ENTRY address author booktitle chapter doi edition editor howpublished institution isbn issn journal key lastchecked month note number organization pages publisher school series title type url urn volume year label extra.label sort.label short.list

```
FUNCTION ua.etal "u.a."
          FUNCTION und "u."
          FUNCTION eress "Elektronische Ressource"
          INTEGERS output.state before.all mid.sentence after.sentence after.block
          INTEGERS colon.after period.dash
          INTEGERS after.firstblock
          INTEGERS zahl lang
          INTEGERS nameptr namesleft numnames
          INTEGERS ptr collation collrest
          INTEGERS len
          INTEGERS et.al.char.used
          INTEGERS longest.label.width last.extra.num STRINGS longest.label last.sort.label next.extra
          STRINGS hstuvw
          STRINGS fkt
          FUNCTION init.state.consts 0 'before.all := 1 'mid.sentence := 2 'after.sentence := 3 'after.block := 4
'colon.after := 5 'period.dash := 6 'after.firstblock :=
          FUNCTION output.nonnull 's := output.state after.block = add.periodwrite newline" write out-
put.state\ before.all = \ write output.state colon.after = ":"* write\ newline"" write \\ output.state\ period.dash
= ". -" * writenewline "" writeoutput.statemid.sentence = "," * write output.state after.sentence =
ifif after.block 'output.state := ifs
          FUNCTION output duplicate empty 'pop'output.nonnullif
          FUNCTION output.check 't := duplicateempty pop" empty" t*" in" *cite * warning' output.nonnullif
          FUNCTION new.block output.state before.all = 'skipafter.block'output.state := if
          FUNCTION not 0 1 if
          FUNCTION and 'skippop 0 if
          FUNCTION or pop1'skip if
          FUNCTION output.bibitem newline" ["write label write"] "write citewrite" " writenewline" before.all
'output.state :=
          FUNCTION fin.entry writenewline
          FUNCTION set.period.dash output.state before.all = 'skipperiod.dash' output.state := if
          FUNCTION set.period.dash.check empty'skip 'set.period.dash if
          FUNCTION set.colon.after output.state before.all = 'skipcolon.after'output.state := if
          FUNCTION new sentence output state before all = 'skip after.sentence' output state := if
          FUNCTION part.of.sentence output.state before.all = 'skipmid.sentence' output.state :=if
          FUNCTION new.sentence.checka empty'skip 'new.sentence if
          FUNCTION field.or.null duplicateempty pop""'skip if
          FUNCTION emphasize duplicateempty pop"""swap * "" * if
          FUNCTION capitalize duplicate
empty pop"""swap * "" * if
          FUNCTION format.names 's := "" 'u := 1 'nameptr := s num.names' numnames := numnames' names left := 
namesleft0 > snameptr"ll" format.name \ \text{`t} := \text{t capitalize 't} := \text{s nameptr" jj" format.name'} \\ w := snameptr", ffvvjj" format.name' \\ w := snameptr", ffvvj' format.name' \\ w := snameptr", ffv
'u := u text.length'lang := 1'zahl := ""'v := zahllang <uzahl1substring " " = v "" = u 1 zahl 1 - substring'v :=' skip ifvuzahl2substring * "." * w * 'v := 'skip if zahl 1 + 'zahl := whilev"" =
u'v := 'skip \ iftv * fkt *' t := nameptr1 > namesleft1 > ";" * t*numnames2 > ""*'skip \ ift" others" = "skip \ 
t" others(Hrsg.)" = orua.etal*"; " *t*if if tif
          nameptr 1 + 'nameptr := namesleft 1 - 'namesleft := while'''' fkt :=
          FUNCTION format. authors author empty" author format. names if
          FUNCTION format.editors editor empty author empty "empty author and editor in "cite*warning"
'skipif author empty" (Hrsg.)"' fkt := editor format.names" (Hrsg.)"' fkt :=";" *editor format.names * if
```

FUNCTION format. authors.organization type "misc" = organization empty author empty "author format.namesual" = organization empty authorempty "" author format.names if authorempty organization capitalize " (Hrsg.)" * author format.names "; " * organization capitalize * " (Hrsg.)" * ifif 'skipif if FUNCTION format.editors.organization organization empty'skip type"misc" = organization*";" * organization"

FUNCTION format.tr.institution institution empty'skip institution capitalize if

 ${\tt FUNCTION} \ format. ed. in coll\ editor\ empty """ (Hrsg.) "'fkt := editor format. names format. editors. organization if the context of the context of$

