ASPIC (ver. 5.05) Batch (Grid search) Job Software

(Menu-driven software) (1st version)

Manual

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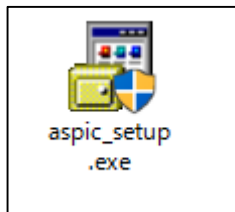E-mail: aco20320@par.odn.ne.jp Phone/FAX (direct):81(Japan)-54-336-5834

URL: http://fsf.fra.affrc.go.jp/
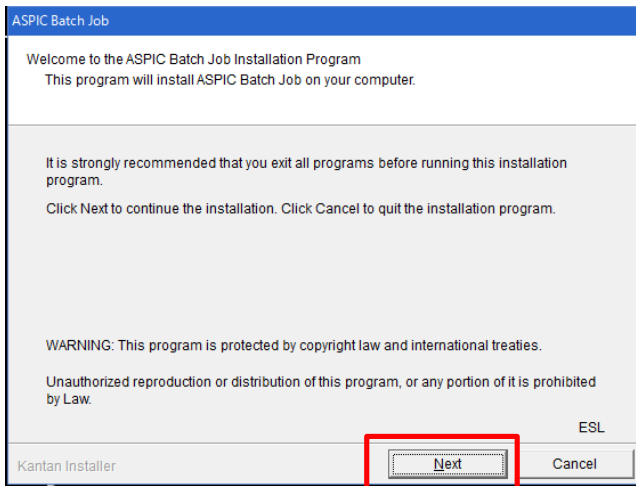
1. INSTALL

Down load the software from
http://ocean-info.ddo.jp/kobeaspm/aspic/aspic_setup.exe

It will take about 5 minutes (depending on performance of PS) to download the setup program (aspic_setup.exe) (49 MB) as shown below, then double click.
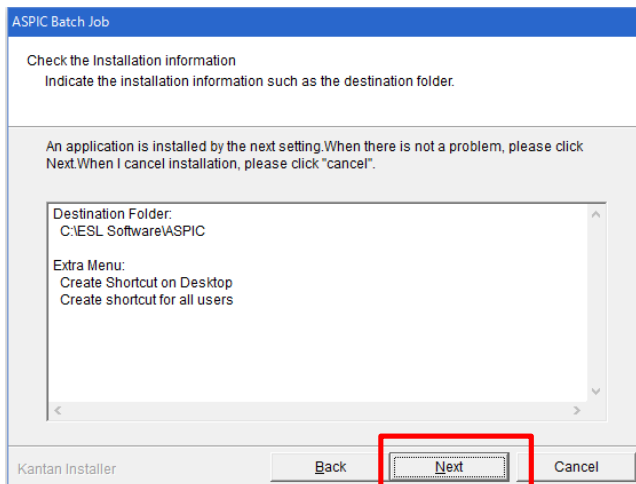

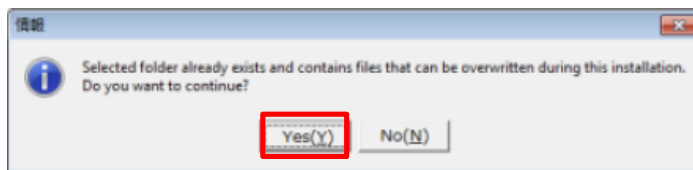Click "aspic_setup.exe"

(1) Welcome

Click "Next" to continue.

