

PyIO 2.0 Quick Start

7/06/2009 v1.1
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Installation

If you want to see the source codes and revise it, please follow those steps.
Otherwise, please download the without installation version.

Need to install Python

1. Download and install Python 2.4
from <http://www.python.org/download/releases/2.4.4/>
2. Download and install Python 2.4 Numeric-24.2
from <http://sourceforge.net/projects/numpy/files/>
(Documentation for Numeric is [here](#) or as a [pdf](#) file)
3. Download and install Python 2.4 pywin32-213
from <http://sourceforge.net/projects/pywin32/>
4. Download and install wxPython 2.8.10.1 for Python 2.4
from <http://downloads.sourceforge.net/wxpython/wxPython2.8-win32-unicode-2.8.10.1-py24.exe>
5. Download "Pyio2.0.zip" from <http://www.real.uiuc.edu/pyio/pyio2.0.zip>

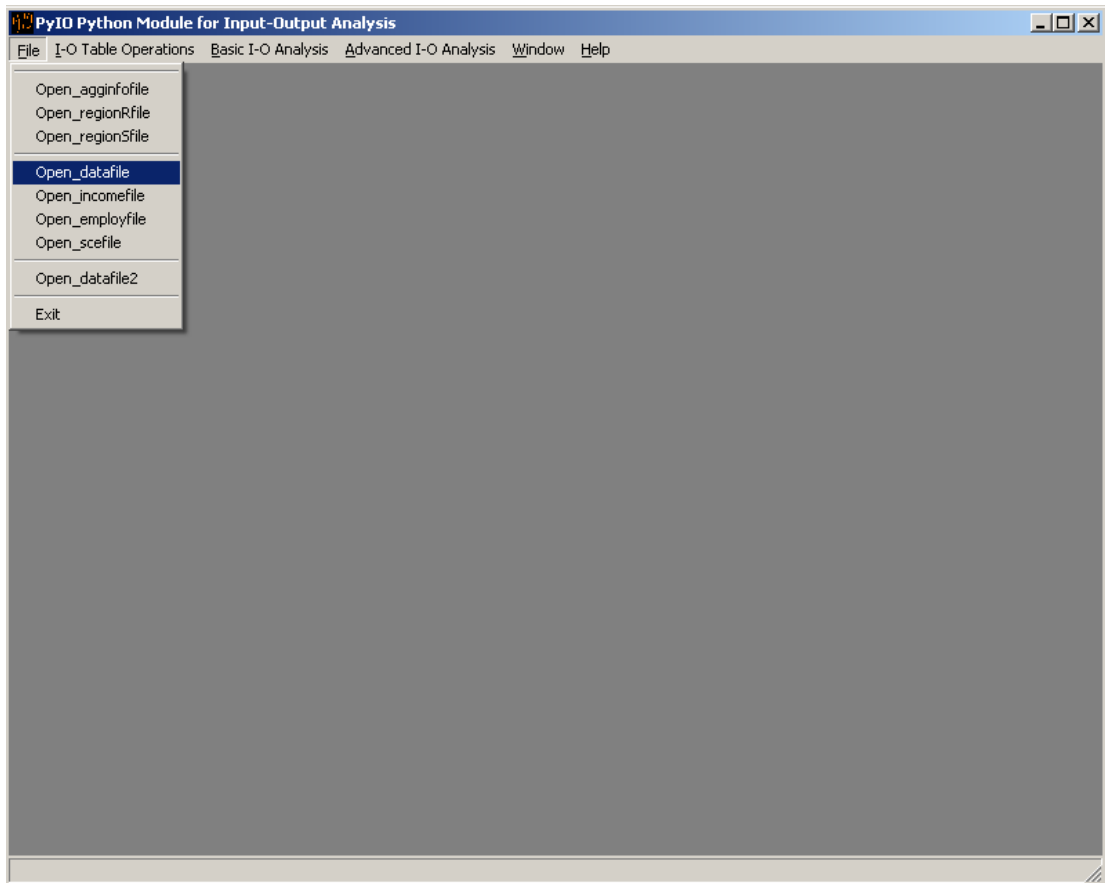
Do NOT need to install Python

1. Please download "Pyio2.0.zip" from
<http://www.real.uiuc.edu/pyio/pyio2.0.zip>
2. Unzip the file and execute "pyio2.0.exe"

Instructions

I-O Table Operations

1. Sectoral aggregations
File -> Open_datafile[datafile.txt]
File -> Open_agginfofile[agg_info.txt]
I-O Table Operations -> To aggregate sectors



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	22.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	283.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 101 **FileType= 111** X

	A	B	C	D	E	F	G	H	I
1	This is the new table by Sectoral aggregation : One region table with 4 sectors.								
2	From I-O data before aggregation: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt								
3	(with the aggregation information in: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\agg_info.txt								
4									
5									
6		1	2	3	4				
7	1	59,000	265,000	86,000	7,000				
8	2	188,000	313,000	118,000	75,000				
9	3	94,000	151,000	162,000	24,000				
10	4	7,000	6,000	1,000	3,000				
11									
12	Output	1045,000	1359,000	936,000	187,000				
13	FinalDemand	697,000	624,000	569,000	78,000				
14	PrimaryInput	628,000	665,000	505,000	170,000				
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
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27									
28									
29									
30									

MessageDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

2. Spatial aggregations

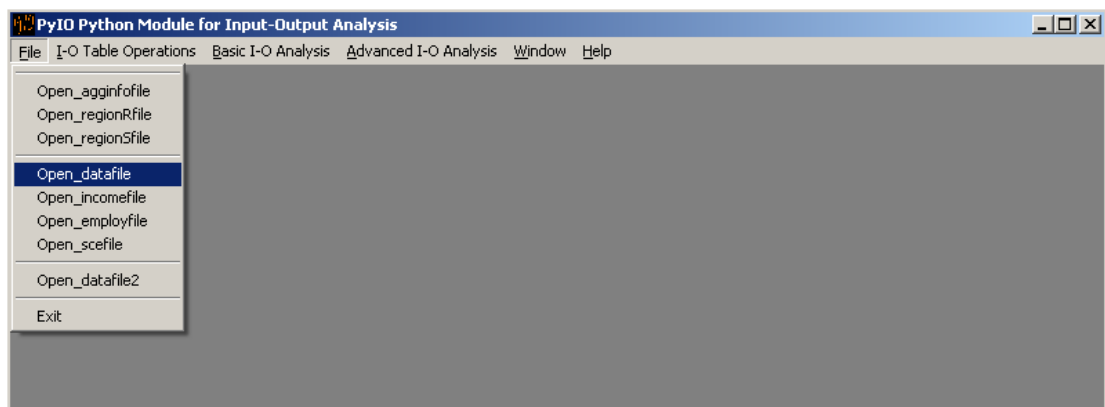
*under construction

3. To update I-O table by using RAS method

File -> Open_datafile[datafile.txt]

File -> Open_regionRfile[region_R.txt]

I-O Table Operations -> To update I-O table by RAS



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType=1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Open_aggrinfofile
Open_regionRfile
Open_regionSfile
Open_datafile
Open_incomefile
Open_employfile
Open_scefile
Open_datafile2
Exit

	B	C	D	E	F	G	H	I
	Raw Table							
		Interregional input-output with 1 regions and 8 sectors						
		IO data: C:\test\pyio\datafile.txt						
	Region # >>>>>	1	2	3	4	5	6	
	Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8		2	7.0	17.0	11.0	48.0	26.0	0.0
9		3	43.0	82.0	33.0	13.0	17.0	81.0
10		4	35.0	9.0	93.0	7.0	19.0	99.0

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1 FileType= 103									
	A	B	C	D	E	F	G	H	I
1									
2		RegionR Table							
3			National (or, one-region) input-output with 8 sectors						
4			Final demand data: : C:\test\pyio\region_R.txt						
5		info #1							
6		Sector#	1	2	3	4	5	6	7
7			12.0	4.0	19.0	2.0	3.0	1.0	4.0
8		info #2							
9		Sector#	1	2	3	4	5	6	7
10			8.0	2.0	21.0	2.0	1.0	2.0	9.0
11		info #3							
12		Sector#	1	2	3	4	5	6	7
13			40.0	8.0	42.0	9.0	10.0	7.0	40.0
14									
15									
16									
17									
18									
19									
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21									
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26									
27									
28									
29									

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
File To aggregate sectors To aggregate regions To update I-O table by RAS To update I-O table by RSP To update I-O table by SLQ									
			C	D	E	F	G	H	I
2		RegionR Table							
3			National (or, one-region) input-output with 8 sectors						
4			Final demand data: : C:\test\pyio\region_R.txt						

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 103 **FileType= 133** X

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6									
7									
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20									
21									
22									
23									
24									
25									
26									
27									
28									

message test

```

iter no \ 1
iter no \ 2
iter no \ 3
iter no \ 4
iter no \ 5
iter no \ 6
iter no \ 7
iter no \ 8
iter no \ 9
iter no \ 10
iter no \ 11
iter no \ 12
iter no \ 13
iter no \ 14
iter no \ 15
iter no \ 16

```

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 103 **FileType= 133** X

	A	B	C	D	E	F	G	H	I
1	1	8							
2									
3		2.653	0.428	3.404	0.261	0.647	0.051	0.552	0.0
4		0.171	0.215	1.345	0.013	0.141	0.010	0.100	0.0
5		5.757	0.972	3.779	1.006	0.936	0.488	1.502	6.555
6		0.0	1.315	0.461	0.023	0.091	0.068	0.039	0.0
7		0.124	0.199	0.169	0.017	0.252	0.028	0.116	0.091
8		0.488	0.0	1.110	0.128	0.094	0.006	0.099	0.073
9		1.712	0.505	4.169	0.231	0.563	0.042	1.026	0.748
10		0.0	0.0	2.833	0.133	0.0	0.213	0.197	1.621
11		40.0	8.0	42.0	9.0	10.0	7.0	40.0	15.0
12									
13									
14	Old A Matrix								
15		Updated A matrix using RAS Method							
16		National (or, one region) input-output with 8 sectors							
17		IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\region_R.txt							
18									
19									
20			Sector #	1					6
21			1					0.016	0.049
22			2					0.069	0.0
23			3					0.045	0.234
24			4					0.050	0.286
25			5					0.157	0.046
26			6		0.021	0.046	0.163	0.104	0.176
27			7		0.035	0.068	0.077	0.009	0.112
28			8		0.0	0.0	0.123	0.0	0.032
29									0.020
30									

MessageDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

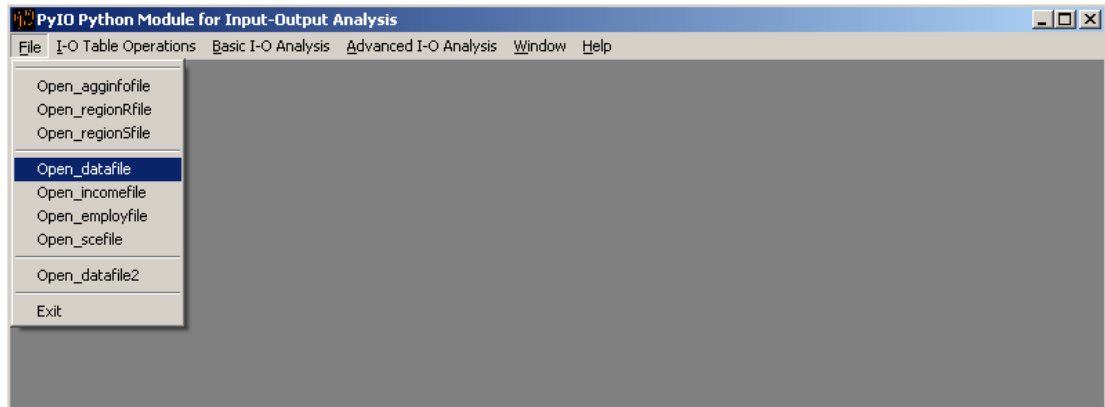
Yes No

4. To update I-O table by RSP (Regional Supply Percentage)

File -> Open_datafile[datafile.txt]

File -> Open_regionRfile[region_R.txt]

I-O Table Operations -> To update I-O table by RSP



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	22.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	283.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Open_agginfofile
Open_regionRfile
Open_regionSfile
Open_datafile
Open_incomefile
Open_employfile
Open_scefile
Open_datafile2
Exit

	B	C	D	E	F	G	H	I
Raw Table								
	Interregional input-output with 1 regions and 8 sectors IO data: C:\test\pyio\datafile.txt							
Region # >>>>>		1	2	3	4	5	6	
Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0	
	2	7.0	17.0	11.0	48.0	26.0	0.0	
	3	43.0	82.0	33.0	13.0	17.0	81.0	
	4	35.0	9.0	93.0	7.0	19.0	99.0	

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 103 x

	A	B	C	D	E	F	G	H	I
1									
2		RegionR Table							
3			National (or, one-region) input-output with 8 sectors						
4			Final demand data: : C:\test\pyio\region_R.txt						
5		info #1							
6		Sector#	1	2	3	4	5	6	7
7			12.0	4.0	19.0	2.0	3.0	1.0	4.0
8		info #2							
9		Sector#	1	2	3	4	5	6	7
10			8.0	2.0	21.0	2.0	1.0	2.0	9.0
11		info #3							
12		Sector#	1	2	3	4	5	6	7
13			40.0	8.0	42.0	9.0	10.0	7.0	40.0
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 103 **FileType= 144** X

	A	B	C	D	E	F	G	H	I
1	1	8							
2									
3		0.711	0.097	1.291	0.0	0.124	0.268	0.554	0.0
4		0.266	0.283	0.507	0.666	0.462	0.0	0.380	0.0
5		1.284	1.071	1.193	0.141	0.236	0.859	1.900	0.167
6		1.555	0.175	5.004	0.113	0.394	1.562	1.663	0.124
7		0.95	0.437	1.150	0.109	1.376	0.284	0.998	0.0
8		0.642	0.281	5.137	0.703	1.32	0.167	0.641	0.421
9		1.142	0.44	2.601	0.066	0.896	0.422	2.566	0.064
10		0.0	0.0	2.594	0.0	0.16	0.071	0.427	0.120
11		40.0	8.0	42.0	9.0	10.0	7.0	40.0	15.0
12									
13									
14	Old A Matrix								
15		Updated A matrix using Regional Supply Percentage (RSP) Method							
16		National (or, one region) input-output with 8 sectors							
17		IO data: C:\Documents and Settings\IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\region_R.txt							
18									
19									
20			Sector #	1	2	3	4	5	6
21			1	0.022	0.015				
22			2	0.01	0.053				
23			3	0.061	0.256				
24			4	0.05	0.028				
25			5	0.027	0.062				
26			6	0.021	0.046				
27			7	0.035	0.068				
28			8	0.0	0.0	0.123	0.0	0.032	0.020
29									
30									

FileDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

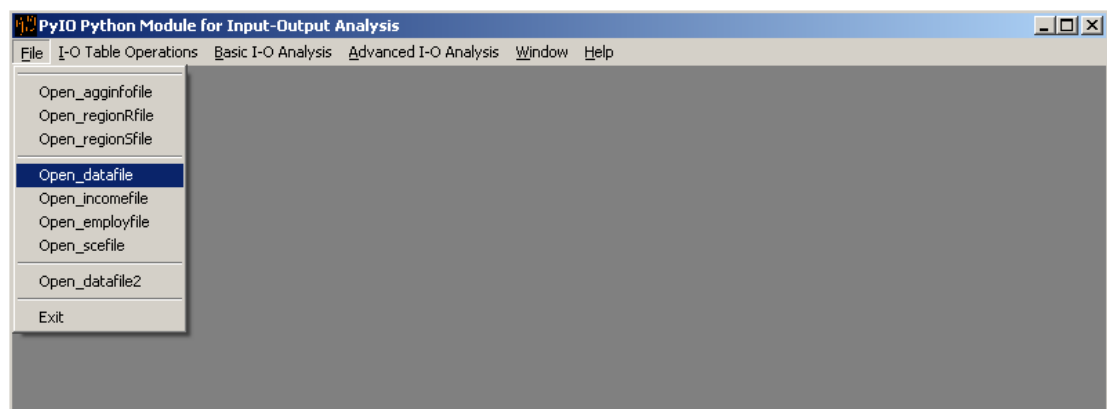
Yes No

5. To update I-O table by SLQ (Simple Location Quotient)

File -> Open_datafile[datafile.txt]

File -> Open_regionRfile[region_S.txt]

I-O Table Operations -> To update I-O table by SLQ ->[output_S.txt]



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Open_agginffile
Open_regionRfile
Open_regionSfile
Open_datafile
Open_incomefile
Open_employfile
Open_scefile
Open_datafile2
Exit

	B	C	D	E	F	G	H	I
	Raw Table							
		Interregional input-output with 1 regions and 8 sectors						
		IO data: C:\test\pyio\datafile.txt						
	Region #	>>>>>	1	2	3	4	5	6
	Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8		2	7.0	17.0	11.0	48.0	26.0	0.0
9		3	43.0	82.0	33.0	13.0	17.0	81.0

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Choose output_S.txt

Look in: data

- agg_info.txt
- data1.txt
- data2.txt
- datafile.txt
- employ.txt
- income.txt
- output_S.txt
- region_R.txt
- region_R_RAS.txt
- region_R_RSP.txt
- region_S.txt
- sce.txt
- time_t.txt

File name: output_S.txt

Files of type: Agginfofile source (*.txt)

Open Cancel

	G	H	I
22			
23			
24			
25			
26			
27			
28			
29			
30			

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 105 **FileType= 155**

	A	B	C	D	E	F	G	H	I
1	1	8							
2									
3		0.812	0.111	1.476	0.0	0.142	0.306	0.633	0.0
4		0.355	0.377	0.676	0.888	0.616	0.0	0.507	0.0
5		2.457	2.05	2.283	0.270	0.453	1.643	3.636	0.320
6		2.0	0.225	6.434	0.145	0.506	2.008	2.139	0.160
7		1.085	0.5	1.314	0.125	1.573	0.324	1.140	0.0
8		0.857	0.375	6.850	0.937	1.76	0.223	0.855	0.561
9		1.269	0.488	2.890	0.074	0.995	0.468	2.852	0.071
10		0.0	0.0	5.189	0.0	0.32	0.142	0.855	0.240
11		40.0	8.0	42.0	9.0	10.0	7.0	40.0	15.0
12									
13									
14									
15									
16									
17									
18									
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20									
21									
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26									
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28									
29									
30									

A file was created in C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\region_S_SLQ.txt

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 105 **FileType= 155** X

	A	B	C	D	E	F	G	H	I
1	1	8							
2									
3		0.812	0.111	1.476	0.0	0.142	0.306	0.633	0.0
4		0.355	0.377	0.676	0.888	0.616	0.0	0.507	0.0
5		2.457	2.05	2.283	0.270	0.453	1.643	3.636	0.320
6		2.0	0.225	6.434	0.145	0.506	2.008	2.139	0.160
7		1.085	0.5	1.314	0.125	1.573	0.324	1.140	0.0
8		0.857	0.375	6.850	0.937	1.76	0.223	0.855	0.561
9		1.269	0.488	2.890	0.074	0.995	0.468	2.852	0.071
10		0.0	0.0	5.189	0.0	0.32	0.142	0.855	0.240
11		40.0	8.0	42.0	9.0	10.0	7.0	40.0	15.0
12									
13									
14	Old A Matrix								
15		Updated A matrix using Simple Location Quotient (SLQ) Method							
16		National (or, one region) input-output with 8 sectors							
17		IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\region_5.txt							
18									
19									
20			Sector #	1	2	3	4	5	6
21			1	0.022	0.015				
22			2	0.01	0.053				
23			3	0.061	0.256				
24			4	0.05	0.028				
25			5	0.027	0.062				
26			6	0.021	0.046				
27			7	0.035	0.068				
28			8	0.0	0.0	0.123	0.0	0.032	0.020
29									
30									

MessageDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

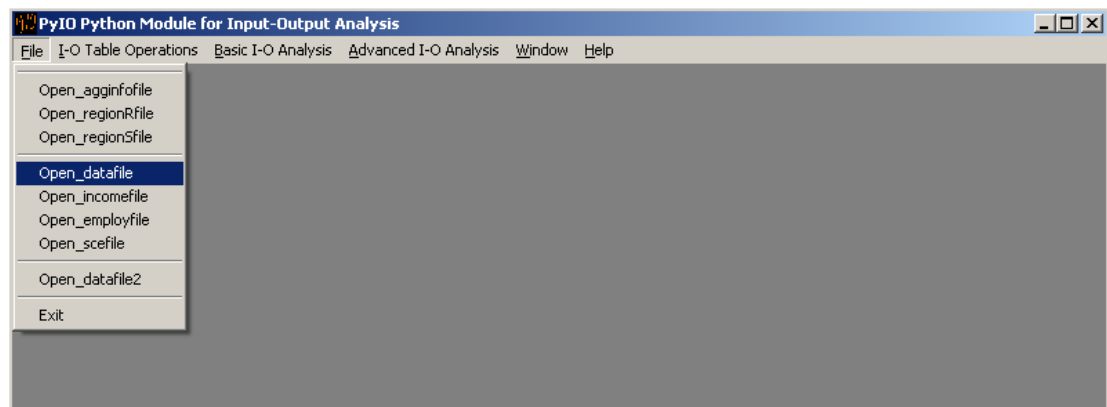
Yes No

Basic I-O Analysis

1. To calculate Leontief Inverse

File -> Open_datafile[datafile.txt]

Basic I-O Analysis -> To Calculate Leontief Inverse



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 X

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	20.0	19.0	6.0	59.0	16.0
12			6	15.0	15.0	99.0	45.0	66.0	11.0
13			7	25.0	22.0	47.0	4.0	42.0	26.0
14			8	0.0	0.0	75.0	0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	283.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 X

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4			Interregional input-output with 1 regions and 8 sectors						
5			IO data: C:\test\pyio\datafile.txt						
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	20.0	19.0	6.0	59.0	16.0
12			6	15.0	15.0	99.0	45.0	66.0	11.0
13			7	25.0	22.0	47.0	4.0	42.0	26.0
14			8	0.0	0.0	75.0	0.0	12.0	7.0
15									
16		Output or Input		700.0	320.0	607.0	432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	283.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

To calculate Leontief Inverse
 To calculate Ghoshian Inverse
 To do Impact Analysis
 To calculate Output Multiplier
 To calculate Income Multiplier
 To calculate Employment Multiplier
 To calculate Input(or Supply)Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 **FileType= 2** X

	A	B	C	D	E	F	G	H	I
1	Leontief Inverse								
2									
3			National (or, one-region) input-output matrix with 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6									
7		Sector#	1	2	3	4	5	6	7
8		1	1.03297	0.04444	0.06493	0.01624	0.04840	0.07801	0.03149
9		2	0.02810	1.09140	0.06279	0.13413	0.12049	0.06517	0.03685
10		3	0.10163	0.36256	1.17095	0.11746	0.19481	0.34545	0.14517
11		4	0.09311	0.14969	0.27455	1.08932	0.19667	0.41299	0.11109
12		5	0.04618	0.11174	0.07345	0.04291	1.23064	0.09608	0.05292
13		6	0.06179	0.15661	0.25381	0.15353	0.29200	1.16405	0.07497
14		7	0.06249	0.14209	0.13921	0.04943	0.20348	0.14864	1.11738
15		8	0.01690	0.05548	0.15769	0.02039	0.07493	0.07374	0.04579
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

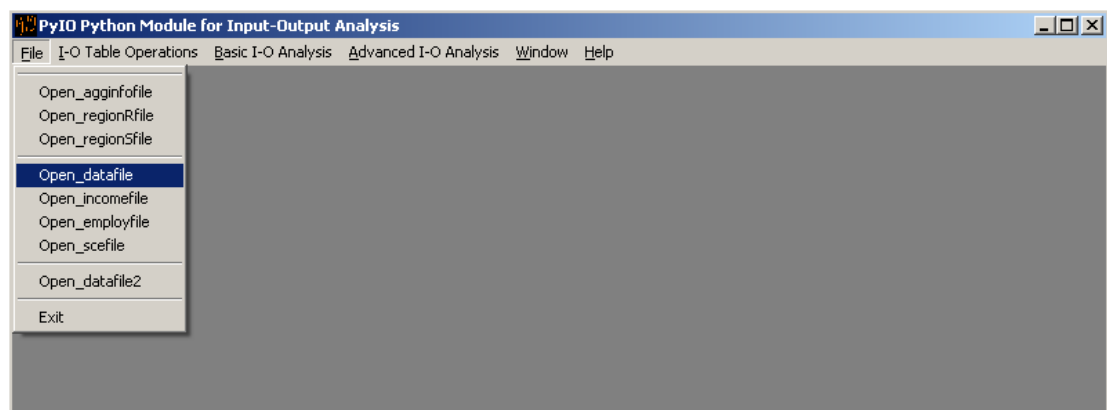
? Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

2. To calculate Ghoshian Inverse

File -> Open_datafile[datafile.txt]

Basic I-O Analysis -> To calculate Ghoshian Inverse



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 X

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 X

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4			Interregional input-output with 1 regions and 8 sectors						
5			IO data: C:\test\pyio\datafile.txt						
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0

To calculate Leontief Inverse
 To calculate Ghoshian Inverse
 To do Impact Analysis
 To calculate Output Multiplier
 To calculate Income Multiplier
 To calculate Employment Multiplier
 To calculate Input(or Supply)Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 **FileType= 3** X

	A	B	C	D	E	F	G	H	I
1	Ghoshian Inverse								
2									
3	National (or, one-region) input-output matrix with 8 sectors								
4	IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt								
5									
6									
7		Sector#	1	2	3	4	5	6	7
8		1	1.03297	0.06148	0.11720	0.15088	0.08621	0.12538	0.07797
9		2	0.02032	1.09140	0.19113	0.11088	0.09535	0.14526	0.08105
10		3	0.05630	0.11910	1.17095	0.38577	0.11889	0.44656	0.15062
11		4	0.01003	0.18108	0.08359	1.08932	0.04943	0.19225	0.03807
12		5	0.02593	0.14120	0.12035	0.17072	1.23064	0.31740	0.13601
13		6	0.03845	0.07026	0.19634	0.32982	0.08839	1.16405	0.09141
14		7	0.02524	0.06460	0.13417	0.14426	0.07916	0.12191	1.11738
15		8	0.00126	0.00322	0.01253	0.01477	0.00299	0.02812	0.00510
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

? Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

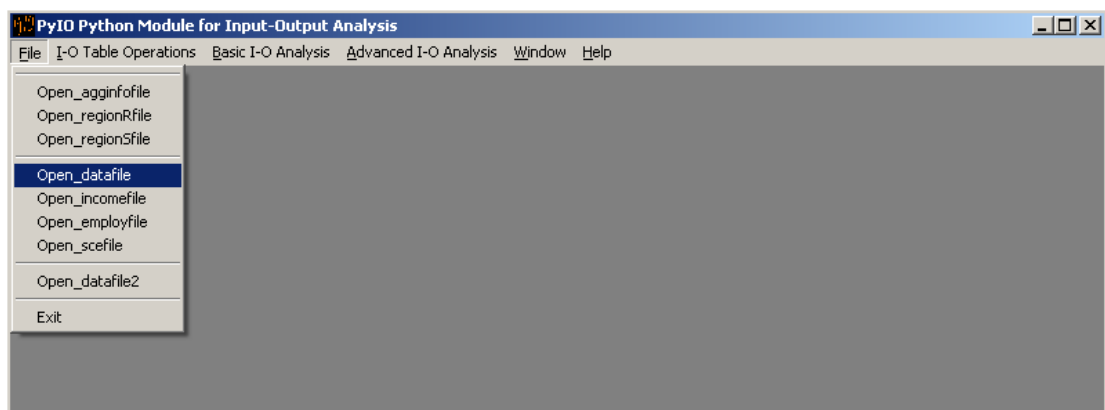
Yes No

3. To do Impact Analysis

File -> Open_datafile[datafile.txt]

File -> Open_scefile[sce.txt]

Basic I-O Analysis -> To do Impact Analysis



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	20.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Open_agginfile

Open_regionRfile

Open_regionSfile

Open_datafile

Open_incomefile

Open_employfile

Open_scefile

Open_datafile2

Exit

	B	C	D	E	F	G	H	I
	Raw Table							
		Interregional input-output with 1 regions and 8 sectors						
		IO data: C:\test\pyio\datafile.txt						
	Region # >>>>>	1	2	3	4	5	6	
	Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8		2	7.0	17.0	11.0	48.0	26.0	0.0
9		3	43.0	82.0	33.0	13.0	17.0	81.0
10		4	35.0	9.0	93.0	7.0	19.0	99.0

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1 FileType= 8									
	A	B	C	D	E	F	G	H	I
1									
2		Scenario Table							
3			National (or, one-region) input-output with 8 sectors						
4			Final demand data: : C:\test\pyio\sce.txt						
5		Scenario #1							
6		Sector #	1	2	3	4	5	6	7
7			50.0	10.0	10.0	30.0	18.0	88.0	37.0
8		Scenario #2							
9		Sector #	1	2	3	4	5	6	7
10			0.0	20.0	0.0	0.0	0.0	0.0	0.0
11		Scenario #3							
12		Sector #	1	2	3	4	5	6	7
13			0.0	0.0	0.0	1.0	0.0	0.0	0.0
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1 FileType									
	A				E	F	G	H	I
1									
2									
3									
4			National (or, one-region) input-output with 8 sectors						
5			Final demand data: : C:\test\pyio\sce.txt						
6		Scenario #1							
7		Sector #	1	2	3	4	5	6	7
8			50.0	10.0	10.0	30.0	18.0	88.0	37.0
9		Scenario #2							

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 8 **FileType= 88** X

	A	B	C	D	E	F	G	H	I
1	Output Impact of Scenarios								
2									
3			National (or, one-region) input-output with 8 sectors						
4			IO data: : C:\Documents and Settings\wu31\Desktop Final demand data: : C:\Documents and Settings\wu31\Desktop						
5									
6		Sector #	Scenario # >>>>						
7			1	2	3				
8		1	62.4611	0.8888	0.0162				
9		2	26.6236	21.8280	0.1341				
10		3	66.0635	7.2511	0.1175				
11		4	87.9599	2.9937	1.0893				
12		5	38.4333	2.2349	0.0429				
13		6	125.8979	3.1322	0.1535				
14		7	66.5768	2.8418	0.0494				
15		8	84.7304	1.1096	0.0204				
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

