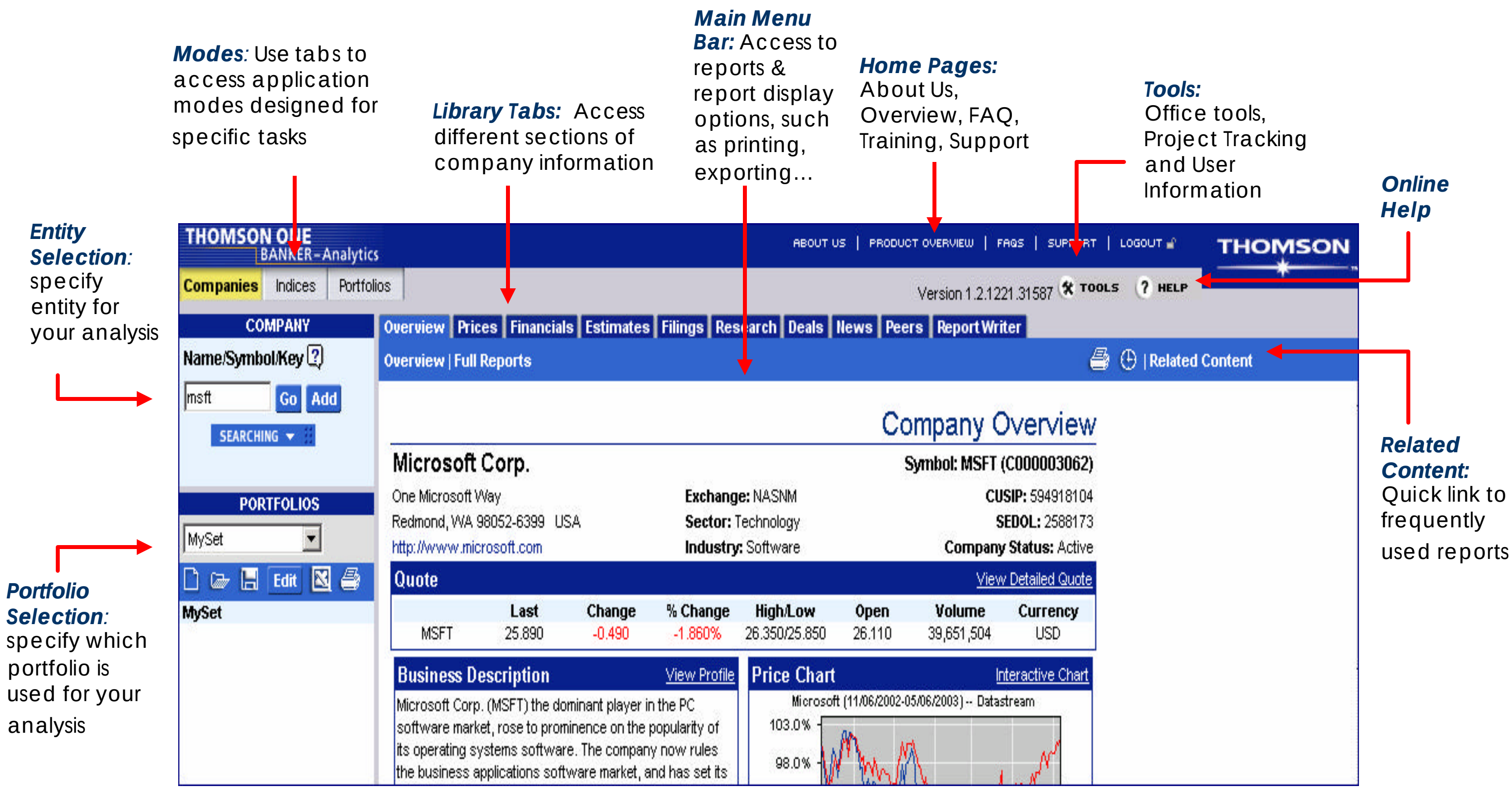
PRODUCT SNAPSHOT

THOMSON FINANCIAL

THOMSON ONE BANKER—ANALYTICS **NAVIGATION GUIDE**



THOMSON ONE BANKER—ANALYTICS **KEY APPLICATIONS**

Companies Mode

- Find a wealth of company information.
- Locate the specific company you wish to research by using identifying keys (e.g., ticker symbol, CUSIP, SEDOL, etc.).
- Find the company name by typing the ticker, CUSIP, SEDOL, ISIN, Valor or Thomson key into the *Search* toolbar lookup box and clicking *Go*.

Indices Mode

- View key market information on a selected index via reports and charts such as the DataStream Index Performance Overview, Interactive Market Chart, various price charts and price reports.
- Locate the specific index by clicking on the *Index Searching* button, selecting *Name Lookup*, and then typing the text you wish to search for into the text lookup box and clicking *Search*.