FUNCTION article.in.journal duplicate empty pop" authormissing title missing and emphasize mphasize In: "swe * ifif

FUNCTION format.title title empty""titleif

if

FUNCTION format.number number empty""number""*if

FUNCTION format.digital.type type empty" type - 14substring "mail" = type 1 4 substring "Mail" =

FUNCTION n.dashify 't := "" t emptynott11substring"-" = t 1 2 substring"--" = not" -- " * t2global.maxsubstring't := t11substring"-" = "-" * t 2 global.max substring 't := while if t 1 1 substring * t2global.maxsubstring't := if while

FUNCTION format.edition edition empty" editionif

 ${\tt FUNCTION \ format. date \ year \ duplicate} \textit{empty} \ "empty \ year \ in " \ cite* \textit{warning pop}"'' \textit{skip if} \textit{monthempty} \blacksquare$ 'skiptype"book" = type"inbook" = OR'skip month " " * swap*if if

 ${\bf FUNCTION} \ \ {\bf format.edition.or.date} \ \ {\bf edition} \ \ {\bf empty} \\ {\it year empty} \ \ {\bf and} \ \ "" \ \ \ {\bf edition} \ \ {\bf empty} \\ {\it type empty} \ \ {\bf NOT} \\$ type -1 4 substring" mail" = type14substring "Mail" = OR " gesendet: " "- " type * swap*format.date * "Version: "format.date*if" Version: "format.date*if year empty" Version: "edition*" Version: "edition*","

FUNCTION format.doi doi empty""new.block"http://dx.doi.org/"doi*""*if

FUNCTION format.url urn missing doimissing url empty" "typeempty NOT type -1 4 substring" mail" = type14substring "Mail" = OR type" incollection" = """ Absenderadresse: "url*" * if "" url*" * "" * if""url *""*if if format.doiif "http://nbn-resolving.de/urn/resolver.pl?urn="urn *"" * if if if format.doiif "http://nbn-resolving.de/urn/resolver.pl?urn="urn *"" * if

FUNCTION format.maillist.url url empty" typeempty " type -1 4 substring mail" = type 14 substring "Mail" = OR "" $\operatorname{url} * "" * ""$ $\operatorname{if} if$

FUNCTION format.version.url url emptydoiempty urn emptyandandtype "techreport" = format.edition "" if format.edition.or.date output format.url if

 $FUNCTION\ format. edition. or. version\ url\ empty doiempty\ urn\ empty and and format. edition. format. edition. or. date is a constant of the constant of$

FUNCTION format.online.lastcheck lastchecked emptyurlempty doi emptyurnempty and and skip"" outputif $url\ empty doient y\ urn\ empty and and "there's a last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourl, urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" cite\ *\ warning part. of. sentence last checked date but nourly urnor doiin" c$ * output ifif

FUNCTION format.maillist.lastcheck type empty NOTtype - 14substring "mail" = type 1 4 substring "Mail" = OR format.online.lastcheck'skip if'skip if

FUNCTION format.address.publisher.year publisher emptyaddressempty year empty" year if "there's an address but no publisher in "cite*warning address", "* format.date * ifaddressempty year empty" neitheraddressnow * warning publisher publisher", "* format. date* if year empty address": "* publisher* address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* publisher * ", "* format. date* if year empty address": "* format. date* if year empty address ififif

FUNCTION format.address.publisher.year.alt publisher emptyaddressempty year empty"urlempty year "" ifif "there's an address but no publisher in "cite*warning address", "* format.date * ifurlempty address emptyyearempty "neither address nor publication date in "cite*warning publisher", " * format.date * if year empty address ": " * publisher * address ": " * publisher * ", " * format.date * if if publisher if if

FUNCTION format.howpublished url missing urnmissing doi missing AND AND howpublished empty address emptytypeempty "" type -1 4 substring "mail" = "(gesendet: "new.sentenceformat.date * ")" * "" if ifformat.date*address","*format.date*if address emptyhowpublished","*format.date*address":"*howpublished","*format.date*address":"*howpublished" if how published empty "" how published if if

