## Tablature in Score

by Jan de Kloe

Jean-Jacques Rousseau, *Dictionnaire de Musique*, Paris 1768: "Since the instruments for which tablature was employed are [...] no longer being used, and because the ordinary note is considered more convenient [...], tablature is today almost completely abandoned and it only serves the first lessons of beginners".

Well J-J., welcome to the  $21^{st}$  century where tablature is alive and kicking and where intelligent machinery is being used to produce tablature for the most popular instrument of the last fifty years which we call guitar, and which stems from the pedigree of instruments declining in popularity in your days.

The demand for engraving tools with capabilities for tablature is obvious. Those packages with tablature capabilities have a bigger market share, and Score is among them. Recent development of the MusicXML standard also includes tablature notation.

The tablature capabilities of Score are summarized in a little booklet called 'Guitar Notation' and the features are summarized here:

- automatic mode, meaning translation of notes to fret positions
- with or without rhythmic indications
- support of any number of strings, in any type of tuning
- positions in numeric or alphabetic values
- possibility to put parentheses around the positions
- the X and (X) capability for a position
- non-automatic mode, meaning positions unrelated to notes
- rotation of positions.

Other capabilities used in tablature are the special clef 'TAB', chord grids, rhythm slashes, symbols for various bend techniques and many items also being used in musical staff notation.

Primarily to demonstrate the capabilities of a Score postprocessor named SipEPS01, this article gives a couple of examples. The function of SipEPS01 is to force a white background on positions crossing strings which dramatically improves readability. Originally the program was developed to do the whitening of fingering in staff music as demonstrated here:



figure 1, from: Jan de Kloe, *A house style for engraving guitar music*, to be published in GFA Soundboard 2004.

Then the first experiences with this program by tablature engravers caused a couple of features to be added and the program now caters for all kinds of tablature notations and instruments as shown in the following examples.

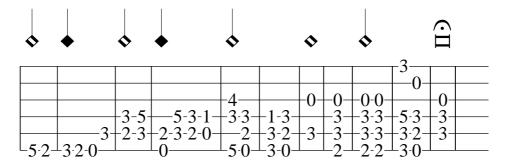


figure 2, the prologue sample for vihuela from: Miguel de Fuenllana, *Orphenica lyra*, Seville, 1554

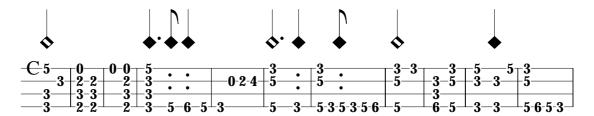


figure 3, beginning of the Pavana for *guitarra al temple nuevo* from: Alonso Mudarra, *Tres Libros de Música*, Seville, 1546

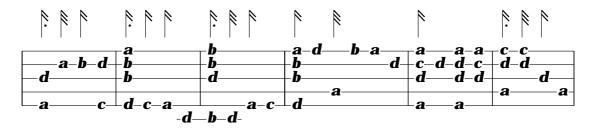
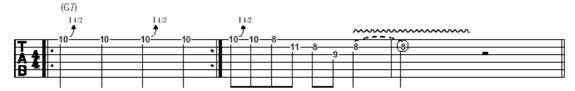


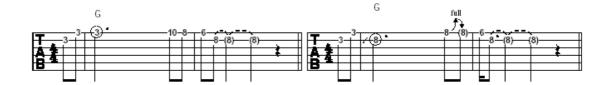
figure 4, French tablature for 6 course lute on five lines, copied from: Ernst Pohlmann, *Die Lauten-Instrumente, ihre Musik und Literatur von 1500 bis zur Gegenwart*, Bremen 1971, p172.

Score foresees some French tablature characters in the Code09Par05 = 900 to 969 range (draw members LIBUM to LIBUS). This set of symbols is supposedly made by Leland Smith from a manuscript by Leopold Sylvius Weiss on the advice of Douglas Alton Smith from the Lute Society of America. SipEPS01 has a provision to apply the whitening process on these items. Shown here is the above tablature with the Code09 items:



Today's engravers of guitar tablature use the whitening feature to let the position values come out clearly.





The features of the program are summarized here:

- uses Score generated EPS as input
- the user has full control over the width of the whitened part
- reacts on numeric values and letters crossing horizontal lines
- the limits of the acceptable values are user defined (0-4 for classical guitar, 1-5 for piano, 0-29 for electric guitar)
- acceptable letter positions are user defined
- values and letters may be in parentheses. The parentheses are included in the whitening
- while any combination of fonts is allowed, a font filter can be defined
- a place holder may be defined for tablature using Code09 items
- the last converted file can immediately be presented to PCSEND (transfer of EPS file to printer) if that program is available on the same system.

The settings are remembered for a subsequent execution such that they do not have to be entered for every conversion.

Output files are placed in the same directory as the input. Resulting files either overwrite the input or are named EPS00001.EPS etc. Any number of input files can be converted in one go. Upon a user request the generated EPS will provide a verbose audit of all the actions it has taken.

The program has an analysis function which basically helps the user in setting up a conversion. As EPS works in points (one staff line of 200 horizontal Score steps equals 30,000 EPS points), the distance from values varies from one engraving to the other. In one page, even different distances occur. The program needs to know which are the highest and lowest occurrence of values to their lines.

While simple, a minimum of practice is to be obtained. The help file explains the process in detail and every option has a tooltip with pertinent information.

SipEPS01 is not a stand-alone program. It comes as part of the SIP suite. Note that this program consults the PSC files in the Score LIB directory so this library has to be installed on the same system. The presence of Score itself is not a prerequisite.

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