

# Data rate

To use Datarate, the datarate feature must be installed.

Data rate calcs the rate by which elements are processed by Odysseus (elements per seconds). You can use as many measurement positions as you want.

You can access the meta data from every stream element (e.g. in [MEP](#) or in [Select operator](#)) with

- `Datarate.Measurements`: Here you will get a list of tuples with [Key: the place of this measurement, Datarate: The datarate at this place]

The usage of Datarate can be defined in [Odysseus Script](#) with the `#METADATA` command or in the [Access operator](#) with the `METAATTRIBUTE` parameter.

The Datarate operator calculates the data rate in tuples per second. Use the operator where you want to measure the data rate. The key is the name of the measurement. The values are in a list of tuples, where the first value of the tuple is the key and the second value is the measurement.

```
/// Measure the data rate
drate = DATARATE({UPDATERATE = 1000, KEY='MEASUREMENT_1'}, previousOperator)
```

Hint: For special cases we allow now an updatarate of -1. In this case, the number of elements read so far is written to meta date (i.e. no rate!)