



# User Manual

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Version: 4.5

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# 1 Welcome



## Dear customer!

Thank you for using the most sophisticated market data and trading system developed by Infront. The solution is targeted towards institutional and active traders on the equity-, futures- and derivatives markets. Depending on your vendor and your account the program provides information from one or several market data sources.

## New user

If you are a new user, please take some time to browse through this Help file. Read through the information under the Introduction section as they are designed to provide background information in order to understand the structure in the program. The program have very much the same design as the Microsoft Office products so you should be able to learn the structure and menus in just a few minutes.

## Existing user

If you are an existing user, use this Help system to get more detailed information on each window. Access information either by the index in the help file or by pressing F1 when you have the window active.

## What is new in this version

- Microsoft Vista support
- Chains and index constituents
- New Floating windows modus (advanced)
- More advanced Trading functionality

## Getting started

- Create a Workspace
- Main Menu
- Support
- Communication Status

## About this Help file

This Help file will assist you through the extensive functionality you find in the program. If you are new user, we recommend you take five minutes to read the Quick Start Guide that you find under **Help | Quick Start Guide** in the main menu.

# 2 Introduction

The topics in this section provide some basic information about the program and what you can do with it.

- Getting Started
- My Profile
- Changing Your Password
- Communication Status

- Find Symbol
- Mobile Services
- Support

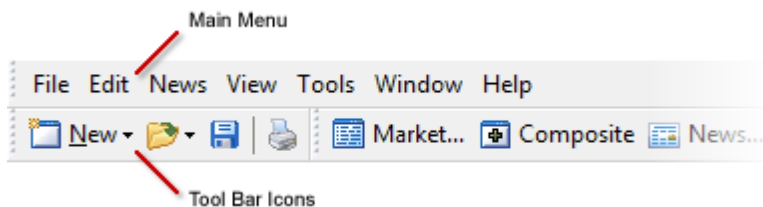
## 2.1 Getting Started

### Features

- Real-time streaming data
- Order depth (level 2 data)
- Order entry
- Advanced charting
- Advanced broker statistics data
- Mixed news windows
- Export data via DDE or RTD links
- Linking of windows
- Automatic upgrade to new versions

### Main menu

The main menu in the program will provide you with access to market data and important functionality.

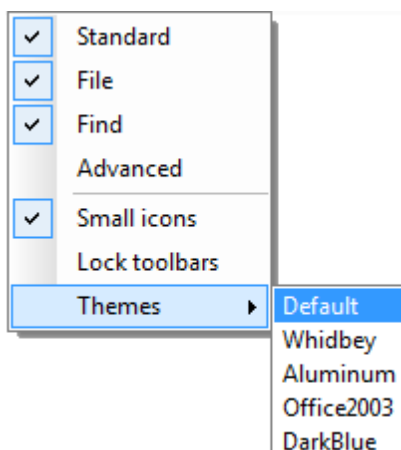


### Menu bar icons

The most important functions have icons on the menu bar.

### Tool bars

You can customize the tool bars displayed in the program by right-clicking on the top menu or select **View | Toolbars**.



### Themes

Themes are design layouts used in the program in order to display different design. Different Themes are available under **View | Toolbar | Themes**.

### Right click menus

The right click menus are the same for all Market Windows and Composite Windows and is available by right-clicking on a symbol.

### Microsoft Windows Vista support

The application has now been updated to play nicely with Windows Vista. This means that for new installs, all user data files are stored in an Ontrade folder below the My Documents (or Documents) folder. This is because Vista does not allow applications write access to the Program Files folder. Note that existing installs will not be affected..

Work has also been done to make sure the application works properly with Vista features such as Glass frames, the Taskbar preview window, Flip 3D, and so on.

We will continue to work on our Vista support including using specific features such as task dialogs, new open and save dialogs. This will be made available in future versions.

## 2.2 My Profile

### Your Account

My Profile provides an overview of your user account and service subscription. You have the possibility to view and update the profile directly from the program by selecting **View | My Profile** or by clicking on the "My Profile" icon on the main menu.



### Update account information

To change account information, e.g. if you have a new e-mail address, click the **Change account information link**, type the correct address and press **submit**.

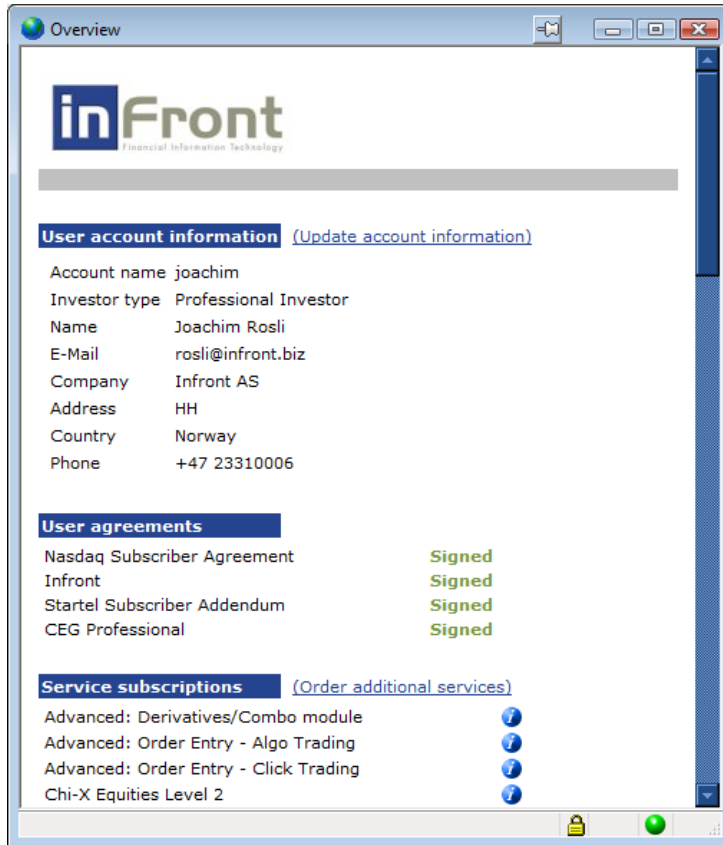
### Subscription agreements

Your account information is displayed including the user agreements required and services that you subscribe to.

### Order additional services

If you want to add services to your subscription, you can use the **Order Additional Services** link provided and select the desired services.

*Example of My Profile*



## 2.3 Changing Your Password

The program has two login and password sessions:

- For the program and market data
- For Order Entry

In order to change any of these passwords please contact support.

## 2.4 Communication Status

Bits Per Second

### *Description*

Communication status provides you with feed alerts, overview of all the connections you have to different server and a log file.

### *How to open*

- Select **View | Communication Status** from the main menu or double click on The Online Trader / Infront logo in the bottom right corner.

### **Connection Status**

A successful connection is indicated by a green icon in the lower right corner in each window. To see all

connections select **View | Communication Status | Feeds**. The connections are split into:

- Quotes: connections for Streaming Data

- News: connections for streaming Data
- Trading: for active connection to a Trading Gateway server
- History: for active connection to a Historical server

### Missing connection

If the connection to a server is lost, a popup will be displayed in the Communication Status window and you see a red icon in the lower right corner of the window.

### Strike through effect

If you loose connection to the internet the quotes will be marked with a strike through effect.

## Alerts

Messages including alerts from the sources you got access to, pops-up automatically in the program. This can be different information like warnings or errors from the source. To disable the pop-ups, go to the feeds tab and tick off for the source you do not want to receive.

### Trading halt alerts

Some exchanges send out logical matching halt and suspended messages on instruments when trading in those instruments have been temporarily disabled. These messages are now displayed as trading halt alerts - automatically popping up the Alerts page of the Communication Status window.

If you prefer not to see these trading halt alerts, they can be turned off in the **Tools | User Interface settings dialog**.

### Information about new available feeds

If you have recently ordered additional feeds and services, the next time you login the application will show the list of newly available quote and news feeds in the Alerts page of the Communication Status window.

## Feeds

Each feed (market, news source, connection to historical servers etc) that is active (open) in the program is displayed in this list. The overview displays the Status, IP address and BPS (Bits Per Second) for each source. The total bandwidth usage is shown in the right pane. For each feed you can tick on / off for warnings from the source.

## Log File

The Log provides all communication that can be exported in case of you have problems. To copy the log file right-click and select All and Copy.

## 2.5 Find Symbol

To search for a symbol can be done different ways:

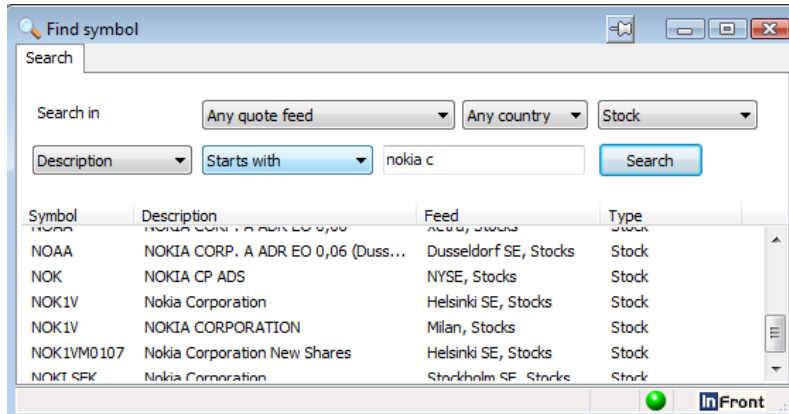
- Typing in the Symbol code directly on your keyboard in any window
- Selecting Tools|Find Symbol on the main menu
- Using the Find Symbol dialog on the Toolbar

### Find Symbol Window

The Find Symbol Window enables you to search for all symbols available on your account. The following criteria are available in order to filter and narrow your search:

- Feed / Exchange
- Country
- Asset class
- Description / Symbol / ISIN / Exchange symbol / Underlying symbol
- 

Type in the name / ticker etc you wish to search for and click on the "Search" button, e.g "Nokia C".



