Appendix

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Please mail bug reports, suggestions, and improvements to wbc@cs.dartmouth.edu.


```
 **************************************************************************
 *    get on the lute mailing list - send e-mail to   lute-request@cs.dartmouth.edu
 **************************************************************************
```

Tab is a program to typset lute tablature. It works like TeX in that a plain text file (that bears little resemblance to the desired output) is created and processed into a device independent printer format file. The standard output format is PostScript, which laserwriter printers print. With the dvi option this file can be previewed with a dvi previewer and formatted for your printer with a dvi to printer filter, which is not included in this package. This program is not particularly beginner-friendly, but is quite fast once you have gotten used to it.

Environment variables:

Tab looks in the directory pointed to by the TABFONTS environment variable, if it is set. The font directory can be compiled in with the TLOC definition in the Makefile if you are compiling this yourself. Otherwise it looks in the current directory.

Options:
These can be used on the command line, as in tab -P –6 or in the tab source file.

```
-a extended arguments -
        -af num Font-Name uses Font-Name for font num – see F below.  DOES NOT WORK
                as num size uses font size size (points) for font num
-alttitle       use alternate title font
-alttitle-off   use regular title font
-a4             adjust for a4 paper size
-ascii          print "ascii tab" for email;  this option understands the -Q option to cram music into a
                small space.  also the -wide option to print on 132 character wide paper (if you have an
                old fashioned high speed printer)
-autoKey sets key signature on all lines as on first line
-2 prints 1200 dpi
-1200 does the same
-24 prints 2400 dpi
     be warned that some large glyphs won't print at 1200 and PostScript will crash!
-4 prints only four staves
-5 prints only five staves
-6 prints 600 dpi
-600 does the same
-7 prints seven staves
-0 prints six staves (I know this should be -6 but I used that already!)
-b uses baroque tuning to transcribe to music and uses a baroque font (blute9) to set the music
-B uses flags and f,h, and i like those used by M. Board and other english writers.
```

-C prints every fifth measure number below the staff.

-CC prints every measure number below the staff.

-c prints measure numbers only at the start of a line

-compressStaff sets interspace to 9.0 pt and m_space to 0.068 which makes things tighter

-dvi output in dvi format to out.dvi

-pdf generate pdf output to out.pdf
>   WARNING! - this is under development and DOES NOT WORK. If you try to use -pdf your
>   computer may catch on fire and you may be injured.
>   Don't try this! You have been warned!

-D sort of like Dowland's style

-e rotates the page 90 degrees for landscape music.

-E prints "DRAFT" on every page along with the date.

-EPSF sets head so that file can be included in another document.
>   This only works well for single pages.

-F maps the flags to modern style flags
>   -h translates french to italian, 6 courses only

-f resets to french style (the default)

-fc sets the characters to standard style

-ff sets the flags to standard style

-fontpath <path> sets font directory to path

-G prints a copyright notice at the bottom of the page: useful if you have the right name.....

-guitar printe manuscript on a single guitar staff

-h converts french tab to italian tab automatically!

-H does the same, but for 7 course tablature
>   the second -h or -H unsets the conversion
>   -h
>   -h
>   does nothing!

-highlightparen uses parentheses instead of gray characters in postScript output.

-highlightred uses red characters instead of gray characters in postScript output.

-I maps the flags to renaissance style

-i shifts the lines to the middle of the numbers, and maps the flags to renaissance style

-italFlags uses Italian style flags for tablature

-j when translating italian between line to french is a correction.

-K cancels automatic end of page detection. You will have to insert page breaks yourself.

-l "n units" sets line length to n units, where n is a floating point number, eg 3.25, and units are one
>   of mm, in or pt. The default is "6.5 in". The double quotes are mandatory.
>   -l reset resets the line length to the previous length.

-listfonts lists the PostScsript fonts, with short name that you specify in the $titlefont= command and
>   the long name that must be on your printer.

-longbar with music draws bar lines between tablature and staff

-m print out the piano version of the tablature. This is kind of basic!

