A Complete Bibliography of Publications in *Annals of the History of Computing*

Nelson H. F. Beebe  
University of Utah  
Department of Mathematics, 110 LCB  
155 S 1400 E RM 233  
Salt Lake City, UT 84112-0090  
USA  
Tel: +1 801 581 5254  
FAX: +1 801 581 4148  
E-mail: beebe@math.utah.edu, beebe@acm.org, beebe@computer.org (Internet)  
WWW URL: http://www.math.utah.edu/~beebe/

04 September 2023  
Version 2.63

Title word cross-reference

#4396 [LH86]. #4571 [Hur83c]. #4666 [Hur83c].

-2001 [TPWW92].

1 [BRG+87, Nap00, O’N91, Rob87, Wad00].  
10/18/51 [McC83d]. 100th [Kis91]. 130th [Kis91].  
15 [Hus84]. 155 [Ano80c]. 162 [Ano83]. 16th [Gol77]. 1835 [Van83]. 1940  
[Ano82d, CWM+91, RB85]. 1940s [PAD82]. 1944 [ML87]. 1945 [TDCKW84]. 1947  
[Ano85f, Ano85i, Cli85]. 1960 [Ano85f, Aue86a]. 1960s [TPG+89, Ver90].  

2 [Lec90, Wei85a]. 2-B [BSEW83, Wei85a].  
20th [BHB+89, CWM+91, CW91, Cha91b, Nor90, Tro87]. 218 [BRS+89]. 21st  
[MN88b]. 232 [Ano81e]. 25 [dBDvdR71].  
256 [Ano80b]. 25th [AWS2, Gal86c, Lee85, ML87, TDCK84]. 279 [Ano80b]. 293 [Ano81e].
30 [Tro87]. 30th [O’N91]. 360 [Eva86, Pug84].

40th [MHW87]. 41 [Ano80c].

500 [Sta90]. 5000 [BBC+87, Bem87, BRG+87, BGR88, Gal87a, LK87, Oli87, Ros87].

60th [TLR+91]. 650 [Gal86d, Gla86, Hae86, HK86, Her86, Hug86, Hur86a, Knu86, PV86, SN86, Tri86]. 6600 [Tho80b].


'82 [AW82, Wil82].

9 [BFB82]. 93 [Ano80c, Ano88b].

A. [BSS84, KT80a, O’N91, RWS85, SS80, TDC84, VBC83, WTE+85]. A.M. [TWCD86]. Abacus [Ano83-34, Wei89a].

ABC [Ste84]. Above [WTE+85, Ber84, Ber87]. Account [BCK83, Fra81]. ACE [Ano83l, AWL+88, CK81, Has84, TA81, TWCD86, Wils80].

achievements [Asi72, Asi82]. ACM [AWB+88, Bur81, MN88a, Mil86, O’N92, Wex93, Ano80e, Blu87, BHB+89, CK82b, O’N91].

ACM’80 [WR81]. Active [TPG+89]. Activities [Ano90, Bur81, McC83a, Noh84, Sam79, Sam80]. Activity [Ano80c, Ano83i, CK80a, CK80b, CK81].

Ada [ASS87, AFB+89, HG79, ZT86, Ban86, Moo77, Ste85a, WMS+89]. Addendum [AMTC80]. Adelle [OLC81]. Admiral [O’N92].

Adriaan [WZ89]. Advanced [Asp00, Big80]. Advances [Sny80]. Advent [Ata84, Ran82a].

Adventures [BFB82]. Advertisement [Ran83]. Advertising [AdB86].

advisability [Mer82]. Aeronautical [CCR+91, Lub91, Vin90, Vin93]. AFCET [Hof90].

AFIPS [CK82b, Gal86c, Ano83-33, Ano83-34, Ano86b, AAA+86, Car86b, Rec86, Sam79, Sam80, War86, WHG+86, Wei91c, WSC+88].

African [CFK+91, FG90]. After [MM88].

Afterword [Bac84a, Ano82d]. Against [TMRL89]. Age [Ele81, SWT+81, WSC+88, As64, Ber84, Ber87, BL82, Cer89, Coh00, Jen90, Mor84, PS91, BSS84, CK83, CCK83, CW90, WTE+85]. aid [Zus82a].

Aids [Ano86p, Cra92]. Aiken [BH89+90, AA85b, Coh88, Coh00, Ran82b, WH84].

Air [EZ88, WSC+88]. Aircraft [Ano83i, RM82, Ama83, Ano83d, Por83].

Aitken [TTG82]. Al [Zen79, CFK+91, LTC+81, LB81, SR82, Tro82b, CK83, SZ84, CH90].

al-Khawarizmi [CH90]. Al-Khorezmi [Zen79, CK83, SZ84]. al-Khwarizmi [CK83]. Alamos [Voo83a, Ano83n, BFB82, Mac91, MN82, Swe83, TT88+89, Voo83b].

Alan [CK84, TDC84, Aps80, Hod83a, Hod83b, Hod85, Hod00, Lea05, MJ84, Pet08, THW88, WZT90]. Albers [GMT85].


Algorithmic [dBvV81a, GG92, Tro82a, Wel80, Zem83, dBvV81b]. Algorithms [Tra84, Zem79]. Alice [Ano82d].

Allies [AWL+88, WTE+85, Koz84a, Koz84b].

Allocation [Ban90, Gol84, Sak84]. Alto [AC80, AWB+88]. Alwin [dB86].

America [RWS85, ARE+87, Bac80, McM84, PW82, PW84b, PWA92, Rei81].

American [All91, CMF+90, Str83, Kid90b, Yat89]. AN/FQ [AJ83]. AN/FQ-7 [AJ83].

Analog [BS84, Tom85a, Lan00]. Analysis [Ray89].
[Ano81e, AG89, Gol77, Sma46, Tra66, RS80a, SWT+81]. **Analytical**

[CCR+91, Lub91, Ran82c, Vin90, Vin93, Bab82b, Bro82, Lud82, Mer82, Ran82k]. **ancient** [Asi72, Asi82]. **Andahl** [Ano83-34]. **Andrew** [CK84]. **Andrews** [LS82]. **Andri** [WG90]. **Anecdotes** [AA85b, Ano84d, Aus81, BH81, BFB82, Car86a, Don79, FL86, GM85, Gre91, Hus85, Kes80, Nag80, SWT+81, Sha89, Ste84, SHH81, TGG82, Tho80a, THWV88, TDS88, TBS88, TTB+88, TMRL89, TLR89, TPG+89, TBGE89, TBB90, TKE90, TBLJ90, TD90, TL+89, TCG91, TWPP91, TPW92, Tro83a, TB84, Tro84, TW87, TWA+87, Zem83, vdPWB82]. **Angeles** [Ano83-32, Mil86]. **Annals** [Ano86i, Ano79b, Ano80a, Ano81a, Ano81d, Ano81c, Ano81h, Ano83-29, Ano84f, Ano84g, Ano85n, Ano85o, Ano85p, Ano85q, Ano86r, Ano86s, Ano86t, Ano86u, Ano88f, Ano91a, Ano91b, CS85, Kes86, TSS5]. **Anniversary** [AW82, BH81, CFK+91, Fin84, Kis91, ML87, O’N91, SZ84, TDCKW84, Tro87, WD85, Gal86c, Lee85, MHW87]. **Annotated** [Asp87, Lee84a, Ran79, Pet08]. **Announced** [Buc83, Ano83-33]. **Announcement** [Ano83c, Ano83f, Ano83o, Ano86a]. **Announcing** [Bem87]. **Answer** [CS85, Kes86, TSS5]. **Anticipate** [CS85, Kes86, TSS5]. **Applicant** [CS85, Kes86, TSS5]. **Applications** [Ano86p, RGB83, Tor82b]. **Applied** [Cur89a, Cur89c, BRS+89, McC83a]. **appointed** [Mer82]. **Appoints** [Ano83-33]. **appraisal** [Ste81]. **Appreciation** [Knu86]. **Approach** [Bar87]. **Approaches** [Sam91d, Tra84]. **April** [Kin87, Wex93, Ano83z]. **archaeological** [Asi72, Asi82]. **Architecture** [Roc83b]. **Architecture** [Ano83q, CCR+91, Cor90, Rei91, WSC+88, Wil89, Wil90, All91]. **Argonne** [Chu80]. **Arithmetical** [Bus82]. **Army** [BGH+91, Hil91]. **arranged** [Asi64, Asi72, Asi82]. **art** [Kin87, AWB+88]. **Arthur** [Ano82d, WT91a, WWCP92]. **Article** [BB82, Phe82]. **Articles** [Bur81]. **Artifact** [O’N92]. **Artifacts** [All91]. **Artificial** [AMW+88, Blo87, Cop04, MK89b, FM83, FM84a, CC89]. **arts** [All91]. **Ascent** [CW91, HB90]. **Asimov** [BCKS+83, Asi64, Asi72, Asi82, CFK+91]. **Aspray** [SE86, CFK+91, CW91]. **Assembler** [BH81]. **Assemblers** [McC83c]. **Assembly** [Cou82b, McC83b, Swe83]. **Associate** [Ano83-33, Ano83-34]. **Associated** [Ano83-36]. **Associates** [TC79, Tom80]. **Association** [AWB+88, Tro87]. **Astrahan** [Wei89a]. **Atanasoff** [AMW+88, BRS+89, BH81, BGH+91, BB88, BB91, Bur06, Gsu00, Lee91f, Mol88, Smi10, WR81]. **Atlanta** [PAD82]. **Atlas** [Sum00]. **Atomic** [Amo90]. **Augarten** [ZT86]. **August** [Tro87, Ano86c]. **Augustus** [Fut07]. **Austin** [TLR+91]. **Australasia** [Tea83]. **Australia** [WCB90]. **Australian** [CFK+91, Pea88]. **Author** [Ano81a, Ano83e, BB82, Mor86]. **Authority** [Amo90]. **Authors** [Ano80d, Ano81g, Ano82c, Ano82i, Ano83-31, Ano83-39, Ano84b, Ano84q, Ano85h, Ano85r, Ano86k, Ano86v, ABE+81]. **Auto** [Bei75]. **Auto-** [Bei75].
[WCB90]. Boston [Ano83-34, WSC+88].
Bowden [WTZ90]. Bowditch
[BWV+88, BHW+90, Wil87]. Brain
[BH89b, Sej89]. Brainerd
[WG82, FW88, Wei88c]. Braun [TBGE89].
Breaking
[Lee87c, LJWH97, ML87, WH87, Wei82].
Brief [Ano86b, LA91, Sam85, CFK+91].
briefcase [Sco94].
Bright [BDA91, Wei88a].
Britain [CK82a, FL86, WCB90].
Broken
[AWL+88, WTE+85, Koz84a, Koz84b].
Brown [Wei88b].
Bruemmer [CCR+91, Col91].
Brute [Tra84].
Brute-force [Tra84].
Buchholz [O’N92, Zem90b].
Bug [Ano84d, BH81, BS84, TTB+88, TWPP91].
bug-discussion [TWPP91].
Buie [Wei89a].
Buifendam [AWL+88]. Build [Swa01].
builders [Bau81, VBCC83]. Built
[BGR88, Lav80b, Lav80c]. Bull
[Hei91, Lec90, MK89a]. Bulletin
[Eni90, CWM+91]. Bullock [RWSW85].
Bülow [CWM+91]. Bureau
[Ano48, AG89, Cur89c, Hus80a, Hus80b, Ano83x, Ano83b, Gre83, Mas83, Slu80].
Burks [Ano82d, AMW+88, Ran81, Ano82d, AMW+88, BGH+91, Lee91f, RS82].
Burroughs [All91, BBC+87, BRG+87, BGR88, Gal87a, Ros87]. busca [PW84a].
Bush [Ran82k]. Business [Bei75, CFK+91, CW91, Fla91, Nor90, RGB83, Sam91a, TBS88, TBLJ90, CK89, Aus81].
Byron [ASS87, Bau86, Moo77]. Byte
[Buc81, TTB+88, CFK+91].

