

Title: How SIP interfaces with SCORLAS
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Introduction

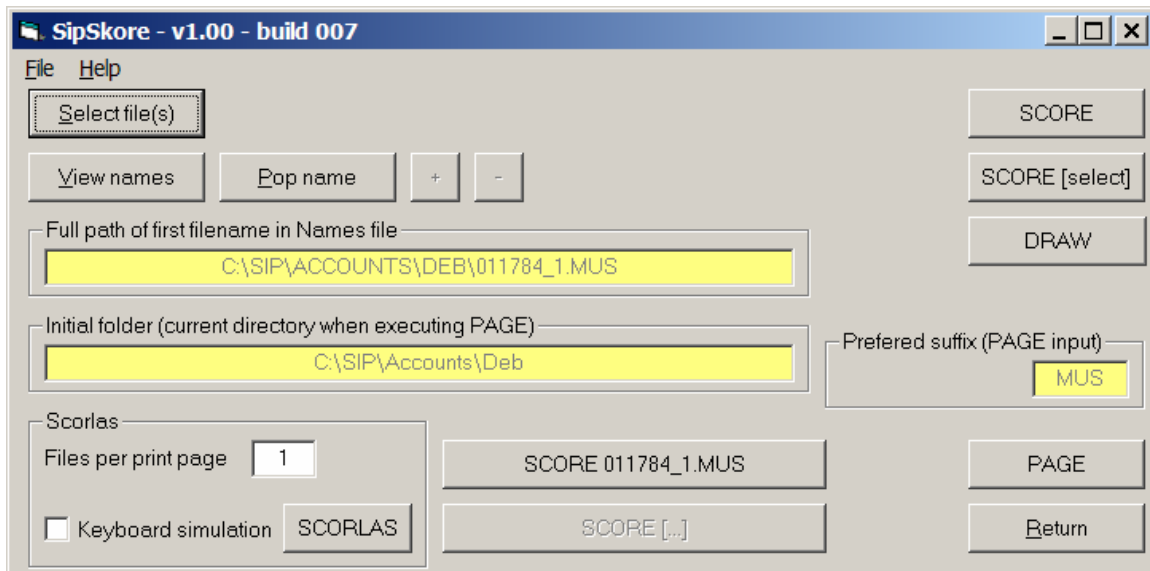
SCORLAS takes a series of Score MUS files (of which the names are in a NAMES file) and either sends them to the printer or generates EPS files. With desktop publication software we see that EPS files become more important for subsequent processing and that sending Score MUS files to a printer happens less frequently.

SIP solves a number of disadvantages that come with SCORLAS:

- (1) naming output files
- (2) path length restriction
- (3) interactive control (keyboard simulation)

As SIP users know, the names file is always NAMES.SIP and it is made by the 'Select file(s)' button from any of the panels. The format is as SCORE expects it.

The current graphical user interface to Score and Score utilities (SipSkore) looks like this:



A number of files have been selected here and the first one in the names file can immediately be opened by Score by the long button which has 'SCORE 011784_1.MUS'.

Naming output files

SCORLAS has a disadvantage: it is not very friendly to naming its output files. Rather than using the input file name to create an output file name, it just takes the first name and increments it.

For example: when the NAMES file contains

```
BACH001.MUS  
CHOPIN001.MUS  
HAYDN001.MUS
```

SCORLAS will create three EPS files:

BACH001.EPS
 BACH002.EPS
 BACH003.EPS

The way SIP solves this problem is as follows:

Before SCORLAS is executed, a table is created in memory of all the filenames and their time stamps in the target directory. Assuming that this directory has the above three MUS files and two more files which just happen to be there, this table could look like:

Filename	Time stamp	Flag
D:\SOMEPTH\FILE1.DOC	12May2002 12:00:00.001	0
D:\SOMEPTH\BACH001.MUS	15Nov2004 12:34:56.123	0
D:\SOMEPTH\FILE2.XLS	5Dec2004 00:00:12.222	0
D:\SOMEPTH\CHOPIN001.MUS	16 Sep2003 21:32:32.123	0
D:\SOMEPTH\HAYDN001.MUS	31Dec2004 7:12:13.000	0

Following the execution of SCORLAS, this table is completed with those filenames, which did not yet occur in the table with an identical name and time stamp. The flag for the new names is set.

