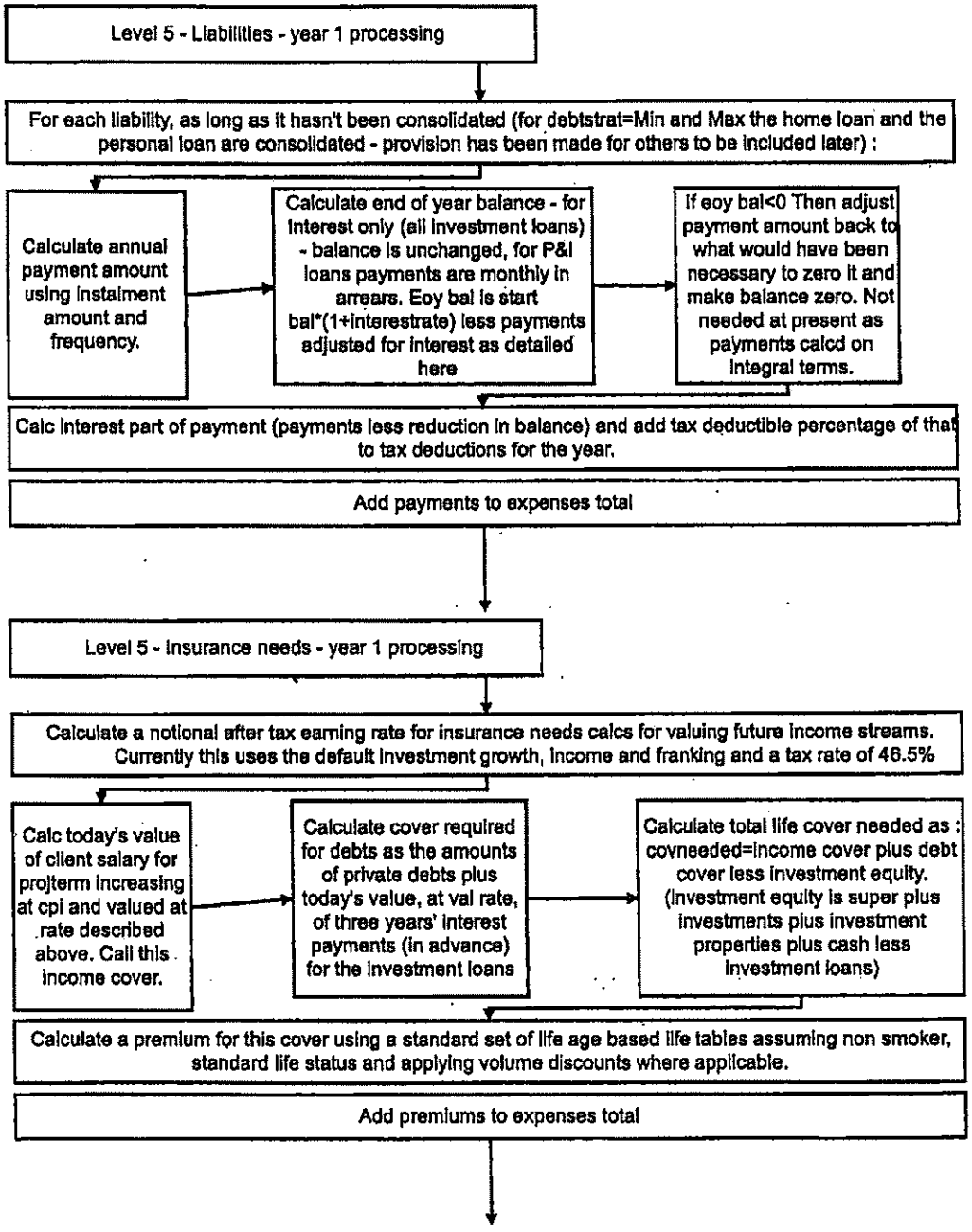

Level 5 - Liabilities - year 1 processing
For each liability, as long as it hasn't been consolidated (for debtstrat=Min and Max the home loan and the personal loan are consolidated - provision has been made for others to be included later) :
Calculate annual payment amount using instalment amount and frequency.
Calculate end of year balance - for interest only (all investment loans) - balance is unchanged, for P&I loans payments are monthly in arrears. Eoy bal is start bal*(1+interestrate) less payments adjusted for interest as detailed here
If eoy bal<0 Then adjust payment amount back to what would have been necessary to zero it and make balance zero. Not needed at present as payments calcd on integral terms.
Calc interest part of payment (payments less reduction in balance) and add tax deductible percentage of that to tax deductions for the year.
Add payments to expenses total
Level 5 - Insurance needs - year 1 processing
Calculate a notional after tax earning rate for insurance needs calcs for valuing future income streams. Currently this uses the default investment growth, income and franking and a tax rate of 46.5%
Calc today's value of client salary for projterm increasing at cpi and valued at rate described above. Call this income cover.
Calculate cover required for debts as the amounts of private debts plus today's value, at val rate, of three years' interest payments (in advance) for the investment loans
Calculate total life cover needed as : covneeded=income cover plus debt cover less investment equity. (investment equity is super plus investments plus investment properties plus cash less investment loans)
Calculate a premium for this cover using a standard set of life age based life tables assuming non smoker, standard life status and applying volume discounts where applicable.
Add premiums to expenses total