C [AWL+88, GL81, Mer82, Tro82a, Wei88a, Wor87].
C. [BCKS+83, LTC+81, SE86, VBCC83]. CA
[ACM00]. CAB [Sta90]. Caddes [AWB+88].
Calcul [ARE+87, dO86]. Calculating
[Aik82, Ano48, Ano88b, ASS87, AWL+88, Bro87, CFK+91, Con82a, FG90, Har47a, Har49, Har50, Har53, Har84, Har47b, Har51, Har85a, Hau88, Kid90b, Man82b, RWSW85, Tor82a, WTE+85, Wil83, de 84, Bau86, MKW92, OLCJ91, Bab82a]. Calculation
[CW91, Nor90, Phi82, dO86]. Calculations
[Con82b, Zus82a, vdE92, ARE+87].
Calculator [AH82, DW82, HK86, ST82, Spe80, Tri86, dB86, MHS82, Arm83, AWL+88, Har46, Har85b, McC83f].
Calculator/Computer [dB86].
Calculators
[CWM+91, Cha91a, Cha91b, Bre00].
Calculus [Ros84c]. Calendar
[AA85b, EM88]. California
[AWB+88, Gru89, Til83]. Cambridge
[CFK+91, Wex93, Bir80, CW91, Flg80a, CH90, Wil80a]. came [Fut07]. Campbell
[Fla91, WLC86, CFK+91]. Campbell-Kelly
[Fla91, WLC86, CFK+91]. Canada
[BL82, Wil85c]. Capacity [Car86a]. Cape
[Wie83]. Capsule
[BSS84, BCKS+83, Buc80a, CKSW83, CW84, Dor82, GL81, GMT85, Ham79, LTC+81, LB81, RWSW85, SWT+81, SR82, Smi84, SBET85, SE86, SS80, Tro82b, Tro82a, TDCW84, TSD+87, VBCC83, WTE+85, WS86, WLC86, ZT86, Buc80b]. Card
[CW91, GMT85, Joh83, K89, Nor90, ST82, Eck40, EM84, Hei91]. Card-Programmed
[ST82]. Cards [McP42, GMT85]. Career
[Kru89, CCKSS90]. Carl
[Ano82d, ARE+87, Ric85]. Carlo
[BHMU85, Hur85]. Carnegie [Bac86, Per86].
Carpenter [AWL+88]. Carried [Aus81].
Carry [Hug86]. Carry-Over [Hug86]. Case
[Asp89a, Led82a, MKR82, Ran82, Ste79, TMRL89, TDCW84, Asp00, FKK08, Ste80d]. cases [Fut76]. Categories
[CK82b]. Cayley [Mer82]. CBI
[Ano81i, Ano81]. Ano83-33, Ano83-34, Bur81, CK82b, Cer80, RS80a]. CBT [Sco94].
CBT-in-a-briefcase [Sco94]. CDC
[Tho80b]. Celebrate [Ano82f]. Celebration
[Noh84, OLCJ91, MHW87, SZ84]. Celestial [Cou82b], Cellar [Bau90], Centenary [MM97]. Center [Cur89b, WSC+88, OLCJ91], Centers [BSEW83]. Central [Bau80, Zem80].

Centre [dBvV81b, Ano79c, vdPWB82]. Central [Bue80, Zem80].

century [AAA+86, ARE+87, AFB+89, CWM+91, CW91, MKN88b, Rec86, WHG+86, WS86, BWC83c, Gol77, Her95, McM84, MHR85, WL85, Cha91b, LTC+81, LB81, MHR80, Nor90, SR82]. Ceruzzi [TDCKW84, CCKSS90]. Chairman [Jon85].

Chairs [CK82b], challenge [FM83, FM84a, Sei00]. Change [CLBdB89, CMF+90, CF89, Per87]. changed [Bur03]. changer [Bur06].

Changes [SG85]. Changing [CMF+90, CF89, Nat88]. Chapter [Mil86].


Chino [RL81]. chip [Wil70]. Chips [Rei88, CLBdB89]. Chooses [Cer80].

Christopher [CK85], chronologically [Asi64, Asi72, Asi82]. Chronology [BEG+87, CCKSS90, Tim89]. Church [CK82b]. cinquième [FM84b]. Cipher [AWL+88, Bur81, WTE+85, Cra92, Koz84a, Koz84b, Sal00]. CIPS [Wil82]. Circuit [PAD82, Eis89, CW91]. CIS [WK89]. Clark [RS82]. Classes [Ano83m, BK88].

classification [Bre00]. Claude [TWA+87].

Clayton [Ano82d]. Clement [WWCP92]. Clifford [Mer82, Ber86]. Club [O’N92, FL86, WMS+89]. CNRS [BMK90]. Co [Wat90, WP00]. Co. [CFK+91].

COBOL [Cun85a, Lee85, PCJ85, Sam85, SG85, Sch85, Str85, Wal80]. Cod [Wie83].

CODASYL [Cun85a, Jon85, PCJ85]. Code [Lee87c, ML87, LJWH97, WH87, Sch88].

Code-Breaking [Lee87c, ML87]. codebreaking [Cop06]. Codes [Cer80, SBET85, Tho79, Tho83, Wei82].

Coding [Ano83n, Swe83, TWA+87].

Coevolution [Cer88]. Cognitive [AWL+88, Gar85, Gar87]. Collected [Ano88d, AWL+88]. Collection [MHR80, All91, MHR85, Cer80].

Collections [BEG+87, Rei91, Cor90, CCR+91].

Collectors [O’N92, Sto82]. College [WK89]. color [Sco94]. COLOSSUS [Ran80a, BWV+88, Cha83, Coo83, Cop06, Flo83, Ran82], Sal00, WG82]. come [Wil00].

Comes [BSS84, Bri79, Mor84].

Commemoration [BH89b, Kis91, LP81].

Comment [BR5+89, BB82, CS85, FW85, GGB85, Kes86, Mor86, Phe82, Ran81, TS85, GMT85].

Commentaries [Ano88d, AWL+88].

Commentary [ABE+81]. Comments [AMTC80, Ano79a, Ano81b, Bas83, BMC81, BSEW83, BS84, BRG+87, BGL+87, BW88, BGR88, BWV+88, BGS88, BRS+89, BHB+89, BHW+90, BDH90, BC90, BDA91, BGH+91, BW91, BHM85, BB91, Cib85, Eva83a, FW85, GGB85, Gro91a, Hi91, KTW84, Lee91f, MKR82, Mil86, Mor86, Phe82, PAD82, FW86, Ran87, RA86, Rob87, RL81, RB85, RBZ82, RGB83, Spr80, SW80, TBLJ90, UV81, Wei85a, WMS+89, Zaus80a, BRS+89, RBZ82]. Committee [Ano85i, ML87, Mer82, Sam80, vdPWB82, Ano83-32, CK82b, MC83a, SC85, WSC+88].

Common [CMF+90, Ki98].

Commonplace [Kidd80]. Communication [CMF+90, CB90, Fan88, Sha48a, Sha48b, Phi89, Yat89].

Communications [CK87, CF89, CMF+90]. companies [PW82, PW84b, PWA92].

Companion
Company

CCR, Col91, MK90a, BH89d, Ano83i.

Competition

Ano82e, CMF, CF89, Flas87, AWB88.

Competitiveness [OLCJ91]. Compiler

Ano83-32, Ard86, Nut84, TTD82.

Compilers [All84].

Complete

For81, Fut07.

Completed

Cer80.

Complexities

CL05.

Components

For83, Hus00.

Comprehensive [dLB07].

computability

Pet08.

Computation

Ano48, Ano86c, AWL88, Cure89b, Eck82, MN88a, WH84, Wil85b, Eck40, EMS84, Mah00, AW89, GMT85.

Computations [BHMU85, Hur85, Med88].

Compiler

Ano83-32, Ard86, Nut84, TTG82.

Compilers

All84.

Complete

For81, Fut07.

Completed

Cer80.

Complexity

Pet08.

Computation

Ano48, Ano86c, AWL88, Cure89b, Eck82, MN88a, WH84, Wil85b, Eck40, EMS84, Mah00, AW89, GMT85.

Computations [BHMU85, Hur85, Med88].

Compiler

Ano83-32, Ard86, Nut84, TTG82.

Compilers

All84.

Complete

For81, Fut07.

Completed

Cer80.

Complexity

Pet08.

Computation

Ano48, Ano86c, AWL88, Cure89b, Eck82, MN88a, WH84, Wil85b, Eck40, EMS84, Mah00, AW89, GMT85.

Computations [BHMU85, Hur85, Med88].

Compiler

Ano83-32, Ard86, Nut84, TTG82.

Compilers

All84.

Complete

For81, Fut07.

Completed

Cer80.

Complexity

Pet08.

Computation

Ano48, Ano86c, AWL88, Cure89b, Eck82, MN88a, WH84, Wil85b, Eck40, EMS84, Mah00, AW89, GMT85.
BHB$^+$89, BHW$^+$90, BDH90, BC90, BDA91, BGH$^+$91, BW91, BB91, FW85, GGB85, Gro91a, Hl91, KTW84, Lee91f, MKR82, Mil86, Mor86, Phe82, PAD82, PV86, RA86, Rob87, RL81, RB85, RBZ83, RGB83, Spr80, SW80, UV80, Wei85a, WMS$^+$89, Zus80a]. Debugging [BH81, TTB$^+$88, Voo83b].

Decade [LA91].

December [HEA$^+$83, MM97].

Deciphered [Ano81e, Rej81].

Decisions [Pug84].

Dedicated [Zem79].

Dedication [Ano83o].

Defense [Ano48, MZ88].

Design [AJ83, Bar90, EZB83, Arm83, McC83f].

Detective [Fut73].

Deterrence [Mac92b, Mac92a, Mac99].

DEUCE [Wil80b].

DEUG [Wil80b].

DEUTSCH [MZ88, OLCJ91, WSC$^+$88].

Development [Ano83-33, AWL$^+$88, Bau80, Big80, CK82a, Chu80, Cus91, ESB80, Eve86, Hei91, Hur80, KIS91, KT80b, Lav80a, Luk80, MKW92, PB87, TDCKW84].

Developments [Ano88b, AWL$^+$88, Bir80, Mai88, McC83b, MM80, San82, WTE$^+$85, Wil80a, Ano80b, Har47a, Har84, Phe80].

Devices [Mau82b].

Devouring [CW91, Jen90].

diatoms [Sma46].

Dictionary [Ano83-35]. Did [Ham80].

Difference [AFB$^+$89, BCKS$^+$83, CW91, TBGE89, TW87, Lin87, Lin90, Swa91, BRG$^+$87, Coh88, Fra81, Rob87, Swa01].

Differential [LS83, MRFS87]. Diffusion [Asp86, AWL$^+$88, CW91, MK90b, RvN85, PB87, RUVN47].

Digest [Mil85].

Digital [AB82, Ano48, Ano80c, AWL$^+$88, Ata84, Bar87, Bau80, BMC81, Bla80, CCKSS90, Gre91, Gro80b, Har47b, Har51, Har85a, Mar80, MHS82, Ran79, Ran80b, Ran82k, Ran82l, SW80, Ste80a, TG91, TDCKW84, WR81, WK82, CK85, Cer83, Hop80, Smi10, All91, Ano81j, Ano81k, Ano82g, BUR81, Cer80, O'N91, RH88, RH90].

Dijkstra [TLR$^+$91]. dimension [MM82].

Directions [BHP87, CCKSS90, Gre81].

Director [Ano83-34, Ano81j, Ano83-33].

discoverers [Nat88, CLBdBB91]. Discovery [Dor84].

[ABET$^+$83, Asp89a, BBC$^+$87, BG88, BGV82, HOAS84, TBB$^+$83, TWPP91].

Disk [TBGE89].

District [Pet83].

Dits [BCKS$^+$83, Luk79]. Dively [Wei89a].

d'Ocagne [ARE$^+$87].

Documentation [Lee91g].

DODCI [WD85].

Does [BHW$^+$90, Ros84b].

Donald [CFK$^+$91].

donates [All91].

Doran [AWL$^+$88].

Dorothy [ZT86].

Dover [Ano83i, Bak83, Med88, Sch83].

Dov [Aue85].

downlink [Sco94].

Dr [Mer82, dBV88].

[Dr. [TBLJ90].

Draft [vN82].

Drafting [SW80].

Dramatic [Wil91b].

Dream [CDW92, PS91].

Drum [HK86, Tri86].

DSDPS [Jon89].

Dual [Ano83n].

Dubey [HG79].

Dudley [THWV88].

Duncan [CCR$^+$91, Smi91].

Dusen [Fun07].

Dutch [BWV$^+$88].

Dvorak [WTE$^+$85].

Dynamic [Sak84].

DYSTAL [Sak84].

E. [LS82, TDCKW84, WTE$^+$85].

E.T. [Lec90].

