

BIJLAGE G**TeX stuff at cs.ruu.nl****Revision level: 1.1 - Date: Sep. 20, 1990**

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The RUU archive

Here is a brief description of our archive of TeX stuff.

The archive is available by FTP and by mail server. It contains various things, a.o. Atari ST software, GNU software, some Unix software and a lot of TeX things. I will concentrate on the TeX stuff in this message.

How to get the software**By FTP**

FTP archive.cs.ruu.nl [131.211.80.5], username anonymous or ftp, and your address (user@host) as password. All user accessible files are in directory pub. Note that this is a Unix system, so a file in a directory is accessed as dir/subdir/file.

By mail server

Send a message to mail-server@cs.ruu.nl with any of the commands mentioned at the end of this message. If you use the mail server, the 'pub/' part of file names is not used.

Mailer problems

Sometimes the mail server is unable to reply to a person. We will recognize any internet address with a valid MX record. If you don't get a reply within a few days, try a TEST message with a PATH command. There are a few known reasons why an address is not recognised:

Your mailer inserts a wrong "from" address. E.g. an internet style address while using a non-registered domain. In this case let your management register a proper internet domain. Or a hostname without an MX record. In this case you might use a different hostname that knows about you.

UUCP sites might try the following syntax: user@host.uucp or host!user BITNET users may try user@host.bitnet. Some BITNET mailers give user@host as "from" address which is bound to fail.

If you are reachable from a known internet site (e.g. a.b.c), you may try user%host@a.b.c For example

if you are a UUCP site connected to uunet, the following might work:

```
user@host.uucp      or
uunet.uu.net!host!user  or
user%host@uunet.uu.net
```

Never mix ! and @ style addresses, this is guaranteed to give problems.

A source route address::

```
<@uunet.uu.net,@host1,@host2:user@host>
may also work.
```

Character set problems

If the message have to go through BITNET to reach you, there may be problems with character translations. Most notably are the curly brackets or braces ({}) that may be translated to character codes above 128 in the ASCII table. Sometimes also carets (^) and tildes (~) will get corrupted. In this case you may try to use uuencoded or btoa'ed transmission (see below).

In the near future I hope to supply also xxencoded transmission that is better resistant againts network translations.

What is in the archive?

The following subdirectories and files are available:

- ATARI-ST - A lot of public domain Atari 1040ST software (games, compilers, utilities, ...). Most of it retrieved from the UseNet distributions. See the file ATARI-ST/INDEX. There is also an ATARI-ST/tex subdirectory with tex, dvi drivers and previewers.
- DOC - Various documentation; among others Internet worm reports, a BSD socket programmer's primer.
- ELM-2.3 - The famous Elm Mail User Agent, version 2.3. The entire package and the PostScript documentation of course.
- FTP-LIST - a set of files, maintained by Jon Granrose, containing information about anonymous FTP sites worldwide.
- GNU - Various (up to date) software from the GNU project.

- HP-UX - Software that will most likely run under HP-UX 6.5 and what's also a good start for other System V alike. See INDEX file in this directory for more information.
- NN-6.4 - Kim Storm's famous news reader, version 6.4. Contains the official release as well as official patches.
- TEX - (La)TeX software as well as the TeXhax and TeXmag articles. Also the *entire* TeX 3.0 distribution.
- UNIX - Various UNIX software, easy-to-run on BSD systems as well as System V systems (with BSD enhancements). See the INDEX file in this directory for more information.
- ls-IR.Z - A "ls -IR" listing of the entire archive.

Most directories contain a file INDEX with a brief description of the contents.

The T_EX subdirectory contains back issues of TeXhax, TeXmag, UKTeX, the TeX3.0 distribution from labrea, a copy of the latexstyle and bibtexstyle archives from clarkson, a number of DVI drivers (this collection will grow in the future), utilities like bibtex and makeindex, the files from Mittelbach and Schöpf (in the latexstyle directory).

A number of directories will be updated automatically each week from the labrea and clarkson archives.

