

NAME

solfg — translate pitch-related representations to French solfège notation

SYNOPSIS

solfg [-tx] [inputfile ...] [> outputfile.slg]

DESCRIPTION

The **solfg** command transforms various pitch-related inputs to the corresponding French system for designating pitches. It outputs one or more Humdrum ****solfg** spines. French pitch designations use the so-called “fixed-doh” system, where: *do*, *ré*, *mi*, *fa*, *sol*, *la*, and *si* correspond to *C*, *D*, *E*, *F*, *G*, *A*, and *B*. In ****solfg**, flats (*bémol*) and sharps (*dièse*) are abbreviated *b* and *d* respectively. Hence, ‘do dièse’ (do~d) for C sharp, ‘la bémol’ (la~b) for A flat, ‘sol double-dièse’ (sol~dd) for G double-sharp, ‘si double-bémol’ (si~bb) for B double-flat, and so on.

The **solfg** command is able to translate any of the pitch-related representations listed below. In each case, a tuning standard of A4 equals 440 hertz is assumed. For descriptions of the various input representations (including ****solfg**) refer to Section 2 (*Representation Reference*) of this reference manual.

It is recommended that output files produced using the **solfg** command should be given names with the distinguishing ‘.slg’ extension.

**cents	hundredths of a semitone with respect to middle C=0
**degree	key-related scale degree
**freq	fundamental frequency (in hertz)
**fret	fretted-instrument pitch tablature
**kern	core pitch/duration representation
**MIDI	Music Instrument Digital Interface tablature
**pitch	American National Standards Institute pitch notation (e.g. “A#4”)
**semit	equal-tempered semitones with respect to middle C=0 (e.g. 12 = C5)
**specC	spectral centroid (in hertz)
**Tonh	German pitch system

Input representations processed by solfg.

OPTIONS

The **solfg** command provides the following options:

- h** displays a help screen summarizing the command syntax
- t** suppresses printing of all but the first note of a group of tied ****kern** notes
- x** suppresses printing of non-solfg data

Options are specified in the command line.

The **-t** ensures that only a single output value is given for tied ****kern** notes; the output coincides with the first note of the tie.

In the default operation, **solfg** outputs non-pitch-related signifiers in addition to the solfg value. For example, the ****pitch** token “Gb5zzz” will result in the output “sol~b5zzz” — that is, after translating Gb5 to sol~b5, the “zzz” signifiers are retained in the output. For some applications, echoing non-pitch-related signifiers in the output is useful. However, in other situations, the result can prove confusing — especially, when the non-pitch-related signifiers are numbers. Consider the case of the ****kern** token “8aa#”; after translating ‘aa#’ to la~d5, the non-pitch-related signifier ‘8’ will also be output, hence the value 8la~d5 — which may cause confusion. Commands such as **pitch** and **solfg** treat the first number encountered in an input token as the octave designation. So further processing of this token may lead to it’s interpretation as A#8 — or even A#85 — rather than A#5.

The **-x** option is useful for eliminating non-pitch-related signifiers from the output. For most ****kern** inputs, the **-x** option is recommended.

EXAMPLES

The following example illustrates the use of **solfg**. The input contains six pitch-related spines — two of which (****deg** and ****cocho**) cannot be processed by **solfg**. In addition, there are two non-pitch-related spines (****embell** and ****metpos**).

!! ‘solfg’ example.

**kern	**pitch	**MIDI	**deg	**metpos	**cocho	**degree	**embell
*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4
*	*	*	*	*tb8	*	*d:	*
=1	=1	=1	=1	=1	=1	=1	=1
8ee-	G#4foo	/60/bar	1foo	1	r	1/4	ct
.	.	/-60/	.	.	.	.	.
8ff	A3	/62/	2	3	9.89	2/4	upt
.	.	/-62/	.	.	.	.	.
8dd-	Ab3	/70/	1	2	7.07	3+/4	ct
.	.	/-70/	.	.	.	.	.
8d-	C#4	/61/	6	3	7.135	7/3	sus
.	.	/-61/	.	.	.	.	.
=2	=2	=2	=2	=2	=2	=2	=2
[4a-	r	.	5	1	r	r	.
.	.	.	7	3	5.5	1/4	ct
4a-]	D4	/48/ /52/	1	2	8.11	6+/4	ct
.	.	/-48/	.	.	.	.	.
.	D4 F4	/-52/	2	3	7.33 6.4	3/4 5/4	ct
=3	=3	=3	=3	=3	=3	=3	=3
r	G4	.	r	1	r	3/4 1/5	.
==	==	==	==	==	==	==	==
*-	*-	*-	*-	*-	*-	*-	*-

Executing the command

```
solfg -tx input > output
```

produces the following result:

!! 'solfg' example.

**solfg	**solfg	**solfg	**deg	**metpos	**cocho	**solfg	**embell
*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4	*M2/4
*	*	*	*	*tb8	*	*d:	*
=1	=1	=1	=1	=1	=1	=1	=1
mi~b5	sol~d4	do4	lfoo	1	r	re4	ct
.
fa5	la3	re4	2	3	9.89	mi4	upt
.
re~b5	la~b3	si~b4	1	2	7.07	fa~d4	ct
.
re~b4	do~d4	re~b4	6	3	7.135	do~d3	sus
.
=2	=2	=2	=2	=2	=2	=2	=2
la~b4	r	.	5	1	r	r	.
.	.	.	7	3	5.5	re4	ct
.	re4	do3 mi3	1	2	8.11	si4	ct
.
.	re4 fa4	.	2	3	7.33 6.4	fa4 la4	ct
=3	=3	=3	=3	=3	=3	=3	=3
r	sol4	.	r	1	r	fa4 re5	.
===	===	===	===	===	===	===	===
*_	*_	*_	*_	*_	*_	*_	*_

Both processed and unprocessed spines are output. Notice that the tied note at the beginning of measure 2 in the ****kern** spine has been rendered as a single note rather than as two notes (due to the **-t** option). Also notice that the non-pitch-related signifiers (e.g. foo) in the first notes of the ****pitch**, ****MIDI**, and ****cocho** spines have been stripped away (due to the **-x** option). In the case of the ****degree** input, **solfg** recognizes the spelling of various pitches in the context of the key of D minor. Hence, the raised third degree is **fa~d** (F#), and the raised sixth degree is **si** (B natural).

FILES

The file `x_option.awk` is used by this program when the **-x** option is invoked.

PORTABILITY

DOS 2.0 and up, with the MKS Toolkit. OS/2 with the MKS Toolkit. UNIX systems supporting the *Korn* shell or *Bourne* shell command interpreters, and revised *awk* (1985).

SEE ALSO

****cents** (2), **cents** (4), ****degree** (2), **degree** (4), ****freq** (2), **freq** (4), ****fret** (2), ****kern** (2), **kern** (4), ****MIDI** (2), **midi** (4), **mint** (4), ****pitch** (2), **pitch** (4), ****semits** (2), **semits** (4), ****solfg** (2), ****specC** (2), **specc** (4), ****Tonh** (2), **tonh** (4)