



Standard Specification for Search and Rescue Computer Software Information Exchange¹

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1. Scope

1.1 This specification covers the basic data formats to be used by search and rescue computer applications programs (software) for import from and export to other programs.

1.2 Additional data or word processing formats may be supported by search and rescue programs.

2. Referenced Documents

2.1 *ASTM Standards:*

E 1013 Terminology Relating to Computerized Systems²

2.2 *ANSI Standard:*

ANSI X3.4 Information Systems Codes³

3. Terminology

3.1 *Definitions:*

3.1.1 *applications program, n*—a generic term for a computer program written for a particular application, possibly unique to a particular installation (see Terminology E 1013).

3.1.2 *applications software, n*—the collection of applications programs used on a given computerized system (see Terminology E 1013).

3.1.3 *ASCII, n*—(pr. ass key') American Standard Code for Information Interchange. A standard for representing characters and control codes for computers. The attached appendix contains an ASCII table of codes.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *data, n*—alphabetic, numeric, or logical information stored, transmitted, or otherwise processed by an applications program.

3.2.2 *export, v*—the process of writing data from an applications program for use by another program.

3.2.3 *field, n*—one specific attribute of a record, for example, a missing person's last name in a subject description record.

3.2.4 *file, n*—an aggregate of equivalent records, for example, a missing person physical description file with separate records for different subjects. Text files are functionally the

same where lines of text may be considered records.

3.2.5 *import, v*—the process of reading data into an applications program from another program.

3.2.6 *record, n*—one complete item in a file, consisting of an aggregate of fields, for example, a missing person's physical description where individual fields contain first name, middle name, last name, hair color, and the like.

4. Classification

4.1 Two categories of search and rescue applications programs are covered by this specification: text processing and data processing.

4.1.1 Text processing applications programs are those which manipulate free-form text, as commonly found in notes, letters, and documents.

4.1.2 Data processing applications programs are those which manipulate formatted numeric, logical, or text fields of a data record, as commonly found in spreadsheets and database management systems.

4.2 Any given piece of applications software may combine elements of either type of program. Specifications for information interchange apply to the particular importing or exporting function.

4.3 Application programs designed to be self-contained and not interchange information with other programs are not covered by this standard.

5. General Requirements

5.1 *Text Processing Programs*—Search and rescue applications software capable of processing text shall be capable of importing and exporting data according to the following specifications:

5.1.1 consisting of only ASCII characters decimal 32 through 126 (printable characters), 10 (linefeed), 12 (form-feed), and 13 (carriage return) in accordance with ANSI X3.4;

5.1.2 a maximum line length of 78 characters, not counting the line termination codes; and

5.1.3 line termination using a carriage return/line feed combination (decimal 13 and 10, hexadecimal 0D and 0A, ASCII symbols CR and LF).

5.2 *Data Processing Programs—Export*—Search and rescue applications software capable of manipulating data other than purely text shall be capable of exporting data according to the following specifications:

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² *Annual Book of ASTM Standards*, Vol 14.01.

³ Available from American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.

5.2.1 consisting of only ASCII characters decimal 32 through 126 (printable characters), 10 (linefeed), and 13 (carriage return) in accordance with ANSI X3.4;

5.2.2 a maximum of 4000 data bytes per record;

5.2.3 a maximum of 128 fields per record;

5.2.4 a maximum of 254 data bytes for a character field;

5.2.5 a maximum of 1 data byte for a logical field, the character 'T' representing a true condition and 'F' representing a false condition;

5.2.6 a maximum of 19 bytes for a numeric field;

5.2.7 each field delimited by a comma (ASCII decimal 44), with an equal number of fields in each record;

5.2.8 each text field enclosed in double quotes (ASCII decimal 34); and

5.2.9 record termination using a carriage return/line feed combination (decimal 13 and 10, hexadecimal 0D and 0A, ASCII symbols CR and LF).

5.3 *Data Processing Programs—Import—Search and rescue applications software capable of manipulating data other than purely text may require imported data files considerably smaller than the maximums specified above for exporting. They shall be capable of importing data following these specifications:*

5.3.1 required record size, field size, and number of fields per record no greater than the maximums allowed for exporting;

5.3.2 each field delimited by a comma (ASCII decimal 44), with an equal number of fields in each record;

5.3.3 each text field enclosed in double quotes (ASCII decimal 34); and

5.3.4 record termination using a carriage return/line feed combination (decimal 13 and 10, hexadecimal 0D and 0A, ASCII symbols CR and LF).

APPENDIX

(Nonmandatory Information)

X1. ASCII CODE TABLE

X1.1 Printable Characters			Hex	Decimal	Symbol
Hex	Decimal	Symbol			
			48	72	H
			49	73	I
20	32	SPACE	4A	74	J
21	33	!	4B	75	K
22	34	"	4C	76	L
23	35	#	4D	77	M
24	36	\$	4E	78	N
25	37	%	4F	79	O
26	38	&	50	80	P
27	39	'	51	81	Q
28	40	(	52	82	R
29	41	)	53	83	S
2A	42	*	54	84	T
2B	43	+	55	85	U
2C	44	,	56	86	V
2D	45	-	57	87	W
2E	46	.	58	88	X
2F	47	/	59	89	Y
30	48	0	5A	90	Z
31	49	1	5B	91	[
32	50	2	5C	92	\
33	51	3	5D	93	]
34	52	4	5E	94	
35	53	5	5F	95	-
36	54	6	60	96	
37	55	7	61	97	a
38	56	8	62	98	b
39	57	9	63	99	c
3A	58	:	64	100	d
3B	59	;	65	101	e
3C	60	<	66	102	f
3D	61	=	67	103	g
3E	62	>	68	104	h
3F	63	?	69	105	i
40	64	@	6A	106	j
41	65	A	6B	107	k
42	66	B	6C	108	l
43	67	C	6D	109	m
44	68	D	6E	110	n
45	69	E	6F	111	o
46	70	F	70	112	p
47	71	G			