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# **TEJ PRO Quick Start Guides**

- Download, install, log in (Intranet & internet)
- Introduction to TEJ Database directory
- TEJ Main + Introduction to TEJ Program
- Review mode (individual stock, multiple stocks, single item comparison)
- Criteria setting (company groups, field groups, advanced date)
- Export saved information

• Auxiliary functions (drawing, technical manualm study related articles)

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

Step 1 : https://

Step 2 : Download TEJ program

Step 3 : Apply for registration

#### Step 4 : Log in

If you have any technical questions about our services, please feel free to call TEJ business department at (02)8768-1088#120 or email us at tej@tej.com.tw.

# Log in: Click Desk Shortcut

Intranet



#### Enter account and password and click log in.

EJ Pro (Version 1.0.0.127)	×
TEJ PRO	
Market	
Taiwan	~
Conver Satting	>>
User ID	
Password	
Stay signed in? Change/forget passw	/ord
Account application Login	
	_
简体中文 繁體中文 ENGLISH	

# Main Menu: DB Categories (I)

TEJ Profile	• Macroeconomics, raw material, exchange rate, interests, etc
TEJ Company	<ul> <li>Company monthly revenues/earnings, sales breakdown, board members, capital formation, long term and short term investment, borrowings, etc.</li> </ul>
TEJ IFRS Finance	<ul> <li>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.</li> </ul>
Banking Industry- Balance Sheet detail of Assets/Liability	<ul> <li>The regulatory capital, assets quality, regulatory capital detail, capital adequacy ratio, etc. of the financial industry.</li> </ul>
TEJ Financial Holding Zone	<ul> <li>Including the monthly revenue, sales breakdown, reinvestment and financial statements of the financial holding companies and its subsidiaries.</li> </ul>
TEJ Equity	<ul> <li>Securities market DB, including stock price, deal on credit (margin purchase and short sale), foreign institutional investors, security deposited in central depository, and etc.</li> </ul>

# Main Menu: DB Categories (II)

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

# Main Menu: DB Categories (Ⅲ)

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

### Introdution of Main Menu

Main Function <b>4</b> ×	I-Search	<ul> <li>Database query for company code and fields; often used in unspecified database or unclear data location</li> </ul>
i-Search Data Query	Data Query	<ul> <li>Enter the required database to search for data based on company and column</li> </ul>
Event Study	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.

### Home screen & Introductions to common features



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

Single

Rank

X/Y

2

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Zoom+

Zoom

Anti

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Field

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ID



More

K Chart

1. Individual stock overview (X Axis : field; Y Axis : time)

Exprot

Transfer

Data

IFRS_TEJ Consolidated First(Acc)-ALL											
2.TSEC v 1234 Hey-Song v ALL											
Database Information Data Range											
	YYYY/MM	Quarter	consolidation	Month	Currency	Total cash and cash equivalents	Total current financial assets at fair value				
1	2021/09	3	Y	09	NTD	976,339	50,081				
2	2021/06	2	Y	06	NTD	1,503,649	150,087				
3	2021/03	1	Y	03	NTD	1,357,078	150,061				
4	2020/12	4	Y	12	NTD	1,273,440	180,057				
5	2020/09	3	Y	09	NTD	1,214,667	120,052				
6	2020/06	2	Υ	06	NTD	1,369,005	100,064				
7	2020/03	1	Y	03	NTD	1,384,659	60,301				
8	2019/12	4	Υ	12	NTD	1,222,983	120,235				
9	2019/09	3	Y	09	NTD	1,248,596	20,227				
10	2019/06	2	Y	06	NTD	1,310,082	100,488				
11	2019/03	1	Y	03	NTD	1,248,052	0				
12	2018/12	4	Y	12	NTD	1,275,854	100,036				
13	2018/09	3	Y	09	NTD	1,217,232	145,847				
14	2018/06	2	Y	06	NTD	1,568,803	357,642				
15	2018/03	1	Υ	03	NTD	1,493,186	347,352				
16	2017/12	4	Y	12	NTD	1,283,278	0				
17	2017/09	3	Υ	09	NTD	1,335,378	0				
18	2017/06	2	Y	06	NTD	2,288,590	0				
19	2017/03	1	Y	03	NTD	2,351,965	0				
20	2016/12	4	Y	12	NTD	2,266,406	0				
21	2016/09	3	Y	09	NTD	2,239,555	0				
22	2016/06	2	Y	06	NTD	2,932,489	0				
23	2016/03	1	Y	03	NTD	2,853,609	0				
24	2015/12	4	Y	12	NTD	3,377,050	0				
25	2015/09	3	Y	09	NTD	3,610,098	0				

**XV** Cross-period comparisions (X Axis : field; Y Axis : time)

Financial

IFRS_	IFRS_TEJ Consolidated First(Acc)-ALL										
2.TSE	C v 1234 Hey-Song	~ A	LL								
Database Information Data Range											
	YYYY/MM	2021/09	2021/06	2021/03	2020/12						
1	Quarter	3	2	1	4						
2	consolidation	Υ	Υ	Υ	Y						
3	Month	09	06	03	12						
4	Currency	NTD	NTD	NTD	NTD						
5	Total cash and cash equivalents	976,339	1,503,649	1,357,078	1,273,440						
6	Total current financial assets at fair value through profit or loss	50,081	150,087	150,061	180,057						
7	Financial assets at fair value through other comprehensive in	0	0	0	(						
8	Financial assets measured at amortized cost - Current	163,700	35,000	0	(						
9	Current financial assets for hedging	0	0	0	(						
10	Current contract assets	0	0	0	(						
11	Accounts & notes receivable	996,545	846,809	751,339	662,967						
12	Other receivable	31,171	39,618	5,985	81,873						
13	Loan to others - Short-Term	0	0	0	(						
14	Total inventories	5,351,742	5,320,731	5,252,165	5,041,712						
15	Non-current assets classified as held for sale, net	0	0	0	(						
16	Total current tax assets	0	0	0	(						
17	Total current assets	7,751,522	8,047,791	7,628,011	7,302,069						
18	Total non-current financial assets at fair value through profit o	658	658	658	658						
19	Financial assets at fair value through other comprehensive in	0	0	0	(						
20	Financial assets measured at amortized cost - Non-Current	216,653	19,800	0	(						
21	Non-current financial assets for hedging	0	0	0	(						
22	Non-current contract assets	0	(								
23	Investments accounted for using equity method, net	790,210	645,135	730,992	735,732						

# Review Mode (II): Multiple Company (multiple stock)



• For example, searching for 1101,1102 and 1103 financial information from 2020Q2.