FileDialog

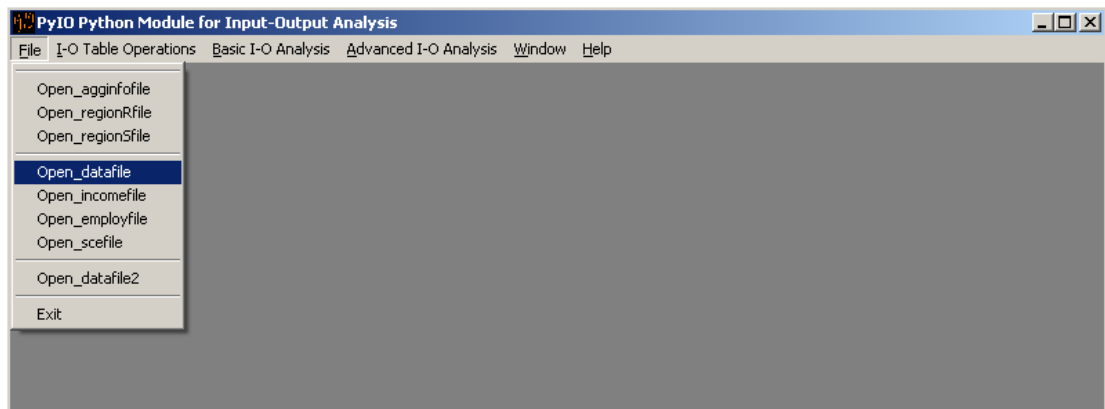
Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

4. To calculate Output Multiplier

File -> Open_datafile[datafile.txt]

Basic I-O Analysis -> To calculate Output Multiplier



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4			Interregional input-output with 1 regions and 8 sectors						
5			IO data: C:\test\pyio\datafile.txt						
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0

- To calculate Leontief Inverse
- To calculate Ghoshian Inverse
- To do Impact Analysis
- To calculate Output Multiplier
- To calculate Income Multiplier
- To calculate Employment Multiplier
- To calculate Input(or Supply)Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 4

	A	B	C	D	E	F	G	H	I
1	Output Multiplier								
2									
3			National (or, one region) input-output with 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6									
7									
8			Sector#						
9			1	1.44317					
10			2	2.11401					
11			3	2.19737					
12			4	1.62342					
13			5	2.36142					
14			6	2.38413					
15			7	1.61566					
16			8	1.18120					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

5. To calculate Income Multiplier

File -> Open_datafile[datafile.txt]

File -> Open_Incomefile[income.txt]

Basic I-O Analysis -> To calculate Income Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

- Open_agginfile
- Open_regionRfile
- Open_regionSfile
- Open_datafile**
- Open_incomefile
- Open_employfile
- Open_scefile
- Open_datafile2
- Exit

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	88.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

type= 4

	B	C	D	E	F	G	H	I
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

Multiplier

National (or, one region) input-output with 8 sectors

IO data: C:\test\pyio\datafile.txt

Sector#

1 1.44317

2 2.11401

[illegible]File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 4 **FileType= 6** x

[illegible]

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType

To calculate Leontief Inverse

To calculate Ghoshian Inverse

To do Impact Analysis

To calculate Output Multiplier

To calculate Income Multiplier

To calculate Employment Multiplier

To calculate Input(or Supply)Multiplier

Input-output with 8 sectors

IO data : c:\test\pyio\income.txt

num_info : 1

	A		E	F	G	H	I
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Sector#

1 2 3 4 5 6 7

29870.9 18720.0 66563.8 2607.0 19007.7 69883.0 10194.2

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType

	A			E	F	G	H	I
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 6 **FileType= 66** X

	A	B	C	D	E	F	G	H	I
1	Income Multiplier								
2									
3			National (or, one region) input-output with 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6									
7									
8			Sector#						
9			1	73.43856					
10			2	146.42535					
11			3	194.31746					
12			4	62.18585					
13			5	156.95614					
14			6	290.94422					
15			7	58.30446					
16			8	17.22639					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

? Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

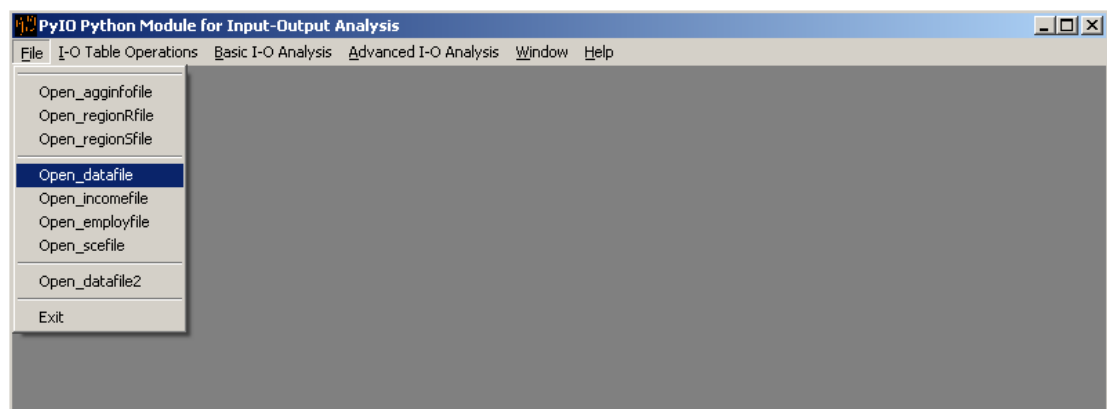
Yes No

6. To calculate Employment Multiplier

File -> Open_datafile[datafile.txt]

File -> Open_employfile[employ.txt]

Basic I-O Analysis -> To calculate Employment Multiplier



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									



PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

Open_agginfofile

Open_regionRfile

Open_regionSfile

Open_datafile

Open_incomefile

Open_employfile

Open_scefile

Open_datafile2

Exit

	B	C	D	E	F	G	H	I
	Raw Table							
		Interregional input-output with 1 regions and 8 sectors						
		IO data: C:\test\pyio\datafile.txt						
	Region # >>>>>	1	2	3	4	5	6	
	Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8		2	7.0	17.0	11.0	48.0	26.0	0.0
9		3	43.0	82.0	33.0	13.0	17.0	81.0

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1 FileType= 7 x									
	A	B	C	D	E	F	G	H	I
1									
2		Employee table							
3			National (or, one-region) input-output with 8 sectors						
4			num_info : 1						
5									
6		Sector#	1	2	3	4	5	6	7
7			10.0	20.0	30.0	52.0	10.0	75.0	51.0
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1 FileTyp									
	A				E	F	G	H	I
1									
2									
3									
4									
5									
6		Sector#	1	2	3	4	5	6	7
7			10.0	20.0	30.0	52.0	10.0	75.0	51.0
8									
9									
10									

- To calculate Leontief Inverse
- To calculate Ghoshian Inverse
- To do Impact Analysis
- To calculate Output Multiplier
- To calculate Income Multiplier
- To calculate Employment Multiplier**
- To calculate Input(or Supply)Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 7 **FileType= 77** X

	A	B	C	D	E	F	G	H	I
1	Employment Multiplier								
2									
3			National (or, one region) input-output with 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6									
7									
8			Sector#						
9			1	0.05670					
10			2	0.16659					
11			3	0.19929					
12			4	0.18892					
13			5	0.17235					
14			6	0.35688					
15			7	0.15238					
16			8	0.23818					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

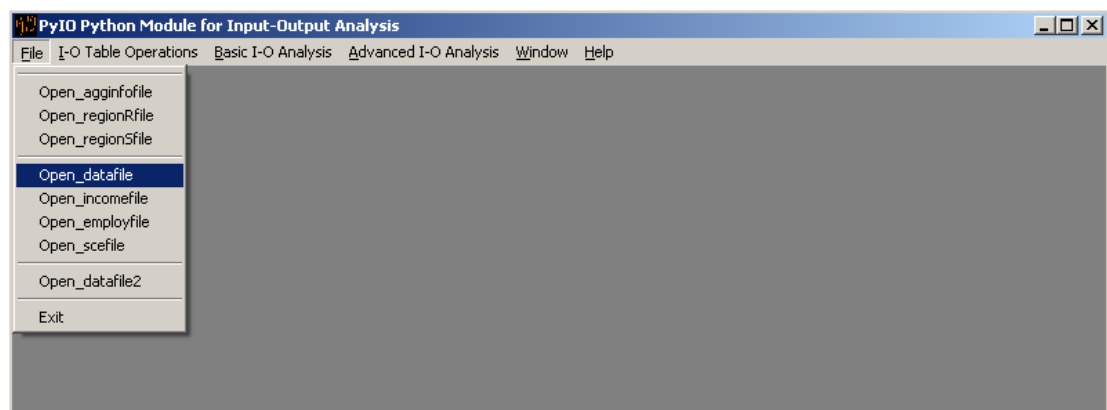
? Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

7. To calculate Input (or Supply) Multiplier

File -> Open_datafile[datafile.txt]

Basic I-O Analysis -> To calculate Input (or Supply) Multiplier



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	20.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2									
3									
4			Interregional input-output with 1 regions and 8 sectors						
5			IO data: C:\test\pyio\datafile.txt						
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0

- To calculate Leontief Inverse
- To calculate Ghoshian Inverse
- To do Impact Analysis
- To calculate Output Multiplier
- To calculate Income Multiplier
- To calculate Employment Multiplier
- To calculate Input(or Supply)Multiplier

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 **FileType= 5** X

	A	B	C	D	E	F	G	H	I
1	Input Multiplier								
2									
3			National (or, one region) input-output with 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6									
7									
8			Sector#						
9			1	1.21048					
10			2	1.73234					
11			3	2.02626					
12			4	2.39642					
13			5	1.75108					
14			6	2.54093					
15			7	1.69761					
16			8	2.16381					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

? Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

Yes No

Advanced I-O analysis

1. Key Sector Analysis

File -> Open_datafile[datafile.txt]

Advanced I-O analysis-> Key Sector Analysis

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

- Open_agginfile
- Open_regionRfile
- Open_regionSfile
- Open_datafile**
- Open_incomefile
- Open_employfile
- Open_scefile
- Open_datafile2
- Exit

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
18		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 311 X

