

### **Download, Install, Contact information**



# Log in: Click Desk Shortcut



#### Intranet

Enter account and password and click log in.

### Internet

TEJ TEJ+ Data Bank (Version 1.7.0.7)	
Login Setting	TEJ TEJ + Data Bank (Version 1.7.0.7)
Language English  User ID Market Taiwan  Taiwan  Language	Login Setting Language English • User ID Market Taiwan • Password
Stay signed in? 🔽	Stay signed in? Server Setting Cancel
Server Setting Login Cancel	Server Setting Main Server TEJ Server Server OS Linux Server Proxy Setting Only Login Authorise IP Port ID PWD
Login Role●Select your department and the identity Department 管院其他附設單位及研究 マ	EZ Proxy
Role 非校内人士	EzProxy 認識
Click "OK" OK Cancel	密碼
	確定取消
3	



3

Δ

5

6

# **TEJ Quick Start Guides**

- Main Menu: Data Base CategorieS(take Taiwan as an example, the numbers of download items are subject to the DB purchase agreement made by each school.)
- Home screen & Introductions to common features
- Review mode (individual stock, multiple stocks, single item comparison)
- Criteria setting(company groups, field groups, advanced date)
- Export saved information
- Auxiliary functions (drawing, technical manual, study related articles )

# Main Menu: DB Categories (I)

TEJ Profile	• Macroeconomics, raw material, exchange rate, interests, etc.
TEJ Company	• Company monthly revenues/earnings, sales breakdown, board members, capital formation, long term and short term investment, borrowings, etc.
TEJ Finance	• Financial information, financial ratios data base, consolidated financial statements and financial restatements of listed and GRETAI listed companies.
TEJ New Finance	<ul> <li>In response to the Statement of Financial Accounting Standards (SFAS) No.34 &amp; the Statement of Financial Accounting Standards (SFAS) No. 36 as well as the cumulative effects of the new statement, the financial disclosures begin on or after 1 January 2006 and can be referred back to as early as 2005.</li> </ul>

# Main Menu: DB Categories (I)

Banking Industry- Balance Sheet Detail of Assets/Liability	• The regulatory capital, assets quality, regulatory capital detail, capital adequacy ratio, etc. of the financial industry.				
TEJ Financial Holding Zone	• Including the monthly revenue, sales breakdown, reinvestment and financial statements of the financial holding companies and its subsidiaries.				
TEJ Equity	• Securities market DB, including stock price, deal on credit (margin purchase and short sale), foreign institutional investors, security deposited in central depository, and etc.				
TEJ IFRS Finance	•The financial Statements of Taiwan's listed and GRETAI listed Companies' adhere to the financial statements released by International Financial Reporting Standards (IFRS), the financial disclosures begin on or after 1 January 2013 and can be referred back to as early as 2012.				

# Main Menu: DB Categories (II)

Financial Derivatives	• Basic information and day trading data for Warrants, Callable Bull-Bear Contracts, Futures and Options.
Market Multifactor	• Based on calculation of the Multi-Factor Model of Fama & French, it provides 8 factors analysis, including Market Risk Premium, Size Premium, BE/ME Ratio Premium, and etc.
TEJ Audit Quality	• Required variants that affect and evaluate the audit quality and accountancy firms' information are included.
TEJ Company Governance	• Formed by public corporations, controlling shareholding, deviation, structure of directors and supervisors, directors and supervisors' salaries and independent director and supervisor, and etc.

### TEJ± Main Menu: DB Categories (II)

TEJ FUND	• Fund DB, including fund attributes, net worth, shareholding by week/month, ratings, turnover ratio, news and etc.			
TEJ BOND	<ul> <li>Domestic Bond, Corporation Bond, Convertible Bond and ECB information materials.</li> </ul>			
TEJ PUB	• Database for public companies, including financial reports and ratio, stock price, shareholding by board of directors, monthly revenue, capital formation and etc.			
TEJ Bank	• Financial institute DB of business sub-items, including bank deposits analysis, bank loans analysis and etc			
8				

# Home screen & Introductions to common features



### Review Mode (I): Single Company (individual stock)



• For example, searching for HTC's revenue-related financial information from 2009 to 2011.

_				1						
-	Table Tools		💾 🔛 🔤 🕰	ß	S	₩ 🗠	*	🔍   Avg Su	In Unit   A⁺	Ā
	I. individu	al stock ove	erview		2	Cross-	perio	od compar	isons	
_(	X Axis: fiel	ld; Y Axis: ti	me)		()	( Axis: ti	me;	Y Axis: fie	ld)	
2498	B HTC	Query Date 200901-201112	🝷 🗾   <u>Date Sorting</u>   <u>Data Ra</u>	u	2498 HT	5	- Query	Date 201101-201303	- 🧕   Date Sorting	Data Ran;
IF	RS TEJ Consolidated First	: Financial General(Acc)-4 (0	Company View)←Description		IFRS 1	EJ Consolidated Fi	<u>rst Financ</u>	ial General(Acc)-4 (Acr	ross Period View)←Desc	<u>ription</u>
	YYYY/MM △	Total cash and cash equivalents ♦	financial assets at fair value through			Field Name	<b>\</b>	2011/03	2011/06	20
1	2009/03	72,610,219	0		1	Total cash and ca	ish equi	94,828,263	115,707,444	
2	2009/06	68,903,724	0		2	Total current fin	ancial a	0	0	
3	2009/09	55,878,298	0		3	Financial Assets	Availał	442,557	733,446	
4	2009/12	64,638,290	18,132		4	Held-To-Maturity	y Finan	0	0	
5	2010/03	69,727,128	68,325		5	Current derivativ	e financ	0	0	
6	2010/06	78,494,772	96,994		6	Current financial	assets a	0	0	
7	2010/09	68,477,628	0		7	Current bond inv	restmen	0	0	
8	2010/12	74,462,861	450,276		8	Accounts & Note	es Recei	61,757,184	69,994,288	
9	2011/03	94,828,263	0		9	Construction con	tracts re	0	0	
10	2011/06	115,707,444	0		10	Other Receivable	e	1,490,121	1,167,208	
11	2011/09	104,820,790	220,609		11	Loan to Others -	Short-T	0	0	
12	2011/12	87,501,508	256,868		12	Total inventories		29,718,517	30,943,105	

### Review Mode (II): Multiple Companies (multiple stocks)



For example, searching for revenue-related financial information of Catcher Technology, HTC, Largan Precision Co. and F-TPK in Q4, 2014.

Т	able To	ols 🕞	🛛   💾 🔛		S	ž	4 🗠	<b>沙</b> 々	Avg Si	Unit   Um	A⁺	Ā
	1. Ra	anking				2.	Cross	-compa	any cor	npariso	ns	
	(X Axi	s: field; Y	Axis: comp	any)		(X	Axis:	compa	ny; Y A	xis: fiel	d)	
Que	ry Date <mark>201412</mark>	🔹 🖉   Date	Sorting ID Group + Field Group	🔹 Filter Group 🔹		Query Date			<ul> <li>Field Group + Filter Group +</li> <li>Scompany View)←Descr</li> </ul>			
			14 X (	с.).			Field Name 🛛 👌	2474 Catcher	2498 HTC	3008 Largan	367	3 TPK
<u>IF</u>	<u>RS_TEJ Consolida</u>	ted First Financial Gener	ral(Acc)-4 (Ranking)←Descr	<u>iption</u>		2 Tota	al cash and cash equi	2014/12 48,119,090		2014/12 24,100,464	2014/12	29,539,623
		VVVVADA A	Total cash and cash	financial assets at		4 Fina	al current financial a ancial Assets Availat d-To-Maturity Finan	0	262,544	3,445,479		0
	CO_D ≬	YYYYMM △	equivalents	fair value through	-	6 Cun 7 Cun	rent derivative financ rent financial assets a	0	0	0		0
1	3008 Largan	2014/12	24,100,464	0	-	9 Acc	rent bond investmen counts & Notes Recei istruction contracts re	18,103 21,027,297 0	7,918 29,140,284 0			16,736,884 13,809,555 0
2	3673 TPK	2014/12	29,539,623	0	-	11 Oth 12 Loa	er Receivable 11 to Others - Short-T	402,715	0	C		5,677,871 1,107,750
3	2474 Catcher	2014/12	<mark>4</mark> 8,119,090	0		14 Cur	al inventories rent biological assets, al prepayments	5,600,468 0 511,756	0	0		7,179,669 0 18,558
4	2498 HTC	2014/12	55,743,558	262,544		17 Nor	ency current-debit (fo 1-current assets classi al current tax assets	0 634,185 21		0 0 0		0 0 376,172

## Review Mode (III):Variant for Single Field

• For example, searching for Net Sales for Catcher Technology, HTC, Largan Precision Co. and F-TPK in 2011.