Ł	2	Transfer Data E	xprot	ro <b>I≫</b> ID Field S	Single Rank	Anti	K X	Y Darw	) ∑oom+	Q Zoom- <sub>F</sub>	(inancial	- Confer	û <b>→</b> ence	••••••••••••••••••••••••••••••••••••••	K Chart
1. Ranking (X Axis : field; Y Axis : company) 2. X Cross-period comparisions															
IFR	_TEJ Consolid	ated First(Acc)-ALL						(X Ax	IS 🕴	neid;	ΥA	XIS	i tin	ne)	
2.TS	EC	<ul> <li>Balance SI</li> </ul>	heet	~				•							
Da	tabase Inforn	nation					IFRS_	TEJ Consolidated First(Ad	cc)-ALL 🗵						
	COID	Name	YYYY/MM	Total cash and cash equivalents	Total current financial assets at fair value		2.TSE Data	C base Information	V Balance S	iheet		~			
1	1101	Taiwan Cement	2020/06	59,005,748	492,238			COID			11	01	1102	1103	1104
2	1102	Asia Cement	2020/06	20,375,076	5,254,285										
3	1103	Chia Hsin Cement	2020/06	2,910,925	1,442,992		1	Name			1a 20	Iwan Cem	Asia Cement	Chia Hsin C	Universal Ce
4	1104	Universal Cement	2020/06	289,140	426		2	Total cash and cash	h equivalents		20	59 005 748	2020/00	2 910 925	289 140
5	1108	Lucky Cement	2020/06	298,872	15,297	~	4	Total current financi	al assets at fair	value through profit of	or loss	492,238	5,254,285	1,442,992	426
6	1109	Hsing Ta Cement	2020/06	1,544,564	996,962		5	Financial assets at	fair value throug	h other comprehensi	ive in	5,392,561	4,706,162	2,556,799	2,091,020
7	1110	Tuna Cement	2020/06	212,808	222,707		6	Financial assets me	easured at amo	tized cost - Current		15,741,435	33,290,406	2,936,410	71,467
8	1201	Wei Chuan Foods	2020/06	1,819,296	0		1 7	Current financial as	sets for hedging			0	0	0	0
9	1203	Ve Wong	2020/06	1,535,103	0		8	Current contract as	sets			0	61,620	0	11,708
10	1210	Great Wall	2020/06	3,995,821	7,421		9	Accounts & notes r	eceivable			31,363,082	15,351,005	206,559	1,216,807
11	1213	Oceanic Beverages	2020/06	40,238	0		10	Loan to others - Shi	ort-Term			1,705,243	4,314,225	53 232	409,752
12	1215	Charoen Pokphand	2020/06	318,554	0		12	Total inventories	one romm			8,164,930	7,600,004	33,077	340,377
13	1216	Uni-President	2020/06	84,769.967	9,089.380		13	Non-current assets	classified as he	ld for sale, net		0	0	0	0
14	1217	AGV Products	2020/06	380.089	31.984		14	Total current tax as	sets			0	6,782	1,624	32
15	1218	Taisun Enterprise	2020/06	567.429	79.926		15	Total current assets	3			125,133,183	92,590,336	10,357,336	4,548,713
16	1219	Fwusow Industry	2020/06	1,149,033	9 433		16	Total non-current fin	ancial assets a	t fair value through pr	rofit o	0	0	0	0
17	1220	Tairoun Products	2020/06	504 664	158 118		17	Financial assets at	tair value throug	h other comprehensi	ive in	33,944,686	10,521,536	10,272,060	1,398,288
18	1225	Formosa Oilseed	2020/06	796.069	0		18	Non-current financia	easured at amo	tizea cost - Non-Curi laina	rent	10,259,429	67,101	23,769	40,540
10	1227	Standard Foods	2020/06	3,603,366	1,513 865		20	Non-current contract	t assets			0	0	0	0
13	1221	Standard 1 0000	2020/00	0,000,000	1,010,000								_	-	

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

Anti	

 For example, searching for Net Sales for Catcher Technology, HTC, Largan Precision Co. and F-TPK in 2020/09-2021/09.



#### • Variant for Single Field (X Axis : company; Y Axis : field)

IFRS_TEJ Consolidated First(Acc)-ALL											
Specify code v v Total cash and cash equivalents											
Database Information											
	COID	Name	2020/09	2020/12	2021/03	2021/06	2021/09				
1	2474	Catcher	91,164,580	111,882,984	20,657,328	27,475,644	21,413,922				
2	2498	HTC	16,262,329	16,375,830	21,012,960	20,441,168	20,559,676				
3	3008	Largan	81,426,850	89,621,270	96,008,216	91,752,710	85,476,870				
4	3673	TPK	27,772,520	22,603,448	32,128,372	28,635,046	30,658,616				

# **Criteria Setting (I): Company Sample**

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• For example, set up Electronic Components Industry

Single

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Field

**0** 

ID



**Step 1** : Select Category.

- 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 Group" 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

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Field



# Criteria Setting (III): Date\_1

• For example, set up the date by the year-end date of 2005-2011.

TEJV	Veb 🗵	IFRS_TEJ C	onsolidate	d First(Ac	cc)-ALL 💌								
1.TSE	CGreTai		~ /	ALL			~		last1		/ last1	1	~ 🛍
Database Information							last1	9999		Previous	Next		
	COID				1101	1102	1103	1213	202109			1216	2 17

#### Step1: Enter

- **Method 1**: last  $1 \rightarrow$  the latest date
- Method 2 202006-999999 → Range date
- **Method 3** 202006  $\rightarrow$  Fixed date
- Method 4 201806,201906,202006→

Multiple Specified date

#### Step2: Quick Setting

Click "Previous" or "Next" to quick setting date.

TEJ Web 🗵 IFRS_TEJ Consolidated First(Acc)-ALL 🗵											
1.TSE	1.TSECGreTai V 1101 Taiwan Cement V Balance Sheet										
Database Information Data Range											
	YYYY/ •	Total cash and cash equivalents	Total current financial assets at fair value	Financial assets at fair value through other							
1	2005/06	10,711,519	3,956,662	1,840,899							
2	2005/12	10,873,922	3,090,216	4,378,148							
3	2006/06	15,066,623	4,085,170	9,977,665							
4	2006/12	8,115,728	3,212,981	13,347,063							
5	2007/06	11,922,113	5,433,838	19,418,434							
6	2007/12	9,817,626	6,853,832	21,701,212							
7	2008/03	12,423,117	6,501,152	17,958,792							
8	2008/06	11,760,556	6,431,449	15,729,671							
9	2008/09	10,615,331	2,669,598	9,368,900							
10	2008/12	13,033,535	2,610,569	9,002,525							
11	2009/03	14,200,950	3,299,730	10,360,744							
12	2009/06	11,831,514	3,379,097	12,288,981							
13	2009/09	13,825,223	2,958,600	13,069,015							
14	2009/12	16,426,107	3,046,095	12,788,960							
15	2010/03	17,568,054	2,986,592	12,535,727							
16	2010/06	16,624,092	2,019,915	11,432,722							
17	2010/09	12,836,138	2,547,369	15,745,490							
18	2010/12	32,706,814	4,636,964	15,893,896							
19	2011/03	21,429,405	5,122,001	19,424,885							
20	2011/06	20,097,071	4,731,032	21,068,332							
21	2011/09	17,017,573	3,154,646	14,263,549							
22	2011/12	22,140,268	3,152,664	13,721,102							

### **Criteria** Setting (III): Date\_2

#### • Select "Advance Date Option"



✓ Balance Sheet

### TEJ Web IFRS\_TEJ Consolidated First(Acc)-ALL 1.TSECGreTai V

Database Information Data Range

#### 1.Last 1:

Select "Last(Default)" or "Last-Actual Date",

display the latest data format.