	A	B	C	D	E	F	G	H	I
1	Key Sectors Analysis: Unsorted Forward & Backward Linkage								
2									
3		National (or, one region) input-output with 8 sectors							
4		IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt							
5									
6		Sector #	Forward Linkage	Backward Linkage					
7		1	0.70840	0.77380					
8		2	0.82810	1.13349					
9		3	1.32901	1.17818					
10		4	1.26621	0.87045					
11		5	0.89002	1.26614					
12		6	1.18424	1.27832					
13		7	1.00695	0.86628					
14		8	0.78707	0.63334					
15									
16									
17									
18									
19	Key Sectors Analysis: Sorted Forward & Backward Linkage								
20									
21		National (or, one region) input-output with 8 sectors							
22		IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt							
23									
24		Sector	Forward Linkage	Sector	Backward L				
25		3	1.32901	6	1.27832				
26		4	1.26621	5	1.26614				
27		6	1.18424	3	1.17818				
28		7	1.00695	2	1.13349				
29		5	0.89002	4	0.87045				
30		2	0.82810	7	0.86628				

FileDialog

Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

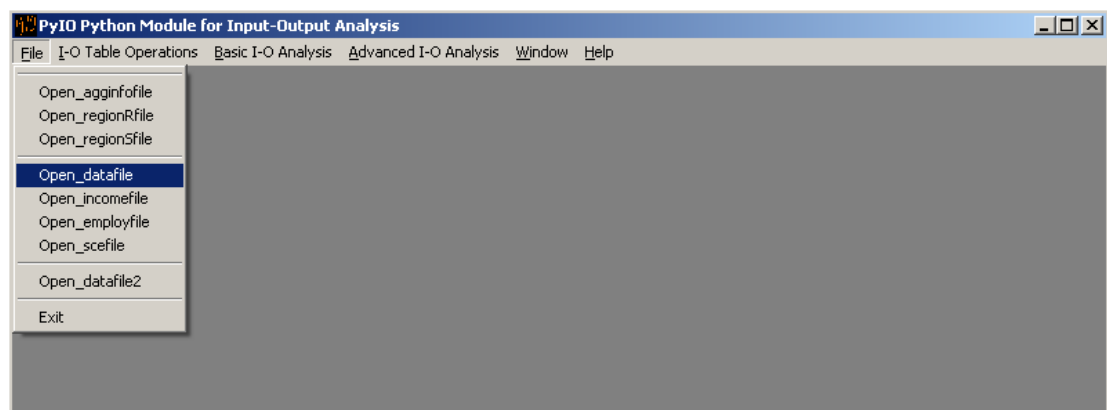
Yes No

2. Output Decomposition

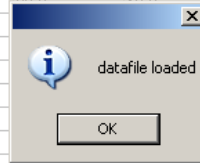
File -> Open_datafile[datafile.txt]

File -> Open_datafile2[data2.txt]

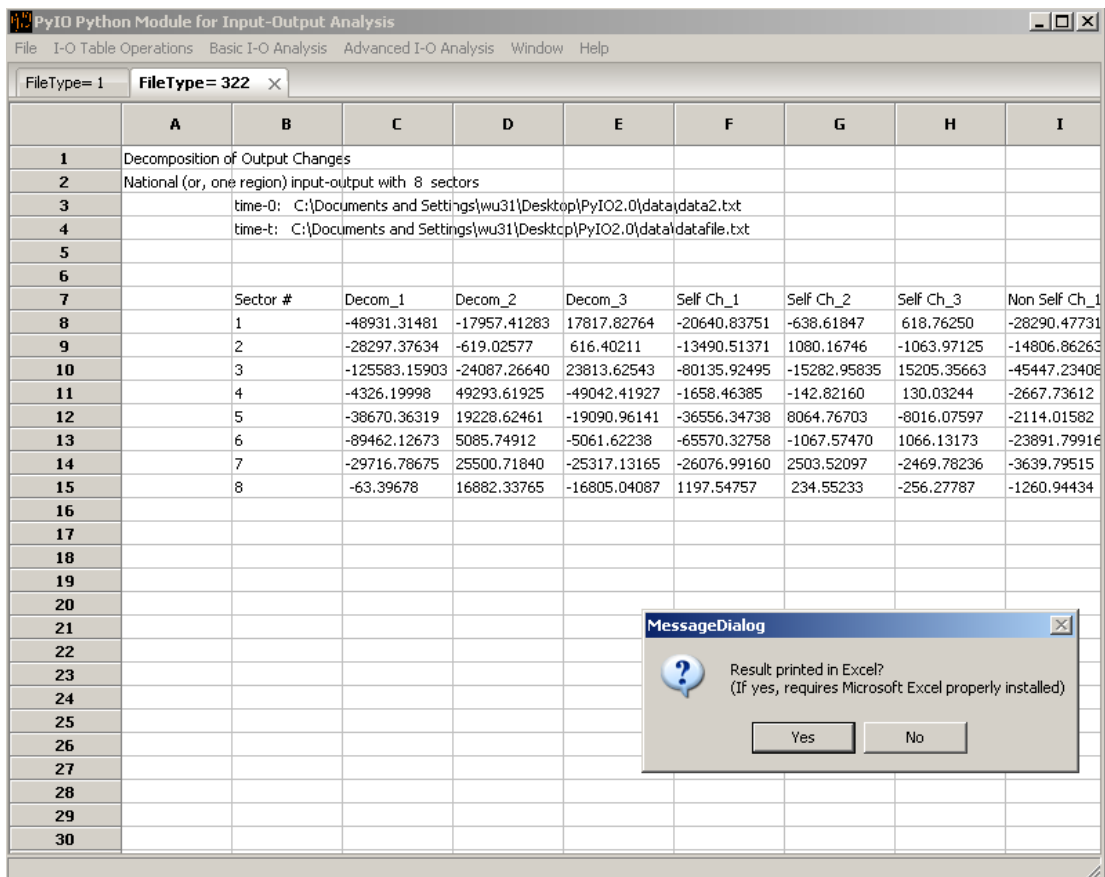
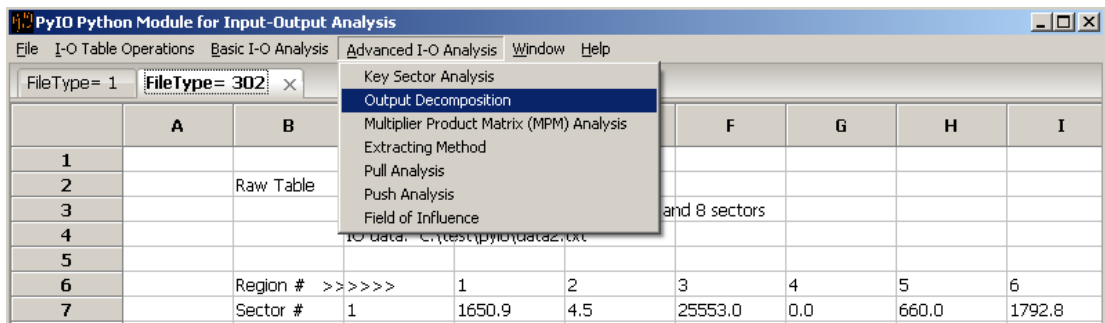
Advanced I-O analysis-> Output Decomposition



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	60.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

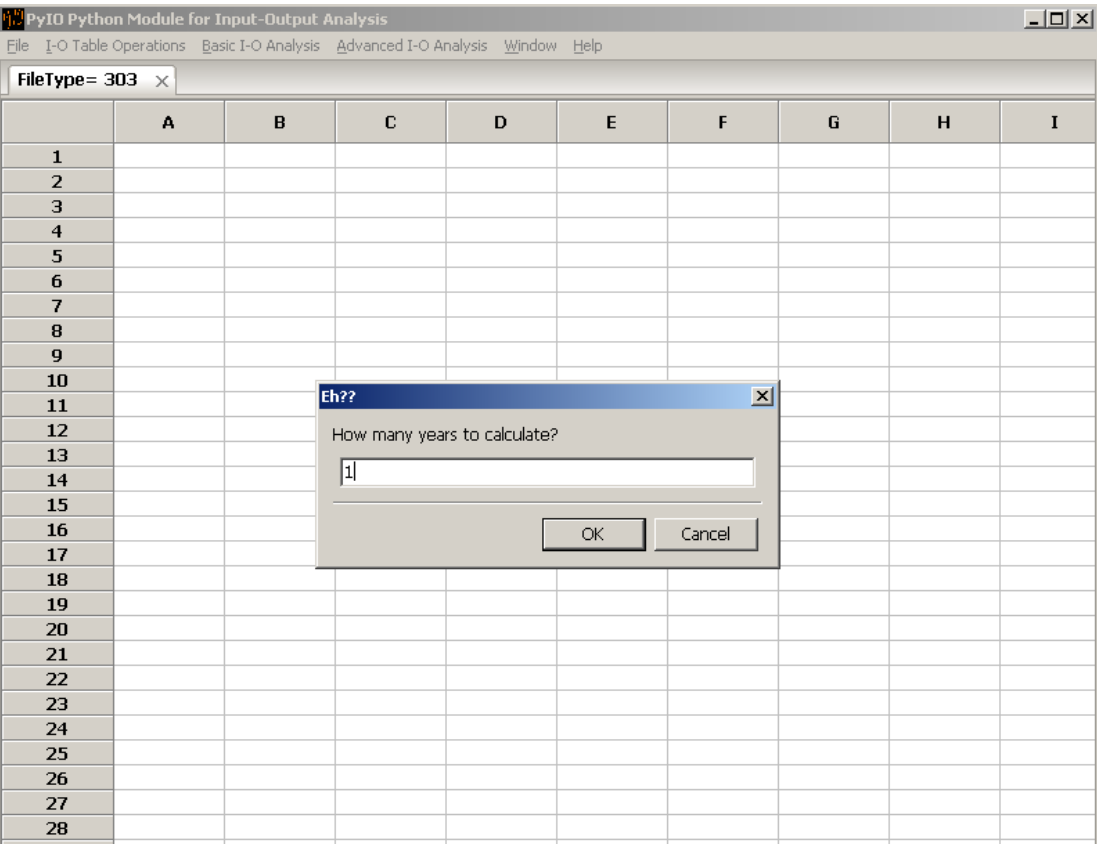
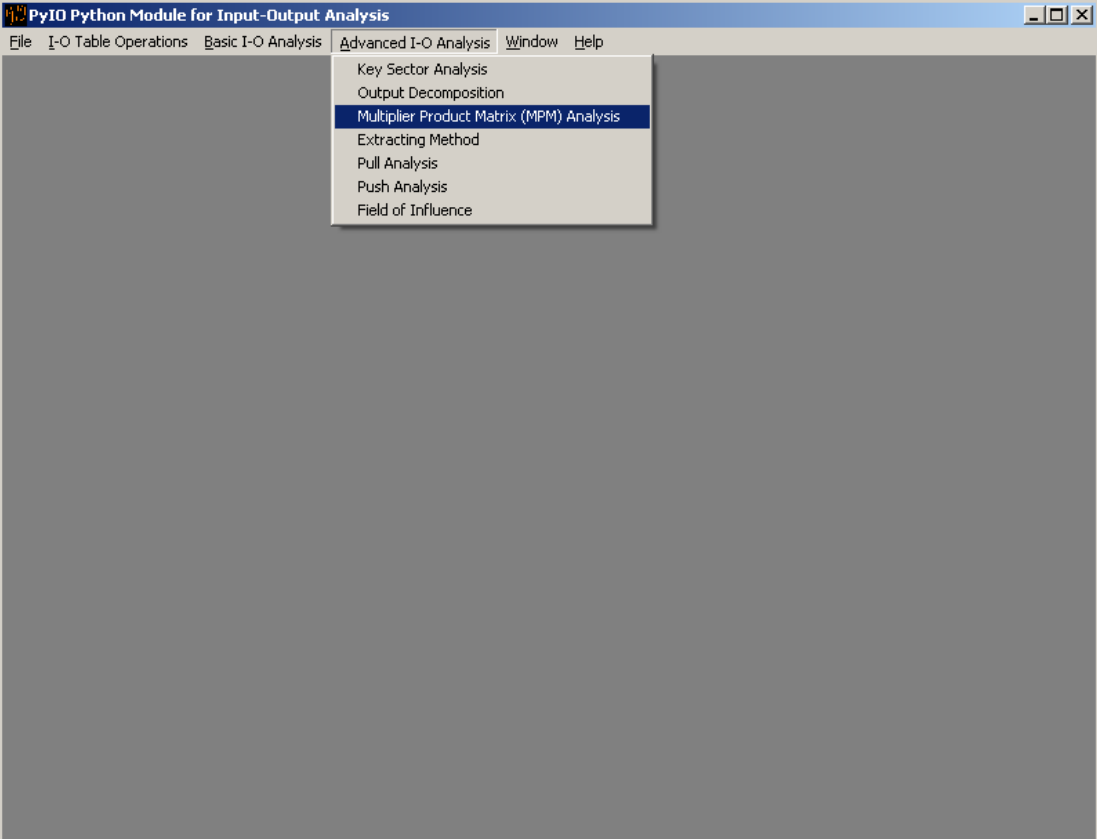