Early [All84, And82, Ano79a, Ano80c, Ano83l, Ano85f, Ard86, AG89, Bae84b, Bau80, BP84, Ber86, BRI84, BEG$^+$87, BWV$^+$88, BG88, BDA91, BGH$^+$91, Bül90, BMU85, CK80a, CK80b, Cer81, CW91, DJ80, ESB80, GL81, Goo79, Gro91a, Hug84, Hur81, Hur85, Hus91, Kes80, KT80b, Lav80b, Lav80c, Mau84, MKR82, McC91, McC84, MC84, McP84,
Essential [KTW84, MHR80, Tor82b, MHR85].
Essq [BH88].
Established [Ano82e]. Established [Ano82e]. Estados [PW84a].
Established [Ano82e]. Established [Ano82e]. Estimate [Mer82].
Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Evans [LTC+81, O’N92]. Evans [LTC+81, O’N92].
Herman [Aus82, Kis91, Ton80]. heroes [Lev84, Lev85]. Hexadecimal [BRG+87, BEG+87]. High [ACK89, CCKSS90, CCR+91, CW91, Col91, For87, Mau82b, Nor90, vN81a, BH89d, Fla88, Pen89, Pen90, Sei00]. High-Speed [vN81a]. High-Tech [CCKSS90, For87, CW91, Pen89, Pen90, Sei00]. High-technology [CCKSS90, For87, CW91, Pen89, Pen90, Sei00]. Historians [Sto82]. Historic [Ano79d, Pet08]. Historical [Ano83-33, Bas82, CCR+91, Col91, Gre91, MM80, Smi88, TG91, WT91b, WT91c, All91, BH89d, Sei00, Ano83-35]. Historiography [May80]. History [dLB07, de 84, Asp00, Bur03, CK89, Cor90, FMM83, Gar85, Gar87, Gol77, KK85, Kis00, Lay89, LT89, Luk79, MK892, McC79, MW72, MHR85, OLCJ91, Pea88, RS80b, RH00, RH02, Sam91a, Shuf84, Smu46, Ste80d, VTA00, Vin90, Vin93, Wil85c, Wil85d, Wil97, Win98, All91, Ano81i, Ano82g, BSEW83, BK88, CCR+91, CFK+91, Fla91, RS80a, TDCKW84, WSC+88].

Hocheiser [CCR+91, Col91]. Hodges [TDCKW84, CK84]. Hoelzer [Lan00, Tom85a]. Hofstra [GIS90]. Hollerith [Aus82, Kis91, RA86]. Home [THWV88]. Honor [CK82b, WR81]. Honorary [Cer00]. Historical [Ano79d, Pet08]. Historians [Sto82]. Historic [Ano79d, Pet08]. Historical [Ano83-33, Bas82, CCR+91, Col91, Gre91, MM80, Smi88, TG91, WT91b, WT91c, All91, BH89d, Sei00, Ano83-35]. Historiography [May80]. History [dLB07, de 84, Asp00, Bur03, CK89, Cor90, FMM83, Gar85, Gar87, Gol77, KK85, Kis00, Lay89, LT89, Luk79, MK892, McC79, MW72, MHR85, OLCJ91, Pea88, RS80b, RH00, RH02, Sam91a, Shuf84, Smu46, Ste80d, VTA00, Vin90, Vin93, Wil85c, Wil97, Win98, All91, Ano81i, Ano82g, BSEW83, BK88, CCR+91, CFK+91, Fla91, RS80a, TDCKW84, WSC+88].

I. [BCKS+83]. I/O [GM85]. IBM [Ano80b, Ano83z, Aus81, CW84, CMF+90, GM85, Hur83c, MKR82, Noh84, TDCKW84, TSD+87, Ano83-27, Ano83-36, Ano86o, Bas83, BEG+87, BK88, CW84, FM83, FW85, Gal86d, Glx86, Gor86, GGB85, Hae86, HK86, Her86, Hung86, Hur80, Hur81, Hur83a, Hur83c, Hur86a, Joh83, Knu86, LS83, LH86, Lee84c, Mas83, O’N92, Phe80, Pug84, Ran82b, RBZ82, Ryc83, ST82, SN86, Smi83, SS10, Sob86, Swe83, TD88, Tr86, Ver89, Voo83b, Wat90, WP00, WC90]. ICL [CFK+91, CK89, Fl91]. Ideas [CW91, Pen89, Pen90, Per86, TK89]. identification [BW91]. IEEE [WSC+88, CCKSS90, O’N92]. IFIP [FL86, Aue86b]. Ignored [AW89, SA88]. II [O’N92, Wex93, Boc79, Hei84, Phi89]. II.vi.5 [CH90]. III [Bac79]. Iliac [BCKS+83, Rob80, Hor82]. illustrate [Sma46]. Illustrated [Aug84, CCKSS90, Tim89]. Illustrations [Sam91d]. image [AF85, CFK+91]. Impact [Ano88b, AWL+88, Gre84, WTE+85, For81, Har47a, Har84, Wil85e]. implementation [MM82]. implementations [KTW84, Knu84]. implications [Sco94].
Important [Tak80]. Impossible [SHH81, TTB*88, Str65]. Impressions [Bac80, AWL*88, Cad86]. Inaccessible [Gre91, TG91]. inaugural [Har47a, Inc. TC79, Tom80]. Inc. [Asc83]. Inc. [Ano83-28, Ano83-29, Ano84f, Ano84g, Ano85g, Ano86i, Ano86j, Ano87b, Ano88c, Ano88e, Ano88f, Ano88g, Ano88h, Ano89d, Ano90, Ran82f, Ran82h, Tim89, CCKSS90]. Indexes [Ano81h, MHR85]. Indices [Ano88g]. industrial [Ben91, CWM*91, Pet00]. industries [Ben91, CWM*91, Dor87a, AFB*89]. Industry [ACK89, Bou90, BL82, CWM*91, FMM83, Fla88, Pu84, CW84, WTE*85]. Influence [Mac91, Ste80a, HT79, HH79, Zem79]. Informatica [dBDvdR71]. Informatics [Blu87, BD90, Bou90, Kun90, MZ88, Ram89, Sni91, Tro82b, CCR*91]. Information [Ano81k, Ano83-28, Asp85b, AWL*88, Asu82, CLBdv89, CMF*90, CW91, Gre91, Gu80, O*N92, TG91, WTE*85, WK89, WSC*88, Zem90a, Zem90b, dLB07, Ben86, Ber84, Ber87, For87, LT89, OLCJ91, Pen89, Pen90, Per87, BSE83, SN86]. informatique [CW91, MK90b]. initial [Wad00]. Inmos [AWL*88, MR85a, MR85b]. Innocence [CW91, Ros89]. Innovation [AWL*88, AFB*89, Dor87a, Ele81, CW91, MK90b, PB87, SWT*81]. input [Wad00]. inquiry [McC79]. Installation [Ama83, Ano83t, Ano83w, Cha83, MP83, Ros83, Til83, Zus80b]. Institut [MK89b]. Institute [GIS90, Gu80, MN88b, Ob180a, WSC*88, All91, Asp00, Big80]. Institution [O*N92, WSC*88, All91]. institutional [BMK90]. Institutionalization [Ada84]. Institutions [McP84, Coh88]. Instructions [Ano82c, Ano83-30, Ano84h, Ano85h, Ano86k]. Instrument [BGvN82, Ben91, CWM*91]. Instruments [Ano88b, AWL*88, Har49, WTE*85, Wil83, Har50, Har53, Har84]. Integrator [GG82]. Intelligenz [CWM*91]. Intelligence [AMW*88, Blo87, Cop04, MK89b, SBET85, FM83, FM84a, HT79, HH79, Hin93, Hod85, McC79]. Intelligenz [Bül88]. Interaction [Ula80]. Interest [O*N92]. Intermediate [Ano85i, SC85]. Intermediate-Range [Ano85i, SC85]. International [Asp86, AWL*88, BFI89b, CMF*90, OLCJ91, dBvV81b, CF89, Fla87, dBvV81a]. internationally [BGR88]. Internet [Win98]. Interpolator [Ces82]. Interpreter [Ano86w]. Interview [TBLJ90, TWA*87, WTZ90]. Interviews [BH89c, AA85a]. intricate [Fut07]. Introduction [Ano82d, Eva83b, Lee85, Ran82g, TBS88, TWA*87, Wil88, WSC*88, Yan86]. introductory [MHR85, Sma46]. Invented [AW89, SW80, Bur03, Smi10, SA88, Sae11]. Inventing [BMC81]. Invention [BRS*89, Hei91, Kis91, TTB*88, Wei85b, Hal09, Lea05]. inventor [Lan00]. Inventors [Bül90, CLBdv89, Nat88]. Inventos [OLCJ91, dBvV81a, San80]. Invited [Car86b]. Invited [Ano83-33]. Involvement [WSC*88]. Inyokern [Til83]. IPM [DW82, dB86]. Irving [TWA*87]. Islamic [AA85b]. Issue [Ano84a, Ano84b, Ano84c, Ano85a, Ano85b, Ano85c, Ano85d, BDH90, Eve83a, Gal79a, Gal79b, Gal80a, Gal80b, Gal80c, Gal80d, Gal81a, Gal81b, Gal81c, Gal81d, Gal82a, Gal82b, Gal82c, Gal82d, Gal83a, Gal83b, Gal86c, Gal86a, Gal86b, Gal87a, Hur83a, Hur86a, LT84, Lee87a, Lee87b, Lee88a, Lee88b, Lee88c, Lee88d, Lee89a, Lee89b, Lee89c, Lee90d, Lee90h, Lee90a, Lee90b, Lee90c, Lee91a, Lee91b, Lee91c, Lee91d, TDCKW84, Wei91a, Lee85]. issued [OLCJ91]. Italian [BG88]. IV [BCKS*83, Hei84, Hor82]. Ivar [Aue84]. Iverson [SS80].

January [ACM00, Ano48, AWB+88, Har85a, Ano85f].

Japan [AFI72, Bei75, Tak72, TSD+87, AFI72, FM83, FM84a, Sob86, Sue80, SS80, Tak86].

Japanese [Oko00, Tak80].

Jay [Eva83d].

Jennings [CW91].

Jersey [MN88a].

Jessie [WCB90].

Joel [BSS84].

Johann [AFB+89, CW91, Lin87, Lin90].

John [TTG82, Asp80, Asp89a, Asp89c, Asp90d, BH81, Bri89, BH98b, CMR+83, FW88, GHS80, Haw88, How88, Mac92a, Mac92b, Mac99, Mau84, Smi10, Ste80a, Ste80b, SZ84, Tod80, Uba82, Vns89, Wei88c, Wei89b, WT91a, WIR91].

JOHNNIAC [Gru79, Wil79].

Johnson [TBLJ90].

Jointly [Ano48].

Jonathan [TTB+88, Wei88b].

José [WCB90].

Joseph [BHW+90, WWCP92].

JOSS [BH81, Mar82].

Journal [TDCKW84, Ano83-33, FW85, GGB85].

Julie [Phi81].

July [Ano85f].

June [ABE+83, Aue86a, GIS90].

K. [Buc80a, GL81, Har81, WS86, WLC86].

Kapera [CWM+91].

Kawasaki [CB90].

Kelly [Fla91, WLC86, CKF+91].

Kemeny [Ano83-34, WS86].

Ken [CCKSS90, RH88, RH90].

Kennedy [Mer82].

Kent [Wei89b].

Keuffel [CB90, Otn89].

Keyboards [CFK+91, Mar90].

Khāwarizmi [CH90].

Khorezm [Zem79].

Khorezmi [Zem79, CKSW83, SZ84].

Khwarizmi [CFK+91].

Kidder [Dor82].

Kilien [CMF+90].

King [AWB+88].

Know [CCR+91, Ham80, Lub91, Vin90, Vin93].

Knuth [CFK+91, AS82].

Knutsen [Hei91].

kompanii [PW86].

Konrad [Buc80a, Bau00, Cer80, Cer81, Cza79, Pet00, Roj00, Spe00].

Kozaczuk [WTE+85, AWL+88].

Kruh [CFK+91, SE86, CCKSS90].

Kuhn [CW91].

Kunstliche [CWM+91].

Kurt [Buc83].

Kurtz [O’N92, WS86].

kuistung [Bil88].

L [Buc83, GMT85, HG79, Mer82, SWT+81, SR82, SE86, Wei89a, WT91a, WS86].

L. [Ano83-31, Tro83a].

Laboratories [Alt82, Ano82a, Ber87, Cur89a, Cur89c, Mac91, Ram82d, Rye83].

Laboratory [Ano48, Ano83l, AWL+88, Pat90, CK81, CK87, Chu80, Kis83, Noh84, Voo83a, Wil80b, WH84, WD85].

labours [BH88].

Labs [WTE+85, Ber84].

Lady [SHH81, HH80].

Lake [THB93].

Lambda [Ros84c].

Lambda-Calculus [Ros84c].

LaMotte [Ano83-31].

Language [Sak84, Sam91d, SN86, Wei80, KK85].