Filename	Time stamp	Flag
D:\SOMEPTH\FILE1.DOC	12May2002 12:00:00.001	0
D:\SOMEPTH\BACH001.MUS	15Nov2004 12:34:56.123	0
D:\SOMEPTH\FILE2.XLS	5Dec2004 00:00:12.222	0
D:\SOMEPTH\CHOPIN001.MUS	16 Sep2003 21:32:32.123	0
D:\SOMEPTH\HAYDN001.MUS	31Dec2004 7:12:13.000	0
D:\SOMEPTH\BACH001.EPS	31Mar2005 12:00:00.000	1
D:\SOMEPTH\BACH002.EPS	31Mar2005 12:00:00.000	1
D:\SOMEPTH\BACH003.EPS	31Mar2005 12:00:00.000	1

Then, the NAMES file contents is compared to the entries in the memory table marked as new. The suffix is excluded from the comparison:

BACH001(.MUS) is compared with BACH001(.EPS)
 CHOPIN001(.MUS) is compared with BACH002(.EPS)
 HAYDN001(.MUS) is compared with BACH003(.EPS)

Obviously, there are two differences. When any difference is found, the user is informed by the following message:

3 EPS files created.

There are differences (2) between the original file name prefixes and the created EPS files.

Continue to rename the EPS files with their original prefixes.

When the user replies OK, then the two names, which were different, are renamed taking the original prefix:

BACH002.EPS becomes CHOPIN001.EPS
 BACH003.EPS becomes HAYDN001.EPS

Note that SCORLAS allows the printing of single pages from multiple Score MUS files. This is used when the limits of Score are reached and more than one Score file is necessary per page. SIP takes care of this as it allows you to define the number of files per print page which by default is 1.

SIP itself temporarily creates a NAMES file with the correct number of files. To the user, a NAMES file always has the 1 following the file paths.

Path length restriction

Score and its associated utilities have a path length restriction of 24 characters. This is historic and practically forces users to have short path prefixes. However, SIP does away with this restriction. Whenever SIP finds that a file selection has names longer than 24 characters, it creates a temporary directory by the name of \$IPWORK and moves all the MUS files there. So SCORLAS works directly from this folder and restores the result to the original directory. This all happens transparently to the user as if the restriction did not exist.

Interactive control

Originally, SIP called SCORLAS as a DOS task where the user still had to enter the commands for the creation of EPS files (or send files to the printer). This is still possible. However, with the technical capabilities of Windows XP it is now possible to simulate the keystrokes by the Windows program so without touching the keyboard: The DOS task is run automatically. This was not possible in previous Windows systems.

So when you have Windows XP, you can set the checkmark 'Keyboard simulation' and then push the SCORLAS button. This will create EPS files. SIP does the typing. Do not touch the keyboard until back in the SIP panel. So when Scorlas is finished and displays 'Print other page (y/n)?', do not answer but let the application wait until SIP takes over again. Note that some sleep time (2 seconds per file) is included in this procedure to give time between the simulated keystrokes.

The PRINT.SCR file is consulted in this background procedure for the settings of the SCORLAS options so be sure to prepare this file. As of SIP build 066, this file can be updated through the global options panel. All capabilities of SIP (output file naming, filenames longer than 24 characters, etc) are honored by this automatic function.

When SIP is typing the commands for SCORLAS, it does not want to be surprised by the message that an output file is already existing so each EPS file it will create is erased in case an old version with that name did exist.

When you run SIP on a system other than XP, keyboard simulation is disabled. Keyboard simulation only works with QWERTY keyboards.