NOTICE OF CHANGE

NOT MEASUREMENT SENSITIVE

MIL-STD-334B(TM)
NOTICE 1
8 February 2002

DEPARTMENT OF DEFENSE
STANDARD PRACTICE

DISPLAYED MESSAGE FOR AUTOMATIC TEST EQUIPMENT

TO ALL HOLDERS OF MIL-STD-334B(TM):
1. THE FOLLOWING PAGES OF MIL-STD-334B(TM) HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
1	8 Feb 02	1	20 Apr 98
2	20 Apr 98	2	Reprinted without change
5	8 Feb 02	5	20 Apr 98
6	20 Apr 98	6	Reprinted without change
11	8 Feb 02	11	20 Apr 98
12	20 Apr 98	12	Reprinted without change
DD Form 1426	8 Feb 02	DD Form	20 Apr 98

2. CHANGES ARE INDICATED WITH VERTICAL BARS.

3. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

4. Holders of MIL-STD-334B(TM) will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the standard is completely revised or canceled.

Custodian:

Army - TM

Review activities:

Army - AR, AV, CR, MI, SM

Preparing activity:

Army - TM

Project TMSS-A368

1. SCOPE

1.1 Purpose. This standard sets uniform requirements for written or graphical information delivered to users of automatic test equipment (ATE) by computer-controlled output devices. Such devices include, but are not limited to, cathode-ray tubes, plasma displays, liquid crystal displays, printers, and plotters. This information, herein called displayed messages, may be directive and/or informative in nature. Displayed messages are included within the definition of official equipment publications.

1.2 Application. The provisions of this standard apply to ATE computer-controlled output devices and to all test program sets (TPS), for use by Department of the Army, that include displayed messages.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, and 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3, 4, and 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 Standards. The following standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issue of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-1472 Human Engineering

MIL-STD-38784 Standard Practice For Manuals, Technical: General Style and Format Requirements.

(Unless otherwise indicated, copies of the above specifications and standards are available from Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ASME Y14.38 Abbreviations and Acronyms
(DOD Adopted)

(Application for copies should be addressed to the American Society of Mechanical Engineers, 3 Park Avenue, M/S 10D, New York, NY 10016.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

SUPERSEDES PAGE 1 OF MIL-STD-334B(TM)

3. DEFINITIONS

3.1 Definitions. The definitions below are applicable to this standard.

3.1.1 Automatic test equipment (ATE). ATE is equipment, usually under control of a software program, which is designed to conduct analysis of functional and static parameters in order to evaluate adherence of a unit under test (UUT) to its performance/test specification. The equipment may also fault isolate to a component of the UUT.

3.1.2 Displayed message. A displayed message is any written or graphical instruction or item of information presented by a computer-controlled output device.

3.1.3 Engineering support (ES) data. The ES data consists of text, schematics, assembly drawings, program listings and computer- generated outputs, functional flow diagrams, test strategy reports, and any relevant information to provide the life cycle support of the test program set (TPS). The purpose of the ES data is to provide all documentation essential to a full comprehension of the intent, design, structure and interrelation of all elements of the TPS.

3.1.4 English language test document (ELTD). The ELTD is a document which presents an overview, through flow charts, operator instructions, and narration, of the test program and interface connecting device (ICD) as they relate to the automatic test system, TPS, and UUT. The ELTD is not supplied to the user (below depot level), but it aids developers and maintainers in understanding, validating, and maintaining test programs. It may or may not include an actual software source listing on the TPS.

3.1.5 ICD. An ICD is a unit of hardware which physically and electrically interfaces the UUT to the ATE or interfaces with the ATE itself in a wrap around configuration. The ICD may contain active components such as amplifiers, power sources, and signal conditioners to augment the ATE's capabilities.

3.1.6 Maintenance allocation chart (MAC). The MAC is the definitive guide to the selection and assignment of maintenance functions, spare and repair parts, tools, and test equipment to all maintenance levels. The MAC also displays a functional breakdown of equipment, identifying specific functions and worktime standards associated with each functional group for a specific materiel system.