-midi sends a midi file to standard output. Be sure to say -midi
>   *before* the file name when you want midi output!
>   You must use numstyle=italian or -i if you are using numbers for the fret values.

-midi-patch number is the same as $midi-patch=number. You can use it on the command line. Try
>   patch 123!

-modernNotes use modern, rather then renaissance notation for music

-M print marks on the page to show where the character positions are.

-N uses fonts like Robinson. These fonts use the default characters for any characters they don't have
>   Mace only has f and e.
>   Robinson has b-h.

-n uses fonts like Mace

-nmidi sends midi output to the file nout.mid. This variation of midi output only works for 6 course music, italian tablature right now. This option only works on the command line, you can not specify it within the file.

-nobox Do not set a bounding box - for postscript debugging

-O uses thin line flags, like dalza., and shifts the lines to the middle of the numbers. You can use -i -T instead.

-o specifies an output file. default is out.dvi; if the .dvi or .ps extension is not specified it is added. this can not be specified in the input file.
if the name is stdout then output goes to standart output.

-p number the pages automatically

-P the output file out.ps, in PostScript format, is generated - this can be sent to a printer directly, without running dvips on it.

-Q space the notes correctly when whole notes are used a lot

-q don't say anything unless something really bad happens.

-R7 reduces size to 66%, -R95 to 94%, -R9 to 88% -R8 to 77%

-S don't advance the line after the current system puts the following system on the same line

-s lets you use seven course italian notation, with the -i or -O flag.

-sharpUp places the sharp or flat above the staff,

-sharpNorm places the sharp or flat in the regular place.

-sItalNotes uses small Italian style noteds for music

-sound sends a midi sound file to standard output, or if recompiled the right way can create a raw sound file with a 8000 integer 8 bit unsigned format called "data".

-staff-line-thickness "x.x uu"   sets the thickness of the staff lines in mm, in, or pts

-tuning

-tuning C4D4E4F4G4c3f3a2d2g2	renaissance
-tuning e4a3d3f+3b2e2	for guitar
-tuning c4d4e4f4g4a3d3f3a2d2f2	is d minor
-tuning c4d4e4f+4g4a3d3g3b2d2f+2	is sharp
-tuning c4d4e-4f4g4a3d3g3a+2d2f2	is flat

-twostaff allows you two insert two lines of music along with one line of tablature.

-T uses dalza style flags

-t prints the notes on the line and does nothing else

-v prints the intermediate language to the screen

-V gives the version and date

-x notes on the line, thin flags, standard characters, italian numers and italian notes.

-wide in ascii mode prints 132 characters wide.

-X supresses note expansion for debugging

-Y supresses word fitting for debugging

A line in the .tab file beginning with - is read as command line options. You may reset options between systems, to reset line length, print two tyes of tab, or print tab and regular musical notation. If you wish to use the -R flag to reduce the type size (as in -R8) you must put it on the first part of the first line, as the first line of the input file is scanned once for commands before loading fonts.

Input:

A file is created in the pattern of ./music/Mathias.tab, using the following characters. The file should have a .tab extension to its name. Note that a character often has a different meaning as the first letter in a pattern than it does in following positions.

start of line:
{ words }   - one or more lines of text (unjustified, not wrapped)
                            - if the line starts with \CL/ the text afterwards is centered.

- a hat followed by two numbers in the text specifies a font, as in ^05, italic and ^02
  regular
  ^01 10 pt regular words to songs
  ^02 12 point regular titles
  ^03 12 pt bold ^04 24 point large regular
  ^05 10 pst italic ^06 18 point regular music time sig
  ^07 12 point regular for page numbers
  you can use $textsize to change the point size of ^01
  you can use $alttextsize to change the point size of ^05
  you can use $titlesize to change the point size of ^02
  you can use $alttitlesize to change the point size of ^03
  you can use $textfont to change the fonts, too

[words } - text, positioned closely above a system, for
  Da capo, etc. Maximum of 10 characters when in the middle - of a system.

