
B

A I T_EX

V

Bib

Ger Neugeb

Abstract

B_I T_EX
in ^AT_EX
B_I T_EX
allo
–
and
selecting

B_IB is B_IB
I T_EX
I T_EX.
B_IB include

This BIB V

Cop © 2017

BIB is
the GNU as
v

BIB is
RANTY;
F GNU for
details.

Y GNU along
do COPYING.
Mass

Gerd
Im
64521

Net: <http://www.gerd-neugebauer.de/>

E-Mail: gene@gerd-neugebauer.de

Contents

1.	5
1.1.	5
1.2. BIB —Some	7
1.2.1.	7
1.2.2.	8
1.2.3.	9
1.2.4.	10
1.2.5.	11
1.2.6.	12
1.2.7.	12
1.2.8.	13
1.2.9. BIB for \LaTeX	13
1.3. BIB with	14
1.4. BIB ,	14
1.5. BIB	15
A.	17
A.1.	17
A.2.	17
A.3.	21
A.4.	21
A.5.	23
A.6.	24
A.7.	28
A.8.	30
A.9.	32
A.9.1. aux Files	32
A.9.2.	33
A.9.3.	34
A.9.4.	36
A.9.5.	36
A.10.	39
A.10.1.	43
A.11.	44
A.11.1.	44
A.11.2.	45

A.11.3.	.	53
A.11.4.	.	54
A.11.5.	.	54
A.11.6.	.	54
A.11.7.	.	55
A.11.8.	.	55
A.11.9.	EX/L ^A T _E X	56
A.11.10.	.	57
A.11.11.	.	59
A.12.	.	61
A.12.1.	.	61
A.12.2.	.	61
A.12.3.	.	62
A.12.4.	.	63
A.12.5.	.	64
A.12.6.	.	66
A.13.	.	67
A.13.1.	.	67
A.13.2.	.	68
A.14.	.	69
A.15.	.	71
A.16. i T _E X1.0	.	72
A.16.1.	.	72
A.16.2.	.	72
A.16.3.	.	72
B.		73
B.1.	BIB	73
B.2.	.	73
C.		75
C.1.	.	75
C.2.	A _T E _X	76
C.3.	.	81
C.4.	.	82

1.

The
is

BIB

1.1.

Bi T_{EX} Lam94, P
in A_{TEX} Lam94] I T_{EX}
has
co I T_{EX}.

- inserting
- editing
- using
- sorting
- extraction

Since
to

I T_{EX}

Bi T_{EX} is
and
of EX

A_{TEX}

bib is I T_{EX}

BibLa_{TEX}

bib is I T_{EX}
act

bibindex/biblo is
Bi T_{EX}
so

bibso is I T_{EX}

bib is I T_{EX}
file A_{TEX} I T_{EX}

lo are
a I T_{EX} A_{TEX}
Bi T_{EX}

bibto is
to
tasks.

bibview is I T_EX
are A_TE_X

JabRef is I T_EX
platform

BibCa is
a

xbibtex/bibp are
running
fields I T_EX I T_EX

bibview is
in I T_EX

tkbibtex is I T_EX
ing.

bib Editor I T_EX

qbibman is BIB as
library

Ba an I T_EX

Bi T_EX-Mo is I T_EX-Mo
Bi T_EX
for

btOOL is I T_EX
b

This
I
short GMS94,

Most
are
single

Still BIB tries
to

1.2.

BIB has
man
options.
resource
determining

BIB .

When BIB has
`bibtool`¹.
preter.

BIB from

```
bibtool
```

No BIB will
B_I T_EX² The
that
the

Usually BIB in
input
name

```
bibtool file.bib
```

The
`file.bib` is

No BIB w
case BIB .
B_I T_EX

1.2.1.

B_I T_EX -s.
sorted
BIB will

```
bibtool file1.bib
```

With -S the ASCII order.

```
bibtool file1.bib
```

¹Ma

²W

If \LaTeX should

```
bibtool -sort.format="%N(author)"
```

This that line so are

1.2.2.

Once reference easy it \LaTeX

One Alternativ authors suc desired

BIB has

F is \LaTeX ³ Supp sample.bib.

```
@ {
  a
  t
  j
  y
  v
  n
  p
  m
  n
}
```

First, of follo

```
bibtool sample.bib
```

After output sample1.bib:

³Shamelessly \LaTeX xamples.bib file.


```
@      {
  a
  t
  j
  y
  v
  n
  p
  m
  n
}
```

Y
the
to

```
bibttool  sample.bib
```

The aamport.la:gnats.
first
the
Another
follo ⁴

```
bibttool  %n(author):%2d(year)
```

The Aamport:86.
sample
generation [A.10](#) is

1.2.3.

BIB can I T_EX
w I T_EX
braces
the BIB can

```
bibttool - 'rewrite.rule={"^\"\\([~#]*\\)\"$"} out.bib
```

Since
w
bash,...)
rewrite
in

⁴Note
quoted

The
closed
then

The
the \wedge).
c
only

Since
giv
pattern \backslash).

Next $\backslash($ $\backslash)$.
sub-string
is

No
purp $[$ $]$.
sp
Th $\#)$

The $*$)
of

W
whic
lik

a

Suc
p $.$)
w

a

But
replacemen $\backslash 1$ is
but
of
Th
sometimes

1.2.4.

BIB can
BIB analyzes `.aux` file

names I \TeX I \TeX
 Instead .aux file -x.

```
bibttool do -o do
```

The -o follo
 This
 written

1.2.5.

BIB can
 can ⁵ As
 con

```
bibttool tex -o some.bib
```

This tex in
 option -o follo
 of

Next
 purp ⁶

```
bibttool sele {"tex"} al -o some.bib
```

Note
 page ³⁴).

Finally
 tain sele
 instruction:

```
bibttool sele {title $key } al -o some.bib
```

This tex in
 b

After
 short

```
bibttool sele {$key } al -o some.bib
```

⁵Those
 ration BIB —whic

⁶Note
 select

As
This

```
bibttool      sele  { @b  } al      -o some.bib
```

A

Note Usually
in
follo

I T_EX

```
bibttool      sele  { b  } -c al      -o some.bib
```

1.2.6.

