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User's Guide for the MANPRINT Reference Retrieval System



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April 1991

ARI Aviation R&D Activity at Fort Rucker, Alabama
Systems Research Laboratory

U.S. Army Research Institute for the Behavioral and Social Sciences

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This report describes the installation and use of the MANPRINT Reference Retrieval System (MANRRS). MANRRS is a menu-driven system used for the identification of references related to one or more of the domains subsumed by MANPRINT.

MANRRS includes both a database with indexed entries on MANPRINT domain and record type (i.e., regulation, standard, technical report, etc.) and the retrieval software program written in dBase III command language.

A valid copy of dBase III Plus is required to use MANRRS.

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**User's Guide for the MANPRINT Reference
Retrieval System**

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FOREWORD

With the Manpower and Personnel Integration (MANPRINT) initiative, the Army made great strides in ensuring that the policy "equip the man" and not "man the equipment" will be followed in future systems. In the development and acquisition of virtually every new system, MANPRINT is a major consideration. Provisions for analyses of each of the six MANPRINT domains and for the development and execution of comprehensive MANPRINT management programs are included in the solicitation documents for new systems. In addition, System MANPRINT Management Plans are formulated by Army personnel to ensure that all problems and questions that might arise with respect to MANPRINT issues for a new system are addressed and resolved. But despite the comprehensive training provided to MANPRINT action officers, the identification of relevant references (such as regulations and standards) and tools that should be noted in these documents is often difficult.

The MANPRINT Reference Retrieval System (MANRRS) has been created to alleviate some of that difficulty. MANRRS reduces the burden of those who prepare the documentation for MANPRINT by identifying relevant references for each of the MANPRINT domains. While this version of MANRRS does not reproduce the content of the itemized references, it does provide a ready means for identification of the needed references, along with a listing of the source.

A previous version (1.0) of this product was provided to the Aviation Systems Command (AVSCOM) program management offices and other Army elements concerned with MANPRINT implementation. Suggestions for improvement received from those offices are incorporated into this version (2.0). This guide will be provided to the Crew Station Ergonomics Information Analysis Center for distribution.

This product was developed by the AVSCOM element of the Army Research Institute Aviation Research and Development Activity under research task 1210, "Reducing Aviator and Maintainer Requirements in Next Generation Army." The applicable memorandum of understanding is entitled "Establishment of Technical Coordination between ARI and AVSCOM," dated 10 April 1985.



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Technical Director

USER'S GUIDE FOR THE MANPRINT REFERENCE RETRIEVAL SYSTEM

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USER'S GUIDE FOR THE MANPRINT REFERENCE RETRIEVAL SYSTEM

Introduction

The MANPRINT Reference Retrieval System (MANRRS) is designed to assist in locating documents and other reference materials relevant to MANPRINT. It is primarily intended to be used by those implementing MANPRINT programs, developing System MANPRINT Management Plans, or developing statements for inclusion in acquisition documents (Statements of Work, Contract Data Requirements Lists, etc.). MANRRS consists of a database (partially listed in Appendix A) and a retrieval program (listed in Appendix B) written in the dBase III¹ command language.

Database Entries

Each record in the database consists of the title of the document or product, any identifying number (such as an Army Regulation number or technical report number), the date it was published or produced, a point of contact or source for items not commonly available, and space for comments. In addition, each record has a set of flags indicating the relevant MANPRINT domain(s) and the record category (i.e., regulation, report, handbook, etc.).

Record Indexing

The database includes items in the following record categories:

- Regulations
- Pamphlets and Circulars
- Technical Reports and Guides
- MIL Handbooks
- MIL Standards
- MIL Specifications
- Data Item Descriptions
- Analytic Techniques
- Databases

Besides being indexed on these categories, all the references in the database are also indexed on MANPRINT domain. In addition, there is a general domain category for those references that are not directly related to any particular MANPRINT domain.

1. dBase and dBase III Plus are trademarks of Ashton-Tate.

Retrieval

MANRRS allows the user to retrieve references for specific MANPRINT domains and record categories. For example, a user might select all Regulations dealing with Manpower for retrieval, or all MIL Handbooks dealing with Human Factors.

Installation Instructions

NOTE: You must have a copy of dBase III Plus in order to use MANRRS.

The following assumes that you have installed dBase on your computer in a directory called C:\DBASE. If you have installed dBase in another directory, simply change all the references to C:\DBASE given below to whatever your directory is called.

1. Place the floppy disk containing MANRRS in the floppy disk drive.

2. Copy the contents of the MANRRS disk into the dBase directory.

a. From the MS-DOS Prompt 'C>' type cd c:\dbase <enter>

b. From the MS-DOS Prompt 'C>' type copy a:*. * <enter>

c. After you press <enter> the floppy disk light will come on and the disk will make some noise. You will then see a list of the files being copied from the floppy disk to your hard disk. The list will include the following:

```
MANRRS.PRG
MANRRS.DBF
REPORT.TXT (Which contains this User's Guide)
```

3. You may now remove the floppy disk from the floppy disk drive.

4. To start MANRRS, you must first start the dBase III program. If you are not familiar with dBase, you may wish to briefly review the dBase manual before beginning. However, the steps included in this User's Guide should be sufficient to get you started.

a. Be sure you are in the dBase directory:
C> cd c:\dbase <enter>

b. Start dBase: C> dbase <enter>

c. Press the **ESC** key to get to the dot prompt. After you have the dot prompt, then type the following:

do manrrs <enter>

d. You will then see the MANRRS Main Menu and are ready to use MANRRS.

