| Test File | Case | Option-value | Columns in Inputfile 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Nr of columns | Text |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| fiteval_1.in | 1 | **x** | Yobs | Yprd | | | | | | | 2 | Ritter and Munoz-Carpena (2013) |
| fiteval_2.in | 2 | **x** | Yobs | Yprd | Benchmark | | | | | | 3 | Ritter and Munoz-Carpena (2013) |
| fiteval_1.in | 3 | **>0 y <1 =PER** | Yobs | Yprd | | | | | | | 2 | Uncertainty in observations included (Harmel and Smith, 2007): Single PER common to all observations. |
| fiteval_2.in | 4 | **>0 y <1 =PER** | Yobs | Yprd | Benchmark | | | | | | 3 | Modified version of NSE using a benchmark series instead of the mean Uncertainty in observations included (Harmel and Smith, 2007): Single PER common to all observations. |
| fiteval_5.in | 5 | **1** | Yobs | Yprd | Symm_Error | | | | | | 3 | Uncertainty in observations included (Harmel and Smith, 2007): Absolute error specific to each observed value. |
| fiteval_6s.in<br>fiteval_6as.in | 6 | **1** | Yobs | Yprd | UB_oLowerIL | UB_oUpperIL | | | | | 4 | Uncertainty in observations included (Harmel and Smith, 2007): Lower and upper error specific to each observed value. |
| fiteval_7.in | 7 | **2** | Yobs | Yprd | Benchmark | Symm_Error | | | | | 4 | Modified version of NSE using a benchmark series instead of the mean Uncertainty in observations included (Harmel and Smith, 2007): Absolute error specific to each observed value. |
| fiteval_8s.in<br>fiteval_8as.in | 8 | **2** | Yobs | Yprd | Benchmark | UB_oLowerIL | UB_oUpperIL | | | | 5 | Modified version of NSE using a benchmark series instead of the mean Uncertainty in observations included (Harmel and Smith, 2007): Lower and upper error specific to each observed value. |
| fiteval_9s.in | 9 | **3** | Yobs | Yprd | CF | UB_$o_{min}$ | UB_$o_{max}$ | | | | 5 ** | Uncertainty in observations included (Harmel et al., 2010): Using a correction factor based on probability distributions. |
| fiteval_10s.in | 10 | **3** | Yobs | Yprd | Benchmark | CF | UB_$o_{min}$ | UB_$o_{max}$ | | | 6 ** | Modified version of NSE using a benchmark series instead of the mean Uncertainty in observations included (Harmel et al., 2010): Using a correction factor based on probability distributions. |
| fiteval_11s.in | 11 | **3** | Yobs | Yprd | CF | UB_$o_{min}$ | UB_$o_{max}$ | UB_$p_{min}$ | UB_$p_{max}$ | | 7 ** | Observations and model uncertainty included (Harmel et al., 2010): Using a correction factor based on probability distributions. |
| fiteval_12s.in | 12 | **3** | Yobs | Yprd | Benchmark | CF | UB_$o_{min}$ | UB_$o_{max}$ | UB_$p_{min}$ | UB_$p_{max}$ | 8 ** | Modified version of NSE using a benchmark series instead of the mean Observations and model uncertainty included (Harmel et al., 2010): Using a correction factor based on probability distributions. |
| fiteval_13s.in | 13 | **4** | Yobs | Yprd | CF | UB_$p_{min}$ | UB_$p_{max}$ | | | | 5 ** | Model uncertainty included as in Harmel et al. (2010): Using a correction factor based on probability distributions. |
| fiteval_14s.in | 14 | **4** | Yobs | Yprd | Benchmark | CF | UB_$p_{min}$ | UB_$p_{max}$ | | | 6 ** | Modified version of NSE using a benchmark series instead of the mean Model uncertainty included as in Harmel et al. (2010): Using a correction factor based on probability distributions. |

* s: symmetric boundaries
* as: asymmetric boundaries

**Yobs:** Observed values
**Yprd:** Computed values
**Benchmark:** Benchmark values
**Symm_Error:** symmetric error given by a probable error range (>0 and <1)
**UB_oLowerIL (UB_oUpperIL):** Uncertainty boundary of observations, lower (upper) interval length
**CF:** Correction factor which ranges from 0 to 1.0
**UB_$o_{min}$** and **UB_$o_{max}$:** Uncertainty boundaries of observations ($o_{min}$ and $o_{max}$)
**UB_$p_{min}$** and **UB_$p_{max}$:** Uncertainty boundaries of model predictions ($p_{min}$ and $p_{max}$)

***** Computing CF and uncertainty bounds automatically (input files requires only 2 or 3 columns)***

| Option-value | Case | Obs Distr. | Obs Parameters | Prd Distr. | Prd Parameters | Method |
|---|---|---|---|---|---|---|
| 1 | 5 or 7 | | Filename_PER.err | | | PER method |
| 1 | 6 or 8 | | Filename_UBs.err | | | PER method |
| 2 | 5 or 7 | | Filename_PER.err | | | PER & CF methods combined |
| 2 | 6 or 8 | | Filename_UBs.err | | | PER & CF methods combined |
| 3 | 9 or 10 | oN *or* oL | CVo(%) | | | CF method |
| 3 | 9 or 10 | oT *or* oU | pLUBo(%) pUUBo(%) | | | CF method |
| 3 | 11 or 12 | oN *or* oL | CVo(%) | pN *or* pL | CVp (%) | CF method |
| 3 | 11 or 12 | oT *or* oU | pLUBo(%) pUUBo(%) | pT *or* pU | pLUBp(%) pUUBp(%) | CF method |
| 4 | 13 or 14 | | | pN *or* pL | CVp(%) | CF method |
| 4 | 13 or 14 | | | pT *or* pU | pLUBp(%) pUUBp(%) | CF method |

**Distribution:** N (Normal), L (Lognormal), T (Triangular), U (Uniform)
**CVo (CVp):** Coefficient of variation common to each measured (predicted) value
**pLUBo (pLUBp):** % around each $o_i$ ($p_i$) that defines lower uncertainty bounds
**pUUBo (pUUBp):** % around each $o_i$ ($p_i$) that defines upper uncertainty bounds