Portfolios Mode

- Access your Portfolios and a library of set reports for comparative purposes.
- The toolbar tabs provide access to more in-depth Profile, Performance and Financial information.

Searching

- Provides 3 types of searching:
  1. Quick Searching – allows you to screen on 30 core data items.
  2. Advanced Searching – allows for more in-depth screening on over 2,000 specific data items.
     - Universal Screening allows you to search across all available databases cross-sectionally and through time series on over 17,000 items.
  3. Search Library – choose from 45 pre-built searches, based on Indexes, Industries, Regions and more…

Tools

- A product administration mode for project tracking preferences.
- Allows you to view user information.

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COMPANY / PEER INFO

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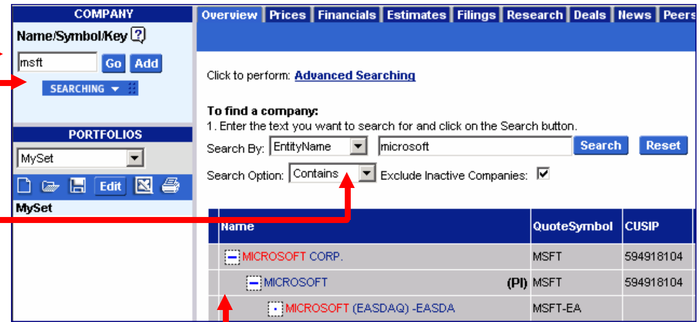
How do I Retrieve Company Information?

To Quickly Choose a Company:

1. If you know the exact company name or valid identifier Enter it into the text box.

   You can search for a company using:

   - Company Name
   - Thomson ONE Banker--Analytics Entity Key
   - Ticker
   - Worldscope ID
   - Cusip
   - DataStream Mnemonic
   - Sedol
   - I/B/E/S Ticker
   - ISIN
   - Valor

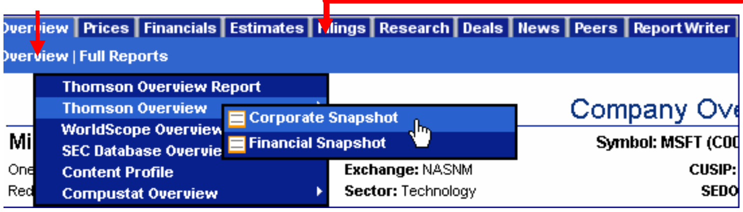


To Lookup a Company:

1. To search for a company, Click the **Searching** button
2. Select what to **search by**, then type in the search item
3. Click **search**
4. To View a company's related **securities,** Click the +

What Type of Company Reports & Charts can I use?

Once you have selected a company you can choose from over 200 pre-built reports and charts by clicking on the **dropdown menus**. Reports available include:



- **Overview** - Corporate and Financial Overview Reports
- **Prices** – Quotes, Pricing & Interactive Charting Reports
- **Financials** - Company Financial Statements & Ratio Reports
- **Earnings/Estimates** - Recommendations & Estimate Reports
- **Peer** – Peer/Comparables Reports
- **Filings** – Recent Key Filings and access to Global Access
- **News** – Recent News Headlines and Stories
- **Report Writer –** Create Custom Reports

How do I Access Company Reports & Charts?

1. Select a tab
2. Select the menu corresponding to the data you want to view.
3. Select the report

Customizing the Report - Report Options

Enables you to define the report **date** range

Enables you to change the numeric **scale**

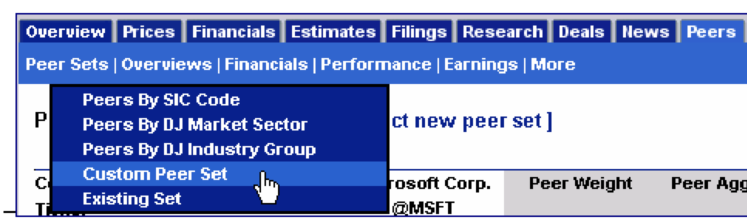
Enables you to change the **currency** of report

Export the preformatted report to Excel

Print the report

How do I Build a Peer Analysis Report?

1. Select the **Peers Tab and click on a sub-menu** to view the peer library and report options.
2. Define your **Peer Set:** Default peer group is based on SIC code & LTM sales.
3. Select the **Peer Report** from the drop down menus
4. **Print, Save or Export** Report to Excel



Peer Report Options

Click to **change your Peer Set**

Click to **View** your Active Peer Set by as a company list

Click to **Open** a previously saved set to use as your Peer Set

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PORTFOLIOS

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WHAT DOES THE PORTFOLIO MODE DO?