#### 2.Cycle switching:

Enter date interval and Select frequency.

dvan	dvance Date Option								
ast1	Cycle switching								
	East(D     No data sh     Sh	efault) iow "-"		SI	○ Last-Ac how actual	tual Date date data			
	Date	Sales			Date	Sales			
	2018/06	121,320			2018/06	121,320			
	2018/06	-			2018/05	451,320			
	2018/06	407,320			2018/06	407,320			
	2018/06	-			2018/05	321,320			
	2018/06	852,320			2018/06	852,320			

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~ 201812.201912.20212

# Criteria Setting (III): Date\_3

• For example, set up the date by the year-end date of 2015-2019.

TEJ Web 🗵 IFRS_TEJ Consolidated First(Acc)-ALL 🗵								
1.TSECGreTai ~ 1101 Taiwan Cement	✓ Balance Sheet ✓ 201812,201912,20212 ✓							
Database Information Data Range								
Cycle switching	Advance Date Option							
Step 1 : Enter date interval (8	Last1     Cycle switching       Date Range     20150101       to     20191231							
characters in Arabic	Cycle O Day O Week O Month O Quarter O Half Year   Year							
numbers)	201912 201912 2							

201812

201712

201612

201512

201812

201712

201612

201512

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Confirm

numbers)

- Step 2 : Select frequency
- Step 3 : Move required date to the selected list on the right side.

Step 4 : Click "Confirm".

### Export Saved Data(I): Export to Excel



#### • For example, export HTC's financial statements from 2008-2011.

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Field

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ID

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

Transfer

Data

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Exprot

\*Note: Exported info is a

temporary file, make sure to click

Save As to save the file.

Single	Rank	Anti	X/Y	Darw	Zoom+	Zoom-	Financial	Con	ference	More	K Chart
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	110 • (• fx										
				А			В		С	D	E
1	2498 HTC20	1112,201012	,200912,200	812							
2											
3	ҮҮҮҮ/ММ						2011/12		2010/12	2009/12	2008/12
4	Total cash and	cash equivale	ents				87,50	1,508	74,462,861	64,638,290	64,237,728
5	Total current fi	nancial assets	s at fair value	e through profit	or loss		25	5,868	450,276	18,132	0
6	Financial assets	s at fair value	through oth	er comprehensi	ve income - Cur	rent	73	5,031	441,948	2,497,394	0
7	Financial assets	s measured at	amortized o	ost - Current				0	0	0	0
8	Current financi	al assets for h	nedging					0	0	0	0
9	Current contrac	ct assets						0	0	0	0
10	Accounts & no	tes receivable	e				64,71	9,791	61,614,355	27,125,609	29,454,778
11	Other receivab	le					1,15	2,465	759,359	218,517	278,527
12	Loan to others	- Short-Term						0	0	0	0
13	Total inventori	es					28,43	0,590	26,413,747	6,036,207	8,250,337
14	Non-current as	sets classified	l as held for :	sale, net				0	0	0	0
15	Total current ta	x assets						0	0	0	0
16	Total current as	ssets					192,85	9,891	168,606,486	104,900,881	104,256,700
17	Total non-curre	ent financial a	issets at fair v	value through p	rofit or loss		3,40	8,654	1,023,661	565,172	501,192
18	Financial assets	s at fair value	through oth	er comprehensi	ve income - Noi	n-Current		279	538	313	339
19	Financial assets	s measured at	amortized o	ost - Non-Curre	ent		20	4,597	207,946	0	0
20	Non-current fir	nancial assets	for hedging					0	0	0	0
21	21 Non-current contract assets										
22	22 Investments accounted for using equity method, net							1,732	0	0	39,906
23	23 Non-current prepayments for investments							0	0	245,000	0
24	24 Total property, plant and equipment								14,024,329	9,899,808	8,916,350
25	25 Goodwill and intangible assets								935,650	240,482	289,783
26	Deferred tax as	sets					3,67	5,521	2,366,488	1,067,691	822,893
27	Deferred assets	;					4,43	9,037	2,609,737	1,313,687	1,076,014

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

Rank

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X/Y

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Financial

Conference

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Field

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ID

Step 1 : Select database in below.

Transfer

Data

X

Exprot

- Step 2 : Select required company samples or selected ID groups.
- Step 3 : Select required field variants or field groups that are already set up.
- Step 4 : Select required date or click Date Menu to choose specific date or frequency.
- Step 5 : Set the route for saved data.
- **Step 6** : Click "Start converting".



K Chart

More

### **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.

TEJPro	)
The download is complete. Do you want to open the dow	nload directory?
是①	否( <u>N</u> )

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

#### 20220105112144 - 記事本 檔案(F) 編輯(E) 格式(O) 檢視(V) 說明

CO_ID	Date	Quarter	consolid	dation	Month	Currency	9	Total ca	ash and o	cash equ:	ivalents	Total cu	irrent fi	inancia
estment	propert	y, net	Total o	ther non-	-current	assets	Total no	on-currei	nt assets	3	Total as	ssets	Total sł	nort-te
ent pro	visions	Deferre	d credit:	s, gains	on inte	r-affili:	ate accou	unts	Accrued	pension	liabilit	ies	Total de	eferred
expense	s)	Net ope:	rating in	ncome (le	oss)	Total in	nterest i	income	Other No	on-Operat	ing Inco	me	Other ga	ains an
(loss),	attribu	itable to	non-con	trolling	interes	ts	Profit (	(loss), a	attributa	able to :	interests	s in the	former j	jointly
al surp	lus	Stock d	ividend j	per shar	e – Reta	ined earm	nings	Stock d:	ividend p	per share	e – Capit	al surpl:	lus	Cash d
able	BS-Fina	uncial lia	abilities	s_carrie	d at cos	t – Non-G	Current	Return (	on Assets	s Ratio (	(C) - Rec	curring I	Income Be	efore <u>I</u> :
Per Sha	re	Sales Pe	er Share	Operati	ng Income	e Per Sha	are	Pre-Tax	Income F	Per Share	e.	Comprehe	ensive Ir	icome P
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### Auxiliary functions (I): Financial Statements & Value-added Data Base Information

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Exprot ID

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Field

Sinale

Rank

- Auxiliary functions : Financial
- **Step 1** Click "Single".