{words/words} - words left and right justified, with a space in the middle: there must be exactly one blank line between text and staff

% - comment
# - first note of a grid
  followed by number of lines in grid
* - insert a letter, as in *A
~ - wavy lines over these notes
= - in music, eg W = W.
A - first, second repeats in modern style (Another) number is second char on line.
b - barline
bT - a barline with a tie
b! - don't print this barline
bv - a v above the staff, indicating page breaks in orig
bV - two v's
b2, b3 - a barline with a number, 1 - 9, above it
bQ - a red bar
bX - a bar line that does not count with -C or -c
B - a very thick barline (when followed by newline or !)
B - a breve (when followed by notes)
bb - two barlines
(blank line) - break line here - you must specify line breaks yourself!
. - column of 5 dots (for a repeat) as in .bb.
C - a big C
c - cut time in both staves if necessary
d - the del signe sign
D - a D.C. - for Da Capo
e - end of document -tab will work but will complain without it.
F Num - specify a font - this is tricky -
  Num is between 1 and 5
  1 roman words to songs
  5 italic words to songs
  2 roman titles   (regular font)
  3 italic titles (alternate font)
  for example F 2 sets roman titles
f - fin (spanish - should be fine in some languages)

0, 1, 2, 3, 4, 5 - a note with that many flags
W   - a whole note 0 |
w   - a half note   0
8   - 8vb in the music
k   - key signature kg is key of G, also d, a, f, c, b, e
K   - move to next column, 3.5 in hardcoded
L   - longa
I filename   - include filename
i   - indent a bit (used at the beginning of a line that doesn't start with a bar)
.   - after a number, dot the value of the flag
!   - after a number or b - don't print flag but use its value
                   for spacing - for replicating manuscripts.
-                - after a number, allows you to put a ! or . on the top line.
x   - same number of flags as the last one
m   - Mesangeau's flourish!
M   - a note of music with no tab M#n+ where # equals number of flags.
                   You may place one tab after the M to line up the music.
                   n is the note value A-Ga-g (with 1 2 3 4 giving you high a - d,
                   and + is for sharp, . for dotted note, - for flat, n for natural, or 0 for neither
                   v for dot and flat, ^ for sharp and dot, N for dot and natural
                   MG gives a G cleff in the music. MF gives an F cleff in the music
                   appending an 8b places an 8 below the G and MG8a places an 8 above the G clef.
O   - this chord is an ornament, as in Capirola book - it has no width
p   - force end of page.
P   - pagenumber
Q   - a flourish for the end
q   - same
R   - a rest (hat) - followed by the flag number - as in R2
S   - a time signature - ie S3-4 or SC
                   a dash, as 12-8 draws the signature in the music rather than the tablature.
                   S2| or S3| draws a line throught the number
                   a single digit followed by Q is highlighted
                   SO and So do Narvaez style time sig
T   - text to go on system lines (a tab gives a second line)

t   - first note of a triplet, followed by the number of lines there would be
                   if there were lines - eg. t3 a, x b, xb: this places a 3 above the second note.
                 - a t before a barline is a tie across the barline
v   - a mark above and below the staff, indicating a line break in the original ms. It can
                 also follow a b or B.
V " 2.2 in"   - vertical skip
x   - more notes in same grid
Y   - fermata
y   - another fermata
                   a Yb or yb draws a fermata above a barline
               Y. YW YB also work

$ - used to set these values. This flag must be outside of the systems to work. A $flag in a system is ignored.

