

The following is the input file web3.par. In this example a nonlinear model is used. In addition, this example includes the generation of an interpolation table.

```

y = 'a1*exp(a2*x)'
a0(1)=2  a0(2)= 0.1
ncol=2
sytype=3 ! constant fraction error model
! the following parameters define an interpolation table
  np1=5 x01=1.5 dx1=1 ! 5 points: 1.5, 2.5, ... 5.5
; // start of data area
  1      6.90
  2     11.95
  3     16.800
  4     22.500
  5     26.200
  6     33.500
  7     41.000

```

The following is the output file web3.out. Note that for this nonlinear model, 6 iterations were required to achieve convergence. Notice the interpolation table at the end of the output. In this table the calculated values of y and σ_y are included.

PARAMETERS USED IN REGRESS ANALYSIS: Sun Oct 30 15:49:40 2005

```

INPUT PARMS FILE: web3.par
INPUT DATA FILE: web3.par
REGRESS VERSION: 4.13, Oct 16, 2005

```

```

STARTREC - First record used           :    1
N - Number of recs used to build model  :    7
NO_DATA - Code for dependent variable   -999.0
NCOL - Number of data columns           :    2
NY - Number of dependent variables      :    1
YCOL1 - Column for dep var Y            :    2
SYTYPE1 - Sigma type for Y              :    3
      TYPE 3:  SIGMA Y = CY1 * Y    CY1: 1.000
M - Number of independent variables     :    1
Column for X1                           :    1
SXTYPE1 - Sigma type for X1             :    0
      TYPE 0:  SIGMA X1 = 0

```

Analysis for Set 1

Function Y: A1*EXP(A2*X)

```

EPS - Convergence criterion             : 0.00100
CAF - Convergence acceleration factor    : 1.000

```

ITERATION	A1	A2	S/(N.D.F.)
0	2.00000	0.10000	0.98465
1	4.68629	0.68182	47.36311
2	3.10149	0.59598	4.53019
3	4.09848	0.43281	0.34761
4	5.70695	0.30434	0.02131

5	6.15508	0.28436	0.01887
6	6.12889	0.28590	0.01885

POINT	X1	Y	SIGY	YCALC
1	1.00000	6.90000	6.90000	8.16039
2	2.00000	11.95000	11.95000	10.85980
3	3.00000	16.80000	16.80000	14.45215
4	4.00000	22.50000	22.50000	19.23284
5	5.00000	26.20000	26.20000	25.59496
6	6.00000	33.50000	33.50000	34.06162
7	7.00000	41.00000	41.00000	45.32901

K	A0 (K)	AMIN (K)	AMAX (K)	A (K)	SIGA (K)
1	2.00000	Not Spec	Not Spec	6.13197	0.67202
2	0.10000	Not Spec	Not Spec	0.28578	0.02400

Variance Reduction: 95.56

S/(N - P) : 0.01885

RMS (Y - Ycalc) : 2.34172

RMS ((Y-Ycalc)/Sy): 0.11605

Runs Test: Number of points much be ≥ 10 to perform test.

POINT	X1	YCALC	SIGYCALC
1	1.50000	9.41383	0.75126
2	2.50000	12.52787	0.79706
3	3.50000	16.67201	0.89464
4	4.50000	22.18702	1.18729
5	5.50000	29.52636	1.86744