The following listing is the INDEX file in the TEX subdirectory. For information contact Piet van Oostrum <piet@cs.ruu.nl>

```

drwxr-xr-x  6 piet      staff      1024 Sep 20 22:33 AMS
drwxr-xr-x  2 piet      staff      1024 Sep 21 01:16 DVI
drwxr-xr-x  2 piet      staff      1024 Sep 20 22:39 FONTS
-rw-r--r--  1 piet      archive    3924 Sep 14 17:10 INDEX
-rw-r--r--  1 piet      staff     37155 Feb 25 1990 MuTeX_doc.tar.Z
drwxr-xr-x  2 piet      staff      1024 Sep 20 22:34 NTG
drwxr-xr-x 13 piet      staff      1024 Sep 28 15:10 TEX3.0
drwxr-xr-x  2 piet      staff      1024 Sep 20 22:35 bibtex
drwxr-xr-x  2 piet      staff      1024 Sep 20 22:29 bibtexstyle
-rwxr--r--  1 piet      staff     76278 Dec  8 1989 diagram.tex
-rwxr--r--  1 piet      staff     39944 Dec  8 1989 diagramdoc.tex
-rw-r--r--  1 piet      staff     28426 Sep 14 17:01 diagrams.tex
-rw-r--r--  1 piet      staff     55462 Sep 14 17:01 diagrams_doc.tex
-rw-r--r--  1 piet      staff     13018 Apr  5 12:01 edmac.doc
-rw-r--r--  1 piet      staff     34321 Apr  5 12:01 edmac.tex
drwxr-xr-x 14 piet      staff      1024 Sep 20 22:39 emtex
-r--r--r--  1 henkp     archive    30763 Jun 15 12:22 hyphen.dutch.Z
drwxr-xr-x  4 piet      staff      4096 Sep 20 22:30 latexstyle
-rwxr--r--  1 piet      staff     390017 Jun 14 10:45 makeidx.zoo
-rw-r--r--  1 piet      staff     97113 Apr  2 16:51 mtex.tar.Z
-rwxr--r--  1 piet      staff     93579 Dec 13 1989 mtexfonts.tar.Z
-rw-r--r--  1 piet      staff    401659 Jan 22 1990 spiderweb.tar.Z
drwxr-xr-x  7 piet      archive    1024 Sep 20 22:29 texhax
drwxr-xr-x  6 piet      archive    1024 Sep 20 22:29 texmag
drwxr-xr-x  2 piet      staff      2048 Sep 20 22:29 tugboat
drwxr-xr-x  2 piet      staff      2048 Sep 20 22:33 uktex
-rw-r--r--  1 piet      staff     70425 Apr 10 18:08 wp2latex.arc

```

INDEX	- This file
AMS	- AMSTeX, AMS-LaTeX and AMSFonts (the new versions)
DVI	- directory with various dvi convertors
FONTS	- fonts and utilities for metafont
NTG	- directory with submissions from NTG (Dutch users group)
TEX3.0	- The distribution files for TEX3.0
bibtex	- the bibtex program
bibtexstyle	- bibtex style files from clarkson
diagram.tex	- Macros for commutative diagrams (from Francis Borceux)
diagramdoc.tex	- Documentation for the above
diagrams.tex	- Another commutative diagram package (from Paul Taylor)
diagrams_doc.tex	- Documentation for the above
emtex	- complete TeX/Metafont package for MSDOS
hyphen.dutch.Z	- Dutch hyphenation patterns (compressed)
latexstyle	- a copy of the latex-style directory at clarkson.edu
makeidx.zoo	- The famous makeindex program (sources) version 2.9
mtex.tar.Z	- tex macros and metafont files for music typesetting, includes English manual
MuTeX_doc.tar.Z	- Manual only from the above
mtexfonts.tar.Z	- tfm files and 300dpi PK files for the above (not necessary if you have metafont)
spiderweb.tar.Z	- a WEB system for other programming languages than Pascal
texhax	- back copies of texhax magazine (texhax/19xx/yyyy) A list of subjects per year is in texhax/19xx/Subjects. Some years have an index in texhax/19xx/INDEX.
texmag	- back copies of texmag magazine (texmag/19xx/yyyy)
tugboat	- a copy of the tugboat directory at labrea.stanford.edu
wp2latex.arc	- an MSDOS program to convert Wordperfect 5.0 files to LaTeX (documentation is in Dutch)

The HELP file

How to use the RUU CS Mail Server

The RUU CS Mail Server can be reached at e-mail address "mail-server@cs.ruu.nl". If your mailer doesn't understand domain addresses, try a nearby gateway like "mcsun".

When the Mail Server receives a message, It reads the mail headers to determine the requester's address. If a "Reply-To:" header is found, the indicated address

is used. If not, it uses the address as specified in the "From:" header.