$lutefont=fontname, where fontname is of the form font, and the file font9.tfm and font9.300pk exist. 9 is for full size fonts, 300pk for 300 dpi
$titlefont=cmbx10 (a dvi font name) for the titles
$titlefont=pncbi (a PostScript font name)
$titlesize=12 (or other point size)(12 is default)
$alttitlefont= the italic title font
$textfont= a font name for text
$textsize=12 (or other point size)(12 is default)
$alttextfont= the italic text font
$pstitlefont, $pstextfont, $psalttitlefont, $psalttextfont
$dvititlefont, $dvitextfont, $dvialttitlefont, $dvialttextfont
$line=o or $line=b (characters in music on or between lines)
$description=text = a no-op for compatibility

for the following, only the first few characters are significant;
e.g., $flagstyle=con == $flagstyle=contemp

$flagstyle=board	english manuscript style
$flagstyle=capirola	thin line flags
$flagstyle=contemp	regular notes
$flagstyle=italian	a long italian flag
$flagstyle=smallitalian	basic italian style
$flagstyle=standard	the default
$flagstyle=thin	like capirola, dowland
$charstyle=board	like m board book
$charstyle=dowland	does nothing!
$charstyle=mace	like mace
$charstyle=standard	regular characters
$charstyle=robinson	like robinson, 1600 english
$numstyle=standard	
$numstyle=italian	
$tempo=8	tempo for music, larger=faster default is 2. Used for playing music, writing piano version
$note-conversion=0	[0-12] how many more flags does an equivalent music note have to a tab note. The default is 2, 4 doubles the tempo. DOES NOT WORK
$sys-skip=1.2	extra space to skip between systems, in inches, only
$midi-patch=n	a number, 0 to 127, which selects a midi "instrument"
$start-system=n	which system to start "printing". This is intended to be used with the midi option to skip the beginning of a piece. It also works for the printout, but does not look good.
$scribe="scribe"	Adds a name after the copyright (the -G flag)
$left_margin=nn	sets the left margin in 1/72 inch (points)

The following characters have special significance as the second letter on a line - in most cases, if not needed they can be ignored:

-     a place marker, techicnally should be the default second character but usually can be left out - it helps when you want to use a *, # or - ornament on the character on the top line.
.   a dotted flag
begin a grid- you may say #2 or 2# but for an ornament you must say 2-#aa, not 2#aa!
*   a dotted note within a grid
| a flag with an extra bar within a grid.
t   a tie to the next note   (this doesn't look like it works)
W   a tie and a dot   (this doesn't look like it works either!)
!   after a number - don't print flag but use its spacing
!   after a b - don't print barline, but count it.
Q   highlight this flag
@   highlight and dot this flag
B   a dot preceeding the flag

The following are the characters that can be used in a line of tablature, as the second to tenth character.

a b c d e f g h i j k l m n o p - the tab characters (I know you don't use j, but it is there for completeness)
F G H I give characters like M Board used
1 2 3 4 5 6 7 8 9 - numbers, for italian style
!x   - for the tenth fret, in italian mode.
space i   - no character on this line--a 0 no longer indicates a space!
z   - a zero
\\   - one backslash in note position
.   - one dot below tab
:   - two dots below tab
| - stroke - for thumb-- two in a row give two side by side strokes
-     - vertical bar - play similtaneously
+ * # x $ <   - an ornament before the next note
'   - a comma above the line
`   - a comma on the line
Q   - character is highlighted
%   - two dots (colon)preceeding next note`
?   - a flat
>   - something like a flat but different
@   - an asterix
= or &=   - colon
$ or &$ - double colon
_ or &_   - a smiley
&+ &* &# &' &`   - an ornament after preceeding note
w, u   - "hold" for italian style tab
&x   - a postfix x
<   - two dots as an ornament
^   - a hat

& is the postfix operator - the next character is printed to the right of the preceeding char.
! is the escape operator - for example, print / (a prefix) in a note position rather than treating it as a prefix, which is its default.
    1 c!/ca
    !0375 will give a del signe -
    other 0xxx codes could be added
" is the prefix operator- most things default to prefix but you can print -- as a prefix as 1 "-c"-d"-da