Sometimes

I T_EX

p

I T_EX

incompatible
tric

ASCII as

I T_EX.

BIB

to

```
bibttool      iso2tex -i iso.bib -o ascii.bib
```

1.2.7.

Bi T_EX
en
those

This

```
so      { { %1.#s(crossref      } $k  }
so
so
```

The

%1.#s(crossref)

This
dition

coun
with

#s)
, ∞] 1.).

crossref and

Th

%1.#s(crossref)a

If

a is

```
{%1.#s(crossref)a#z}
  If                                     #)
  considered.                          z whic
  in
  Th                                   a if
  or z otherwise.

{%1.#s(crossref)a#z}$key
  Finally                             $key)

The
fields
```

1.2.8.

Sometimes \LaTeX \LaTeX

b \LaTeX

ha

suc delete.field as

The BIB with

the -r.

```
delete.field { libno }
```

If delete.field sev

All

Another

```
bibttool ke _bibtex -o r
```

This k _bibtex.rsc whic \LaTeX .

should

And \LaTeX

command

```
bibttool ke _biblatex -o r
```

1.2.9. Bib fo \LaTeX

BIB con \LaTeX \LaTeX .

definitions biblatex.rsc.

command

```
bibttool biblatex -i in.bib -o out.bib
```

Details

[C.2.](#)

1.3. Bib with

BIB can
data
form
information
In BIB can
mations
easy
from I T_EX
Curren BIB con
can
I BIB a
this
do
A
exp
BibTcl BIB .

1.4. Bib ,

Usually BIB can
BIB via
It

<http://mirrors.ctan.org/biblio/bibtex/utils/bibttool>

A
<http://pgp.mit.edu/>. gene@gerd-neugebauer.de.

BIB is [github](#)⁷.
sources

<https://github.com/ge-ne/bibttool>

I BIB .
and
The

<http://www.gerd-neugebauer.de/software/TeX/BibTool/>

⁷It

In Bib and
of

If Bib y
m gene@gerd-neugebauer.de.
in

- The Bib y

- Y

- The
tion

- The
for

- A *smal* Bi T_EX

- The Bib making
p

- A

I
problems
rep

On
ab
had

Oh, Bib .
am

1.5. Bib

As Bib is
F
not

COPYING for

If
the

- Pro
material

- Pro Bib .
files

-
- W
ably GNU or

A.

This
b BIB can
y *instal* if

A.1.

Be
command
to
lik
F
argumen ’) \,
\$, &, !, #.
Instead
to
the

A.2.

BIB can
mands
T is BIB
with **bibttool** (ma
can BIB in
a
the
can

bibttool

No BIB is BIB reads
This I T_EX
when BIB is
c

This
argumen BIB . -h as

```
bibttool
```

This
line

The
command -r.

```
bibttool r _file
```

In
read
command BIB tries
v BIBTOOLRSC is
resource
All
set
.bibttoolrsc)
v HOME)

The I T_EX
section A.4). .rsc is
is BIBTOOL.
is
resource resource.sea .

```
resource.sea path
```

When
T -R
can

```
bibttool
```

No
resource .bibto) my_rsc.
The BIB uses my_rsc:

```
bibttool -r my_rsc -i sample
```

If
the -R b the

```
bibttool -R my_rsc -i sample
```

If `-R` argument
 ev

```
bibttool -r my_rsc -R sample
```

Additionally

in
 one
 in BIB ¹.

As
 cations:

```
bibttool -r my_rsc -i sample -R
```

```
bibttool -i sample -r my_rsc -R
```

No
 a

```
name = {value}
```

name is I T_EX
name can

"

Resource
 is =).
 syn
 resource
 kind:

- A
- A
 bidden
- A
 taining
 pairs.
- A
 theses

{}).

¹This

Y
Resource
v

- Bo on and off. on, t, true,
and y are
ignored. true and T are
as off.
- Numeric
- String

Usually % and
act
to
No
files

```
resource {additional/resource/file}
```

Th
-r describ
op

One p resource.
is
c
can
in

T p resource.
see

```
p
```

Finally
the -- The
command

```
bibttool r _c
```

This
terpart. p instruction
command

```
bibttool print{hel _world}
```

A.3.

BIB as
used
In BIB returns 0 if
co 0.

Summa

<i>Option</i>	
<i>-h</i>	Sho
<i>-R</i>	Immediately default
<i>-p {message}</i>	W <i>message</i> .
<i>-r file resource =</i>	Immediately resource <i>file</i> .
<i>resource.sea</i>	List
<i>-- rsc</i>	Ev <i>rsc</i> .

A.4.

An
w
restriction
a

```
bibttool input_file
```

The input can

```
input {input_file}
```

Input
standard

Dep BIB there
for I T_EX BIB uses
extensions
additional
nativ BIB searc

The
extension .bib is
giv

w bibtex.sea can
sp

bibtex.sea {directo }

The
as
BIBINPUTS. I T_EX
path. bibtex.sea .
c
of

T
b bibtex.env.name o
en BIBINPUTS.

bibtex.env.name {ENVIRONMENT_V }

The env.sepa is
resource bibtex.sea and bibtex.env.name.

env.sepa {:}

The /).
c dir.file.sepa can

dir.file.sepa {\}

Note that env.sepa and dir.file.sepa are
to
at env.sepa is ; and
dir.file.sepa is \.

If I T_EX
describ
probably E_X
I
details.

Summa

Option		
<code>bibtex.env.name={var}</code>	Use directories put)	<code>env</code> to I T _E X
<code>bibtex.sea</code> <code>={p }</code>	Use (input)	<code>p</code> to I T _E X
<code>dir.file.sepa</code> <code>={c}</code>	Use from	<code>c</code> to
<code>env.sepa</code> <code>={c}</code>	Use a	<code>c</code> to
<code>-i file</code> <code>input{file}</code>	Add I T _E X files.	<code>file</code> to

A.5.