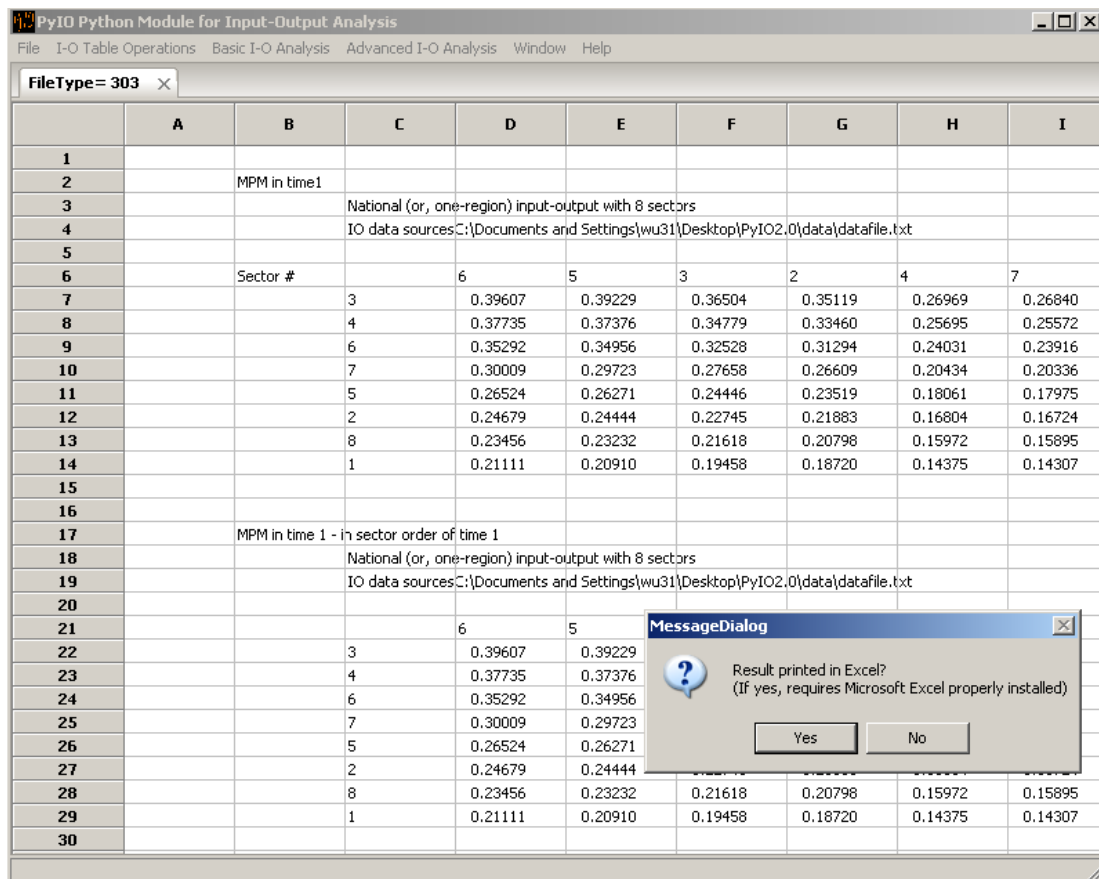
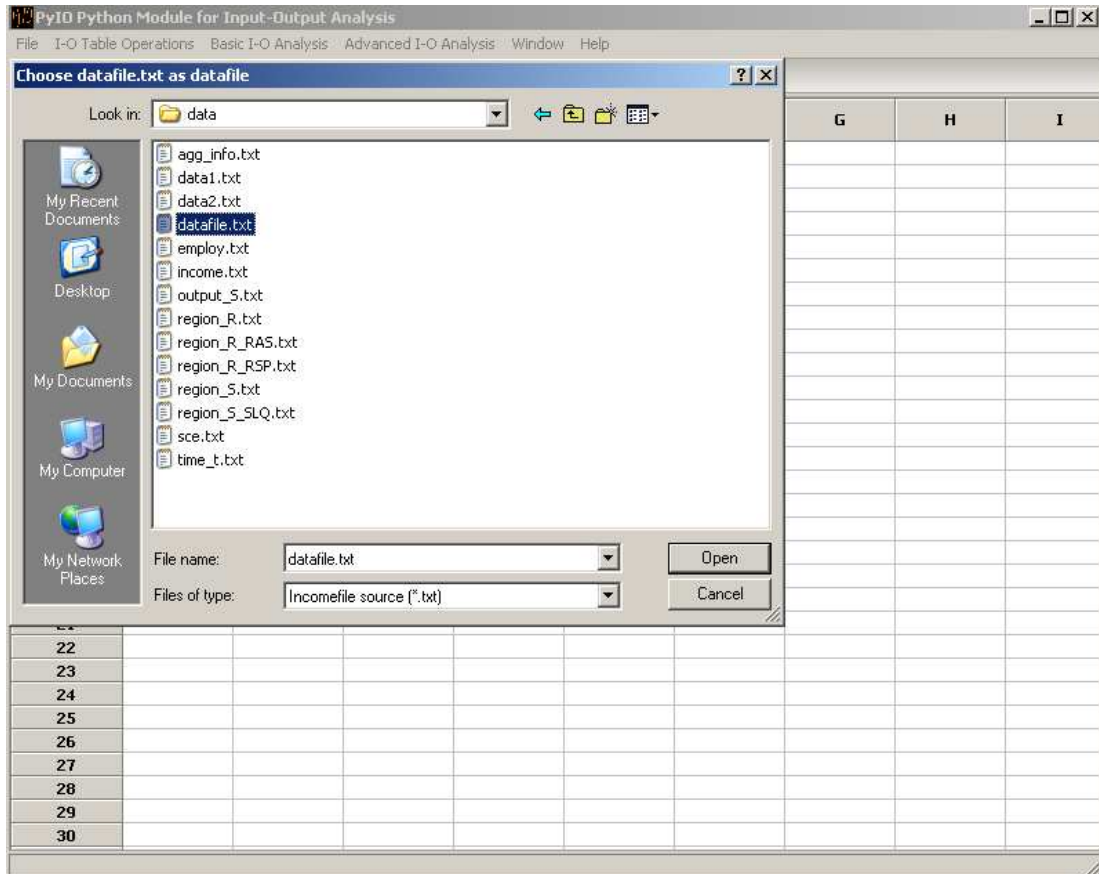
PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
<div>Open_agginfofile Open_regionRfile Open_regionSfile Open_datafile Open_incomefile Open_employfile Open_scefile Open_datafile2 Exit</div>									
	B	C	D	E	F	G	H	I	
	Raw Table	Interregional input-output with 1 regions and 8 sectors							
		IO data: C:\test\pyio\datafile.txt							
	Region # >>>>>	1	2	3	4	5	6		
	Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0	
8		2	7.0	17.0	11.0	48.0	26.0	0.0	
9		3	43.0	82.0	33.0	13.0	17.0	81.0	



3. Multiplier Product Matrix (MPM) Analysis

Advanced I-O analysis->Multiplier Product Matrix (MPM) Analysis -> #year
-> benchmark year-> [datafile.txt].....