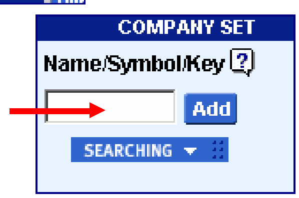
The **Portfolio mode** gives you the ability to evaluate, analyze and edit pre-built company sets, or custom portfolios, and create reports on items such as: Per-share data, Profitability, Performance, Liquidity Analysis, Earnings Growth, Analyst Sponsorship Summary, Comparative Financials, and Earnings Growth.

Examples of Reports available and their content:

VALUATION	• Valuation Report • Guidance List • Per-share data
PERFORMANCE	• Performance Analysis • Profitability Analysis • Liquidity Analysis
EARNINGS	• Earnings Growth Summary • Analysts Sponsorship Summary
FUNDAMENTALS	• Comparative Financials Summary

HOW DO I CREATE A NEW PORTFOLIO?

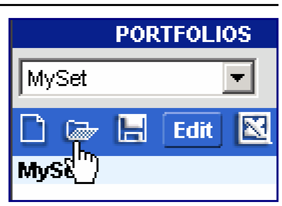
1. Click **Portfolios** on the upper left.
2. Click the **New Portfolio** button. The new portfolio is active as soon as the button is pressed. 
3. Enter items into the small text box & click the **Add** button.
4. Or, click the **Searching button** to look up companies. Use the drop-down menu to choose between Entity Name, key, etc.



5. Type your criteria into the text box on the resultant page. Use the drop-downs to narrow your search.
6. Click **Search**. The results list appears.
7. To add a company to the new portfolio, click the ***add to portfolio icon*** for each. 
8. Click on your desired tab or sub-tab in order to view the report for your active set.

HOW DO I LOOK UP A PORTFOLIO?

1. Click the **Open Portfolio Icon** on the left toolbar. A widow will open displaying the av ailable portfolios.
2. Select the desired set from the user folder window.
3. Click **Open**.
4. The company set is now open and active.

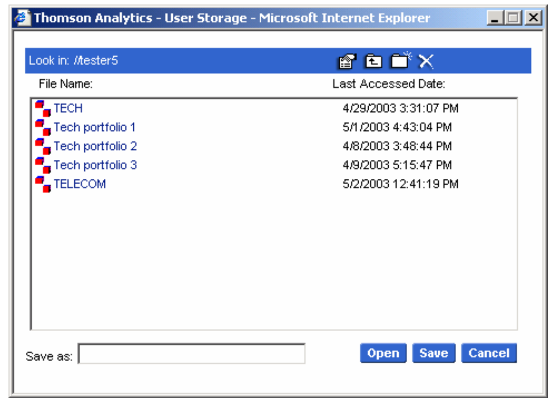


HOW DO I VIEW A PORTFOLIO REPORT ONCE IT IS ACTIVE?

Click on any of the **Portfolio** tabs in order to access menus for creating reports.

HOW DO I SAVE A PORTFOLIO ONCE I'VE CREATED IT?

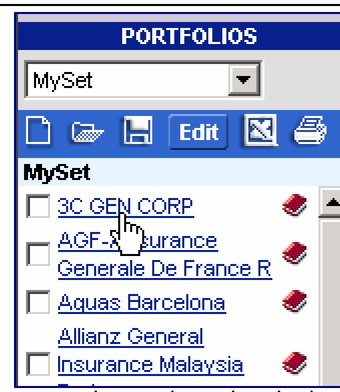
1. Click the **Save** button in the Portfolios screen on the left.



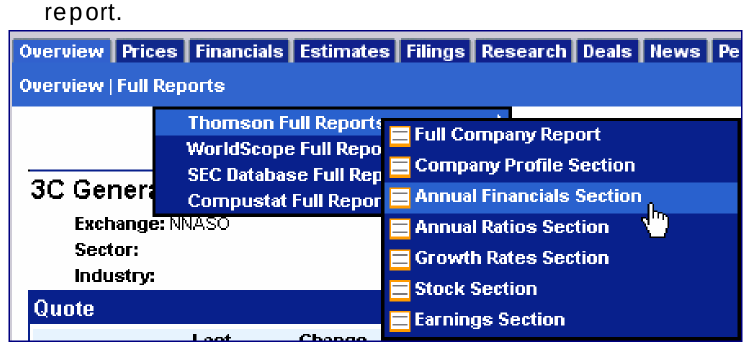
2. User folder window appears.
3. **Name** the set.
4. Click **Save**.

HOW DO I VIEW SINGLE SINGLE-COMPANY REPORTS ON COMPANIES IN MY PORTFOLIO?

1. After opening or building any portfolio, the list of portfolio contents will be on the left of your screen. Click any company name to view an overview of that company. The data will appear in the main section of your screen.