By I T_EX
output `-o` as

```
bibtool output_file
```

The output.file can

```
output.file {output_file}
```

No

A standard

The status

W
are
pro
but

W `-q`.
toggles

```
bibtool
```

The on or off to quiet:

```
quiet
```

Status
the -v.

```
bibttool
```

The verb :

```
verb
```

Another
section [A.14](#) on

Summa

Option			
-o file	output.file {file}	Direct	file.
-q	quiet=on	Suppress	pressed.
-v	verb =on	Enable	of BIB .

A.6.

The
prin
syn I T_EX

This
BIB exits
is off. pa

Eac
an
the
discarded
c BIB stores I T_EX
pass.comments can

```
pass.comments
```

If
file.

The I T_EX
fined BIB . new.entry
as

new.entry	{Anthology}
-----------	-------------

This
defined. A as
en

new.entry	{ANTHOLOGY}
-----------	-------------

Eac

When
stance

b p .
acter
database
to

a The

c The

i The

m The

n The

p The

\$ The

S The

s The p determines
whether

The
desirable

p	{pn}
---	------

The
options.
the

p This
whic
line.

p This
en

p

²This

Next
title.

<pre>@Unpublished{ author title note }</pre>	<pre>p and exceeds</pre>	<pre>p</pre>
--	--------------------------	--------------

The
the new.field.t .
the
only

```
new.field.t { autho }
```

This
a

```
new.field.t { OPT }
```

String I \TeX . Bib normalizes
b
other
i.e.

The symb .
lower, upper, cased.

```
symb
```

The
Th
ab
t

The
(see [A.10](#)).
times
not
is
Y

I \TeX
p .

p

If the
enced p .
recognize

Summa

Option			
<i>new.entry</i>	{ <i>typ</i> }	Define	<i>typ</i> .
<i>new.field.t</i>	{ <i>typ</i> }	Define	<i>typ</i> .
<i>pa</i>	= <i>on</i>	F	encoun
<i>pass.comments</i>	= <i>on</i>	Do	the
<i>p</i>	= <i>on</i>	Do	ing.
<i>p</i>	= <i>n</i>	Align	<i>n</i> .
<i>p</i>	= <i>n</i>	Align	<i>n</i> .
<i>p</i>	= <i>n</i>	Align	= of <i>n</i> .
<i>p</i>	= <i>n</i>	Align	= of <i>n</i> .
<i>p</i>	= <i>on</i>	Put	line
<i>p</i>	= <i>n</i>	Inden	<i>n</i> .
<i>p</i>	= <i>n</i>	Break	<i>n</i> .
<i>p</i>	= <i>n</i>	Num	
<i>p</i>	= <i>on</i>	Use	TAB c spaces.
<i>p</i>	= <i>off</i>	F	
<i>supp</i>	= <i>on</i>	Suppress	records.
<i>symb</i>	= <i>typ</i>	T	<i>typ</i> :
		lo	

A.7.

The reference -s and -S as

bibttool

bibttool

The ASCII order
 lo ASCII order.
 ac so and so resp

so {on}
 so {on}

The so determines
 so determines ASCII
 order
 otherwise.

Alternativ
 ification
 describ [A.10](#) in

The so .
 tiv

so {%N(autho }
 so {%N(edito }

Those

so {%N(*autho* }

This
 giv
 k

Let 8. so so instruc-
 tions so giv
 w

Note that ASCII order
 the

Usually
 v p can
 cased
 the so to
 k

p {on}
 so {on}

so	$\{\text{off}\}$
----	------------------

1.2.1 on 7.

Summa

Option			
-S			Enable der.
-s	so		Enable
	so	=on	Use sorting.
	so	{ sp }	Add sp to sp
	so	=off	T
	so	=on	Rev

A.8.

BIB	mak
regular	
regular	

regex-0.12/regex.texi

Note

Ordina	matc
--------	------

An
letters

$$ab \text{ matc} \qquad ab .$$

The (.)

$a.c$ matc ab but

 abb .

The (*)
pression.

F ab^*c matc ac and
follo ab .
 $abbb$.

The (+)
pression,
empt
an

F $ab+c$ matc $abbb$.
follo
not ac .

The (?)
regular
question

F $ab?c$ matc ab .
follo
matc abb .

The (\\|)
a

Note

F $ab \setminus def$ matc ab and
 def .

P (\\(\\))
paren

Note

F $a \setminus (b \setminus d)c$ matc ab and adc .

The (\$)
anc
expression

F $ab \$$ matc $aaaab$ but
matc ab .

The (^)
to
of
con
describ

F $\wedge ab$ matc ab but
 matc $aaaab$.
The $([])$
 list $\wedge)$
 Otherwise
 F $[ab$ matc $a, b,$
 c. $d.$
 The $[\wedge ab$ matc
 a,
The (\backslash)
 sp
 is
 If d then d^{th}
 matc
 F $(an)\backslash 1as$ matc $ananas$ since
 first $an.$
 If n then
 newline.
 If t then
 single TAB c

A.9.

A.9.1. aux Files

BIB includes I T_EX
 accomplished aux file aux file
 b ^AT_EX. I T_EX
 in aux file
 Since I T_EX aux file
 input
 T aux file -x can
 the aux file.

```
bibttool file.aux
```

Multiple
 with extract.file can

```
extract.file {file.aux}
```


A
ically
man
Note
tries.
resolv
One
L^AT_EX
same
An

p to off.
I T_EX
I T_EX \nocite{*} is
BIB .
1.2.4 on 10.

A.9.2.

The
whic
can
on.
Th
describ
The
for.
has

select.b
A.9.3.
select.b is

```
select.b {"some" }
```

This
The
those
can

some in

```
select.b {field1 . fieldn "string" }
```

T
the
with
resources
is
expressions

select.case.sensitive.
A.9.3).

During
certain
The
the

BIB ignores
select.b .

```
select.b { " {} [] }
```

As `select.case.sensitive` the `select.b` no is to

In `select.b` can used form `select.b` :

```
select.b { field1 . fieldn "string" }
```

Note Cross-references `select.crossrefs` is

A.9.3.