Nxx   - print number xx -as in 10 through 30 for high frets in Italian tab or modern guitar tab.
R   - a rest
R!   - a rest, with no flag
U   - begins a horizontal underline to indicate a held bass note. line starts beside character
                       above U. With PostSCript output this is a curved line like a slur
X   - ends the underline
[ ]   - horizontal underline with a curve to it; a]v (a v after the]) draws an upside down
                       slur
( )   - another horizontal underline, so you can use two.
                     the slope is determined by the position of the beginning and end parenthesis.
                     you can use the & to start a line beside a note.
{ }   - a horizontal underline with no curve to it the above two must end on the line they start
                       on!
/   - a slash for a bourdon if used on bottom line otherwise a light slash
//   - two slashes
///   - three slashes
1 3 4 5 6 7   - the number for bass string when you run out of slashes
\1 \2 \3 \4   - left hand fingerings placed before the next letter.
r   - show current dvi location (for debugging) (not currently active)

M   - the next three characters are the time (just like the flag), pitch [A-Ga-g], and + (sharp)
                     -(flat) . (dot) ^ (sharp and dot) v (flat and dot) n (natural) or anything else for
                     music above the line of tablature.
                     For pitch you can also use ? @ for the low F and G and 1 2 3 4 for high a b c d.
                     if the note is R you get a rest.
                     MG gives a g cleff in the music
                     M000 does not print anything, it is a space holder.
                     a # following the three characters starts a beamed set, an x following the three
                     characters continues it. A - following the three characters is a tie to the next note. = is a
                     tie at the end of a beamed set.

T   - text to be associated with this chord
                     the music must come before text, and you can replace the M or T with a tab character.
                     a tab in the text translates into a line feed and carriage return, so you can have more
                     than one line of text.
                     A ^ puts the following text on the top line when there are two lines of music and text.

The following are currently working:
        \'a puts a slash / over the letter a (or whatever
        letter takes a's place - \'letter
        \^ is a circumflex
        \` is a backslash
        \" is two dots - uumlat
        \~ is the wiggle
        \= is a flat horizontal bar
        \. is a dot above the letter
        \u is breve accent
        \v is a v above the letter
        \c e is the cedilla with an e - note the space!
        ?` - upside down ?
        !` upside down !
        (these are just like TeX/LaTeX)
        \[is [, \] is]
        \{ is {, \} is }

         ] is a tie between letters
         \wt is a tie between letters
         @ is a ~ with dots for repeat
         | as the last letter buts the word against
          the next word
         you can not use < and > in text!

e   - end of document - this should be followed by a blank line

Music is written as a sequence of chords - each chord starting on the top string, with spaces representing unplayed strings.

```
b
S3
1abd a
xf
#2d   c
xc
b
1.ab  d
2 a
#2  d
... etc
```

I see this as representing tablature on its side (through a mirror)

When the document is completed, type < tab document.tab > to format it into a file named " out.dvi ". You can view it with xdvi (if you have xdvi) by saying < xdvi out > - you can format it to postscrip if you have dvips by saying < dvips out >.

If you have the postscript version of tab, then < tab file > will produce a PostScript document that you can send to a Laserwriter or view with ghostview or any postscript previewer. there is a line in the file, tab.h, that you can comment out, and the output will always be in PostScript.

Errors:

Tab makes two passes to format your tablature. The first pass reads the input file and formats it into an internal document. Any errors that are detected in this pass are reported with a line number and character position in the file. The second pass processes the internal document into a dvi or PostScript format file.

Running tab with the -v option outputs the "chords" as they are read, and also as they are processed in the second pass. Reading the output may help you find errors, though there is a lot of output. Internal document errors are reported with system number, and "chord" number in that ystem. In the internal format ornaments, graces, barlines, etc are each given a seperate chord.

Fonts:

mk_font_local is a script which builds fonts in your current directory.

this runs on

        sun-3 running 4.1.0 and 3.5
        sparcstation running 4.1.1
        decstation running ultrix 4.1, 4.2
        dec alphas running OSF
        silicon graphics iris IRIX 3.3.2 -> 5.2
        HP 700 running HP-UX 8.05 and 9.01
        Linux, though certain versions of the c compiler have troubles.
        Mac OSX in text windows

If you like it ...

   If you actually use this program and want to be notified of updates, and maybe exchange tablature, send email to me.

        Wayne Cripps
        wbc@cs.dartmouth.edu
        June 9, 1994