Title: The graphical user interface for SIP
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1. General

A number of utilities for SCORE™ users have been written over the course of many years. Those of interest to the engraving industry have been grouped in a Windows package called SIP which stand for Score Information Package. Originally, those were DOS applications, and some of those are still being called by SIP while more recent utilities are pure Windows applications.

The SCORE user will be able to call his familiar utilities SCORE, PAGE, DRAW and SCORLAS, or their Version 4 counterparts from the Windows application. Working with those utilities is more comfortable from Windows than in (native) DOS.

Options to run the applications are passed via profiles which are set up by the user. The system assumes default values for most options. The profiles are memorized by SIP in most cases, and do not change in between sessions.

An advantage of the graphical interface is also the extended use of tool tips. When moving over a specific button or panel, instructions will appear after three seconds on the use of the feature to which is pointed. When a question mark appears in the mouse pointer, click to call the chapter of the help file for that specific subject.

When properly installed, the user will have the SIP icon as a shortcut to the SIP Control Center. Once started, the SIP Control Center comes up and looks like this:
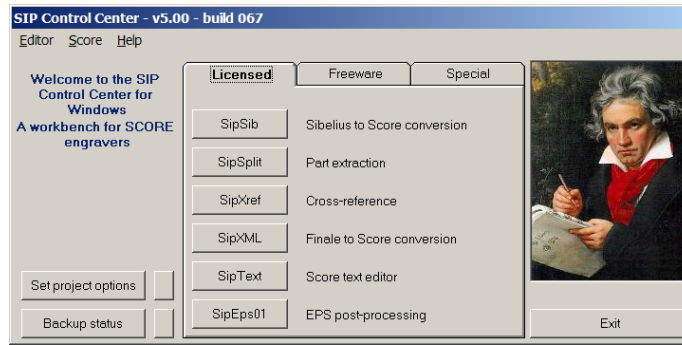
There is a menu option 'Editor' which defines which viewer is to be used by SIP. The default is NotePad and the user can switch to WordPad and back. NotePad is restricted to smaller reports while WordPad has no limitations on file size. Also, the latter has extensive search capabilities which may be useful browsing through a generated report.

Some reports are shown with a built-in viewer (SIP file viewer) which discourages text manipulation although control can be given to an Editor.

Double clicking the Beethoven picture will show the file SIPCNTRL.INI which holds, among other pertinent data, the paths to SCORE, PAGE, SCORLAS and the PREFerence file defined at first execution.

Since there are too many utilities to be put on one panel, a tab panel has been introduced. The 'freeware' and 'special' panel are as follows. Note that when a function is not installed, the button is disabled. This description first explains the 'freeware' products, then the 'licensed' products and the 'special' ones.
The product policy is that the 'freeware' products come with any licensed utility. SIP with just freeware utilities is not distributed.
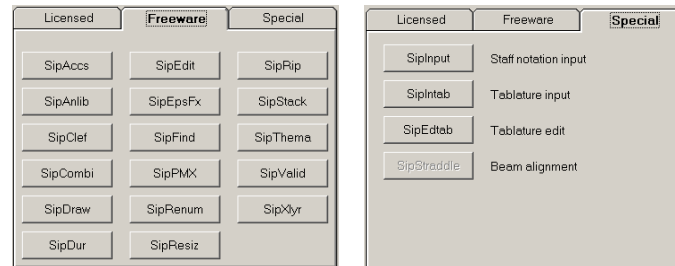
Project options can be set by selecting the 'Set project options' button. The small button to the right gives the file contents which ideally should never be changed with the editor.
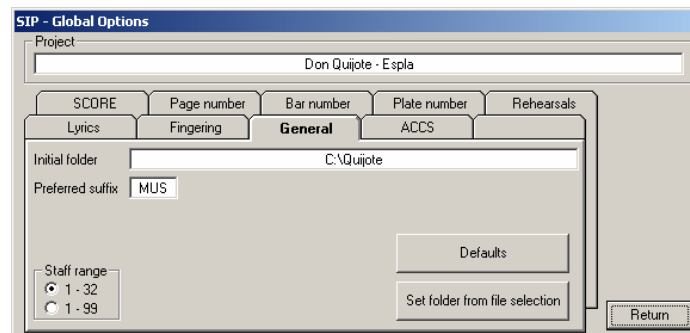
Global options are used by the various utilities. This is because one would like to have a single place where for instance the size and font of lyrics are defined.

Fields with a white background can be modified by the user by clicking on them and entering a value on the keyboard. Lists from which a selection is to be made also have a white background. A field with a yellow background cannot be set by the user in that panel. It is information set by SIP or it is a value which can be set by the user in another panel. Occasionally, light blue fields occur. These can be set directly by typing a value.

To modify any value, click the cursor on the variable you want to change. For the selection of folders, a dialog panel is given. There are two of those panels, one for the Initial folder, and one for the LIB folder shown here.

The initial folder is where the user keeps his music files for a particular project. Some SIP functions require this folder to be defined. If prev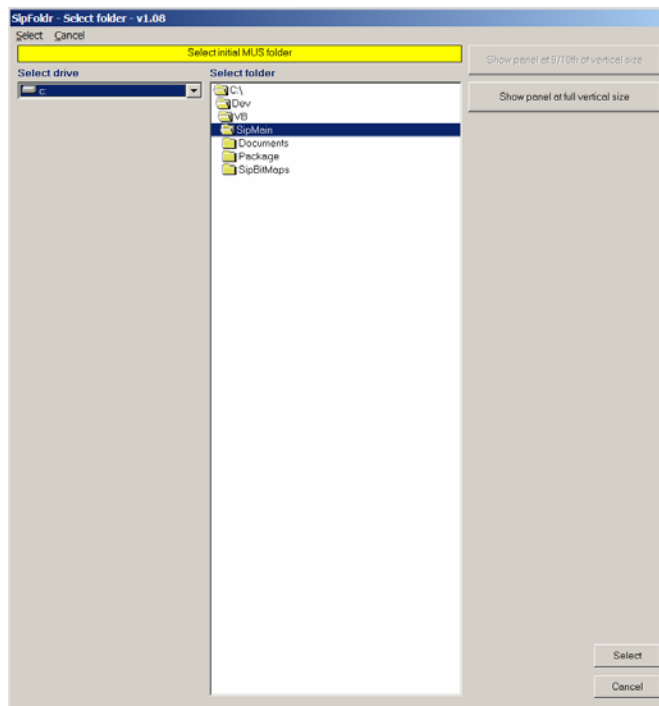iously a names files was created by a 'select file(s)' function, the initial folder can be set to the same path as the file(s) in the names file by hitting the global option button 'set folder from file selection'.

Score environment options are set with the 'SCORE' tab of the global options panel:
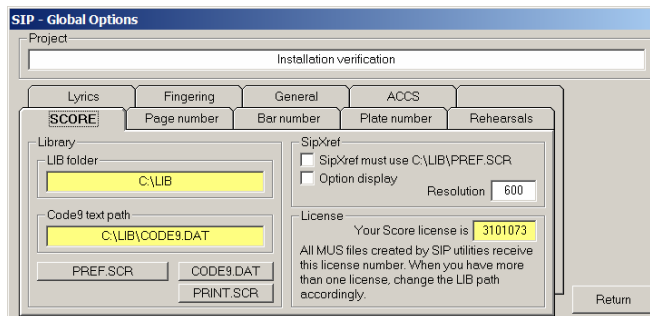
To select a folder, the uniform screen looks like this:

After selection, control is given to the previous panel which is the one for the project options. Return from that panel to the SIP Control Center.

Sometimes buttons are temporarily disabled. This means that the current situation prevents the user from exercising the function, i.e. files have to be selected before their names in the 'names file' NAMES.SIP can be viewed.

2. The SIP backup and restore mechanism

The following editing programs SipEdit, SipRenum, and SipResiz offer the option to have an automatic backup before any updates are made to one or a series of Score music files.

The way this works is as follows: before each file is updated, a file by the same name is copied from the original with the .BKx suffix. The first time this is done, the suffix is .BKU, the next time .BKV and so on until .BKZ. This means that the file with the 'highest' suffix is the most recent backup and that you can have six generations of backups.

When you work on a group of files, the names of these files are usually defined in the names list NAMES.SIP.

On the main panel there is a button 'Backup status' which when pushed gives a summary of all the backups for the current group that you are working on. The summary also gives an explanation on how to restore a backup.

Next to the 'Backup status' there is a small button which when pushed allows you to restore the most recent backup (that is the one with the highest suffix).

By repeating the process you can go back to all previous versions! This is because once you recovered from say BACH*.BKZ, that name will disappear and BACH*.BKY will be the most recent one.

