

### Introduction

HealthMaster is a first principles valuation system. It does not require factors to compute reserves. Instead, the basic valuation assumptions are linked to the in force records at the time of valuation, and the reserve is computed at that time. This feature is designed to eliminate the vast quantity of statutory, tax and GAAP factors that are inherent in most traditional valuation programs. The HealthMaster admin system plan links the in force to the plan assumptions.

If, as a consequence of very unusual plan design, factors are needed, the system also has the capacity to reference a designated factor table.

HealthMaster is designed to compute all of the "Exhibit 9" reserve and premium accrual items for statutory, tax and GAAP reporting.

In addition to reserves for statutory, GAAP and tax purposes, the following items are available:

- GAAP benefit reserves;
- GAAP expense reserves;
- GAAP deferred policy expense asset;
- Unearned premium reserves;
- Admitted and non-admitted due, deferred and advance premiums;
- Disabled Life reserves for statutory, tax and GAAP;
- Midterminal, mean or other reporting styles.

### System Structure

HealthMaster can be thought of in three separate pieces:

- A. A screen system which maintains all the valuation assumptions and tables;
- B. A valuation program for statutory, tax, and GAAP valuations;
- C. Report programs for reporting results.

### System Inputs

- Plan Definitions.** A series of plan definition screens is used to define both the system names and structure of the plans to be valued. When the newly entered definition is saved, an associated table series is written by the system to the DIMTABLE subdirectory. An entry may consist of any character other than a comma.
- In force Files.** Separate in force files may be built for the active and the disabled lives. Alternatively, one in force file may be built using a separate line of business code to make this distinction. The reports can then be used to show these splits. If a separate file is established for disabled lives, the active life record for the disabled lives must be present in the active life file.

The in force files may be titled with any Windows® file name. Since the in force file usually varies primarily by valuation date, we suggest including the valuation date as part of the file name (e.g., 200106.VMF).

The in force file serves a dual purpose. It is initially created with only the information derived from the administrative system. When a valuation is performed, the file is read sequentially, the reserve is computed for each record and the resulting numbers are inserted into the same in force file.

HealthMaster is unique among valuation systems in that there is no standard format for the in force file. This is accomplished by software which reads a definition file containing

## Brief Overview of HealthMaster

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the record definition for the valuation in force. This allows each user to put the fields in the order that is most convenient and to include or exclude optional items (e.g., Geographic Area Code).

The format of the record definition file and a description of each potential data item is contained in the data dictionary section. A careful analysis of the data dictionary is essential to a successful implementation of HealthMaster.

- C. **Basic Values.** Basic values are stored in subdirectories CLAIMCST, COMPLTN, CONTIN, FACTOR, LOSSRAT, MORT, SELECT, and WITH. Each basic value table has a name that is coded in the screen system. These file formats are identical to those used by all of our other systems (i.e., life, UL, deferred annuity, and income-pay annuity).

### System Outputs

- A. **Assumption Creation and Updates.** Assumptions are normally created, deleted, and updated through system screens. The data structure of these assumptions is one of the primary strengths of HealthMaster. The data in each HealthMaster screen is kept in a simple ASCII file in text format with entries separated by commas. All of these files can be easily built or edited with any text editor.
- B. **Valuation.** When a valuation is run, the results of the valuation are inserted into the input file. No separate valuation output file is created. However, the reports can write out a text file or a spreadsheet file with the results. If errors occur in the valuation, error messages are written to separate text files for stat, tax and GAAP as appropriate. Also, an error flag is inserted in the in force record. If the cause of the error is found and corrected, a revaluation run will recognize that only the policies with error flags need attention. Warning messages are also written to separate text files for stat, tax and GAAP as appropriate.
- C. **Auditing.** An audit report is one of the options that may be requested when a valuation is run. Audits may be specified for a single policy or groups of policies.