How to Use MANRRS

Selecting Records

The operation of MANRRS is menu driven. The first menu you will see is the MAIN MENU, shown in Figure 1. MANRRS will initially review the database and display the number of records indexed on each MANPRINT category. You may note that the sum of these entries will be more than the total number of records in the database because many records are related to more than one MANPRINT category, and thus are counted twice or more.

Army Research Institute MANPRINT Reference Retrieval System (V2.0)					
MANPRINT CATEGORY		INDEX COUNT	RECORD CATEGORY		INDEX COUNT
A...	MANPOWER	20	A...	REGULATIONS	
B...	PERSONNEL	22	B...	PAMS & CIRCULARS	
C...	TRAINING	37	C...	REPORTS & GUIDES	
D...	HUMAN FACTORS	61	D...	MIL HANDBOOKS	
E...	HEALTH HAZARD	12	E...	MIL STANDARDS	
F...	SYSTEM SAFETY	20	F...	MIL SPECIFICATIONS	
G...	GENERAL	79	G...	DATA ITEM DESCRIPTIONS	
			H...	ANALYTIC TECHNIQUES	
			I...	DATABASES	
Z...	ALL RECORDS	197	Z...	ALL RECORDS	
CATEGORY SELECTED:			CATEGORY SELECTED:		
Enter letter for MANPRINT Category:					
Press Q to QUIT; Press X to CANCEL					

Figure 1. MANRRS main menu.

From the MAIN MENU select one of the MANPRINT categories by entering the associated letter (A-G). Entering Z will select all MANPRINT categories. If at any time you want to quit MANRRS, then enter a Q. MANRRS will verify that you really want to quit, and will then terminate the program, returning you to the MS-DOS prompt.

After a MANPRINT category is selected, MANRRS will count the number of records in that category for each of the record categories (ie., regulations, manuals, etc.) and will display that information on the right hand side of the screen. Figure 2 shows what happens after the Manpower category was selected. From this display we can see that there are 9 regulations dealing with Manpower, 2 MIL standards, 1 data item description, and so on.

Army Research Institute MANPRINT Reference Retrieval System (V2.0)				
MANPRINT CATEGORY		INDEX	RECORD CATEGORY	
		COUNT	INDEX	
			COUNT	
A...MANPOWER		20	A...REGULATIONS	9
B...PERSONNEL		22	B...PAMS & CIRCULARS	0
C...TRAINING		37	C...REPORTS & GUIDES	1
D...HUMAN FACTORS		61	D...MIL HANDBOOKS	1
E...HEALTH HAZARD		12	E...MIL STANDARDS	2
F...SYSTEM SAFETY		20	F...MIL SPECIFICATIONS	0
G...GENERAL		79	G...DATA ITEM DESCRIPTIONS	1
			H...ANALYTIC TECHNIQUES	5
			I...DATABASES	1
Z...ALL RECORDS		197	Z...ALL RECORDS	20
CATEGORY SELECTED: A			CATEGORY SELECTED:	
Enter letter for Record Category:				
Press Q to QUIT; Press X to CANCEL				

Figure 2. Record category selection menu.

To obtain information on the entries for a particular record category, enter the letter (A-I) associated with that category, or enter Z to obtain the information for all categories. For example, if you wanted to review all the regulations concerned with manpower, then you would enter the letter A.

As shown in Figure 3, three options are available for output of the records you have selected:

1. You may view them one at a time on the screen
2. You may send them all to the printer
3. You may save them all to a disk file

Should you choose the latter option (save to disk file), then MANRRS will save all the selected records to a temporary file called "C:\temp\$\$\$.txt". NOTE: Be sure to rename this file before using MANRRS again, since it will be erased and reused.