2. Click on the **Full Reports** sub-menu, then select the desired report.



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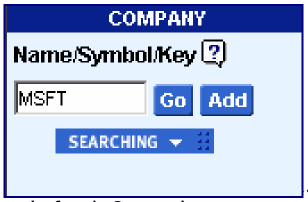
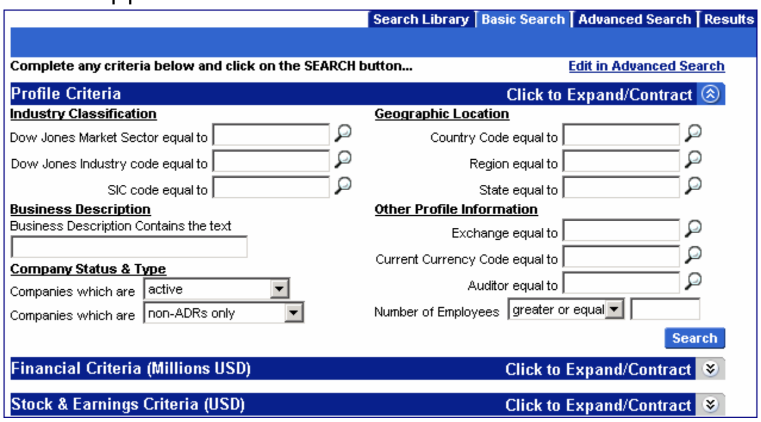
HOW DO I CONDUCT A QUICK SEARCH?



1. Type a ticker or other identifier into the Quick Search text box, then click **Go**. The company information will appear on screen.
2. Or, click the **Searching button** and select **Advanced Search**—the default Search page will appear.



Fill in the desired search **criteria**.

3. Click the **Search** button.

NOTE: To find the name or code for an item that you are not sure of, click on to bring up a selection box.

When selecting **Financial Criteria** section, click to select dates from a calendar to search across time-series.

HOW DO I SAVE A SEARCH AFTER RUNNING A QUERY?

1. Click the **Save Query link** just above the search criteria.
2. Enter the name that you want to assign your search query rule in the **Save As** box.

HOW DO I FIND SPECIFIC INFORMATION AFTER RUNNING A QUERY?

1. Click on any of the lower search tabs to see corresponding specific data.

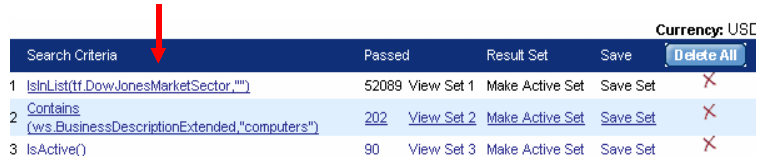
2. Click any icon or hyperlink on the resultant pages to drill down to more data.
3. Select **Report Writer** to pull data into a report.

HOW DO I CONDUCT AN ADVANCED SEARCH?

1. Click the **Searching button** and select **Advanced Search**—the default Search page will appear.
2. Click the **Advanced Searching** tab.
3. Select your **Base Set** in **Step 1**.
4. Choose your **items** in **Step 2**.
5. **Refine / Edit** your search in **Step 3** (if you desire), then **RUN**.

HOW DO I EDIT A SEARCH?

1. Click on a search criteria line in the **Search Criteria** column



1. A **Search Expression Builder** window will appear, allowing you to clear or update your rule.
2. **Edit** your rule.
3. Click **Update Rule**.

NOTE: Editing Search Items can only be done from the Advanced Searching screen

HOW DO I ACCESS A COMPANY REPORT FROM MY LIST OF RESULTS?

1. Click on the Company name hyperlink.
2. The Overview for that Company will appear.
3. From there you have direct access to a library of other company reports.

