

SMPTE MOTION IMAGING JOURNAL TABLE OF ABBREVIATIONS

A -ampere

abbreviations -Co., Corp., Inc. (with company name), Ltd., ft, in., hr, min (minute),
sec, St., Rd., Ave.

academic degrees -BA, PhD, etc.

acknowledgment -no e

acronyms, capitalization

-when defining acronyms in text, capitalize as spelled out

ex.: light-emitting diode (LED), National Broadcasting Co. (NBC)

-define first time with acronym in parentheses; use acronym thereafter

-when acronym appears in abstract, it is not necessary to repeat thereafter

-company names, set up as above: Bell & Howell (B&H)

AC -alternating current

A/D converter -analog-to-digital converter

ADC -analog to digital converter

ATV -advanced television

AGC -automatic gain control

Ah -amp-hour

ALU -arithmetic and logic unit

AM -amplitude modulation

a.m., p.m.

ampersand (&) -no spaces when used with initials (R&D)

analog (not analogue)

antialiasing -no hyphen

appendixes -place before references, if any

-number references figures, tables A 1, A2, etc.

ASCII -American Standard Code for Information Interchange

audiocassette

audiotape

audiovisual

author's footnote:

SAMPLE

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B

bandpass (filter)
bandlimited
bandwidth
bar code
baseband
BER -bit-error rate (hyphenate)
Betacam -capital "B"
bibliography/references -see Attachment 1
bit(s) -always spell out: bit/mm rate, 20 bits/mm
black and white (n.), black-and-white (adj.)
black burst
bluescreen
breakdown (n.), break down (v.)
British spellings -change to American (do not use colour, analogue, analyse, fibre, metre, etc.), except in titles
BSS - broadcast satellite service
buildup (n.), build up (v.)
bullets - indent as for numbered lists
buses
buttons/keys (on a keyboard, machine, etc.) - use small caps
byte(s) -always spell out

C

CAD -computer-aided design
capitalization of titles -capitalize all words except for prepositions, articles, and coordinating conjunctions
captions -initial cap first word only
 -use present tense
 -period at end
 -if using (a), (b), etc., use format: Figure 1. Xxxxxxx: (a) xxx; (b) xxx.
CATV - community antenna TV (cable TV)
CCD -charge-coupled device
CCU -camera control unit
CD -compact disc; for optical storage use "c"; for magnetic storage use "k"
Chair -for either sex
Channel 9 (capital C, numeral)
chemical elements and compounds
 -do not italicize in text or equations
 -spell out name with symbol in parentheses first time; thereafter use name only
chroma - chrominance (use either)
chroma key (n.), chroma-key (adj.)
CMOS -complementary metal oxide semiconductor
CMT - cascaded modulation transfer

CNR -carrier-to-noise (ratio)
codec -contraction for encoder and decoder
codeword
color burst
color-difference (signal)
comma - use serial comma
 -use in compound sentence, but not sentence with compound predicate
 -see also “dates”
 -follow company’s usage before Inc. and Ltd.
commands (computer) -use small caps
COMSAT -Communications Satellite Corp.
(Cont. on next page) -use Italics 1 pt. smaller than text, flush right, in parentheses
converter
copyedit
CP - channel programming
cross color (n.), cross-color (adj.)
cross luminance (n.), cross-luminance (adj.)
cross section (n.), cross-section (adj.)
crosstalk
CRT -cathode ray tube
CTF - contrast transfer function
cubed measurements - use cu. ft.
cutoff (n. or adj.), cut off (v.)

D

D-1, D-2, etc., -hyphenate
DA - distribution amplifier
D/A converter -digital-to-analog converter
database
dates -1990s (no apostrophe)
 -do not abbreviate to 90s or Nineties
 -comma between day and year and after year (May 3, 1996,)
 -no comma between month and year or after year (May 1996) unless
 -part of normal punctuation (In May 1996,)
DATS-Digitally Assisted Television System
dB - decibel
DBS - direct broadcast(ing) by satellite, or direct broadcast satellite,
 depending on context
DC - direct current
DCT- discrete cosine transfer
decimal numbers -use a zero before the decimal in numbers less than 1 (0.63)
deemphasis
de facto - Roman not Italic
degree - use symbol (°) with numbers for both temperature and angle
Deluxe laboratories (not Deluxe)

dialogue
dimensions - use lower case multiplication sign, with space before and after (8 x 10 filter)
discussions - name of speaker, Roman bold; company affiliation, Italic
disk - for optical storage use "c"; for magnetic storage use "k"

DNG -digital newsgathering
downconversion
downflow
downtime
DPCM -differential pulse-code modulation
DPSK -differential phase-shift keying
DRAM -dynamic random access memory
DSB -double sideband
DS3 -no hyphen
DV -digital video
DVE -digital video effects
DVCPRO