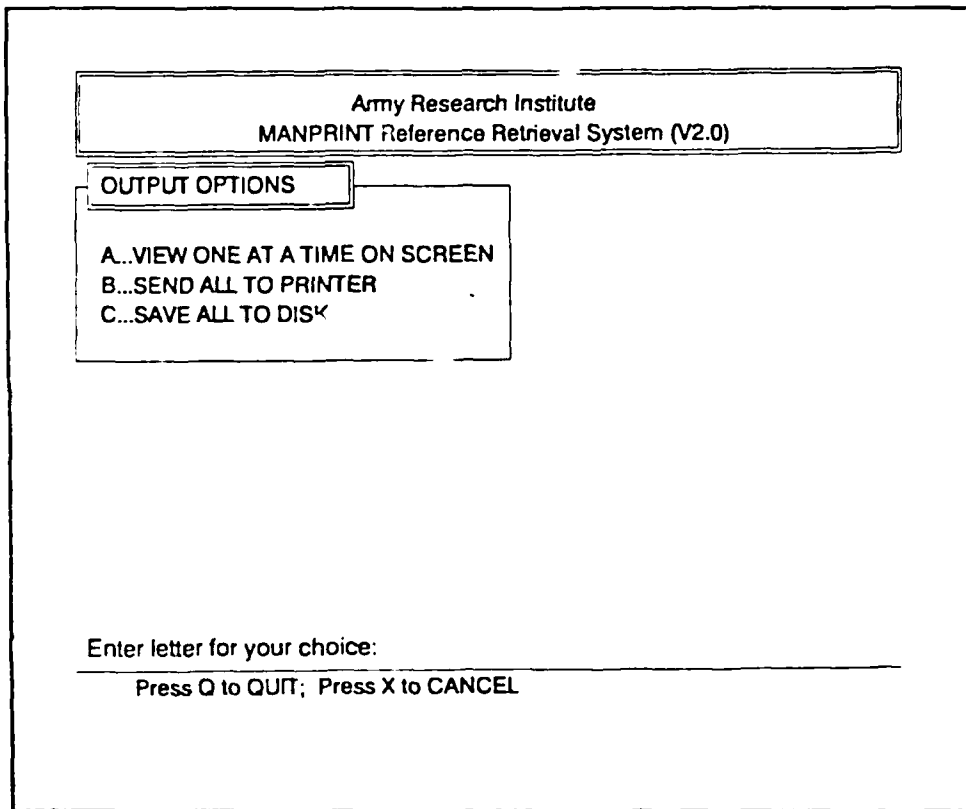


Figure 3. Output selection menu.

Should you choose to view the records one at a time on the screen, then you will see the menu shown in Figure 4. This display shows the content of the selected record (in this case information about AR 71-2). You are also given three choices:

1. You may go on to the next record
2. You may send the current record to the printer
3. You may save the current record to a disk file

Should you choose the latter option, then the same cautions apply as were mentioned before regarding renaming of the file.

At any point during this process you may elect to terminate your MANRRS session by pressing Q (Quit). Or, you may return to the main menu by pressing X (Cancel present operation).

```
Army Research Institute
MANPRINT Reference Retrieval System (V2.0)

OUTPUT OPTIONS

A...VIEW NEXT RECORD ON SCREEN
B...SEND THIS RECORD TO PRINTER
C...SAVE THIS RECORD TO DISK

Title      : Basis of Issue Plans (BOIP), Qualitative and
            : Quantitative Personnel Requirements Information (QQPRI)
Date       :
POC        :
            :
Comments   :
            :

Enter letter for your choice:
-----
Press Q to QUIT; Press X to CANCEL
```

Figure 4. Individual record output menu.

User Registration

No restriction is placed upon the duplication or distribution of MANRRS. However, users are encouraged to register in order to obtain updates to the data base and the retrieval program.

To register as a MANRRS user, simply send your name, organization, address, telephone number, and MANRRS Version Number (from the MAIN MENU Screen) to:

Chief, US Army Research Institute
AVSCOM Element
ATTN: PERI-IRA
4300 Goodfellow Blvd.
St. Louis, MO 63120-1798

Telephone Numbers: (314) 263-2407, AUTOVON 693-2407.

User Feedback

User comments are encouraged. If you notice references that are missing from the data base, if you have trouble getting MANRRS to work, or if you have a suggestion for improvements, please send them to the address given above.

APPENDIX A

DATABASE LISTING

A Concept for Developing Human Performance Specifications
HEL TM 7-80

A Systems Approach to Training TRADOC Reg. 350-7

Acoustical Noise Limits in Helicopters MIL-STD-1294

Aircrew Protection Requirements Nonnuclear Weapons Threat
MIL-STD-1288

Aircrew Station Geometry for Military Aircraft MIL-STD-1333B

Aircrew Station Signals MIL-STD-411D

Aircrew Station Controls and Displays: Assignment Location, and
Actuation, for Fixed Wing Aircraft MIL-STD-203F

Aircrew Station Lighting for Compatibility with Night Vision
Goggle Use ADS-23

Aircrew Station Vision Requirements for Military Aircraft
MIL-STD-850(Draft)

Airworthiness Qualification Data DI-E-1134

Anthropometry of US Military Personnel DOD-HDBK-743

ANVIS Capability Lighting Data DI-MISC-80113

Army Safety Program AR 385-10

Army Modernization Training AR 350-35

Army Manpower Cost System (AMCOS)

Army Training AR 350-1

Audio Visual Aids DI-H-7072

Basic Policies for Systems Acquisition AR 1000-1

Basis of Issue Plans, Qualitative and Quantitative Personnel
Requirements Information (QQPRI) AR 71-2

Catalogue of MANPRINT Methods

Coating, Reflection Reducing for Instrument Cover Glasses and
Lighting Wedges MIL-C-14806A

COMBIMAN

Commissioned Officer Specialty Classification System AR 611-101

Comprehensibility Standards for Technical Manuals (Metric)
DOD-STD-1685(SH)

Computer Program Development Plan DI-S-30567A

Contract Training Programs MIL-STD-1379B

Control of Potential Hazards to Health from Microwave and Radio
Frequency Radiation AR 40-583

Control and Recording Procedures for Exposure to Ionizing
Radiation and Radioactive Materials AR 40-14

Control of Health Hazards from Lasers and Other High Intensity
Optical Sources AR 40-46