Transfer

- **Step 2** Click "Financial" and choose the year.
- **Step 3** Automatically connect to the annual financial report of the designated company in website(mops.twse.com.tw).

٢	TEJ Pro (Version 1.0.0.128) Server:211.23.181.21 - [Form]								
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	- Taiwan Market DB(TEJ TAIWAN DB)		3	Financial assets at	acured at a	13,721,102	13,033,030	12,700,500	
	E TEJ TOP DB		4	Current financial acc	asureu at a	0	0	0	
	🗉 🔚 TEJ Profile		6	Current contract ass	ote	0	0	0	
	🏨 🍡 TEJ Company [ 2 )		7	Accounts & notos rr	receivable	18 074 170	15 918 356	10 501 701	
	- Banking Detail of essets/Liability		6	Other receivable	ceivable	10,074,170	30 153	64 314	
	E-B TEJ IFRS Finance-New Accounting		0	Lean to others. She	rt Torm	43,570	3 072	10 308	
	IFRS_TEJ Consolidated First(Ac	c	10	Total inventories	AL-TEITH	10 508 551	7 206 613	6 667 091	
		<b>y</b>	11	Non-current assets	classified a	1 928 978	1,230,013	0,557,501	
			12	Total current tax ass	ciassilieu a	1,320,370	0	0	
			12	Total current assets	1013	79 269 224	82 001 294	54 251 716	
	TEJ Unaudited Financial Data		14	Total non-current fin:	ancial asse	1 472 569	1 656 996	2 420 140	
	TEJ Adjusted EPS		14	rotar non-current int	anciai dase	1,472,505	1,030,330	2,420,140	

Auxiliary functions : Conference

Zoom

- Step 1 Click "Single".
- **Step 2** Click "Conference" and Select "TEJ Investor Conference" or "Twse Investor Conference".

Financial

K Chart

More

Step 3 Automatically connect to "TEJ Investor Conference" or "Twse Investor Conference" web page.

	<b>î</b> Single	Rank Anti X/	Y Darw	De Q Zoom+ Zoom-	Financial Cor	More	• 🛄 K Chart			
×	6	Web 🗵 🛛 IFRS_TEJ C	onsolidated First(	Acc)-ALL 💌	Monthly Sale	TEJ Investo	r Conference			
	SECGreTai v 1101 Taiwan Cement									
	Da	atabase Information	Data Range				2			
^	]	YYYY/MM		2011/12	2010/12	2009/12	2008/12			
	1	Total cash and cash	equivalents	22,140,268	32,706,814	16,426,107	13,033,535			
	2	Total current financia	al assets at	3,152,664	4,636,964	3,046,095	2,610,569			
	3	Financial assets at f	air value th	13,721,102	15,893,896	12,788,960	9,002,525			
	4	Financial assets me	asured at a	0	0	0	0			
	5	Current financial ass	ets for hed	0	0	0	0			
	6	Current contract ass	ets	0	0	0	0			
	7	Accounts & notes re	ceivable	18,074,170	15,918,356	10,591,791	8,386,187			
	8	Other receivable		49,576	30,153	64,314	4,814			
	9	Loan to others - Sho	rt-Term	1,267,612	3,072	19,308	42,034			
	10	Total inventories		10,598,551	7,296,613	6,557,981	6,908,626			
		Man and a second	the state of the s	4 000 070	0	0	0			

# Data Query (I): Search for data based on company and column

i-Search

**Step 1** Select "Country".

**Step 2** Enter field or #from in "Search".

**Step 3** Click database

**Step 4** Left window display preview screen (part of data) , and Click that show the complete data.

~																				
0	TEJ Pro	(Versio	n 1.0.0.12	28) S	erver:22	20.130.1	/8.203 ·	[Form]												
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	IFRS_T	EJ Con	solidated	d First(Acc	c)-ALL		2	Sale-Mo	onthly		9,75	2,687	9,56	5,047	9,59	97,804	8,96	4,476	8,3	19,971
	TSE/O	TC Cor	npany At	ttribute			3	Sale-Mo	onthly,La	st Year	9,90	4,802	9,46	5,748	9,03	34,955	9,20	6,588	9,3	91,351
	Month	nly Sale	s & Earni	ings	9		4	YoY%-N	Nonthly S	Sale		-1.54		1.04		6.23		-2.63		-11.41
	IFRS_T	EJ Con	solidated	d First Fin	ancial_(	Gener	5	MoM%-	Monthly	Sale	1.96 -0.34			7.06		7.75		-1.90		
	TSE/O	E/OTC Adjusted_Price(Daily)-Ex_R+D		6	6 Months of MoM%-Mont			1		-1		2		1		-2				
	Direct	ors Hol	lding				7	Sale-Accumulated		96,22	3,350	86,47	0,663	76,905,616		67,307,812		58,343,336		
	TSE/O	TC Una	adjusted_	Price(We	ekly)		8	Sale-Ac	Sale-Accu.,L.Y.		95,80	5,296	85,90	0,494	76,433,746		67,398,791		58,192,203	
	Margi	n Tradi	ng				9	YoY%-A	Acc. Sale	S		0.44		0.66	0.62 -0.13		-0.13		0.26	
	Qfii/D	ealer/Ir	nvest. Bu	y/Sell			10	Highest	Monthly	Sales	12,34	9,908	12,34	9,908	12,34	19,908	12,34	9,908	8 12,349,908	
	TSE/O	TC Imp	ortant C	alendar			11	Highest	Monthly	Sales	2019/12 2019/12		2	2019/12 2019/12		2	2019/12			
	Corpo	rate Ac	tion				12	(Month 3	Sales/H.I	Vionth	-21.03 -2		-22.55 -22.28		-27.41		-32.63			
	TEJ Cro	edit Lis	t-TSE/OT	ſC			13	Lowest	Monthly	Sales	3,632,053 3,632,053		2,053	3,632,053 3,632,05		2,053	3 3,632,053			
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							27	Q0Q%-/	Acc. Sale	es L 3M		12.23		5.61		-3.94	-	12.02		11.03



TEJ Sm	art Wizard T <mark>oolba</mark> r			
Excel 2007 Toolbar style	ラ・ペー       □ </th			
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, Englis				
	Country Selection: based on the DB purchase)			
	DB Query: Setting up required data criteria			
[1]	Update Worksheet: Update single worksheet only			
a D	Update Workbook: Update the current Excel file			
0.0	a: 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.			
*TEJ Smart Wizar	d Toolbar will be installed in the Add-ins of Excel 2007 (TEJ Smart Wizard Toolbar shows directly in Excel 2003			

\*TEJ Smart Wizard Toolbar will be installed in the Add-ins of Excel 2007 (TEJ Smart Wizard Toolbar shows directly in Excel 2003 Toolbar). If TEJ Smart Wizard Toolbar fails to be executed, please call TEJ Customer Service line @ 02-87681088#120, our professional will provide assistance.