E

earth, moon, sun -lower case unless used with other planets
EBR -electron beam recorder
EC - European Community
ECL - emitter-coupled logic
edge code
EDH - error detection and handling
EDL - edit decision list
EDP - electronic data processing
EFM - eight to fourteen modulation (code)
EFP - electronic field production
EIRP - effective isotropic radiated power
END - equivalent neutral density
ENG - electronic news gathering v
EPROM -erasable programmable read only memory
ESbus
e-mail -lower case except at beginning of sentence
equations
 -generally, use open spacing in display equations: $a = b + c$, unless closing up would keep it to one line
 -order or parenthese: $\{[()]\}$
 -with display equations: number (10) at right margin
 -reference in text, use Eq. 20 (at beginning of sentence, spell out)
ERP - effective radiated power
et al. -use if more than three authors in reference (Smith et al.)
EVDL -electronically variable delay line

F

fax -facsimile, use lower case, except at beginning of sentence
fc- footcandle
FCC -frame count cuing; Federal Communications Commission
FDM - frequency division multiplexing
FET - field-effect transistor
fiber optic (n.), fiber-optic (adj.)
FIFO -first-in first-out
film bar code -use Keycode only as a Kodak product
filmmaking
film size – 35-mm (adj.)
film titles - italicize
FIR - finite impulse response (filter)
fL - foot-lambert
FM - frequency modulation
Foley - always capitalize
footnote format -1 pt. smaller type than regular text, preceded by an asterisk
fractions -spell out if not a unit of measurement (two-thirds of the audience)
fps (do not use) -frames/sec
frame store (n.), frame-store (adj.)
Fresnel lens -always capitalize
 f_s -sampling frequency (italic “f”)
 f_{sc} -NTSC color subcarrier frequency (italic “f”)
f-stop -f 1.7 (lower case italic “f”)

G

g - gram
Gbit - gigabit
Gbyte - gigabyte
GOP - group of pictures
GPI - general purpose interface
GPU –graphics processing unit
GUI - graphical user interface

H

H, with number, as 1 H -horizontal line display (no Italics)
handheld
HDLC -high-level data link control
HDTV -high-definition television
Hi8
highbank
high- (only high-, not higher, highest)
hr -hour(s)
hookup
HPF -high-pass filter

hyphenation (selected rules)

- see also units of measurement, dimensions
- hyphenate compound modifiers if it will clarify the meaning
- hyphenate only the last item of a group: 60, 80, and 90-bit, unless the item is a prefix: pre- and post-production
- do not hyphenate a number with a rate: 30 frame/sec rate

I

IC -integrated circuit

IF -intermediate frequency

IM -intensity modulation

IMA -Interactive Multimedia Association

Imax Corp. -lower case; IMAX equipment or process - upper case

in. -inch

in-depth (adj.)

initials with a name -J. G. (space between J. and G.)

- other initials, no space (P.O., U.S., U.K., N.Y., etc.)

Institut für Rundfunktechnik (umlaut over u in fur, not fuer)

in./sec (not ips)

internet (I should be lowercase)

IO or I/O -input/output

IR -infrared

Italics -in addition to abstracts and captions use for:

- book titles
- miniseries
- movie titles
- ship names (but not S.S.)

Italic words within titles, abstracts, captions - do not change to Roman; signals and other letters that stand alone will be Roman

J

JND - just-noticeable difference

Journal -1916 through 1929

Transactions of the SMPE

1930 through 1949

J. SMPE (Journal of the SMPE)

1950 through 1975

J. SMPTE (Journal of the SMPTE)

1976 through Sept. 2002-

SMPTE J.

October 2002-

SMPTE Mot. Imag. J.

Journal citations, volume - 63: in Italic, followed by page number(s), date (do not use No. unless other information is missing); see also Attachment 1

JPEG -Joint Photographic Experts Group

judgment (no e)

K

kb - kilobit (spell kbit)

kB - kilobyte (spell kbyte)

Kell factor (not Kell's factor)

Kelvin -K, use with degree sign (100°K)
Keycode -Eastman Kodak trademark; others are film bar code
keys -on a keyboard, machine, etc., use small caps
K-factor -not the same as Kell factor
kHz-kilohertz
Ku-band
kWh -kilowatt hour

L

LAN -local area network
large-format camera
laserdisc -one word, spell with a "c"
LCD -liquid crystal display
LED -light-emitting diode
lists - punctuate items with periods if sentences; no punctuation if not sentences,
no period at end; use all periods if items are mixes
 -use run-on format only if necessary to meaning
LNA -low-noise amplifier
LOC -low-output capacitance
loudspeaker
lowband
low- (only low-, not lower, lowest)
low-pass filter
LSB - least significant bit
LSI - large-scale integration
LMS - least mean square
LTC -longitudinal time code
luma -luminance (use either)