Crew Requirements Definition

Crew Systems Traceability Report DI-S-3590

CREWCHIEF

Crewstation Assessment of Reach

Critical Task Analysis Report DI-H-7055

Crosswalk

Data Collection Analysis, Correction Reports DI-R-7105

Data Base Design Document DI-S-2140A
 Data Requirements for Development, Acquisition, and Update of
 Technical Manuals MIL-STD-1790A
 Depot Maintenance Study Report DI-S-1815
 Design Test Plan DI-T-1901
 Desk Top Human Factors Assistant
 Directed Energy Survivability Report DI-R-1788
 Dispersers, Airborne, Submunitions, Safety MIL-STD-1455A
 Displayed Messages for Automatic Test Equipment MIL-STD-334
 Early Comparability Analysis (ECA) Procedural Guide
 Electronic Aids to Maintenance
 Electronically or Optically Generated Displays for Aircraft
 Control and Combat Cue Information Engineer MIL-STD-884C
 Engineering Data Compendium Human Perception and Performance
 Enlisted Career Management Fields and Military Occupational
 Specialties AR 611-201
 Explosive Hazard Classification Data DI-H-1321B
 Footprint
 Format Requirements for Scientific and Technical Reports
 MIL-STD-847B
 Functionally Oriented Maintenance Manuals MIL-HDBK-242
 Handbook for Quantitative Analysis of MANPRINT Considerations in
 Army Systems
 Handbook of Perception and Human Performance Vol 1 & 2: Sensory
 Process and Perception
 HARDMAN
 Health and Environment AR 40-5
 Health Hazard Assessment Program in Support of the Army Materiel
 Acquisition Decision Process AR 40-10
 HF,MPT Clauses for CE and Dem/Val RFP ARI RP 84-24
 Human Engineering Guide to Equipment Design
 Human Operator Simulation IV (HOS IV)
 Human Factors Engineering Material for Manpower and Personnel
 Integration (MANPRINT) in RFP HEL TM 13-86
 Human Factors Engineering Data Management Handbook HEL TM 6-87
 Human Engineering Requirements for Measurement of Operator
 Workload ADS-30
 Human Engineering Test Report DI-H-7058
 Human Engineering Design Approach Document Maintainer DI-H-7057
 Human Engineering Design Approach Document - Operator DI-H-7056
 Human Engineering Test Plan DI-H-7053
 Human Engineering Program Plan DI-H-7051
 Human Factors Engineering for Army Materiel MIL-HDBK-759
 Human Engineering Guidelines for Management Information Systems
 MIL-HDBK-761
 Human Engineering Dynamic Simulation Plan DI-H-7052
 Human Engineering System Analysis Report DI-H-7054
 Human Engineering Design Criteria for Military Systems,
 Equipment, and Facilities MIL-STD-1472
 Human Engineering Requirements for Military Systems, Equipment,
 and Facilities MIL-H-46855
 Human Factors Engineering Design Criteria for Helicopter Cockpits

MIL-STD-1295A
 Human Engineering Progress Report DI-H-7059
 Human Factors Engineering Program AR 602-1
 I Am the American Soldier USASSC-FC-21-451
 Implementing Embedded Training (Ten Volume Set)
 Initial Entry Training Fill Policy and Procedures
 TRADOC Reg. 350-17
 Instructor Handbook DI-H-7076
 Instructor/Lesson Guides - Training Course DI-H-7070
 Integrated Logistic Support Manager's Guide DA PAM 700-127
 Integrated Logistics Support AR 700-127
 Interservice Procedures for Instructional Development
 TRADOC PAM 350-30
 Ionizing Radiation Protection, Licensing, Control, Transportation
 Disposal and Radiation Safety AR 385-11
 Job Assessment Software System
 Keyboard Arrangements MIL-STD-1280
 Life Cycle System Management Model for Army Systems DA PAM 11-25
 Light Fixed and Rotary-Wing Aircraft Crashworthiness MIL-STD-1290
 Lighting Equipment, Aircraft, General Specification for
 Installation of MIL-L-6503H
 Lighting, Aircraft Interior, Installation of MIL-L-18276C
 Logistic Support Analysis/Record MIL-STD-1388 1A/2A
 LSA Techniques Guide AMC PAM 700-4
 Maintainability Report DI-R-7113
 Maintainability Test Plan DI-R-7112
 Maintainability Status Report DI-R-7104
 Maintainability Prediction MIL-HDBK-472
 Maintainability Analysis Report DI-R-7109
 Maintenance Training Simulators, General Specification for
 MIL-M-87228
 MANCAP
 Manpower, Personnel, & Training Analysis Reports DI-ILSS-8007
 Manpower and Personnel Integration (MANPRINT) AR 602-2
 Manpower and Personnel Integration TRADOC-AMC PAM 70-2
 Manpower Staffing, Standards System AR 570-5
 Manpower and Personnel Integration Guide TRADOC-AMC PAM 602-xxx
 Manpower and Equipment Control-Manpower Requirement Criteria
 Table of Organization and Equipment AR 570-2
 Manpower and Equipment Control - Commissioned Officer Position
 Criteria AR 570-1
 Manpower Management AR 570-4
 Manpower and Personnel Integration Materials for AMC/TRADOC
 Manpower and Personnel Integration (MANPRINT) TRACOC-CIR-602-XXX
 MANPRINT Primer
 MANPRINT in the Source Selection Process
 MANPRINT Handbook for RFP Development AMC CIR 602-X, Supp 1
 MANPRINT Risk Assessment
 MANPRINT On-Line
 MANPRINT Database
 Manual of Warrant Officer Military Occupational Specialties
 AR 611-112

