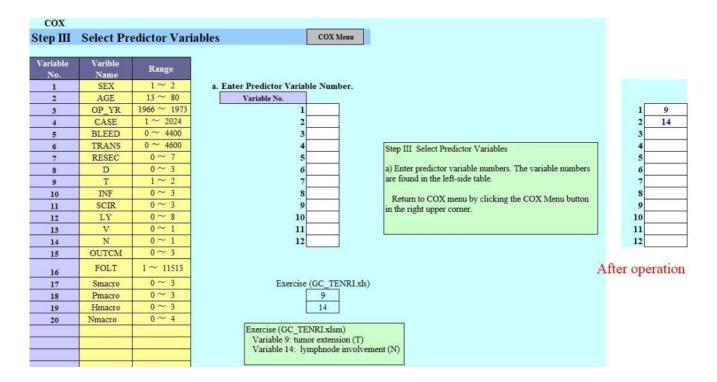
Estimation of Cox Regression Parameters Using COX.xlsm

Click the "COX" button and open the "COX" program. Starting from COX Menu almost exactly the same steps are taken as in the execution of the Gamel-Boag regressions (GAMEL.xlsm). The only differences are that in this program survival curves are not plotted, and only one regression is performed with no constant. This implies that the number of regression parameters is equal to the number of the predictor variables and you need not add 0 to the list of the variable numbers.

CON		
COX COX REGRESSION ANALYSIS		
COX Menu Click the following bar-butto	ons in order.	
Step I Select Data File	COX Menu	
Step II Enter Survival Variable Numbers and Outcome Codes		x steps. From here on what you need lank colorless cells with appropriate or click a button.
Step III Select Predictor Variables	Step IV Estimate part	ameters Step IV button, estimation of the Cox
Step IV Estimate Parameters		uickly to the maximum likelihood
Step V Results Step VI Exit		gram, click the Exit button. again, click the Clear Data button.
Clear Data		
Clear Data		
COX		COX
Step I Select Data File. Step I Select data file		Step I Select Data File.
Survival Data File To run this application program, only of cancer patients is used. Select the difile by clicking the Browse button. Browse Exercise A data file of gastric cancer patients	esired survival data	Survival Data File GC_TENRLxlsm Browse
(GC_TENRLxlsm) is available.	nom odi nospitat	After operation

COX				
Step II	Set Survi	val Variables	COX Menu	
~~r~p ==				
	Varible			
Variable No.	Name	Range	a. Enter Two Essential Variable Numbers in Blank Cells.	
1	SEX	1~2	Survival Time (day) 16	
2	AGE	13 ~ 80	Outcome 15	
3	OP_YR	1966 ~ 1973		
4	CASE	1~ 2024	b. Enter Outcome Codes in Blank Cell c. Enter either "1" or "0".	
5	BLEED	0~ 4400	Death from the disease = 0 1	
6	TRANS	0~ 4600	Death From Unknown Causes = 1	
7	RESEC	0~7	Death from other causes = 2 0	
8	D	0~3	Alive (Censored) = 3 0	
9	Т	1~2	Therapy-related Death = 9999	
10	INF	0~3	Alive with the disease = 9999	
11	SCIR	0~3	Step II Set Survival Variables	
12	LY	0~8	Step 11 Set Survival Valiables	
13	V	$0 \sim 1$	a) Fill the first two blank colorless cells with the variable	
14	N	0~1	numbers of survival time and outcome.	
15	OUTCM	0~3	Go to Step III b) Fill another six colorless cells with the code numbers of the six outcome categories. If there is no corresponding	
16	FOLT	1~ 11513	outcome category in the data file, enter 9999.	
17	Smacro	0~3	c) Fill "1" for "death from the disease" or "0" for "alive or	
18	Pmacro	0~3	Exercise (GC_TENRLxIsm) censored" to translate six outcome codes to the	
19	Hmacro	0~3	Survival time = 16 removed from the analysis.	
20	Nmacro	0~4	Outcome = 15	
			Outcome codes	
			Death from Cancer = 0 1	
			Death from unknown causes = 1 Death from other causes = 2 0	
			Alive (Censored) = 3 0 Therapy-related Death = 9999	
			Alive with the disease = 9999	
In "GC_TENRI.xism":				
			The patients alive with the disease are allocated to the category of "death from the disease".	
			carefory of seam from the sizease .	



V. Results

Chi square =	2.697938037
Number of Iterations =	5
Sample Size =	313
Maximum Log Likelihood =	-1347.82723327
Maximum Likehood Ratio =	2
Chi square on 1DF =	2.65186779
R square =	-0.00049962
Akaike's Information Criterion =	2699.65446654

Step V Results

Cox regression explores the relationship between the survival of a patient and several explanatory variables. Using Newton-Raphson's method, the maximum likelihood estimates of the regression parameters are displayed.

Click the Print Out button which takes you to the Print dialog box.

COX Menu Print Out Wald Test 95% CI Variable Regression Hazard S.E Chisq P-value Coefficient Range Name ratio .6123~ 1.3069 .9389~ 1.559 0.56446 -0.1114 0.1934 0.332 0.8945 Т 0.1905 0.1294 2.169 0.14084 1.20986 N VARIANCE-COVARIANCE MATRIX OF PARAMETERS 0.03740753 0.0024117 0.0024117 0.0167346