### Searching from the Composite Window

Searching for a symbol has been made easier by enabling a contains-search on the description field of the symbol by default. This means that you can type "hydro" to find "Norsk hydro".

## 2.6 Mobile Services

### mTrader - streaming quotes on your mobile phone

With the program you can get access to mTrader, a small application for mobile phones that provides streaming realtime information. mTrader can be used on all mobile phones that supports Java and GPRS.

#### Features

- Streaming Quotes in realtime
- Streaming Level 2 data in realtime (depth of market)
- Streaming News
- Intraday and Historical Charts
- Time & Sales data
- Upload quote lists from The Online Trader

#### Available sources

You will have access to sources according to your subscription.

For more information see [www.theonlinetrader.com](http://www.theonlinetrader.com)

#### User guide for mTrader

For user guide for mTrader see [www.theonlinetrader.com/guides/](http://www.theonlinetrader.com/guides/)

### WapQuote

All subscribers have access to a WAP service free of charge. The access includes markets according to your subscription.

To read more choose **File | New | Mobile Services** from the main menu.

## 2.7 Support

### Installation

The program must be installed on your computer according to specification found on [www.theonlinetrader.com/eng/installation.htm](http://www.theonlinetrader.com/eng/installation.htm)

### Connection through Proxy and Firewalls

The program will automatically attempt to detect your computer's proxy settings. In some cases this is not possible. To manually enter proxy settings start the program and select **Tools | Setup | Proxy** in the main

menu.

For more detailed information please see [www.theonlinetrader.com](http://www.theonlinetrader.com) or contact customer support.

## Frequently Asked Questions

Please visit our support area on [www.theonlinetrader.com](http://www.theonlinetrader.com)

## Customer support

If you are experiencing problems or have questions please select **Help | Mail to Support**.

You can easily send questions, suggestions or problem reports to your provider's support department by selecting **Help | Mail to support** in the application. Now this feature has been extended by letting you attach extra information about your local environment to reduce the time used to resolve issues.

You can selectively remove or include items you want to include in the attachment to support

## My Profile

My Profile enables you to update account information, view required contracts and ordering additional services. Read more

## 3 Latest Updates

### 3.1 Version 4.5 update

#### Orderbook Window

MM	AccBS	AvgBid	B Size	Bid	Ask	A Size	AvgAsk	AccAS	MM
11	35 982	112,50	35 982	112,50	112,75	17 672	112,75	17 672	2
10	85 415	112,36	49 433	112,25	113,00	63 138	112,95	80 810	8
17	119 865	112,25	34 450	112,00	113,25	65 075	113,08	145 885	9
4	137 788	112,19	17 923	111,75	113,50	37 129	113,17	183 014	13
4	140 388	112,18	2 600	111,50	113,75	13 501	113,21	196 515	9
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The orderbook window has been updated with the following new features:

- New setup dialog
- New logic for saving default settings
- Highlight best price levels
- Optional separator between bid / ask section
- New session status indicator on summary line 1. The indicator is normally green and turns red when the symbol is halted or suspended.
- New session status label on summary line 2 showing the full session status description

#### Quote Overview Window

Session status indicator

Nokia Corporation [HSS] - Overview

NOK1V VWAP: 11,4085 V: 8 518k L: 11,47 +/-: 0,03 0,26%

Overview Details News Brokers Trades Trade History Hist

Orderbook

AccBS	B Size	Bid	Ask	A Size	AccAS
3 311	3 311	11,46	11,48	3 074	3 074
13 918	10 607	11,45	11,49	8 478	11 552
15 166	1 248	11,44	11,50	2 510	14 062
29 351	14 185	11,43	11,51	22 434	36 496
35 624	6 273	11,42	11,52	15 812	52 308
--	--	--	--	--	--

Orderbook information

Tot B Size	35 624	B/A Ratio	0,68	Pr Bid	11,43	
Tot A Size	52 308	B +/-	0,26%	0,03	Spread%	0,17%

Trades information

Last	11,47	OnValue	97m	Low	11,23	
Time	14:56:50	Trades	5707	AvgVol	1 492	
L +/-	0,26%	0,03	VWAP	11,4085	AvgVal	17 007
Volume	8 518k	Open	11,51	Pr Cls	11,44	
OnVolume	8 508k	O +/-	-0,35%	-0,04	B Lot	1,00
Turnover	97m	High	11,58	BLValue	11	

Symbol information

Type	Stock	ExchSym	24311
ISIN	FI0009000681	Currency	EUR

0 Front

Fully configurable orderbook

Drag to add Orderbook levels

Collapsible info bars

Adjust window size to resize content

The quote overview window now has a more flexible layout and includes several new features:

- All available orderbook levels are displayed
- Configurable columns in orderbook
- New session status indicator on summary line 1. The indicator is normally green and turns red when the symbol is halted or suspended.
- New session status label on summary line 2 showing the full session status description
- Symbol information is organized in collapsible info bars
- Added historic performance numbers (2Yrs, 3Yrs, 5Yrs)
- GICS sector number and description (level 1&4) added to fundamentals info bar
- RSI14 value added to fundamentals info bar
- Primary and secondary segments
- Added key ratios for stocks: eps, p/e, EBIT, EBITDA, net sales and net profit
- New bonds information info bar
- Trades window sorting and filtering
  - Most columns in trades window can be sorted
  - New filter dialog, accessed from trades window context menu
  - Filter on broker codes, time, volume and price

## GICS codes

Global Industry Classification Standard (GICS) can now be displayed as columns in the market window and in the symbol window (under Fundamentals info bar). There are three new fields; GICS code, sector (level 1) and group (level 4).

## Segment

Primary and secondary segment are added as two new fields. They can be displayed as columns in the market window or in the symbol window (Fundamentals info bar).

## RSI14

Real time updated RSI14 value is added as a new field. It can be displayed as a column in the market window, or in the symbol window (Fundamentals info bar).

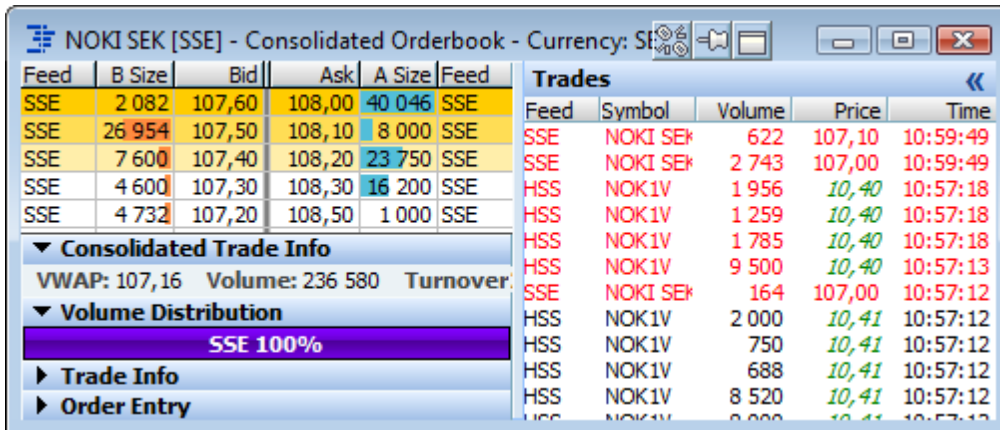
## Smart Order Routing

The order entry window now supports smart orders

### Native Currency Filter in Consolidated Orderbook

The consolidated orderbook now includes a new filter that excludes symbols that are not traded in the same currency as the main symbol.

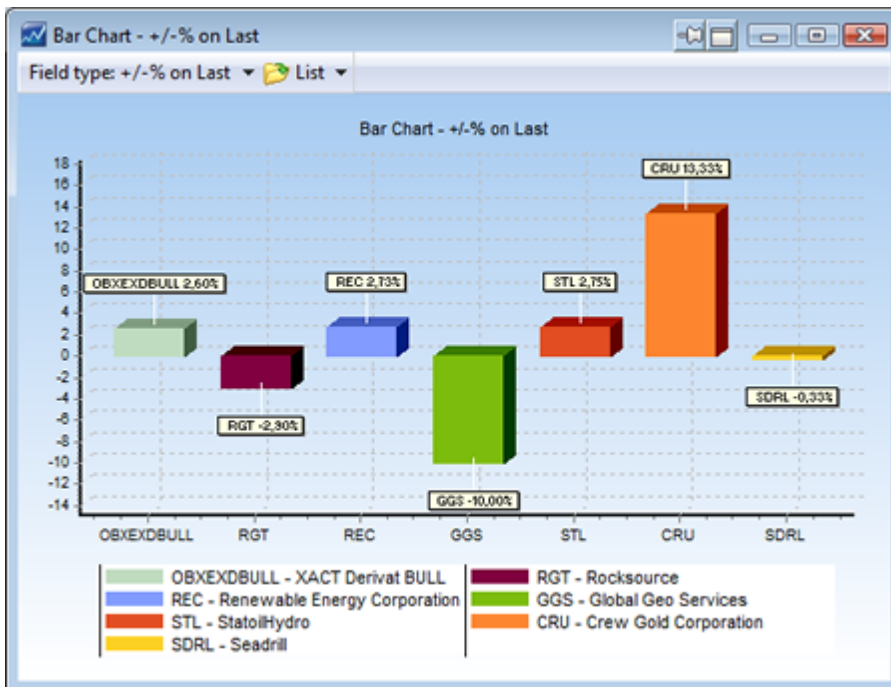
### New Trades Panel in Consolidated Orderbook



The consolidated orderbook now includes a new trades panel showing trades on the included symbols. Prices are converted to the target currency. The trades panel is collapsed by default, but can be displayed by clicking the expand button or by pressing F9.

### New charts

There are now two new chart modes, accessed from the symbol context menu.



### Bar chart

A chart for displaying one or more instruments side-by-side in a bar chart. As a default it will display the selected instruments net change in percent. It can be configured to chart a number of historic values in order to quickly compare the instruments performance against each other.

### Yield line chart

A chart for displaying a series of instruments in a line chart. The instruments can be added one by one, or by a multi selection in the market window. The instrument list can also be edited in the chart setup dialog. By default it will chart the last price value for all selected instruments, but it can be changed to chart bid, ask, bid yield, ask yield and yield instead. What to chart can also be individually changed per instrument.