3.1.7 Operator. The ATE operator is the user of the ATE/TPS, who may be functioning in any category of maintenance. For example, the ATE "operator" may be the general support maintainer of the UUT.

3.1.8 Supplemental data (SD). SD consists of any relevant information, text, schematics and logic diagrams necessary for analysis of the TPS and UUT in the event of a problem or anomaly during the testing process.

3.1.9 Target audience. The target audience consists of the users of a given group of test program sets, defined by the Government in terms of specific job-related skills and reading level.

3.1.10 Technical manual (TM). A TM is a publication that contains instructions for the installation, operation, maintenance, training and support of weapon systems, weapon system components, and support equipment. TM information may be presented, according to prior agreement between a contractor and the Government, according to applicable TM military specification.

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5.1.2 Abbreviations and acronyms. Information shall be displayed in plain concise text wherever possible. Abbreviations and acronyms not peculiar to a specific system shall be from appendix A of this document or from ASME Y14.38.

5.1.3 Display codes. Approved abbreviations, acronyms, or display codes shall be used where space does not permit plain text.

5.1.4 Feedback. Feedback shall be provided to the operator to indicate the status of test program processing and provide for user confidence. Feedback shall conform to the following:

a. Periodic feedback shall be provided to the operator to indicate normal system operation when test program processing requires the operator to stand by for more than 15 seconds without making a response.

b. The operator shall be informed at least once before the test or tests are initiated when a testing event or a series of testing events technically prohibits interruption to inform the operator.

c. Positive indication shall be presented to the operator about the outcome of the process and the requirements for subsequent operator actions when a process or sequence is completed or aborted by the system or TPS.

d. Feedback shall be provided to indicate the reason for rejection and the required corrective action if the system rejects an operator input. Feedback shall be self-explanatory or coded in a manner clearly understood by the target audience.

5.2 Format design.

5.2.1 Display formats. Display formats shall be designed to optimize information coding, grouping, and appropriate information density. Where applicable, the criteria of MIL-STD-1472 shall apply.

5.2.2 Grouping. Displayed data necessary to support an operator activity or sequence of activities shall be grouped together.

5.2.3 Tabular data display. Tabular data shall be captioned.

5.2.3.1 Tabular data. Tabular data shall be presented in a row- column display.

5.2.3.2 Recurring data. Location of recurring data shall be similar among all tabular data displayed.

5.2.3.3 Tables. Tables shall be vertically aligned under their column headings and horizontally aligned with their row headings.

5.2.3.4 Values. All values contained within a table shall be expressed to the same number of decimal places.

5.2.3.5 Alphabetic data. Columns of alphabetic data shall be left-justified.

5.2.3.6 Numeric data. Columns of numeric data, without decimals, shall be displayed right-justified; numeric data with decimals shall be justified with respect to the decimal point.

5.2.4 Information density. At least one line space shall be left blank above and below critical information, and at least two character spaces shall be left blank on each side.

5.3 Prompting and coding.

5.3.1 General. Prompting shall be used to get the operator's attention and explain what to do when an operator action is required during a test sequence. Prompting shall be clear and understandable; designed to aid the operator in executing the required action.

5.3.2 Coding techniques. Display coding shall be used to distinguish between different categories of displayed data. Consistent coding shall be used across displays.

5.3.2.1 Bar coding. Bars shall be rectangular and extend horizontally.

a. The bar width for menu type screens shall be not less than 9/16 inch nor more than 3/4 inch.

b. The bar width for status screens shall be not less than 5/16 inch nor more than ½ inch.

c. The bar length for menu and status screens shall be dictated by the length of the message, in no instance shall the bar be less than 5 inches, nor more than 7-½ inches.

d. The bar width for command entries (CONT, PREV, PRINT, HELP, EXIT, etc.) shall be not less than 5/8 inch nor more than 3/4 inch.

e. Command entries shall be separated by a minimum of 1/16 inch.