FUNCTION format.lastchecked.or.type lastchecked emptyurlempty doi emptyurnempty and and type emptyskip type set.period.dash.check type output iftypeempty skiptype-14substring "mail" = type 1 4 substring "Mail" = ORskip type set.period.dash.check type output iftypeempty doi emptytypeempty and and "there's a lastchecked date but no url, urn or doi in "cite*typeempty" type empty" there's typeempty and typeempty and typeempty typeempty" there's typeempty and typeempty are empty "there's typeempty output iftypeempty for its "swap * output iftypeempty for its "swap

 $FUNCTION\ format. btitle\ \ title\ emphasize$

"" pages n.dashify tie.or.space.connect "S" * ifif

FUNCTION tie.or.space.connect duplicate text.length 3; "" " ifswap * *

FUNCTION format.series.number.din volume emptynumberempty series empty"""("series*")"*if series empty"("number*")" *"there's anumber but no series in "cite* warning" ("<math>series*number tie.or.space.connect")"* if series empty"" type" proceedings" = type "inproceedings" = OR number empty" ("series*")"*" ("series* number tie")" if if if

FUNCTION format.tr.series.or.number number empty series empty "" "(" series * ")" * if series empty" "(" number * ")" * "(" series * number tie.or.space.connect")" * if f

FUNCTION format.misc.series series empty"""("series *")"*if

FUNCTION format.doi.urn urn emptydoiempty"" "DOI" doi n.dashify tie.or.space.connect if "URN"urnn.dashifytie.or.space.connect if

FUNCTION format.isbn.issn isbn empty
issnempty "" "ISSN" issn n.dashify tie.or.space.connect if
"ISBN" isbn.dashify tie.or.space.connect
if

FUNCTION format.pages pages empty"" urlempty "S." pages n.dashify tie.or.space.connect $\;$ pages if if

if if f FUNCTION format.pages.book pages empty" note empty is bn empty AND" pages as hify tie.or. space.connect S

 ${\bf FUNCTION\ format. pages. bkcollation\ pages\ empty}""" pages n. dashify tie. or. space. connect if$

FUNCTION format.bkpages.collat.check 's := 1 'ptr := s text.length' collation := collation 1 = format.pages.bookcol' t := t "S." = format.pages.bkcollation 0 'collrest := ptr 1 + 'ptr := collrest 1 - 'collrest := 1 collrest = format.pages.book skip if if while if

FUNCTION format.vol.year.num.pages volume field.or.null year empty" there's noyear in "cite * warning" ("year * ")" month empty's kip ", " month * if number empty 'skip", Nr." number * * if pages empty's kip duplicate empty pop" titlemissing ", " pages format.bkpages.collat.check * * ", " format.pages * * if if if

FUNCTION format.chapter.inbook duplicate empty pop "empty chapterin" cite * warning type empty "Kapitel " swaptie.or.space.connect type" "*swap* if f

FUNCTION format.chapter.pages chapter empty' format.pagestypeempty "Kapitel" url emptytype" Kapitel" if flaptertie.or.space.connectpagesempty 'skip", "* format.pages*if if

FUNCTION format.in.ed.booktitle.din booktitle empty" editorempty volume empty" In:"booktitle emphasize*" In volume empty" <math>In:"format.ed.incoll*":"*booktitle emphasize*" In:"format.ed.incoll*":"*booktitle emphasize*" <math>In:"format.ed.incoll*":"*booktitle emphasize*" if if the interval of the interva

FUNCTION format.thesis.tr.type type empty'skip poptypeif

FUNCTION format.article.crossref key empty journal empty "need key or journal for "cite*" tocrossref" * tocrossref * t

FUNCTION format.crossref.editor editor 1 "ll" format.name" (Hrsg.)" *editornum.names duplicate2 > pop ua.etal * 2 ; 'skipeditor2" ffvvlljj" format.name "others" = ua.etal "; " * editor 2 "vv ll" format.name*" (Hrsg.)" *if ifif

FUNCTION format.inbk.vol.title volume empty" In: "titleempty" In: Bd." volume tie.or.space.connect" von "* "In: Bd." volume tie.or.space.connect": "* title emphasize * " (" * year * ") in " * ifif

FUNCTION format.book.crossref type" inbook" = format.inbk.vol.titlevolumeempty" empty volume in "cite*" scrossrefof" *crossref*warning" ". – Bd." volume tie.or.space.connect "von" * if if editor empty $script{editorfield.or.nullauthorfield.or.null} = or keyempty$ series empty" $script{neededitor, key, or script{editor} restriction} = volume tie.or.space.connect "von" * if <math>if$ editor empty if or crossref "von" *if editor empty if or crossref "von" *if expression *if editor empty if entry if entry