### Excel RTD links

The application now acts as an Excel RTD Server. In Excel you can use formulas in the format =RTD ("ontrade.quotes"; ""; "SSE"; "ERIC B"; "Last) to get live updating quotes. For more information on Excel RTD, see <http://support.microsoft.com/kb/289150>.

Note I: By default Excel only updates RTD links every 2 seconds. This can be configured, see [http://msdn.microsoft.com/en-us/library/aa140060\(office.10\).aspx](http://msdn.microsoft.com/en-us/library/aa140060(office.10).aspx) (search for "RTD Throttle Interval").

Note II: The application must be running for the RTD links to work. If you open an Excel spreadsheet with RTD links, it will automatically start the application, but it will not be able to resolve the links. To correct this, close and reopen the spreadsheet.

### Misc changes

Workspaces are now saved in a new file format. A single XML-file replaces all previous workspace files. This new file format cannot be read by previous versions of the application.

The installer no longer prompts for Provider ID during a new install (Provider ID is still required when entering the username and password, however).

The sorted column and selected pie-chart size in the All Brokers and Single Broker pages of the Market window is now properly persisted in the workspace.

## 4 The User Interface

### 4.1 Main Menu

The main menu provides you instant access to functionality and market data and is structured in the following way:

#### File menu

##### New

- Market
- Market Pages
- Derivatives
- Forex Cross Table
- Composite
- Broker Statistics
- Chat
- Trade Ticker
- Order Entry
- Basket Trading
  
- Browser
- Portfolio
- Mobile Services (opens a web page with information about the mobile services)

Create Workspace - Creates a new automatically workspace

Open Workspace - Opens a saved workspace (Ctrl+O)

Save Workspace - Saves the current workspace (Ctrl+S)

Save Workspace as - Saves the current workspace with a defined name

Save Workspace as default  
Close Workspace (closes the current workspace)

Print - Print selected window (Ctrl+P)  
Exit - Close the program (Alt+F4)

### Edit menu

- Cut (Ctrl+X)
- Copy (Ctrl+C)
- Copy DDE Link (Ctrl+E)
- Paste (Ctrl+V)
- Delete (Del)
- Select All (Ctrl+A)
- Clone This Window
- Link This Window

### View menu

- Toolbars - Choose between different toolbars (standard, file, find and advanced), choose icon size and themes.
- Communication status
- Alert Monitor
- My Profile

### Tools menu

- Setup
- Option Calculator
- User Interface
- Order Entry
- Find Symbol
- Application Upgrade
- Delete Cache

### Help menu

- Help Content
- Quick Start Guide (opens a web site with manuals and guides in different languages)
- Mail to Support (opens a mail to support)
- Product Web site
- Product Updates (Link to web site)
- About (Version info)

### Windows menu

- Link All Windows
- Go to Previous Page (Ctrl+PgUp)
- Go to Next Page (Ctrl+PgDn)
- Move to Previous Page (Alt+PgUp) (moves window to the previous page)
- Move to Next Page (Alt+PgDn) (moves window to the next page)
- Move Selected Window Here (F5)
- Close Selected Window (Esc)
- Tile Windows on This Page
- Cascade Windows on This Page

## 4.2 Right-Click Menus

All windows in the program have right-click menus that provide additional features and quick access to frequently used commands. The menu for the active window will also appear on the top menu bar. Common for all menus are the following structure:

### Edit

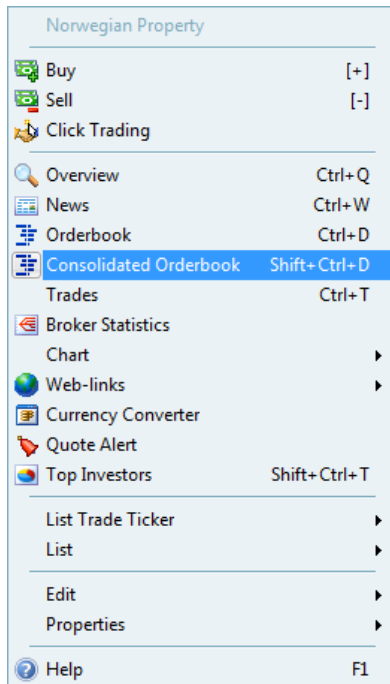
- Copy (Ctrl+C)
- Copy DDE Link (Ctrl+E)
- Select All (Ctrl+A)

- Clone This Window
- Link This Window

#### Properties

- Edit Columns
- "Symbol" Column (with options Configure, Delete and Sort Column)
- Edit Colours
- Edit Fonts
- Show Caption (F11)
- Show Extra Information (F12)

Example of right-click menu from the Market Window:



### Colour and font setup

The Edit Colours menu enables you to define the look and feel of the contents. You can edit the colours and fonts on all windows. The left pane shows the different options where you can change the colour or font. The current choice and the default colour/font appears in the dialogue when you click on the element you want to edit. You can also change all colours and fonts back to default by clicking on the "Restore default" button.

## 4.3 Keyboard Shortcuts

### Faster keyboard searching

It has always been the case that you can just start typing to search in the list of symbols in the current market or composite window. For windows with a large number of symbols (such as the Stockholm Options feed, that contains more than 4000 symbols), the keyboard search could be noticeably slow. This has now been sped up dramatically. The visible layout of this Find dialog has also slightly changed - showing the list of symbols that match what you type directly in the dialog.

### Open a new market with the keyboard

It is now easier to use the keyboard to find a specific feed or service in the select dialogs for the Market and News commands. You can type in part of the feed name or feed short-code - the list will be filtered to only show the matching entries. Just press Enter when you have found the feed. If you memorize the feed codes you can now open a new World Indices window simply by pressing Ctrl+M, WIX, Enter.

## Drag-and-drop

In earlier versions of the program you could drag-and-drop a single symbol between windows and lists. This has now been extended so that you can select a block of symbols and drag-and-drop them on a list.

You can drop a list of symbols on the List page of a Market or Composite window or on a Basket Trading window (to automatically create basket orders for each dropped symbol).

## Overview of all keyboard shortcuts

Window	Description	Keyboard Shortcut
<b>All Windows</b>	Printing	Ctrl+P
	Copy to Clipboard	Ctrl+C
<b>Chart Window</b>	Intraday chart	Ctrl+I
	Historical chart	Ctrl+H
	Add Study	Insert
<b>Quote Overview</b>	Trades	Ctrl+T
<b>Orderbook</b>	Open a Orderbook	Ctrl+D
<b>Trading / Order Entry</b>	Buy Order	+
	Sell Order	-
<b>Market Window / Composite Window</b>	Add symbol to List	Ctrl+Ins
	Delete symbol in List	Del
	Move Symbol up	Ctrl+Up arrow
	Move Symbol down	Ctrl+Down arrow
<b>Market Window</b>	Open a new Market Window	Ctrl+M
<b>News Window</b>	Open a new News Window	Ctrl+N
<b>Workspace</b>	Open Workspace	Ctrl+O
	Save Workspace	Ctrl+S
<b>Broker Statistics Window</b>		
<b>Market Window / Composite Window</b>	Copy DDE links	Ctrl+E

## Double-click shortcuts

Window	Description	Double click action
<b>Market Window / Composite Window</b>	Open Trades	Last column
	Place a Buy Order	Ask column
	Place a Sell Order	Bid column
	Open Quote Overview	Symbol
	Open Fast Chart intraday	L+/-

## 4.4 Preferences and Settings

### *Description*

This functions allows you to adjust the interface and settings according to your preferences.

### *How to open*

- Select **Tools | User Interface** on the main menu

### General

You can turn on/off:

- Floating windows - Instead of having all windows in one container the windows can be move freely on your screen(s)
- Snap windows every xx pixels - a function for making it easier to adjust the windows correctly
- Snap windows loaded from workspace - same function as above when you load old workspaces
- Separate tab for Indices in Quote windows - Put the Indices for a market in a separate tab
- Show trading halt alerts - Warning if a symbol is halted on the exchange
- Show caption buttons - Make caption buttons available for each window. Read more
- Adjust time to: Local / Feed / GMT / Unadjusted
- Fractional format:
- Maximal number of intraday points: Set the number of points
- Maximal number of search: Set the number of results

### Floating windows mode

The application has always been a Multiple Document Interface (MDI) application - this means that there is one large main window that hosts all the applications child windows (such as Market, Composite and Symbol windows). This makes it very easy to use, but it does limit the flexibility in where you can place windows and external applications.

To overcome these limitations, we have now introduced an optional application mode that we call Floating windows mode. This is turned off by default, but can be enabled by selecting **Tools | User Interface** and checking the  Floating windows setting.

This will shrink the size of the main window and move the virtual pages tab control just below the toolbar. We recommend placing the main window at the top of your monitor.

When you toggle between floating and non-floating mode, the application will try to convert the placement of the child windows accordingly, but in general we recommend that you choose one mode and stick with that mode. It should be possible to load old workspaces into the floating windows mode (as long as the screen resolution stays the same).

### Grids

Select options to show grid lines, grid hints and alter grid colours. You can also choose between the search options in the Quick-search field (the dialog box that opens when you type eg a symbol in the Quote window). You can choose between Symbol, Description, ISIN and ExchSym (Exchange Symbol).

### Calculating pre-market change

There is an option (default on) that enables calculation of change (+/- and +/-%) values in the pre-market period when there have been no trades (and thus no Last price), but the pre-trade Bid and Ask values match. This allows you to see where the market will open for each symbol that has pre-market orderbooks.

The option is controlled with the setting **Tools | User Interface | Grids |  Calculate pre-market +/- values (when Bid=Ask)**.

### Regional

In the Regional page of the **Tools | User Interface Settings** dialog, you can select your preferred default country. The default value will be taken from your Windows locale settings.

Note that the list of countries only includes countries from which you have access to streaming quotes. The selected country is used for the first two pages when creating a new automatic workspace (**File | Create New Workspace**). It also determines what country is shown at the top of the Select Market and Select News dialogs.