FIGURE 16

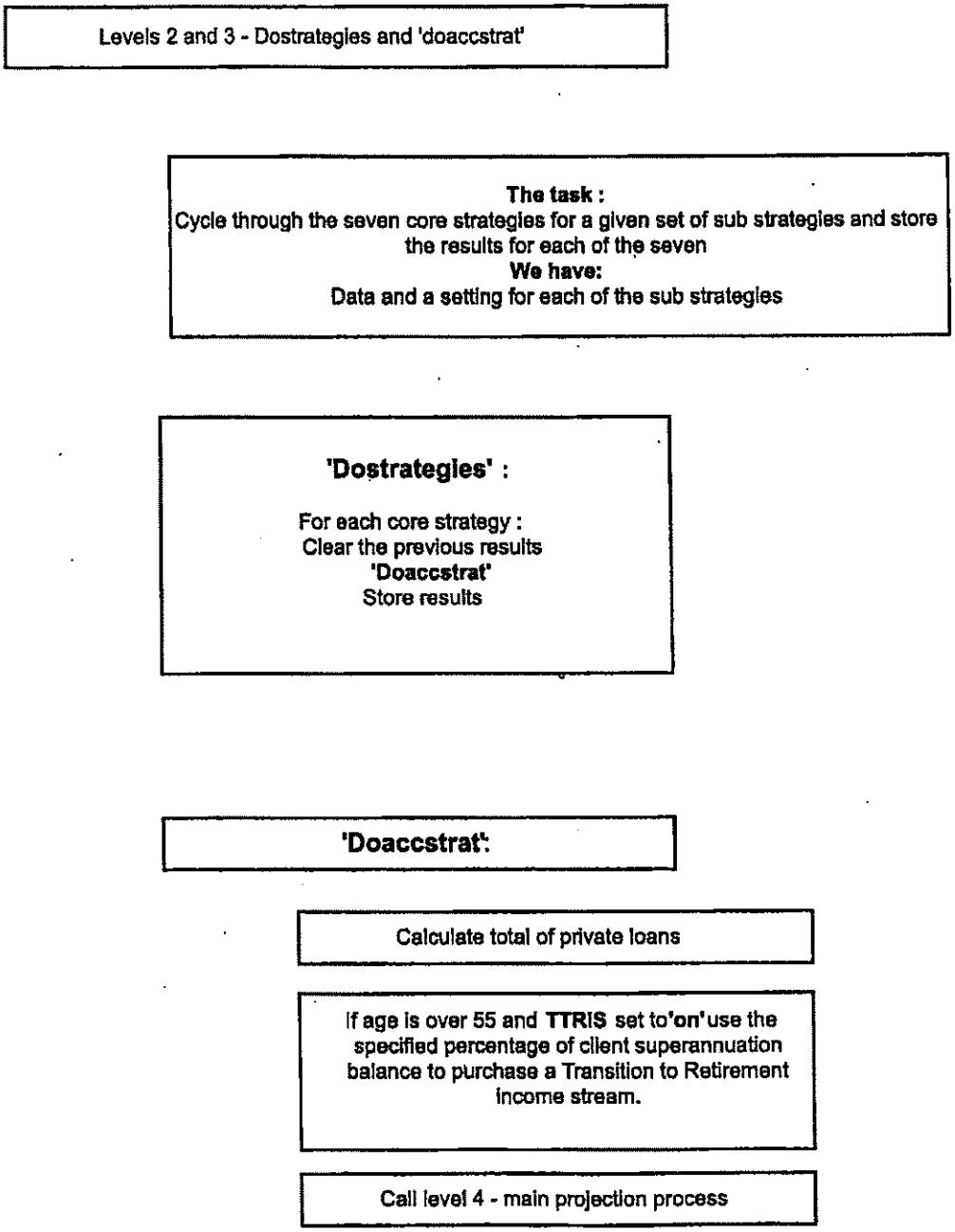

Levels 2 and 3 - Dostrategies and 'doaccstrat'
The task :
Cycle through the seven core strategies for a given set of sub strategies and store the results for each of the seven
We have:
Data and a setting for each of the sub strategies
'Dostrategies' :
For each core strategy :
Clear the previous results
'Doaccstrat'
Store results
'Doaccstrat':
Calculate total of private loans
If age is over 55 and TTRIS set to'on'use the specified percentage of client superannuation balance to purchase a Transition to Retirement income stream.
Call level 4 - main projection process