There are some situations where automatic recovery is not possible and SIP will tell you: when backup files have been erased individually 'by hand' or when the names file NAMES.SIP does not exactly represent the same group of files at restore time as when the backups were taken.

The following is for the more IT inclined users: SIP does not keep a register of backups which it has taken – the presence of .BKx files with the identical file names is all there is. Roll-back of just the updates is not possible as SIP works with full backup only. Remember to clean of backup files once your project is finished.

An example may clarify the mechanism. SIPNAMES.SIP has the following three names

```
CHOPIN01.MUS
CHOPIN02.MUS
CHOPIN03.MUS
```

You run SipRenum once to give page numbers to these files. Then the old files get the names

```
CHOPIN01.BKU
CHOPIN02.BKU
CHOPIN03.BKU
```

Then you run SipResiz to change the thickness of all slurs to .8. Another generation of backups is then generated (SIP knows that because the .BKU group exists)

```
CHOPIN01.BKV
CHOPIN02.BKV
CHOPIN03.BKV
```

At this stage the files with the .MUS suffix have the new page numbers and the new slur thickness.

When you come back on your decision to change the thickness of the slurs, you can do one automatic restore. The files with the .MUS suffix will be erased and the files with the .BKV suffix will get the .MUS suffix.

The result is that the .MUS files have only the first update, the new page numbers.

The most recent backup is then the .BKU group.

3. SCORE

The main panel has a SCORE menu option as an easy way to get to SCORE and its utilities as well as a special SCORE help. The advantage over the DOS operation is that to call SCORE, the filename is taken from the names file. Also, SIP does away with the 24-character path restriction of Score so it is perfectly possible to store MUS files in a directory with a long path prefix. Utilities working on one or a number of MUS files will handle the long paths correctly. When Score is called on a path which is too long, SIP will move the MUS file to workspace and work from there.

This is the panel:
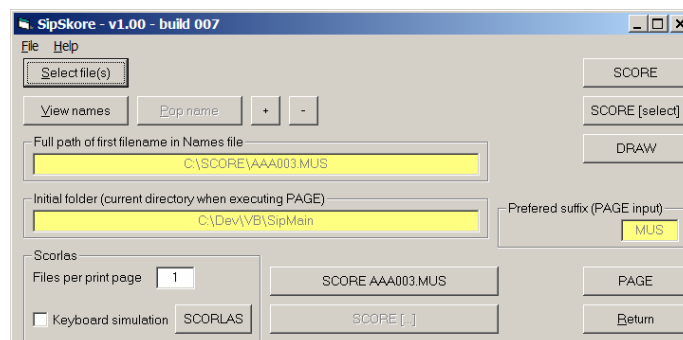
Before running any of the utilities that work on one or a number of music files, the file selection button needs to be used.

There are various ways to select files: classic, meaning the standard Windows selection panel for short or long filenames, and advanced, meaning a dialog frame especially designed for SIP. Note that the classic selection panel for multiple files is restricted to some undetermined number of files (about 22 when DOS names are used) while the advanced SIP selection panel is not restricted.

The common module which performs the file selection is called SipNames.

When an initial folder was specified, that is the one to be given preference. After selecting the right drive and folder, drag over the files to be selected or hit the "All n listed" option. The effect of this selection is the creation of the names file which is always called NAMES.SIP. This names file has the same format as the one which SCORE users apply for PAGE. Long Windows style path names are converted to DOS format.

The search can be limited to valid music files by setting the option 'Select valid music files only'. This option however takes some time since it scans the selected files.
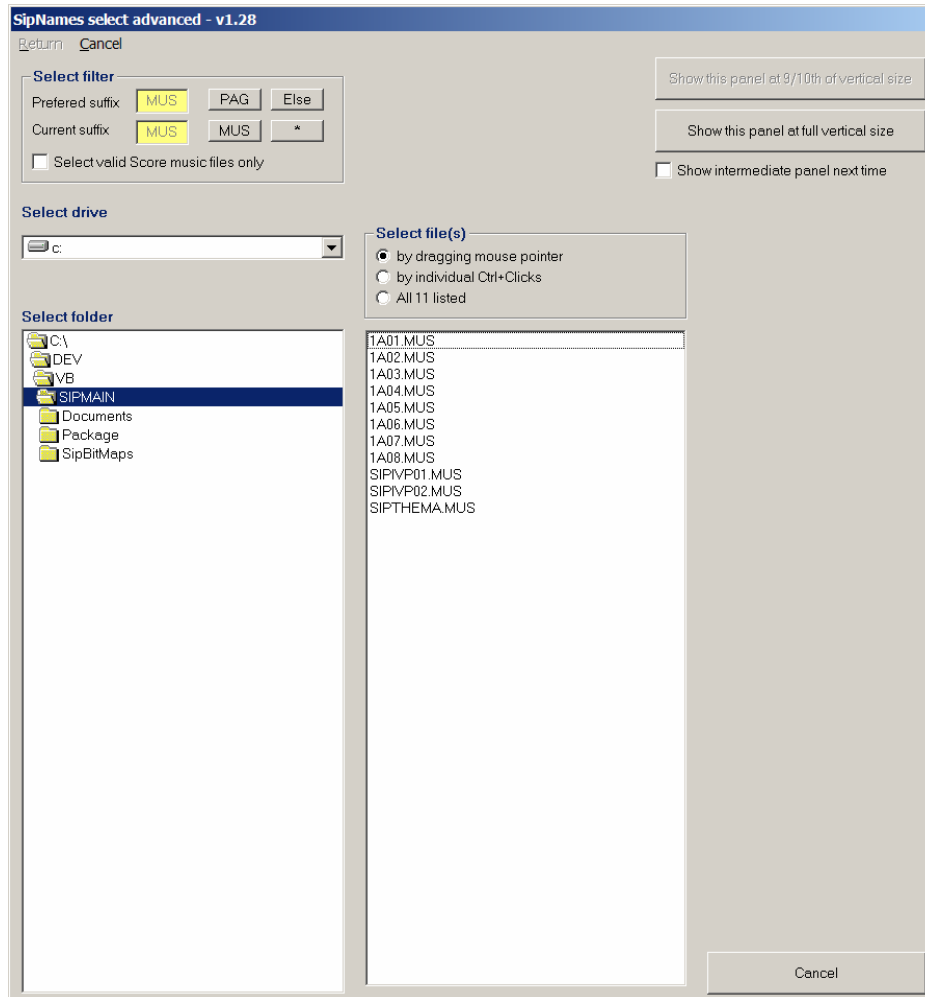

The names file which is created as a result can be inspected, even edited by a function button on the SipXref panel, and so do other utilities which have a 'View names' button.

The 'pop name' removes the first entry from the names file. This is an interesting feature to make the next file current in the case of long paths where the NB and NX functions in SCORE do not work. When one file is selected, the 'plus' and 'minus' buttons are enabled and allow the increment and decrement of the numeric part in a filename.
The 'keyboard simulation' option assumes that all options for SCORLAS are set in PRINT.SCR and causes a full automatic execution of SCORLAS: SIP does the typing of SCORLAS commands and the user should not touch the keyboard until the DOS task is terminated.

The SCORE help provides the same information as the F1 function within SCORE but with a graphical interface. It looks as follows:
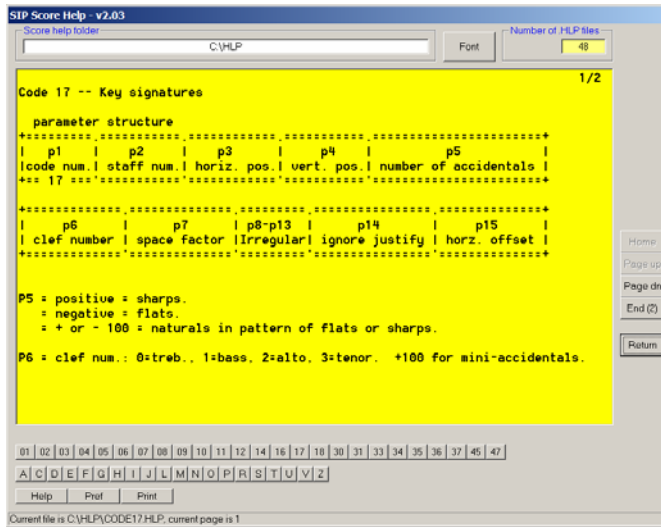
In addition to the traditional SCORE help pages, the other help files such as PRINT.HLP and any other .HLP there happen to reside in the \HLP directory receive buttons for immediate inspection.