## Browser

Choose internal or external browser and decide if you want to allow pop-ups or not.

## Dialogs

Tick off the check box to restore all optional dialogs.

Choose dialog font size from the scroll menu.

## 4.5 Linking Windows

### Description

The program supports linking of windows, meaning that two or more windows can automatically change by typing in the symbol code by using the keyboard or by double-click on a symbol.

### Link windows one by one

In order to link windows, activate the window and click on the Caption buttons or select **Edit | Link This Window** from the right click menu.

### Link all windows in a Page







You can also link all windows on a Page by selecting **Window | Link all Windows**.

## 4.6 Caption buttons

### Description

By default each window contains three buttons on the window caption. These buttons are short-cuts for existing commands and they show the current on or off state for each command.

### Description of buttons

Off	On	Description
		First Button: Unlinked / linked changing symbol will change all linked windows.
		Second Button: Unpinned / pinned window stays when changing page.
		Third Button: Not on-top / on-top window stays on top of all other windows (including other applications).

These features are also available as right-click commands; Right-click and **Edit | Link this Window**, **Properties | Pin Window** and **Properties | Always on top**, respectively.

### Pinned windows

You can now force a window to stay on the screen for all pages &ndash; select right-click **Properties | Pin Window** to toggle this behavior. This is useful for windows that you always want to see &ndash; no matter what page you move to.

### Always On Top windows

In the floating windows mode, it is now possible to force a window to stay on top of all other windows, including other application's windows. You use the right-click **Properties | Always On Top** command to toggle this mode.

### Disable buttons

If you would rather not see these caption buttons (and on Windows Vista, their presence will turn off the class effect in the caption), you can turned them off from the **Tools | User Interface settings** dialog.

## 4.7 Workspace

### Description

A workspace contains several windows with market data and functionality tailored to suite your personal needs. A workspace may contain several Pages. You may at any time add other market data windows, news windows, charts etc as well as customizing colours, fonts and window sizes.

Notice that each window you open requires more bandwidth from your internet connection. Intraday Charts showing the longest period available (All) with minute resolution are among the heavier windows to load when starting up and you should therefore consider a shorter time period (for example 10 days) or lower resolution (for example a quarter) if there are many, many intraday charts in your default workspace.

### Create an automatic workspace

If you want to create an automatic workspace select **File | Create Workspace** from the Main Menu. Depending on your access and account the new workspace will include different market windows, news windows etc.

### Save your own personalized workspace

When you are familiar with the program, you might want to create new workspace customized to meet your requirements for information etc. To store a workspace select **File | Save Workspace** and select the name of your workspace.

### Default workspace

To save the workspace as default, select **File | Save workspace as Default**. The default workspace will open automatically each time you start the program.

### Open a Workspace

When you have designed a workspace, select **File | Save Workspace as...** You can save as many workspaces as you like.

### Saving of workspaces

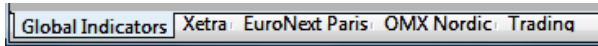
All workspaces will be stored under the folder specified under **Tools | Folders** on the main menu.

### 4.7.1 Workspace Pages

#### Description

At the bottom left corner of your workspace different pages are displayed. The pages work in a similar way as worksheets in Microsoft Excel. When saving the workspace, all pages are stored in the workspace file.

Example:



## Adding pages

Create new pages by right-clicking the existing pages and select "Add page...". Enter a name for the page and press Enter. Use the same right-click menu to rename an existing page. Only the last, empty page can be removed. Press the Page buttons on the lower left corner to change to that page.

## Deleting pages

To delete a page right-click and select "Remove page". If you have any windows open you will be prompted if you want to delete them.

## Shortcuts

To switch between the pages use the mouse or press the keyboard buttons "Alt"+1, "Alt"+2 etc. In addition Alt+1, Alt+2 etc. can be used to go to the first and second page and on. You can also use the Ctrl+PgUp/PgDn keys to go to the previous and next page, respectively. To move a window from one page to another, focus the window then press Alt+PgUp/PgDn to move to the previous or next page. These commands are also available on the Window menu.

## Virtual pages improvements

At the bottom of the main window, you'll find the page buttons that allows you to have multiple virtual pages of windows, quickly switching between different views of the markets. In floating mode, these buttons are positioned just below the toolbar in the main window.

The mechanism to implement these virtual pages has been redesigned. In the old solution, depending on your total screen resolution (including multiple physical screens) there was a limit to the number of pages you could successfully create. For instance, with a total horizontal resolution of 4000 pixels you could have a maximum of 8 pages. This limitation has now been removed. The limit now is the amount of resources that can be allocated from Windows.

The new design also means that windows will appear on the correct page even when sharing a workspace between computers with different resolutions and number of screens.

The functionality of the virtual page buttons on the bottom left of the main window has been improved. You can now remove any page (and close the windows in the page) by right-clicking the page and select Remove Page. You can also insert a new page between existing pages by right clicking and selecting Add Page.

There are three new menu options that will allow you to freely move pages around. The Move Page menu item will prompt you for a new page number for the page. The Move Page Left (Shift+Ctrl+PgUp) and Move Page Right (Shift+Ctrl+PgDn) commands can be used to quickly move a page to another position.

As a reminder, windows can also be quickly moved from page to page by using the **Window | Move to Previous Page** (Alt+PgUp) and **Window | Move to Next Page** (Alt+PgDn) commands.

## 4.8 Tools Menu

### 4.8.1 Setup

#### *How to access*

- Selecting **Tools | Setup** from the main menu.

The setup dialogue consists of three pages:

#### **Login tab**

User name, Password and Login server IP address information is provided by the user's provider.

Port: The application uses port 443 and port 80 for communication. We recommend using port 443 since some Internet providers tend to use more proxies for communication that uses port 80 (web/http).

### Proxy tab

These settings are for advanced users. Consult your network administrator if possible.

#### Automatic Configuration

This is used if your network administrator supplies an automatic configuration script (with proxy information). See below for manual settings.

#### Proxy Settings

Proxy settings can be retrieved from your web browser's settings. Internet Explorer uses the settings found in the Options dialog (for Internet Explorer see **Tools | Internet Options**, Connections tab and click the "LAN Settings" button, for Netscape see **Edit | Preferences | Advanced | Proxies**).

Proxy: Preferably the application should be allowed a direct one-to-one connection with its servers. Alternatively a proxy server can be used by entering its address and port number.

#### Firewall Login

Add your user name and password if you use a local firewall that requires a login for outbound connections.

### Folders

Specifies where data from the program must be saved. The folders must be different from each other. The program supplies three default folders.

## 4.8.2 Application Upgrade

### *Description*

This dialogue provides information about new available versions of the program. The dialogue automatically appears when a new version is available, but can also be accessed from the main menu **Tools | Application Upgrade**.

### Upgrade Now

The program starts transferring the new version. You will be informed upon completion, and you can use the program normally during transfer, or

### Upgrade Later

The window disappears, and the program is not upgraded. Should you wish to upgrade later, go to the main menu and select **Tools | Application Upgrade**.

## 4.8.3 Delete Cache

### *Description*

Market Data information that are frequently used is stored on your computer in order to optimize performance. By selecting **Tools | Delete Cache** all information stored will be deleted the next time you start the program.

## 4.9 Printing Workspace Windows

All windows can be printed by activating the window and select **File | Print** on the Main menu.

## 4.10 Select Columns

Enter topic text here.

# 5 Trading

## 5.1 Guide to Trading

### *Description*

The program includes advanced trading functionality for active institutional- and private investors. You can enter, amend, and delete submitted orders instantaneously in just a second on one or several exchanges. The entire trading process can be accessed from a your screen allowing you to monitor and trade multiple markets simultaneously.

The program supports trading from the keyboard or by the mouse. To place an order simply press + to buy and - to sell. Read more about keyboard shortcuts

The following windows are available for Trading:

- Order Status Window - Providing overview of you Portfolio(s), Orders & Trades
- Order Entry Window - Standard or advanced view for entering orders
- Click Trading Window - Enables you to place an order in just one click
- Basket Trading Window - Enables you to define baskets and sent them into the market

### *How to access*

Select **New | Order Entry**

### Supported order types

The program supports different Order Types depending on the exchange and asset class.

- Standard types: At market, Fill or Kill, Fill and Kill, All or nothing, Limit, Market to Limit, At Market and Kill,
- Depending on exchange: Contingent, Flex, Interest, Best Possible, Funari
- Conditional orders
- Direct Market Access or Care Orders
- Request for Quote

### Position keeping

You can have access to one or several Portfolios (accounts). You can define your default Portfolio or select a Portfolio each time when placing an order. Each Portfolio will give you overview of all assets, limits and trading power.

### Access to several Portfolios

Depending on your trading account, you can have access to several portfolios. You can select between your different portfolios when placing orders. It is also possible to retrieve account information for each individual portfolio.

### Limits

Your main limits such as cash limits, trading Power, shorting limits, credit limits etc is defined on the

account you are trading on. In addition you can define your own limits, use the Fat Finger Alert and more found under Order Entry settings...

### Trading Power

The trading power is a function of cash (C) and the associated risk market value of active buy orders (ORMV), position collateral value (PCV) and the associated credit limit (CL), the risk market values of positions (PRMV), and finally, the potential position penalty (PPP). Each of these components are given a numerical value, and TP is then calculated according to:  $TP = C - ORMV + \min(PCV, CL) + PRMV - PPP$

The order validation rule is that if  $TP > 0$  the order is permitted, if  $TP < 0$  it is not. The trading power value is recalculated periodically (by default once a minute), both with reference to positions and outstanding active and offline orders. Should TP at any time be less than 0 (zero), a warning indicating the current TP value and the portfolio name in question will be given. TP is also recalculated every time a new order is entered for a portfolio, for which order validation is activated.

### Defining Baskets

The program has a separate Basket Trading module where you either can define orders manually and send them in the market as a basket or you can import one or several orders from Clipboard/Excel. The Basket Trading window enables you to set default conditions or specify condition for each order. Read more

### Slicing of Orders (Parent & Childs)

The program supports Parent and Child orders where you can either split an order on to different accounts or to different brokers.