(2) Check the installation information.
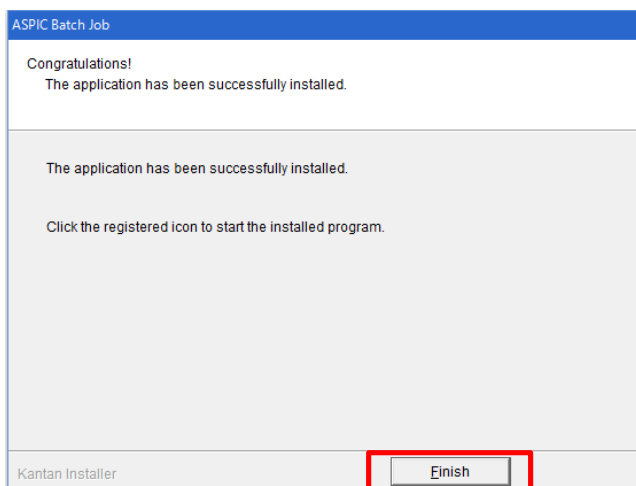

Click "Next" to continue.
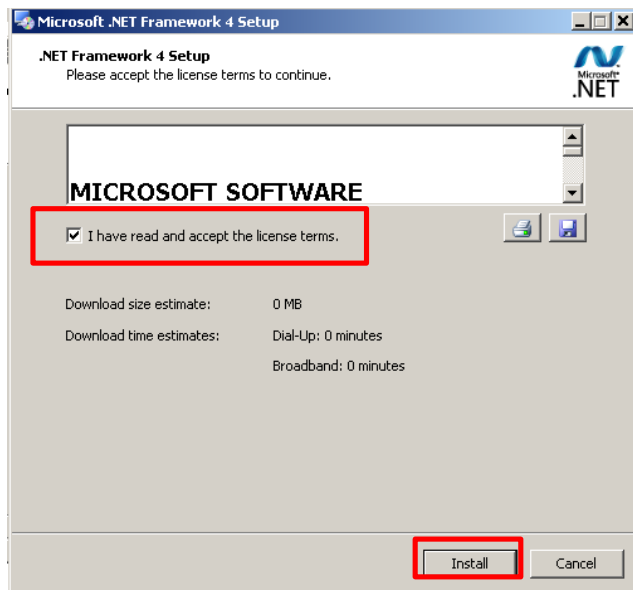
(3) Check the installation folder.

If there is no folder for installation, click "Yes" to continue.

(4) Installation completed.

Click "Finish".

(5) Installing Microsoft .Net Framework 4

Select "I have read and accept the license terms", Click "Install" to continue.

(6) Microsoft .Net Framework 4 installation is completed.
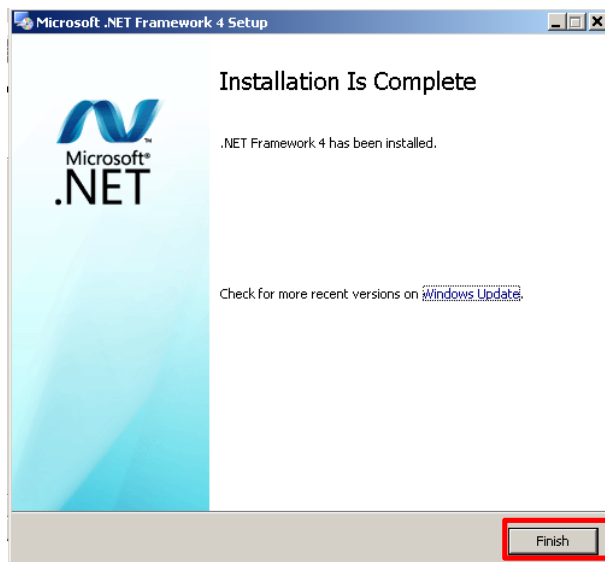
Click "Finish".

(7) Check Desktop icon
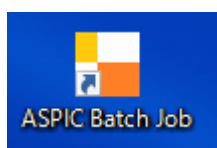
If you succeed installation, you will see "ASPIC Batch Job" icon on the desktop.

2. STARTING THE SOFTWARE

(1) To start ASPIC Batch Job
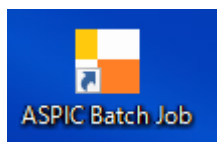
Double click "ASPIC Batch Job" icon on the desktop.

(2) To import the input file.
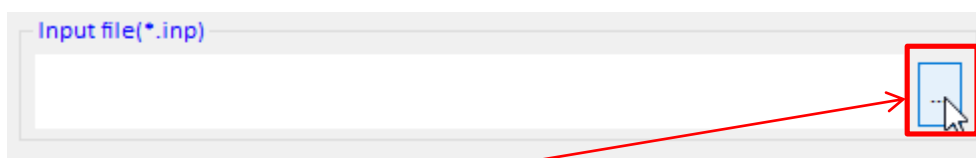
Click …button at right and select the input file, e.g. "xxx.Inp".

(Important Note)

You need to set up initial seeding values in the input file in advance. To set up initial seeding values, refer to the ASPIC manual (Ver. 5.05)

(3) Confirm the Input file and the initial set up window.