FUNCTION format.incoll.inproc.crossref editor emptyeditor field.or.nullauthor field.or.null = or keyempty booktitle empty" neededitor, key, or booktitle for "cite *" to crossref " * crossref * warning" "In : "booktitle * "" * if "In : "if "" * crossref * "" *

FUNCTION article output.bibitem format.authors "author" output.check set.colon.after format.title "title" output.check crossref missing journalarticle.in.journaloutput.nonnullnew.sentence format.vol.year.num.pageson format.online.lastcheck doi set.period.dash.check urn set.period.dash.check format.doi.urn output issn set.period.dash.check format.isbn.issn output note set.period.dash.check note output fin.entry

FUNCTION book output.bibitem author empty format.editors" author and editor" output.check format.authors form set.colon.after crossref missing <math>format.btitle. vol" title" output.check format.btitle" title" output.check if format.edition output format.address.publisher.year "publisher" output.check new.sentence crossref missing format.series.number.dinoutput.publisher.year pages empty skip pages set.period.dash.check pages format.bkpages.collat.check output if format.doioutput.format.urloutput.publisher

FUNCTION booklet output.bibitem author empty format.editors" author and editor" output.check format.authors for set.colon.after format.btitle" title" output.check format.edition.or.version output format.url output format.online.lastcheck format.howpublished output series new.sentence.checka format.series.number.din output pages emptyskip pages set.period.dash.check pages format.bkpages.collat.check output if typeset.period.dash.check format.digital.typeoutput.period.dash.check pages.collat.check output if <math>typeset.period.dash.check format.digital.typeoutput.period.dash.check form

FUNCTION inbook output.bibitem chapter format.chapter.inbook output.nonnull crossref missing authorempty format.editors "In:" swap*" author and editor" output.check format.authors "In:" swap* output.nonnull if authorempty editor empty ANDbefore.all'output.state:=set.colon.afterif format.btitle.vol "title" output.check format.edition output format.address.publisher.year "publisher" output.check new.sentence format.series.number.din output isbn set.period.dash.check format.isbn.issn output format.book.crossref output.nonnull if part.of.sentenceformat.pagesoutput noteset.period.dash.check noteoutput fin.entry

FUNCTION incollection output.bibitem format.authors "author" output.check set.colon.after format.title "title" output.check format.version.url output type empty NOTtype-14substring "mail" = type 1 4 substring "Mail" = OR'skip format.online.lastcheck if format.online.lastcheckif crossref missing format.in.ed.booktitle.din" booktitle" output part.of.sentence format.chapter.pages "pages" output.check note set.period.dash.check note output fin.entry

FUNCTION inproceedings output.bibitem format.authors "author" output.check set.colon.after format.title "title" output.check crossref missing format.in.ed.booktitle.din"booktitle" output.checkaddressempty organization new.sentence.checka organization output part.of.sentence format.address.publisher.year output format.address.publisher.year "publisher" output.check if new.sentenceseriesempty 'skip format.series.number.dinoutput isbn set.period.dash.check issn set.period.dash.check format.issn.issn output format.incoll.inproc.crossref output.nonnull if part.of.sentenceformat.pages "pages" output.checknoteset.period.dash.checknoteoutput fin.entry

FUNCTION conference inproceedings

FUNCTION manual output.bibitem author empty organization empty title empty skip format.btitle "title" output.check if skip if skip if format.authors.organization output.nonnull set.colon.after format.btitle "title" output organization empty <math>ANDaddress "address" output.check part.of.sentence organization empty address "address" output.check part.of.sentence if if format.date output number empty if "("number *")" output if if output if if pages if output format.doi output format.url output format.online.last check note set.period.dash.check note output fin.entry

FUNCTION masters thesis output.bibitem format.authors "author" output.check set.colon.after format.btitle "title" output.check address output part.of.sentence school "school" output.check part.of.sentence "Diplomarbeit" format.thesis.tr.type output.nonnull part.of.sentence format.date "year" output.check format.url output format.online.lastcheck doi set.period.dash.check urn set.period.dash.check format.doi.urn output pages emptyskip pages set.period.dash.check pages format.bkpages.collat.check output ifnoteset.period.dash.check