4. SipAccs – accidental alignment

SipAccs is the interface to Tom Brodhead's program ACCS which requires a separate license from Tom. The interface is separately documented under the Help button. The panel looks like this:
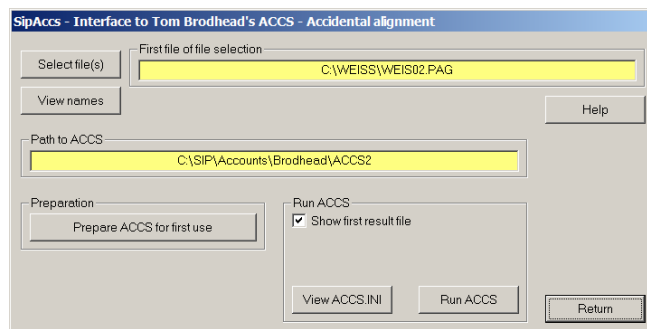
5. SipAnlib – analyze libraries

SipAnlib generates a report with details of all SCORE font files and symbols in the LIB directory. Optionally, a graphic index ('contact sheets') such as in the reference manual can be generated on all symbols in a library directory. The output includes a MUS file with text samples of all available fonts. The panels for this are shown below:
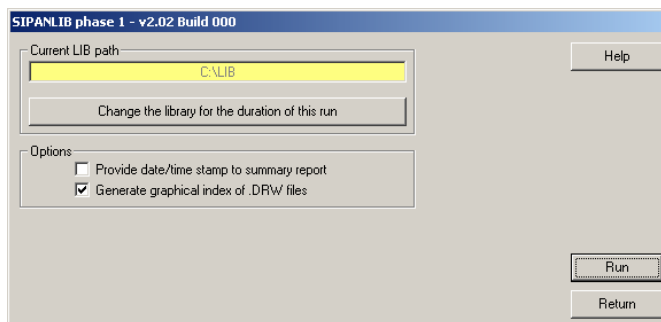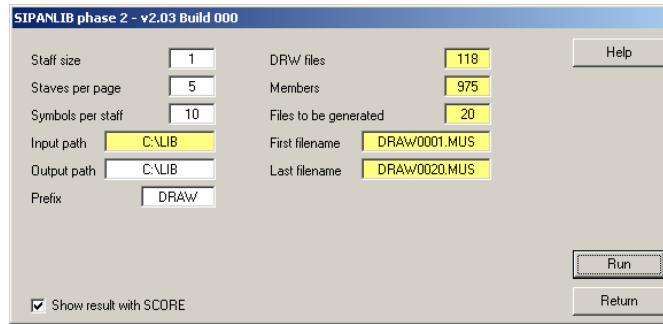
6. SipClef – clef verification

SIPCLEF verifies the proper continuation of clefs and key signatures. It is ideal for orchestral works, string quartet scores, and all music of single or multiple instruments with clef and key changes. Any violation against the rules of clef or key signature continuation will be spotted by SIPCLEF.

The errors most made by engravers are that a part ends a page or staff in one clef, and then continues the next staff for this instrument with a different clef.

Another feature which should be appreciated by SCORE engravers is that this program verifies if key signatures correspond with the current clef.

7. SipCombi – combine files

Automatically merging two groups of music files saves you time. This can come in handy when you need to combine parts of scores such as when you enter orchestral scores in groups of instruments. Basically, this utility does an automatic SCORE 'gm' command on a series of files. Make sure that files have a proper naming structure such as DOWNnnn.MUS or UPnn.MUS where the "n"-portion represents consecutive numbers.

SipCombi asks to define a primary group which becomes the bottom output and a secondary group which will be placed on top of those. Output files are systematically named COM00001.MUS and up. Output is placed in the same directory as the SCORE program. The new staff or staves will be added above the top staff of the bottom parts – SipCombi establishes the highest staff itself.
There are two options which the user can set:

-   Verify the number of barlines on input. In case there is a difference, the user has the option to continue or cancel. The offending file is indicated.
-   Set all distances between staves to zero (Code8, Par4).

The output license number and the inches/metrics indicator is taken from the primary files.

Prior to merging the groups, it is checked whether:
-   both groups have the same number of files,
-   the numeric portions of the filenames correspond (0003=03),
-   there are no filenames in the primary group that exist in the secondary group,
-   no output files of a previous run are used on input (COMnnnnn.MUS in the SCORE directory)
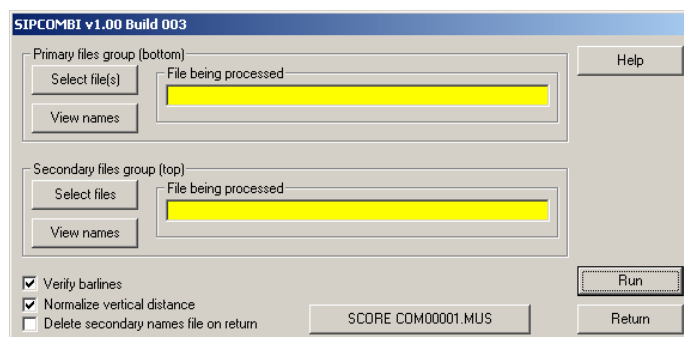
8. SipDraw – draw symbols

This program under development will be the Windows equivalent of the DOS program DRAW.

9. SipDur – duration verification

When a series of .MUS files is finished, or ready for part extraction, SipDur verifies the duration of the measures against the meter. Additional checks are the proper continuation of meters, vertical placement of notes/rests, and many other things as described in detail hereunder.

The application has shown invaluable in finding extraction errors by PAGE. Both PAGE and the SEP command of SCORE do not properly handle vertically stacked rests in multivoice music. Of course this program also finds all user input errors which are violations of the duration against the current meter. When two voices are written on one staff, SipDur verifies the proper synchronization too:

10. SipEdit – general MUS file editor

This handy utility offers a systematic change of all kinds of items and parameters in a series of SCORE files.

The utility allows edit of clefs, rests (generate or remove '1' over a single whole rest), staves (assign instrument numbers to staves and systems), texts (text font manipulation, string translation or deletion, plate number generation), numbers (fingering adaptation), barlines (For instance, you can change the barlines of a four-staff system with barlines across all staves to 3+1 or to 2+2 or to 1+1+1+1), a general feature to any parameter conditionally, and the automatic offset of notes and beams in multivoice staves.

The tab for text editing is shown:
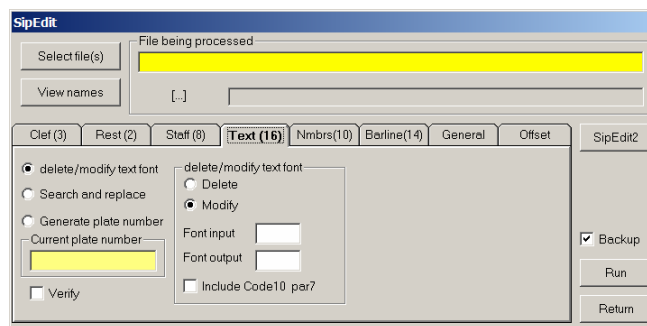
A general update capability is also provided:
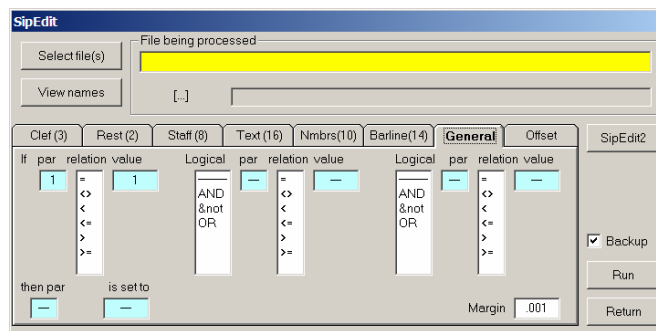
The button 'SipEdit2' gives control to a utility which changes the font of a particular text item.
Other tabs offer self-explanatory functions.

11. SipEpsFx – EPS fix program

This program fixes the problems in EPS files as produced by SCORE.
Currently, only three functions are supported:
- analyze the contents of texts in EPS files
- replace a font
- fix font activation as encountered when working with Icelandic and Faroese.

12. SipFind – find Score files

This program searches for SCORE files with specific characteristics. It will by default select (1) online removable drives, (2) fixed drives, and (3) CD-ROM drives.
With the Browse function you can limit the search to any drive/directory. With the 'named' filed you can narrow down to one or more partially qualified filenames.
Cyrillic support is for the TimeScore family of fonts only.

Search criteria are the following: text, font, number, symbol, library member, or any parameter value within limits. A date filter can be applied.

