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ENTRY  address author booktitle chapter edition editor howpublished institution journal key month
note number organization pages publisher school series title type volume year  label
INTEGERS  output.state before.all mid.sentence after.sentence after.block
FUNCTION init.state.consts 0 'before.all := 1 'mid.sentence := 2 'after.sentence := 3 'after.block :=
STRINGS  s t
FUNCTION output.nonnull 's := output.state mid.sentence = ", " * writeoutput.stateafter.block = ", " * write
newline""write  output.state before.all = 'writeadd.period " " * writeif ifmid.sentence'output.state := if
S
FUNCTION output duplicateempty 'pop'output.nonnullif
FUNCTION output.check 't := duplicateempty pop"empty"t*"in" *cite * warning'output.nonnullif
FUNCTION output.bibitem newline""write citewrite "" writenewline "" before.all 'output.state :=
FUNCTION fin.entry add.periodwrite newline
FUNCTION new.block output.state before.all = 'skipafter.block'output.state :=if
FUNCTION new.ncblock writenewline "" before.all 'output.state :=
FUNCTION new.nccont write""before.all'output.state :=
FUNCTION new.sentence output.state after.block = 'skipoutput.statebefore.all =' skip after.sentence
'output.state := ifif
FUNCTION not 0 1 if
FUNCTION and 'skippop 0 if
FUNCTION or pop1'skip if
FUNCTION new.block.checka empty'skip 'new.block if
FUNCTION new.block.checkb emptyswap emptyand'skip 'new.block if
FUNCTION new.sentence.checka empty'skip 'new.sentence if
FUNCTION new.sentence.checkb emptyswap emptyand'skip 'new.sentence if
FUNCTION field.or.null duplicateempty pop""'skip if
FUNCTION emphasize duplicateempty pop""""swap * "" * if
FUNCTION boldface duplicateempty pop""""swap * "" * if
INTEGERS  nameptr namesleft numnames
FUNCTION format.names 's := 1 'nameptr := s num.names'numnames := numnames'namesleft :=
namesleft0 > snameptr"ff vv ll,jj"format.name 't := nameptr 1 ; namesleft 1 ; ", " * t * numnames
2 ; ", " * 'skipif t "others" = " et al." * " and " * t * ifif 't ifnameptr1 +' nameptr := namesleft1 -'
namesleft := while
FUNCTION format.authors author empty""authorformat.namesif
FUNCTION format.editors editor empty""editorformat.nameseditornum.names 1 ; ", Eds." * ",
Ed." * ifif
FUNCTION format.title title empty""""title*if
FUNCTION n.dashify 't := "" t emptynot
t 1 1 substring"-" = t12substring"-" = not "-" * t 2 global.maxsubstring 't := t 1 1 substring"-" =
"-" * t2global.max substring't := while ift11substring * t 2 global.maxsubstring 't := ifwhile
FUNCTION format.date year emptymonthempty "" "there's a month but no year in " cite*warning
month ifmonthempty 'year month " " * year * ifif
FUNCTION format.year year empty'year""year*if
FUNCTION format.btitle title boldface
FUNCTION tie.or.space.connect duplicatetext.length 3 ; " " " " ifswap * *
FUNCTION either.or.check empty'pop "can't use both " swap*"fieldsin" * cite * warningif
FUNCTION format.bvolume volume empty""vol."volumetie.or.space.connectseriesempty 'skip"of" * seriesemph
"volume and number" number either.or.check if
FUNCTION format.number.series volume emptynumberempty series field.or.null output.state mid.sentence
= "number" "Number" ifnumbertie.or.space.connectseriesempty "there's a number but no series in "
cite*warning "in " * series * ifif "" if
FUNCTION format.edition edition empty""output.statemid.sentence = edition"l"change.case " edi-
tion" * edition "t" change.case"edition" * if if
INTEGERS  multiresult