### Trading Algorithms

The program has been developed to support trading on different algorithms provided by brokers. Read more.

### Smart Orders

Some order entry providers also support automatic trading a company on multiple exchanges, so called Smart Orders.

### Export of data

All data in the Order Status window can be exported to text, html, excel etc.

### Settings & Preferences

You can easily defined your preferred settings and preferences under the Order Entry settings

### Automatic link to the Portfolio Module

When you trade using the Trading facility you can set up your portfolio and automatically enter all trades into the Portfolio module.

Select **File | New | Portfolio** and right click in the Portfolio window, then go to the Order Entry tab, click on the checkbox "Automatic capture orders from the Order Entry Window" and enter the account number of the portfolio you want to link from. All trades from the Order Entry account will now automatically be registered in to the chosen portfolio.

## 5.2 Login to Trading

### *Description*

The Order Entry module requires a separate login session due to security reasons.

### *How to login*

- Select **New | Order Entry** from the main menu, or

- Click on the "Order Entry" icon on the toolbar menu

### Login session

When the login window appears, type your login and password provided by your broker.

Note: If you do not have this option available please contact the trading system administrator.

On successful login the Order Status window appears. This is the main window for your trading activities and includes all orders, trades, portfolio(s) and a log file. This window can be saved as a part of your workspace under **File | Save Workspace** on the main menu.

### Invalid login

If your login or password is invalid, a warning panel is displayed asking you to re- enter. Should you perform an incorrect login more than three times, your trading account will be locked. To open up the account please contact your trading system administrator.

### Changing the password

If you would like to change the password please contact the trading system administrator.

### Log file

For your own security a log file can be found on the order status window under Order Status Window | Log.

## 5.3 Placing Orders

### Description

In addition to the Order Entry window, Click Trading Window, orders can be triggered from different windows;

### Trade from the Market window / Composite Window

From Market Window or Composite Window, trading can be done by:

- Double-clicking with the mouse on the contract (bid price, bid size, ask price, ask size)
- Right-click on the mouse and select Buy or Sell
- Use the + (for buy order) or - (for sell order) on the keyboard when located on a symbol

### Double-click actions

#### Price

When double clicking on the Bid or Ask price, the price is added in the Order Entry window automatically.

#### Volume

When you double click on the Bid size or Ask size, the price and volume will be added in the order entry window automatically.

You can define the default volume under Order Entry settings.

### Keyboard actions

#### Price

When using the keyboard shortcuts the best market price (Bid price or Ask price) is added in the order entry window automatically.

#### Volume

You can define the default volume under Order Entry settings.

### Trade from the Orderbook window

Trading from the Orderbook window can be done by

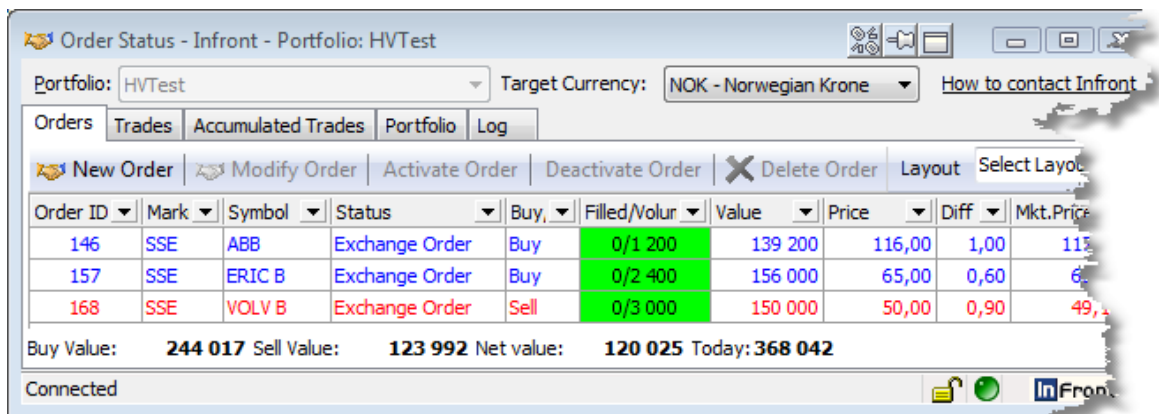
- Double-clicking with the mouse on the bid price, bid size, ask price or ask size

You can define the double-click action in the Order Entry settings and Order Entry "Hit On Volume".

## 5.4 Order Status Window

### Description

The Order Status Window is the main window for trading where you will have the full overview of all your orders, trades and the portfolios you have access to.



You can define the behavior of this window under Order Entry Settings.

### How to access

- Select **File | New | Order Entry** in the main menu bar. When the login window appears you must type the login and password provided by your broker. Note: This is not the same login as the program log in.

When you are successfully logged on the Order Status Window appears.

This window have five folders; Order, Trade, Accumulated Trades, Portfolio and Log tab.

### Orders

The orders tab shows the status of all your orders. An order can be either active or inactive; an inactive order is not sent to the marketplace, while an active order is sent to the marketplace. As soon as the order is activated it's sent to the exchange. When the order is close to the market price, the background color changes to yellow. A buy order is marked in blue, and a sell order is marked in red.

The right click menu in the Order folder provides possibility to activate, modify, view or delete an order, or insert a new order.

### Edit Columns

In order to edit the column layout you have to right click on one of the columns. Here you can select between more than 35 different columns.

### Group Columns

Each column can be grouped by right clicking on the column header and selecting "Group by This field".

### Keep Deleted Orders

If you have selected to keep deleted orders (in the Order Status page of the Order Entry settings dialog), the Status column will now show the true cause why the order is deleted. The old Deleted status has been split into Executed, Refused and Deleted statuses. The Executed status means that the entire Volume of the

order has been filled and executed as trades. The Refused status means that the order was stopped in the order entry server and an error message returned (for instance, no coverage). The Deleted status now means that the order was manually deleted by a user.

### Filled/Volume column

There is now a new Volume/Filled column that combines Volume and Filled Volume values in a graphical column. The remaining and filled volumes represented by differently coloured background rectangles. By default the colours are green and yellow, but this can be configured using **Properties | Edit Colours**.

## Trades

The folder displays all trades for the selected portfolio for <My Order only>.

## Accumulated Trades

The folder displays trades accumulated per instrument

## Portfolio

This folder shows your positions, including trading power, cash, instruments and the market price of your positions. There is a filter to show/not show instruments, cash and limits. In the top panel you will find a summary of your total investments. For some order entry providers, the top panel will also include information about cash, limits and portfolio status.

Some order entry providers support a Simulate Sell command for a given portfolio item. This will not insert an actual sell order, but will return a table of information on what effect an actual sale would have for your portfolio, cash and limit status.

### Hint for long values

When one of the combo drop down boxes in the order entry window has a selected value that is too long to be displayed, a hint will popup showing the entire text if you rest the mouse over it.

## Log

All communication between the program and the trading servers will be logged and available under the Log folder. To copy the log file right click and select Select All and Copy.

## <My Orders Only>

If you have access to multiple Portfolios, "My orders only" displays only orders and trades made by your trading login.

## Saving and loading grid layouts

All the pages in the Order Status window now support saving and loading grid layouts, including columns, sorting, grouping and filtering. To save a new grid layout, right-click on the columns and select Save Layout. To load an existing layout, right-click the columns and select Load Layout. The Orders and Trades pages also have a Layout drop down that can be used to quickly load an existing layout.

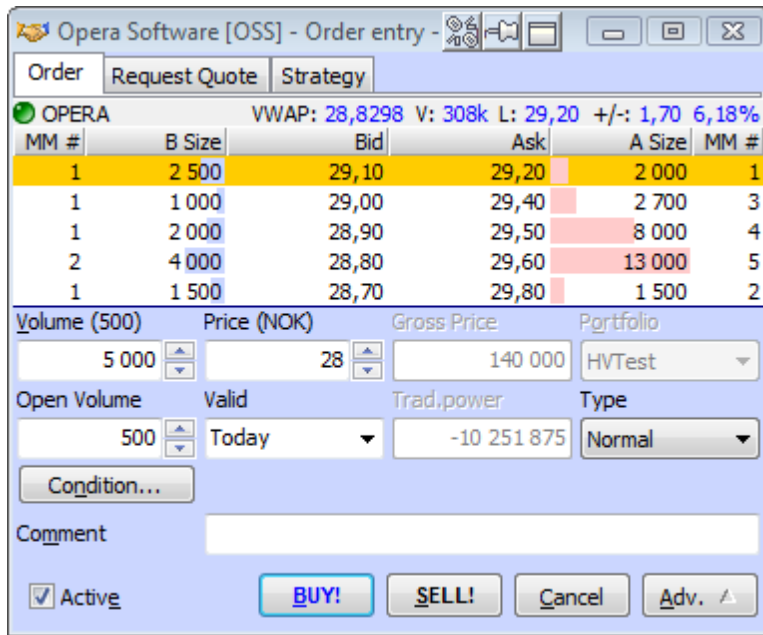
## Connection Status

If the connection to your broker is lost, the status in the upper left corner will notify you. Read more.

## 5.5 Order Entry Window

### Description

The Order Entry Window is the main window for entering, changing or amending orders and includes fields for entering price, volume, portfolio and other conditions.



#### How to access

The window can be accessed by:

- Double-click on the bid or ask column on a symbol in the Market Window or Composite Window
- Right-click on a symbol and select "Buy Order" or "Sell Order" in the Market Window or Composite Window
- Press + to Buy or - to sell on the keyboard when the symbol is active in any window
- Double-click on bid or ask in the Orderbook

#### Order

Click the BUY! or SELL! button to perform the buy or sell operation. Normally the default button is marked in blue (buy) or red (sell). Press Enter to perform the default action.

If you double click on the BID or ASK column in the Quote Window or Orderbook, the price and volume are automatically inserted in to the Order Entry Window.

#### Tick sizes

The arrows in the Order Entry window under Price and Volume are for changing the sizes. The tick sizes are automatically retrieved from the trading system.