Languages [Ano85f, CB90, Gre81, KT80b, O’N92, SH79, Wex93, dBV81a, Nij88, Wex81, dBV81b, Ano85f, dBV81a, SWT+81, SR82, Tro82a].

LaPrairie [CKSW83].

laptop [Sco94].

Large [Ano48, AWL+88, Ata82, Ben83, Cur89b, Har47b, Har51, Har85a, Kis91, MHS82, SN81b, vN88].

Large-Scale [Ano48, AWL+88, Har47b, Har51, Har85a, MHS82, vN81b, vN88].

Late [TPG+89, BB88].

Later [Zem90a].

Lavington [GL81].

Law [THWV88].

Lawrence [WD85, Kis83].

leading [Pug84].

Learning [CCKSS90, Hawxx, Tra66].

Lebenswerk [WLC86, Zus70, Zus84].

lecciones [PW84a].

Lecture [CK82b, TA81, WG82, Har47a, TWA+87].

lectures [CKW85, Ers80, KT80a, PAD82, WLC86].

Ledger [TDCKW84].

Lee [Bur81, SWT+81, WWCP92, CCKSS90].
Legacy [GIS90, Ste85a, AFB+89, ZT86].
legal [Bur03]. legitimate [Moo77]. Leslie [TGG82]. Lessons
[AFB+89, Dor87a, PW82, PW84b, PWA92]. Letter [Ano83-31, Har83c, LH86, Str65, TWA+87, Van83, Knu84, Ano82d]. Letters
Library [Blu87, CFK+91, CH90, Wll81b]. Licklider [CW91]. Life
[AFB+89, BW+90, CW91, Cop04, Sim91, TSD+87, Wat90, ZTs93, BH88, EIs89, Gro91b, Mac83, Sto85a, WP00, CCKSS90, CDW92, CWM+91]. Lilley [CMF+90]. Limits [CCKSS90, WSC+88, Cer89]. LINC [RS82]. Lindgren [WS86, AFB+89, CW91]. Linear [Ata82, BRS+89, BW+90, Dor84]. Linkages [Svo80]. Linman [WTZ90]. List
[O’N92]. Literature
[ARE+87, ASS87, AMW+88, AWL+88]. Livernois [Kis83, WDB5, Hug84, Mac91]. lives [As172, Asi82]. living [As164]. LL.D
Lockheed [Ana83]. Logarithmic [GG90]. Logarithms [CK88]. Logic
[Ano81i, Cop04, Asp80, Ano82g]. Logical
[Asc83, BGVN82, Tra66].
Logical-Numerical [Asc83]. London
[Boo80, RSS80a]. Look [Zem90a, Zem90b]. Looking
[ARE+87, Wll85c]. looks [Cer00]. Louis [Ram89, WTZ90]. Lovelace
[HH80, HG79, M0077, SH81]. Lucas
[KTW84, Wll83]. Iuchshikh [PW86]. Ludgate [Ran82k]. Lugano [Kin87]. Lukoff
[BCKS+83, Ton80]. Lundstrom [CLBD89].
M [Ano80c, AWL+88, BCKS+83, CW84, Eva83c, GL81, HG79, O’N91, PAD82, SBET85, WLC86]. M.
[Buc80b, SSS8, TDCKW84, WLC86]. M.D
[Fut07]. MacDonald [Wei88a]. MacHale
[TSD+87]. Machine
[Aik82, Alt82, AWL+88, AWB+88, AFB+89, Ata82, Aus81, Bus82, Con82b, DK85, Gor86, Haw88, Kes80, Kid81, Kid90a, Kid91, Kin87, LS83, MK89b, Ree85, SE86, THWV88, Tor82a, WTE+85, Cra82, Fut87, FKK88, Fut59, Her88, Her95, Koz84a, Koz84b, PS91, BCKS+83, BHB+89, CDW92, Dor82, Fut73, Fut76, Lud82, Mer82, Pet08]. Machinery
[AWB+88, CW91, Cha80, Har85a, Nor85, Sti82a, Ano48, AWL+88, Har47b, Har51, Tro87]. Machines [Ano79a, Ano80c, Ano88b, AWL+88, Bur81, CFK+91, Cou82a, Gra73, Har49, Hei91, Kid90b, KTD80a, Mau82a, McC79, Sch82, WTE+87, de 84, vN81b, vN88, AF85, Har47a, Har50, Har53, Har84, MKW92, OLCL91, Rej00, AWL+88, Buc80b, Obi80a, RWSW85, WTE+85]. Macintosh [CB90, Kaw90]. MacWilliams
[WCB90]. MAD [TGG82]. MADDIDA
[TWA+87]. Made [MK90c]. Madrid
[KTW84, San82, Tom88]. Maestro
[CFK+91, Mar90]. Magnetic [HK86, Tri86]. mainframes [Shu96]. Maintenance
[Cha83]. Major [CCR+91, Rei91, Cor90]. Making
[ARE+87, CMF+90, Coo83, KIl88, McM84]. Man [CFK+91, AF85, Lea05, Smi10]. Management [Be175, Mac87, Ben91, CWM+91, Yat89, CMF+90]. Managing
[CW91, Pen89, Pen90]. Manchester
[Ano80c, BMT81, Bur00, C80b, LDr80a, Nap00]. Mancke
[CW84]. MANIAC
[Ano83i, Ano83n, Ano83-27, Ano86o, AWL+88, Har46, Har85b, Ano83-36]. manufacturing [Pet00]. Many
[CFK+91, Mar90]. Marcel [WTZ90]. Marian [BEG+87]. Mark
[Ano80c, BMC81, Nap00, Wei91d, CK80b]. Market
[AFB+89, Dor87a, Phi89]. Marketing [Ad88, BGR88, Smi83]. Marks
[WT91b, WT91c]. Marling
[CFK+91]. Martin [Fla91]. Maryland
multimedia [Sc94]. multiprocessor [Phi89].
multiprogrammed [Phi89].
Munich [WSC+88, MZ88]. Murderer [Hul41, CKSW83]. Murphy [THW88].
Murray [O’N92]. Musée [All91]. Museum [All91, Ano83-34, MZ88, RS80a, WLC86, WSC+88, OLCJ91, Ano87, Ano81k, Bur81, CK82b, Cer80, MHW87, OLCJ91, WR81, RPE+85]. Museums [All91, WSC+88, Wil89, Wil90]. My [CW91, CDW92, Eis89, Sim91, TPG+89, Wat90, Zus93, WP00]. mysteries [Fut07].
Neil [Wei88a]. Nest [Ver90]. Netherlands [vdE92]. Neumann [CLBdB89, CFK+91, CW91, GIS90, NH89, Asp80, Asp89a, Asp89b, Asp90c, Asp90d, Bri89, BH98b, Cer00, GIS90, HEP90, How88, Mac92a, Mac92b, Mac99, Mcc83d, SW80, Ste80a, TWA+87, Ula80, Ula82, Von89]. Neutron [RvN85, RUVN47]. News [Ano79c, Ano79d, Ano80e, Ano81i, Ano81j, Ano81k, Ano82e, Ano82f, Ano82g, Ano83-34, Ano83-35, Ano84i, Ano84j, Ano84k, Ano84l, Ano85j, Ano85k, Ano85l, Ano86l, Ano86m, Ano86n, Buc83, Bur81, CK82b, Cer80, Dor87b, RS80a].
Not a programmer [Mar82]. Norberg [CW91]. Norbert [Ano87d, AWL+88, MM97, Mas90]. NORC [vN81a]. Norden [CCKSS90, Sea89]. Norris [AWL+88, Wor87]. North [Str83, Tro83b].
Northrop [AMTC80]. Notation [BCKS+83, BRG+87, BEG+87, Fra81].
Note [Ano83c, Ano83q, Ano83p, Ano83o, Ano83r, Ano83s, Ano83t, Ano83u, Ano83v, Ano83w, Ano83x, Ano83y, Ano83z, Ano83b, Ano86a, Ano86b, Ano86c, Ano86d, Ano86e, Ano86f, Ano86g, Ano86p, CCR+91, Cer91a, Fin84, GGB85, Hur85, RB81, CK85]. Notebooks [Wil81a]. notes [Coh88, BH98+90, vLPW82].
Nothing [Cer00]. Notices [Ano79c, Ano79d, Ano81i, Ano81l, Ano81k, Ano82e, Ano82f, Ano82g, Ano83-34, Ano83-35, Ano84i, Ano84j, Ano84k, Ano84l, Ano85m, Ano85n, Ano85o, Ano85p, Ano86l, Ano86m, Ano86n, Buc83, Bur81, CK82b, Cer80, Dor87b, RS80a].
O [Buc83, O’N92, GM85]. O. [BCKS+83, SBET95]. Oak [Hou80]. Obituaries [Buc83, Wei89b, WCB90, WIR91, Wei91b]. Obituary [WK91, Wei91c]. Obra [LTC+81, San80]. observation [Fut07].
Prehistory [TDCKW84, Zem80, Cer83, Lay89]. Preliminary [Bir83, BGvN82].
Preparation [Mau82a]. preprints [Wex93]. present [Asi72, Asi82, CK00, Van89,
Van91a, Van91b, CCKSS90]. presented [Blu87]. Presents [Ano83-34].
Preserving [Ste80c]. Presidents [WHG +86]. preview [Wil00]. Previous [CS85, Kes86, TS85]. Price [RWSW85].
Prize [BK wake]. Problem [BCKS +83, Fra81, GH85]. Problems [Mau82a, vN81a]. Proceedings [ACM00, AFIT2, Ano48, Ano79c, Har47b, Har51, Har85a, MM97, dBvV81a, Blu87, Kin87, dBvV81b, AWL +88, GIS90, Smi84].
Process [Leh80, Ben91, CWM +91]. Processing [Ano81k, Aus82, BBB59, CW84, CCR +91, EZB83, Kis91, LS83, Mii85, Rei91, SN86, WSC +88, Zem90a, Zem90b, Cor90, FMM83, Kis80, OLCJ91, Ano83-35, Gul80, WSC +88].
Cur89b, McC83e, MJ84, Ran82m, Ree82, RS82, SHH81, Swe83, TTB +88, TDCKW84, WK89, All91, Bre00, Cer83, OLCJ91, Str65, Tra66, Buc83, PV86, RS80a, Ree85].
program-controlled [OLCJ91].
Programmed [ST82]. Programmer [Dij80]. Programming [Ano80c, Ano83l, Ano83v, Ano86o, Ano86p, Bac80, BMC81, CK80a, CK80b, CK81, CK82a, Dor84, ESB80, Fra81, KT80b, O’N92, OH84, SWT +81, Sam91d, SR82, SH79, TMRL89, TKE90, Ver90, Wex93, Wil80a, Spe00, Wex81, Ano80c, Ano83l, BCKS +83, BR +89, BW +90]. Programs [Ben83, McC83b, Roc83a, Voo83b].
progress [OLCJ91]. Project [Ano83-32, Gla91, GL81, Tho80b, Sam91a, Buc62, RS80b, Roc83b, Tro80, WMS +89]. Projects [Ano82g]. Prologue [BH89b, DT86, Hur83d, Hur86c, Ros87].
Quantum [Med88]. Quarter [AAA +86, Rec86, WHG +86]. Quarter-Century [AAA +86, Rec86, WHG +86]. Queisser [AMW +88]. Queries [AMTC80, Ano79a, Ano81b, Bas83, BMC81, B84, BRG +87, BEG +87, BKWK88, BVW +88, BG88, BR +89, BHH +89, BHH +90, BDH90, BC90, BDA91, BG +91, BW91, BB91, FW85, GGB85, Gro91a, Hii91, KTW84, Lee91f, MKR82, Mii86, Mor86, Phe82, PAD82, PV86, RA86, Rob87, RL81, RBZ82, RGB83, Spr80, SW80, UV81, Wei85a, WMS +89, Zus80a]. Query [Ano81b, BRG +87, BEG +87, RGB83].
CLbdB89, CCKSS90, CMF*90, CB90, CCR*91, CFK*91, CWM*91, CW91, CDW92, D082, GL81, GMT85, Ham79, HG79, KST80a, LTC*81, LB81, RWSW85, SWT*81, SR82, Smi84, SBET85, SE86, SS80, Tro82b, Tro82a, TDCKW84, TSD*87, VBC83, WTE*85, WS86, WLC86, ZT86, Ano80c, Ano81e, Ano88b, Buc80b]. Revisited [Cun85a, Sej89, Bau00].

Revolution [AWB*88, For80, For81, Ben86, For87, Gar85, Gar87, Lev84, Lev85, Mol89, Py170, PB89, AWL*88, CCKSS90, Ham79, SR82].