Ţ	abl	e Tools 🕞	🗎 🔟   💾 💾 Date	🖾 🗟 🛃 🏹	🙋 🕅 🔍   Akig Si	unit At A
	S	single item c	omparison (X Ax	is: date; Y Axis:	company)	
Т	otal	cash and cash eq	▼ Query Date 201101-20	)1112 - 🗾 🛛 🔤	<u>te Sorting</u> ID Group → Field (	Group 👻 Filter Group 👻
	<u>IFR:</u>	<u>5 TEJ Consolidate</u>	ed First Financial Genera	ıl(Acc)-4 (Data View)←	-Description	
		CO_ID ♦	2011/03 🔷	2011/06 🔷	2011/09 🔷	2011/12 👌
	1	2474 Catcher	20,990,274	31,899,239	37,614,077	40,197,831
	2	2498 HTC	94,828,263	115,707,444	104,820,790	87,501,508
	3	3008 Largan	6,253,552	6,276,252	5,792,708	8,123,620
	4	3673 TPK	5,250,654	20,486,218	14,501,132	10,382,671

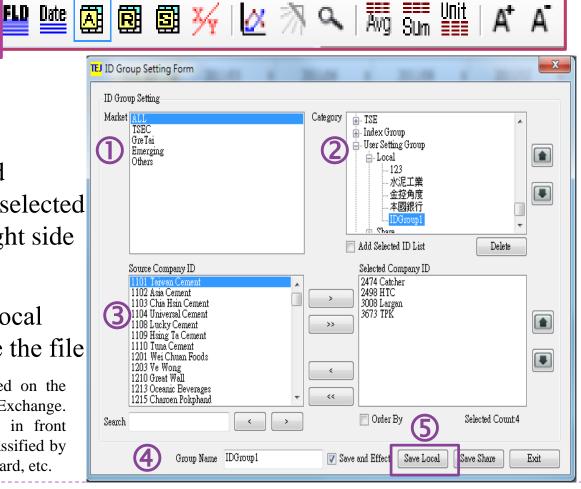
# Criteria Setting (I): Company Sample

#### ▶ For example, set up Electronic Components Industry

Step 1 : Select market

Table Tools

- Step 2 : Select industry
- Step 3 : Move the desired company to the selected ID list on the right side
- Step 4 : Name the group
- Step 5 : Click "Save in Local Storage" to save the file
- Note: Industry Categories are based on the classification of the Taiwan Stock Exchange. Some industries with an underline in front would be the sub-category further classified by TEJ, such as \_PC System, \_Motherboard, etc.





# **Criteria Setting (II): Field Variants**

▶ For example, set up "revenue, cost, expense, net income "subjects

Table Tools 📔 🔛 🖳 🏪 🏙 🖾 🛱 🛱 🌌 📈 🖉 🕅 🖏 🖓 🔍 🖓 🖏 🔤

- Step 1 : Use "Category" and "Search" to look for the desired field and move the "Selected Field" to the right side.
- Step 2 : Enter a catchy name in group field name for future reference.
- Step 3 : Click "Save".

Field Group Setting       Field Group Setting       Category ALL       User Defined Group       Search
Field List       Selected Field         Quarter       Intervency         Consolidation       Intervency         Month       Intervency         Gross Operating Revenue       Intervency         Operating Revenue       Intervency         Operating Revenue       Intervent revenue         Operating Revenue       Intervent revenue         Operating Revenue       Intervenue         Operating Revenue       Intervenue         Cost of Goods Sold (A)       Intervent revenue         Operating Cost - Rent       Intervent operating Cost - Rent         Operating Cost - Rent       Intervent         Operating Cost - Rent       Intervent <t< td=""></t<>

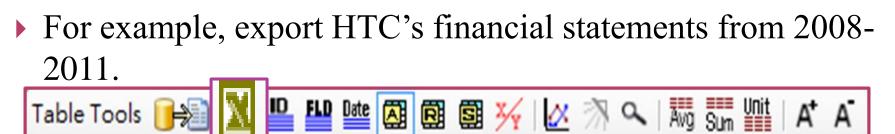
## Criteria Setting (II): Date



- For example, set up the date by the year-end date of 2005-2011. Table Tools  $\mathbb{R}$   $\mathbb$
- Step 1 : Enter date interval (8 characters in Arabic numbers)
- Step 2 : Select frequency
- Step 3 : Move required date to the selected list on the right side.
- Step 4 : Click "OK".

TE.	Query Da	te Advance Setting	g Form		-	x
	Date Setting	\$				
$\mathbf{D}$	Date From	2005/01/01	to 2011/12/3	1 📃 Desce	end 📃 Vea	r End
I					Quei	v l
Y	Frequency	🔘 Day 🔘 Week	🔘 Month 🏾 🔘	) Quarter 💿 Ha	alf Year 🧿	Year
3	2005 2006 2007 2008 2009 2010 2011		>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	200512 200612 200712 200812 200912 201012 201112		
				B Selected Co Confirm		ancel

## **Export Saved Data(1): Export to Excel**



Step : select required information and click "Export" to export selected info to Excel.

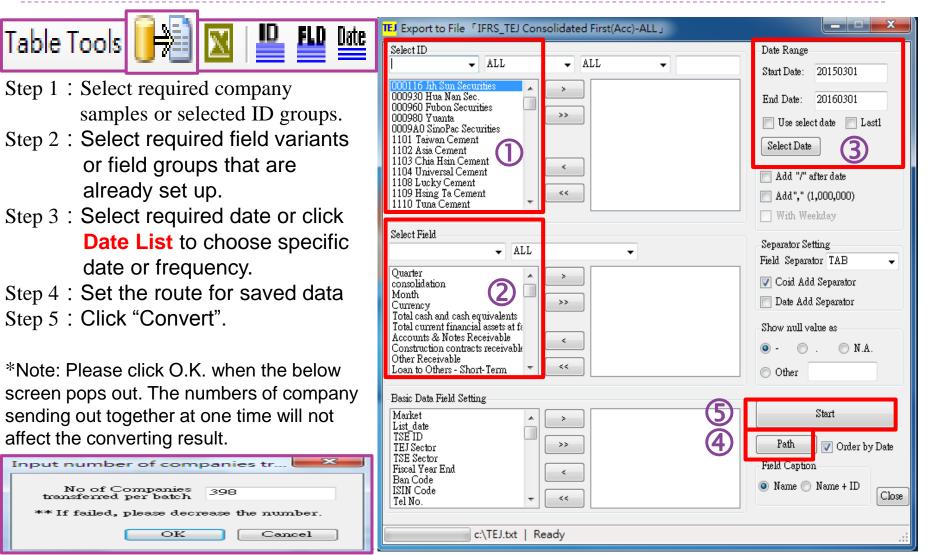
Table Tools

\*Note: Exported info is a temporary file, make sure to click Save As to save the file.

