## REPRESENTATION

****diss** — sensory dissonance representation

## DESCRIPTION

The ****diss** representation is used to characterize the degree of sensory dissonance for successive acoustic moments. Two types of tokens are recognized by ****diss:** dissonance-tokens and barlines. Dissonance-tokens encode integer values greater than or equal to zero. Larger values represent higher sensory dissonance. Dissonance values reflect the measurement method devised by Kameoka and Kuriyagawa (see REFERENCES).

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

## FILE TYPE

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

## SIGNIFIERS

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

| | |
|---|---|
| 0-9 | dissonance values specified as integers; measure numbers |
| = | barline |
| == | double barline |
| =; | barline with pause sign |

*Summary of* ****diss** *Signifiers*

## EXAMPLES

A sample document is given below:

```
**diss
*C:
*M4/4
=1
65
84
152
160
=2
211
1017
841
1221
=3
*-
```

Note that rests are not represented in the ****diss** scheme.

## PERTINENT COMMANDS

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

**diss** calculate the degree of sensory dissonance for successive spectra

## TANDEM INTERPRETATIONS

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

| | |
|---|---|
| meter signatures | `*M6/8` |
| key signatures | `*k[f#c#]` |
| key | `*c#:` |

*Tandem interpretations for* ****diss**

## SEE ALSO

**barlines** (2), **diss** (4), ****spect** (2), **spect** (4)

## REFERENCES

Kameoka, A. & Kuriyagawa, M. "Consonance theory, part I: Consonance of dyads." *Journal of the Acoustical Society of America,* Vol. 45, No. 6 (1969a) pp.1451-1459.

Kameoka, A. & Kuriyagawa, M. "Consonance theory, part II: Consonance of complex tones and its calculation method." *Journal of the Acoustical Society of America,* Vol. 45, No. 6 (1969b) pp.1460-1469.