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THOMSON ANALYTICS in EXCEL

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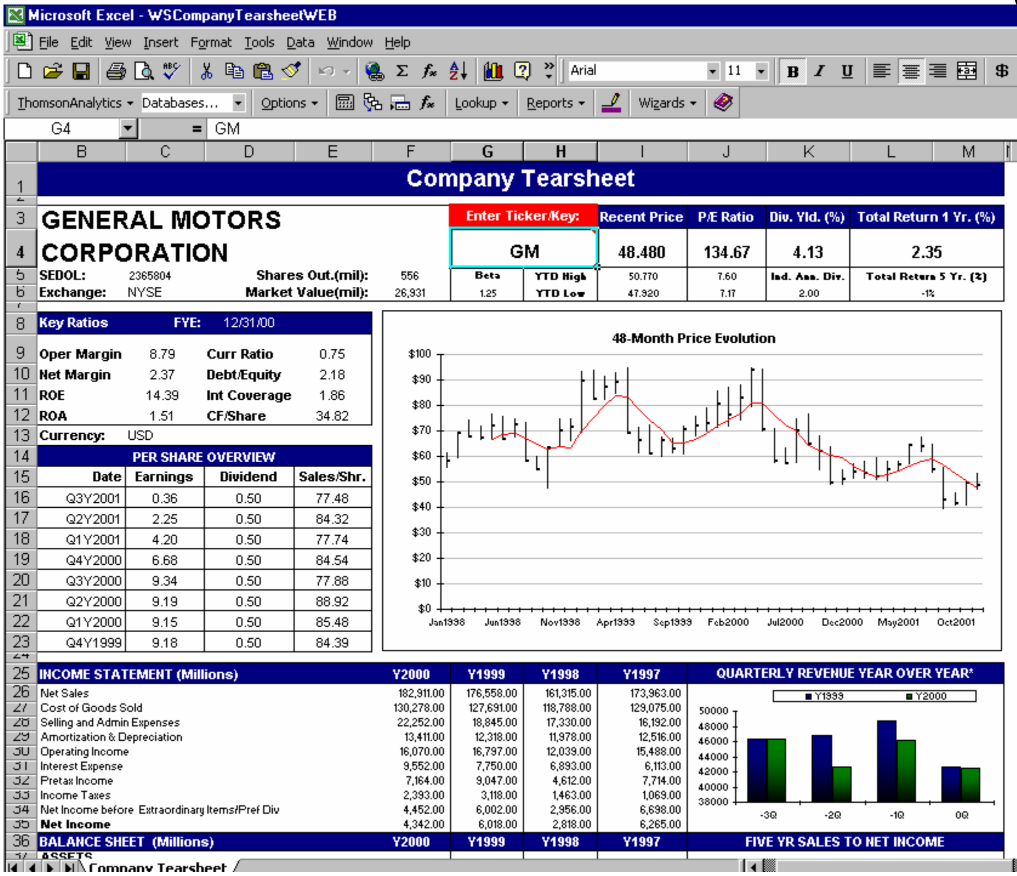
How Does the Thomson ONE Banker--Analytics Add-in Empower You?

- It enables you to access **Thomson ONE Banker--Analytics** data directly within MS Excel.
- You can pull data directly into your existing Excel spreadsheets and models.
- It offers you easy access to pre-built reports, wizards, and more.

Example of the **Company Tearsheet –** located in the **Reports** dropdown menu



What Are My Options?

1. Choose from over 75 pre-built reports by click on the **Reports** dropdown, including:
   - Industry specific company financials
   - 5 or 10 years of financial data
   - Ratio & Trend Reports
2. Build your own **customized spreadsheets** or **models** accessing data directly Thomson ONE Banker--Analytics. Use one of the Excel Wizards OR build your own formulas using Thomson Analytic's simple **PFDL expressions**.

The Thomson ONE Banker--Analytics Toolbar: Up Close

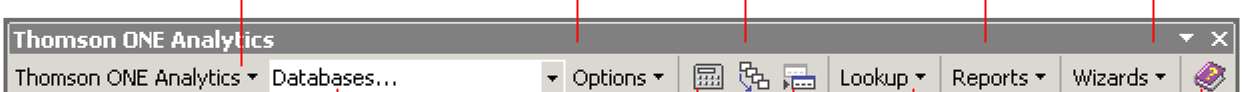
Main Menu – houses features like:
- Up/Down loading sets
- Data & Calc options
- Wizards
- Lookups
- Reports
- More...

Options
Set Calc options and data options, such as base periods and PFDL

Auto Fill
Calculate quick time series across cells

Reports
A library of over 75 reports

Wizards
Access easy to use wizards to help create reports, pull pricing data and build comps



Database Directory
Provides easy access to all of the databases. Use to specify the database to retrieve data from.

Calculate
Use to retrieve data & update your models

Convert
Quickly transform spreads with PFDL formulas to spreads with just data values

Lookup Boxes
Entity and Item lookup boxes

Help
Online Help for the Excel Add-in

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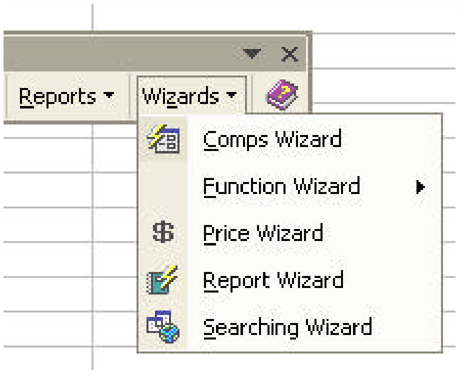


GETTING ASSISTANCE BUILDING WITHIN EXCEL

Comps Wizard: Quickly build comparable sets and view Comp Reports ranging from Financials to Pricing & Earnings
Function Wizard: Quickly access and create PFDL, SFDL and TFDL functions
Price Wizard: Download Price Series for single companies or sets of companies
Report Wizard: Quickly build Custom Reports and download data into Excel for single companies or sets of companies
Searching Wizard: Allows for quick and easy searching and custom spreadsheet building

HOW DO I CREATE A COMPARABLE REPORT?