Sales [Ano83w]. Samuel [WT91a, WWCP92]. Santa [Noh84, Bak83]. Santesmases [LTC*81, WCB90]. SAP0 [Bla80]. Saul [Wei91b, WWCP92]. Savannah [Hae86]. Scale [Ano48, AWL*88, Har47b, Har51, Har85a, Kis91, MHS82, vN81b, vN88]. Scene [BEG*87]. Scenes [Bii90]. Scheme [Con82b, Bre00]. Scheutz [THWV88, AFB*89, CW91, Lin87, Lin90, TBGE89]. Scholarship [O’N92]. School [Sam91a, Ste85b, WLC86, CKW85, MHW87, RB85]. Science [AWL*88, Asp89b, BHS88, BSEW83, BCKS*83, BK88, BHW*90, CSW90, Cer88, CMF*90, CMR*83, Hy88, LP81, Mai88, McC83a, RS80a, Sch85, WS86, WSC*88, Zem79, As64, As82, As80, BMK90, Gar85, Gar87, Har81, LT89, OLC91, RM76, RRR9, RR83, RRR9, Tom87, WL85]. Sciences [MK90a]. Scientific [Ano79c, Asp85b, Asp89a, AW89, BHMU85, CCKSS90, GMT85, Hur85, Mac92b, MN88a, Nas90, Voo83a, Wil81b, Eck40, EM84, Mac92a, Mac99]. Scientists [Kid90b, May80, As64, As82, Hal90, Hof90]. sculpture [OLC91]. SDC [Bau81]. SEA [Ray89, Sta90]. SEAC [Stu80]. Search [BCKS*83, Tra84, PW82, PW84b, PW85, PWA92]. Searle [CCKSS90]. Second [O’N92, SBET85, Har51, HT79, HH79, Hin93, Wex93]. Secondary [Asp87, Mac87]. secret [Fra84, Fra85, SBET85]. Secrets [Cop04, Cop06]. secure [MM82]. Security [dLB07, MM82]. Seen [Bir80, Roc83b].

Segments [Lee91g]. Segundo [Sch83].

sezem [Cza79]. Selected [CSW90, Ran82, BH89a, Hy88].

Selections [DKK*98].

SELF [Ano83g, Ano83h, Ano83-37, Ano83-38, Ano84m, Ano84n, Ano84p, Ano85n, Ano85o, Ano85p, Ano85q, Ano86r, Ano86s, Ano86t, Ano86u, Ano88f, CS85, Kes86, Lee91e, Lee91i, Sam87a, Sam87b, Sam87c, Sam88a, Sam88b, Sam88c, Sam88d, Sam89a, Sam89b, Sam89c, Sam89d, Sam90a, Sam90b, Sam90c, Sam90d, Sam91c, Sam91d, TS85, Ano91a, Ano91b, Sam91a]. Self-Study [Ano83g, Ano83h, Ano83-37, Ano83-38, Ano84m, Ano84n, Ano84p, Ano85n, Ano85o, Ano85p, Ano85q, Ano86r, Ano86s,
Ano86t, Ano86u, Ano88f, CS85, Kes86, Lee91e, Lee91i, Sam87a, Sam87b, Sam87c, Sam88a, Sam88b, Sam88c, Sam88d, Sam89a, Sam89b, Sam89c, Sam89d, Sam90a, Sam90b, Sam90c, Sam90d, Sam91c, Sam91d, TS85, Ano91a, Ano91b, Sam91a, SEMA [LA91].

Semiconductor [AFB+89, Dor87a].


Shaped [WTE+85, Pug84]. SHARE [Noh84, vdPWB82, Arm80, MB80].

Shockley [Wei89b]. SHORT [Sch88, Gru80b]. SHOT [O’N92]. Should [Asp85a, SE86]. Showed [CW91, Hep90].

Shurkin [BSS84]. Sidelights [CCKSS90, Kru89]. Sidney [WIR91]. Sieve [Leh80]. SIGPLAN [O’N92, Wex93].

Silicon [AWB+88, Sla87, AWB+88, Cad86].

Simon [CDW92]. Simple [SBET85, The79, Tho83]. Simplifié [ARE+87, dO86]. Simplifying [ARE+87, dO86]. Simulator [Hol82b, CK90]. simulators [Oko00].

Simultaneous [Hum86]. since [Cer00]. Sine [BRG+87, Rob87]. single [SS10].

single-processor [SS10]. Site [Cer80]. Six [BCKS+83, Wel82]. Slater [AWB+88].

Slave [CFK+91, FG90]. slices [CWM+91, Gro91b]. Slide [CB90, Otn89, WLC86]. Small [WMS+89].

Smith [GL81, AW99]. Smithsonian [WSC+88, All91, BRG+87, O’N92, Tro80].

Snippets [WCB90]. SOAP [BH81]. Sobel [TSD+87]. Social [BHP87, CLBed89, CCKSS90, Mol89, Per87].

Societies [Ano86b]. Society [For87, Hof90, O’N92, Ben86, For81, Win98, Ano82e, AWB+88, CCKSS90, O’N92].

Sociological [AMW+88, Blo87]. Sociology [BHP87, CCKSS90]. Software [Asp87, Cus91, TPG+89, TKE90, Mor84, Oko00].

Solid [Ano82g]. Solid-State [Ano82g].

Solla [RWSW85]. Solution [Ara82, Hun86, LS83, MRFS87]. Some [Bac80, CCKSS90, Dou79, Gor86, Kru89, MM88, McC91, Sam91d, Tak80, Tro80, WC89, Zus80c, Wil85c, Wil00]. Son [CFK+91, Wat90, WP00]. Sought [BSEW83, BWK88].

Soul [Dor82, Kid81, Kid90a, Kid97]. Source [Ste80c]. Sources [Ano81k, Asp87].

Southern [Gru80b]. Soviet [BC90]. Soviets [TB84]. Space [WSC+88, Asis64].

Spacecraft [Tom85b]. spaceflight [CWM+91, Sco94, Tom87]. Spake [CFK+91, CH90]. Spanning [GH85].

Speaks [Burr81, WR81]. Special [Gal87a, Hur83a, Hur86a, Lee85, O’N92, Gal86c].

species [Sma46]. Specifications [MK90c].

Spectrum [CCKSS90, IE89]. Speeches [OW83]. Speed [Mau82b, vN81a].


Sponsored [Ano48]. SPREAD [ABE+83, Eva83b, HEA+83, HOAS84]. Sr. [TWPP91]. SSEC [Bas82, Hug86, MHS82, RBZ82]. stages [Jon89]. stamp [OLCJ91]. Stan [ZT86].

Stand [BHW+90]. Standard [Slu80].

Standardization [Gre84]. Standards [Hus80a, Hus80b, AG89, Cur89c]. Start [Ane86b, Tom80, TBLJ90]. State [Ano82g, AWB+88, Bau90, MM97, PAD82, Kin87].


Still [GGB85]. Stirring [WMS+89]. stock [Phi89]. Stokes [BCKS+83]. Storage [Bau90, Mac87, Sak84]. Stored [AW82, Asp90a, BP84, Bur80, CW91].
24

Ran82m, RS82, TDCKW84, Cer83, Tra66. Stored-Program [AW82, BP84, Bur80, RS82]. stories [Asi64, Fut73, BH81]. Story [BRS+89, BHW+90, CCKSS90, Fan88, Gre91, TG91, Bau81, BB88, For87, Lav80b, Lav80c, RH88, RH90, Wei82, AMW+88, BCK5+83, CB90]. Storytellers [CCKSS90, Sta85, Sta89]. Strachey [CK85, Cer80]. strategy [HT79, HH79]. Stretch [Buc62]. Structure [AFB+89, Dor87a]. Structured [TKE90]. structures [Mah00]. Struggle [TSD+87, Sob86]. Student [Sha89, TPG+89]. Studies [CCR+91, Lub91, LP81, Vin90, Vin93, BHB+89]. Study [Ano83g, Ano83h, Ano83+37, Ano83-38, Ano84m, Ano84n, Ano84o, Ano84p, Ano85n, Ano85o, Ano85p, Ano85q, Ano86r, Ano86s, Ano86t, Ano86u, Ano86v, Asp89a, Asp90, BHW+90, CS85, Kes86, Lee91e, Lee91i, O’N92, Sam88a, Sam88b, Sam88c, Sam88d, Sam89a, Sam89b, Sam89c, Sam89d, Sam90a, Sam90b, Sam90c, Sam90d, Sam91c, Sam91d, Sam91b, Ste79, TS85, Ano91a, Ano91b, Sam91b, Ste80d, Wil91b, Big80]. Subcommittee [CCKSS90]. Subject [Ano88b, Ran82h]. Subordinate [McC83e]. succeeded [Gla91]. Success [AWB+88, Wal81, Cad86]. successors [Ros84b]. Suggestions [Ano82i, Ano83-39, Ano84q, Ano85r, Ano86v]. Suitable [Cou82b]. Sumador [RL81]. Summary [Ano85f, Sam85, SG85, Sma46]. Summer [Bur81, GI90]. Summit [CFK+91]. Sumptuous [OLCJ91]. Sun [CW91, HB90]. Sunburst [CW91, HB90]. Supercomputer [CCKSS90, Hor82, SS10]. Supercomputing [Mac91]. superscritcher [Cra92]. Supplement [Tom87]. Supplementary [Ran80b]. Supply [Ano83a]. Support [AWB+88, Fl87]. survey [Ano81k, Asp85b, Tra84, WT91b, WT91c, Her88, Her95, Wil85e, AF8+89]. Survive [Ros84b]. Svoboda [Obl80b]. SwaC [Hus80a, Hus80b]. Swift [TTB+88, Wei85b]. Switching [And82]. Switzerland [Kin87, Sch81]. Symposia [Gru80a]. Symposium [AWL+88, dBvV81a, BH80b, CCK2b, Har51, Zem79, dBDvdR71, dBvV81b, Ano48, Har47b, Har85a, MN88b, Tra82b]. System [Ano83n, Ar68e, Asc83, CMF+90, ESB83, Hol82a, LK87, Oli87, Swe83, VBCC83, Wie83, Bau81, Buc62, Jon89, Sal00, Yat89, Ano83-27, Eva86, Pug84]. System/360 [Eva86, Pug84]. Systems [Ano85f, Ata82, BHP87, CCKSS90, Dav84, MM88, OH84, WMH82, WK89, MM82, Soc94].

T [GL81, WG82, WS86]. T. [BCK5+83, Dor82, SR82, SBET85]. Table [CK88]. Tables [Ano88b, BRG+87, GGG90, Rob87, WMS+89, Mer82, Sma46]. Tabulating [Hol82a, Kes80, RA86]. tabulator [Kis00]. Takahasi [SS80]. Tale [Str85, Fra84, Fra85]. Tales [CCKSS90, CW91, Kru89, Jen90]. Tanaka [Ano83-34]. Tape [Gre91, TG91]. Tapes [Ano81j]. Tapestry [Gre91, TG91]. Targeting [AWB+88, Fl87]. Tar ski [RB85, Add84]. Task [HEA+83]. Taylor [CW91]. Teaching [Tuk58]. Tech [CCKSS90, For87, CW91, Pen89, Pen90, Sca00]. Technical [CFK+91, Fl91, Mas83, Sch82, CK89, OLCJ91, Ano83x, Gre83]. Techniques [Nut84, Voo83b, CKW85, All91]. Technological [All84, AWB+88, BHP87, CCKSS90, CMF+90, OLCJ91, Ben86, CF89]. technology [MK90b, CW91]. Technologies [Gre91, TG91]. Technology [Asp86, AD86, AWL+88, BHP87, CW84, Cer88, CCKSS90, CCR+91, CW91, Col91, DKK+98, LP81, Mah88, MC89, MC89, Nor90, Sta85, Sta89, Ste79, Van89, Van91a, Van91b, dB86, Asi64, Asi72, Asi82, Asp00, BH89d, Fl88, For81, For87, OLCJ91, PB87, Ste80d, Tom87, Wil85d, Wil97, Win98].
ACK89, BCKS+83, CCKSS90, CFK+91, TSD+87. Tektronix [CCKSS90, Lee86].

television [Win98]. Telephone
[Alt82, And82, Ran82d]. Television
[CDW92]. Teller [BH89c]. Ten [Ano88e, Ano88f, Ano88g, Ano88h, Ano88i, Asp88].

Teresa [Noh84]. Terminus [Buc83]. Terms [TBGE89]. Testimony
[Hur81]. Testing [Alt82, And82, Ran82d]. Television
[CDW92]. Teller [BH89c]. Ten [Ano88e, Ano88f, Ano88g, Ano88h, Ano88i, Asp88].