					_		
檔	奏 常用 插入 版面配置 公式 資料 校開 檢視 開發人員 增益集	novaPDF					
「 」 貼」		貨幣 ▼ \$ ▼ % 1		正式化格式 的條件▼ 表材 後式	化為 儲存格	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	▲ 格式
D9	▼ : × ✓ ▲ 7836468						
	A	В	С	D	E	F	(
1	2489 200801-201112						
2							
3	Field Name	Dec-11	Sep-11	Jun-11		Dec-10	
4	Quarter	4	3	2	1	4	
5	consolidation	Y	N	Y	N	Y	N
6	Month	12	9	· · · ·	-		
7	Currency		NTD	NTD	NTD	NTD	NTD
8	Total cash and cash equivalents	7,935,173	2,911,291	4,604,376			
9	Total current financial assets at fair value through profit or loss	8,501,490					10,12
10	Accounts & Notes Receivable	963,491	2,541,131	931,103	2,090,790	1,077,257	1,85
11	Construction contracts receivable	-	-	-	-	-	-
12	Other Receivable	0	80,473	0	57,516	0	6
13	Loan to Others - Short-Term	-	-	-	-	-	-
14	Total inventories	-	-	-	-	-	-
15	Non-current assets classified as held for sale, net	0	0	0	0	0	
16	Total current tax assets	0	0	0	0	0	
17	Total current assets	38.918.334	28.421.599	39.245.877	30.250.264	39.834.513	33.06

### Export Saved data (II): Download Filter (download a large number of data)





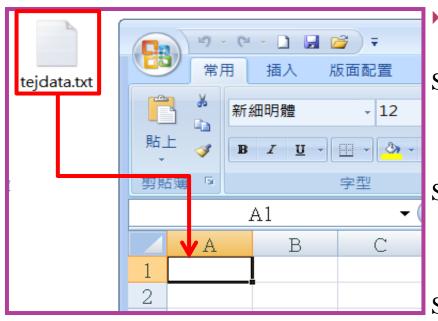
### Export Saved data (II): Download Filter (download a large number of data)

• When "Export data to file Successfully" is shown, the file conversion is done.

Export	
Exporting Status:	
Export data to file successfully(6.9826982 sec)!!	
Exporting Error:	
	ОК

• If content needs to be read in Excel, please drag the text file into the blank sheet.

### Export Saved data (II): Download Filter (download a large number of data)



Read the exported text file through special conversion in excel:

- Step 1 : Click the text file with left mouse button (as shown on the left picture, press on the tejdata.txt)
- Step 2 : Press and hold the left mouse button to drag the text file to the blank sheet and then release the left mouse button.

#### Step 3 : Data would be shown as below.

檔	案 常用	插入 版面配置	公式	資料	校園 檢	視開到	使人員	增益集	nova	PDF			
Visua	副 Basic 巨集	▲ 巨集安全性	- <b>CF</b>	- <mark>◆</mark> 1 増益集	▲ 插入 設計	模式	性 視程式碼 行對話方划		⊟ 源 ₽ 援	「應內容 「死套件 新整理資料	国 随入 回。 随出	文件面板	
	相	呈式碼	增益集	E.		控制項				×ML		修改	
в3	B3 🔹 : 🗙 🗸 🏂 Hua Nan Sec.												
	A	В			С	D	E		F	G		н	
1	CO_ID	O_ID CoName				Quarter	consolid	ation	Month	Currency	Total ca	sh and casl	h equivalents
2	116	Jih Sun Securities			201503	1	Y		3	NTD			4969155
3	930	Hua Nan Sec.		<u> </u>	201503	1	Y		3	NTD			1791248
4	960	Fubon Securities			201503	1	Y		3	NTD			5549931
5	980	Yuanta			201503	1	Y		3	NTD			42635363
6	0009A0	SinoPac Securities			201503	1	Y		3	NTD			3702839
7	1101	Taiwan Cement			201503	1	Y		3	NTD			31406216
8	1102	1102 Asia Cement			201503	1	Y		3	NTD			10953430
9	1103 Chia Hsin Cement			201503	1	Y		3	NTD			3152757	
10	1104	Universal Cement			201503	1	Y		3	NTD			295188
11	1108	Lucky Cement			201503	1	Y		3	NTD			241190
12	1109	Hsing Ta Cement			201503	1	Y		3	NTD			742988

# **Auxiliary functions (I): Drawing**



 For example, showing revenues, net income, sales growth rate and net income growth rate of Catcher Technology, HTC, Largan Precision Co. and F-TPK in Q4, 2011 with pictures.

Table Tools 间 🏂 🔀

#### Step 1:

Click the data, press and hold the fields to drag them to the picture window, and then the pictures would be drawn.

Step 2 :

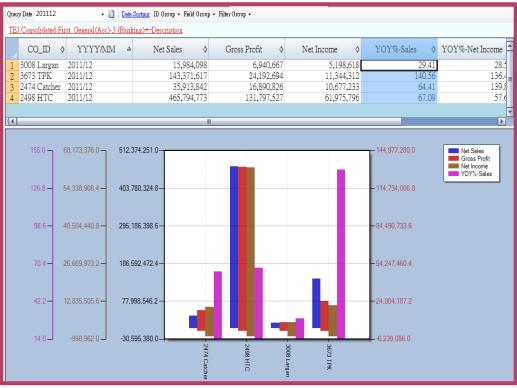
Press the right mouse button, select copy picture or save picture.

\*Note: Press right mouse button at the picture window for:

1. Selecting picture pattern

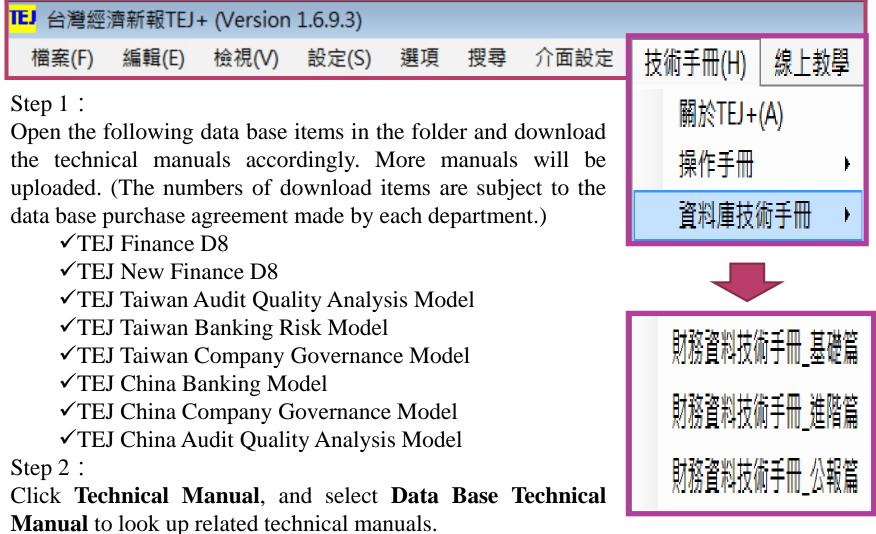
(line chart/bar chart/point chart)

2. Switching multiple Y Axes /single Y Axis



Sum

### Auxiliary Functions (II): Financial Statements & Value-added Data Base Information



## Auxiliary functions (III): Read Related Articles

Step 1 :

Double click on the left mouse button on the main menu-Money Watching & Credit Rating Bimonthly Journal

Step 2:

Go to search homepage and enter key words, related PDF files would be available for download.



This bimonthly journal, issued by Taiwan Economic Journal, is written for a particular topic by TEJ researchers and can be used as research reference.



# Quick Start to Event Study

- Introduction to Event Study
- What is event day, event period and estimation period?
- 4 simple steps to TEJ Event Study System
- I. Set up data type
- II. Event Day selection
- II. Event Day selection-A. import custom samples
- II. Event Day selection-B1. financial news index
- II. Event Day selection-B2. specific events
- II. Event Day selection-B3. stock market chronicles
- III. Setting up Estimation model
- IV. Calculation check and storage

**Š** 

ġ

# Introduction to Event Study

#### What is Event Study?

• Event Study is the research result derived from Verification Methodology which could be traced back to Ball and Brown, Fama, Fisher, Jensen and Roll in 1960s, as it is still widely applied by the recent empirical researches in accounting and financial field.

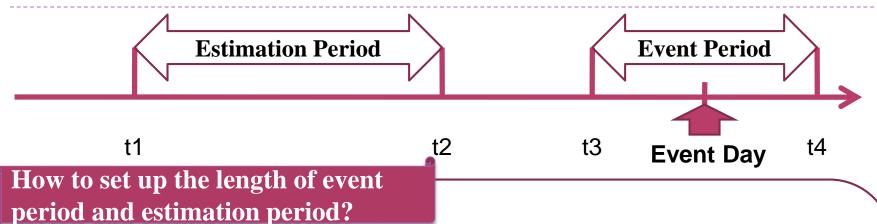
#### What is the purpose for Event Study?

• Event Study aims to examine abnormal returns through statistics, as well as to confirm if a certain event affects the company's stock price in which proves if there is a correlation between stock price fluctuation and this event.