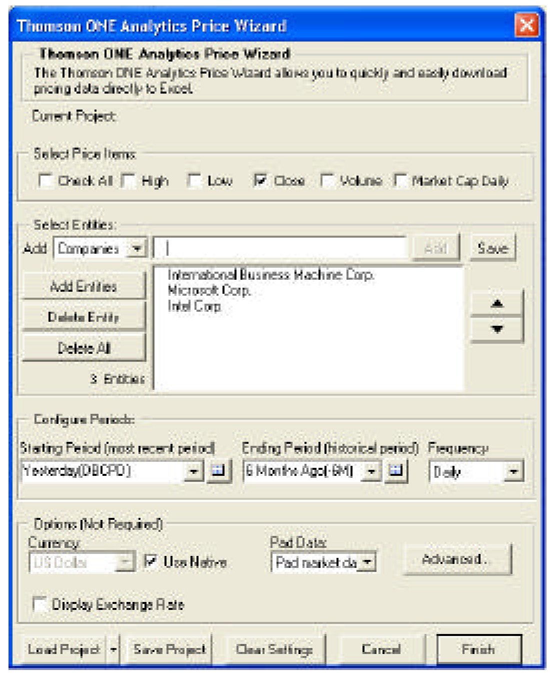
1. Select the **Comps Wizard** from the Wizard drop-down in the Thomson ONE Banker--Analytics toolbar.
2. Select your **Database** and the **components** that you want in your final product (e.g. reports, charts).
3. Enter your **base company.**
4. Choose from a default **Peer group** or create your own group.
5. Select your specific reports.

HOW DO I CREATE A REPORT USING THE REPORT WIZARD?

1. Select the **Report Wizard** from the Wizard dropdown in the Thomson ONE Banker--Analytics toolbar.
2. Select your **Database** of choice.
3. Select the **Items** – you can choose items from multiple databases.
4. Select the **Companies** – you can select company by company or download a saved set.
5. Select the **Periods.**
6. Click **Next.**
   Select the **Display Options** (this is an optional step).
8. Click **Finish.**

HOW DO I CREATE A REPORT USING THE PRICE WIZARD?

1. Select your **Items**.
2. Add **Companies, Sets** or **Indexes.**
3. Select your desired **Period.**
4. Select **Options** (this is an optional step).
5. Click **Finish**.



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PFDL OVERVIEW

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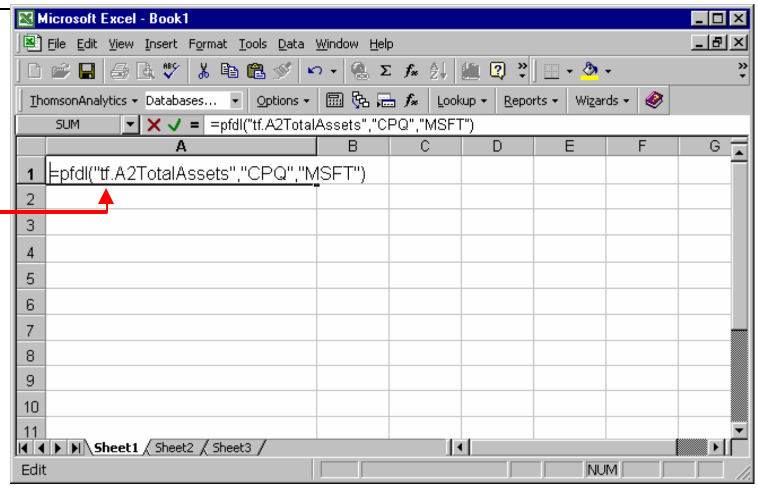
WHY WRITE AN EXPRESSION IN EXCEL?

- In order to input and manipulate Thomson ONE Banker--Analytics data in MS Excel and achieve maximum results.

=PFDL (“*ws.TotalAssets*”,“*cpa*”, “***US4592001014***”)



HOW DO I WRITE A PFDL EXPRESSION?

=PFDL (“database.expression”,”period”,”key”,”dataoptions”)

1. Enter the **database.** You can choose from the following:

Database	Description	Content
TF	Thomson Financial	Universal Database
WS	Worldscope	International Fundamentals
CS	Compustat	US Fundamentals
EX	Extel	International Fundamentals
IB	I/B/E/S	Earnings Estimates
IBH	I/B/E/S History	Historic Earnings Estimates
DS	DataStream	Global Equity & Index Pricing
USP	US Pricing	US Equity & Index Pricing

2. Enter the **expression**. This can be any **database item** or **custom formula**. To find an item, click on the **Item Lookup** on the lookup drop-down menu.