Note: If the tick size is wrong please contact the trading system administrator.

#### Portfolio

Each order must be linked to a portfolio. Enter a name in the "Portfolio" field or click in the text field and use the up and down arrows on your keyboard to browse through the list of portfolios in the portfolio text field. Depending on the access rights of your login, browsing will be done among a fixed list of portfolios or among the ones that have been entered by.

#### Active vs inactive orders

An Active order is sent to the marketplace directly. An Inactive order is only sent to the trading system, not to the market place. An inactive order can be changed to active in the Orders tab in the Order Status Window when you right-click on the order.

The top of the window shows details about the symbol you're about to enter an order against, including ticker code, volume, last, change and % change and an order book.

The normal fields include order volume, price, value and portfolio. Enter the volume and price you want to trade at. The value field is automatically updated. If enabled (see Settings) you can even enter a value, and

the volume field is adjusted accordingly.

If you have only access to a single portfolio, the portfolio field is disabled. Otherwise you may have access to a list of portfolios. Internal users will be able to enter the name of any portfolio. Internal users also have access to an additional field called Client RefID.

### Order Confirmation

Before an order is sent to the exchange, you are asked to confirm the order. This function can be turned off by clicking the checkbox *"Do not show this message again"*. This function can be re-activated in Settings.

### Advanced fields

Press the Adv. (short for Advanced) button to show additional fields, these include:

#### Open Volume

The volume you want to expose to the public order book, must be less or equal to Volume.

#### Valid

Valid until date - set if the order should be kept in the market for longer than today. Some order entry providers does not allow setting a valid until date.

#### Trad.power

Short for Trading Power. This shows your current trading power in the given portfolio. For some order entry providers the displayed trading power will be relative to the instrument you are about to create an order on.

#### Type

Short for order type. Possible values are defined under Order Types

#### Comment

The comment field allows you to associate arbitrary text with your order. The comment can be displayed as a column in the Orders tab in the Order status window. Support for comment fields are subject to order entry provider restrictions.

### Cross Orders

A cross order is an order that is settled at the broker's office (a specific case of an off-floor trade) and is only available to internal users. When selected, the order entry dialog changes to include show fields for Buy Portfolio, Buy Client RefID, Sell Portfolio, Sell Client RefID. In addition the Buy and Sell buttons are replaced by a CROSS! button.

### Conditional Orders/Monitor Orders

The program supports entering conditional orders. These are orders that will not be activated to the market until one or more conditions are met. Press the Condition button to display the Edit order conditions dialog.

Support for conditional orders are subjected to order entry providers and market feed restrictions.

You can enter one or more conditions to be met before your order is activated in the market place. The available condition fields and operators may vary, but typically includes fields such as Last, Bid, Ask, Bid Size, Ask Size, Last Volume and Time and operators such as Less than or Equal and Larger than or Equal. In the value column you enter the value or time you want to test against.

If you enter more than one condition, all conditions must be fulfilled (And) or any one the conditions must be fulfilled (Or). Support for conditional orders is subject to the trading system and market regulations.

Support for conditional orders are subject to order entry provider and market feed restrictions.

### Client/Asset Manager/Broker

In some markets and environments, there is a need to have a more detailed hierarchy of order ownership and routing than the two level login/portfolio model that has been supported until now. If the order entry server is configured for it, the client will now display a list of clients, asset managers and brokers in

addition to the list of portfolios when entering a new order. The list of available clients is determined by the permissions of the order entry login. The selected client name determines the list of available asset managers and portfolios. The selected client and portfolio determines the list of available brokers.

To support this feature there are now also new Client, Asset Manager and Broker columns that can be added to the Orders and Trades lists in the Order Status window and to the Basket Trading window. The Edit Basket Trading Order window has also been extended to support these new fields.

### Slice Orders

Slice orders are used to send a number of orders on the same symbol as a logical entity. There is a parent order with a total volume and child orders with sub volumes, adding up to the total volume. So the parent order is sliced up into child orders. Each child order can have different details like volume, price limits, order type, target broker and so on.

In the order entry window, click the bottom [+] icon or the Split Order label to create a new child order (total volume needs to be set first).

You can remove a child order by clicking the red [X] button at the right side. Each child order can be expanded to see the more advanced fields by clicking the blue [+] icon in front of it.

By default the sum volume of the child orders must match the total volume of the parent order. In some cases, the user would like to enter a parent order with a larger total volume than in the child orders. To enable this mode, check the [X] Allow partial parent orders setting in the **Tools | Order Entry settings** dialog

### Parent/Child orders

The order status window shows the list of active (and configurable executed and deleted) orders. The Orders page can now be configured to show Parent orders the Child order belonging to them grouped together in the grid. To do this, select Parent Child from the Layout drop down.

### Add Child Order

If you have a parent order with a total volume that is larger than the sum of the volume in the active child orders, you can now add additional child orders to it. Right click the parent order and select Add Child Order.

This will open an order entry window where you can enter the details of a new child order. The child order volume may not exceed the remaining total volume of the parent order.

The new child order will appear belonging to the initial parent order.

## Request Quote

Request orders are normally used in non-volatile markets, when the user wants to request a bid and/or ask quote. When selected, the order entry dialog changes to only enable the Volume field, changes the buttons to Both, Bid and Ask.

A **Quote Request** order are used only in some markets. You can file a request for a price quote from a bank/broker on an instrument and a certain volume, and you get a response with a price and a limited time to accept or reject the offer.

The **Request Quote** page is available in the **Order Entry** dialog when the market is configured to support it. This is subject to configuration at your order entry provider. You can enter a volume and then press the Bid button to get a bid quote (if you want to sell), the Ask button to get an ask quote (if you want to buy), or the Both button to get both a bid and an ask quote.

Depending on your provider, you may get a time limited quote back. Then a **Quote Offer window** pops up, showing you the Symbol, Portfolio and Volume that you entered. Below there are fields with the ask and/or bid offer in price and total value (price multiplied by volume). Next to each quote offer is a Buy and Sell button. Press one of these before the timer runs out if you want to accept the offer. Press Cancel (or wait for the timer to expire) to reject the offer. At the bottom of the **Quote Offer window** is a timer displayed as a declining progress bar - when the bar reaches zero, time has run out and the offer is automatically withdrawn.

## Keyboard Short-cuts

In the Order Entry window, you can now enter a 'k' or 'm' suffix in the volume fields to have them multiplied by one thousand or one million, respectively. This can be useful when entering large volumes.

In the **Tools | Order Entry settings** dialog, the default volume field has been changed from a nominal volume to a multiples of boardlot value. This makes much more sense as using a fixed default volume will make the default order value fluctuate for differently priced symbols.

The client now supports getting variable tick sizes per instrument from the order entry server. When configured correctly on the server, this will give more correct steps in the price when using the up and down arrows in the price field.

We now support using fractional volumes - entering decimals on the volume field is accepted. This is needed for some forex and commodity markets, for instance.

The View Order dialog will now also list custom fields that are defined dynamically on the order entry server. The displayed fields will vary with the order entry provider and the market place.

We now support opening more than one order status window for the same order entry provider (but each window will use the same login). The dialog that pops up to confirm that you want to Deactivate all orders has now been made optional.

Whenever you insert an order, an order is refused or a trade executed the client will now play an audio sound. The sounds can be configured or turned off using the new Alerts page of the **Tools | Order Entry** settings dialog. We have also moved some other alerts related dialog settings into the same page (changed in 3.8.1).

Some markets (such as Oslo, Stockholm and Copenhagen Stocks) have different tick size (minimum price change) rules for different category of symbols. The client now supports these additional tick size tables (new in version 3.8.1)

### Log of information

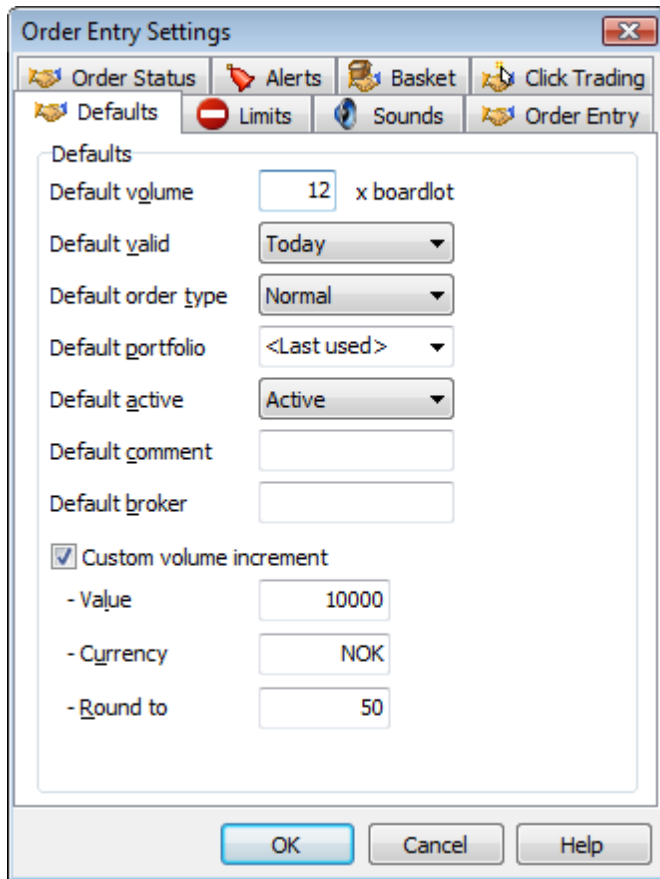
All actions performed in the order entry windows (such as order inserted, trade executed etc), are logged in the Log page of the Order Status window. Now this log is also persisted to .log files in the Ontrade\Setup directory. The files are named OrderEntry"nr"\_date.log where "nr" is the provider id of the order entry provider and "date" is the date of the performed actions.