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FUNCTION multi.page.check 't := 0 'multiresult := multiresult not t emptynotand t11substring
duplicate" - " = swap duplicate", " = swap "+" = or or 1 'multiresult := t 2 global.maxsubstring 't :=
ifwhile multiresult
FUNCTION format.pages pages empty""pagesmulti.page.check"pp."pagesn.dashifytie.or.space.connect"p."pages
if
FUNCTION format.vol.num.pages volume empty""vol."volume*if number empty'skip ", no. " num-
ber * * ifpagesempty 'skipduplicate emptypop format.pages ", pp. " * pages n.dashify * ifif
FUNCTION format.chapter.pages chapter empty'format.pagetypeempty "chapter" type"l" change.caseif
chapter tie.or.space.connect pages empty'skip ", " * format.pages * ifif
FUNCTION format.in.ed.booktitle booktitle empty""editoreempty "in " booktitle boldface * "in "
booktitle boldface * ", " * format.editors * ifif
FUNCTION empty.misc.check author empty'titleempty howpublished emptymonthempty year emptynoteempty
and and and and and "all relevant fields are empty in " cite*warning 'skipif
FUNCTION format.thesis.type type empty'skip poptype"t"change.case if
FUNCTION format.tr.number type empty'Tech.Rep.'"typeif number empty"t"change.case number
tie.or.space.connect if
FUNCTION format.article.crossref key empty'journalempty "need key or journal for " cite*"tocrossref"*
crossref * warning "" "In " journal * "" * if"In"key*if " " * crossref * "" *
FUNCTION format.crossref.editor editor 1 "vv ll" format.nameeditornum.names duplicate2 > pop
" et al." * 2 j 'skippeditor2"ffvlljj"format.name "others" = " et al." * " and " * editor 2 "vv ll"
format.name*if ifif
FUNCTION format.book.crossref volume empty"emptyvolumein"cite * "'s crossref of " * crossref *
warning"In""vol."volumetie.or.space.connect"of"*if editor emptyeditorfield.or.nullauthorfield.or.null =
orkeyempty series empty"neededitor,key,orseriesfor"cite * " to crossref " * crossref * warning"" *
"" * series * ""*if key * ifformat.crossref.editor*if " " * crossref * "" *
FUNCTION format.incoll.inproc.crossref editor emptyeditorfield.or.nullauthorfield.or.null = orkeyempty
booktitle empty"neededitor,key,orbooktitlefor"cite * " to crossref " * crossref * warning""In"booktitle * ""*if
"In " key * if"In"format.crossref.editor*if " " * crossref * "" *
FUNCTION article output.bibitem format.authors "author" output.check new.block format.year "year"
output.check format.title ", "" * "title" output.check new.ncblock crossref missingjournalboldface"journal"output.checkf
new.block note output fin.entry
FUNCTION book output.bibitem author emptyformat.editors"authorandeditor"output.check format.authorsoutp
"author and editor" editor either.or.check 'skipif ifnew.block format.year"year"output.check format.btitle"title"output.
format.bvolume output new.block format.number.series output new.sentence publisher "publisher" output.check
address output new.block format.book.crossref output.nonnull ifformat.editionoutputnew.blocknoteoutputfin.entry
FUNCTION booklet output.bibitem format.authors output new.block format.title ", "" * "title" out-
put.check new.nccont howpublished address new.block.checkb howpublished output address output for-
mat.date output new.block note output fin.entry
FUNCTION inbook output.bibitem author emptyformat.editors"authorandeditor"output.check format.authorsou
"author and editor" editor either.or.check 'skipif ifnew.block format.year"year"output.check format.btitle"title"output.
format.bvolume output format.chapter.pages "chapter and pages" output.check new.block format.number.series
output new.sentence publisher "publisher" output.check address output format.chapter.pages "chapter and
pages" output.check new.block format.book.crossref output.nonnull ifformat.editionoutputnew.blocknoteoutputfin.ent
FUNCTION incollection output.bibitem format.authors "author" output.check new.block format.year
"year" output.check format.title ", "" * "title" output.check new.ncblock crossref missingformat.in.ed.booktitle"booktitle"
new.block note output fin.entry
FUNCTION inproceedings output.bibitem format.authors "author" output.check format.year "year"
output.check new.block format.title ", "" * "title" output.check new.ncblock crossref missingformat.in.ed.booktitle"bookti
organization publisher new.sentence.checkb organization output format.date "year" output.check address
output.nonnull format.date "year" output.check organization output ifformat.bvolumeoutputformat.number.seriesoutp
new.block note output fin.entry
FUNCTION conference inproceedings
FUNCTION manual output.bibitem author emptyorganizationempty 'skiporganizationoutput.nonnulladdressoutp

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format.authors output.nonnull ifnew.blockformat.year"year" output.checkformat.btitle"title" output.checkauthoreempty  
organization emptyaddressnew.block.checkaaddressoutput'skip iforganizationaddressnew.block.checkborganizationout  
format.edition output new.block note output fin.entry

FUNCTION mastersthesis output.bibitem format.authors "author" output.check new.block format.year  
"year" output.check format.title "," \* "title" output.check new.ncblock "M.S. thesis" format.thesis.type  
output.nonnull school "school" output.check address output new.block note output fin.entry

FUNCTION misc output.bibitem format.authors output format.year "year" output.check title howpub-  
lished new.block.checkb format.title "," \* output new.nccont howpublished new.block.checka howpublished  
output new.block note output fin.entry empty.misc.check

FUNCTION phdthesis output.bibitem format.authors "author" output.check format.year "year" out-  
put.check new.block format.btitle "title" output.check new.block "Ph.D. thesis" format.thesis.type out-  
put.nonnull school "school" output.check address output new.block note output fin.entry