### **TEJ Smart Wizard-Criteria Setting**

】 TEJ Smart Wizard (Version 3.5.1.0) 活頁簿1 Main Page Transformation Study Format Provide File Manager	
Data Source Type TSEC+GreTai SmartID TEJ TOP DB Key=2 Data High Risk Stock Screening DB Key=2 Data High Risk Stock Screening DB Search f Step 1: Information source Market D Search f Step 1: Information source Market Conting Search Adv Date Ontion Adv Date Ontion Date Setting Date Setting Date Range 2015/03/02 to 2016/03/02 Descending Search	Company Setting Set Industry Common Stock (Include ETF) Common Stock (Excluding TD) Common Stock (Excluding TD) Non Fin & Ele (Excluding TD) Favraine antermines IPO Import Codes Sector Common Stock Import Codes Search Code/Name 1101=>Taiwan Cement Select Companies Selected Companies 101=>Taiwan Cement 1102=>Asia Cement 1104 1104 1104 1104 1109 Step 2: Company setting 1109 Import Codes Selected Companies Selected Companies Import Codes Selected Companies Import Codes Import Codes Selected Companies Import Codes Import Codes Selected Companies Import Codes Selected Companies Import Codes Import Codes Selected Companies Import Codes Import C
Frequency Daily Weekly Monthly Quarterly Yearly Date Last Period Last Calendar Date 20160 200 200 200 200 200 200 200 200 200 2	Single Code/Date  No Designation  Code  Date New Worksheet Load New Table Macro Name Excel Range Clear All Setting Next Export to Excel Preview



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

Main Page Transf	formation Style Format Preview File Manager	Information Type: Select sample range, the Smart ID list below will			
Type TSH	EC+Gre Tai+Emerging+Others 🗸	simultaneously.			
SmartID TE.	IJ Equity 👻 Key=2	1.If Macroeconomics DB is required, info type needs to be changed into Macroeconomics.			
Search Day	y ID Search	2.When checking a listed and GRETAI listed company during a certain period, please select <b>listed+ GRETAI listed + delisted</b> company			
£.11	UOM	Type & Data: Category is as the same as the			
Day Unadj Close Prio ROI D%	ice Day Nonadj Close Price	<b>TEJ main menu.</b> <b>Type:</b> Database category <b>Data :</b> Database			
ROI_Weekly % ROI_Monthly % ROI_Quarterly % ROI_Yearly % ROI_W Begin % ROI_W Begin %	%     ROI_Weekly %       %     ROI_Monthly %       %     ROI_Quarterly %       ROI_Yearly %       %     ROI_W Begin %       %     ROI_M Begin %	Select Field: Left-clicking the mouse twice can select or remove the required info while press Ctrl or Shift can select fields consecutively.			
Select	Select All Clear All Clear	Mobile Arrow Keys: can adjust field order, but only one field at a time.			

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

🔽 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 Search Code/Name 0000116=>Jih Sun Securities Select
Companies       Selected Companies         000116=>Jih Sun Securities       000116=>Jih Sun Securitie         000930=>Hua Nan Sec.       000930=>Hua Nan Sec.         000960=>Fubon Securities       000960=>Fubon Securities         000980=>Yuanta       000980=>Yuanta         00099A0=>SinoPac Securities       0009A0=>SinoPac Securities         1101=>Taiwan Cement       1102=>Asia Cement         1103=>Chia Hsin Cement       1103=>Chia Hsin Cement         1104=>Universal Cement       1104=>Universal Cement         1108=>Lucky Cement       1108=>Lucky Cement

#### **Designate industry:**

If the sample criterion is fixed as common stock or certain industry, tick off Designate Industry. For example, when the user designates-steel 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 - Criter**ia Setting 3: Date

**Date interval:** Default interval is the current year, the interval can be changed manually. Ascending/Descending order: The default is in descending order, if ascending order is required, untick the default box and re-select the date. Exported data will adhere to this setting and show in ascending/descending order accordingly.

**Frequency:** Adv. Date Option Adv. Date Option Custom frequency Date Setting to 2016/03/02 🔽 Descending Date Range 2015/03/02 Search Frequency 💿 Daily 🦳 Weekly 💿 Monthly 🕥 Quarterly 🔵 Yearly Select date: Calendar Date Date Last Period Left-clicking the Last mouse twice can 20160302 A. Most recent period: The 20160301 select or remove most recent data setting 20160226 the required date will be extracted from all 20160225 20160224 the selected fields. while press Ctrl or 20160223Shift can select 20160222 797 dates consecutively. Select Select All Clear All Clear

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



**Example 1:** Data required in recent periods Date range: Choose **Recent N Periods** Transactions: enter required periods (e.g. 5 stands for the recent 5 periods)

Example 2: Search for data in a certain period Date range: select Date Interval Start date: yyyymmdd (e.g. 20120101) End date: 99999999 ->the field shows data from 20120101 to the recent period Date range: Weekly frequency Start date: 20120101 End date: 20120731 Return type: average

->If the data is arranged in daily frequency (e.g. stock price), the exported data will be the weekly average

\*Note: Choose ONLY ONE out of these two options: Date setting and Date setting-advanced

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

Single Code/Date 💿 No Designation 💿 Code 💿 Date									
📄 New Work									
Macro Name	Macro Name Sepa								
Excel Range	Date								
Produce new	Designate company code	/ date nosition:		Automatic Macros					
Produce new sheet: When	<b>Designate company code</b> The system default starts	<b>/ date position:</b> from cell A1, the ce	ell	Automatic Macros Execution:					
<b>Produce new</b> <b>sheet:</b> When exporting data,	<b>Designate company code</b> The system default starts to position can be changed to	/ date position: from cell A1, the ce o, such as B30/H5,	ell based	Automatic Macros Execution: If the file comes with					
Produce new sheet: When exporting data, open a new sheet	<b>Designate company code</b> The system default starts to position can be changed to on the user's need.	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5,	ell based	Automatic Macros Execution: If the file comes with related macros setup,					
Produce new sheet: When exporting data, open a new sheet in the current file	<b>Designate company code</b> The system default starts to position can be changed to on the user's need. *Function introduction:	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5,	ell based	Automatic Macros Execution: If the file comes with related macros setup, adding macros to the					
Produce new sheet: When exporting data, open a new sheet in the current file to export data.	<b>Designate company code</b> The system default starts to position can be changed to on the user's need. *Function introduction: Do not designate: search for	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5, for data cross comp	ell based panies	Automatic Macros Execution: If the file comes with related macros setup, adding macros to the File Note will enable					
Produce new sheet: When exporting data, open a new sheet in the current file to export data. *Recommended	<b>Designate company code</b> The system default starts if position can be changed to on the user's need. *Function introduction: Do not designate: search for and cross time periods	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5, for data cross comp	ell based panies	Automatic Macros Execution: If the file comes with related macros setup, adding macros to the File Note will enable macros to be					
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 if position can be changed to on the user's need. *Function introduction: Do not designate: search for and cross time periods Designate company code:	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5, for data cross comp search for individu	ell based panies Jal	Automatic Macros Execution: If the file comes with related macros setup, adding macros to the File Note will enable macros to be automatically					
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 if position can be changed to on the user's need. *Function introduction: Do not designate: search for and cross time periods Designate company code: company	<b>/ date position:</b> from cell A1, the ce o, such as B30/H5, for data cross comp search for individu	ell based panies Jal	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					