Another `b` aux files. is [A.8.](#)

The `select` allo general

```
select { field1 . fieldn "regula _exp" }
```

If expression `"."` is

An selects `field` which has `r _expr` regular

The `$key, $type, @typ` can the [53](#) for here.

Analogously `select.non.` b

```
select.non { field1 . fieldn "regula _exp" }
```

The `select.case.sensitive` can is

```
select.case.sensitive { off }
```

Note
collected
selection
of
used
sensitiv

`select.case.sensitive` is

A

`-X` as

```
bibttool  r  _expr
```

The
`select.fields.`
fields
spaces.

`$key.`

Th
considered

`author` and `editor` are

```
select.fields  {"author  }
```

Without
len

`select.fields` the

```
bibttool  sele  {$key  _expr  }
```

Note
pressions
to
sensitiv

`select.case.sensitive` and `select.fields` are

Finally

`extract.regex` can

```
extract.regex  {regula _exp  }
```

This
k
v

Note Cross-references

`select.crossrefs` is

A.9.4.

When
cross-references
and `\TEX`

The
`select.crossrefs.` `off` `b`
ignored.

The
referenced

```
select.crossrefs
```

A.9.5.

`\BI TEX`
plished `crossref` field.

```
@ {
  b
  b
}
@ {
  a
  t
  c
}
```

Sometimes `crossref` and
ing
`b` `expand.crossref.` `off` `b`
cross-references

The
referenced

```
expand.crossref
```

Note means *not* in `BIB` acts
the `crossref` field
title

A `crossref` field.
recursiv

The `crossref.limit.`

This
than
32.

```
crossref.limit
```

Bib_{La}T_EX [Leh14](#)]
are `crossref.`
exp
an
T BIB con
field
name
name
This `crossref.map.`
sym
This

```
crossref.map {source.t }
```

The
issued
T
t

```
crossref.map {{source.t _1 source.t _2} source.field  
{ta _1 ta _2 ta _3} ta }
```

In
as
If
when
newly
Initially
they
previously

```
clea {}
```

Bib_{La}T_EX [Leh14](#)]
sp @XData can
b xdata whic
comma @XData en

```
@ {
  b
  b
}
@ {
  p
  a
}
@ {
  a
  t
  x
}
```

BIB supp
to crossref fields BIB can xdata fields.
can expand.xdata. off b
It

expand.xdata

Summa

Option		
	<i>expand.crossref=on</i>	Include crossref field.
	<i>expand.xdata=on</i>	Include xdata field.
-x	<i>extract.file{file}</i> <i>extract.regex{expr}</i>	Extract aux file. Discouraged mand.
-X r	<i>select{sp }</i> <i>select.b {sp }</i> <i>select.b {sp }</i>	Select pression. Select string Select matc
	<i>select.b {chars}</i>	Define the
	<i>select.case.sensitive=off</i>	T
-c	<i>select.crossrefs=on</i>	T referenced
	<i>select.fields{fields}</i> <i>select.non{sp }</i>	Determine -X . Select ular

A.10.

The
b
k
a
to
option `-f` in

```
bibtool format
```

This
The k .

```
k {fo }
```

Some *format* ha
of
w I T_EX

```
@
  a
    a
  t
    e
.
}
@ {
  a
  t
  .
}
@ {
  e
  t
  .
}
@ {
  k
  n
}
```

sho If
editor
only
separator
is

key is

```
fmt.name.title
default.k
```

k).

T BIB to
command --
(remaining)

```
@
@ {
@ {
@ {
```

long

The
ting

If BIB is
argumen -- w

```
@
@ {
@ {
@ {
```

new.sho

This sho but
is p and

If BIB is
argumen -- w

```
@
@ {
@ {
@ {
```

new.long

This long but
obsoleted p and

If BIB is
argumen -- w

```
@
@ {
@ {
@ {
```

empt

The
Bi T_EX
whic
giv

If BIB is
argumen -- w


```
@
@      {
@      {
@      {
```

In
matting
done

-F as

```
bibttool
```

Alternativ

k

can

```
k
```

Usually
citations
resource

off.

on then

p

is

they
white-space

I T_EX)

```
@      {
a
t
j
y
v
n
p
m
n
}
```

Ev

p

is on, BIB

still

can

p

to on (see [A.6](#)).

When

k

is

empt

then

or

the

found

the

of

k

.

v

upp

, lo

,

digit.

	generated	digit
	key	
	key	
	key	
	key	
	key	
As the Those sp		A.11 w
p This unc off.		
p This and case off.		
default.k The **key*.		
k The disam letters, upp , lo , digit.		
k The n *.		
k The macros off.		
fmt.name.title The names :.		sho and long to
fmt.title.title The default :.		
fmt.name.name The the I T _E X and) ..		
fmt.inter.name The when -.		
fmt.name.p The formatting ..		
fmt.et.al The The .ea. and parts		

fmt.w The
 considered
 c

The sho can
[A.11](#) as

```
{
  {
    #
  }
  {
    #
    #
  }
}
#
{
  #
}
}
#
```

The [A.11.](#)

A.10.1.

BIB pro @Alias definitions
 whoic
 curren I T_EX

The k .
 in

k

The off.

Summa

Option				
	p	$=off$	Do presen	
	p	$=on$	Do ing.	
	$default.k$	$=\{key\}$	Key	
	$fmt.et.al$	$=\{e\}$	String	
	$fmt.inter.name$	$=\{s\}$	String	
	$fmt.name.name$	$=\{s\}$	String	
	$fmt.name.p$	$=\{s\}$	String	
	$fmt.name.title$	$=\{s\}$	String	
	$fmt.title.title$	$=\{s\}$	String	
	k	$=\{b\}$	Kind k	
	k	$=off$	T	
$-f$	k	$\{fmt\}$	Set	$fmt.$
$-F$	k	$=on$	T	
	k	$=on$	T	@Alias en
			whic	
	k	$=\{s\}$	String	
			n	

A.11.