#### The procedure for Event Study

- 1. Decide event and event day
- 2. Estimate abnormal returns
- 3. Verify abnormal returns
- 4. Analyze result and provide explanation

# What is Event Day, Event Period & Estimation Period?



Event period should include event intervals affected by the event, such as repurchase of treasury stock and announcement date of M&A. Event period is usually broader than occurred day (event day), as it includes a period of time before and after the event in which the variations of the dependent variable (i.e. stock price and profit) would be produced after the event. Meanwhile, the stock price before the event will be a good reference for examining the effect of presage and information disclosure over the event.

**Estimation period** or **estimation window** is to apply the statistics derived from this period to calculate the dependent variable if the event does not occur, i.e. the expected rate of return. As expected rate of return compares with the dependent variable changed during the event (i.e. realized rate of returns), the abnormal return of this event will be calculated.

In general estimation interval will be longer than event interval, as there is no evaluation standard for most of the event studies, interval set-up needs to be based on individual research as well as relevant literature and discussed with the advisor.

## 4 Steps to TEJ Event Study System

 Set up data source
 Select Security Market
 Data frequency selection

-Return rate type selection



2. Event Day selection
-Customize upload
-News index
-Specific event day index

4. Calculation check and storage
-Result list: estimation statistics, estimation summary, residual data, abnormal return data, deleted record review, original return (or turnover rate) data.
-Results can be stored in the designated

-Results can be stored in the designated folder

-Garch Risk-Adjusted Returns Model
-Scholes-Williams OLS Risk-Adjusted Returns Model
-Estimation period & event period setting
-the shortest period setting for estimation period
-Set up missing return for event period

**3.** Setting for Estimation Model

-Market Adjusted Returns model

-OLS Risk-Adjusted Returns Model

-Mean-Adjusted Model

### **Start to calculate**

# I. Set up Data Type

Step 1 Market: colored flags represent applicable market information. Step 2 Data frequency:

breaking down into three kinds of frequency: day, week and month. (Special Note: frequency type will affect the event and the unit of estimation period.) Step 3 Return Type Selection: continuously compounded return, simple return, and turnover rate.

PS. For further instructions or explanation of event study, please click the <u>Technical Document</u> and <u>Guidebook</u> in the upper right corner.



# **II. Event Day Selection**

- Setting up event day can be carried out in two ways:
  - A: Import Samples: establish custom TXT or CSV sample list and import to the system.
  - B: Event Day Index: the system provides three indices(financial news index, specific event, stock market chronicles) to select event day.

🖆 TEJ Ever	nt Study (Version	1.3.0.5)				
Event Stud						
Data type	Select the event date	Expected model				
		Stock S	ample	ſ	Geve	Samples Import
	Security Code: Event Date:	20160302	Add	Select All Unselect All	Delete	Search
	Security Code	Security Name	Event I	Date Delete		
	<ul> <li>Allow Duplicat</li> <li>Notify If Duplicat</li> </ul>		Numl	ber Of Stocks:0 Recc	ords	
						Next

### II. Event Day selection: A. Import Custom Samples

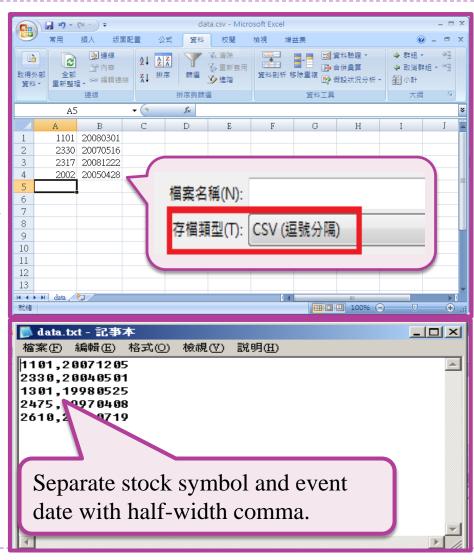
CVS Format produced by Excel

Enter stock symbol (4 numbers) in field A Enter event date (8 numbers) in field B Please do not change settings once information is entered Choose CVS (separated with comma) in Save File Type

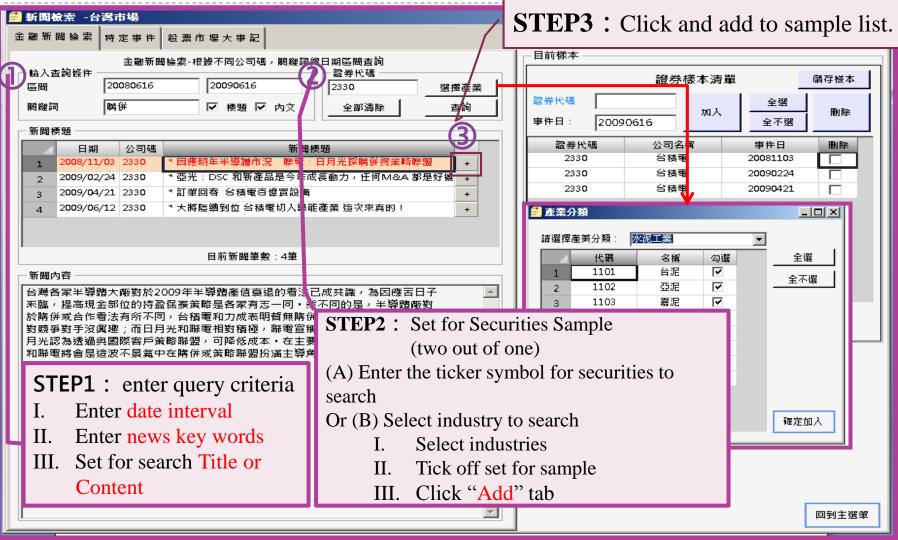
TXT Format produced by Notepad

Enter stock symbol (4 numbers) first, break with a half-width comma, and then enter event date (8 numbers).