The message body is scanned for server commands. Every line in the message should contain a valid server command.

A report is sent to you by return mail. Any requests will be handled as soon as the load of the server system permits.

NOTE: *The mail server is still under development. Things may -and will- change in the near future.*

The Server's Archives

RUU CS maintains a number of archives, which are accessible via the mail server. You may also try to use anonymous FTP to access the archives at "archive.cs.ruu.nl" [131.211.80.5].

Files are stored in the archives in one of the following formats:

- **Plain**
normal ASCII text.
- **Shell Archive**
ASCII files which can be unloaded using the Unix sh(1) program.
Shell Archives have names ending in ".shar".
- **Compressed**
16-bit compression using the compress(1) utility.
Compressed files have names ending in ".Z".
- **Tar**
Standard UNIX tar(1) format. Tar archives have names ending in ".tar".
- **Compressed Tar**
Compressed tar archive. Compressed tar archives have names ending in ".tar.Z".
- **Arc**
Standard "arc" format. These files have names ending in ".arc".
- **Zoo**
Standard "zoo" format. These files have names ending in ".zoo".

When requesting a file you do not have to specify the format-specific extension. A request for a file "foo" will automatically be changed to "foo", "foo.tar", "foo.shar", "foo.Z", "foo.tar.Z", "foo.arc" or "foo.zoo" whichever is available.

The file "INDEX" contains a list of the top-level directories in the archives.

The file "ls-IR.Z" contains a compressed directory of all the files in the archive. This file is updated daily. The file is in Unix directory format. If you are not familiar with Unix, the following should give you a clue: Entries are of the form:

```
./ATARI-ST:
total 184
-rw-r--r--  2 atari  archive  37201 Apr 25 20:33 INDEX
drwxr-xr-x  2 atari  archive  1024 Mar 14 15:15 doc
```

This means this piece is from the directory ATARI-ST. The first file is the file INDEX, which is 37201 bytes long and made on April 25, 20:33 local time. Most directories have a file INDEX giving some more information about its contents.

The last line starts with a 'd', signifying that it is a directory. The contents of the directory will be specified further on in the file. If you want to get e.g. the file bombs.arc from the doc directory you have to ask for ATARI-ST/doc/bombs.arc (i.e. the slash character '/' separates directories and files in a complete file specification).

Command Syntax

A command consists of a keyword (verb), followed by zero or more arguments, depending on the command. Command verbs may be specified in all uppercase letters, lowercase or whatever mixed case. In other words: case is not significant in command verbs. Case *IS* significant in command arguments. Empty lines are ignored.

The following commands are understood by the server:

- **BEGIN**
Begin processing. All commands and errors before this command are forgotten. Use this if your mailer inserts garbage.
- **PATH <address>**
The return address used by the server is set to the indicated <address>. This must be a valid address by which you can be reached. It may contain a domain-based address.
Use this command if you are not sure that the return addresses generated by your mail system are reliable.
- **END or EXIT**
The remainder of the message is ignored. This can be useful if a .signature is appended to the message.
- **LIMIT <number>**
Specify the maximum number of bytes which may be sent in a single mail message. Transfers exceeding this amount will be split before sending.
The amount may be specified in Kbytes, e.g. "30K". The default value is 64K.
NOTE: setting the limit will only affect "send" and "resend" commands following this command. NOTE: due to mailer overhead, it is possible that the size of the mail which reaches you will (slightly) exceed this limit.
- **UUENCODE**
The requested items will be uuencoded before sending. Because most archives are binary files, they

are always encoded before sending. Uuencoding is default.

Use "send uuencode" to obtain the uuencode/uuencode programs. NOTE: setting the encoding will only affect "send" and "resend" commands following this command.