A.11.1.

The
an

"

This I T_EX.
no
that I T_EX
F

Key
the_name.of-the-@uthor-is:

No
the
are [3](#)

Author
AuthorOrEditor
A

A.11.2.

The
with % c
Since $\text{\texttt{I T\textsubscript{E}X}}$
sev

`%N(author)`

The % c N—whic
formatting
example `author` according
names N).

The
`%sign` (*field*)

In *sign* is + or -. + means
upp - means
giv

pr and *p* are *letter*.
qualifier is
tionally #.
list:

p F *p* .
at *pr* names
and .

pr defaults *p* defaults

See [A.11.10](#) for

Example

a

³W
the

With

```
%p(author)
%1p(author)
%-2p(author)
%+1p(author)
```

n F

```
In          pr last
are          and      .   p   is          p
c

pr defaults  p   defaults

This          p format          p
v          n sp          len v
sp          A.11.10)
```

Example

a

With

```
%n(author)
%1n(author)
%-2n(author)
%+1n(author)
% .3n(author)
```

N F

```
In          pr last
are          and      .   p   is          p
c

pr defaults  p   defaults

This          p format          p
v          n sp          len v
sp          A.11.10)
```

Example

a

With

```
%N(author)
%1N(author)
%-2N(author)
%+1N(author)
% .3N(author)
```

d F

The p^{th} n
righ
58.

"june

pr digits—coun
formatted %2d results

pr defaults
it

p defaults
use %.2d as

If
%0d can

P
ha
in

If
a 0 is

If
the
n 0s

0 if

Example

p

With

%d(pages)
%1d(pages)
%4d(pages)
%-4d(pages)
%-5.2d(pages)
%.3d(pages) *fails*
%+.3d(pages)
%0d(pages) *suc*

D F

This
cated.

d sp

Example

p

With

```
%D(pages)
%1D(pages)
%4D(pages)
%-4D(pages)
%-5.2D(pages)
%.3D(pages)      fails
%+.3D(pages)
%0D(pages)
```

s T

A *pr c*

pr defaults

Example

a

With

```
%s(author)
%8s(author)
%-8s(author)
%+8s(author)
%0s(author)    suc
```

T F

A *pr w* *pr is*

artificial *p* is *p* letters

are

New *igno* .

pr defaults *p* defaults

Example

t

With

```
%T(title)
%2T(title)
%2.1T(title)
%-T(title)
%+T(title)
```

The

T

ered

use `fmt.w` . `+`, `-`,
`<`, `=`, `>`, `*`, `/` are

```
fmt.w "+-<=>*/"
```

Note `fmt.w` is
`p`

`t F` `T no`
 A `pr w` `pr is`
 artificial `p` is `p` letters
 are
`pr` defaults `p` defaults

Example

```
t
```

With

```
%t(title)
%2t(title)
%2.1t(title)
%-t(title)
%+t(title)
```

`w F`
 This `T except`

Example

```
t
```

With

```
%W(title)
%2W(title)
%2.1W(title)
%-W(title)
%+W(title)
```

`w F`
 This `t except`

Example

```
t
```

With

```
%w(title)
%2w(title)
%2.1w(title)
%-w(title)
%+w(title)
```

#p Coun

If $sign$ is $sign$ is + then
less pr or p then
it

The and ,
authors,

If $sign$ is - then
sign - acts

If ∞ .

If a is and then

```
%l.h#p succeeds  $l \leq a \leq h$ .
%-l.h#p succeeds  $l$  or  $a$  .
```

pr and p b

Example

a

With

```
%2#p(author) suc
%4#p(author) fails
%-4#p(author) suc
%3.4#p(author) suc
%-3.4#p(author) fails
```

#n Is #p.

#N Is #p.

#s Coun

If $sign$ is $sign$ is + then
less pr or p then
it

If $sign$ is - then
sign - acts

If ∞ .

pr and p b

If a is
 $\%l.h\#s$ succeeds $l \leq a \leq h.$
 $\%-l.h\#s$ succeeds l or a .

Example

t

With

$\\#s(title)$ *suc*
 $\%13.13\#s(title)$ *suc*
 $\%10.16\#s(title)$ *suc*
 $\%-10.16\#s(title)$ *fails*

#w Coun

w EXing
 If *sign* is *sign* is + then
 less *pr* or *p* then
 it
 If *sign* is - then
 sign - acts
 If $\infty.$
pr and *p* b

If a is
 $\%l.h\#p$ succeeds $l \leq a \leq h.$
 $\%-l.h\#p$ succeeds l or a .

Example

t

With

$\\#w(title)$ *suc*
 $\%3.3\#w(title)$ *suc*
 $\%1.6\#w(title)$ *suc*
 $\%-1.6\#w(title)$ *fails*

#t Is **#w.**

#W Coun

determined igno .
 after EXing
 If *sign* is *sign* is + then
 less *pr* or *p* then
 it

If $sign$ is $-$ then
sign $-$ acts

If ∞ .

pr and p b

If a is
ignored
 $\%l.h\#p$ succeeds $l \leq a \leq h$.
 $\%-l.h\#p$ succeeds l or a .

Example

t

With

$\% \#W(title)$ suc
 $\%2.2\#W(title)$ suc
 $\%1.6\#W(title)$ suc
 $\%-1.6\#W(title)$ $fails$

$\#T$ Is $\#W$.

If
example, $\%t(title)$,

t

In The-Whole-Title.

The $(field)$ selects
B1 T_EX
fails

But
B1 T_EX $crossref$ is
en $crossref$ field
the
the $crossref.limit$. $crossref$ field
b

Usually I T_EX
Nev

T $crossref.limit$ to
this

A.11.3.

In
listed

\$key This
none

\$sortkey This
formed.

\$default.key This default.k sim-
ilarly fmt.name.title, fmt.title.title, fmt.name.name, fmt.inter.name,
fmt.name.p , fmt.et.al can

\$source This
If
then

\$type This
@ of I T_EX article.

@t This
(ignoring
In %s(@Article) succeeds Article
whereas %s(@Book) fails.