### **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 v	with III
Excel Range Co. ID	Date	
Clear All Setting Next Exp	ort to Excel Preview	
ITEJ Smart Wizard (Version 3.5.1.0) 活	頁簿1	
Pre-set     Pield 1 Field 2 Field 3     D_B Date 1     D_B Date 2     D_B Date 2	Style 13_for 3 Key	Style 14_for 3 Key
<ul> <li>Style 1 - Code as Key</li> <li>Field A Field A Field B Field B</li> <li>Date 1 Date 2 Date 1 Date 2</li> <li>D_1</li> <li>D_2</li> <li>D_3</li> <li>Style 4 - Code as Key</li> </ul>	Style 2 - Date as Key       D_A       D_A       Field 1       Field 2       Date 1       Date 2       Date 3       Style 5 - Date as Key	Style 3 - Field as Key           D_A         D_B         D_B           Dawe 1         Dawe 2         Dawe 1         Dawe 2           dd 1         1         1         1           dd 2         1         1         1           dd 3         5         5         1           Style 6 - Field as Key         1         1         1
Date 1 Date 1 Date 2 Date 2 Field A Field B Field A Field B D_1 D_2 D_3 0 0 1 2	Field 1     Field 2     Field 2       D_A     D_B     D_A     D_B       Date 1	Date 1         Date 2         Date 2           D_A         D_B         D_A         D_B           dd 1
Date 1         Date 2         Date 3           D_A         Field 1         Implement         Implement           D_B         Field 2         Implement         Implement           D_B         Field 2         Implement         Implement           D_B         Field 1         Implement         Implement	Style 0         ID_1 ID_2 ID_3           Field A Date 1         II           Field B Date 2         II           Field B Date 1         II           Field B Date 1         II           Field B Date 1         II	Field 1     Field 2     Field 3       A     Date 1     Back       B     Date 2     Next
Style 10           Date 1         Date 2         Date 3           Field 1         D_A         D_B         D_B           Field 2         D_A         D_B         D_B	ID_1     ID_2     ID_3       Date 1     Field A     Date 2       Date 2     Field A     Date 3       Date 2     Field B     Date 3	Field 1     Field 2     Field 3       ite 1     D_A     Export to Excel       ite 2     D_A     Preview

### **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:

of time.

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+Ot hers to cover all the relevant information as well as to include delisted companies after this period

**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+GreTai+Emerging+Others
SmartID TEJ Finance DB 🗸 Key=2	SmartID TEJ Equity - Key=2
Data TEJ Consolidated First General(Acc)-3	Data INEAU IC Adjusted_Price(Yearly)-Ex_K+D
Search Current % ID Search	Search Market Cap. DID Search
Sector ALL UOM	UOM
field Selected Field	field Selected Field
Other Current Ass.       consolidation         Total Current Liab.       ROA (C)-EBIDA%         Total Current Liab.       ROE (A)-NI         Current Income       OperatingExpR&D         Net Income Current       Eaming Per Share         Tax ExpCurrent       Net Sales         Current %       Current %	Volume_Year Amount_Year ROI_Year Tum Over_Year Shares Market Cap. Last Bid Last Offer ROI-Ln_Year Net Shares ROI-Ln_Year Net Shares ROI-Ln_Year
Select Select All Clear All Clear	Select Select All Clear All Clear
Select Select All Clear All Clear Data Source	Data Source
Select Select All Clear All Clear Data Source Type TSEC+GreTai+Emerging+Others -	Data Source Type TSEC+Gre Tai+Emerging+Others
Select     Select All     Clear All       Data Source       Type       TSEC+GreTai+Emerging+Others       SmartID       TEJ Equity	Select     Select All     Clear       Data Source     Type     TSEC+Gre Tai+Emerging+Others       SmartID     TEJ Corporate Governance     Fey=1
Select     Select All     Clear All       Data Source       Type       TSEC+Gre Tai+Emerging+Others       SmartID       TEJ Equity       Vata       TSE/OTC Adjusted_Price(Daily)-Beta	Select     Select All     Clear       Data Source     Type     TSEC+Gre Tai+Emerging+Others       SmartID     TEJ Corporate Governance     Fey=       Data     Ultimate Control and Board Composition     -
Select     Select All     Clear All       Data     Source       Type     TSEC+GreTai+Emerging+Others       SmartID     TEJ Equity       Data     TSE/OTC Adjusted_Price(Daily)-Beta       Search     CAPM_Beta 1Y	Select       Select All       Clear         Data Source       Type       TSEC+Gre Tai+Emerging+Others         SmartID       TEJ Corporate Governance       Fey=         Data       Ultimate Control and Board Composition       Search         Search       Group Name       ID       Search
Select     Select All     Clear All       Data Source       Type       TSEC+GreTai+Emerging+Others       SmartID       TEJ Equity       Data       TSE/OTC Adjusted_Price(Daily)-Beta       Search       CAPM_Beta 1Y       UOM	Select       Select All       Clear All       Clear         Data Source       Type       TSEC+Gre Tai+Emerging+Others       •         SmartID       TEJ Corporate Governance       •       •         Data       Ultimate Control and Board Composition       •         Search       Group Name       ID       Search         Sector       ALL       •       UOM
Select     Select All     Clear All       Data Source       Type       TSEC+GreTai+Emerging+Others       SmartID       TEJ Equity       Vata       TSE/OTC Adjusted_Price(Daily)-Beta       Search       CAPM_Beta 1Y       ID       Search       UOM       Field	Select       Select All       Clear All       Clear         Data Source       Type       TSEC+Gre Tai+Emerging+Others       •         SmartID       TEJ Corporate Governance       •       •         Data       Ultimate Control and Board Composition       •         Search       Group Name       ID       Search         Sector       ALL       •       UOM         field       Selected Field       •
Select       Select All       Clear All       Clear         Data       Source       Type       TSEC+GreTai+Emerging+Others       •         SmartID       TEJ Equity       •       Key=2         Data       TSE/OTC Adjusted_Price(Daily)-Beta       •         Search       CAPM_Beta 1Y       ID       Search         GAPM_Beta 1M       CAPM_Beta 2M       OperatingExpR&D       •         CAPM_Beta 3M       Earning Per Share       Net Sales       Current %         CAPM_Beta 1V       Current %       Current %       Ei         CAPM_Beta 3Y       CAPM_Beta 1Y       CAPM_Beta 1Y       Ei	Select       Select All       Clear All       Clear         Data Source       Type       TSEC+Gre Tai+Emerging+Others       •         SmartID       TEJ Corporate Governance       •       •         Data       Ultimate Control and Board Composition       •         Search       Group Name       ID       Search         Sector       ALL       UOM       •         field       Selected Field       •         Group Name       Shares       •       •         No. of Seats in Board       •       •       •         No. of Supervisor       Board %       •       •         Director %       Supervisor %       Seating Rights %       •         Supervisor %       Seating Rights %       •       •