The output can be sorted by various aspects such as name, date, size, number of items, etc. The name in the left columns can be clicked to view that file with Score. Shown here is the minimum size panel. By default this will enlarge to the screen size.
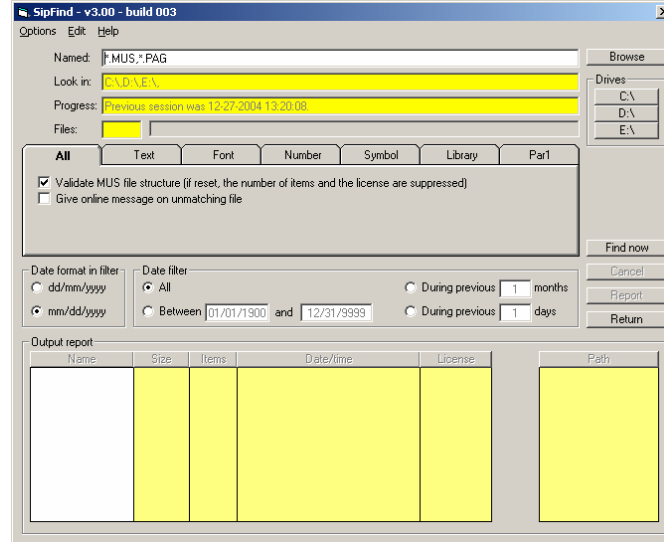
13. SipPMX – create PMX files

Like SCORE, SIP can make PMX files. It has two options which make this an attractive alternative over SCORE: (1) output can be in tabular form, and (2) comments can be generated. Both output formats are accepted equally well by SCORE through the read command.

The non-tabular form reduces numeric values to their minimum representation.

14. SipRenum – renumber, rename files, pages, bars

A number of useful number manipulation functions are foreseen within this panel. Basically you can:
- Name and number files
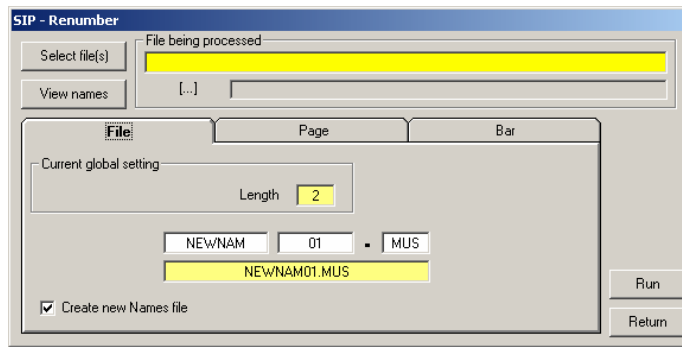- Number pages
- Number bars
- Assign cue references

There are three tabs within this panel – one for file, one for page, and one for bar (re)numbering.

With the file renumbering, any set of files, even those which have no logical structure in their naming, can be given well structured names. Note that only file names are affected, not the contents of files. In fact, files do not even have to be SCORE music files.

The page renumbering requires that page numbers can be recognized by the process. Global options tell this utility what a page number looks like (size, format). It needs to be able to distinguish page numbers from other numbers such as bar numbers or fingering. Page numbers can be deleted, assigned, or both in one run. Placement of page numbering is top or bottom, centered or right/left with the possibility to place numbers at settable positions or according to my house style.

Bar (re)numbering offers two possibilities: remove bar numbers and number bars. When numbering bars, any existing bar number in the file(s) will be removed while new ones are generated. Note that to recognize a number as being a bar number, it must have the size and font defined as global parameters.

The file renumbering/naming panel is shown:

Shown here is the panel for page renumbering:
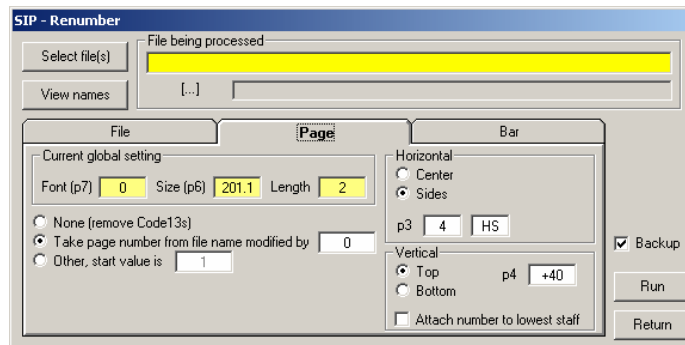
The bar numbering panel is shown here:

Numbering bars is a practice which should ideally be left to a computer program such as PAGE. The internal format of SCORE however does not allow to define which bars should be counted and which ones should not. 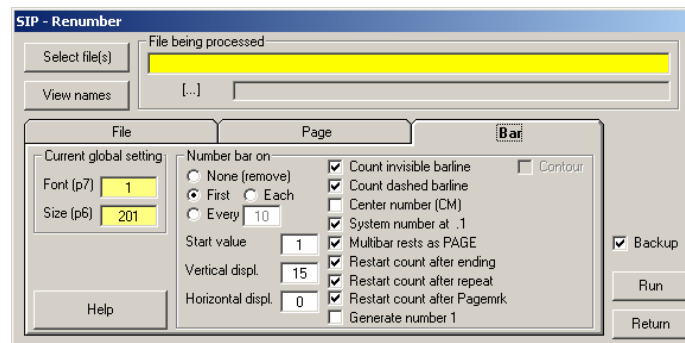Therefor, PAGE sometimes acts contrary to what the engraver intends. In case of less traditional compositions with bars continued to the next staff, blank barlines, dashed barlines, repeat bars, second endings and other situations, the user wants to have control over which bar is counted and which one is not. The SIP bar renumber program offers a user friendly and graphical way to let the computer do the arithmetic while taking care of specific user requirements. The effect of every user intervention in the bar counting is immediately visualized.

PAGE cannot renumber an existing set of files. SipRenum does just that.

Another SipRenum option is that numbering automatically restarts when another movement or piece begins. It recognizes these instances by the ending double bar (Code14 Par5=2) and the repeat double bar pointing left (Code14, Par5=3). Numbering can also restart when the PAGE mark is set (Code14 Par12).

The bar numbering Run function gives rise to another panel which is a graphic rendition of the first file in the group. The graphic image of a music file is limited to staves, barlines, bar numbers, page numbers and whole rests. Staff and instrument numbers are also given. The user can walk through the files in either direction or to any particular file while the contents are shown. This gives the user enough information as to the bar numbering. The space between staves can be decreased/increased for better visualization of larger scores.

When pushing the "Compute bar numbers" function, all files in the group are analyzed and bar numbers are recalculated and shown for each bar. Existing bar numbers have a gray background, calculated numbers have a green background. There is a visual distinction between bar numbers to be generated and those not. By pointing to a bar number, the exact horizontal position is shown. Clicking on a bar number will change the background to pink which indicates that the preceding bar is not to be counted in the numbering process. A "commit" button starts actual (re)numbering.

Existing bar numbers shown on a gray background will be removed on physical renumbering. It is of course necessary that the program recognizes numbers as bar numbers by setting the global option for size and font.

The program recognizes all system sizes, provided that multistaff systems have a system barline.

Generation of bar numbers
This is controlled by the option FIRST, EACH, or EVERY X, where X can be any interval.
The bar number zero (pickup bar) is never generated. The bar number "1" is only generated if the option is EACH or EVERY 1. The rightmost bar number visualized on a system reflects the beginning number of the next system. It is there to set/reset counting of the last bar on that system but it will never be generated. The difference between EACH and EVERY 1 is that in the latter case a contour (circle or box) can be specified. Optionally, the user can select not to count invisible barlines or dashed barlines without defining this individually for each barline. Still, the user can reset those for counting by selection.

Placement of bar numbers
There are various options to control bar number placement. The vertical displacement defines the position over the staff. A good value for G-clef when using FIRST is 15 which is the default. Other situations such as EACH or other clefs demand a different setting. A horizontal displacement can be set and this value becomes Par15.
When centering is requested, the proper Par15 will be computed for the default bar number font (Par7=1) and size (Par6=201). This works also for invisible barlines ('CM' cannot do this in SCORE). Another option is to set the leftmost bar number at the staff's Par3 value plus .1 which is the SCORE default. These two options override the horizontal displacement.

Setting instrument numbers
Click on a staff/instrument name and you can immediately update Code8 Par9 which is used for extraction and cue definition.

### Setting of Cue references
Handy when editing orchestral scores is the point-and-click feature to assign cue references. Cue numbers (invisible in SCORE, purple in SIP) are shown with whole rests. Click on the rest and a list of the possible instrument numbers on the current page rolls out. Just click the selection to assign a cue reference to this whole rest, to change the reference, or reset it.
If a bar is a cue bar by itself, the instrument id will be shown in purple without the whole rest.

When started, the program will analyze the first file for an existing barline number and compute the number of the first bar. If this does not match with the user setting, the user can adapt his setting accordingly. When no barline number is found in the first file, the second is scanned. When it finds an existing bar number this is probably an orchestral score and the first page is then read again to compute the first bar number. When the second file has no bar number, the program assumes that the file was not numbered before.

