

STDEV

STDEV returns the standard deviation of a set of values

Syntax

1. STDEV(Pno%, Ndim%, "ColLab\$_1",..., "ColLab\$_Ndim%")
2. STDEV(0, Npoints%, x_1, y_1, x_2, y_2,...)
3. STDEV(@ObjFn(.), Ndim%, @ObjColPar_1,..., @ObjColPar_Ndim%)
4. STDEV(Telitab\$, Ndim%, "ColLab\$_1",..., "ColLab\$_Ndim%")

Arguments

- **Pno%** is the number that refers to the [TeLiTab](#) sets in the Data slot. Pno% should be an integer value or a parameter which is assigned an integer value and is the number of the [TeLiTab](#) set in the expressions' data slot.
- **Npoints%** is the number of points (x,y) that are given in direct definition.
- **@ObjFn()** refers to the Object from which data will be used.
- **TeLiTab\$** refers to the string parameter that contains the [TeLiTab](#).
- **Ndim%** is the number of dimensions (or columns in the table...).
- **"ColLab\$_1"** and **@ObjColPar_1** etc refer to the columns that will be used;

Remarks

1. See also Telitab access for a generic description on the use of [TeLiTab](#) data
2. Similar to other Data analysis functions, the STDEV is a convenient way to evaluate data. Please also look at these functions for syntax examples
3. For a multi-dimensional dataset the STDEV will be determined over all columns.
4. The standard deviation is calculated using the "nonbiased" or "n-1" method.
5. STDEV uses the following formula:

$$\text{SQRT}(n \cdot \text{Sigma_X}^2 - (\text{Sigma_X})^2 / (n \cdot (n-1)))$$

Examples

Suppose 10 engine parts made by the same machine during a production run are collected as a random sample and measured for breaking strength. STDEV estimates the standard deviation of breaking strengths for all the parts. The sample values are provided in the STDEV function as follows:

```
SET$=
0
1 "Strength"
"1" 1465
"2" 1421
"3" 1457
"4" 1428
"5" 1416
"6" 1477
"7" 1422
"8" 1452
"9" 1412
"10" 1409
```

STDEV(SET\$, 1, "Strength") returns 24.52

Quick links: [Functions overview](#) | [Attribute overview](#) | [Constants overview](#) | [Dimensions overview](#)