Filtering and groups has now been extended to support all columns in the four order status pages (Orders, Trades, Accumulated Trades and Portfolio)

## 5.6 Order Entry Settings

Define and change the default behavior by selecting **Tools|Order Entry**. The following tabs appears:

- Defaults
- Limits
- Sounds
- Order Entry
- Order Status
- Alerts
- Basket
- Click Trading



## Defaults

The following defaults can be defined:

- Default volume (X boardlot)
- Default valid (days)
- Default order type
- Default Portfolio (Name/None/Last used/Current, e.g type in 99988877)
- Default active; Active (placed on the exchange) or Inactive (placed in the OMS only)
- Default comment per order
- Default broker
- Custom volume increment (Value, Currency, Round to)

## Limits

The following limits can be defined:

- Limit per order
- Limit per day
- Limits currency

## Sounds

Enable sound alerts. Define your own sounds for different requests and executions:

- Buy order request
- Sell order request
- Order rejected
- Buy order executed
- Sell order executed

## Order Entry

The following settings can be made for the Order Entry Window.

- Allow multiple windows - use only one, or open several Order Entry Windows
- Fixed position - open new order entry windows at the same screen position as the last one
- Keep open - keep the Order Entry Window open after an order has been sent
- Set background colour for buy/sell
- Buy/Sell Button - define the behavior, see below
- Hit on Volume - define the behavior, see below
- Hit as order type - define the behavior, see below
- Show Advanced filed - turn default on/off the Advanced fields
- Auto-Expand the Advanced files - when enabled and the advanced fields or not displayed, they will automatically appear when you are in the last field and press the tabulator key
- Enable gross price field - the gross price field shows the product of the entered volume and price. Enabling this field allows you to enter your own value - the program will then adjust the volume field accordingly (while rounding down to the nearest board lot).
- Allow Partial parent orders - see Slice orders

### Buy/Sell button behavior

This setting controls the behavior of the Buy and Sell buttons in the Order Entry Window. When you use the quick order entry functions (by pressing [+] or [-] in on a symbol or double-click on Bid/Ask), the order entry window already "knows" that you are buying or selling. This option determines what happens with the "other" button. The possible settings include:

- **Normal** - both buttons are normal, you must explicit press the button you want to use (Sell or Buy)
- **Make default** - the selected button becomes default, so you can just press Enter to send the order (when you have filled in the required volume and price fields). The other button is still there, and you can use it (but you will get a warning)
- **Disable other** - same as Make default, but the "other" button is disabled
- **Hide other** - same as Make default, but the "other" button is hidden

### Hit on Volume

The Hit on Volume setting determines how the default value for the volume field is retrieved from the live order book. The options are:

- **No** - the volume field is not populated from the order book. Instead the default volume from the Limits & Default page is used
- **Top Level** - the top level order book volume is used
- **At Level** - when trading by clicking in the order book, the volume at the level you clicked will be used. Otherwise, same as Top Level.
- **Accumulated** - when trading by clicking in the order book, the accumulation of the volume at the level you clicked and all volumes above it in the order book will be used. Otherwise, same as Top Level. Example: If you click on level 3 in the order book, the volume will be volume on level 1+2+3.

### Hit as Order Type

Determines what the default order type should be when using the quick order entry functions.

## Order Status

The following settings can be made for the Order Status Window.

- **Allow multiple** - should the same order status window be reused, or should it allow you to open multiple windows
- **Keep deleted orders** -
- **Column filtering** - enabling this option enables a drop-down menu for each column in the Order Status window to quickly filter on that column
- **Show comment filter** - this will add another field to the order status window. As you enter text into this field, the orders and trades listed will be filtered and only show items that have matching text in their Comment column.
- **Show historic trades** -
- **Delete order shortcut** - Shift+Delete or Delete

- **Market price logic** - Last or Bid/Ask
- **Volume and Price decimals** - control the number of decimals used for volumes and prices. The price decimals are usually determined from the market feed of the symbol, but when a market feed match cannot be found, this is used instead.

### Performance settings

To tune the performance characteristics of the Order Status window there are a few settings to control features that may affect CPU usage. The default settings is designed to give a good balance between features and performance.:

- **Request market data** – by default off. When this is on the order status window will request data for and subscribe to all symbols connected to all orders, trades and portfolio items. For large portfolios this can be slow.
- **Live market data updates** – by default on. Updates market prices and market value of orders and portfolio items in real-time. When this is off, these values are updated less often (when orders change for instance).
- **Support order VWAP column** – by default off. The Order VWAP column is normally not visible in the window. Calculating the symbol's VWAP while the order has been active requires a separate request for each order/symbol.

### Alerts

- **Confirm order request** - prompt you to confirm another order added before sending it to the market
- **Fat Finger Alert** - turn on and off the fat finger alert and configure the percentage used as a trigger
- **Price threshold warning** -
- **Short selling warning** - turn on the short selling warning as described below
- **Confirm order executed** - shows a dialog each time one of your orders has been executed in the market
- **Internal order warning** -
- **Board lot warning** -
- **Tick size warning** -

### Fat Finger Alert

This function can be very useful to prevent you from accidentally entering the wrong price on a symbol. If the entered price varies more than the specified percentage from the market price, the order will be stopped. The "Up" side is limited to Fat Finger Percent. The "Down" side is limited to 2 \* Fat Finger Percent.

#### Example

If you buy at market price 100, the Fat Finger Alert is triggered if the buy price is more than 110 or less than 80. If you sell at market price 100, the Fat Finger Alert is triggered if the sale price is less than 90 or more than 120. There is also a "penny-stock" rule that says that you are always allowed to buy at 0,10 more/less than market price. The market price is calculated from:  $\text{Last (Bid+Ask)/2 * LastValidPrevClose}$

(In that order if they are 0. If there is no available Market Price, the FatFinger alert will not apply)

### Short Selling Warning

The system now supports issuing a Short Selling warning if you try to sell more of a symbol than is present in the current portfolio. Press Abort to abort the order, or Ignore to ignore the warning and insert the sell order anyway. You can turn off this warning by unchecking [ ] Short selling warning.

### Internal order warnings

If you try to insert a new order that crosses an existing order, a new Internal order warning dialog will be displayed. The dialog shows information about the conflicting orders and lets you Abort the order or Ignore the warning. Two orders are defined as crossing if the following is true:

- The orders are on the same portfolio and symbol
- One is a buy and one is a sell order

- The prices are crossing (the orders would match)
- Both orders are active

The internal order warnings are on by default, but it is possible to turn them off by unchecking the "[X] Internal order warning" setting.

## 5.7 Click Trading Window

### *Description*

The Click Trading enables you to place an order in the market by just clicking in the Click Trading Window once. The view presents an ascending vertical list of prices centred between the current bid/ask levels. The outermost columns (#1 & #5) displays all your active and pending orders on the currently on selected portfolio. Bid Size and Ask Size columns (#2 & #4) shows the order depth volumes at their respective price levels. The mid column (#3) displays the price based on tick size.

### *Access requirements*

- Access to Order Entry
- Access to Click Trading Window
- Access to Orderbook data (Level 2 data)

### *How to access*

- Right-click on a symbol and select Click Trading

### **Description of Columns**

Price column (#3): Displays the prices based on tick size levels

Bid Size and Ask Size columns (#2 & #4): Displays the order book volumes at their respective price levels.

Buy and Sell columns (#1 & #5): Displays all active and pending orders on the currently selected portfolio.

### **How to place an order**

To place an order select the Portfolio you want to trade on and the Volume you want to place in the market. Then click with the left mouse-button on the Bid Size (for buy order) or the Ask Size (for sell Order). to add an order after setting a volume.

### **Please note:**

- Pending orders are grey by default, and Active orders are black
- To cancel an order simply click on an order under the Orders column
- Clicking several times in the same cell will add multiple orders at that level

### **Selectable fields**

Portfolio: Select the Portfolio you want to trade on

Volume: Select the Volume you want to use per order

### **Buttons**

- Buy Market/Sell Market: Fast buttons used to hit the market at the best available price given the specified volume
- Join Bid / Join Ask: Adds an order to the current Bid/Ask price in the market
- The blue Cancel button: Cancels all pending and active Buy orders
- The red Cancel button: Cancels all pending and active sell orders
- The Cancel All button: will remove all pending and active orders
- Center view: Will centralise the bid and ask price view

### **Drag-and-drop**

The Click Trading Window supports drag-and-drop from one level to another to change the price. Select the order you want to move and drag it up or down in the view.

## Optional settings

Under **Tools | Order Entry** and Click Trading the following condition can be defined:

- Enable / Disable Hints (on/off)
- Conditional orders support (possible to define the order type)
- Price delta based on Tick size

## Enhancements

There have been a number of improvements and enhancements to the Click Trading window, including:

- Window remembers the last used window size
- A separate (configurable) background colours used in the cells that shows your order volumes.
- You can display, create and cancel conditional orders directly from the Click Trading window (this assumes that your order entry provider supports conditional orders). To insert a conditional order, Ctrl+Click on the desired trigger price level in the Bid Size or Ask Size columns. Conditional orders are displayed in a grey color with a question mark (?) in front of the volume.
- Define defaults for Click Trading in the **Tools | Order Entry** settings dialog.
- This dialog allows you to turn on or off the hints that show what will happen when you click different cells in the Click Trading window.
- You can also configure Ctrl+Click to insert conditional orders on and off, and what order type and price delta should be used for the conditional orders. For instance, Ctrl+Clicking on the Ask level 100 will create a conditional order to sell the symbol when the Last price equals (or is below) than 100. With a price delta of 2, the order price will be 99 (assuming the tick size is 0.50). Note that the conditional orders generated are checking the Last price.
- Note that conditional orders show up at the point that they will trigger. In the example above order shows up at 100 - because the conditional order will trigger (become active) when the last price equals 100. At that time, the order will become active, with an order price of 99 (making it very likely that it will match the market).
- The Click Trading window now shows graphically an indication of profit or loss - as determined from the difference between your last traded price and the current market price of the symbol.
- For instance in this window we can see that we last bought ERIC B at price 26.20 (the thin yellow line), and that we have an unrealized profit since then - the market price has gone up to 26.24. The blue bar in the middle will rise as the market price goes up. If we're in a potential loss, the bar goes down and is red.
- It is possible to change the price of an existing order using drag-and-drop. When you do this, a hint will show you the details of the change.