 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"

Company Setting	
Set Industry	Sector Textiles Import Codes
Foreign enterprises IPO TDR Cement Foods	Search Code/Name 1402=>FENC Select
Plastics Tavellac	Companies Selected Companies
Sector Textiles Unport Codes Search Code/Name 1402=>FENC Select Companies Selected Companies 1402=>FENC 1409=>Shinkong Synthetic 1410=>Nan Yang D&F 1413=>H.C. 1414=>Tung Ho Textile 1416=>Kwong Fong 1417=>Camival 1418=>Tong-Hwa 1419=>Shinko. Textile 1419=>Shinko. Textile 1412=>Pewerd Mool	1402=>FENC       1402=>FENC         1409=>Shinkong Synthetic       1409=>Shinkong Synthetic         1410=>Nan Yang D&F       1409=>Shinkong Synthetic         1413=>H.C.       1410=>Nan Yang D&F         1413=>H.C.       1413=>H.C.         1414=>Tung Ho Textile       1414=>Tung Ho Textile         1416=>Kwong Fong       1416=>Kwong Fong         1417=>Camival       1417=>Camival         1419=>Shinko. Textile       1419=>Shinko. Textile         1422->Pawerd Mool       1422->Pawerd Mool         IA22->Pawerd Mool       IA22->Pawerd Mool         IA22->Pawerd Mool       IA22->Pawerd Mool

#### • 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 🔲 Descending	Search
Frequency 💿 Daily 🔊 V	Weekly 💿 Monthly 💿 Quarte	3 ny O Yearly
Date 📄 Last Period	Last -	alendar Date
2000 2001 2002 2003 2004 2005 2006	2000 2001 2002 2003 2004 2005 2006	
Select Selec	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 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) 活	f頁簿1	
Main Page Transformation Style Format Pr	eview File Manager	
💿 Pre-set		
Field 1 Field 2 Field 3	Style 13_for 3 Key	Style 14_for 3 Key
ID_A Date 1		
D_B Date1		
ID_A Date 2		
💿 Style 1 - Code as Key	💿 Style 2 - Date as Key	💿 Style 3 - Field as Key
Field A Field A Field B Field B	ID_A ID_A ID_B ID_B	ID_A ID_A ID_B ID_B
Date 1 Date 2 Date 1 Date 2	Field 1 Field 2 Field 1 Field 2	Date 1 Date 2 Date 1 Date 2
	Date 1	Field 1
ID_2 ID_3	Date 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 1 Field 1 Field 2 Field 2	Date 1 Date 1 Date 2 Date 2
Field A Field B Field A Field B	DA DB DA DB	DA DB DA DB
ID_1	Date 1	Field 1
ID_2	Date 2	Field 2
	Date 3	Field 3
Style 7	Style 8	Style 9
Date 1 Date 2 Date 3	D_1 D_2 D_3	Field 1 Field 2 Field 3 Back
D_A Field 2	Field A Date 2	ID_A Date 2
ID_B Field 1	Field B Date 1	ID_B Date 1
ID_B Field 2	Field B Date 2	ID_B Date 2 Next
💿 Style 10	Style 11	🔘 Style 12
Date 1 Date 2 Date 3	ID_1 ID_2 ID_3	Field 1 Field 2 Field 3
Field 1 ID_A	Date 1 Field A	Date 1 D_A Export to Excel
Field 1 ID_B	Date 1 Field B	Date1 ID_B
Field 2 ID B	Date 2 Field B	Date 2 ID_A Preview

• Export Result is shown in the picture below:

x∎	E 5· ♂· ∓			活頁簿1	- Excel					?	団 – ♂ ×
檔	案 常用 插入 版面配置 公式 資	1料 校閱 檢視 開發人	員 増益集 nova	PDF							YJB-顏嘉柏 - 🔍
T	TEJ Database ~ TEJ 野 厩 д โก (a) 😋 功能表命令 自訂工具列										~
XX	ζ_TEJ1 ▼ : × ✓ ƒ <sub>∞</sub> CO_ID										~
	А	B C	D	E	F	G	Н	I	J	К	L
1	CO_ID	YYYYMM consolidation	ROA(C)-EBIDA%	ROE(A)-NI	OperatingExpR&D	Earning Per Share	Net Sales	Current % 1	ROI_Year	Shares	Market Cap.
2	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
3	1402 FENC	2001/12/31 Y	9.69	6.57	205,909	0.23	75,116,235	86.27	-41.3427	3,203,523	41,645
4	1402 FENC	2002/12/31 Y	11.51	8.97	274,333	0.7	77,841,238	79.84	-3.1535	3,361,024	39,660
5	1402 FENC	2003/12/31 Y	11.4	10.64	317,452	1.17	83,609,382	107.45	54.3906	3,590,677	59,964
6	1402 FENC	2004/12/31 Y	18.51	18.16	374,882	2.25	121,461,235	77.07	67.5169	3,799,660	96,891
7	1402 FENC	2005/12/30 Y	16.34	13.99	801,834	2.04	136,008,005	93.13	-2.7941	4,103,633	90,485
8	1402 FENC	2006/12/29 Y	11.98	12.01	756,663	1.92	140,227,309	106.06	42.3808	4,349,851	123,970
9	1402 FENC	2007/12/31 Y	14.37	12.78	809,058	2.54	161,814,257	119.7	42.445	4,480,346	170,477
10	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
11	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
12	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
13	1402 FENC	2011/12/30 Y	12.74	11.1	732,281	2.26	235,561,246	118.9	-22.7917	4,897,217	172,137
14	1402 FENC	2012/12/28 Y	9.89	8.81	701,324	1.73	236,204,948	124.97	2.0509	5,044,133	166,960
15	1409 Shinkong Synthetic	2000/12/30 Y	4.76	-8.44		-0.77	14,165,090	73.8	-65.3405	1,330,640	4,058
16	1409 Shinkong Synthetic	2001/12/31 Y	4.33	-3.18		-0.28	13,266,141	68.57	-19.6717	1,325,340	3,247
17	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
18	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
19	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
20	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
21	1409 Shinkong Synthetic	2006/12/29 Y	2.34	0.65		0.12	27,363,605	132	30.243	1,325,340	11,358
22	1409 Shinkong Synthetic	2007/12/31 Y	4.11	3.44		0.46	32,162,909	220.4	20.7222	1,454,073	14,904
23	1409 Shinkong Synthetic	2008/12/31 Y	1.95	-0.2		-0.05	32,251,701	174.74	-54.0004	1,454,073	6,543
24	1409 Shinkong Synthetic	2009/12/31 Y	3.18	4.44		0.44	29,812,930	164.29	150.0001	1,454,073	16,358
25	1409 Shinkong Synthetic	2010/12/31 Y	4.85	8.96		1.21	38,231,363	165.37	45.471	1,630,185	26,245
26	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
27	1409 Shinkong Synthetic	2012/12/28 Y	3.2	4.83		0.55	41,105,778	183.56	25.2329	1,760,484	17,094
-	▶ 工作表1 工作表2 ④				:	4					Þ