If you succeed loading your Input file, you can see initial seeding values shown as the screen above.

(4) Select type of production models.
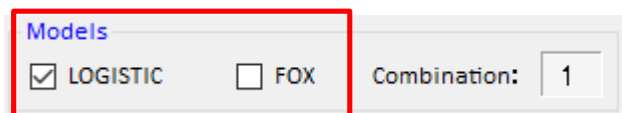
Select one or two types of '(Production) Models' for your batch job.
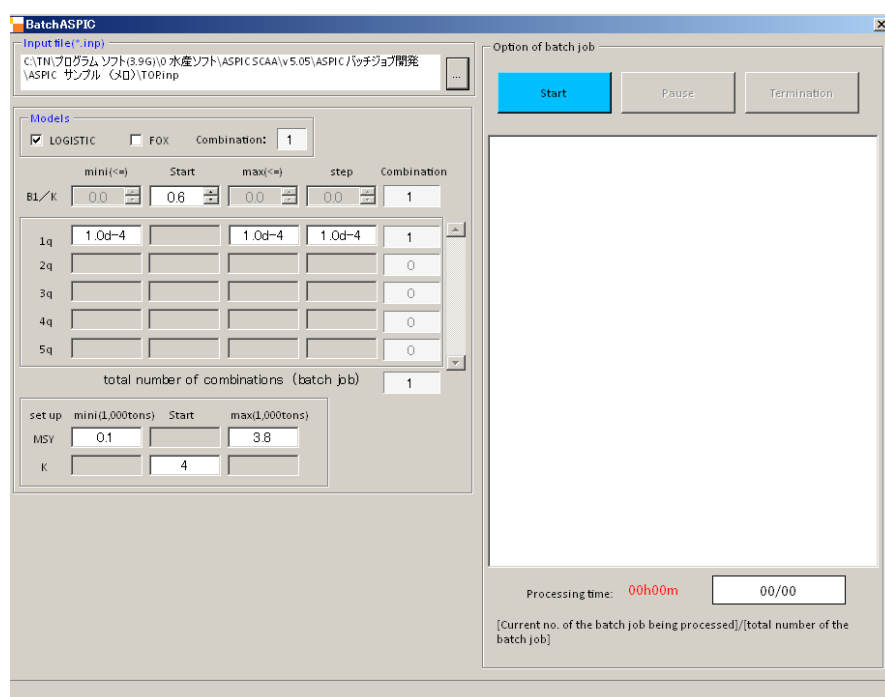
(5) Set up parameters

In each model, 3 parameters (MSY, K, B1/K and q) will be estimated in case of 1 fleet, where MSY: Maximum Sustainable Yield, K: Carrying Capacity, B1/K: depletion and q is catchability. If you have 2 fleets, you will estimate 4 parameters (MSY, K, B1/K, q1 and q2) and so on. You can fix some of these parameters.