Manual with Supplementary Data, Technical: Commercial Equipment
DI-M-2050

Manuals, Technical: General Style and Format Requirements
MIL-M-38784B

Manuals, Technical: Repair Parts and Special Tools List
MIL-STD-335

Manuals, Technical: General Style and Format Requirements
MIL-M-38784B

Markings for Aircrew Station Displays, Design and Configuration
of MIL-M-18012B

Materiel Objectives and Requirements AR 71-9

Materiel Acquisition Handbook AMC TRADOC PAM 70-2

MicroSaint

Military Training Programs MIL-STD-1379C

Military Personnel, Organization and Types of Transaction Codes
AR 680-29

Mockups, Aircraft, General Specifications for MIL-M-8650C

NBC Contamination Report DI-R-1781

Noise Measurement Report DI-H-1336

Noise Limits for Army Materiel MIL-STD-1474

Nuclear Survivability Design Report DI-R-1761A

Personnel Performance and Training Program AR 70-8

Personnel and Training Requirements DI-H-1300

Preparation of Statement of Work MIL-HDBK-245

Progress Report DI-H-5009A

Radioactive Material Data DI-H-1332A

Reading Level Requirements for Preparation of Technical Orders
MIL-STD-1752

Safety Design Requirements for Military Lasers and Associated
Support Equipment MIL-STD-1425

Safety Assessment Report DI-SAFT-80102

Safety Requirements for Military Lasers AR 385-9

Safety Color Code Markings and Signs AR 385-30

Safety Standards for Military Ground Vehicles MIL-STD-1180B

Scientific and Technical Reports DI-S-4057

Software Test Plans DI-MCCR-80014

Software Test Descriptions DI-MCCR-80015

Software Top Level Design Document DI-MCCR-80012

Software Test Procedures DI-MCCR-80016

Software Quality Assurance Plan DI-R-2174A

Software Test Report DI-MCCR-80017

Standards of Medical Fitness AR 40-501

Student's Training Course Guide DI-H-7071

Supply Support Methodology and Model

Surface Danger Area Data DI-H-1327A

Survivability Cost Effectiveness Trade-off Study Report
DI-R-21498A

Symbols to Supplement Text of Instruction Plates for Military
Vehicles MIL-STD-1271B

System/Design Trade Study Reports DI-S-3606

System Safety Program Plan DI-SAFT-80100

System Safety Engineering and Management AR 385-16

System Safety Hazard Analysis Report DI-SAFT-80101
System Acquisition Policy and Procedures AR 70-1
System Safety Program Plan Report DI-SAFT-80105
System MANPRINT Management Plan (SMMP)
System Safety Management Guide DA PAM 385-16
System Safety Program Requirements MIL-STD-882
Systematic Organizational Design
Task Load Index (NASA-TLX)
Task Analysis DOD-STD-1478(Draft)
Task Analysis/Workload (TAWL) User's Guide - Version 3.0
ARI-RP-90-15
Task Inventory and Task Analysis Proposed Military Handbook
MIL-HDBK-XXXX
Technical Manuals/Commercial Literature DI-M-6153
Technical Publications for Advanced Development Systems DI-M-6157
Technical Manual Writing Handbook MIL-HDBK-63038(TM)
Test and Evaluation During Development and Acquisition of
Materiel AR 70-10
Trainer Test Procedures and Results Report DI-T-25594C
Training and Training Equipment Plan DI-H-7066
Training Device Policies and Management AR 350-38
Training Course/Curriculum Outline DI-H-7069
Training Requirements Analysis System TRADOC Reg. 351-1
Training Devices, Military, General Specifications for
MIL-T-23991E
Training Course Standards DI-ILSS-80047
User Testing AR 71-3
Validation Record (Technical Manuals) DI-M-6159
Vulnerability Assessment Report DI-R-21482A
WC Fielde Workload Consultant for Field Evaluation (V 2.0)
Window/PANES: Workload/Performance Simulation
Work Measurements MIL-STD-1567

APPENDIX B
Program Listing

```
* MANRRS Version 2.0
*
set procedure to manrrs
*
*
* Main Program Loop
----- *
do init                && Initialize variables
do while .T.          && Top of the loop
do menu_1             && Draw the Main Menu
do disp_1             && Fill in the record counts
do input_1            && Get cat_1
do holdit             && Tell the user to wait
do reccount           && Count all the cat_1 records
do disp_1             && Fill in the new record counts
do input_2            && Get cat_2
do holdit             && Tell the user to wait
do roundup            && Find and display the records
enddo                 && Bottom of the loop
*
-----
*
PROCEDURE INIT        && Initialize variables
*
use manrrs
set status off
set scoreboard off
set talk off
set bell off
if file('c:\temp$$\txt')
  erase c:\temp$$\txt
endif
do menu_1             && Set up the screen
do holdit             && Tell user to wait a sec
public cvar1
public cvar2
public cvar3
public cvar4
public cvar5
public cvar6
public cvar7
public cvar8
public cvar9
public cvar10
public cvar11
public cvar12
public cvar13
public cvar14
```

```

public cvar15
public cvar16
public cvar17
public cvar18
public cat_1
public cat_2
public ans_1
public ans_2
public ans_3
public ans_4
public ans_5
public dom
public fil
public zip
public tvarx
cat_1 = space(1)                && The MANPRINT category
selected
cat_2 = space(1)                && The record category
selected
ans_1 = space(1)
ans_2 = space(1)
ans_3 = space(1)
ans_4 = space(1)
*
* Next, let's count the number of records in each MANPRINT domain
*
go top
tvar = 0
tvara = 0
tvarb = 0
tvarc = 0
tvard = 0
tvare = 0
tvarf = 0
tvarg = 0
tvarh = 0
do while .not. eof()
  tvar = tvar + 1                && count of total no. of
records    if dom_1 = "1"        && count of Manpower records
  tvara = tvara + 1
endif
  if dom_2 = "1"                && personnel
  tvarb = tvarb + 1
  endif
  if dom_3 = "1"                && training
  tvarc = tvarc + 1
  endif
  if dom_4 = "1"                && human factors
  tvard = tvard + 1
  endif
  if dom_5 = "1"                && health hazard
  tvare = tvare + 1

