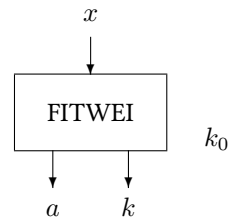


Block FITWEI

The FITWEI block approximates the input data by a Weibull distribution.



Name	FITWEI
Function	fb0059
Inputs	1
Outputs	2
Parameters	0
Strings	0
Group	I

Inputs

- | | |
|---|---------------|
| 1 | Any value x |
|---|---------------|

Outputs

- | | |
|---|---------------------|
| 1 | Scale parameter a |
| 2 | Shape parameter k |

Parameters

None

Strings

None

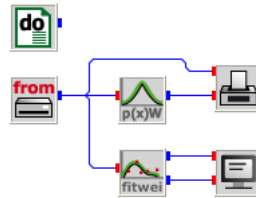
Description

The blocks input data are approximated by the Weibull distribution.

$$p(x) = \frac{k}{a} \left(\frac{x}{a}\right)^{k-1} \exp\left(-\frac{x^k}{a^k}\right)$$

where a denotes the scale parameter and k the shape parameter. The successors of this block are executed only at the end of the simulation run.

fitwei.vseit

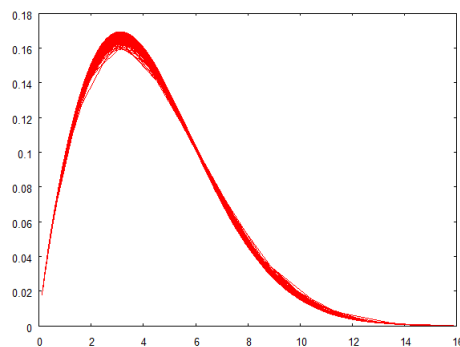


A **DO** block runs through the 8760 hours of a year to trigger a **READ** block which reads all records of the file `vwBerlin.dat`, saved in the `examples/data` directory. This file contains wind speed data which have been generated by the **GENV** block.

The **FITWEI** block determines the shape and scale parameters of the Weibull distribution, which are displayed by a **SCREEN** block.

4.80069113 1.83100331

Assuming that the result is already known ($a = 4.8007$ and $k = 1.831$) the Weibull distribution is calculated by a **DISWEI** block and plotted by a **PLOT** block.



Remark Please observe that the “thick” shape of the graph as displayed by the **PLOT** block is due to the fact, that all data points are connected by a straight line by default.