An example of the bar number view panel is shown below.
A green or pink block indicates a bar number. Green means that the preceding bar is counted, pink means it is not. The foreground color is black for numbers to be generated; the white numbers indicate bars of which the number is not generated.
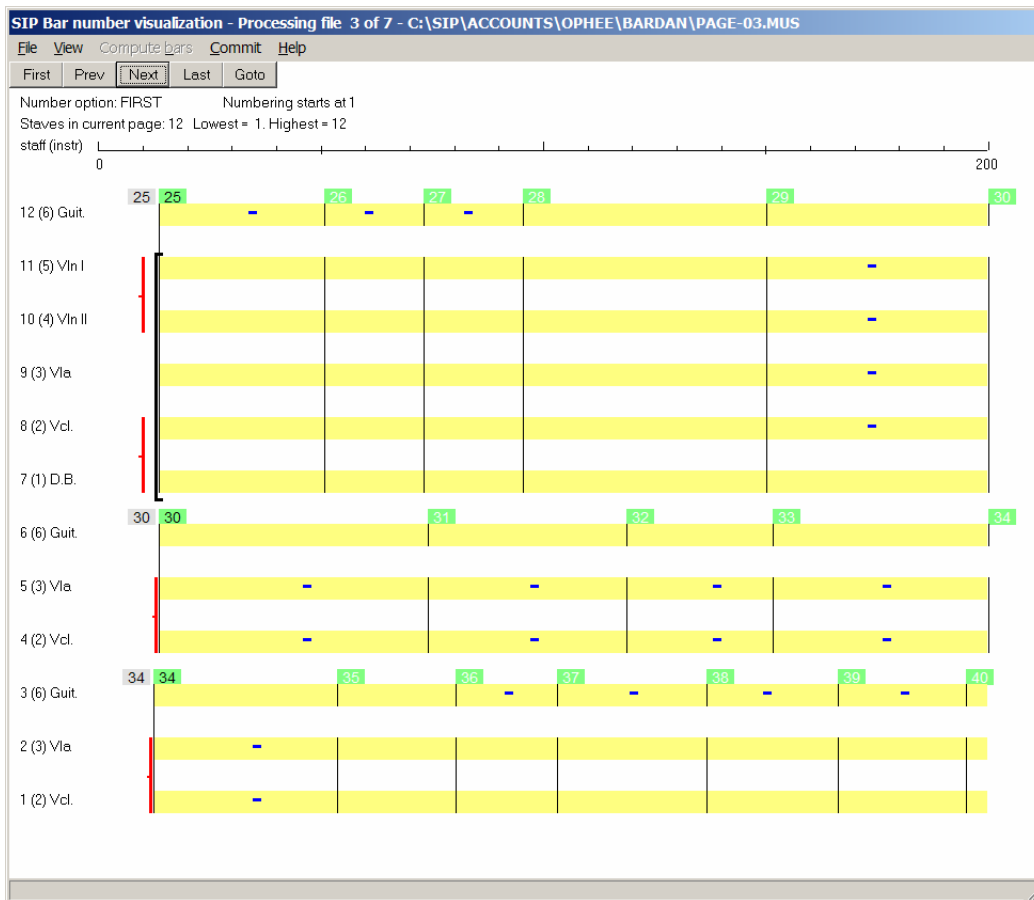
15. SipResiz – resize Score item

A built-in feature of SIP is the resizing program. With it you can resize notes and staves, as well as slur thickness, lyrics, bar numbers and page numbers. In the case of bar and page numbers, numeric fonts (Code10Par7) may optionally be modified.

Staff resizing is possible on all or some staves. If the "some" option is selected, the program prompts for a pattern such as every even numbered staff, or every multiple of three if you want to only change the sizes of staves 1, 4, 7, 10, etc. or 3, 6, 9, etc.

The value of the resizing can be modified by entering the desired values. For note resizing, the default is size 1.1 for half notes and whole notes. The difference between mini notes and small notes is defined by Code1 items p4. If a note's p4 is 1xx, it is considered a mini note, while a small note is one which has a value between zero and 1 in p15.

Dummy items are automatically removed by running this program.


12
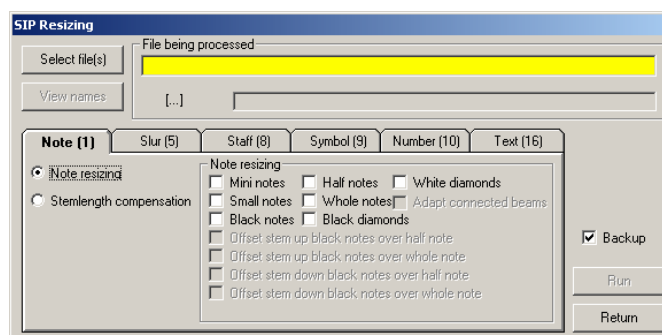
16. SipRip – ripple staves between files

To copy a number of staves from one file to another, use the SipRip feature called from the main panel. Two consecutive files must be selected, the number of staves to be copied (default 1) must be set, then press the copy button.

SipRip takes the first two files from the Names file. There are two possibilities:

- Copy the bottom staves of one file to the top of the other. The highest staff in the receiving file is automatically established. Optionally, protruding barlines can be adapted. Like with the SCORE 'GM' command, it is possible that new higher staves are lower than the highest staff in the receiving file, a phenomenon which must be adapted by hand or by the 'VJ' command. Alternatively, the option can be set which causes all staves in the receiving file to be set at equal distances (Par4 of staves is set to zero).
- Copy the top staves of one file to the bottom of the other. The staves in the receiving file are pushed up.

If you want only a number of bars to be moved from one file to the other, use the SCORE 'RIP' function and delete the superfluous bars by hand. Remember that the SCORE 'RIP' function does not properly handle bar numbers.

The resulting file can be immediately inspected from the same panel with SCORE.
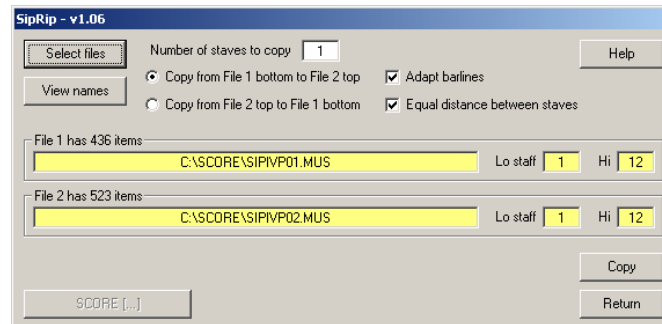
17. SipStack – vertical layout

This utility is a very basic layout program which comes in handy to physically stack a number of files into one page without any horizontal adjustment.
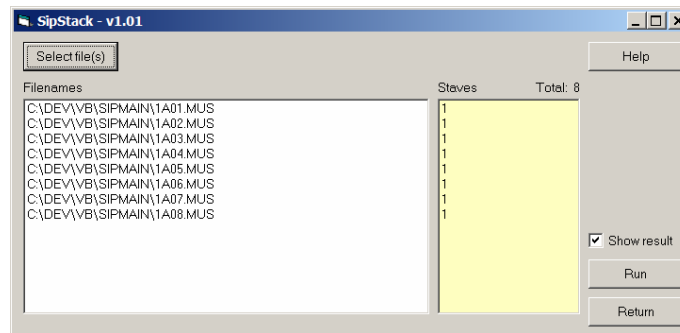
18. SipThema – incipit collector

Publications with a multitude of pieces sometimes have a thematic index which gives for each piece the first few bars (incipits) and the page, sometimes together with the title.

It is entirely possible to engrave such pages with SCORE, however this process can now be automated with SipThema to a large extent, and as such is saving time while assuring a standard format of thematic index pages. This user guide uses the word 'theme' for each group of bars. Each theme has the same output length and elements in the theme are proportionally spaced. An output page has up to 26 themes in two columns of up to 13 themes. Some amount of layout planning is required prior to using this program.

19. SipValid – structure validation

The proper structure of SCORE music files can be verified by SipValid.

If a file is invalid because its structure was damaged, the recovery feature of SIP will attempt to save as many items as it can by scanning the damaged file in two directions. The result is a valid MUS file and the recovery result will be documented. Errors used to occur on diskettes but this medium is much more reliable today and only occasionally used. Therefore the availability of this utility has diminished with the years.