```

```

endif
if dom_6 = "1"
tvarf = tvarf + 1          && system safety
endif
if dom_7 = "1"
tvarg = tvarg + 1        && spare
endif
if dom_8 = "1"
tvarh = tvarh + 1        && spare
endif
skip
enddo
*
* We have finished counting, now assign the values to the
variables.
*
cvar1 = tvara             && Number of Manpower records
cvar2 = tvarb             && Number of Personnel records
cvar3 = tvarc             && Number of Training records
cvar4 = tvarc             && Number of Human Factors
cvar5 = tvare             && Number of Health Hazard
cvar6 = tvarf             && Number of System Safety
cvar7 = tvar              && Total number of records
cvar18 = tvarg            && Number of non-specific
* Initialize the rest of the variables to zero.
cvar8 = 0
cvar9 = 0
cvar10 = 0
cvar11 = 0
cvar12 = 0
cvar13 = 0
cvar14 = 0
cvar15 = 0
cvar16 = 0
cvar17 = 0
*
RETURN &&-----
*
*
PROCEDURE HOLDIT
*
@ 22,0 say space(80)
@ 22,18 say "***** Working...please stand by *****"
*
RETURN &&-----
*
*

```

```

PROCEDURE MENU_1                                && Draws the Main Menu
go top
do header                                        && Draw the ARI header
@ 5,0 to 19,38
@ 5,39 to 19,79
@ 19,3 to 21,30 double
@ 19,42 to 21,70 double
@ 4,3 to 6,23 double
@ 5,4 say ' MANPRINT CATEGORY '
@ 6,32 say 'INDEX'
@ 7,32 say 'COUNT'
@ 6,73 say 'INDEX'
@ 7,73 say 'COUNT'
@ 4,42 to 6,62 double
@ 5,43 say ' RECORD CATEGORY '
@ 8,3 say ' A...MANPOWER'
@ 9,3 say ' B...PERSONNEL'
@10,3 say ' C...TRAINING'
@11,3 say ' D...HUMAN FACTORS'
@12,3 say ' E...HEALTH HAZARD'
@13,3 say ' F...SYSTEM SAFETY'
@15,3 say ' G...GENERAL'
@18,3 say ' Z...ALL RECORDS'
@ 8,43 say 'A...REGULATIONS'
@ 9,43 say 'B...PAMS & CIRCULARS'
@10,43 say 'C...REPORTS & GUIDES'
@11,43 say 'D...MIL HANDBOOKS'
@12,43 say 'E...MIL STANDARDS'
@13,43 say 'F...MIL SPECIFICATIONS'
@14,43 say 'G...DATA ITEM DESCRIPTIONS'
@15,43 say 'H...ANALYTIC TECHNIQUES'
@16,43 say 'I...DATABASES'
@18,43 say 'Z...ALL RECORDS'
@20,4 say ' CATEGORY SELECTED: '
@20,43 SAY ' CATEGORY SELECTED: '
*
*
do trailer
*
*
RETURN &&-----
*
*

```

PROCEDURE HEADER

```
*
*   Puts the text at top of screen
*
clear
@ 0,0 to 3,79 double
@ 1,28 say 'Army Research Institute'
@ 2,19 say 'MANPRINT Reference Retrieval System (V 2.0)'
```

```
*
*
RETURN &&-----
```

```
*
*
PROCEDURE TRAILER
```

```
*
*   Puts the text at bottom of screen
*
@ 23,0 to 23,79
@ 24,5 say 'Press Q to QUIT; Press X to CANCEL'
```

```
*
*
RETURN &&-----
```

```
*
PROCEDURE MENU_2                                && All records output choice
```

```
*
@ 4,0 clear
@ 5,0 to 11,38
@ 4,3 to 6,23 double
@ 5,4 say ' OUTPUT OPTIONS '
@ 8,3 say 'A...VIEW ONE AT A TIME ON SCREEN'
@ 9,3 say 'B...SEND ALL TO PRINTER'
@10,3 say 'C...SAVE ALL TO DISK'
```

```
*
do trailer
*
RETURN &&-----
```

```
*
*
```

```

PROCEDURE MENU_3                                && Individual record output
choice *
do header
@ 4,0 clear
@ 5,0 to 11,38
@ 4,3 to 6,23 double
@ 5,4 say ' OUTPUT OPTIONS '
@ 8,3 say 'A...VIEW NEXT RECORD ON SCREEN'
@ 9,3 say 'B...SEND THIS RECORD TO PRINTER'
@10,3 say 'C...SAVE THIS RECORD TO DISK'
do trailer
*
*
RETURN &&-----
*
*
PROCEDURE PRINTALL
*
@ 22,0 say space(80)
@ 22,5 SAY 'Printing report...please stand by'
set device to print
  if tvarx = 1 then
    @ 0,22 say 'Army Research Institute'
    @ 2,17 say ' MANPRINT Reference Retrieval System'
    @ 3,30 say date()
    @ 5,0 say
'=====
=====
endif
* Now, we print it out
rowx = tvarx * 11 - 4
@ rowx,0 say 'Title      : ' + trim(title_1)
@ rowx+1,0 say '          : ' + trim(title_2)
@ rowx+2,0 say 'Date       : ' + trim(date)
@ rowx+3,0 say 'ID No.     : ' + trim(id_no)
@ rowx+4,0 say 'POC/SOURCE: ' + trim(poc_1)
@ rowx+5,0 say '          : ' + trim(poc_2)
@ rowx+6,0 say 'Comments  : ' + trim(com_1)
@ rowx+7,0 say '          : ' + trim(com_2)
@ rowx+8,0 say
'-----
-----
@ rowx+9,0 say ' '
tvarx = tvarx + 1          && increment the record counter
if tvarx > 5 .or. eof()
  eject
  tvarx = 1
endif
set device to screen
*
RETURN &&-----