\$day This
string
the BIB run
BIB .
On
In

\$month This
string

\$mon This
if

\$year This
string

\$hour This
string

\$minute This
empt

\$second This
empt

`$user` This `$USER` or
 empty
 con
 a

`$hostname` This `$HOSTNAME`
 or

A.11.4.

Conjunctions
 simply
 part

Supp I T_EX editor and year.
 conjunction

`%-3n(editor)`

If editor field "E.D." and year field "1992" then
 the itor:92.

A.11.5.

Dep
 This P -lik
 as

`(field) then-p } else-p }`

If [A.11.2](#) succeeds *then-p* is
 ev *else-p* is
 the

Let
 author if

`(author){%N(author)}{--no-author--}`

A.11.6.

Alternativ #).

`alternative1 # alternative2 # . # alternativen`

The
the
whole

An

The [A.11.5](#) can

`%N(author)`

If
Otherwise

A.11.7.

An `{}`)
dence

Coming
w
follo

`{%N(author)`

The `#` in

Another
a

`{%0s(@book)`

The `%0s` sp
adding
construct `@book` and `@proceedings`.
pseudo
form
only

A.11.8.

Certain
ignore
it
of
languages

The `igno` can
w
there

```
igno {w }
```

T
compiled
Afterw
This
op
for

clea .

```
clea {}
```

A.11.9. \LaTeX

When \LaTeX
macro \LaTeX
`tex.define` can \LaTeX \LaTeX
simplest \LaTeX .

```
tex.define {macro=replacement }
```

This
replacemen

In
 \LaTeX 's `\newcommand` the

```
tex.define {macro[a ]=replacement }
```

The
writing `#n`, n is

F

Note $=)$
un

Usually \backslash). $\text{\textcolor{blue}{Kn}}$ $)).$ $\geq 128)$
another
p
appropriate \LaTeX

F $\backslash\text{\TeX}$ to
 \TeX .

```
tex.define {\T }
```


Without The w book.
 nition TeXbook.

Supp
 The 4

```
tex.define {'' }
```

With `\protect` macro
 b

```
tex.define {\p }
```

Some BIB (see
 app [C](#)).

A.11.10.

Names BIB tries
 them i T_EX
 comp

- The
 case
 F
- The
 junior
 F
- The
 letters.
 F
 w
- The BIB kno
 only
 sen.,

Ev
 More [Lam94](#) P].

BIB pro
 construct %p format
 (see

⁴T

BIB uses
fined.
name

⁵ Initially

`%*1 [fmt.inter.name].`

`%*1 [fmt.inter.name] %*1 f [fmt.inter.name].`

The

%N and %n.

Th

name

BIB

issues

The

new.fo

can

new.fo {17="%f%v%l" }

This

is

used

+ or - and

a

f, v, l, j.

argumen

Th

`%sign .numb [pr] [mid] [p]`

The f denotes

l denotes

v

denotes

j denotes

If *sign* is + then

sign is - then

translated

is * then

The *len* can

is

len c

len is

is

∞ .

sp

The

numb after

tak

If `[mid]` is

none

If `[pr]` is

empt

If `[p]` is

empt

No

Cervantes

Saavedra, ⁶.

the

⁵The

⁶This

W

```
%1f[.] [] [.]%1v[.] [] [.]%3l[-]%1j
```

This
and

M.d.Cer-Saa.

Note
k

A.11.11.

T
sp
generated:

1. If `bibkey` is
2. If
the
3. If `article)`
journal,
b
separated
4. If `proceedings)`
the
should
5. If
the
6. Otherwise
used.
at

The
translated
with

The
string.

T

```
k      =      =
k      =      =
k      =      =
k      =      =
{      =      =
%
#
```

```
%
{
{
#
%
{
{
{
{
#
%
{
{
{
{
#
%
{
{
{
{
#
% $t
{
#
}
{
#
% $t
%
#
}
```

Since
use
they
statemen
the
The
struction
of
same
The
failure
field

%0w(@book) are
%0w could
{%4d(year) alw
#)

cond

Summa

Option				
clea	{}	F		
new.fo	{n=sp }	Define		
igno	{s}	Add		
tex.define{macr	}	Expand	EX	macr to text.
tex.define{macr	}	Expand	EX	

A.12.

This

A.12.1.

Certain

F

imp

ev

this

add.field is

```
add.field {field=value}
```

This

do

they

value can

“F

45.

[A.11.2](#) ab

Supp

time-stamp

time.

```
add.field {time=" June }
```

If

can

[53](#)).

```
add.field {time="%s($mon) }
```

If

this

```
add.field {time="%3s($mon) }
```

A.12.2.

Certain

ation.

delete.field is

The

field:

```
delete.field {field}
```

Sev

The
b
k allo
In
the

Sev k can
not
Note
the
Next

The pseudo-field is As y illustrated if.

The
In *)
name * is

The
an
The
satisfies

The `k_bibtex.rsc` and `k_biblatex.rsc` contain the resources declarations for `BiTeX` and `ATeX`.

A.12.4.

Fields
that

The `rename.field` can
used

```
rename.field {old=new}
rename.field {old=new if field=pattern}
```

The `old` and `new` are
(unquoted)
output

In `field` is
section [A.11.3](#)).
against `p` . `p` is
The `p` matc `field`.
record

The `rewrite.case.sensitive`.

The
written

Note
w I `TeX`

Note
in

The `rename.field`.

The

```
rename.field {auto }
```

The `title to booktitle` for
t

```
rename.field {title }
```

A.12.5.

Field

I T_EX

data

as

1.2.3.