M

m - meter
MAC - multiplexed analog component
mainframe
math - see equations
matrices (not matrixes)
Mb - megabit (spell Mbit)
MB - megabyte (spell Mbyte)
M/E - mix effects
M format (n.), M-format (adj.)
MHz - megahertz
micrometer - (greek mu/m) μm
micron - (greek mu) μ
microprocessor; MPU -microprocessor unit
min - minute
minicomputer
mm - millimeter

moiré - acute accent over e
MOS -metal oxide semiconductor
motion picture -no hyphen
motion picture names -Italicize
MSB -most significant bit
msec -millisecond
MTF -modulation transfer function
MPEG - Motion Picture Experts Group
MPEG-2 -use digit
M² –DC free Miller code
MII –Panasonic video recording system .
multi words -do not hyphenate, except multi-image
multiplication sign -lower case “x”; space before and after
MUSE -multiple sub-Nyquist subsampling encoding

N

nA -nanoampere
narrowband
news gathering
NiCd -nickel-cadmium (do not use ni-cad except as a tradename)
non words -do not hyphenate, except non-realtime
NRZ –non-return to zero (code)
NRZI -non return to zero inverse (code)
Nsec - nanosecond
numerals – spell out one through ten, except when with unit of measurement
 -use numerals for centuries (20th century)
 -use numerals if mixed in sentence (5 apples and 17 pears)
 -Channel 2, Track 3, Field 1, but line 8
 -4-digit number: use comma in text except in measurements: 6000-W
 lamp
 -1990s, always use numerals
 -spell out when used with “times” (three times greater; except in 3X
 subcarrier, 3X play speed)
 -range of numbers 5 to 10 MHz (not 5-10)
nWb/m -nanowebers/meter
NTL - National Transcommunications Ltd. (U.K.)
NTSC –National Television Systems Committee

O

OB - outside broadcast (vehicle)
Oe - Oersted
Ω - ohm
online
order of technical article parts:
 abstract, body, conclusion, acknowledgment, appendix, references,
 bibliography,

footnote captions, author bio

P

PAL -phase-alternation line (European color system)

PAM -pulse-amplitude modulation

PCB -printed circuit board

PCM -pulse-code modulation

PDM -pulse-duration modulation More commonly PWM pulse-width mod.

PDM - personal media device, polarization mode dispersion.....

pel -picture element (use pixel)

percent -use symbol with number

ph -picture height (identify first time)

pickup (n. or adj.), pick up (v.)

PLL -phase-locked loop

Plumbicon -capital "P"

plurals of acronyms -no apostrophe, lower case "s"

of dates -no apostrophe (1960s)

of numbers -use apostrophe (1 's)

postfilter

post-processing

post-production

PRBS -pseudorandom binary sequence

preemphasis

prefilter

primetime

proc amp -processing amplifier (always spell out in papers)

PROM -programmable read only memory

pseudo words -no hyphen

Q

QAM - quadrature amplitude modulation

quadruplex

quantities -use figure with the abbreviation for unit of measure

(3mi, 12V, 7hr, 50lb)

quotes - use for titles of articles and for TV programs

R

RAM -random access memory

range of numbers -5 to 10 MHz (not 5-10), dates -Feb. 5 to 6, 1996,

not Feb. 5-6, 1996

raw stock (film)

RCU -remote control unit

R-DAT -rotating head digital audio tape

readout (n.), read out (v.)

realtime (one word)

Reed-Solomon -use hyphen

references in text

- superscript after punctuation (data.²)
- use Ref. 4 if part of a sentence (as shown in Ref. 4)
- if more than three authors, use et al. after first name
- see Attachment 1 for format

RGB -red, green, and blue (signals, channels, etc.; Roman)

rms - root mean square

ROM - read only memory

rpm - revolutions per minute, lower case

RU - rack unit

S

sec -second

SECAM -sequential color and memory (system)

setup (n.), set up (v.)

sideband

self words -hyphenate (except selfless)

semiconductor

shadow mask (n.), shadow-mask (adj.)

ship names -italicize name, but not S.S.

sine wave (n.), sine-wave (adj.)

SMATV -satellite master antenna TV

SMPE -former name of SMPTE

SNR -signal-to-noise ratio

sound track (n.), sound-track (adj.)

spacecraft names -italicize

special effects

spelling -first use spelling in Webster's New Collegiate Dictionary; then Webster's Unabridged. Use preferred spelling.

spl -samples per line: use samples/line

split infinitives -avoid if possible, but use when wording would sound awkward if infinitive were not split

squared measurements -use sq. ft.

standalone -one word

state -with city in text: New York, N.Y.

-with zip code: use postal abbreviation, New York, NY 10012

still store (n.), still-store (v.)