- **BTOA**
The requested files will be encoded using "btoa". Btoa encoded files are smaller than uuencoded files, but not everyone can handle btoa encoded files yet.
Use "send btoa" to obtain the btoa/atob coding programs. NOTE: setting the encoding will only affect "send" and "resend" commands following this command.
- **SEND <item>**
The specified <item> is looked up in the server archives. If found, it will be sent to you by e-mail. Multiple items may be specified with one SEND command. If <item> is a directory, a listing of the directory will be sent, rather than the directory itself (but see the description of the PACK command).
NOTE: the names of the <item>s are case sensitive!
On Unix a file within a directory is given as dir/file.
- **RESEND <item> <part> [<part>...]**
Re-send the indicated <part>s of this item. This is useful if not all parts of a multi-parts transmission did arrive correctly. When re-transmitting, the encoding and limit used must be identical to those of the original transmission.
- **PACK <archive>**
This command tells the server that directories should be sent as archives. If you give this command, all subsequent SEND commands that specify a directory will cause the directory (together with all its subdirectories) to be sent as an archive. This is only allowed when the directory contains no more than 2MB of files. <archive> must be one of:
 - tar - for a compressed tar file
 - arc - for an arc file (each subdirectory will be sent as a separate arc file)
 - zoo - for a zoo file
- **INDEX**
This is equivalent to "send INDEX".
- **HELP**
This command gives a list of server commands.
- **TEST**
This command is for testing. No files will be sent if you use this, but a confirmation message will be sent to the return path as determined from the mail headers or the "path" command. You may use this to find out if your address is valid, and to check the status of your request.

Sample Mail Server Report

Sending:

```

path jv@mh.nl
btoa
send INDEX bio
resend zoo 2 3 4
send foo
end

```

will generate the following report:

```

[1] From: RUU CS Mail Server <mserv@cs.ruu.nl>
    To: jv@mh.nl
    Subject: Your request
    Date: Sun, 1 Oct 89 18:25:39 MET (+0100)

    RUU CS Mail Server 1.6

    Processing mail headers ...
[2] Return address: "Johan Vromans <jv@mhres.mh.nl>"

    Processing message contents...

[3] Command: path jv@mh.nl
    => Return address: "jv@mh.nl"

    Command: btoa
    => Encoding = btoa

    Command: send INDEX bio
    => Send: INDEX
    => Send: bio

    Command: resend zoo 2 3 4
    => Resend: zoo, parts 2,3,4

    Command: send foo
    => Send: foo

    Command: end
    => Okay

Your message has been processed.
The following requests have been queued:

    request      format (uncoded size) encoding limit remarks
    -----
[4]  INDEX       Plain (5K)           plain          64K
    bio.tar.Z    Compressed Tar (6K) btoa           64K
    zoo.tar.Z    Compressed Tar (171K) btoa           64K Parts 2,3,4 only
    foo          Unknown              Request skipped

These requests will be sent to you as soon as the load of
the server system permits.

Mail Server finished.

```

As you can see, the return mail is sent to the address [1] indicated by the PATH command [3]. If the PATH command were not issued, the address from the message header [2] would have been used. In the list of requests

[4] the format and the size of the files are shown. Note that the size is the size *before encoding*! Finally, the request "foo" could not be found and is skipped.

Some time later the following mails will arrive:

From	Size	Subject
RUU CS Mail Server	73/4301	"INDEX (complete) ascii"
RUU CS Mail Server	96/7394	"bio.tar.Z (complete) btoa encoded"
RUU CS Mail Server	829/65453	"zoo.tar.Z (part 2 of 4) btoa encoded"
RUU CS Mail Server	829/65453	"zoo.tar.Z (part 3 of 4) btoa encoded"
RUU CS Mail Server	325/25578	"zoo.tar.Z (part 4 of 4) btoa encoded"

Files which are sent in parts have all pieces clearly marked as such:

```
----- begin of zoo.tar.Z -- btoa encoded -- part 2 of 4 -----
#(_0M#C)R-&3BEIu9#I[oeFn;50r5kb6%CJq%=NMgE3in`tMpnX0rOEYPWNM...
=69S\PiSodA"*lArTZ.-(g6DL2A6_5>DMuFV/&S7H/]XEgLe(l@e;-Rqr:iZ...
...
...
$`eP&iGea"a#e[F!oeolr@U/FP;::i"V)j_EW+. (U*&IrTJ+u'9=$MY7s*CC...
uI=a5*Wj^#1LD,&>MZKY@H1_a9QE$$4[+?[ePhh"h2Ub"/a,(ES*ZH"nK"6d...
----- end of zoo.tar.Z -- btoa encoded -- part 2 of 4 -----
```

Unpacking

You may obtain the following packages from the server:

btoa	btoa/atob support programs
uudecode	uuencode/uudecode support programs
compress	compress/uncompress support programs

These packages are send unencoded, in "shar" format.

If you have Larry Wall's "perl" program, you can retrieve the program "unpack.pl" from the server. This will help you in unpacking the mails.

By the way: the server software is also written in perl.

For questions, information and remarks:

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Edwin Kremer [edwin@cs.ruu.nl]