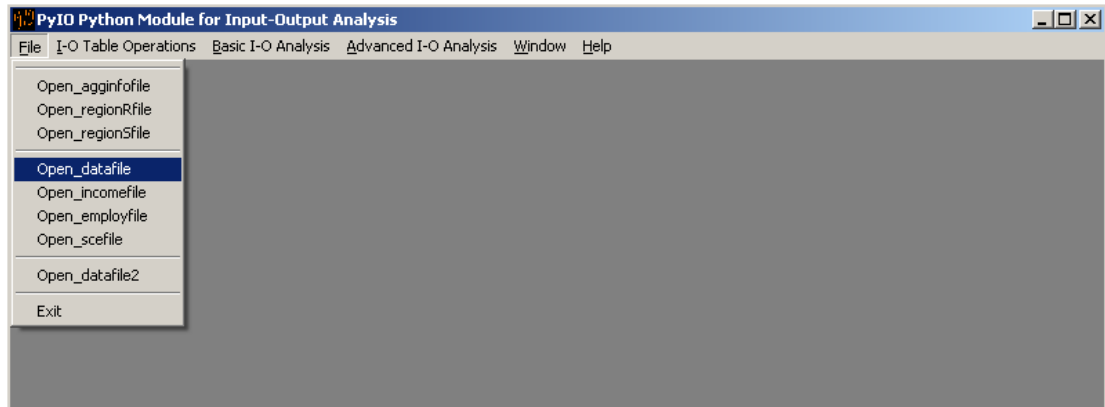




4. Extracting Method

File -> Open_datafile[data.txt]

Advanced I-O analysis-> Extracting Method



PyIO Python Module for Input-Output Analysis

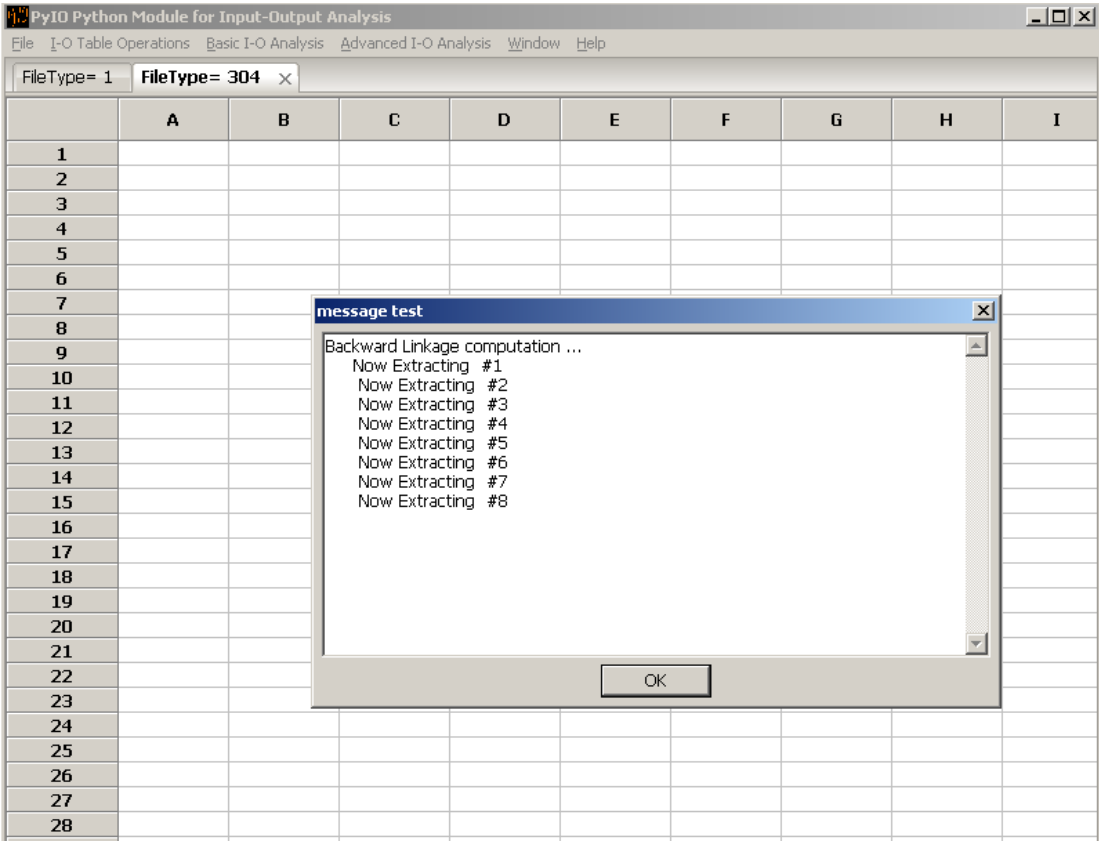
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1

	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region # >>>>>	1	2	3	4	5	6	
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	22.0	12.0	6.0	59.0	16.0
12			6	15.0	22.0	12.0	45.0	66.0	11.0
13			7	25.0	22.0	12.0	4.0	42.0	26.0
14			8	0.0	22.0	12.0	0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	283.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

datafile loaded

OK




PyIO Python Module for Input-Output Analysis

FileI-O Table OperationsBasic I-O AnalysisAdvanced I-O AnalysisWindowHelp

FileType= 304

	A	B	C	D	E	F	G	H	I
1									
2		BACKWARD LINKAGE effect of extraction - National (or one region) input-output table							
3		Matrix dimension =	8	columns of extracted sectors					
4			8	rows of sector impact					
5		The first row pertain to the internal effect							
6									
7			Sector#	1	2	3	4	5	6
8		1		63.45029	105.61056	307.72997	291.72706	113.92405	267.52994
9		2		19.04437	13.03039	33.65664	6.44213	14.74757	23.11922
10		3		68.86771	106.30191	32.54819	53.19396	36.71676	19.31540
11		4		63.09835	43.88805	142.32218	46.58096	59.36111	102.38257
12		5		31.29593	32.76316	38.07497	17.01789	59.92908	122.40123
13		6		41.87519	45.91891	131.57187	60.88719	88.97936	28.47619
14		7		42.34480	41.66155	72.16308	19.60430	62.00354	44.05442
15		8		11.44976	16.26673	81.74295	8.08448	22.83252	21.85442
16									
17		FORWARD LINKAGE effect of extraction - National (or one region) input-output table							
18		Matrix dimension =	8	columns of extracted sectors					
19			8	rows of sector impact					
20		The first row pertain to							
21									
22			Sector#						
23		1							10180
24		2							15953
25		3							05300
26		4							35128
27		5		17.56975	41.40103	62.38721	67.70352	15.06372	56.97848
28		6		26.05312	20.60117	101.77965	130.79792	26.93539	94.06929
29		7		17.10428	18.94137	69.55198	57.21116	24.12202	36.13076
30		8		0.85570	0.94280	6.49387	5.85798	0.91263	8.33406

MessageDialog

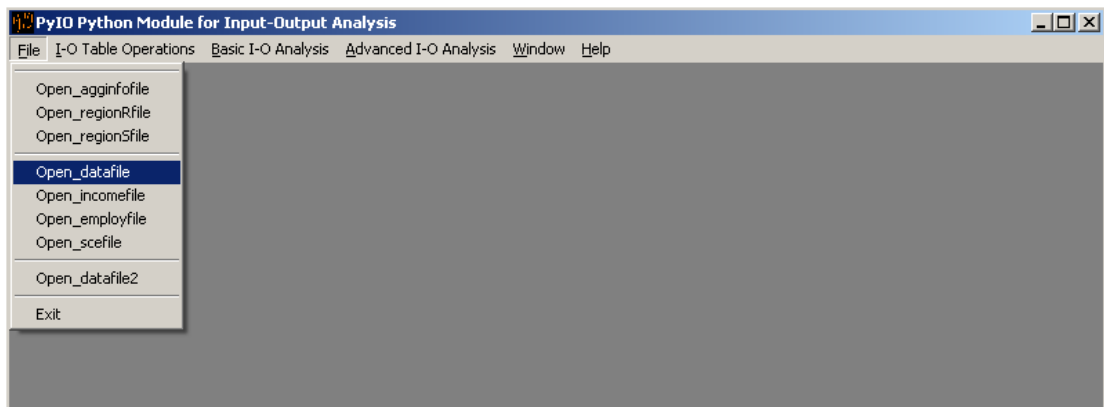
 Do you want the Backward and Forward Linkages printed in Excel?
(if yes, requires Microsoft Excel properly installed)

YesNo

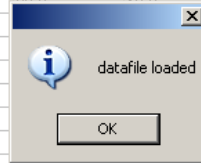
5. Pull Analysis

File -> Open_datafile[data.txt]

Advanced I-O analysis-> Pull Analysis



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	88.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw Table							
3									
4			and 8 sectors						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0

- Key Sector Analysis
- Output Decomposition
- Multiplier Product Matrix (MPM) Analysis
- Extracting Method
- Pull Analysis**
- Push Analysis
- Field of Influence

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 305 X

	A	B	C	D	E	F	G	H	I
1									
2		Pull Analysis Results--Flow Matrices							
3			I-O data:C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
4									
5									
6		Y1	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
7		Sector 1	0.10000	0.02941	0.05985	0.00000	0.02429	0.06615	0.05435
8		Sector 2	0.04375	0.10000	0.02743	0.39024	0.10526	0.00000	0.04348
9		Sector 3	0.26875	0.48235	0.08229	0.10569	0.06883	0.31518	0.27717
10		Sector 4	0.21875	0.05294	0.23192	0.05691	0.07692	0.38521	0.16304
11		Sector 5	0.11875	0.11765	0.04738	0.04878	0.23887	0.06226	0.08696
12		Sector 6	0.09375	0.08824	0.24688	0.36585	0.26721	0.04280	0.06522
13		Sector 7	0.15625	0.12941	0.11721	0.03252	0.17004	0.10117	0.24457
14		Sector 8	0.00000	0.00000	0.18703	0.00000	0.04858	0.02724	0.06522
15									
16		P1	0.24688		Q1	0.24688		CP1	0.24688
17									
18		Y2	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
19		Sector 1	0.13278	0.03905	0.07947	0.00000	0.03225	0.08783	0.07216
20		Sector 2	0.05809	0.13278	0.03642	0.19036	0.13977	0.00000	0.05773
21		Sector 3	0.02904	0.31266	0.10927				
22		Sector 4	0.29046	0.07030	0.30795				
23		Sector 5	0.15768	0.15621	0.06291				
24		Sector 6	0.12448	0.11716	0.00000				
25		Sector 7	0.20747	0.17183	0.15563				
26		Sector 8	0.00000	0.00000	0.24834				
27									
28		P2	0.21875		Q2	0.29046		CP2	0.46563
29									
30		Y3	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7