FIGURE 17

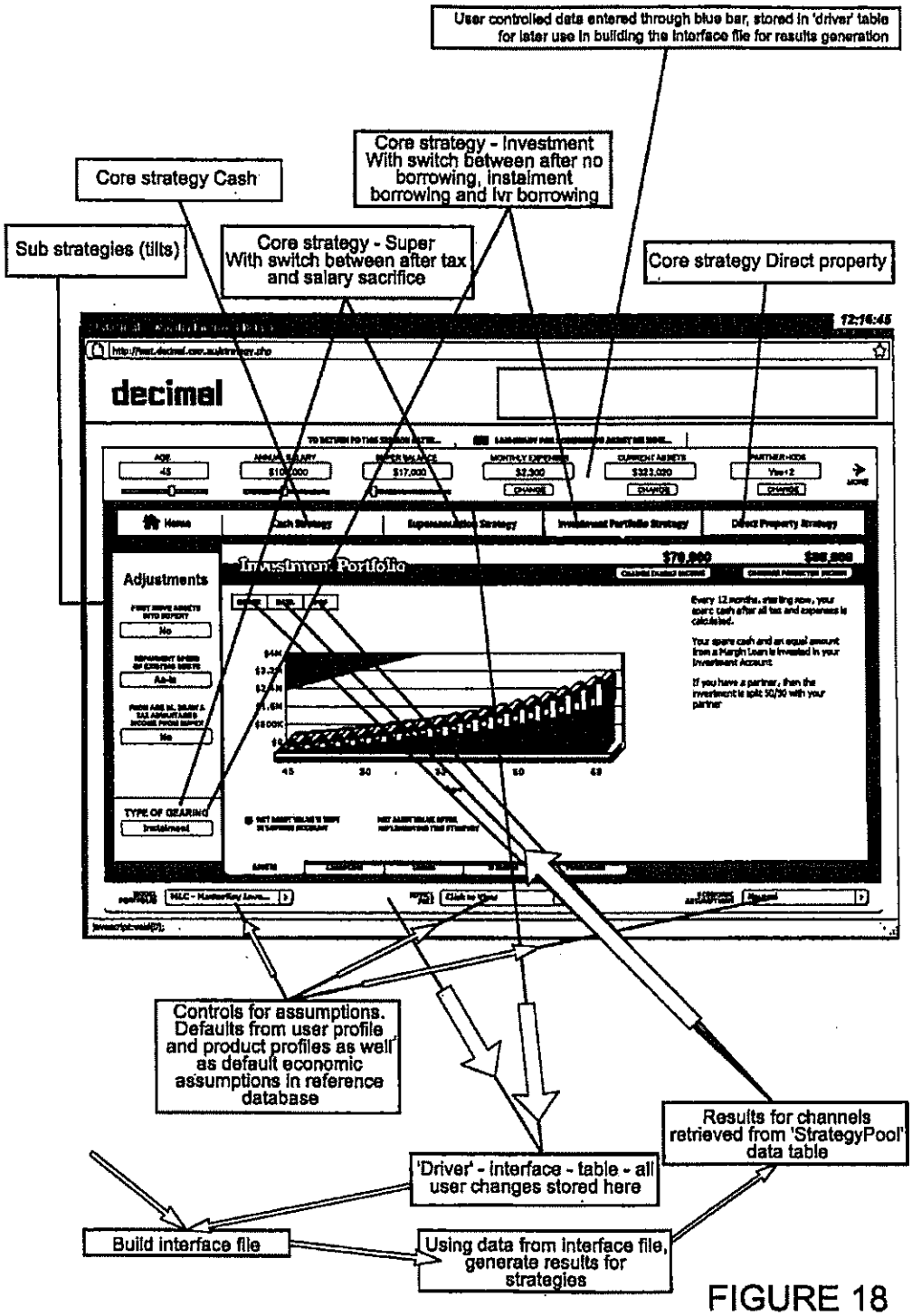

User controlled data entered through blue bar, stored in 'driver' table for later use in building the interface file for results generation
Core strategy - Investment With switch between after no borrowing, instalment borrowing and lvr borrowing
Core strategy Cash
Sub strategies (tilts)
Core strategy - Super With switch between after tax and salary sacrifice
Core strategy Direct property
decimal
Adjustments
Investment Portfolio
Controls for assumptions. Defaults from user profile and product profiles as well as default economic assumptions in reference database
Results for channels retrieved from 'StrategyPool' data table
'Driver' - interface - table - all user changes stored here
Build interface file
Using data from interface file, generate results for strategies