STL -studio-transmitter link

STV -subscription TV

subcarrier

subclass

subcommittee

subset

Super 8, Super 16 (film)

T

table title format -boldface; no period, use 1-m dash; capitalize as in title format

tabletop
TBC -time base corrector
TCM -time compression multiplexing, Trellis Code Modulation,

TCMPT -Technical Council of the Motion Picture Television
TDM -time division multiplexing
teletext
television program titles - Roman and quotes
theater (not theatre, unless a proper name)
3D -three-dimensional (use 3D only when related to stereoscopy; spell out
when referring to three other dimensions)
time code - no hyphen
times sign - in text, use lower case x (space before and after)
-in equations, use * (asterisk)
titles -capitalize only when part of a name: President Chandler
exception: capitalize SMPTE officers)
-identify all people by company the first time
(list in this order: SMPTE title, name, company)
trade or registered symbol should not be included in text
TTL -transistor-to-transistor logic
TVL -television lines
TVI -television interface, television interference
Twentieth Century-Fox Film Corp.
Type-C format (Type-M); hyphen only if adj.

U

UHF - ultrahigh frequency
U.K.
ultrahigh-speed (adj.)
U matic (Sony trade name)
under way -in progress
underway -while in motion, as on the sea
units of measurement with numbers (examples):
-5-ft wall
-5 ft high wall
-5 ft 3-in. wall
-5 ft 3 in. high wall
-5 ft 3-in. x 5 ft 3-in. square
-always use singular form for abbreviated units (in., sec, lb). For units
that are whole words (frame, bit), use plural (n.) but singular (adj.),
e.g., ...at 30 frames/sec; ...at a 30 kbit/sec rate
university - spell out, except in names of university presses
(Univ. of South Carolina Press)
upconversion, upconvert
uplink
U.S.

USP - U.S. patent

V

VAC - volts alternating current (all caps)

VCO - voltage-controlled oscillator

VCR - videocassette recorder

VDU - visual display unit

versus - spell out in text, but use vs. in tables, figures, and heads

very -when used with compound modifier, no hyphenation (very high frequency signal)

VFL - variable focal length

VGA - video graphic array

VHF - very high frequency

VHS - video home system

VID - vertical interval data

videotape -trademark Ampex Corporation

videocassette

videodisc -use c not k

videotex

VITC - vertical-interval time code

VITS - vertical-interval test signal

VLSI - very large scale intergration (of circuitry)

V - volt

V_{p-p} - volts peak-to-peak

VSB - vertigial sideband

VSP - video signal processing

VTR – video tape recorder

VU - volume unit

W

W - watt

WAN - wide area network

WDM - wavelength division multiplexing

well (or ill, better, best, little, etc.) compounds

-hyphenate before a noun unless expression has another modifier (well-known man, but very well know man); do not hyphenate as a predicate adjective (he is well known)

wideband

widescreen

workprint

workstation

worldwide

X

X ray (n.), X-ray (adj. or v.)

Z

zip codes

- England: numbers before country name
- Canada: numbers after country name

ATTACHMENT 1-SMPTE MOTION IMAGING JOURNAL STYLESHEET

Format for Reference and Bibliography Entries

Bibliography entries are in alphabetical order; references, in numerical order according to their citations in text. In bibliographies, the last name is listed first; if there is no author, the entries begin with "Anon." and are alphabetized by title. In references, the listing is as in the examples below. If more than three authors are listed, use the first name followed by et al. The following are examples of format for various types of publications or non published documents. Use standard abbreviation for journal articles when known (see AIP Style Manual, p. 41); otherwise, spell out.

Journal Articles

M. C. Gruszka, "Bumps on the All-Digital Road," *TV Technology*, 12:12-39, June 1994.

Articles Published in Proceedings

M. Shibata, "A Temporal Segmentation Method for Video Sequence," *Proc. SPIE Visual Comm. and Image Proc. '92*, pp. 1194-1205 1992.

Books

L. S. Birks, *Electron Probe Microanalysis*, Wiley: New York, 1982.

Chapter in a Book

P. E. Wilcock, "Analog Components," in *Video Pictures of the Future*, SMPTE: Scarsdale, N.Y., 1983.

Unpublished Paper

W. E. Glenn, J. Marcinka, and R. Dhein, "Subband Coding Compression System for Program Production," presented at the 136th SMPTE Technical Conference, Los Angeles, Oct. 1994.

Dissertation or Thesis

T. L. Gilbert, "Rate of Decay of Auditory Sensation," Ph.D. dissertation, Dept. of Chemistry, University of Massachusetts, 1984.

Standards

SMPTE 259M, "Television -10-Bit 4:2:2 Component and 4fsc NTSC Composite Digital Signals—Serial Digital Interface," *SMPTE Mot. Imag. J.*, 102:174-179, Feb. 1993.

Patents

W. J. Thompson and D. R. Albert, U.S. Patent No.7 430 020, Mar. 3,1975.