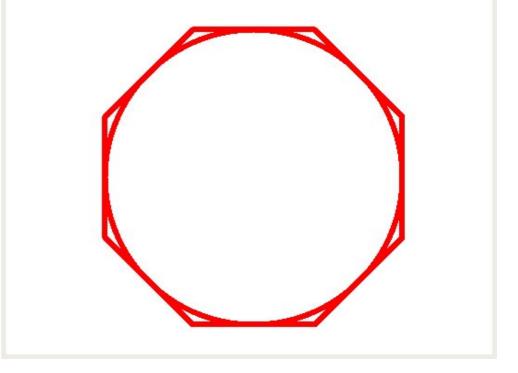
File	НеІр	
	Pick Dir Giotto	
		~

Give Boniface This!



	Work Done			
data	for adding time series one at a time to the workspace			
	bank			
matdata	for adding a number of time series arranged in a			
	matrix to the workspace bank			
type	for displaying a time series in the workspace			
	numerically on the results screen			
f	for forming a new variable in the workspace bank			
by	arithmetic operations with existing series.			
The log()	The log() and exp() functions are also			
recognize				
r	for performing linear regression of one variable			
on a	number of others			
gr	for graphing one or more variables.			
title	to provide a title for a regression or graph			
subtitle	to provide a subtitle for a regression or graph			
_dates	tdates, fdates, rdates, and gdates, to provide date			
	ranges for the <i>type, f, r,</i> and <i>gr</i> commands			
add	to execute any of the above command from a file			
	specified following the <i>add</i> command.			
quit	to exit the program.			

To Do

enrich the graph command with vertical range control, saving and various options. other bank commands - bank, cbk, hbk, and vam extend the r command with con, sma, showt, and the saving commands sav and cat. tabular display of items in a vam file matrix algebra on matrices and vectors in a vam file more functions for use in f commands. specialized regression commands *recur* and *sur*

Here is timed:

1970 1						
1.000	2.000	3.000	4.000	5.000	6.000	7.000
8.000	9.000	10.000	11.000	12.000	13.000	14.000
15.000	16.000	17.000	18.000	19.000	20.000	21.000
22.000	23.000	24.000	25.000	26.000	27.000	28.000
29.000	30.000	31.000				
1970 2						
32.000	33.000	34.000	35.000	36.000	37.000	38.000
39.000	40.000	41.000	42.000	43.000	44.000	45.000
46.000	47.000	48.000	49.000	50.000	51.000	52.000
53.000	54.000	55.000	56.000	57.000	58.000	59.000

```
matdata 2009q1 21
CoalElec CoalCoke CoalOthInd CoalTotal
# The 21 in the first line means to skip the first 21 spaces
# on each data line. A line beginning with a # is just a
comment.
#
                        U.S. Coal Consumption
                          (Thousand Short Tons)
#
#
         Year and
                         Electric Coke
                                          Other
                                                       Total
#
         Ouarter
                                   Plants Industry
                         Power
#2009
                          236842
                                     4398
   January - March
                                             12075
                                                       254383
   April - June
                          216502
                                     3402
                                             10542
                                                       231110
   July - September
                                     3450
                          244445
                                             11107
                                                       259621
   October - December
                          235838
                                     4076
                                             11590
                                                       252363
#
#2010
                                     4857
                                             12600
                                                       264939
   January - March
                          246445
   April - June
                                                       247344
                                     5353
                                             11914
                          229469
   July - September
                          267943
                                     5491
                                             12284
                                                       286361
   October - December
                          231195
                                     5391
                                             12490
                                                       249870
#
#2011
                                             12489
                                                       253541
   January - March
                          234847
                                     5188
   April - June
                          223540
                                     5392
                                             11036
                                                       240611
   July - September
                          261534
                                     5407
                                             11168
                                                       278638
   October - December
                          208637
                                     5447
                                             11543
                                                       226233 ;
```

New Date Formats

2010q1the first quarter of 20102010m01January of 20102010m07d042010 July 4Note that the month and day must always be
two characters.

New Date Formats

2010q1the first quarter of 20102010m01January of 20102010m07d042010 July 4Note that the month and day must always be
two characters.

```
f CoalSum = CoalElec + CoalCoke + CoalOthInd
f CoalResid = CoalTotal - CoalSum
f ShareElec = 100.*CoalElec/(CoalElec + CoalCoke + CoalOthInd + CoalResid)
type ShareElec
```

with this result

Here is ShareElec:

2009q1	93.104	93.679	94.155	93.452
2010q1	93.020	92.773	93.568	92.526
2011q1	92.627	92.905	93.862	92.222

r

And we can now illustrate regression with a somewhat nonsensical example: title Coal Used for Coke r CoalCoke = CoalResid,CoalOthInd

The result looks like this:

:	Coal Used for Coke	
SEE = 567.6 RSQ	= 0.870 RH0 $=$ 0.735 DW $=$	0.531
Variable name	RegCoef Mexval Elas	NorRes Means
1 intercept	-162.19922 0.3 -0.03	7.69 1.00
2 CoalResid	-1.86559 12.2 -0.29	4.31 757.25
3 CoalOthInd	0.54496 107.5 1.33	1.00 11736.50