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# **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

# 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



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

1. 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 3. Setting for Estimation Model

- -Mean-Adjusted Model
- -Market Adjusted Returns model
- -OLS Risk-Adjusted Returns Model
- -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

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 folder

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 Technical Document and Guidebook 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 Event Study (Version 1.3.0.5)	
Event Study Name: Event Study Project	<u>a</u>
Data type Select the event date Expected model	
Stock Sample	Samples Import
Security Code:     Select All       Event Date:     20160302         Add     Unselect All   Delete	Search
Security Code Security Name Event Date Delete	
Allow Duplicate?	
V Notify If Duplicate? Number Of Stocks:0 Records	
	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 Index



# II. Event Day Setting:B2. Specific Events

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🖆 News	Search -Taiwan Market	and the second sec			Sandara Street St.	
Particular	Event			7		Back To
	Same Type of Event - Select Pa	ticular Event and Apply	To The Dedicated Security (	-Current Sa	mple	
- Period	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		বি		Stock Sample	e Save
Period	Se	lect Unselec	Delete Add	Security (	Code:	Select All
201401	- 20160302	Security cement	Actual Select	Event De	Add	Delete
Particul	lar Event 45	Code 1786 科妍 20141112	20141113	Event Da	te: 20160302	
TSE Tre	easury Stocks 👻 48	<b>,</b> 1786 科妍 20150626	20150629	Security	y Code Security Name	Event Date Delete
Security	y Code Filter 47	1806 冠軍 20150904	20150907	110	03 Chia Hsin Cement	20150828
Security	v Code Input 48	1904 正隆 20150910	20150911	131	13 UPC Technology	20141111
	49	1905 華紙 20140428	20140429	131	13 UPC Technology	20150205
Selec	t Import Clear All 50	2008 高興(20151103	20151105		15 OPC Technology	20150610
	Security Code	2008 高興(20160218	20160219	🖷 Event	Date Option	
1	000116 52	2017 官田:20140106	20140107			
2	000930	2020 美亞 20140328	20140329	💿 Use A	Announcement Date(Please Sele	ct the option for missing value)
3	000960		20140708	Dala	ta Missia a Value	
	<b></b>	523	20150624	Delt		
STEP:	1: Event interval	812	20150823			
1. 1	Enter query interval	924	20150 24	🔘 🔘 Use A	Actual Date	
		113	2015 116			OK
<b>II.</b> 3	Set for specific even	t 228	201/1229			
	categories	822	20,40825			1
		527	2/150828			
III. 3	Set for securities sa	mple	20150521			_
IV. (	Click "Search" tab			S	STEP3 : Set the e	event day as date
		STEP2 :			of declaration or	transaction date
15	1203	I Tick off re	search sample			
16	1204 6		scarch sample	a	nd click "O.K." ta	ab.
	Search 6	II. Click "Ad	d to Sample" t	ab 📘 🗖		
						Back To

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

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# **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.
- 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.

2	) TEJ Eve	ent Study (Version	1.3.0.5)	State of Contract		0	
6	Event Stu	dy Name: Event S	Study Project				<u>a</u>
Ι	Data type	Select the event date	Expected model				
	Method The Mar OL: GAI	average adjustment m ket index adjustment r S risk adjustment mod RCH risk adjustment r	odel nodel el nodel	OLS Adjustin Index Classifi Index Code	g Model 2 cation TSEC TSE Taiex	<ul><li>TSEC</li><li>Please St</li></ul>	▼ elect
	i Schr	oles-Williams OLS ris	k adjustment mode	Estimation per Event period:	riod: -1000 -600	Period ~ 1000 Period ~ 600	Period
	<b>3</b> The m 100	inimum samp <del>e</del> s of the	e estimated period:	]			
	Deal with	the missing data of the te Samples	e event date	4)			Tips to save samples
L	⊚ Repl	ace missing value by z	ero			(	

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# 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 Table		ble Residuals I	Information	Abnormal return	Delete Log	Save Back t	o Menu	
	(	General Sta	andardized	]						
		ITEM	_	ID	NAME	Event Date	-60	-59	-58	-57
	1	Security1		1103	Chia Hsin Cem	2015082	8 -0.2236	-0.3347	-1.3421	-1.6195
	2	Security2		1313	UPC Technolog	2014111	1 -1.0673	-0.8852	-2.1156	1.1041
	3	Security3		1313	UPC Technolog	2015020	5 0.9002	0.1498	-0.4145	0.2926
	4	Security4		1313	UPC Technolog	2015061	0 -0.2529	-0.3352	-1.4586	-1.2011
	5	Security5		1325	Universal Inc.	2014081	2 0.2575	0.5384	-0.8944	-0.9545
	6	Security6		1337	Asia Plastic	2014042	5 -0.3616	-0.0269	0.0583	-0.5465
	7	Security7		1338	Hiroca	2014102	7 1.3712	0.177	0.58	1.2069
	8	Security8		1339	Y.C.C. Parts	2015092	2 -0.1152	-1.9861	2.4115	0.1324
	9	Security9		1409	Shinkong Synt	2014021	2 -0.404	-0.1072	0.2988	-0.1302
	10	Security10		1409	Shinkong Synt	2014061	2 -0.6439	-0.8406	0.4022	0.2092
	11	Security11		1409	Shinkong Synt	2015060	3 -0.3935	0.3292	0.2873	-0.7419
		Average Abnormal Average Cumulative Dual abnormal								
		5		5						
Average Abnormal Returns Average Cum Returns								verage Cumulativ	ve Abnormal	
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		-4			~					
		-6 -								
		-8				$\sim$				
		10								
		-10-	-49	-37 -2	5 -13	-1	+11	+23 +	35 +47	+59
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