=PFDL(“***ds.PriceClose***”,…returns Price Close from DataStream

=PFDL(***“ws.Sales”***,…returns Sales from Worldscope

=PFDL(***“cs.EPS”,***…returns EPS from Compustat

3. Enter the **period**. The **Period** argument contains the period for which the expression is to be evaluated. If Period is omitted, the current period is used. The following date types can be used:

Types of Periods:

- **Absolute**: Y2001, Q1Y02, JUN00, 10FEB02…
- **Date Relative**: 0Y, -1Y, -3Q, 0M, -30D, etc.
- **Entity Relative**: CPA, CPQ, CPM, CPW, CPD (returns the most current period for a company)

Include period argument codes into the syntax as follows:
=PFDL (“*ds.PriceClose*”***,“CPD”***,…returns current pd price close from Datastream
=PFDL(“*ws.Sales*”***,“Y00”***,…returns Y00 sales from Worldscope
=PFDL(“*cs.EPS*”***,“Q3Y01***,…returns EPS for Qtr3 of Y01 from Compustat
=PFDL(“*ws.TotalAssets*”***,“-2Y”***,…returns TA for –2Y from Worldscope

4. Enter the **key**. The key argument specifies the entity for which the expression is to be evaluated. It can be any valid **company identifier**, e.g. Company Ticker, Cusip, Sedol, ISIN, Valor, or Thomson ONE Banker--Analytics Entity Key:
=PFDL(“*ws.Sales*”,“*Y00*”, “***IBM***”) returns Sales for IBM
=PFDL(“*cs.EPS*”,“*Q3Y00*”***, “459200101”)*** returns EPS for Q3, Y00
=PFDL(“*ws.TotalAssets*”,“*-2Y*”, “***2005973***”)

5. Define and enter data options (this is an optional step).

HOW DO I CHANGE THE DATA?

You can change the data by using **Options.**

- The options argument allows you to alter the meaning of the data item. It is entered using the following syntax: =PFDL(“*db.expression*”,”*period*”,”*key*”***,”option”***)

Frequently used options are:

A. Data Codes – Dealing with #NA

#NA,, etc, can be replaced by a **blank cell** or a **zero**:

Option	Description
N	Replace the data code with a blank
Z	Replace the data code with a value of zero

=PFDL(“*ws.DeferredCharges*”,“*Y00*”, “*MSFT*”***,”Z”)***
NOTE: This will return zero, rather than #NA.

B. Currency

Allows user to return data in a **target currency**.

=PFDL(“*ws.Sales*”,”*Y00*”,”*IBM*”***,”EUR”***)

NOTE: This will return IBM’s annual sales figure for fiscal year 2000 in Euros. **Curr=isocode**

HOW DO I UPDATE THE DATA?

Once the PFDL formula is entered, click on the **calculate** icon to return the value.

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COMMONLY USED PFDL

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PRICE

Last Price Close	=PFDL("tf.PriceClose","tf.cpd","key")
Last Volume	=PFDL("tf.Volume","tf.cpd","key")
Price – 52 Week High	=PFDL("TMAX(tf.PriceHigh,tf.cpd,-52w)",,"key")
Price – 52 Week Low	=PFDL("TMIN(tf.PriceLow,tf.cpd,-52w)",,"key")

VALUATION

Current P/E Ratio	=PFDL("tf.PERatioCurrent",,"key")
Current Price/Book Value	=PFDL("tf.PriceToBookRatioCurrent",,"key")
Current Price/Cash Flow	=PFDL("tf.PriceToCashFlowCurrent",,"key")
Beta	=PFDL("tf.Beta",,"key")
Current Market Capital	=PFDL("tf.CurrentMarketCap",,"key")
Last Annual Market Cap	=PFDL("tf.YrEndMarketCap","tf.cpa,"key")
Last Annual Shares O/S	=PFDL("tf.CommonSharesOutstanding","tf.cpa","key")
Last Annual FCF Per Share	=PFDL("tf.FreeCashFlowPerShare","tf.cpa","key")
Last Annual Book Value Per Share	=PFDL("tf.BookValuePerShare","tf.cpa","key")

PROFILE ITEMS

Company Name	=PFDL("tf.EntityName",,"key")
CUSIP	=PFDL("tf.Cusip",,"key")
Sedol	=PFDL("tf.Sedol",,"key")
Primary Exchange	=PFDL("tf.PrimaryExchange",,"key")
Primary SIC Code (text)	=PFDL("tf.PrimarySICCode.description",,"key")

DATES

Latest Full Fiscal Year	=PFDL("tf.FiscalPeriod","tf.cpa","key")
Latest Fiscal Year End Month	=PFDL("tf.FiscalYearEndDate","tf.cpa","key")
Current Quarterly Period	=PFDL("tf.CurrentPeriodQuarterly",,"key")