The

rewrite.rule can

follo

```
rewrite.rule {field1 . fieldn # _text}
```

*field*₁ . *field*_{*n*} is

whic

to

```
rewrite.rule {pattern _text}
```

Next

sign

p is

against

then

replacemen

r *_text* is

The \'

\'*n*'

*n*th matc

of *p* . *n* is

inserted.⁷ Th

Other

\\$ whic

\@ whic

If

delete.field is

text.

```
rewrite.rule {field }
rewrite.rule {pattern}
```

More

```
rewrite.rule { time {}$" }
```

⁷F

escaping

deletes

is

of

field

This

the

```
rewrite.rule { " ^{}$" }
```

Note

quote

```
rewrite.rule { " ^\" \"$" }
```

The

tion [A.11.2](#) on [45](#).

sp

follo

presen

```
rewrite.rule { time }
```

The `. * matc`

the

Th

Usually

matc

resource `rewrite.case.sensitive` whic on b

only

```
rewrite.case.sensitive
```

A

T

n

negativ

of

limitation

Next

c `⊥`,

b

`rewrite.limit` con

`rewrite.limit` is

`rewrite.limit` indicates

- Empty
which
with

```
rewrite.rule { "~\"_*\$" }
rewrite.rule { "~{_*}\$" }
```

The ~'
The
regular

- Ranges
(--).
deleted

```
rewrite.rule { pages }
```

- Field $\text{\texttt{\textbackslashprotect macro}}$ ^{AT_EX}
how
delimiter

```
rewrite.rule {title }
```

A.12.6.

Fields

a so .
The

```
so { entry 1 # 2 # }
```

entry is book. *fields*
names author. *field1* should *field2* etc.
which
order

Another *.
kind
b

An
a

Consider

so	{*	}
so	{misc	}

This
misc
The so fld.rsc con

Summa

Option		
	<i>add.field{field=value}</i>	Add
	<i>delete.field{field}</i>	Delete
	<i>rename.field{old=new}</i>	Rename
	<i>rename.field{old=new tern}</i>	Rename condition.
	<i>rewrite.case.sensitive=off</i>	T rewriting.
	<i>rewrite.rule{fields#p }</i>	Replace replacemen
	<i>so ={entry=f#. }</i>	Sp en

A.13.

Seman
parsing.

A.13.1.

When
doubled
problems
double
The
sort
of
comparing so (see [A.7](#)).
The
doubles.
It
double

as
 presen I \TeX BIB will
 remo pass.comments is off,
 Sometimes
 commen
 resource p . off then
 completely
 The p whic
 to
 ending @ since
 The check.double.delete can
 F

```
check.double.delete
```

The check.double can
 is

```
check.double
```

Chec -d:

```
bibttool
```

A.13.2.

The A.8)
 A.12.5)
 resource check.rule is check.rule is rewrite.rule.

```
check.rule { field }
```

Again *field* and *message* is
 sign

Eac
 where *field* (if *p* matc
 the *message* is
 no

message is rewrite.rule,
 com A.12.5 are

Usually
 matc

resource check.case.sensitive which
only

A.12.5.

check.case.sensitive

Consider
from

```
check.rule { year    \{"{] 1[89] [0-9] [0-9] [\"]}$" }
check.rule { year    \{"{] [0-9] [0-9] [\"]}$" }
check.rule { year    \@ \$. }
```

The
digits.
at
whole

⁸ The

The
message
then

Otherwise
empty
the
b

\@ is

\\$ b

Summa

<i>Option</i>		
	<i>check.case.sensitive=off</i>	P
<i>-d</i>	<i>check.double=on</i>	Find sort
	<i>check.double.delete=on</i>	Delete them.
	<i>check.rule{field#p</i> }	If the

A.14.

Strings I T_EX
bases.
macros

macro.file is

⁸In
But

macro.file {macro/file/name}

Note
deserv
preferably

The p indicates I T_EX
should

p

The symb (see 27).
Strings BIB is
b expand.macros as

expand.macros

The
v
As I T_EX

```
@ {  
@ {  
  t  
  m  
}
```

If BIB is expand.macros turned
—

```
@ {  
@ {  
  t  
  m  
}
```

The WGA has 1967. jan has
not I T_EX .bst).

When
is
quotes. p .
then

p

The
Scrib
can
It

p .

p

Summa

<i>Option</i>			
<i>-m file</i>	<i>macro.file={file}</i>	W	<i>file.</i>
	<i>p =off</i>	Prin used	
	<i>expand.macros=on</i>	T	
	<i>p =off</i>	Switc macros	
	<i>p =on</i>	Enclose of	

A.15.

Some
items
count.used are

BIB run.

I T_EX
count.all and

count.all

count.all indicates

I T_EX

count.used

count.used forces
in

I T_EX

Summa

<i>Option</i>		
<i>-#</i>	<i>count.all=on</i>	Prin
<i>-@</i>	<i>count.used=on</i>	Prin only

A.16. Bi T_EX1.0

BIB supp i T_EX1.0.

A.16.1.

The

```
@      {
```

Suc
resource apply can

A.16.2.

The

```
@      {
```

This abc is def.
is i T_EX
aliases apply can
b

A.16.3.

The

```
@      {  
      a  
      }
```

This
resource apply can

Summa

Option		
apply	=on	Expand
apply	=on	Include
		ph @include.
apply	=on	apply

B.

B.1. Bib

BIB has
BIB should
the I T_EX BIB .
B T_EX
also BIB .

B.2.

Problems

- The I T_EX \cite macros
tained
- The
returned BIB ma
a
decision
- The E_X
enough
- In
this
- Macro
will

The BIB also T .
more
in

C.

Sample
Only

BIB

in

lib.

C.1.

The

a	=
a	=
a	=
b	=
c	=
c	=
c	=
c	=
c	=
c	=
d	=
d	=
e	=
e	=
f	=
f	=
f	=
f	=
f	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
i	=
k	=
k	=
k	=
k	=
k	=
k	=

n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
n	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
p	=
r	=
r	=
q	=
s	=
s	=
s	=
s	=
s	=
s	=
s	=
s	=
s	=
s	=
v	=

C.2. $\text{\texttt{AT}}_{\text{\texttt{E}}}\text{\texttt{X}}$

The `biblatex` command loads the $\text{\texttt{AT}}_{\text{\texttt{E}}}\text{\texttt{X}}$ package.