Telephone [Win98]. Telephone
[Alt82, And82, Ran82d]. Television
[CDW92]. Teller [BH89c]. Ten [Ano88e, Ano88f, Ano88g, Ano88h, Ano88i, Asp88].

Teresa [Noh84]. Terminus [Buc83]. Terms [TBGE89]. Testimony
[Hur81]. Testing [Alt82, And82, Ran82d]. Television
[CDW92]. Teller [BH89c]. Ten [Ano88e, Ano88f, Ano88g, Ano88h, Ano88i, Asp88].


X [Fut07]. X3 [ML87]. Xerox [AW89, SA88].
REFERENCES

Yardley [CCKSS90, Kru89]. Yates [CMF+90]. Year [Ano88e, Ano88f, Ano88g, Ano88h, Ano88i, TPG+89]. Years [Ano80c, ARE+87, Asp88, BCKS+83, Buc80b, CCKSS90, Est91, Gra73, Lee86, Mai88, Mar80, Mau84, Mil85, Sch81, Von89, Zem90a, BL82, CWM+91, OLCJ91, Sto82, Wil85e]. York [GIS90, WMS+89].

Z. [Ham79]. Z3 [Cza79]. Z4 [Spe80, Spe00, Zus80b]. Zealand [ARE+87, Wil85e]. Zemanek [CKSW83, Tro85]. Zero [WTE+85, Ber84, Ber87]. zur [ARE+87, Ric85], Zurich [Spe00, Zus80b]. Zuse [Cza79, WLC86, Ano81k, Bau80, Bau00, Buc80a, Cer80, Cer81, Pet00, Roj00, Spe00].

References

Albers:1985:MPP


Albinus:1985:AIC


Armer:1986:RQC


Albers:1990:MMP


Andrews:1982:URD

REFERENCES


REFERENCES


REFERENCES

Astrahan:1983:HDS

Allen:1984:TRE

Allison:1991:MAM

Alt:1982:BTL

Amaya:1983:ILA

Amdahl:1983:R
REFERENCES


REFERENCES


REFERENCES

Anonymous:1980:CRM

Anonymous:1980:GA

Anonymous:1980:NGR

Anonymous:1980:Ra

Anonymous:1980:Rb

Anonymous:1981:AIV

Anonymous:1981:CQD
Anonymous:1981:CVA


Anonymous:1981:CAH


Anonymous:1981:CHP


Anonymous:1981:ES


Anonymous:1981:GA


Anonymous:1981:IV


Anonymous:1981:NNH

Anonymous. News and notices: History and Philosophy of Logic Award to Erwin Tomash; CBI moves to Minneapolis. *Annals of the History of Computing*, 3(1):72, Jan-
REFERENCES


CODEN AHCOE5. ISSN 0164-1239.


References


[Anonymous:1982:NNPa]


[Anonymous:1982:NNPb]


[Anonymous:1982:R]


[Anonymous:1983:UNA]


Anonymous:1983:CEM


Anonymous:1983:Ca


Anonymous:1983:Cb


Anonymous:1983:CPP


Anonymous:1983:CEC


Anonymous:1983:DCS


Anonymous:1983:ENAc

Anonymous. Editor’s note:

**Anonymous:1983:ENAb**

**Anonymous:1983:ENAa**

**Anonymous:1983:ENC**

**Anonymous:1983:ENPb**
Anonymous: 1983: ENS


Anonymous: 1983: ENTa


Anonymous: 1983: ENTb


Anonymous: 1983: FPA


Anonymous: 1983: ISS


Anonymous: 1983: II


Anonymous: 1983: IVA

Anonymous. Index, volume 4, Annals of the History of Com-

Anonymous:1983:NNAb


Anonymous:1983:NNM


Anonymous:1983:NNAb


Anonymous:1983:NNN

REFERENCES


[Ano84a] Anonymous:1984:AIa


[Ano84b] Anonymous:1984:AIb


[Ano84c] Anonymous:1984:AIc


REFERENCES

Anonymous:1985:AIa


Anonymous:1985:AIb


Anonymous:1985:AIc


Anonymous:1985:AId


Anonymous:1985:EMC


Anonymous:1985:IVA

REFERENCES

Anonymous:1985:IA

[Ano85h]

Anonymous:1985:MN

[Ano85i]

Anonymous:1985:NN

[Ano85j]

Anonymous:1985:N

[Ano85n]

Anonymous:1985:SSQA
Anonymous. Self-study questions & answers. *Annals
REFERENCES

Anonymous: 1985: SSQb

Anonymous: 1985: SSQc

Anonymous: 1985: SSQd

Anonymous: 1985: SA

Anonymous: 1986: AEN

Anonymous: 1986: BHA
REFERENCES


REFERENCES


Anonymous:1986:IVAb


Anonymous:1986:PAA

Anonymous:1986:Na

Anonymous:1986:Nb

Anonymous:1986:Nc

Anonymous:1986:OPI

Anonymous:1986:IA

Anonymous: 1986: SSQd


Anonymous: 1986: SA


Anonymous: 1986: WBI

REFERENCES


Anonymous:1988:TYIa


Anonymous:1988:TYIb


Anonymous:1988:TYS


Anonymous:1988:TYT


Anonymous:1989:Ca


Anonymous:1989:Cc


Anonymous:1989:HCF

Anonymous. History of computing in France. *Annals
REFERENCES

COE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1989/pdf/a4237.pdf; 

Anonymous:1989:IV

(4):337, 339–354, October/December 1989. CODEN AH- 
COE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1989/pdf/a4337.pdf; 

Anonymous:1990:IV

(4):297, 299–309, October/December 1990. CODEN AH- 
COE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1990/pdf/a4297.pdf; 

Anonymous:1991:ASSa

234, April/June 1991. CODEN AHCOE5. ISSN 0164-1239. URL 

Anonymous:1991:ASSb

October/December 1991. CODEN AH- 
COE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1991/pdf/a4358.pdf; 

Arden:1986:GEC

[Bru86] Bruce Arden. GAT: An early compiler and operating system. Annals of the History of 
Computing, 8(1):56–58, January/March 1986. CODEN AH- 
COE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1986/pdf/a1056.pdf; 

Aspray:1987:RMM

McMahon: The Making of a Profession: A Century of Electrical Engineering in America; d'Ocagne: 
Le Calcul Simplifié: Graphical and Mechanical Methods for Simplifying Calculations; Williams (ed.): Looking Back to Tomorrow: Reflections on Twenty-five Years of Comput-
ers in New Zealand; Richen- 
hagen: Carl Runge (1856–1927): 
Von der reinen Mathematik zur 
Numerik; other literature. Ann-
als of the History of Com-
puting, 9(3/4):373–381, July/
September 1987. CODEN AH-
COE5. ISSN 0164-1239. URL 
http://dlib.computer.org/ 
an/books/an1987/pdf/a3373.
pdf; http://www.computer.
org/annals/an1987/a3373abs. 
htm.

[Arm80] Paul Armer. SHARE — a eul-
ogy to cooperative effort. Ann-
als of the History of Com-
puting, 2(2):122–129, April/
June 1980. CODEN AH-
COE5. ISSN 0164-1239. URL 
http://dlib.computer.org/ 
an/books/an1980/pdf/a2122.
pdf; http://www.computer.
org/annals/an1980/a2122abs. 
htm. Foreword by M. I. Bernt-
stein.

[Arm83] Paul Armer. 11. the Defense 
Calculator at the Rand Cor-
noration. Annals of the His-
tory of Computing, 5(2):202, 
April/June 1983. CODEN AH-
COE5. ISSN 0164-1239. URL 
http://dlib.computer.org/ 
an/books/an1983/pdf/a2202a.
pdf; http://www.computer.
org/annals/an1983/a2202aabs. 
htm.

[AS82] Donald J. Albers and Lynn Arthur 
Steen. Biographies: a conver-
sation with Don Knuth. Ann-
als of the History of Com-
puting, 4(3):257–274, July/
September 1982. CODEN AH-
COE5. ISSN 0164-1239. URL 
http://dlib.computer.org/ 
an/books/an1982/pdf/a3257. 
pdf; http://www.computer.
org/annals/an1982/a3257abs. 
htm.

Ascher:1983:LNS

Marcia Ascher. The logical-
numerical system of Inca qui-
pus. Annals of the History of 
Computing, 5(3):268–278, July/
September 1983. CODEN AH-
COE5. ISSN 0164-1239. URL 
http://dlib.computer.org/ 
an/books/an1983/pdf/a3268. 
pdf; http://www.computer.
org/annals/an1983/a3268abs. 
htm.

Asimov:1964:ABE

Isaac Asimov. Asimov’s bio-
graphical encyclopedia of science 
and technology; the living sto-
ries of more than 1000 great sci-
entists from the age of Greece 
to the space age, chronologically 
arranged. Doubleday, New York, 
NY, USA, 1964. x + 662 pp. 
LCCN Q141.A74.

Asimov:1972:ABE

Isaac Asimov. Asimov’s bio-
graphical encyclopedia of science 
and technology; the lives and 
achievements of 1195 great sci-
entists from ancient times to 
the present, chronologically 
arranged. Doubleday, New York, 
NY, USA, new revised edition,
REFERENCES


Asimov:1982:ABE


Aspray:1980:MCC


Aspray:1986:IDC


Aspray:1987:ABS


Aspray:1988:RTY


REFERENCES


[Ata86b] Isaac L. Auerbach. The start of IFIP — personal recollec-
REFERENCES


Augarten:1984:BBI


Austrian:1981:AMC


Austrian:1982:HHF


Aspray:1982:MRP


Aspray:1989:RSA


Aspray:1988:RSP

References

Aspray:1988:RCD


Babbage:1982:MPC


Babbage:1982:BAE

[Bab82b] H. P. Babbage. Babbage's Analytical Engine (1910). In Randell [Ran82], pages 67–
REFERENCES


Backus:1979:HFI


Backus:1980:PAS


Backus:1984:A


Backus:1984:EDF


Bach:1986:CC


Baker:1983:DSM

REFERENCES


REFERENCES

<table>
<thead>
<tr>
<th>Burks:1981:EFG</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Burks:1982:CEA</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Burks:1988:FEC</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Burks:1991:CQD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Brooks:1959:PDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frederick P. Brooks, Jr., Gerrit A. Blaauw, and Werner Buchholz. Processing data in bits and pieces. <em>IRE Transactions on Electronic Computers</em>, EC-8(2):118–124, June 1959. CODEN IRELAO. ISSN 0367-9950. URL <a href="http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=5219512">http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=5219512</a> This paper contains on page 121 the first published reference to the term “byte”. An article of the same title appears in “Information Processing. Proceedings of the International Conference on Information Processing, UNESCO, Paris, 15–20 June 1959”, pp. 375–381, 1959. From [Buc62, page 40]: “Byte denotes a group of bits used to encode a character, or the number of bits transmitted in parallel to and from input-output units. A term other than character is used here because a given character may be represented in different applications by more than one code, and different codes may use different numbers of bits (i.e., different byte sizes). In</td>
</tr>
</tbody>
</table>
input-output transmission the grouping of bits may be completely arbitrary and have no relation to actual characters. (The term is coined from bite, but re-spelled to avoid accidental mutation to bit.)


REFERENCES


REFERENCES


Bemer:1984:CPF


Bemer:1986:NM


Bement:1987:AB


Benington:1983:PLC


Beniger:1986:CRT


Bennett:1991:IIM


Bernstein:1984:TDA

REFERENCES

this book originally appeared in the New Yorker.

Berry:1986:CEB


Bernstein:1987:TDA


Baker:1982:AAB


Buchholz:1988:CQDd


Buchholz:1991:CQDb


Buchholz:1988:CQDb

[BGR88] Werner Buchholz, Herb Grosch, and Saul Rosen. Comments, queries, and debate: Was the first microcomputer built in France?; marketing the Bur-


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES


Buchholz:1981:AOW


Buchholz:1983:NNP


Bülow:1988:DMG


Bülow:1990:TIS


Burks:1980:ESC


Burchard:1981:NNF

REFERENCES


[BWC83b] Alan Bullock, R. B. Woodings, and John Cumming. The Fontana biographical companion


REFERENCES


Ceruzzi:1990:RNC


Ceruzzi:1990:RCB


Ceruzzi:1991:RBH

[CCR+91] Paul Ceruzzi, Martin Collins, Nathan Reingold, K. W. Smillie, and Steven Lubar. Reviews: Brümmem and Hocheiser: The High Technology Company: A Historical and Archival Guide; Cortada: Archives of Data-Processing History, a Guide to Major U.S. Collections; Blum and Duncan: A History of Medical Informatics; Editor’s Note:


REFERENCES


John N. Crossley and Alan S. Henry. Thus spake al-Khāwarizmi: a translation of the text of Cambridge University Library Ms. II.vi.5.