One example below is the case for B1/K and K fixed. You can change these values, but only one value can be used for the batch job. If you want to set up ranges, you need to change to values in the input file.
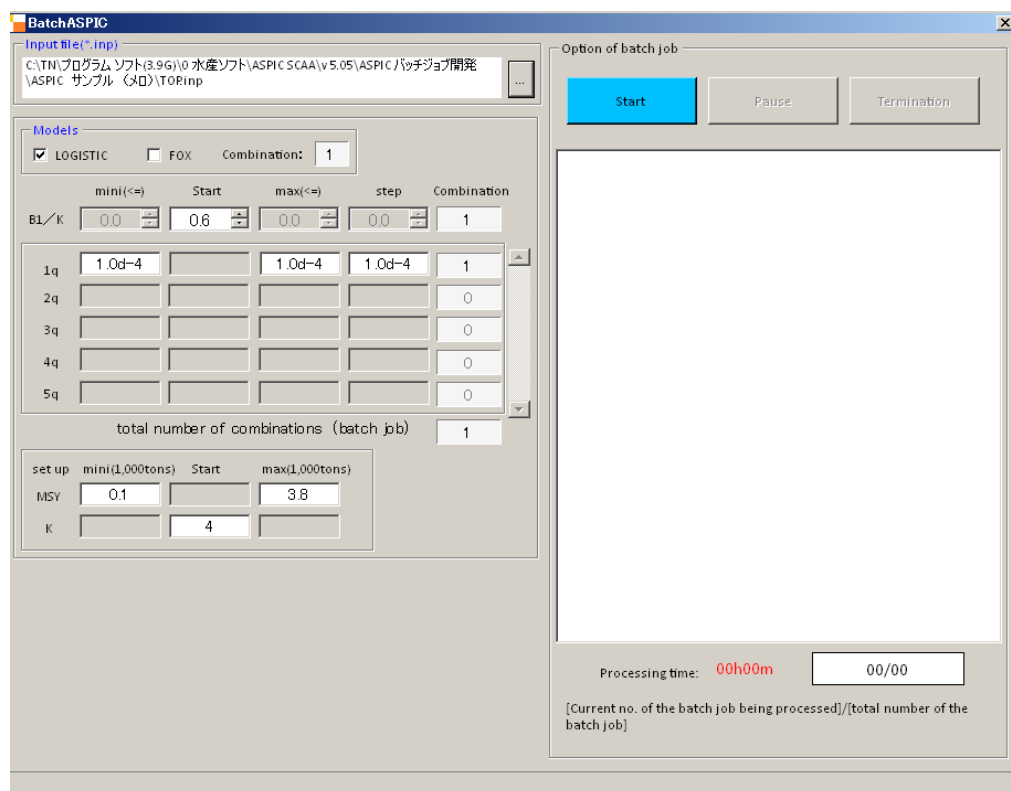
If you want to change ranges and steps of 1q (q1), just enter desired values shown as below. For this case, 19 batch jobs will run.
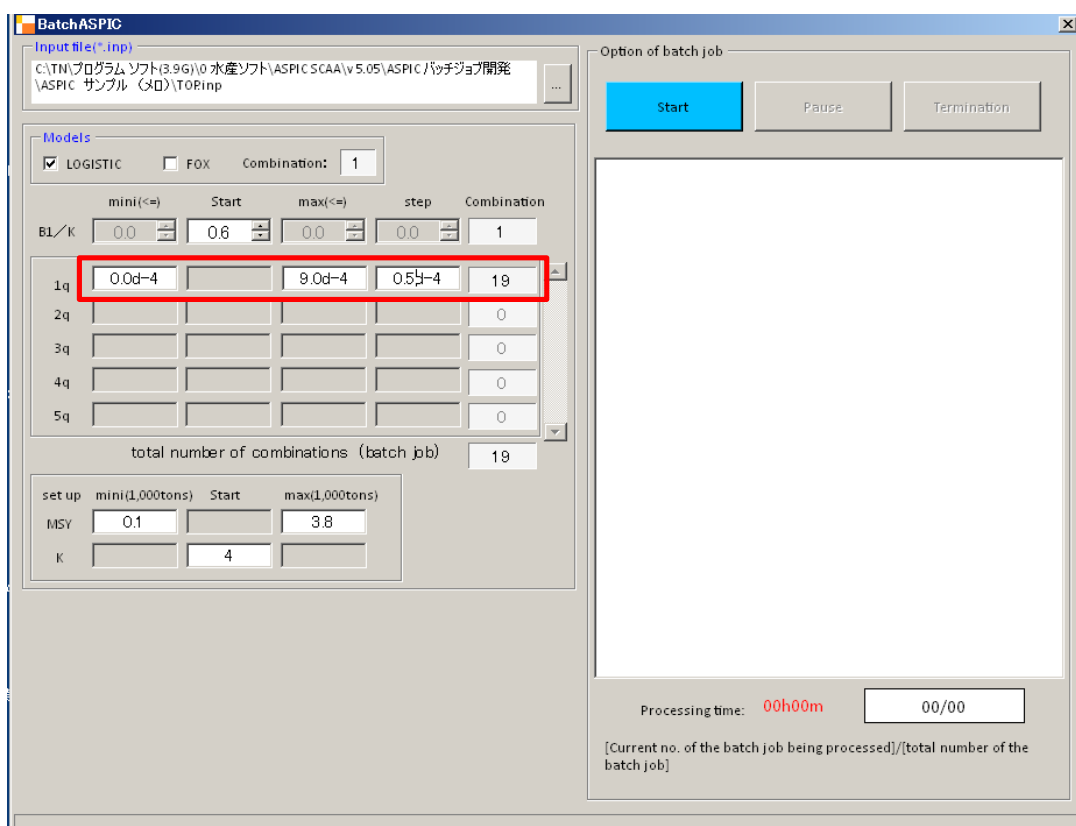
(6) To start batch job.
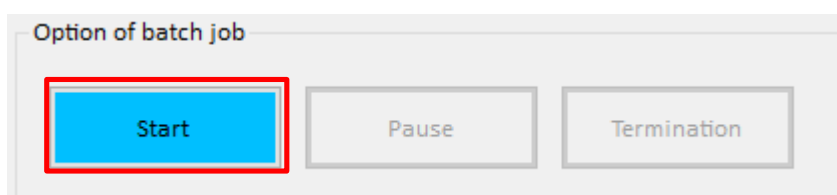
'Click 'Start' for starting the batch job.
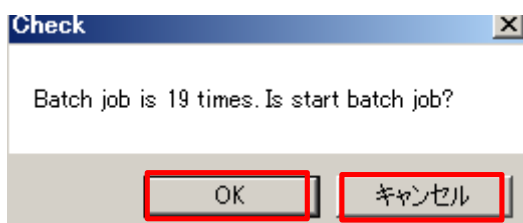
You can see the number of processing batch jobs. If you start processing, select "OK". If you want to change parameters, select "Cancel (キャンセル)" and change parameters.