The panel of SipValid is given below. Runtime information is given in the form of the file being processed, how many files are checked, and a progress bar per file and number of files.
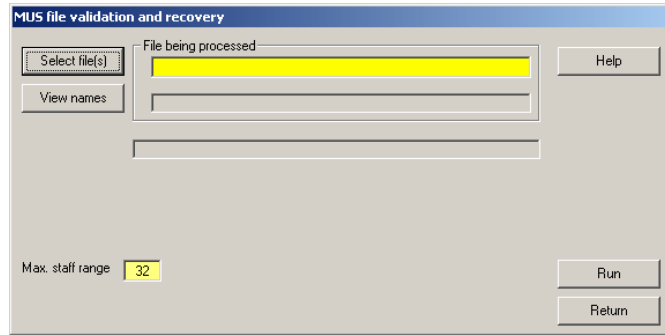
Recovery is a screen by itself not shown here. The operation of a recovery is self-explanatory through the tool tips and the bottom explanation field which is filled depending of where the cursor is.

Sample output report:

```
SIPRECOV - MUS File Recovery - Jan J. de Kloe - v1.1
Run at  . . . . . . . . . . . . . 02-26-2001 22:56:12
File to be recovered  . . . . . . . a:\current.mus
File date/time stamp  . . . . . . . 28/02/98 12:44:22
File size . . . . . . . . . . . . . 21042
Highest staff (set by user) . . . . 8
Ignore wordcount (set by user)  . . Off

Number of items forward recovery  . 575
Bypassed words following trailer  . 0
Inches/Metrics established as . . . INCHES
Version/license established as  . . 3101200
Staff 1 has 95 items.
Staff 2 has 71 items.
Staff 3 has 76 items.
Staff 4 has 72 items.
Staff 5 has 76 items.
Staff 6 has NO items.
Staff 7 has 88 items.
Staff 8 has 89 items.

Output directed to  . . . . . . . . a:\RECOVER.MUS
File date/time stamp  . . . . . . . 26/02/01 22:56:26
File size . . . . . . . . . . . . . 20190
Total number of items recovered . . 575
```

20. SipXlyr – lyrics extraction
The utility extracts lyrics from an engraving and presents it in poem form. Output can be used to verify spelling, hyphenation, placement of rehearsal numbers, and vertical positioning per staff. Refrains are vertically separated.

In order to distinguish lyrics from any other text in the engraving, it is suggested to use a unique font/size combination.
Define the font and size in the project profile via the 'Set project options' function from the main panel, then select the Lyrics tab.

21. SipSib – Sibelius to SCORE
This program converts Sibelius EPS files to SCORE MUS files. There is a separate User Guide available from the website (www.dekloe.be).
The control panel is shown here:
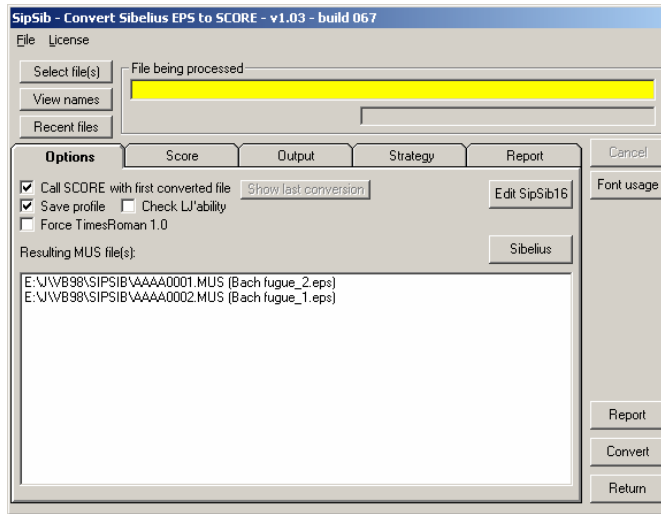
Sample report from a conversion with SipSib:

```
SipSib v1.03 - build 067 - Convert Sibelius to Score 12-27-2004 13:17:39
License line suppressed


Input path  . . . . . . E:\J\VB98\SIPSIB\BACHFU~2.EPS (Bach fugue_2.eps)
Time stamp EPS  . . . . Sat Nov 24 16:31:18 2001
EPS created by  . . . . Sibelius for Windows version 1.4 (0104W)
Score license . . . . . 3101073

Diagnostics Staff  Pos  Message
Comment        -    -     Duration of conversion: 00:00:02.
Comment        -    -     Flat key signature gap set to 1.125.
Comment        1  191.47 Stem shared by two staves. Assigned to lower.
Warning       10   15.97 Beam subgroup needs offset. Inspect item 532.

Statistics. . . . . . . E:\J\VB98\SIPSIB\AAAA0001.MUS
    Number SCORE items processed . . . . . . 654
    Number SCORE items generated . . . . . . 654
    Number of warning messages this page . . 1
    Conversion percentage this page  . . . . 99.85
-----------------------------------------------------------------------
Input path  . . . . . . E:\J\VB98\SIPSIB\BACHFU~1.EPS (Bach fugue_1.eps)
Time stamp EPS  . . . . Sat Nov 24 16:31:17 2001
EPS created by  . . . . Sibelius for Windows version 1.4 (0104W)
Score license . . . . . 3101073

Diagnostics Staff  Pos  Message
Comment        -    -     Duration of conversion: 00:00:01.
Comment        -    -     Flat key signature gap set to 1.125.
Comment        -    -     No page number found on this page.

Statistics. . . . . . . E:\J\VB98\SIPSIB\AAAA0002.MUS
    Number SCORE items processed . . . . . . 557
    Number SCORE items generated . . . . . . 557
    Number of warning messages this page . . 0
    Conversion percentage this page  . . . . 100.
-----------------------------------------------------------------------

    Number of files processed. . . . . . . . 2
    Number SCORE items generated . . . . . . 1211
    Number of warning messages this job  . . 1
    Conversion percentage this job . . . . . 99.92
```

22. SipSplit – part extraction

The extraction of parts from a score is one of the strongest features of SIP since it is far superior over PAGE. There are two panels with many features. The first panel is for the extraction, the second panel controls the layout of extracted parts using PAGE. Reduction of consecutive rests to multibar rest is a function of SipSplit.

The 'analyze' button supplies a table of instrument id's per file.
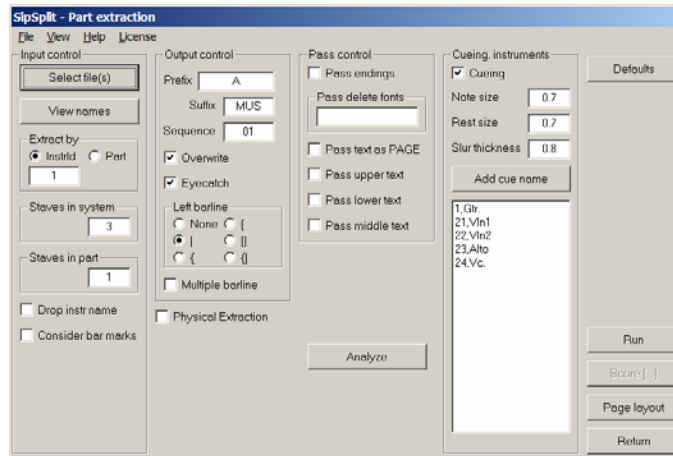
When the 'physical extraction' option is set, a different panel is shown with features to define a control file and run an extraction based on indications per file and staff.

The 'page layout' button causes this panel for whole rest processing:
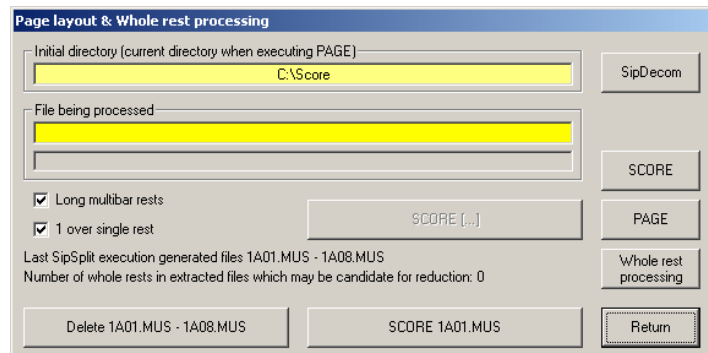
Files which were extracted will undergo rest optimization by the Run of this function. PAGE can be called immediately from here to do layout.
The first file generated can be immediately inspected from the panel. All generated files may be deleted from the panel.

SipDecom – decompose SCORE files
Called from the 'whole rest reduction' panel which in its turn is called by SipSplit, this feature allows the generation of an extraction whereby the output files all have the same number of bars, at equal distances. The number of desired bars per output file can be selected and must be a value from 1 to 99. The default is 4. So if you use the default, barlines will be at 50, 100, 150, and 200.
Another user option (Multiple barline) is to set whether the barlines run through the staves or if they are stacked such as in choral music.
All superfluous clefs, key and time signatures are removed.
The left barline option from the SipSplit panel is used to generate such barline(s) in the first output file.
Output files are named DEC00001.MUS and upward, and are put in the same directory as where SCORE resides. The first file generated can be immediately inspected from the panel.