REFERENCES


See minor correction [Ano80c].
REFERENCES

Campbell-Kelly:1984:RAT

Campbell-Kelly:1985:CSB

Campbell-Kelly:1987:DCN

Campbell-Kelly:1988:CBT

Campbell-Kelly:1989:IBT

Campbell-Kelly:2000:PPE

Campbell-Kelly:1983:RRH
Martin Campbell-Kelly, K. W. Smillie, and M. R. Williams. Reviews: R. Hull: The Unfortunate Murderer; B. J. Bleakley and J. LaPrairie: Entering the Computer Age; H. Zemanek:
REFERENCES


REFERENCES


**Curtis:1983:JRP**


**Cohen:1988:BAN**


**Cohen:2000:HAD**


**Collins:1991:BHH**


**Coombs:1983:MC**

REFERENCES


Copeland:2004:ETS


Copeland:2006:CSB


Cortada:1990:ADP


Couffignal:1982:CMT


Couffignal:1982:SAM


Crawford:1992:ASA


Ceruzzi:1985:ASS

REFERENCES

Caruzzi:1990:RHE

Cunningham:1985:CCRb

Curtis:1989:PLC

Curtiss:1989:NAM

Curtiss:1989:NAM
REFERENCES


[Czauderna:1979:KZW]


[deBeauclair:1986:AW1]


[Bbakker:1971:MIS]


[Bakker:1981:ALP]
**REFERENCES**


REFERENCES

Ocagne:1986:CSG


Dorn:1982:RKS


Dorfman:1984:DLP


Dorfman:1987:IMS


Dorn:1987:N


Douglas:1979:ASM


Drucker:1982:WT

REFERENCES


\[\text{Dana:1986:P}\]

\[\text{Dubbey:1978:MWC}\]

\[\text{Edder:1982:ACI}\]

\[\text{Eckert:1940:PCM}\]

\[\text{Eckert:1980:E}\]

\[\text{Eckert:1982:EC}\]

\[\text{Eisler:1989:MLP}\]

\[\text{Electronics:1981:AIW}\]
memorating the 50th anniversary of Electronics magazine.

**Eckert:1984:PCM**


**Eckhouse:1988:AHC**


**Kapera:1990:EBY**


**Ershov:1980:BLF**


**Ershov:1980:EDP**


**Estrin:1991:WY**


**Evans:1976:PC**

Christopher Evans. Pioneers in computing. Taped interviews on
audio cassettes, 1976. Each set has ten C-60 cassettes.

Set 1: Donald W. Davies, Konrad Zuse, J. Presper Eckert, Jr., Jay W. Forrester, Tom Kilburn, J. Pinkerton, F. C. Williams, John W. Mauchly, Andrew D. Booth, and James H. Wilkinson.


References:


REFERENCES

Falkoff:1978:EA


Finerman:1979:F


Finerman:1984:NOF


Futrelle:1908:TMC


Foy:1986:ABR


Flamm:1987:TCG


Flamm:1988:CCG


Flamm:1991:RMC

REFERENCES


Flowers:1983:DC


Feigenbaum:1983:FGA


Feigenbaum:1984:FGA


Feigenbaum:1984:CG


Fisher:1983:IUD


Forester:1980:MR


Forester:1981:MRC

Forrester:1983:RC


Forrester:1987:HTS


Franksen:1981:MBD


Franksen:1984:MBS


Franksen:1985:MBS


Futrelle:1907:TMB

Jacques Futrelle. *The thinking machine; being a true and complete statement of several intricate mysteries which came under the observation of Professor Augustus S. F. X. Van Dusen, Ph.D., LL.D., F.R.S., M.D., etc.* Dodd, Mead and Company, New York, NY, USA, 1907. 5 p. 1 + 342 pp. LCCN Eaton PS3511.U888 T45.

Futrelle:1959:TM


Futrelle:1973:BTM


Futrelle:1976:GCT

REFERENCES

**Freitag:1985:CQD**


**Galler:1979:A1b**


**Galler:1980:A1a**


**Galler:1980:A1b**


**Galler:1980:A1c**


**Fegley:1988:EJG**


**Galler:1979:A1a**

REFERENCES


Galler:1980:AId


Galler:1981:AId


Galler:1981:AIf


Galler:1981:AIf


Galler:1981:AIf


Galler:1982:AIf


Galler:1982:AIf


Galler:1982:AIf


Galler:1982:AIf


Galler:1982:AIf


Galler:1982:AIf


Galler:1982:AIf

REFERENCES


REFERENCES

Galler:1986:IU


Galler:1987:AIS


Galler:1987:E


Gardner:1987:MNS


Greenstadt:1983:TL


Goldstine:1982:ENI


Grattan-Guinness:1990:WHP

September 1990. CODEN AH-COE5. ISSN 0164-1239. URL
org/annals/an1990/a3177abs.htm.

Grattan-Guinness:1992:CBA

I. Grattan-Guinness. Charles
Babbage as an algorithmic
thinker. *Annals of the History of
Computing*, 14(3):34–48, July/
September 1992. CODEN AH-
COE5. ISSN 0164-1239. URL

Griffith:1985:CQD

John E. Griffith, Herbert R. J.
Grosch, and Werner Buchholz.
Comments, queries and de-
bate: More comment on re-
view of IBM Journal; still more
about IBM; Editor’s note. *An-
nals of the History of Com-
puting*, 7(3):251–252, July/
September 1985. CODEN AH-
COE5. ISSN 0164-1239. URL
org/annals/an1985/a3251abs.htm.

Graham:1985:HMS

R. L. Graham and Pavol Hell.
On the history of the minimum
spanning tree problem. *An-
nals of the History of Com-
puting*, 7(1):43–57, January/

March 1985. CODEN AH-
COE5. ISSN 0164-1239. URL
org/annals/an1985/a1043abs.htm.

Glimm:1990:LJN

James Glimm, John Impaglia-
zzo, and I. M. (Isadore Manuel)
Singer, editors. *The Legacy
of John von Neumann: Pro-
ceedings of the Summer Re-
search Institute on the Legacy
of John von Neumann held at
Hofstra University Hempstead,
New York, May 29–June 4,
1988*, volume 50 of *Proceedings
of symposia in pure mathe-
matics*. American Mathematical
Society, Providence, RI, USA,
334 pp. LCCN QA29 .V66
L44 1990.

Goldstine:1981:RK

Herman H. Goldstine and John
Redmond and T. M. Smith:
Project Whirlwind; S. H. Lav-
ington: Early British Compu-
ters; capsule reviews. *Annals
of the History of Computing*, 3
(1):74–75, 77, 79–80, January/
March 1981. CODEN AH-
COE5. ISSN 0164-1239. URL
org/annals/an1981/a1074abs.htm.
REFERENCES

Glaser:1986:IW


Glass:1991:PFS


Galler:1985:AIC


Golub:1987:JW


Goldstine:1977:HNA


Gol77

Herman Heine Goldstine. A history of numerical analysis from


REFERENCES


**Gruenberger:1979:HJ**


**Gruenberger:1980:HES**


**Gruenberger:1980:SHD**


**Gullard:1980:CBI**


**Gustafson:2000:RAB**


**Haddad:1983:R**


**Haefner:1986:ISR**

HALPERN:1991:MHP

Halpern:1991:MHP


HALL:2009:GSP

Hall:2009:GSP


HAMMING:1979:RZW

Hamming:1979:RZW


HAMMING:1980:WWK

Hamming:1980:WWK


HUCL:1946:MOA

Hucl:1946:MOA


HARTREE:1947:CMR

Hartree:1947:CMR


HARVARD:1947:PSL

Harvard:1947:PSL


**Hartree:1949:CIM**


**Hartree:1950:CIM**


**Harvard:1951:PSS**


**Hartree:1953:CIM**


**Hartmanis:1981:OAD**


**Harrington:1983:RDT**


**Hartree:1984:CMR**

REFERENCES


[Haanstra:1983:PPF] [HEA+83]}
REFERENCES


Heising:1984:EFI


Heide:1991:IPD


Hemmes:1986:FR


Heppenheimer:1990:HNS


Herriot:1986:EEI


Herken:1988:UTM


Herken:1995:UTM
Hyman:1979:RDM


Hinsley:1979:BISb


Huskey:1980:LLC


Higgins:1982:ECF


Hillion:1991:CQD


Hinsley:1993:BIS

REFERENCES


 Hamilton:1986:IMD


 Hellerman:1984:SDC


 Hodges:1985:ATE


 Hodges:2000:ATE


 Hoffsaes:1990:FSC


 Hodges:1983:ATEa


 Hodges:1983:ATEb


 Hodges:1985:ATE


 Hoffsaes:1990:FSC


 Hollerith:1982:ETS

REFERENCES


REFERENCES

Hughes:1986:SCE

Hull:1941:UM

Humphrey:1987:MF

Hun
er:1983:R

Hunter:1986:SSE

Hurd:1980:CDM

Hurd:1981:EIC
Hurd:1983:AIS


Hurd:1983:E


Hurd:1983:ILM


Hurd:1983:P


Hurd:1985:NEM


Hurd:1986:AIS


Hurd:1986:E

REFERENCES


REFERENCES


[Jon85] John L. Jones. Viewpoint and reminiscences of the Chair-
REFERENCES


**Jones:1989:MDT**


**Jules:1982:BC**


**Kawasaki:1990:MW**


**Kessler:1980:ARE**


**Kessler:1986:CPS**


**Kidder:1981:SNM**


**Kidder:1990:SNM**


**Kidwell:1990:ASC**

[Kid90b] Peggy Aldrich Kidwell. American scientists and calculat-
REFERENCES

Kidder:1997:SNM


Killen:1988:IMC


King:1987:MTT


Kishi:1983:LLL


Kistermann:1991:IDH


Kistermann:2000:DDT

Friedrich W. Kistermann. The DEHOMAG D11 tabulator: a milestone in the history of


REFERENCES

ISSN 0161-1194 (print), 1558-1586 (electronic).


REFERENCES


REFERENCES


REFERENCES


REFERENCES

Lee:1988:AId

[Lee89a]

[Lee89b]

[Lee89c]

[Lee89d]

Lee:1989:AIb

Lee:1990:AIa
REFERENCES

Lee:1990:AId


Lee:1990:AId


Lee:1990:Ha


Lee:1990:Hb


Lee:1990:Ad


Lee:1990:Aa


Lee:1990:Aa

REFERENCES

Lee:1991:A1a


Lee:1991:ASS


Lee:1991:A1b


Lee:1991:A1c


Lee:1991:A1d


Lee:1991:CQD


Lee:1991:GDS

REFERENCES


[LJWH97] Charles Lindsay, Derek Jacobi, Hugh Whitemore, and Andrew Hodges. *Breaking the code*, 1997. ISBN 1-56442-662-9. Based on the play of the same title by Hugh Whitemore, and on the book, “Alan Turing: the enigma”, by Andrew Hodges. Originally broadcast as an episode of the PBS television series, Mobil masterpiece theatre. Credits: Director of photography, Robin Vidgeon; editor, Laurence Mery-Clark; introduced by Russell Baker. Performers: Derek Jacobi, Alun Armstrong, Richard Johnson, Harold Pinter, Amanda Root, Prunella Scales. The story of Alan Turing, British mathematician and designer of the computer that broke the German Enigma code during World War II, whose admission to homosexuality at a time when it was illegal presented problems for him, for his family, for his colleagues, and for the State’s preoccupation with national security. Close-captioned.


[Lud82] Percy E. Ludgate. On a proposed Analytical Machine (1909). In Randell [Ran82],
REFERENCES

131


REFERENCES


Marks:1982:JCC


Marling:1990:MMK


Mason:1983:ITC


Masani:1990:NW


Mauchly:1980:E


Mauchly:1980:PPE


Mauchly:1982:UHS


Mauchly:1984:JME

REFERENCES

[Maulucci:1989:H]

[May:1980:HPC]

[Mapstone:1980:MRF]

[McCorduck:1979:MWT]

[McClelland:1983:AAS]

[McClelland:1983:FDA]

[McClelland:1983:RA]


McClelland:1983:RCC

McClelland:1983:TPS

McCool:1983:NDC

McCracken:1984:EHF


McCConnell:1991:SEC


McCartney:2001:ETT


McMahon:1984:MPC

REFERENCES


[Mer82] C. W. Merrifield. Report of the committee, consisting of Professor Cayley, Dr. Farr, Mr. J. W. L. Glaisher, Dr. Pole, Professor Fuller, Professor A. B. W. Kennedy, Professor Clifford, and Mr. C. W. Merrifield, appointed to consider the advisability and to estimate the expense of constructing Mr. Babbage’s Analytical Machine, and of printing tables by its means (1879). In Randell [Ran82l], pages 55–65. ISBN 0-387-11319-3, 3-540-11319-3. LCCN TK7885.A5 O741 1982.