(7) Processing the batch job

Option of batch job

| Start | Pause | Termination |

```
R:20  It: 448  B1/K:1.0000   K:2.08E+04   MSY:5.32E+03   SSE:2.1081553E+01
R:21  It: 422  B1/K:1.0000   K:2.08E+04   MSY:5.32E+03   SSE:2.1081553E+01
R:22  It: 430  B1/K:1.0000   K:2.08E+04   MSY:5.32E+03   SSE:2.1081553E+01
R:23  It:1009  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1067030E+01
R:24  It: 471  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1067028E+01
R:25  It: 454  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1067028E+01
R:26  It: 537  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1066406E+01
R:27  It: 683  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1065669E+01
R:28  It: 595  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1065466E+01
R:29  It: 464  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1063452E+01
R:30  It: 473  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062994E+01
R:31  It: 458  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062993E+01
R:32  It: 412  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062993E+01
R:33  It: 586  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062668E+01
R:34  It: 539  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062435E+01
R:35  It: 575  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062393E+01
R:36  It: 493  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062367E+01
R:37  It: 446  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062367E+01
R:38  It: 468  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1062056E+01
R:39  It: 510  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1061917E+01
R:40  It: 531  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1061912E+01
R:41  It: 476  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1060409E+01
R:42  It: 651  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1059385E+01
R:43  It: 512  B1/K:1.0000   K:2.04E+04   MSY:5.33E+03   SSE:2.1059366E+01
R:44  It: 719  B1/K:1.0000   K:2.04E+04   MSY:5.34E+03   SSE:2.1057923E+01
R:45  It: 695  B1/K:1.0000   K:2.04E+04   MSY:5.34E+03   SSE:2.1057597E+01
R:46  It: 480  B1/K:1.0000   K:2.04E+04   MSY:5.34E+03   SSE:2.1057597E+01
R:47  It: 495  B1/K:1.0000   K:2.04E+04   MSY:5.34E+03   SSE:2.1057593E+01
R:48  It: 882  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1051447E+01
R:49  It: 537  B1/K:1.0000   K:2.05E+04   MSY:5.33E+03   SSE:2.1051434E+01
```

Processing time: 0h0m   10/2000

[Current no. of the batch job being processed]/[total number of the batch job]

When batch job is being processed, you can see the current number of the batch job and logs shown as above. (Note: logs indicated above is the different example from the one in page 6).

(8) To pause batch job.

Option of batch job

| Start | Pause | Termination |

If you want to pause your batch job during processing of the batch job, click "Pause"

(9) Resume/terminate batch job.
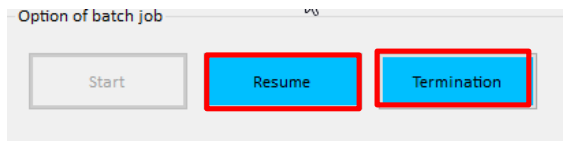
You can restart the batch by clicking "Resume". You can also terminate the batch job by clicking "Termination".

