
REPRESENTATION

****takt** — beat-position representation

DESCRIPTION

Frequently, it is useful to represent temporal moments within a recurring cycle or pattern. In music, the best example of such recurring moments is the pattern of beats within a measure. In 3/4 meter, for example, a recurring cycle of beats occurs: 1-2-3-1-2-3 ... The ****takt** interpretation permits the representation of recurring moments within some temporal cycle. For most applications, the duration of the repeating cycle will be equivalent to the measure. However, other cycles are possible, such as phrase, sub-phrase, etc.

In ****takt**, integer values refer to beats, hence the value '2' refers to the second beat. Fractional values refer to moments within beats. For example, the value '3.5' refers to the second half of the third beat. In 4/4 meter, the value '4.75' refers to the last sixteenth of the measure. Up to two digits are permitted following the decimal point. Some decimal values are reserved to mean precise subdivisions. For example, the decimal values 'x.33' and 'x.67' are assumed to be precisely one-third and two-thirds respectively, i.e. equivalent to 'x.33333...' and 'x.66666...' Other fractional values are defined in the following table.

x.10	1/10
x.11	1/9
x.13	1/8
x.14	1/7
x.16	1/6
x.20	1/5
x.22	2/9
x.25	1/4
x.29	2/7
x.30	3/10
x.33	1/3, 3/9
x.38	3/8
x.40	2/5
x.43	3/7
x.44	4/9
x.50	1/2
x.56	5/9
x.57	4/7
x.60	3/5
x.63	5/8

x.67 2/3, 6/9
x.70 7/10
x.71 5/7
x.75 3/4
x.78 7/9
x.80 4/5
x.83 5/6
x.86 6/7
x.88 7/8
x.89 8/9
x.90 9/10

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

FILE TYPE

It is recommended that files containing predominantly ****takt** data should be given names with the distinguishing ‘.tak’ extension.

SIGNIFIERS

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

0-9	decimal values
.	fractional delimiter; null token
=	barlines
==	double barline

*Summary of ****takt** Signifiers*

EXAMPLES

A sample document is given below:

**kern	**metpos	**takt	
*M4/4	*M4/4	*M4/4	--
*c:	*	*	
=1	=1	=1	
8r	1	1	
16cc	4	1.5	
16bn	5	1.75	
8cc	3	2	
8g	4	2.5	
8a-	2	3	
16cc	4	3.5	
16b	5	3.75	
8cc	3	4	
8dd	4	4.5	
=2	=2	=2	
8g	1	1	
16cc	4	1.5	
16bn	5	1.75	
8cc	3	2	
8dd	4	2.5	
16f	2	3	
16g	5	3.25	
[8a-	4	3.5	
8a-]	3	4	
16g	4	4.5	
16f	5	4.75	
=3	=3	=3	
*-	*-	*-	

PERTINENT COMMANDS

Currently, no special-purpose Humdrum commands produce ****takt** as output, or process ****takt** encoded data as input.

TANDEM INTERPRETATIONS

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

meter signatures	*M6/8
tempo	*MM96.3

*Tandem interpretations for ****takt***

SEE ALSO

barlines (2), ****date (2)**, ****dur (2)**, ****metpos (2)**, ****ordo (2)**, ****recip (2)**, ****time (2)**, **timebase (4)**, ****Zeit (2)**