

January 17, 1995

1. Transmitted is a new chapter to the Department of Veterans Affairs, Veterans Health Administration (VHA) Manual, M-11, "Information Resources Management," Chapter 4, "Data Base Administration."
2. Chapter 4 establishes policy for the management of VHA's database, and procedures for design integrity and overall conformance to programing goals and standards.

### 3. Filing Instructions

#### Remove pages

#### Insert pages

4-i  
4-1 through 4-5

4. **RESCISSIONS:** VHA Circulars/Directives 10-85-93, 10-85-112, 10-85-116, 10-86-147, 10-87-19, 10-87-119, 10-87-122, and 10-87-123.

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**CONTENTS**

**CHAPTER 4. DATA BASE ADMINISTRATION**

<b>PARAGRAPH</b>	<b>PAGE</b>
4.01 Purpose .....	4-1
4.02 Policy .....	4-1
4.03 Definitions .....	4-1
4.04 Responsibilities .....	4-2
4.05 Procedures for Package Integration .....	4-3
4.06 Procedures for Assignment of Development Domains .....	4-4
4.07 Procedures for Modifications to Data Dictionaries .....	4-4



## CHAPTER 4. DATA BASE ADMINISTRATION

### 4.01 PURPOSE

The purpose of this chapter is to:

- a. Establish policy for the planning, documentation, management, and control of the data base for Veterans Health Administration (VHA);
- b. Delegate authorities for the development, coordination, promulgation, and implementation of the policies, procedures, practices, and plans for the collection, integration, processing, correction, storage, security, use, and retention of data in VHA; and
- c. Provide policies and procedures for design integrity and overall conformance to programming goals and standards.

### 4.02 POLICY

It is the policy of Information Resources Management (IRM) to:

- a. Implement data base administration through management of data in accordance with resource management principles and practices, and
- b. Minimize redundancy and maximize compatibility of packages by providing technical oversight and by coordinating integration with developers.

### 4.03 DEFINITIONS

a. **Data Base Administration.** Data base administration synchronizes national software development efforts from the earliest planning stages through implementation to:

- (1) Minimize overlapping development,
- (2) Foster data standardization and data sharing among systems,
- (3) Eliminate unnecessary duplication, and
- (4) Ensure the evolution of a shared data resource for analysis and decision support.

b. **Data Base Integration Committee (DBIC) Library**

- (1) The DBIC-approved library consists of a list of: fields, files, options, templates, and routines.
- (2) The Library is open to use by any package developer.

c. **Kernel.** Kernel is a Department of Veterans Affairs (VA)-developed set of programs which function as standard software tools providing a user-oriented interface between the operating system and the application packages. Among the major modules of the Kernel are:

- (1) VA FileMan,
- (2) MailMan,
- (3) TaskMan,

**Chapter 4**

- (4) MenuMan,
- (5) Help Processor,
- (6) Sign-On/Security System, and
- (7) Device Handler.

**d. VA FileMan**

(1) VA FileMan is a:

- (a) Data base management system,
- (b) Report writer,
- (c) Data dictionary manager,
- (d) Data entry and/or editor,
- (e) Statistical tabulator, and
- (f) Utility programmer.

(2) VA FileMan compatibility is defined by the following criteria:

(a) A file must have a data dictionary defining every data element stored in a global (data file). An entry entered through VA FileMan (assuming appropriate sequences and security) will generate the same data as when entered through the application.

(b) All cross-references must be derivable from data elements. If all data for a cross-reference exists, the cross-reference must have the capability of being functionally recreated through the VA FileMan re-index option.

**4.04 RESPONSIBILITIES**

a. The Director, Information Integration Service, Medical Information Resources Management Office (MIRMO), has overall responsibility for data base administration within VHA. The Data Base Administrator (DBA) and staff are located within the Information Integration Service.

b. The DBA holds the following general responsibilities:

(1) Planning, documenting, managing, and controlling the VHA data base structure;

(a) These responsibilities include the development and coordination of the policies, procedures, practices, and plans for the collection, integration, processing, correction, storage, security, use, and retention of data in VHA systems.

(b) The DBA receives input from the:

- 1. Information Systems Center (ISC) Directors Council,
- 2. Users, and
- 3. Developers.

(2) Reviewing the need for data requirements, by evaluating existing environments, and recommends, and/or requires the sharing and integration of data;

(3) Making recommendations concerning the technical scope of each module; **NOTE:** *These activities are performed in conjunction with the DBIC.*

(4) Providing accurate and efficient data base design support to end users and package developers.

c. The DBA holds the following functional responsibilities:

(1) Managing and assigning development domains such as namespaces and number spaces;

(2) Establishing and maintaining data dictionaries, which are to include English language definitions of all data elements;

(3) Coordinating and disseminating information regarding file design to the community;

(4) Providing unbiased consultation to the development community;

(5) Defining VA FileMan compatibility; and

(6) Maintaining and publishing contents of the DBIC-approved software components, including utilities, fields, files, options, and templates that may be used by all packages.