(10)   Report
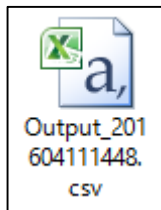
After the batch job is completed, the report file will be created in the same folder of the Input file: "Output_YYYYMMDDHHMM.csv", which indicates the starting time of the batch job using the following codes:

YYYY	:	Year
MM	:	Month
DD	:	Date
HH	:	Hour
MM	:	Minute

Example of the original report (.CSV file)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Time	0h6m	No of jobs		8	Average		0.771	Min/job	Sec/job	46.26							
2	Parameters Model	B1/K	q(JPN1)	q(JPN2)	q(TWN)	MSY	K											
3	Range (ste Fox and Lo	1	6.0d-5~9.0	1.0d-5~1.0	1.0d-5~1.0d-5 by 1.0d-5~1												
4	Flag (0: fixed / 1: estir	0	1	1	1	1	1											
5																		
6	No	Model	B1/K	q			MSY(1000 tons)			K(1000 tons)			R2			q		
7				JPN1	JPN2	TWN	mini	start	max	mini	start	max	JPN1	JPN2	TWN	JPN1	JPN2	TWN
8	1	logistic	1	6.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.048	0.332	0.411	7.56E-05	1.38E-04	1.28E-04
9	2	logistic	1	7.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.06	0.332	0.412	7.16E-05	1.29E-04	1.18E-04
10	3	logistic	1	8.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.056	0.32	0.423	6.76E-05	1.21E-04	1.14E-04
11	4	logistic	1	9.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.051	0.325	0.415	7.00E-05	1.26E-04	1.18E-04
12	5	fox	1	6.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	-0.084	-0.125	-0.107	1.50E-06	1.29E-06	1.47E-06
13	6	fox	1	7.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.126	0.307	0.525	6.19E-05	1.45E-04	1.24E-04
14	7	fox	1	8.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.124	0.308	0.525	6.17E-05	1.45E-04	1.24E-04
15	8	fox	1	9.0d-5	1.0d-5	1.0d-5	2	4	8	10	80	90	0.124	0.307	0.525	6.17E-05	1.45E-04	1.24E-04

	S	T	U	V	W	X	Y	Z	AA	AB
6	RMS	r	K	MSY	Bmsy	Fmsy	B/Bmsy	F/Fmsy	TB	note
7			(1000t)	(1000t)					(1000t)	
8	5.60E-01	1.437113	15.52	5.576	7.76E+03	7.18E-01	9.98E-01	7.98E-01	6.277	NOTE: ASPIC ended normally. The output file is test.fit
9	5.61E-01	1.32524	16.64	5.513	8.32E+03	6.63E-01	9.30E-01	8.59E-01	6.4	NOTE: ASPIC ended normally. The output file is test.fit
10	5.63E-01	1.252433	17.47	5.47	8.73E+03	6.26E-01	8.81E-01	9.08E-01	6.47	NOTE: ASPIC ended normally. The output file is test.fit
11	5.62E-01	1.312277	16.78	5.505	8.39E+03	6.56E-01	9.27E-01	8.63E-01	6.448	NOTE: ASPIC ended normally. The output file is test.fit
12	8.12E-01	0.22949	528.4	44.61	1.94E+05	2.30E-01	2.63E+00	3.46E-02	5105	WARNING: At least one parameter estimate is at or near a constraint. Solution may be trivial--
13	5.35E-01	0.626512	22.67	5.225	8.34E+03	6.27E-01	7.66E-01	1.09E+00	5.455	NOTE: ASPIC ended normally. The output file is test.fit
14	5.35E-01	0.62596	22.69	5.225	8.35E+03	6.26E-01	7.65E-01	1.09E+00	5.457	NOTE: ASPIC ended normally. The output file is test.fit
15	5.35E-01	0.626236	22.68	5.225	8.34E+03	6.26E-01	7.65E-01	1.09E+00	5.453	NOTE: ASPIC ended normally. The output file is test.fit