FUNCTION phdthesis output.bibitem format.authors "author" output.check set.colon.after format.btitle "title" output.check address output part.of.sentence school "school" output.check part.of.sentence "Diss." format.thesis.tr.type output.nonnull part.of.sentence format.date "year" output.check format.url output format.online.lastcheck doi set.period.dash.check urn set.period.dash.check format.doi.urn output pages emptyskip pages set.period.dash.check pages format.bkpages.collat.check output ifnoteset.period.dash.checknoteoutput fin.entry

FUNCTION misc output.bibitem type missing not type duplicate 1 4 substring "Norm" = type 14 substring "Vorn" = OR "" * format.number * output new.sentence format.date output title empty skip add.period new.sentence if format.btitle "title" output.check note set.period.dash.check note output duplicate 16 substring "Schutz" = "" * format.number * output new.sentence "(" * format.date")" * output add.period new.sentence format.authors.organ output note output poppop"" title empty note empty url empty "there's nore levant field in "cite warning pop" format.url output if note" * output.nonnull f author empty editor empty organization empty skip format.editors.organization output.nonnull set.colon.after if format.editors.organization output.nonnull set.colon.after if format.btitle output.nonnull url empty for-

 $\label{lem:mat.edition.output} \ \, \text{format.howpublished output format.howpublished output format.edition.or.} \, \text{date output format.misc.} \, \text{series output note output} \, \text{if } \, \text{fif title empty} \, \text{notempty} \, \text{url empty} \, \text{there's norelevant field in''} \, \text{cite warning pop'''} \, \, \text{format.url output if note'''} \, * \, \text{output.nonnul author empty} \, \text{editors format.editors.organization output.nonnull set.colon.after} \, \, \text{if } \, \text{format.editors.organization output.nonnull set.colon.after} \, \, \text{format.editors} \, \, \text{format.btitleoutput.nonnullurlempty} \, \, \text{format.edition output format.howpublished} \, \, \text{output format.howpublished} \, \, \text{output format.misc.series output noteset.period.dash.checknoteoutput} \, \, \text{if } \, \text{fin.entry} \, \, \text{fin.entry} \, \, \text{format.misc.series output noteset.period.dash.checknoteoutput} \, \, \text{if } \, \text{fin.entry} \, \, \text{fin.entry$

FUNCTION proceedings output.bibitem editor empty organizationempty "empty organization and editor in "cite*organization" (Veranst.)" * output if organizationempty "empty organization organizationempty." set.colon.after format.btitle "title" output.check volume emptysorganizationempty." Bd." volume tie.or.space.connect emphasize "volume" output.check if organizationempty. publisher.organizationempty. skiporganizationempty. publisher.organizationempty. publisher.organizationempty. skiporganizationempty. publisher.organizationempty. publisher.organizationempty

FUNCTION techreport output.bibitem author empty format.editors" author and editor" output.check format.tr.inst set.colon.after format.title "title" output.check institution empty skip author empty

```
FUNCTION unpublished misc
FUNCTION default.type misc
MACRO jan "Januar"
MACRO feb "Februar"
MACRO mar "März"
MACRO apr "April"
MACRO mai "Mai"
MACRO may "Mai"
MACRO jun "Juni"
MACRO jul "Juli"
MACRO aug "August"
MACRO sep "September"
MACRO okt "Oktober"
MACRO oct "Oktober"
MACRO nov "November"
MACRO dez "Dezember"
MACRO dec "Dezember"
READ
FUNCTION sortify purify" l" change.case
FUNCTION chop.word 's := 'len := s 1 len substring= slen1 + global.max substring' sif
FUNCTION initialize.et.al.char.used 0 'et.al.char.used :=
EXECUTE initialize.et.al.char.used
```

 $\label{eq:function} FUNCTION \ format. lab. names \ 's := s \ num. names' numnames := numnames 1 > numnames 4 > 3' names left := num 1 \ 'nameptr := "" names left 0 \ \chi \ nameptr \ numnames = s \ nameptr \ "ff \ vv \ ll \ jj" \ format. name" others" = "+" * 1'et. al. char. used := snameptr" l" format. name * if nameptr 1 + 'nameptr := \begin{align*} names left 1-'names left := while \ numnames 4 \ \chi \ "+" * 1'et. al. char. used := 'skip if \ s 1 "l" \ format. nameduplicate \begin{align*} text. length 2 < pop \ s 1 \ "ll" \ format. name3 text. prefix \ 'skip if \ if \]$

FUNCTION author. key.label author empty keyempty cite 13 substring key 3 text.prefix if author form at.lab.names if