FIGURE 18

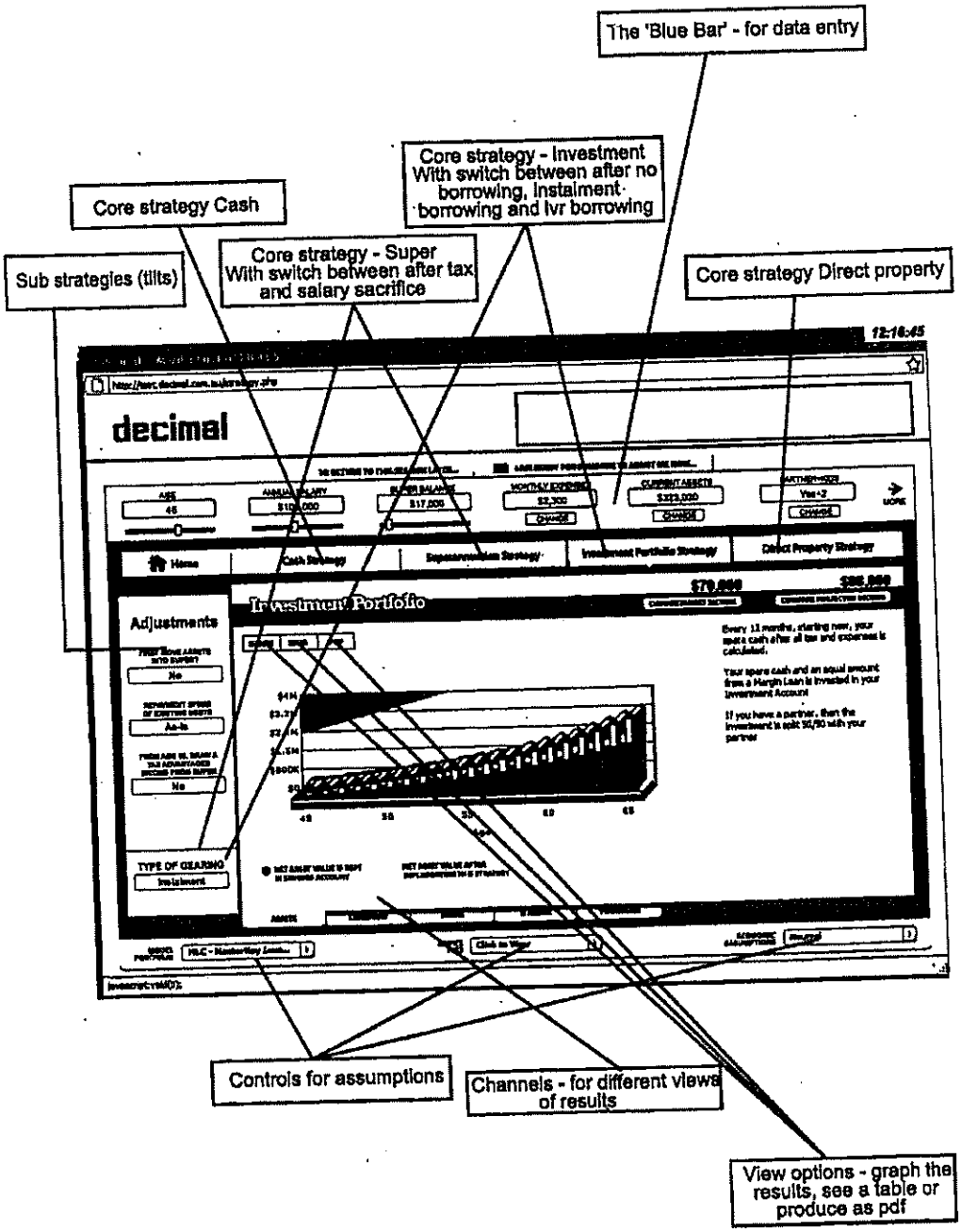

The 'Blue Bar' - for data entry
Core strategy - Investment With switch between after no borrowing, instalment borrowing and lvr borrowing
Core strategy Cash
Core strategy - Super With switch between after tax and salary sacrifice
Sub strategies (tilts)
Core strategy Direct property
decimal
Adjustments
Investment Portfolio
Controls for assumptions
Channels - for different views of results
View options - graph the results, see a table or produce as pdf

FIGURE 19

Strategy table:												
Debt Strategy:	Max	Min	Same	Max	Min	Same	Max	Min	Same	Max	Min	Same
Transfer to Super:	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Start TTRIS:	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
Cash Strategy	1	8	15	22	29	36	43	50	57	64	71	78
After Tax Super	2	9	16	23	30	37	44	51	58	65	72	79
Salary Sacrifice	3	10	17	24	31	38	45	52	59	66	73	80
Investment Portfolio	4	11	18	25	32	39	46	53	60	67	74	81
Instalment gearing	5	12	19	26	33	40	47	54	61	68	75	82
LVR borrowing	6	13	20	27	34	41	48	55	62	69	76	83
Direct Property	7	14	21	28	35	42	49	56	63	70	77	84

The seven core strategies are processed for all twelve combinations of the three sub strategies (or tilts)

FIGURE 20