```


PROCEDURE FILEALL

```
*
if file('temp$.txt')                && Get rid of old file
  erase temp$.txt
endif
copy to temp$.txt next 1 type delimited with blank
run copy c:\temp$$$.txt + temp$.txt c:\temp$$$.txt > null: &&
Append to the permanent file
*
```

RETURN &&-----

```
*
PROCEDURE INPUT_1                    && Get value for cat_1
*
```

```
@ 22,0 say space(80)
@ 22,5 say 'Enter letter for MANPRINT Category: '
@ 20,24 get ans_1
read
ans_1 = upper(ans_1)
do case                               && Do input validity check
  case ans_1 = "A"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "B"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "C"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "D"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "E"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "F"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "G"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "Z"
    @ 20,24 say upper(ans_1) picture "A"
    return
  case ans_1 = "Q"
    do checkout
    do input_1
    return
  otherwise
    do input_1
    return
endcase ans_1
```

RETURN &&-----

```

PROCEDURE INPUT_2                                && Get value for cat_2
*
@ 22,0 say space(80)
@ 22,5 say 'Enter letter for Record Category: '
@ 20,64 get ans_2
read
ans_2 = upper(ans_2)
cat_2 = upper(ans_2)
do case                                          && Do input validity check
  case ans_2 = "A"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "B"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "C"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "D"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "E"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "F"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "G"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "H"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "I"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "Z"
    @ 20,24 say upper(ans_2) picture "A"
    return
  case ans_2 = "Q"
    do checkout
    do input_2
    return
  otherwise
    do input_2
    return
endcase ans_2
*
RETURN
&&-----
*
```

```

PROCEDURE INPUT_3
*
@ 22,0 say space(80)
@ 22,5 say 'Enter letter for your choice: '
@ 22,40 get ans_3
read
ans_3 = upper(ans_3)
do case                                && Do input validity check
  case ans_3 = "A"
    @ 22,40 say upper(ans_3) picture "A"
    return
  case ans_3 = "B"
    @ 22,40 say upper(ans_3) picture "A"
    return
  case ans_3 = "C"
    @ 22,40 say upper(ans_3) picture "A"
    return
  case ans_3 = "X"
    @ 22,40 say upper(ans_3) picture "A"
    zip = 1
    return
  case ans_3 = "Q"
    do checkout
    do input_3
    return
  otherwise
    do input_3
    return
endcase ans_3
*
RETURN
&&-----
*
*
PROCEDURE INPUT_4
*
@ 22,0 say space(80)
@ 22,5 say 'Enter letter for your choice: '
@ 22,40 get ans_4
read
ans_4 = upper(ans_4)
do case                                && Do input validity check
  case ans_4 = "A"
    @ 22,40 say upper(ans_4) picture "A"
    return
  case ans_4 = "B"
    @ 22,40 say upper(ans_4) picture "A"
    return
  case ans_4 = "C"
    @ 22,40 say upper(ans_4) picture "A"
    return
  case ans_4 = "X"

```

```

    @ 22,40 say upper(ans_4) picture "A"
    zip = 1
    return
  case ans_4= "Q"
    do checkout
    do input_4
    return
  otherwise
    do input_4
    return
endcase ans_4
*
RETURN &&-----
*
*
PROCEDURE CHECKOUT
*
ans_5 = .F.
@ 22,0 say space(80)
@ 22,5 say 'Quit...Are you sure? (Y/N):'
@ 22,40 get ans_5
read
if (ans_5)
  quit
else
  @ 22,0 say space(80)
RETURN &&-----
*
PROCEDURE DISP_1
*
@ 8,33 say cvar1 picture "9999"
@ 9,33 say cvar2 picture "9999"
@10,33 say cvar3 picture "9999"
@11,33 say cvar4 picture "9999"
@12,33 say cvar5 picture "9999"
@13,33 say cvar6 picture "9999"
@15,33 say cvar18 picture "9999"
@18,33 say cvar7 picture "9999"
*
@ 8,74 say cvar8 picture "9999"
@ 9,74 say cvar9 picture "9999"
@10,74 say cvar10 picture "9999"
@11,74 say cvar11 picture "9999"
@12,74 say cvar12 picture "9999"
@13,74 say cvar13 picture "9999"
@14,74 say cvar14 picture "9999"
@15,74 say cvar15 picture "9999"
@16,74 say cvar16 picture "9999"
@18,74 say cvar17 picture "9999"
RETURN &&-----
PROCEDURE RECCOUNT
*