Example $\text{\texttt{AT}}_{\text{\texttt{E}}}\text{\texttt{X}}$ code:

n	{
n	{

[illegible]

Field

AT_EX

%	
n	+
n	+
n	+
n	+

[illegible]

[illegible]

```
n      {
n      {
n      {
n      {
n      {
n      {
n      {
n      {
n      {
n      {
n      {
n      {
```

Cross-reference $\text{\texttt{AT\textsubscript{E}X}}$

```
c      {
      {
}
c      {
      m
}
c      {
      m
}
c      {
      m
}
c      {
      m
      {
}
c      {
      m
      {
}
c      {
      m
      {
}
c      {
      m
      m
}
c      {
      m
      m
}
c      {
      m
      m
}
c      {
      b
      b
}
c      {
      b
      b
}
c      {
      b
      b
```


C.4.

The
Others

iso2tex
define I T_EX
sequences.

iso_def
define E_X

so_fld
defines I T_EX

check_y
con
n

month
tries I T_EX
other

opt
cop OPT prefixes

b
tries

k _bibtex
defines I T_EX
b

k _biblatex
defines A_TE_X
to

Bibliography

[GMS94] Mic *The A_TE_X*
p .

[Kn Donald *The E_Xb* .
edition,

[Lam94] Leslie *L^AT_EX*:
Publishing .

[Leh14] Philipp *The*
Citations,

[P Oren *B_t T_EXing*,

[P Oren *Designing i T_EX* ,

Index

,	19	delete.field .	13, 61, 64, 67
(19	digit .	41, 42
)	19	dir.file.sepa .	22, 23
*	10		
,	19	Emacs	10
-- .	11, 12, 20, 21, 35, 66	empt .	40, 41
=	19	env.sepa .	22, 23
..	19	expand.crossref .	36, 38
#	10, 19	expand.macros .	70, 71
-# .	71	expand.xdata .	38
%	19	extract.file .	32, 38
		extract.regex .	35, 38
add.field .	61, 67		
apply .	72	-F .	41, 44
apply .	72	%f	58, 59
apply .	72	-f .	9, 39, 44
		fmt.et.al .	42, 44, 53
BIBINPUTS .	22	fmt.inter.name .	42, 44, 53
BibLaTeX	5, 13, 37, 62, 76, 77, 80, 82	fmt.name.name .	42, 44, 53
BiTeX	1, 5–9, 11–15, 17–19, 21–24,	fmt.name.p .	42, 44, 53
	26, 27, 32, 33, 36, 39–45, 52–54, 57,	fmt.name.title .	39, 42, 44, 53
	62–64, 67, 69–73, 81, 82	fmt.title.title .	42, 44, 53
bibtex.env.name .	22, 23	fmt.w .	43, 49
bibtex.sea .	22, 23		
BIBTOOL .	18	-h .	18, 21
BIBTOOLRSC .	18	HOME .	18
-c .	38	-i .	12, 13, 18, 19, 21, 23
check.case.sensitive .	68, 69	igno .	48, 51, 55, 56, 60
check.double .	68, 69	input .	21, 23
check.double.delete .	68, 69		
check.rule .	68, 69	%j	58
clea .	37		
clea .	56, 60	-K .	9
count.all .	71	-k .	8
count.used .	71	k .	62
crossref.limit .	36, 37, 52	k .	39, 41, 42, 44
crossref.map .	37	k .	42, 44
		k .	39, 41, 44
%D	47–48	k .	41, 44
%d	47, 54, 61, 65	k .	43, 44
-d .	68, 69	k .	41, 42, 44
default.k .	39, 42, 44, 53	%l	12, 13, 58, 59

- long . 40, 42
- lo . 41, 42
- m . 71
- macro.file . 69, 71
- %N 8, 29, 45–46, 54, 55, 58
- %#N 50
- %#n 50
- %n 9, 46, 54, 58
- new.entry . 24, 25, 28
- new.field.t . 27, 28
- new.fo . 58, 60
- new.long . 40
- new.sho . 40
- o . 8, 9, 11–13, 23, 24
- off . 20, 67, 68
- on . 20, 65
- output.file . 23, 24
- %#p 50
- %p 45–46, 57
- pa . 24, 28
- pass.comments . 24, 28, 67
- p . 27–29, 41, 42, 44
- p . 40–42, 44
- p . 20, 21
- p . 26–28
- p . 26, 28
- p . 26–28
- p . 26
- p . 26, 28
- p . 25, 33, 70, 71
- p . 70, 71
- p . 26, 28
- p . 68
- p . 68
- p . 25
- p . 26
- p . 25, 27, 28
- p . 25–28
- p . 26
- p . 71
- p . 28
- p . 26
- p . 26, 28
- p . 26, 28
- q . 23, 24
- quiet . 23, 24
- R . 18, 19, 21
- r . 12, 13, 18–21
- regular 10
- rename.field . 63, 67
- resource . 20, 21
- resource.sea . 18, 21
- rewrite.case.sensitive . 63, 65, 67
- rewrite.limit . 65
- rewrite.rule . 64–68
- S . 7, 28, 30
- %#s 50–51
- %s 48, 53, 55, 61, 65
- s . 7, 8, 28, 30
- select . 34, 38
- select.b . 34, 38
- select.b . 33, 34, 38
- select.b . 33, 34, 38
- select.case.sensitive . 33–35, 38
- select.crossrefs . 34–36, 38
- select.fields . 35, 38
- select.non . 34, 38
- sho . 39, 40, 42, 43
- so . 12, 29, 30
- so . 29, 30
- so . 8, 12, 29, 30, 67
- so . 30
- so . 66, 67
- so . 12, 29, 30
- supp . 26, 28
- symb . 27, 28, 70
- %T 48–49, 55
- %#T 52
- %#t 51
- %t 49, 52
- t . 20
- tex.define . 56, 57, 60
- T . 20
- true . 20
- upp . 41, 42
- %v 58, 59
- v . 24
- verb . 24
- %W 49
- %#W 51
- %#w 51–52
- %w 49–50
- X . 11, 35, 38
- x . 11, 32, 38
- y . 20