FUNCTION proceedings output.bibitem editor emptyorganizationoutputformat.editorsooutput.nonnullif  
new.block format.year "year" output.check format.btitle "title" output.check format.bvolume output for-  
mat.number.series output address emptyeditoreempty publisher new.sentence.checka organization publisher  
new.sentence.checkb organization output ifpublisheroutputaddressoutput.nonnullnew.sentenceeditoreempty  
'skiporganizationoutputif publisher output ifnew.blocknoteoutputfin.entry

FUNCTION techreport output.bibitem format.authors "author" output.check new.block format.year  
"year" output.check format.title "," \* "title" output.check new.ncblock format.tr.number output.nonnull  
institution "institution" output.check address output new.block note output fin.entry

FUNCTION unpublished output.bibitem format.authors "author" output.check new.block format.year  
"year" output.check format.title "," \* "title" output.check new.ncblock note "note" output.check fin.entry

FUNCTION default.type misc

MACRO jan "Jan."

MACRO feb "Feb."

MACRO mar "Mar."

MACRO apr "Apr."

MACRO may "May"

MACRO jun "June"

MACRO jul "July"

MACRO aug "Aug."

MACRO sep "Sept."

MACRO oct "Oct."

MACRO nov "Nov."

MACRO dec "Dec."

MACRO acmcs "ACM Computing Surveys"

MACRO acta "Acta Informatica"

MACRO cacm "Communications of the ACM"

MACRO ibmjrd "IBM Journal of Research and Development"

MACRO ibmsj "IBM Systems Journal"

MACRO ieese "IEEE Transactions on Software Engineering"

MACRO ieetc "IEEE Transactions on Computers"

MACRO ieetcad "IEEE Transactions on Computer-Aided Design of Integrated Circuits"

MACRO ipl "Information Processing Letters"

MACRO jacm "Journal of the ACM"

MACRO jcsc "Journal of Computer and System Sciences"

MACRO scp "Science of Computer Programming"

MACRO sicomp "SIAM Journal on Computing"

MACRO tocs "ACM Transactions on Computer Systems"

MACRO tods "ACM Transactions on Database Systems"

MACRO tog "ACM Transactions on Graphics"

MACRO toms "ACM Transactions on Mathematical Software"

MACRO toois "ACM Transactions on Office Information Systems"

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MACRO toplas "ACM Transactions on Programming Languages and Systems"
MACRO tcs "Theoretical Computer Science"
READ
FUNCTION sortify purify"l"change.case
INTEGERS len
FUNCTION chop.word 's := 'len := s 1 len substring= slen1 + global.max substring'sif
FUNCTION sort.format.names 's := 1 'nameptr := "" s num.names'numnames := numnames'namesleft :=
namesleft0 > nameptr1 > ""*'skip if snameptr"vullffjj" format.name 't := nameptr numnames = t "oth-
ers" = and "et al" * t sortify * if nameptr1 +' nameptr := namesleft1 -' namesleft := while
FUNCTION sort.format.title 't := "A " 2 "An " 3 "The " 4 t chop.word chop.word chop.word sortify
1 global.maxsubstring
FUNCTION author.sort author emptykeyempty "to sort, need author or key in " cite*warning ""
key sortify ifauthorsort.format.namesif
FUNCTION author.editor.sort author emptyeditoreempty key empty"tosort, needauthor, editor, orkeyin" cite
* warning""keysortifyif editor sort.format.names ifauthorsort.format.namesif
FUNCTION author.organization.sort author emptyorganizationempty key empty"tosort, needauthor, organization, o
* warning""keysortifyif "The " 4 organization chop.word sortify ifauthorsort.format.namesif
FUNCTION editor.organization.sort editor emptyorganizationempty key empty"tosort, neededitor, organization, o
* warning""keysortifyif "The " 4 organization chop.word sortify ifeditorsort.format.namesif
FUNCTION presort type"book" = type "inbook" = or 'author.editor.sort type"proceedings" =
editor.organization.sorttype "manual" = 'author.organization.sort 'author.sort ifif if""*yearfield.or.nullsortify*
"" * titlefield.or.nullsort.format.title * 1entry.max substring'sort.key :=
ITERATE presort
SORT
STRINGS longest.label
INTEGERS number.label longest.label.width
FUNCTION initialize.longest.label "" 'longest.label := 1 'number.label := 0 'longest.label.width :=
FUNCTION longest.label.pass number.label int.to.str'label := number.label1+'number.label := labelwidth
longest.label.width ı label 'longest.label := label width'longest.label.width :=' skip if
EXECUTE initialize.longest.label
ITERATE longest.label.pass
FUNCTION begin.bib preambleempty 'skip preamble writenewline if"thebibliography" longest.label * ""*
write newline
EXECUTE begin.bib
EXECUTE init.state.consts
ITERATE call.type
FUNCTION end.bib newline"

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