#### 4.05 PROCEDURES FOR PACKAGE INTEGRATION

a. The following procedures will be adhered to by the Decentralized Hospital Computer Program (DHCP) national package developers to ensure the sharing and integration of data in order to meet informational requirements:

(1) Package developers may use any software component within their own development domain or within any component of the DBIC library.

(2) Package developers may work with or use foreign development domains (domains not assigned to developers) only with approval of the responsible Development ISC. Such activities include:

(a) Adding, editing, or deleting entries in foreign files (foreign, meaning in another assigned namespace);

(b) Including foreign menu items within package options;

(c) Exporting any part of a data dictionary file which is not in the domain assigned to the application;

(d) Calling routines not in the package; and

(e) Referencing fields (data and dictionary) not in the package.

(3) To obtain approval to work with or use foreign development domains from the responsible Development ISC, developers must obtain approval from the DBA and adhere to the following procedures:

(a) A written request must be made to the Development ISC responsible for the development domain in question.

(b) The responsible Development ISC may approve or disapprove the requested access.

1. All approved requests must receive concurrence from the DBA.

2. The requesting developer will receive written notification of the decision.

(c) In the event of approval, the agreement, including any restrictions thereof, must be described in the package technical documentation for all packages involved, including:

1. The package that works with or uses a foreign development domain, and

2. The package whose domain is used.

b. The responsible Development ISC will provide, at a minimum, 18-month notification prior to making changes that would affect any agreement. If the responsible Development ISC limits the duration of the agreement or raises a new issue as reason for modifying the agreement, the integration agreement must be renegotiated.

c. Integration agreements remain in effect throughout the life of the package except when the agreements contain conditions on duration. When development responsibility for a national package, subject to an integration agreement, is reassigned to another ISC, the integration agreement does not need renegotiation.

**NOTE:** *Any proposed changes to DBIC-approved utilities, fields, files, options, or templates must be submitted for DBIC approval.*

#### **4.06 PROCEDURES FOR ASSIGNMENT OF DEVELOPMENT DOMAINS**

Development domains are areas such as namespaces or number spaces which are assigned by the DBA and which provide for both the separation of work done in different packages and the integration of packages into one system. The process of establishing assignments is as follows:

a. The general area of application is analyzed and jointly defined by the requestor of the assigned domain and by the DBA. A written request should be submitted to the DBA on FORUM.

b. The relationship between the new application and existing applications as used by the DBA to define domain relationships.

c. When the domain is defined, the DBA sets aside the domain.

d. A list of assigned domains can be found on FORUM through the DBA option.

#### **4.07 PROCEDURES FOR MODIFICATIONS TO DATA DICTIONARIES**

a. Modifications to national package data dictionaries should be restricted to the addition of new data elements and to the creation of input and output templates to meet specific needs of local sites. To ensure the capability of installing new releases of the application packages, it is important that any local additions to the data base be made in areas that will not conflict with elements contained in the nationally distributed data base.

b. When adding new data elements to the VA FileMan data dictionary, the numbering conventions used for creating new files should also be used for data elements.

(1) A data element number should be entered that is in the numbering range of the assigned numbering prefix multiplied by 1000.

(2) The same convention should be applied to global subscripts for local data add-ons to previously defined globals.

c. The VA FileMan subdictionary numbers should be assigned at the high end of the numbering sequence, following the numbering convention outlined. For example, a VA FileMan subdictionary number added to the Patient file (File 2) by station 368 should be 2.368001, a second subdictionary should be assigned 2.368002, and so forth.

d. The VA FileMan data dictionary may be modified only through tools provided by the VA FileMan or by tools specifically referenced in the VA FileMan Programmer's Manual.

e. To keep conflicts with cross-references to a minimum, field facilities creating custom cross-references must use the number range assigned to the site and prefix with "AZ" or "Z".

(1) National packages are not permitted to use these cross-references.

(2) Cross-reference numbers should be assigned based on the station number multiplied by 1000.

f. All other types of local data modifications to national packages are strongly discouraged. If local modifications are made to existing data elements in a national package data dictionary, it will then be the responsibility of the site to maintain those modifications as new versions of the package are installed.

g. When software components are incorporated into the package, the names associated with the new components (e.g., routines, options, templates) should be prefixed by the package namespace followed by the letter "Z".

(1) For example, a local option called "LOG" for the PSIV package would have the option name "PSIVZLOG".

(2) Prefixing allows the site to readily differentiate between components developed locally and those associated with the DHCP national packages.

(3) Namespaces of one, two, three, or four characters followed by "Z\*" shall not be exported in nationally developed software, but shall be reserved for local use.