EARNINGS & DIVIDENDS

Fiscal Year 1 Mean EPS	=PFDL("tf.EPSMeanCurrFYR1",,"key")
Fiscal Year 2 Mean EPS	=PFDL("tf.EPSMeanCurrFYR2",,"key")
Fiscal Quarter 1 Mean EPS	=PFDL("tf.EPSMeanCurrQTR1",,"key")
Latest 12 Months EPS	=PFDL("tf.EPSLast12Months",,"key")
Latest DPS	=PFDL("tf.DividendsPerShare","tf.cpq","key")
LTM DPS	=PFDL("tf.DividendsPerShareLast12Months","tf.cpq","key")
Current Dividend Yield	=PFDL("DividendYieldCurrent",,"key")
As Reported EPS - 2000	=PFDL("tf.EPSAsReported","Y2000","key")

FUNDAMENTAL ITEMS

Ent. Value – Last Available	=pfdl("tf.EnterPriseValue","tf.cpa","key")
Ann. Sales – Last Available	=PFDL("tf.Sales","tf.cpa","key")
Ann. Sales – Previous	=PFDL("tf.Sales","tf.cpa-1","key")
Qtr. Sales – Last Available	=PFDL("tf.Sales","tf.cpq","key")
Qtr. Sales – Previous	=PFDL("tf.Sales","tf.cpq-1","key")
Cost of Goods Sold – 2000	=PFDL("tf.CostOfGoodsSold","Y2000","key")
Depr, Depl & Amort – 2000	=PFDL("tf.DepreciationDeplAmortExpense","Y2000","key")
Operating Income – 2000	=PFDL("tf.OperatingIncomeAfterDepr","Y2000","key")
EBITDA – 2000	=PFDL("tf.EarningsBeforeIntTaxesAndDepr","Y2000","key")
EBIT – 2000	=PFDL("tf.EarningsBeforeInterestAndTaxes","Y2000","key")
Pre-Tax Income – 2000	=PFDL("tf.IncomeBefIncomeTaxes","Y2000","key")
Income Taxes - 2000	=PFDL("tf.IncomeTaxes","Y2000","key")
Net Income – 2000	=PFDL("tf.NetIncome","Y2000","key")
Cash & Short Term Inv. – Last Ann.	=PFDL("tf.CashAndSTInvestments","tf.cpa","key")
Accounts Receivables – Last Ann.	=PFDL("tf.AccountsReceviable"," tf.cpa","key")
Total Current Assets – Last Ann.	=PFDL("tf.TotalCurrentAssets"," tf.cpa,"key")
Net Property, Plant & Equip. – Last Ann.	=PFDL("tf.TotalPropPlantEquipNet"," tf.cpa","key")
Total Investments – Last Ann.	=PFDL("tf.TotalInvestments"," tf.cpa","key")
Total Assets – Last Ann.	=PFDL("tf.TotalAssets"," tf.cpa","key")
Short Term Debt and Curr LTD – Last Ann.	=PFDL("tf.STDebtAndCurPortLTDebt"," tf.cpa","key")
Total Current Liab – Last Ann.	=PFDL("tf.TotalCurrentLiabilities"," tf.cpa","key")
Long Term Debt – Last Ann.	=PFDL("tf.TotalLTDebt"," tf.cpa","key")
Total Liab. – Last Ann.	=PFDL("tf.TotalLiabilities"," tf.cpa" ,"key")
Total Capital – Last Ann.	=PFDL("tf.TotalCapital"," tf.cpa","key")
Common Shareholders Equity – Last Ann.	=PFDL("tf.TotalCommonEquity"," tf.cpa","key")
Total Liabilities & Equity – Last Ann.	=PFDL("tf.TotalLiabAndShareholdersEquity"," tf.cpa","key")

RATIOS

ROA – Last Available	=PFDL("tf.ReturnOnAssets","tf.cpa","key")
ROA – 5 Yr Avg	=PFDL("tf.ReturnOnAssets5YrAvg","tf.cpa","key")
Quick Ratio – Last Availablle	=PFDL("tf.QuickRatio","tf.cpa","key")
Dividend Payout	=PFDL("tf.DividendPayout","tf.cpa","key")
Total Debt % Common Equity	=PFDL("tf.TotalDebtPctCommonEquity","tf.cpa","key")
Fixed Charge Coverage Ratio	=PFDL("tf.FixedChargeCoverageRatio","tf.cpa","key")
Total Investment Return	=PFDL("tf.TotalInvestmentReturn","tf.cpa","key")
Net Margin	=PFDL("tf.NetMargin","tf.cpa","key")

Note: *In the above examples, "key" denotes a valid company identifier*

Note: *To return previous years, replace "tf.cpa" with "tf.cpa –1", "tf.cpa –2", etc.*