Choose TXT in Save File Type



### II. Event Day Selection: B1. Financial News Ind<u>ex</u>

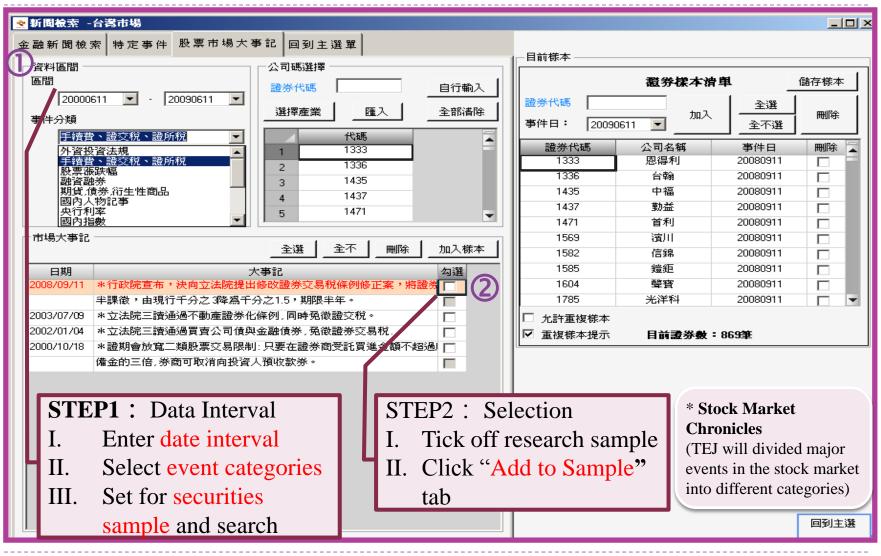


### II. Event Day Setting: B2. Specific Events

31

🖆 News Search -Taiwan Market	a contract of the second second			
Particular Event		Back To		
Same Type of Event - Select Pa	articular Event and Apply To The Dedicated Second	Current Sample		
Period		Stock Sample Save		
20140101 - 20160302	elect Unselec Delete Add	Security Code: Select All Delete		
	Code cement Date Select 1786 科研 20141112 20141113	Event Date: 20160302 Unselect All		
TSE Treasury Stocks 👻 4	46 1786 科妍 20150626 20150629 <b></b>	Security Code Security Name Event Date Delete		
Security Code Filter	17         1806         冠軍         20150904         20150907         □           18         1904         正隆         20150910         20150911         □         _	1103         Chia Hsin Cement         20150828           1313         UPC Technology         20141111		
Security Code Input	18     1904     正陸     2015091C     20150911       19     1905     華紙     20140428     20140429	1313 UPC Technology 20150205		
Select Import Clear All 5	30 2008 高興(20151103 20151105 一	131.3         UPC Technology         20150610           131.         UPC Technology         20151210		
Security Code	1 2008 高與20160218 20160219 2 2017 官田20140106 20140107			
1 000116	33 2017 官田 20140307 20140 08 □	💀 Event Date Option		
STEP1: Event interval	2020 美亞 20140328 20140329	Use Announcement Date(Please Select the option for missing value)		
	2020         美亞         20140707         20140708           2020         美亞         20150623         2150624	Delete Missing Value -		
I. Enter query interval	, 2020 美亞 20150812 20150813 🦳	Delete Missing Value 👻		
II. Set for specific event	2020         美亞         20150924         20150924           2020         美亞         20151113         20151116	🔿 Use Actual Date		
categories	· 2020 美亞 20151113 10151110 · · · · · · · · · · · · · · · · · ·	OK		
III. Set for securities sample	. 2024 志聯 20140822 20140825 🦳			
<b>_</b>	2024 支融 20150827 20150828 同 🛛			
IV. Click "Search" tab	STEP2 :	STED2 : Set the event day		
13 1113 14 1201	I. Tick off research sample	STEP3 : Set the event day		
15 1203	II. Click "Add to Sample"	as date of declaration or		
16 1204 C		transaction date and click		
Search	s tab	"O.K." tab.		

### II. Event Day Selection: B3. Stock Market Chronicles



## **III. Set up Estimation Mode**

- Step 1: Select estimation model
- Step 2: Based on the estimation model, enter category, index code, estimation period, event period accordingly.
- Step 3: Decide minimum sample size during the estimation period.
- Step 4: Set up samples when the missing return arises during event period.
- Step 5: Click "Calculate" tab

#### P.S

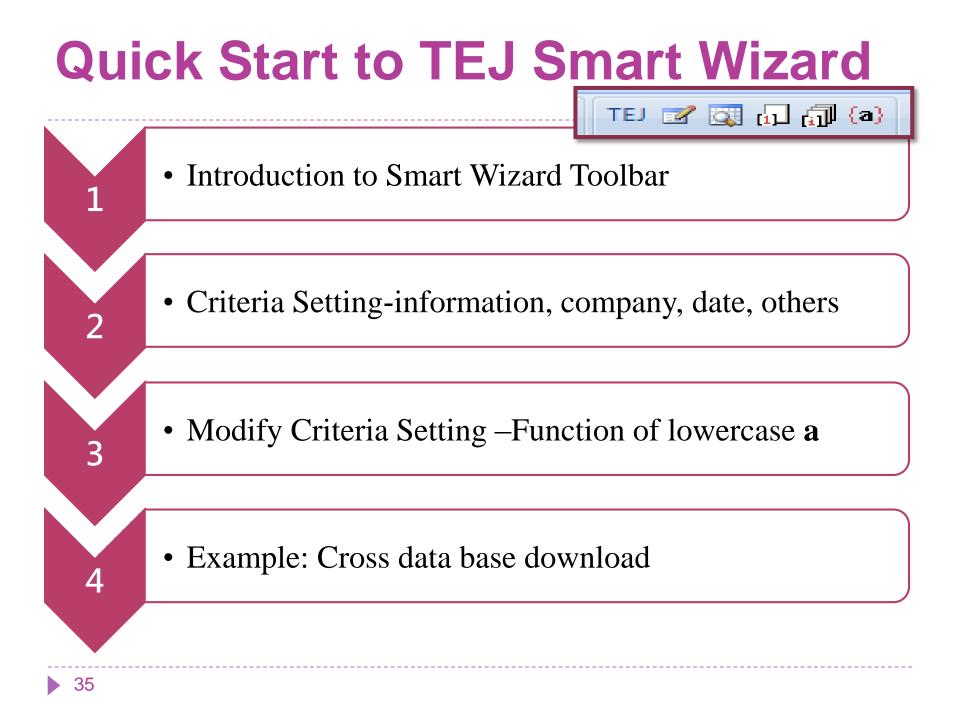
- 1. It is not mandatory to select two index codes.
- 2. Estimation period and event period is based on individual research design. The picture is for reference only and are not considered the only one standard.

TEJ Event Study (Version 1.3.0.5)								
Event Study Name: Event Study Project								
Data type Select the event date Expected model			2					
Method The average adjustment model	OLS Adjusting M							
💿 Market index adjustment model	Index Classificatio	n TSEC	▼ TSEC	-				
<ul> <li>OLS risk adjustment model</li> <li>GARCH risk adjustment model</li> </ul>	Index Code TS	E Taiex	✓ Please Select	•				
Scholes-Williams OLS risk adjustment model	Estimation period:	-1000	Period ~ 1000	Period				
	Event period:	-600	Period ~ 600	Period				
3								
The minimum sampes of the estimated perior 100								
Deal with the missing data of the event date	)		Tips to s:	ave samples				
<ul> <li>Delete Samples</li> <li>Replace missing value by zero</li> </ul>			5	Calculate				

## **IV. Calculation check and storage**

- Calculation is shown as the picture on the right, including estimation data, estimation summary, residual data, abnormal return and delete record review.
- Click Save will allow exported sheets to be saved in designated locations.
- Please click right mouse button on the picture to "Save As Picture" if needed.

Show the calculated results - Event Study Project										
	Estimates Information Estimates Summary Tab			ole Residuals I	Residuals Information Abnormal returns			Save Back to	o Menu	
General Standardized										
ITEM		ID	ID NAME Event Date -60		-60	-59 -58		-57		
1	Security1			1103	Chia Hsin Cem	201508	-0.2236	-0.3347	-1.3421	-1.6195
2	Security2			1313	UPC Technolo	201411:	11 -1.0673	-0.8852	-2.1156	1.1041
3	Security3			1313	UPC Technolo	201502	0.9002	0.1498	-0.4145	0.2926
4	Security4			1313	UPC Technolo	201506	-0.2529	-0.3352	-1.4586	-1.2011
5	Security5			1325	Universal Inc.	201408	12 0.2575	0.5384	-0.8944	-0.9545
6	Security6			1337	Asia Plastic	201404	-0.3616	-0.0269	0.0583	-0.5465
7	Security7			1338	Hiroca	201410	27 1.3712	0.177	0.58	1.2069
8	Security8			1339	Y.C.C. Parts	2015092	-0.1152	-1.9861	2.4115	0.1324
9	Security9			1409	Shinkong Synt	201402	12 -0.404	-0.1072	0.2988	-0.1302
10	Security10			1409	Shinkong Synt	201406	-0.6439	-0.8406	0.4022	0.2092
11	Security11			1409	Shinkong Synt	201506	-0.3935	0.3292	0.2873	-0.7419
Average Abnormal Average Cumulative Dual abnormal Average Abnormal Returns Average Cumulative Abnormal Returns							e Abnormal			
	0 -2 -4 -6 -8 -10									
-10 -49 -37 -25 -13 -1 +11 +23 +35 +47 +59 期數										



TEJ S Excel 2007 Toolbar style	Smart Wizard Toolbar 常用 插入 版面配置 公式 資料 校開 檢視 增益集 TEJ Database - TEJ ② 및 印 词 ③ (3)
Function Button	Function Description
TEJ	TEJ: Link to TEJ Official website-Download TEJ Smart Wizard example
	Parameter: System parameter setting: change languages/ select database country(Language selection: Traditional Chinese, Simplified Chinese, English; Country Selection: based on the DB purchase)
	DB Query: Setting up required data criteria
(1)	Update Worksheet: Update single worksheet only
a	Update Workbook: Update the current Excel file
<u>{a}</u>	<b>a:</b> Edit function When the cursor stops at the red mark on the upper left corner in the exported table by TEJ Smart Wizard, tap on <b>lowercase a</b> button to call for the former setting and edit again.
	zard Toolbar will be installed in the Add-ins of Excel 2007 (TEJ Smart Wizard Toolbar shows directly in Excel 2003 I Smart Wizard Toolbar fails to be executed, please call TEJ Customer Service line @ 02-87681088#120, our

professional will provide assistance.