REFERENCES


\textbf{Metropolis:1980:HCT}


\textbf{Metropolis:1985:HCT}


\textbf{McPherson:1982:LSG}


\textbf{Maulucci:1987:HEA}


\textbf{Milligan:1985:BDP}


\textbf{Mills:1986:CQD}

REFERENCES


[MKR82] John McCarthy, William B. Kehl, and Brian Randell. Comments, queries, and debate: Corrections on Early IBM

[MKR82] John McCarthy, William B. Kehl, and Brian Randell. Comments, queries, and debate: Corrections on Early IBM


Mandrekar:1997:PNW


Metropolis:1982:ECA


Maulucci:1988:HAC


Maulucci:1988:HCC


Mollenhoff:1988:AFF


Molina:1989:SBM


Moore:1977:ACL

REFERENCES


Moreau:1984:CCA


Moreau:1986:CQD


McClelland:1983:IW


Masani:1987:WMM


McLean:1985:ISa


McLean:1985:ISb


Metropolis:1972:TEH

REFERENCES


REFERENCES


REFERENCES


REFERENCES

[O'Neill:1992:HLA]

[Otnes:1989:KES]

[Oppenheimer:1983:S]

[Phelps:1982:CQDb]

[Pair:1990:CHL]

[Phelps:1982:CQDb]

[Oppe87]

[PB87]
Johannes M. Pennings and Arend Buitendam. New technology as organizational innovation: the development and
REFERENCES

Pylyshyn:1989:PCR

Phillips:1985:RED

Pearcey:1988:HAC

Penzias:1989:IIM

Penzias:1990:IIM

Perlis:1986:TTW

Perrolle:1987:CSC

Petrie:1983:WFD
REFERENCES

April/June 1983. CODEN AH- COE5. ISSN 0164-1239. URL
http://dlib.computer.org/
an/books/an1983/pdf/a2172.
pdf; http://www.computer.
org/annals/an1983/a2172abs.
.htm.

Petzold:2000:KZI

Hartmut Petzold. Konrad Zuse
and industrial manufacturing of
electronic computers in Ger-
many. In Rojas and Hashagen
[RH00], pages 315–322. ISBN 0-
262-18197-5 (hardcover), 0-585-
35535-5 (electronic). LCCN

Petzold:2008:ATG

Charles Petzold. The anno-
tated Turing: a guided tour
through Alan Turing’s historic
paper on computability and the
Turing Machine. John Wiley
and Sons, Inc., New York, NY,
USA, 2008. ISBN 0-470-22905-

Phelps:1980:EEC

Byron E. Phelps. Early elec-
tronic computer developments
at IBM. Annals of the History
of Computing, 2(3):253–267, July/
September 1980. CODEN AH-
COE5. ISSN 0164-1239. URL
http://dlib.computer.org/
an/books/an1980/pdf/a3253.
pdf; http://www.computer.
org/annals/an1980/a3253abs.
.htm. See minor correction
[Ano80b].

Phelps:1982:CQDa

Byron E. Phelps. Comments,
queries, and debate: Comment
on ENIAC article. Annals of the
History of Computing, 4(3):284–285,
July/September 1982. CODEN AH-
COE5. ISSN 0164-1239. URL
http://dlib.computer.org/
an/books/an1982/pdf/a3284.
pdf; http://www.computer.
org/annals/an1982/a3284abs.
.htm. See [BB81, Ran81, BB82].

Phillips:1981:EJG

Norman A. Phillips. Eloge: Jule
G. Charney, 1917–1981. An-
nals of the History of Com-
puting, 3(4):308–309, October/
December 1981. CODEN AH-
COE5. ISSN 0164-1239. URL
http://dlib.computer.org/
an/books/an1981/pdf/a4308.
pdf; http://www.computer.
org/annals/an1981/a4308abs.
.htm.

Phillips:1982:BC

E. William Phillips. Binary
calculations (1963). In Randell
[Ran82I], pages 303–314. ISBN
0-387-11319-3, 3-540-11319-3.

Phister:1989:QIE

Montgomery Phister, Jr. Quotron
II: an early multiprogrammed
multiprocessor for the commu-
nication of stock market data.
Annals of the History of Com-
puting, 11(2):109–126, April/
June 1989. CODEN AH-
COE5. ISSN 0164-1239. URL


public television. Credits: Produced by John Nathan and Sam Tyler. Discusses management strategies of some of America’s most successful companies. The program covers three main topics: corporate values (examples from IBM and Disney World), innovation (examples from 3M and Apple), and people–customers and employees (examples from Stew Leonard’s Dairy, North American Tool and Die, Dana and McDonald’s).

Peters:1986:VPE


Peters:1992:SEL


Plyshyn:1970:PCR


Queisser:1988:CM


Rees:1986:CQD


Rajchman:1980:ERC

REFERENCES

Ralston:1976:ECSb


Ramunni:1989:LCI


Randell:1979:ABO


Randell:1980:ODC


Randell:1981:CEF


Randell:1982:AEC

B. Randall. The advent of electronic computers. In Randell [Ran82a], pages 293–301. ISBN 0-387-11319-3, 3-
Randall:1982:AI

Randall:1982:AE

Randall:1982:BTL

Randall:1982:BI

Randall:1982:IB

Randall:1982:CE

Randall:1982:EE
REFERENCES

Randell:1982:ODC

Randell:1982:SPE

Randell:1983:MA

Randell:1987:CWM

Raymond:1989:ASE

Rosen:1985:CQD

Rosin:1982:CQD
[RBZ82] Robert F. Rosin, C. J. Bashe, and Konrad Zuse. Comments, queries, and debate: Comments on Early Computers and IBM; A note on the SSEC; com-


Rosin:1983:CQD


Rifkin:1988:UES


Rifkin:1990:UES


Rojas:2000:FCH


Rojas:2002:FCH


Richenhagen:1985:CRR

REFERENCES


REFERENCES


**REFERENCES**

**Reilly:1983:ECS**


**Ralston:1992:ECS**


**Reilly:2000:ECS**


**Raines:1980:NNH**


**Redmond:1980:PWH**


**Rogers:1982:MR**


**Richtmyer:1947:SMN**

Republished in typeset form in [Hur85].

[Richtmeyer:1985:SMN]

[Rees:1985:RRR]

[Sakoda:1984:DSA]

[Smith:1988:FFH]

[Sal00]
REFERENCES

Sammet:1979:GAH


Sammet:1980:AAH


Sammet:1985:BSE


Sammet:1987:SSQa


Sammet:1987:SSQb


Sammet:1987:SSQc


Sammet:1988:SSQa


Sammet:1990:SSQa

Sammet:1990:SSQb

Sammet:1990:SSQc

Sammet:1990:SSQd

Sammet:1991:HBS

Sammet:1991:SSQb
REFERENCES

Sammet:1991:SSQa

Sammet:1991:SAI

Santesmases:1980:OIT

Santesmases:1982:ECD

Strong:1985:RIR

Schwartz:1981:EYC
H. R. Schwarz. The early years of computing in Switzerland.
REFERENCES


D. W. Scott. Portable color multimedia training systems based on monochrome laptop computers (*CBT-in-a-briefcase*), with spinoff implications for video uplink and downlink in space-flight operations. Washington, DC, USA, 1994. Shipping list no. 94-0809-M.

K. W. Smillie and Ralph Erskine. Reviews: W. Aspray, Should the Term Fifth Generation Computers Be Banned?; C.

**Searle:1989:BWN**  

**Seidel:2000:RHO**  

**Sejnowski:1989:CBR**  

**Sammet:1985:SCC**  

**Stern:1979:HHP**  

**Shannon:1945:MTC**  

**Shannon:1948:MTCa**  
units may be called binary digits, or more briefly, bits, a word suggested by J. W. Tukey.". This is the first known printed instance of the word `bit' with the meaning of binary digit.


REFERENCES


REFERENCES


REFERENCES

Stein:1985:ALL


Stern:1985:MPC


Stibitz:1980:EC


Stibitz:1982:ACM


Stibnitz:1982:C


Stokes:1982:YRT


Strachey:1965:LEI


Strong:1983:NAA

REFERENCES


REFERENCES


REFERENCES


REFERENCES

Tomayko:1989:AWC


Tomayko:1990:AMG


Tomash:1979:BEE


Tomayko:1988:AFP


Tomayko:1990:ARP

[TD90] James E. Tomayko and A. S. (Sandy)
REFERENCES


Tropp:1984:RPC


Tomayko:1991:ATS


Thompson:1979:ECC


Thompson:1980:AHC

REFERENCES


Tomayko:1991:AFC


Tomayko:1989:A


Tomash:1980:SEE


Tomayko:1985:HHF


Todd:1980:JHC

REFERENCES

Tomayko:1985:NMS


TorresyQuevedo:1982:ECM


TorresyQuevedo:1982:EAD


Tomayko:1989:ATY


Tomash:1988:MP


Tonik:1980:EHL

REFERENCES


[Tomayko:1992:AUT]


[Trakhtenbrot:1984:SRA]

[Trakhtenbrot:1984:SRA]

[Tropp:1980:SCH]

[Tropp:1982:RJWb]


[Tropp:1982:RJWb]
REFERENCES


REFERENCES


[Tukey:1958:TCM] John W. Tukey. The teaching of concrete mathematics. *American Mathematical Monthly*, 65 (1):1–9, January 1958. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). This article is believed to contain the first published instance of the word ‘software’ in the meaning of instructions to a computer: “Today the ‘software’ comprising the care-
fully planned interpretive routines, compilers, and other aspects of automotive programming are at least as important to the modern electronic calculator as its ‘hardware’ of tubes, transistors, wires, tapes and the like.” [p. 2].


REFERENCES

Ulam:1982:BJN


Usdin:1981:CQD


Valley:1985:HSD


VanSinderen:1980:PPC


VanSinderen:1983:BLQ


VanCreveld:1989:TWB


VanCreveld:1991:TWBa


VanCreveld:1991:TWBBb

Martin L. Van Creveld. Technology and war: from 2000 B.C. to the present. Maxwell Macmillan
REFERENCES


**VanSinderen:1983:RHC**


**VandenEnde:1992:TCN**


**VanderPoel:1982:ANM**


**Vernay:1989:IF**


**Verjus:1990:PGW**


**Vincenti:1990:WEK**

Walter G. (Walter Guido) Vincenti. What engineers know and how they know it: analytical studies from aeronautical history. Johns Hopkins studies in the history of technology. Johns Hopkins University Press, Bal-
REFERENCES

Vincenti:1993:WEK


vonNeumann:1992:FDR


Vonneuman:1989:JNF


Voorhees:1983:CAS

REFERENCES


Voorhees:1983:ADP


VanderSpiegel:2000:EHO


Walker:1979:WCR


Walker:1980:MRC


Wada:2000:PCP


VanSinderen:1991:HBM


REFERENCES


REFERENCES


REFERENCES

Weiss:1989:BOW


Weiss:1991:BOA


Weiss:1991:EMH


Weiss:1991:BOS


Weiss:1991:EMH


Wells:1980:REA

[Wel80] Mark B. Wells. Reflections on

Welchman:1982:HSS


Wexelblat:1981:HPL


Wexelblat:1993:SAS


Wilkes:1982:MRJ


Weiss:1990:BAP


Williams:1984:MRH

REFERENCES


**Whitemore:1987:BC**


**Ware:1986:PQC**


**Williams:1970:CC**


**Williams:1979:HJA**


**Wilkes:1980:EPD**

REFERENCEs


Williams:1985:MRH


Williams:1985:HCT


Williams:1985:LBT


Williams:1987:BBT


Williams:1988:IPP


Williams:1989:MA

Michael R. Williams. Museums and archives. *An-
REFERENCES

194


Winston:1998:MTS


Weiss:1991:BOJ


Williams:1982:EDC


Weiss:1989:BOC


Wildes:1985:CEE


Wilkes:1986:RMC


Warren:1982:MSE

Weiss:1989:CQD


Worsley:1982:ED


Worthy:1987:WCN


Watson:2000:FSC


Walker:1981:MRH


Wilkes:1982:E


Wilkes:1986:RKW


[196]
REFERENCES

Williams:1988:MAI


Weiss:1991:BAS


Wieselman:1991:MPPa


Wieselman:1991:MPPb

REFERENCES


REFERENCES

199


REFERENCES


Original versions of these papers were presented at the International Research Conference on the History of Computing, held at the Los Alamos Scientific Laboratory, 10–15 June 1976.