23. SipXref – cross-reference
Knowing which items occur in a series of engravings and which sizes and fonts are applied is a primary quality consideration. This program indexes all kinds of items and produces reports with statistics and occurrences of all kind of items as well as an inconsistency report. Optionally it can create a table of contents (titles, composer names).
When you charge by the item, this program generates a price specification.
When you select SipXref, the following panel appears:
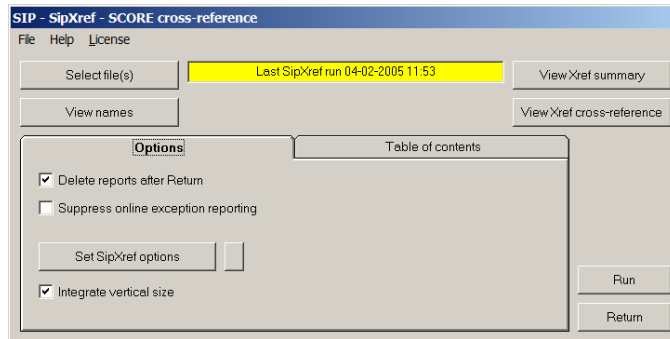
Some buttons may be disabled because the files behind those buttons do not exist (yet).
The Narrative button shows file SIPXREF.TXT. It contains a description of SipXref.
The option 'integrate vertical size' can be set to ask SCORLAS to compute it for each page. The output of SCORLAS is integrated into the summary report (if you run XP).
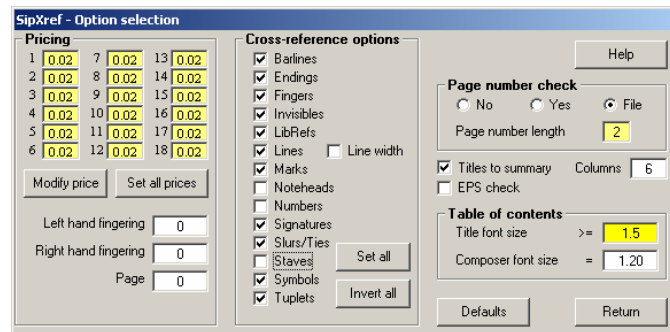

Use the 'Set SipXref options' button to select specific reporting by SipXref.

Prices can be set individually by the 'Modify price' button. Set all prices to zero if you do not want the engraving cost to be reported. Most reporting options can be suppressed except the Code16 items and some that indicate uncommon items.

24. SipXML – Finale to SCORE

This utility converts MusicXML as produced by the Dolet plugin for Finale to SCORE. A separate user guide is available on the web site.
The main panel looks like this:
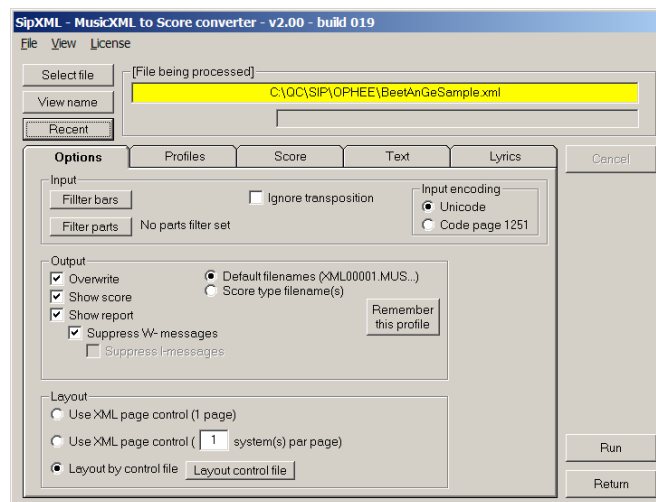
25. SipText – Text editor for SCORE files

SipText is a Windows application developed to manipulate text in Score music files. In addition to the Score text features, there are advanced capabilities which make working with text easier and faster than in Score itself.
The program comes in a basic version with two optional extensions. The separately priced extensions are support for kerning and for Cyrillic.

26. SipEPS01 – EPS postprocessor

This program for Score engravers automatically creates a white background when fingering or other text crosses staff lines or tablature lines. While in tablature a digit points to a position rather than that it indicates a finger, this document considers digits as fingers.

Fingering

In principle, fingers cross staff lines or tablature lines in the middle. However, depending on the used font and size, fingers may become less readable such as the middle hook of a '3', or the horizontal line of a '4'.

Fingers are defined as a range such as 0-6 (guitar, including circled strings), 1-5 (piano), or 0-20 (tablature). As is customary, Code10 items are used for numeric fingering, though the program works equally well when fingers are represented by Code16 items, or Code1 Par11= finger items.

Non-digits such as for certain types of tablature are foreseen.

How the program works

The program works on one or a series of Score EPS files. The EPS files are converted resulting in EPS files which have the staff lines with fingers manipulated such that they are segmented as to not touching the fingering.

The resulting EPS files can be copied to a printer (DOS command 'copy *.eps lpt1') or input into a publishing tool.

The EPS files are either physically replaced or written to a series of files named EPS00001.EPS and up, depending on the user's choice.

The user has control over a number of things:

- Which elements to recognize as fingering.
  As shown above, these can be any number range depending on the instrument or notation, or a character string.
- The distance between fingers and staff lines.
  This depends on the staff size and the font/size of fingers.
- The width of the white space.
  In fact, the white space consists of two parts: the left part counted from the line to the left end of the finger, and the right part counted from the left end of the finger to the line continuation. You will have to experiment to find the setting which best suits your taste if the default setting is too narrow or too wide.

It should be noted that any horizontal line is subject to the mechanism, even if it is not a staff line. When numbers have a circle or box attribute set, they will still be considered as elements when in the set range.

Preferential values are kept in a profile to keep the settings for a particular engraver's method of working.

The analysis phase

Before being able to set up the distances of fingering to the lines they cross, the program helps in analyzing the setup. It will go through the files and report back what the most common distances are. These can then be used for the setup.

Demonstration

Consult the online sample files or send any one EPS file for a free demonstration.

Version upgrade information September 12th, 2003.

Though intended for fingering (fingers 0-5 and strings 1-6), the capabilities of SipEPS01 have been extended to positions.

A user who primarily uses guitar TAB with 'noteheads' consisting of values up to 20 required that there was a wider gap for double digit numbers. This is now an option and the additional width on the right side of the gap can be specified. A good value would be 240.

Also, the 'X' was used in his tablature. The program has been extended to add alphabetic characters which can occur across staff lines and they will be treated just like digits. The letters which occur as positions or fingers need to be specified and they are case sensitive.

All settings are kept for subsequent execution.

In the process of upgrading, an error was fixed: in case of two very close characters, the gaps would overlap and this was not properly done for the second character.

Licensed customers of SipEPS01 have received the update as an email attachment.

**Version upgrade information December 2004 (version 3.02):**
Added feature is that any character string can be considered as fingering, i.e. to receive a white background. This is done through a file which has those strings which are to be considered for the mechanism. Optionally, a font filter can be set.
Since the space character cannot be defined at the end of a Code16 item, the replacement character option allows suppression of those in the resulting EPS file.
Users need to pay a small fee for receiving this upgrade. Inquire for details.