```

```

* Look at each record and see if it is in the selected category.
* If it is, then send it out to be counted by RECSEL.
* But, first see if we have already counted the entries for
* this MANPRINT category.
if upper(ans_1) = upper(cat_1)
    return
endif
cat_1 = upper(ans_1)
* This must be a new category, so zero out the counters
cvar8 = 0
cvar9 = 0
cvar10 = 0
cvar11 = 0
cvar12 = 0
cvar13 = 0
cvar14 = 0
cvar15 = 0
cvar16 = 0
cvar17 = 0
*
go top
do while .not. eof()
    if upper(ans_1) = "A" .and. dom_1 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "B" .and. dom_2 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "C" .and. dom_3 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "D" .and. dom_4 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "E" .and. dom_5 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "F" .and. dom_6 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "G" .and. dom_7 = "1"
        do RECSEL
    endif
    if upper(ans_1) = "Z"
        do RECSEL
    endif
    skip
enddo
RETURN
&&-----

```

PROCEDURE RECSEL

```
do case
  case rec_type = 'A'
    cvar8 = cvar8 + 1
  case rec_type = 'B'
    cvar9 = cvar9 + 1
  case rec_type = 'C'
    cvar10 = cvar10 + 1
  case rec_type = 'D'
    cvar11 = cvar11 + 1
  case rec_type = 'E'
    cvar12 = cvar12 + 1
  case rec_type = 'F'
    cvar13 = cvar13 + 1
  case rec_type = 'G'
    cvar14 = cvar14 + 1
  case rec_type = 'H'
    cvar15 = cvar15 + 1
  case rec_type = 'I'
    cvar16 = cvar16 + 1
endcase rec_type
cvar17 = cvar17 + 1
```

*
*

RETURN

&&-----*

*

PROCEDURE ROUNDUP

*

```
do header
do menu_2                                && Draw the output menu
zip = 0
tvarx = 1
do input_3                                && Get ans_3 (output choice)
if zip = 1
  return
endif
*
go top
do while .not. eof()
  do holdit
    if upper(ans_1) = "A" .and. dom_1 = "1"
      do RECOUT
    endif
    if upper(ans_1) = "B" .and. dom_2 = "1"
      do RECOUT
    endif
    if upper(ans_1) = "C" .and. dom_3 = "1"
      do RECOUT
    endif
    if upper(ans_1) = "D" .and. dom_4 = "1"
      do RECOUT
```

```

endif
if upper(ans_1) = "E" .and. dom_5 = "1"
do RECOU
endif
if upper(ans_1) = "F" .and. dom_6 = "1"
do RECOU
endif
if upper(ans_1) = "G" .and. dom_7 = "1"
do RECOU
endif
if upper(ans_1) = "Z"
do RECOU
endif
if zip = 1          && Skip-back flag got set
return
endif
skip
enddo
*
do holdit
*
RETURN &&-----
*
*
PROCEDURE RECOU
*
*
if upper(ans_2) = rec_type .or. upper(ans_2) = "Z"
do case
case ans_3 = "A"
do showem
case ans_3 = "B"
do printall
case ans_3 = "C"
do fileall
endcase ans_3
endif
*
RETURN &&-----
*
*

```

PROCEDURE SHOWEM

```

*
*
zip = 0                                && clear the skip-back flag
do menu_3                               && Show records on screen
*
  Now, lets print the record block
  @ 14,2 say 'Title      : ' + trim(title_1)
  @ 15,2 say '           : ' + trim(title_2)
  @ 16,32 say 'ID Number : ' + trim(id_no)
  @ 16,2 say 'Date       : ' + trim(date)
  @ 17,2 say 'POC        : ' + trim(poc_1)
  @ 18,2 say '           : ' + trim(poc_2)
  @ 19,2 say 'Comments   : ' + trim(com_1)
  @ 20,2 say '           : ' + trim(com_2)
do input_4                              && continue/print/file/quit
do case
  case upper(ans_4) = 'A'                && Continue display to screen
    return
  case upper(ans_4) = 'B'
    do print_1                          && Send 1 record to
printer      case upper(ans_4) = 'C'
    do file_1                            && Send 1 record to disk
  case upper(ans_4) = 'X'                && Set the skip-back flag
    zip = 1                              && and return
    return
  endcase ans_4
*
RETURN &&-----
*
*
PROCEDURE FILE_1
*
*
if file('temp$.txt')                    && Get rid of old file
  erase temp$.txt
endif
copy to temp$.txt next 1 type delimited with blank
run copy c:\temp$$$.txt + temp$.txt c:\temp$$$.txt > null: &&
Append to the permanent file
*
*
RETURN
&&-----
*
*

```



```

PROCEDURE PRINT_1
*
*
@ 22,0 say space(80)
@ 22,5 SAY 'Printing report...please stand by'
set device to print
  if tvarx = 1 then
    @ 0,22 say 'Army Research Institute'
    @ 2,17 say ' MANPRINT Reference Retrieval System'
    @ 3,36 say date()
    @ 5,0 say
'=====
====='
  endif
*
* Now, we print it out
rowx = tvarx * 11 - 4
@ rowx,0 say 'Title : ' + trim(title_1)
@ rowx+1,0 say ' : ' + trim(title_2)
@ rowx+2,0 say 'Date : ' + trim(date)
@ rowx+3,0 say 'ID No. : ' + trim(id_no)
@ rowx+4,0 say 'POC/SOURCE: ' + trim(poc_1)
@ rowx+5,0 say ' : ' + trim(poc_2)
@ rowx+6,0 say 'Comments : ' + trim(com_1)
@ rowx+7,0 say ' : ' + trim(com_2)
@ rowx+8,0 say
'-----'
*
tvarx = tvarx + 1 && increment the record counter
if tvarx > 5 .or. eof()
  eject
  tvarx = 1
endif
set device to screen
*
*
RETURN &&-----

```