📝 TEJ Smart Wizard (Version 3.5.1.0) 活頁簿1	
Data Source Type TSEC+GreTai SmartID TEJ TOP DB Key=2 Data High Risk Stock Screening DB Search Market ID Search Step 1: Information source	Company Setting Set Industry Common Stock Common Stock(Include ETF) Common Stock(Excluding TD) Common Stock(Excluding TD) Non Fin & Ele (Excluding TD) Non Fin & Ele (Excluding TD)
Industry Type Stock Price ROI%_Daily AP 20 AV 20 Book Value Recurring EPS RM_Attention Select Select All Clear All Clear	Sector Common Stock Import Codes Search Code/Name 1101=>Taiwan Cement Select Companies Selected Companies IIII=>Taiwan Cement Step 2: Company setting
Date Setting Date Range 2015/03/02 to 2016/03/02 Descending Search Frequency O Daily Weekly Monthly Quarterly Year Date Last Period Last	1110> Tuna Cement         1201> Wei Chuan Foods         1203> We Wong         1210> Grast Wall         Select         Select
Step 3: Date setting	New Worksheet Load New Table Ma Step 4: Other setting Clear All Setting Next Export to Excel Preview

#### TEJ Smart Wizard -Criteria Setting 1: Information Source

					Information Type:
Main 1	Page T	ransformation St	yle Format   Preview   File	e Manager	Select sample range, the Smart ID list below will
	_				change with the company list on the right simultaneously.
	ta Source				For example:
Ty	ре	TSEC+GreTai+Er	nerging+Others		1.If Macroeconomics DB is required, info type needs
Ima	rtID	TEJ Equity		▼ Key=2	to be changed into Macroeconomics.
0110		TE: Equity		▼ Key=z	2. When checking a listed and GRETAI listed
Da	ta	TSE/OTC Adjuste	ed_Price(Daily)-ROI	- N	company during a certain period, please select <b>listed</b> +
Sea	we b				GRETAI listed + delisted company
Nea	ICH	Day	l III (	Search	Type & Data: Category is as the same as
			UOM 🔒	· •	the TEJ main menu.
£.1			C.1		
field			Selected Field		Type: Database category
Da	у	a Daise	🖌 Day		
Da Un	y adj Clos	æ Price	Day Unadj Close Price		Type: Database category
Da Un RC	у		🖌 Day		<b>Type:</b> Database category <b>Data :</b> Database
Da Un RC RC RC	y adj Clos )I_D% )I_Week )I_Mont	dy % hly %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly %		Type: Database category Data : Database Select Field:
Da Un RC RC RC RC	y adj Clos )I_D% )I_Week )I_Mont )I_Quart	dy % hly % erly %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly % ROI_Quarterly %		Type: Database category Data : Database Select Field: Left-clicking the mouse twice can select or
Da Un RC RC RC RC RC	y ladj Clos )I_D% )I_Week )I_Mont )I_Quart )I_Quart	dy % hly % erly % y %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly % ROI_Quarterly % ROI_Yearly %		Type: Database category Data : Database Select Field: Left-clicking the mouse twice can select or remove the required info while press Ctrl or Shift can select fields consecutively.
Da Un RC RC RC RC RC	y JI_D% JI_Week JI_Week JI_Mont JI_Quart JI_Yearl JI_W Be	dy % hly % erly % y % egin %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly % ROI_Quarterly % ROI_Yearly % ROI_Yearly % ROI_W Begin %		Type: Database category Data : Database Select Field: Left-clicking the mouse twice can select or remove the required info while press Ctrl or
Da Un RC RC RC RC RC	y ladj Clos )I_D% )I_Week )I_Mont )I_Quart )I_Quart	dy % hly % erly % y % egin %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly % ROI_Quarterly % ROI_Yearly %		Type: Database category Data : Database Select Field: Left-clicking the mouse twice can select or remove the required info while press Ctrl or Shift can select fields consecutively.
Da Un RC RC RC RC RC	y JI_D% JI_Week JI_Week JI_Mont JI_Quart JI_Yearl JI_W Be	dy % hly % erly % gin % gin %	Day Unadj Close Price ROI_D% ROI_Weekly % ROI_Monthly % ROI_Quarterly % ROI_Yearly % ROI_Yearly % ROI_W Begin %	ear	Type: Database category Data : DatabaseSelect Field: Left-clicking the mouse twice can select or remove the required info while press Ctrl or Shift can select fields consecutively.Mobile Arrow Keys:

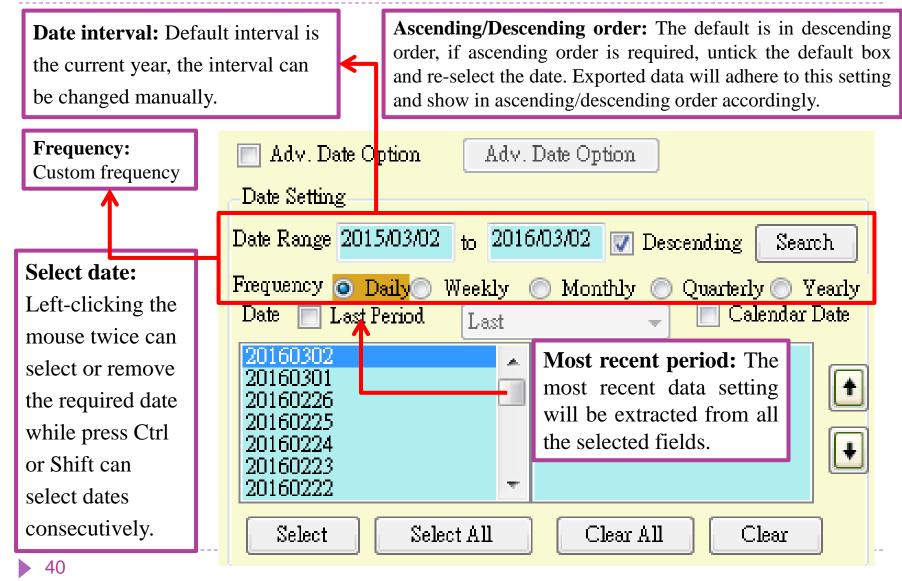
# **TEJ Smart Wizard - Criteria Setting 2: Company**

Company Setting
📝 Set Industry
Common Stock Common Stock(Include ETF) Common Stock(Excluding TD) Common Stock(Excluding TD) Non Fin & Ele (Excluding TDF Foreign enterprises IPO
Sector Common Stock - Import Codes
Sector Common Stock   Import Codes Search Code/Name 000116=>Jih Sun Securities Select
Search Code/Name 000116=>Jih Sun Securities Select Companies Selected Companies
Search Code/Name 000116=>Jih Sun Securities Select

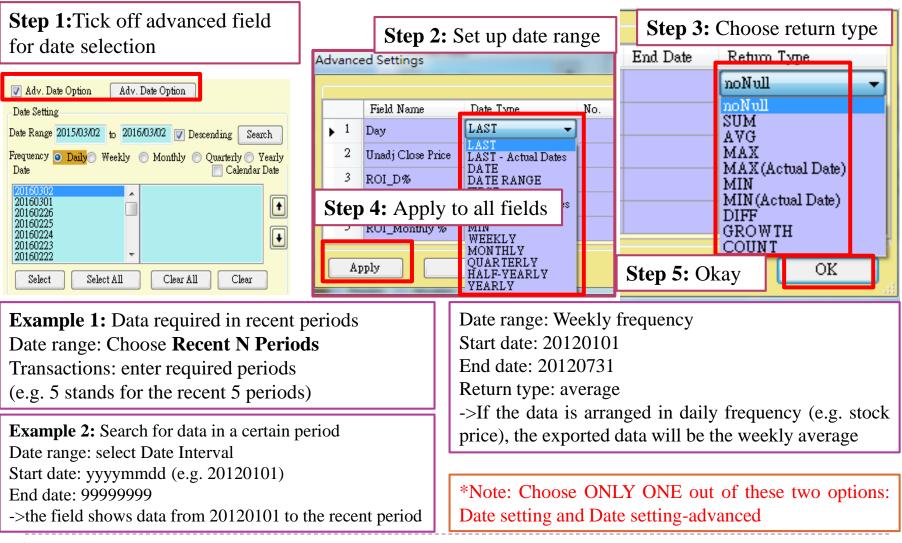
Designate industry: If the sample criterion is fixed as common stock or certain industry, tick off Designate Industry. For example, when the user designatessteel industry, the file will update company list automatically whenever a new company joins or the old one drops out.