MessageDialog

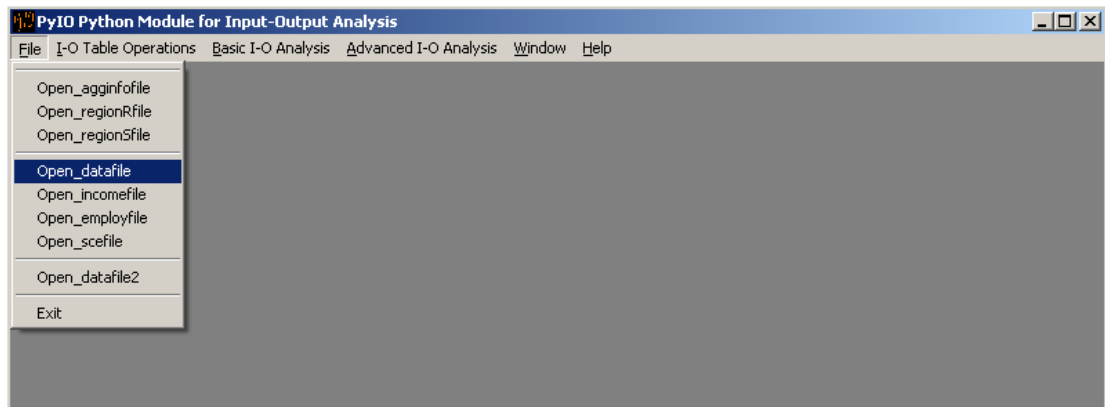
Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

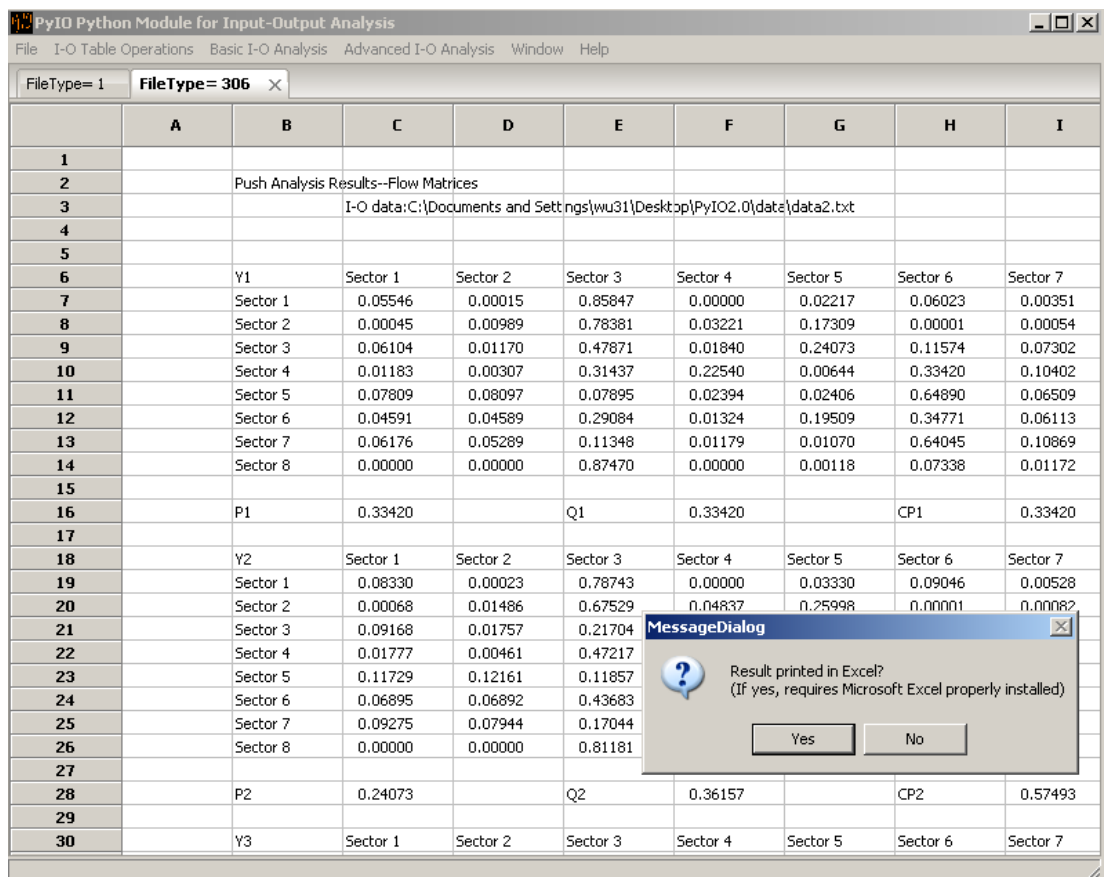
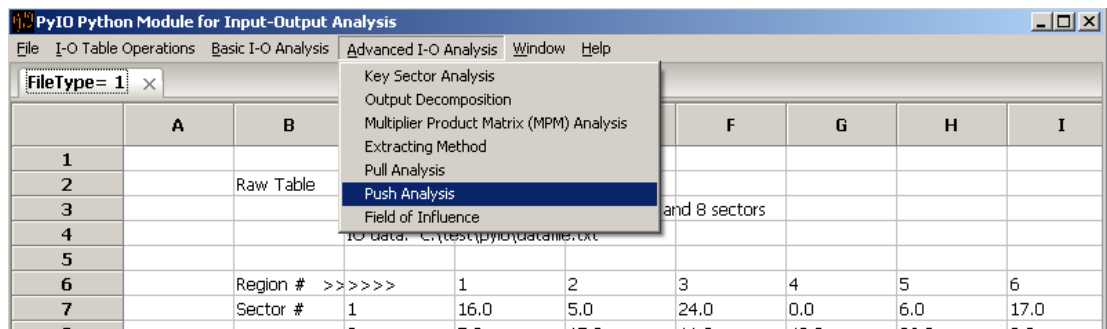
Yes No

6. Push Analysis

File -> Open_datafile[data2.txt]

Advanced I-O analysis-> Push Analysis



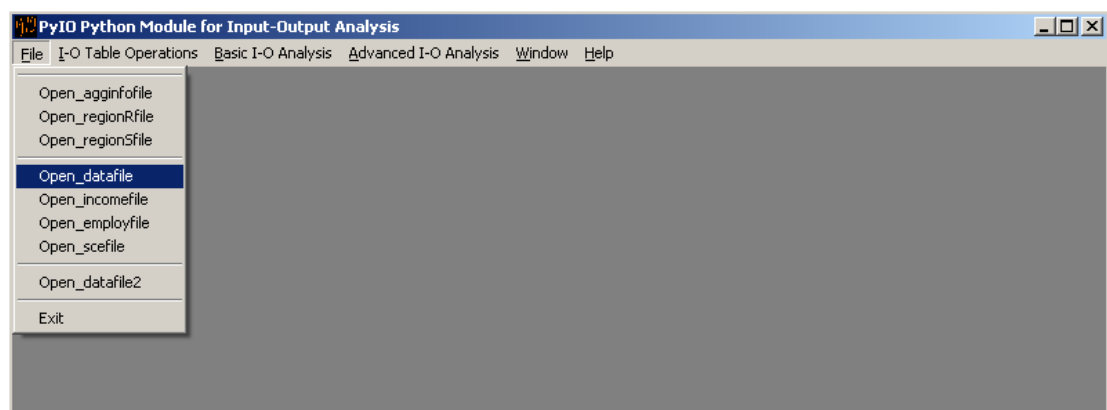


7. Field of Influence

File -> Open_datafile[data.txt]

Advanced I-O analysis-> Field of Influence

-> #row -> #column



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B	C	D	E	F	G	H	I
1									
2		Raw IO Table							
3			Interregional input-output with 1 regions and 8 sectors						
4			IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt						
5									
6		Region #	>>>>>	1	2	3	4	5	6
7		Sector #	1	16.0	5.0	24.0	0.0	6.0	17.0
8			2	7.0	17.0	11.0	48.0	26.0	0.0
9			3	43.0	82.0	33.0	13.0	17.0	81.0
10			4	35.0	9.0	93.0	7.0	19.0	99.0
11			5	19.0	88.0	10.0	6.0	59.0	16.0
12			6	15.0			45.0	66.0	11.0
13			7	25.0			4.0	42.0	26.0
14			8	0.0			0.0	12.0	7.0
15									
16		Output or Input		700.0			432.0	375.0	345.0
17									
18		final demand vector		622.0	203.0	263.0	138.0	220.0	75.0
19									
20		primary input vector		540.0	150.0	206.0	309.0	128.0	88.0
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									



PyIO Python Module for Input-Output Analysis									
File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help									
FileType= 1									
	A	B				F	G	H	I
1									
2		Raw Table							
3									
4			and 8 sectors						
5			IO data: C:\test\pyio\datafile.txt						

- Key Sector Analysis
- Output Decomposition
- Multiplier Product Matrix (MPM) Analysis
- Extracting Method
- Pull Analysis
- Push Analysis
- Field of Influence

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 307 X

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
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16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									

Eh??

the Row in the Leontief Inverse where the change is occurring:

OK Cancel

PyIO Python Module for Input-Output Analysis

File I-O Table Operations Basic I-O Analysis Advanced I-O Analysis Window Help

FileType= 1 FileType= 307 X

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
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20									
21									
22									
23									
24									
25									
26									
27									

Eh??

the Column in the Leontief Inverse where the change is occurring:

OK Cancel

PyIO Python Module for Input-Output Analysis

FileI-O Table OperationsBasic I-O AnalysisAdvanced I-O AnalysisWindowHelp

File Type= 1File Type= 307

	A	B	C	D	E	F	G	H	I
1									
2		The 1st Order Field of Influence of Cell [1 1]							
3		National (or, one region) input-output with 8 sectors							
4		IO data: C:\Documents and Settings\wu31\Desktop\PyIO2.0\data\datafile.txt							
5									
6									
7		Sector #	1	2	3	4	5	6	7
8		1	1.06702	0.04591	0.06707	0.01678	0.04999	0.08058	0.03253
9		2	0.02903	0.00125	0.00182	0.00046	0.00136	0.00219	0.00089
10		3	0.10498	0.00452	0.00660	0.00165	0.00492	0.00793	0.00320
11		4	0.09618	0.00414	0.00605	0.00151	0.00451	0.00726	0.00293
12		5	0.04770	0.00205	0.00300	0.00075	0.00224	0.00360	0.00145
13		6	0.06383	0.00275	0.00401	0.00100	0.00299	0.00482	0.00195
14		7	0.06455	0.00278	0.00406	0.00102	0.00302	0.00487	0.00197
15		8	0.01745	0.00075	0.00110	0.00027	0.00082	0.00132	0.00053
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

MessageDialog

?Result printed in Excel?
(If yes, requires Microsoft Excel properly installed)

YesNo