5.3.2.2 Color coding. Color coding shall be used when the operator must rapidly distinguish among several categories of data in complex, dense, or critical displays.

a. Colors shall be consistent throughout the displays.

b. No more than 7 colors shall be used per screen when color discrimination is required.

5.3.2.3 Flash coding. Flash coding shall be used only when there is an urgent need to get the operator's attention.

a. The text shall have a flashing underline but the text shall not flash.

b. The blink rate shall be 3 to 5 flashes per second with equal on/off times.

c. The operator shall be required to acknowledge flash messages before the test can proceed.

5.3.2.4 Brightness intensity coding. Brightness intensity coding shall be used primarily to differentiate between an item of information and adjacent information. No more than 2 levels of brightness shall be used.

5.3.2.5 Underline coding. When a line is added to mark or emphasize a displayed item, it shall be placed under the designated item.

5.3.2.6 Analog Coding. Analog coding shall be used when required to provide feedback on an analog action (such as adjustment) being done by the operator. For example, if the operator is instructed to adjust a potentiometer to read a certain voltage, the display shall present the current voltage and show the voltage change as the potentiometer is adjusted.

APPENDIX A

APPROVED ABBREVIATIONS

A.1. GENERAL

A.1.1 Scope. This appendix is a mandatory part of this standard and establishes uniform use of abbreviations and acronyms required for displayed messages.

A.1.2 Application. This appendix is applicable for abbreviations and acronyms not peculiar to a specific system. ASME Y14.38 applies when abbreviations are not system peculiar or listed herein.

LIST OF APPROVED ABBREVIATIONS

WORD OR WORD COMBINATIONS	ABBREVIATIONS
ADJUSTMENT/ADJUST	ADJ
ALTERNATING CURRENT	AC
ALTERNATE	ALT
AMPERES	A
APPROXIMATELY/APPROXIMATE	APPROX (.)
ASSEMBLY	ASSY
AUXILIARY	AUX
AVAILABLE	AVAIL
BUILT-IN-TEST	BIT
CALIBRATE	CAL
CAPACITANCE/CAPACITOR	CAP
CATHODE RAY TUBE	CRT
CHANNEL	CHAN
CHECK	CHK
CIRCUIT	CKT
CONFIGURATION	CONFIG
CURRENT	CUR

APPENDIX A

WORD OR WORD COMBINATIONS	ABBREVIATIONS
DECIBELS	DB
DEGREES	DEG (E)
DIAGNOSTIC	DIAG
DIRECT CURRENT	DC
DISPLAY	DSPL
ELECTRONIC MODULE	EM
EQUAL TO	EQ (=)
EXTERNAL	EXT
FAILURE	FLR
FARADS	F
FEET	FT
FILTER	FL
FREQUENCY	FREQ
GIGA	G
GREATER THAN	GT (>)
GROUND	GND
HERTZ	HZ
HENRIES	H
HORIZONTAL	HORIZ
IDENTIFY/IDENTIFICATION	IDENT
INDICATOR	IND
INITIAL/INITIALIZE/INITIATE	INIT
INSTRUCTION	INSTR

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

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I RECOMMEND A CHANGE:	**1. DOCUMENT NUMBER** MIL-STD-334B(TM)	**2. DOCUMENT DATE (YYYYMMDD)** 19980420

3. DOCUMENT TITLE DISPLAYED MESSAGE FOR AUTOMATIC TEST EQUIPMENT

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS *(Include Zip Code)*	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON *(if applicable)*	**7.DATE SUBMITTED** (YYYYMMDD)

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c. ADDRESS *(Include Zip Code)* ATTN: AMXLS-AP (TMSS) RESTONE ARSENAL, AL 35898-7466	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** Defense Standardization Program Office (DLSC-LM) 8725 John J. Kingman road, Suite 2533, Ft. Belvoir, VA 22060-2533 Telephone (703) 767-6888 AUTOVON 427-6888