Designate Individual Stock: •Method 1: Select a certain industry based on the required company •Method 2:Import selected company groups-> copy the company list with company code-> right click the mouse-> import the info from Clipboard

## **TEJ Smart Wizard - Criteria Setting 3: Date**



### TEJ Smart Wizard - Criteria Setting 3: Date (Advanced)



#### **TEJ Smart Wizard - Criteria Setting 4: others**

Single Code/Date 💿 No Designation 💿 Code 💿 Date								
📄 New Worksheet 🛛 Load 📄 📄 New Table								
Macro Name		Sepa	rated with III					
Excel Range	Co. ID	Date						
Y			¥					
Produce new sheet: When exporting data, open a new sheet in the current file to export data. *Recommended	Designate company code/ The system default starts fr position can be changed to, on the user's need. *Function introduction: Do not designate: search for and cross time periods Designate company code: s company Designate date: search for s	rom cell A1, the cell , such as B30/H5, based or data cross companies search for individual	Automatic Macros Execution: If the file comes with related macros setup, adding macros to the File Note will enable macros to be automatically executed as data updates.					

#### **TEJ Smart Wizard - Criteria Setting 5: Format**

After setting company, date, field (variants), click "Next" to select array and then click "Export to Excel".

Macro Name	Separated with III		
Excel Range Co. ID	Date		
Clear All Setting Next Export to Excel	Preview		
TEJ Smart Wizard (Version 3.5.)			
Main Page Transformation Style Fo	rmat Pre∨iew File Manager		
Pre-set     Field 1 Field 2 Field 3     D_B Date 1     D_A Date 2     D_B Date 2	Style 13_for 3 Key	🔵 Style 14_for 3 Key	
💿 Style 1 - Code as Key	💿 Style 2 - Date as Key	💿 Style 3 - Field as Key	
Field A Field B Field B Date 1 Date 2 Date 1 Date 2 D_1	D_A D_A D_B D_B Field 1 Field 2 Field 1 Field 2 Date 1	D_A D_A D_B D_B Date 1 Date 2 Date 1 Date 2 Field 1	
D_1 D_2	Date 2	Field 2	
	Date 3	Field 3	
Style 4 - Code as Key Date 1 Date 1 Date 2 Date 2	Style 5 - Date as Key           Field 1         Field 1         Field 2         Field 2	Style 6 - Field as Key           Date 1         Date 2         Date 2	
Field A Field B Field A Field B		D_A D_B D_A D_B	
D_1	Date 1	Field 1	
D_2 D_3	Date 2 Date 3	Field 2 Field 3	
Style 7	💿 Style 8	💿 Style 9	
Date 1 Date 2 Date 3	ID_1 ID_2 ID_3 Field A Date 1	Field 1 Field 2 Field 3	Back
ID_A Field 1 ID_A Field 2	Field A Date 1	ID_A Date 1 ID_A Date 2	
ID_B Field 1	Field B Date 1	ID_B Date 1	Next
D_B Field 2 Style 10	Field B Date 2	D_B Date 2 Style 12	Incat
Date 1 Date 2 Date 3		Field 1 Field 2 Field 3	
Field 1 ID_A	Date 1 Field A	Date1 ID_A	Export to Excel
Field 1 ID_B Field 2 ID_A	Date 1 Field B Date 2 Field A	Date 1 ID_B Date 2 ID_A	- Ander
Field 2 ID_B	Date 2 Field B	Date 2 ID_A Date 2 ID_B	Preview
LL I Smoot Mizo	22		

## TEJ Smart Wizard –Demonstration for Cross Data Base Download (Example)

- Research time: 2000-2012
- Frequency: Year
- **Research Sample:** Taiwan's paper-making companies that became listed and GRETAI listed during this research.
- **Required Variants:** Based on the financial ratios in the consolidated financial statements, including ROA, ROE, R&D expense, EPS, revenues, current ratio, year-end market value, shares outstanding, annual return, shareholding ratio of board member, manager shareholding ratio, shareholding ratio of institutional investors, right to share profit, control level and one-year Beta.

#### **Data type:**

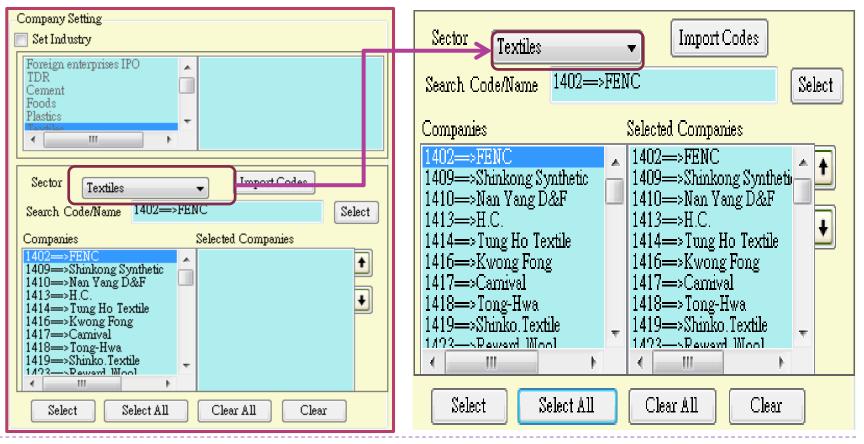
Given to the need for listed and GRETAI listed companies during a certain of period in the past and the sample integrity, please select **TSEC+GreTai+Emerging** +Others to cover all the relevant information as well as to include delisted companies after this period of time.

**DB type and info name:** 

i.e. DB category and info name in TEJ+ Main (please refer to the pictures)

Data Source	Data Source
Type TSEC+GreTai+Emerging+Others -	Type TSEC+Gre Tai+Emerging+Others
SmartID TEJ Finance DB VKey=2	SmartID TEJ Equity 🗸 Key=2
Data TEJ Consolidated First General(Acc)-3	Data ISE/OIC Adjusted_Price(Yearly)-EX_K+D
Search Current %	Search Market Cap. ID Search
Sector ALL UOM -	UOM -
field Selected Field	field Selected Field
Other Current Ass.       consolidation         Total Current Assets       ROA (C)-EBIDA %         Total Current Liab.       ROE (A)-NI         Current Income       OperatingExpR&D         Net Income Current       Earning Per Share         Tax ExpCurrent %       Net Sales	Volume Year       ROA(C)-EBIDA%         Amount_Year       ROE(A)-NI         ROI_Year       OperatingExpR&D         Tum Over_Year       Earning Per Share         Shares       Net Sales         Market Cap.       Current %         Last Bid       Shares         Last Offer       Shares         ROI-Ln_Year       Market Cap.
Select Select All Clear All Clear	Select Select All Clear All Clear
Data Source Type TSEC+GreTai+Emerging+Others SmartID TEJ Equity Key=2	Data Source Type TSEC+GreTai+Emerging+Others SmartID TEJ Corporate Governance I ey=:
Type TSEC+GreTai+Emerging+Others -	Type       TSEC+Gre Tai+Emerging+Others         SmartID       TEJ Corporate Governance         Data       Ultimate Control and Board Composition
Type TSEC+GreTai+Emerging+Others   SmartID TEJ Equity   Key=2	Type     TSEC+Gre Tai+Emerging+Others       SmartID     TEJ Corporate Governance
Type     TSEC+GreTai+Emerging+Others       SmartID     TEJ Equity       Data     TSE/OTC Adjusted_Price(Daily)-Beta	Type       TSEC+Gre Tai+Emerging+Others         SmartID       TEJ Corporate Governance         Data       Ultimate Control and Board Composition         Search       Group Name         Sector       ALL
Type TSEC+GreTai+Emerging+Others  SmartID TEJ Equity  Key=2 Data TSE/OTC Adjusted_Price(Daily)-Beta  CAPM_Beta 1Y  ID Search UOM - field Selected Field	Type       TSEC+Gre Tai+Emerging+Others         SmartID       TEJ Corporate Governance         Data       Ultimate Control and Board Composition         Search       Group Name         Sector       ALL         Selected Field
Type TSEC+GreTai+Emerging+Others  SmartID TEJ Equity  Key=2 Data TSEAOTC Adjusted_Price(Daily)-Beta Search CAPM_Beta 1Y  UOM -	Type       TSEC+Gre Tai+Emerging+Others         SmartID       TEJ Corporate Governance         Data       Ultimate Control and Board Composition         Search       Group Name         Sector       ALL

• **Company setting:** Given to designation of a certain industry, the company list of the paper-making industry will based on this download, no matter the stock market fluctuation in the future, therefore choose "Paper-Making Company" in the "Company Category" and then press "Select All"



#### • Date setting:

Step 1: Enter 20000101-20121231 in the date interval.