FUNCTION author.editor.key.label author emptyeditorempty key emptycite~1~3 substringkey3text.prefix if editorformat.lab.namesif author format.lab.names if

FUNCTION author.key.organization.label author emptykeyempty organization emptycite~1~3 substring" The" 4organ if key3text.prefix if author format.lab.namesif

FUNCTION editor.key.organization.label editor emptykeyempty organization emptycite~1~3 substring" The" 4organi key 5~ text.prefixif key emptyeditor format.lab.nameskey<math>5text.prefix if if

 $\label{type} FUNCTION\ calc. label\ type"book" = type"booklet" = type"inbook" = oror'author. ditor. key. label type "proceedings" = 'editor. key. organization. label\ type"manual" = 'author. key. organization. label'author. key. label if if duplicate year field. or. null purify -1 2 substring*label := year field. or. null purify -1 4 substring*sort. label := y$

 $\label{eq:function} FUNCTION \ sort. format. names \ 's := 1 \ 'nameptr := "" \ s \ num. names' numnames := numnames' names left := 1 \ names left 0 > nameptr 1 > "" * 'skip if snameptr" llf fvvjj "format. name 't := nameptr numnames = t "others" = and ua.etal * t sortify * if nameptr 1 + 'nameptr := names left 1 - 'names left := while | names left | names | nam$

FUNCTION sort.format.title 't := "A " 2 "An " 3 "Der " 4 "Die " 4 "Das " 4 "Ein " 4 "Eine " 5 "The " 4 t chop.word sortify 1 global.maxsubstring

FUNCTION author.sort author empty keyempty "to sort, need author or key in "cite*warning" key sortify if authorsort.format.namesif

FUNCTION author.editor.sort author emptyeditorempty key empty"tosort, needauthor, editor, orkeyin"cite
* warning""keysortifyif editor sort.format.names ifauthorsort.format.namesif

* warning"" keysortifyif editor sort.format.names if authorsort.format.namesif

FUNCTION author.organization.sort author emptyorganizationempty key empty" tosort, needauthor, organization

* warning"" keysortifyif "The " 4 organization chop.word sortify if authorsort.format.namesif

FUNCTION editor.organization.sort editor emptyorganizationempty key empty" tosort, neededitor, organization, of a warning" "keysortify if a dorganization chop.word sortify if editorsort.format.names if

FUNCTION presort calc.label sort.label " " * type" book" = type "booklet" = type" inbook" = oror'author.editor.sorttype "proceedings" = 'editor.organization.sort type" manual" = ' author.organization.sort'author if if " " * year field.or.null sortify * " " * title field.or.null sort.format.title * 1 entry.maxsubstring 'sort.key:=

ITERATE presort

SORT

FUNCTION initialize.longest.label "" 'longest.label := 0 int.to.chr'last.sort.label := ""'next.extra := 0'longest.label.width := 0'last.extra.num := 0

 $\label{thm:proposed} FUNCTION \ forward.pass \ last.sort.label sort.label = last.extra.num \ 1 + 'last.extra.num := last.extra.num \\ int.to.chr'extra.label := "a" \ chr.to.int \ 'last.extra.num := "" \ 'extra.label := sort.label \ 'last.sort.label := if \ last.extra.num := "" \ 'extra.label := sort.label \ 'last.sort.label := if \ last.extra.num := "" \ 'extra.label := sort.label \ 'last.sort.label := if \ last.extra.num := "" \ 'extra.label := sort.label \ 'last.sort.label := if \ last.extra.num := "" \ 'extra.label := "" \ '$

 $\label{function} FUNCTION\ reverse.pass\ next.extra\ "b" = "a"\ 'extra.label := 'skip if\ label\ extra.label * 'label := label width longest.label.width > label'longest.label := labelwidth 'longest.label.width := 'skip if\ extra.label 'next.extra := 'skip if\ extra.label := 'skip if\$

 ${\bf EXECUTE\ initialize.longest.label}$

ITERATE forward.pass

REVERSE reverse.pass

FUNCTION begin.bib et.al.char.used "[1]1" writenewline 'skipif preambleempty 'skippreamble writenewline if 'the bibliography' longest.label * ""*write newline "writenewline" writenewline "write newline" [1]1" write newline" newline" [1]doi: 1" write newline

EXECUTE begin.bib

EXECUTE init.state.consts

ITERATE call.type

FUNCTION end.bib newline"