REPRESENTATION

****solfg** — French solfège (pitch) notation

DESCRIPTION

The ****solfg** representation permits the encoding of Western musical pitches using the common French system for pitch naming.

The ****solfg** representation distinguishes three types of data tokens: pitches, rests, and barlines. Pitches are encoded using diatonic pitch names, accidentals, and octave indications. In addition, ****solfg** provides limited capabilities for representing phrasing and slurs.

Pitch tokens consist of three logical parts — without any intervening spaces. The first part uses the so-called 'fixed-do' method of diatonic pitch designations: *do, ré, mi, fa, sol, la,* and *si*. The second part is an optional accidental preceded by an tilde. Flats (*bémol*) and sharps (*diese*) are abbreviated *b* and *d* respectively. Hence, 'do diese' (`do~d`) for C-sharp, 'la beamol' (`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 third part of a pitch token is the octave designation. The number 4 is used to designate all pitches between middle C and the *si* a major seventh above, inclusive. Octave numbers are incremented by one for each successively higher octave, and are decremented by one for each successively lower octave. Negative octave numbers are not permitted, so the lowest pitch in the ****solfg** representation is do0 (16.35 Hz). Only a single octave digit is permitted, so the highest ****solfg** pitch is si9 (15,804 Hz).

Once again, no intervening spaces are permitted within a single note. Notice that the order of signifiers is important for pitch encodings. Pitch letter-name is followed by one or more accidentals (if appropriate), followed by an octave designation.

Several notes may be encoded concurrently in a single spine by using the Humdrum multiple-stop convention: notes within multiple-stops are separated by single spaces. The following example encodes a C-minor chord as four pitches in two ****solfg** spines — each spine containing a double-stop.

```
**solfg     **solfg
do4 mi~b4   sol4 do5
*-          *-
```

Pitch tokens may be modified by the presence of additional signifiers. The open brace '{' denotes the beginning of a phrase. The closed brace '}' denotes the end of a phrase. The open parenthesis '(' denotes the beginning of a slur. The closed parenthesis ')' denotes the end of a slur. The semicolon ';' denotes a pause.

Rests tokens are denoted by the lower-case letter 'r'.

Barlines are represented using the "common system" for barlines — see **barlines (2)**.

FILE TYPE

It is recommended that files containing predominantly `**solfg` data should be given names with the distinguishing '.slg' extension.

SIGNIFIERS

The following table summarizes the ****solfg** mappings of signifiers and signifieds.

0-9	octave designation, where do4 equals middle C;
doremifasl	diatonic pitches letter names
~	accidental delimiter
~b	flat (bémol)
~d	sharp (dièse)
~bb	double-flat
~dd	double-sharp
n	natural
r	rest
=	barline; == double barline
(	slur start
)	slur end
{	phrase mark (start)
}	phrase mark (end)
;	pause sign

Summary of ****solfg** *Signifiers*

EXAMPLES

A sample document is given below:

```
!! Claude Debussy
!! "Voiles"
**solfg              **solfg
=1                   =1
r                    r
{mi5                 {sol~d5
re5                  fah~d5
do5                  mi5
si~b4                re5
=2                   =2
la~b4                do5
sol~d5               do6
fa~d5}               si~b5}
=3                   =3
*-                   *-
```

PERTINENT COMMANDS

The following Humdrum commands accept ****solfg** encoded data as inputs:

cents	translate ****solfg** to ****cents**
deg	translate ****solfg** to ****deg**
degree	translate ****solfg** to ****degree**
freq	translate ****solfg** to ****freq**
hint	calculate harmonic intervals from ****solfg** input
kern	translate ****solfg** to ****kern**
mint	calculate melodic intervals from ****solfg** input
pc	translate ****solfg** pitch to ****pc**
pitch	translate ****solfg** pitch to ****pitch**
semits	translate ****solfg** pitch to numerical ****semits**
solfa	translate ****solfg** pitch to ****solfa**
tonh	translate ****solfg** pitch to ****Tonh**
trans	transpose ****solfg** score
vox	determine active and inactive voices in a Humdrum file

The following Humdrum command produces ****solfg** data as output:

solfg	translates ****cents**, ****degree**, ****fret**, ****freq**, ****kern**, ****MIDI**, ****pitch**, ****semits**, ****specC**, and ****Tonh** to ****solfg**

TANDEM INTERPRETATIONS

The following tandem interpretations can be used in conjunction with ****solfg**:

meter signatures	`*M6/8`
key signatures	`*k[f#c#]`
key	`*c#:`
tempo	`*MM96.3`

Tandem interpretations for ****solfg**

SEE ALSO

barlines (2), ****cents** (2), ****deg** (2), ****degree** (2), ****freq** (2), ****hint** (2), ****kern** (2), ****mint** (2), **mint** (4), ****pc** (2), **pc** (4), ****pitch** (2), **pitch** (4), ****semits** (2), ****solfa** (2), **solfg** (4), ****Tonh** (2), **tonh** (4)