Step 2: Choose "Year" for the frequency.

Step 3: Untick the box on the left side of descending order and press search for the data arrangement starting from 2000.

Step 4: Select all the appeared dates to the right side.

Date Setting	(2)	
Date Range 2000/01/01	to 2012/12/31 🔲 Descend	ing Search
Frequency 💿 Daily 💿 W Date 📄 Last Period	eekly <mark>O Monthly</mark> O Qua Last –	rteriy 💿 Yearly Calendar Date
2000 2001 2002 2003 2004 2005 2006	2000 2001 2002 2003 2004 2005 2006	
Select Select	t All Clear All	Clear

- Step 1: At designate company code/date position: click "Do Not Designate" Description: This example needs as many companies and intervals as possible, and thus choose "Do Not Designate"
- Step 2: Tick off "Produce New Sheet"

Description: Please tick off "Produce New Sheet" to **avoid overwriting the original worksheet.** 

	Step 3: Click "Next"							
	Single Code/Date 💿 No Designation 💿 Code 💿 Date							
2	🔽 New Worksheet 🛛 Load 📄 New T	Table						
	Macro Name	Separated with III						
	Excel Range Co. ID	Date						
	Clear All Setting Next Export to Excel	Preview						

#### Format Setting:

According to the data types, the system provides nine ways of data arrangement. Please choose the arrangement based on personal requirement and then press "Export to Excel".

TEJ Smart Wizard (Version 3.5.1.0)	and the second second second	States - Manual - States - States - States	
Main Page Transformation Style Format	Preview File Manager		
Pre-set           Field 1         Field 2         Field 3           D_A         Date 1         Image: Constraint of the second se	Style 13_for 3 Key	💿 Style 14_for 3 Key	
💿 Style 1 - Code as Key	💿 Style 2 - Date as Key	💿 Style 3 - Field as Key	
Field A     Field B     Field B       Date 1     Date 2     Date 1     Date 2       ID_1     ID_2     ID_3     ID_3	D_A D_A D_B D_B Field 1 Field 2 Field 1 Field 2 Date 1 Date 2 Date 3	ID_A     ID_B     ID_B       Date 1     Date 2     Date 1       Field 1     Field 2       Field 3     Field 3	
💿 Style 4 - Code as Key	💿 Style 5 - Date as Key	💿 Style 6 - Field as Key	
Date 1     Date 1     Date 2     Date 2       Field A     Field B     Field A     Field B       ID_1     ID_2     ID_3       D_3     ID_3       Style 7	Field 1     Field 1     Field 2     Field 2       ID_A     ID_B     ID_A     ID_B       Date 1	Date 1         Date 2         Date 2           ID_A         ID_B         ID_A         ID_B           Field 1         Field 2         Field 3         Field 3           Style 9         Style 9         Style 9         Style 9	
Date 1 Date 2 Date 3	ID_1 ID_2 ID_3	Field 1 Field 2 Field 3	Back
D_A         Field 1           D_A         Field 2           D_B         Field 2	Field A         Date 1           Field A         Date 2           Field B         Date 1           Field B         Date 2	D_A         Date 1           D_A         Date 2           D_B         Date 2	Next
Style 10	Style 11	Style 12	
Date 1         Date 2         Date 3           Field 1         ID_A	ID_1     ID_2     ID_3       Date 1     Field A	Field 1     Field 2     Field 3       Date 1     ID_A     ID_B       Date 1     ID_B     ID_B       Date 2     ID_A     ID_B       Date 2     ID_B     ID_B	Export to Excel Preview

#### • Export Result is shown in the picture below:

хI	E 5° °° ∓				活頁簿1	- Excel					?	F - 6
榴	g 常用 插入 版面配置 公式 資	料 校閱	檢視 開發人	員 増益集 nov	/aPDF							YJB-顏嘉柏 ▼
	EJ Database - TEJ 野 厩 山 โ (a) C											
X	_TEJ1 - : × ✓ fx CO_ID											
	A	В	С	D	E	F	G	Н	Ι	J	К	L
	CO_ID	YYYYMM	consolidation	ROA(C)-EBIDA%	ROE(A)-NI	OperatingExpR&D	Earning Per Share	Net Sales	Current %	ROI_Year	Shares	Market Cap.
	1402 FENC	2000/12/30	Y	7.79	3.17	147,006	0.07	71,348,277	94.82	-64.7718	3,080,382	72,080
I	1402 FENC	2001/12/31		9.69		205,909		75,116,235			3,203,523	41,645
I	1402 FENC	2002/12/31		11.51		274,333		77,841,238			3,361,024	39,660
	1402 FENC	2003/12/31	Y	11.4		317,452		83,609,382		54.3906	3,590,677	59,964
l	1402 FENC	2004/12/31	Y	18.51			2.25	121,461,235	77.07	67.5169	3,799,660	96,893
	1402 FENC	2005/12/30	Y	16.34		801,834	2.04	136,008,005	93.13	-2.7941	4,103,633	90,485
	1402 FENC	2006/12/29	Y	11.98		756,663	1.92	140,227,309	106.06	42.3808	4,349,851	123,970
	1402 FENC	2007/12/31	Y	14.37			2.54	161,814,257	119.7	42.445	4,480,346	170,47
	1402 FENC	2008/12/31	Y	10.97	7.44	722,921	1.01	169,922,497	102.45	-40.459	4,569,953	95,969
	1402 FENC	2009/12/31	Y	13.23	10.66	683,311	1.74	165,423,874	105.58	98.7544	4,661,352	186,454
	1402 FENC	2010/12/31	Y	14.74	13.67	678,762	2.7	199,754,390	115.07	30.5059	4,754,579	234,876
	1402 FENC	2011/12/30	Y	12.74	11.1	732,281	2.26	235,561,246	118.9	-22.7917	4,897,217	172,13
	1402 FENC	2012/12/28	Y	9.89	8.81	701,324	1.73	236,204,948	124.97	2.0509	5,044,133	166,96
	1409 Shinkong Synthetic	2000/12/30	Y	4.76	5 -8.44		-0.77	14,165,090	73.8	-65.3405	1,330,640	4,05
	1409 Shinkong Synthetic	2001/12/31	Y	4.33	-3.18		-0.28	13,266,141	68.57	-19.6717	1,325,340	3,24
	1409 Shinkong Synthetic	2002/12/31	Y	6.09	5.03		0.44	15,788,530	95.39	124.4884	1,325,340	7,289
	1409 Shinkong Synthetic	2003/12/31	Y	4.49	2.17		0.24	18,779,926	121.5	45.4536	1,325,340	10,602
l	1409 Shinkong Synthetic	2004/12/31	Y	4.03	3.67		0.4	20,837,366	126.51	13.1245	1,325,340	11,994
l	1409 Shinkong Synthetic	2005/12/30	Y	4.53	0.54		0.06	23,617,128	109.68	-27.2926	1,325,340	8,720
I	1409 Shinkong Synthetic	2006/12/29	Y	2.34	0.65		0.12	27,363,605	132	30.243	1,325,340	11,35
I	1409 Shinkong Synthetic	2007/12/31	Y	4.11	. 3.44		0.46	32,162,909	220.4	20.7222	1,454,073	14,90
J	1409 Shinkong Synthetic	2008/12/31	Y	1.95	5 -0.2		-0.05	32,251,701	174.74	-54.0004	1,454,073	6,543
J	1409 Shinkong Synthetic	2009/12/31	Y	3.18	3 4.44		0.44	29,812,930	164.29	150.0001	1,454,073	16,358
I	1409 Shinkong Synthetic	2010/12/31	Y	4.85	5 8.96		1.21	38,231,363	165.37	45.471	1,630,185	26,245
1	1409 Shinkong Synthetic	2011/12/30	Y	3.71	. 5.45		0.71	42,420,386	202.73	-44.81	1,828,207	14,698
1	1409 Shinkong Synthetic	2012/12/28	Y	3.2	2. 4.83		0.55	41,105,778	183.56	25.2329	1,760,484	17,094