The interface panel is depicted here:
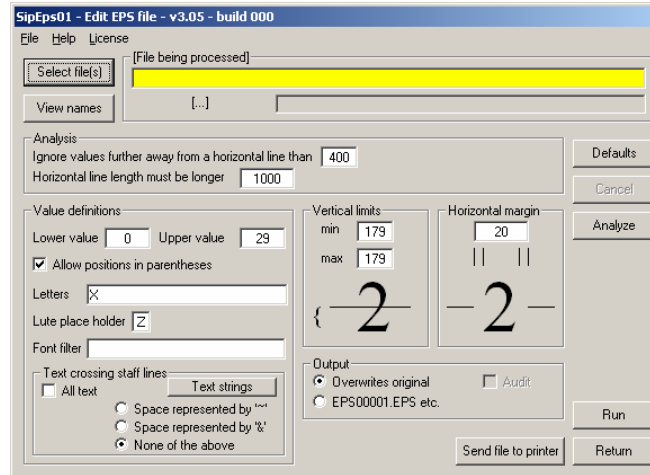
Version upgrade information May 2005 (version 3.05):
Rather than specifying those text items subject to the whitening process, the user can give the "All text" option such that any text crossing a staff line is subject to the whitening process. Follows a demonstration of the features:
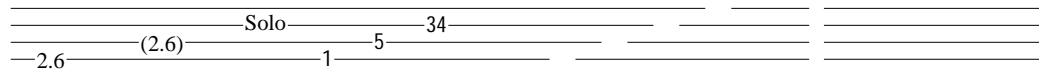
Supplemetary information (1)
An experience of one SipEPS user showed a lack of explanation in the documentation of the 'Text strings' button. When defining a Code16 item which has the change of a font such as in
        _00textA-_24textB
then Score generates two EPS units from this.
When this string needs to be recognized by SipEPS for staff line whitening, it is necessary to specify both units.
        textA-textB
will not be recognized as such.
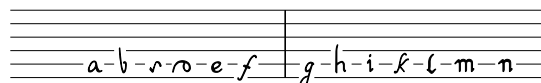What needs to be specified here are:
        textA-
        textB
or if sensitive to their individual fonts:
        _00textA-
   _24textB

Supplemetary information (2)
An additional Tab was foreseen in the freeware SipResiz program to automatically create placeholders for Score Code9=900-912 French tablature characters.
This shows a sample:

27. SipInput – SCORE music editor (staff notation)

Input to SCORE is facilitated through the SipInput program. In fact, this is a simplified music editor. A cursor moves in two dimensions and notes, rests, beams and slurs/ties, and other music symbols can be edited. Four staves and up to four voices can be drawn per staff. Online duration verification assures that the input music which is automatically passed to SCORE is error free. The generated input to SCORE may be visualized and edited if so desired.
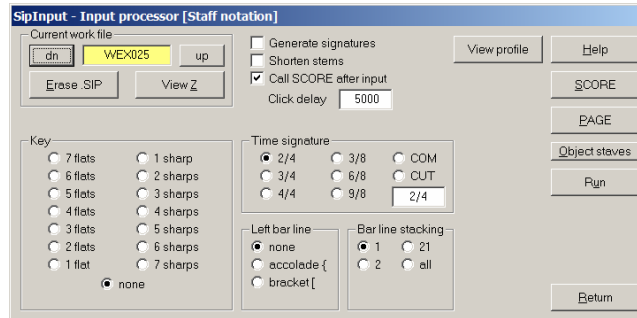

There is a separate panel for definition of object staves as shown here:
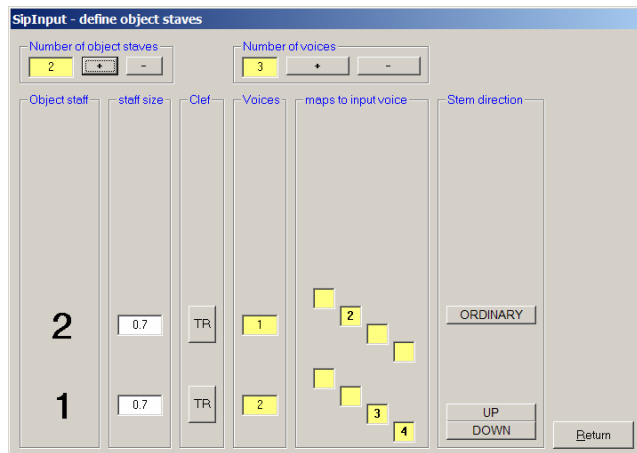
The above panel sets up the editing of a duo. The selection of the object staves panel defines the number of voices per staff, the number of staves in a system, which staff sizes and clefs are to be used.
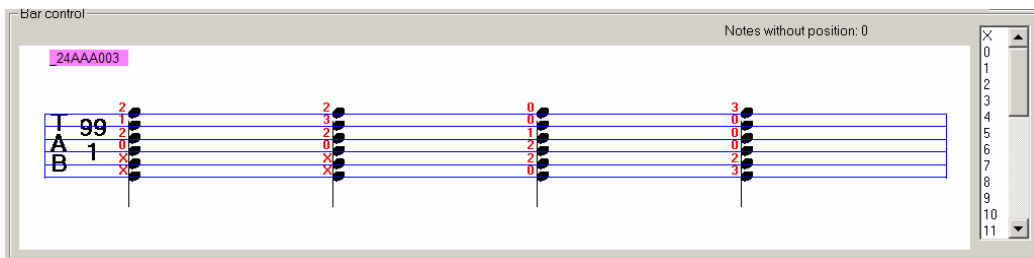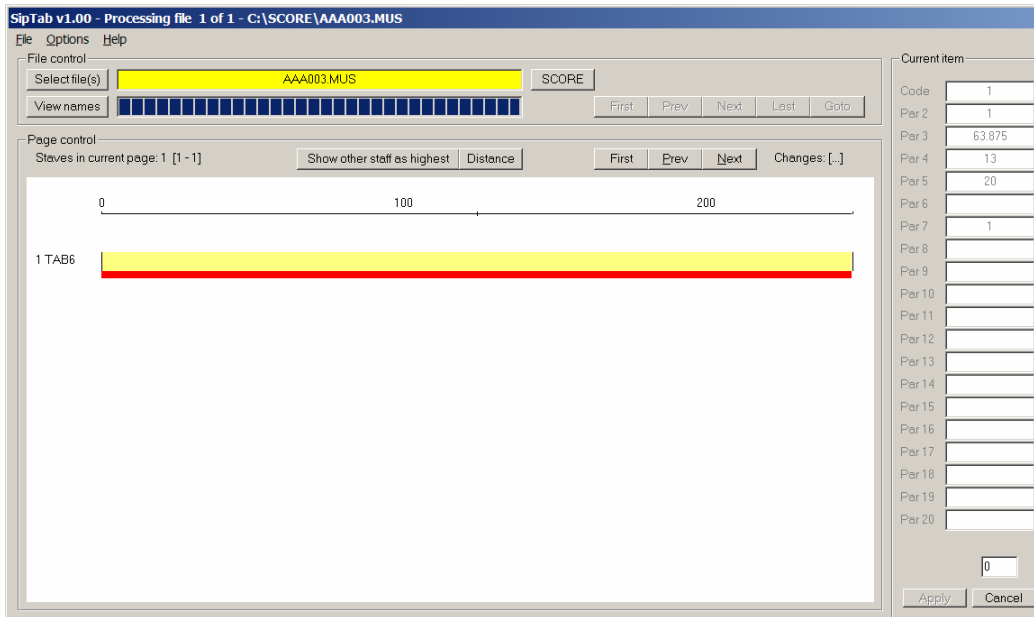
28. SipIntab – SCORE music editor (tablature)

This program corresponds to SipInput but generates TABlature. The main panel is shown here.
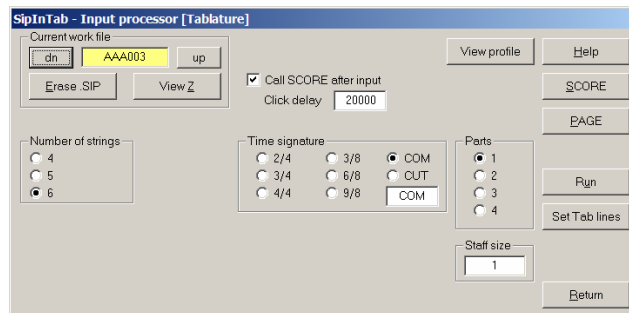
29. SipEdTab – tablature editor

This program corresponds to SipInput but generates TABlature. The main panel is shown here (upper and lower portion):

SipTab v1.00 - Processing file 1 of 1 - C:\SCORE\AAA003.MUS

File   Options   Help

File control
Select file(s)   AAA003.MUS   SCORE
View names   First   Prev   Next   Last   Goto

Page control
Staves in current page: 1 [1 - 1]   Show other staff as highest   Distance   First   Prev   Next   Changes: [...]

0   100   200

1 TAB6

Current item
Code   1
Par 2   1
Par 3   63.875
Par 4   13
Par 5   20
Par 6
Par 7   1
Par 8
Par 9
Par 10
Par 11
Par 12
Par 13
Par 14
Par 15
Par 16
Par 17
Par 18
Par 19
Par 20

0

Apply   Cancel

Bar control

Notes without position: 0

_24AAA003

30. SipTtoS – tablature to staff notation
This utility converts tablature to staff notation. Consult the website for details.

31. End notes
SipXref, SipSplit, SipSib, SipXML, SipEPS01, SipTtoS and SipText are commercial products. The rest of SIP comes with any of these for free.
For SipInput and the tablature utilities SipIntab and SipEditTab, inquire.
SipStraddle is a utility comparable with Tom Brodhead's BEAM and is not marketed.

SIP is being used by SCORE engravers in Europe, the USA and Australia. It is continually being extended with new utilities and features. The first SIP utility was commercialized in 1992. More than 100 licensed products were delivered by December 2004.