Processed output for easier look by Excel book file

	A	B	C	D	E	F	G	H	I
1	Time	0h6m	No of jobs	8	Average	0.771	Min/job	Sec/job	46.26
2									
3	Parameters	Model	B1/K	q(JPN1)	q(JPN2)	q(TWN)	MSY	K	
4	Range (step)	Fox and Logistic	1	6.0d-5-9.0d-5 by 1.0d-5-4	1.0d-5-1.0d-5 by 1.0d-5-1	1.0d-5-1.0d-5 by 1.0d-5-1			
5	Flag (0: fixed / 1: estimate)		0	1	1	1	1	1	
6									
7	No	Model	B1/K	q			MSY(1000 tons)		
8				JPN1	JPN2	TWN	mini	start	max
9	1	logistic	1	6.0d-5	1.0d-5	1.0d-5	2	4	8
10	2	logistic	1	7.0d-5	1.0d-5	1.0d-5	2	4	8
11	3	logistic	1	8.0d-5	1.0d-5	1.0d-5	2	4	8
12	4	logistic	1	9.0d-5	1.0d-5	1.0d-5	2	4	8
13	5	fox	1	6.0d-5	1.0d-5	1.0d-5	2	4	8
14	6	fox	1	7.0d-5	1.0d-5	1.0d-5	2	4	8
15	7	fox	1	8.0d-5	1.0d-5	1.0d-5	2	4	8
16	8	fox	1	9.0d-5	1.0d-5	1.0d-5	2	4	8
17									

	I	J	K	L	M	N	O	P	Q	R
1	46.26									
2										
3										
4										
5										
6										
7		K(1000 tons)			R2			q		
8	max	mini	start	max	JPN1	JPN2	TWN	JPN1	JPN2	TWN
9	8	10	80	90	0.048	0.332	0.411	7.56E-05	1.38E-04	1.28E-04
10	8	10	80	90	0.06	0.332	0.412	7.16E-05	1.29E-04	1.18E-04
11	8	10	80	90	0.056	0.32	0.423	6.76E-05	1.21E-04	1.14E-04
12	8	10	80	90	0.051	0.325	0.415	7.00E-05	1.26E-04	1.18E-04
13	8	10	80	90	-0.084	-0.125	-0.107	1.50E-06	1.29E-06	1.47E-06
14	8	10	80	90	0.126	0.307	0.525	6.19E-05	1.45E-04	1.24E-04
15	8	10	80	90	0.124	0.308	0.525	6.17E-05	1.45E-04	1.24E-04
16	8	10	80	90	0.124	0.307	0.525	6.17E-05	1.45E-04	1.24E-04

	RMS	r	K	MSY	Bmsy	Fmsy	B/Bmsy	F/Fmsy	TB	note
6										
7	RMS	r	K	MSY	Bmsy	Fmsy	B/Bmsy	F/Fmsy	TB	note
8			(1000t)	(1000t)					(1000t)	
9	5.60E-01	1.4371134	15.52	5.576	7.76E+03	7.18E-01	9.98E-01	7.98E-01	6.277	NOTE: ASPIC ended normally. The output file is test.fit
10	5.61E-01	1.3252404	16.64	5.513	8.32E+03	6.63E-01	9.30E-01	8.59E-01	6.4	NOTE: ASPIC ended normally. The output file is test.fit
11	5.63E-01	1.2524327	17.47	5.47	8.73E+03	6.26E-01	8.81E-01	9.08E-01	6.47	NOTE: ASPIC ended normally. The output file is test.fit
12	5.62E-01	1.3122765	16.78	5.505	8.39E+03	6.56E-01	9.27E-01	8.63E-01	6.448	NOTE: ASPIC ended normally. The output file is test.fit
13	8.12E-01	0.2294901	528.4	44.61	1.94E+05	2.30E-01	2.63E+00	3.46E-02	510.5	WARNING: At least one parameter estimate is at or near a constraint. Solution may be trivial--examine output file test.fit carefully.
14	5.35E-01	0.6265118	22.67	5.225	8.34E+03	6.27E-01	7.66E-01	1.09E+00	5.455	NOTE: ASPIC ended normally. The output file is test.fit
15	5.35E-01	0.6259596	22.69	5.225	8.35E+03	6.26E-01	7.65E-01	1.09E+00	5.457	NOTE: ASPIC ended normally. The output file is test.fit
16	5.35E-01	0.6262356	22.68	5.225	8.34E+03	6.26E-01	7.65E-01	1.09E+00	5.453	NOTE: ASPIC ended normally. The output file is test.fit