## 5.8 Basket Trading Window

### *Description*

The Basket Trading module gives you the possibility to define any number of orders locally that can be sent in one go - a basket of orders. There are several ways of defining the orders, their types and acceptable price.

### *How to open*

To open a new Basket Trading window you select **File | New | Basket Trading** (or select Basket Trading from the right click menu of the Order Status window).

### *Requirements*

- Access to Trading
- Access to Basket Trading module

## Creating, editing and deleting orders

The window has a simple toolbar at the top and a grid with columns and rows below. Use the edit field and **Add** button to add new symbols to the basket - just as you would in the Composite window. Pressing **Add** without entering any value in the edit box will allow you to perform a symbol search. To delete an order in the list, select it and press the Delete button (or press Shift+Del).

Once you have one or more symbols in the basket you can adjust the order's volume, open volume and price directly in the grid. Alternatively you can use right-click, **Edit Order** (or press Ctrl+Enter) to edit the current order in a familiar order entry-like dialog.

When you are satisfied with the orders you can send them as one basket with the Execute Basket button in the toolbar. Note that a basket must be given a name - so that you can recognize the live orders and trades it will generate.

## Saving and opening lists

Once you have defined a basket trading list you can save it for later use. Press the Save List button in the toolbar, or use the right click menu **List | Save list and List | Save List as...** commands.

## Using price sources

We have made a concept of price source and price delta - as you can see in the Source and Delta columns, respectively. The Source column lets you choose from a list of market values (last, bid, ask, mid, wwap). The current market value of that field is shown in the MarketPrice column and copied to the Price column. You can use the Delta column to adjust the Price above or below the market price. As the market changes, the Price will always be equal to MarketPrice + Delta.

To go back to setting manual prices, set Source to Custom. This disables the Delta column and allows you to directly set the Price. Note that the default value of the Source column is defined in the **Tools | Order Entry settings**.

## Distributing a fixed amount

Some times you have a fixed amount of money that you want to use for buy or sell orders. As long as all the symbols in the basket list use the same trading currency, the program can help you distribute an amount on all the orders.

To facilitate this, the amount edit, currency indicator and Distribute button on the toolbar is used. When distributing, the price you have configured for each symbol is used and a new volume is calculated. You can use the Weight column to set the relative weight (value) that symbol will be given.

Another factor that influence how the volumes are calculated, is the Distribute Value Volume rounding field in the Basket Trading page of the **Tools | Order Entry settings** dialog. The possible values are None, Down to Boardlot, Nearest Boardlot and Up to Boardlot. Depending on this setting the total value of the orders can be very close to, or slightly below or above the target amount.

Currently, the Distribute functionality is disabled if you have more than one trading currency in the orders list.

## Importing and exporting

If you have defined a list of orders that should be executed in an external system such as Excel, the import and export functionality available in the Basket Trading window comes in handy.

A basket trading list can be imported via an external text file or via the clipboard. In both cases the data must be formatted in a simple tab-separated text format.

To import from the clipboard, use right-click **List | Import from clipboard** (or the shortcut Shift+Ctrl+V). To export to the clipboard use right-click **List | Export selected orders to clipboard** (or the shortcut Shift+Ctrl+C).

To import from a text file, use right-click **List | Import from file**. To export to a text file, use right-click **List | Export to file**.

## Copy and Paste

The clipboard export and import commands make it easy to duplicate one or more orders inside a basket list. This can be useful if you want to duplicate and then make small changes (for instance change the portfolio name).

## The Include field and disabled orders

Orders in your basket list might be greyed out. This happens when one or more of the following conditions are not met:

- The symbol has been identified by the program
- Price has been set (or the order type does not require a price)
- Volume has been set
- Portfolio has been set
- Included column is checked

The basket cannot be executed until all orders are valid. Orders that do not have the *Included* column checked will be ignored for distribution and execution.

## Available columns

You can easily change the default settings this by right-clicking the columns, select **Field Chooser** and use drag-and-drop on the columns you want.

Most of the columns are self-explanatory or have been discussed above. The Custom#1-Custom#6 fields are used for custom fields defined by the order entry provider for that specific market. It is easiest to use the Edit Order (Ctrl+Enter) command to set these fields.

## 5.9 Basket Trading Import Format

### Basic text format

The import format consists of a pure text, ASCII format with:

- Optional comments and blank lines
- A single header
- One or more orders

The format is line-based, each line is terminated with a carriage return/line feed combination (CR/LF, ASCII #13/#10). The header and order lines have each name and value separated with tabular characters (Tab, ASCII #9).

### Comments and blank lines

Any line in the import file can be an empty line or a comment line prefixed by a # character. Empty and comment lines are completely ignored during import, but can be useful to document the file for humans.

### Header

The first non-empty, non-comment line in the import file is interpreted as the header. The header consists of order property names separated by tab characters. The actual basket order values must follow the same order as the corresponding property names in the header.

Legal property names are:

Market, FeedID, Ticker, ISIN, Currency, ExchangeID, Position, Volume, OpenVolume, PriceSource, PriceDelta, Price, OrderType, Portfolio, ValidDays, Comment, ClientRef, Included, Weight, Custom 1, Custom2, Custom3, Custom4, Custom5, Custom6

The specific format and legal values for each property will be listed below.

### Order values

Below the header comes the list of orders and their values. Each order is listed on a separate line and with values for each property in the header, separated by tab characters. Empty values are ignored.

The following describes the format for each of the possible properties.

### Symbol identification fields

A valid order must at least contain a combination of symbol identification fields. There are four different combinations of symbol identification fields that allow the system to find a specific symbol.

#### FeedID and Ticker

Together the FeedID and Ticker fields identify a symbol uniquely. This is the primary identification method in the system and can be used even if the symbols have not been pre-created in the client (by opening a Market window, for instance). FeedID is the three-letter abbreviation of the feed name that you will see in the Market window caption or in the Composite window's Feed column. For instance, FeedID of the Oslo Stocks feed is OSS, Stockholm Stocks is SSE and Nasdaq Stocks is NSQ.

The internal numeric value may also be used - for instance, 18187 for Oslo Stocks or 17921 for Stockholm Stocks. Ticker is the alphanumeric primary symbol code within a feed. For instance Norsk Hydro's ticker is NHY, Ericsson B-shares is ERIC B and Microsoft is MSFT. Examples of valid values for FeedID and Ticker:

- FeedID Ticker
- OSS NHY
- SSE ERIC B
- NSQ MSFT

If the system you are importing from does not have or support FeedIDs or Ticker codes, you can use one of the alternative forms below.

#### FeedID and ISIN

One alternative set of identification fields is FeedID and ISIN. FeedID is described above. ISIN is an International Securities Identifying Number, a unique international code which identifies a securities issue. Because the same company can be traded at several exchanges using the same ISIN, we still need the FeedID field. For example, Norsk Hydro has the ISIN NO0005052605, Ericsson B-shares is ISIN SE0000108656 and Microsoft is US5949181045. Examples of valid values for FeedID and ISIN:

- OSS NO0005052605
- SSE SE0000108656
- NSQ US5949181045

#### Market, ISIN and Currency

Another alternative is to use the combination of three fields; Market (aka marketplace), ISIN and Currency.

Marketplace is a general description of the trading platform that may span multiple feeds. For instance, a Market called "r;Saxess" might span trading on the feeds Oslo Stocks, Stockholm Stocks and Copenhagen Stocks. Note that the exact names of the market names may vary depending on the order entry provider you use.

To uniquely identify a symbol within a marketplace ISIN (see description above) must be combined with the symbol's trading Currency. Currency is a three-letter abbreviation such as NOK for Norwegian Kroner, SEK for Swedish Kroner or USD for United States Dollar. Examples of valid values for Market, ISIN and Currency:

- Market ISIN Currency
- Saxess NO0005052605 NOK
- Saxess SE0000108656 SEK
- AKJ US5949181045 USD

#### Market and ExchangeID

Finally, an imported symbol can be identified by the combination of Market (aka. marketplace) and ExchangeID (aka. Code or ExchSym). As explained above Market is the name of the trading place (such as Saxess). ExchangeID is a (normally numeric) trading-specific ID that uniquely identifies a symbol within the trading place. For example, the ExchangeIDs for NHY and ERIC B is 15613 and 101, respectively. Note that not all markets and feeds support or use ExchangeIDs. Examples of valid values for Market and ExchangeID:

- Market ExchangeID

- Saxess 15613
- Saxess 101

## Volume and position fields

The following three fields define the direction of the order (buy or sell), the total volume and the market-visible (open) volume.

### Position

This property defines the order as a buy-order or a sell-order. If this property is not present, the sign of the Volume field determines the position.

Legal values for Position are: pBuy, pSell

### Volume

The Volume property is a numeric field that determines the number of shares or instruments that will be traded. Unless the Position field has been explicitly provided, the sign of the Volume field will decide if this is a buy or a sell order. Positive volumes are buy orders, negative volumes are sell orders.

### OpenVolume

If present, OpenVolume sets the open volume of the order - the amount of the Volume that will be visible in the market at any time. Open volume is always given as a positive number that must be equal or less than Volume.

## Price fields

There are several flexible ways of determining the price that should be used for each order. The three following fields define the possibilities.

### Price

This is the explicit price of the order. This is used when PriceSource is set to psCustom.

### PriceDelta

When you use a PriceSource other than psCustom, you can include a PriceDelta of how the calculated price should differ from the market price.

### PriceSource

If you don't provide a specific Price, you must provide a PriceSource to get the price value calculated from the current market price of the symbol. The possible values and their meaning are:

- psCustom The default value. The explicitly provided Price field will be used (PriceDelta is ignored)
- psLast The current Last value of the symbol. If Last is not available, LastValidPrevClose will be used
- psBid The current Bid value of the symbol.
- psAsk The current Ask value of the symbol.
- psMid The current Mid value of the symbol (the average of Bid and Ask)
- psVWAP The current VWAP (Volume Weighted Average Price) value of the symbol.

## Other order fields

### OrderType

This field determines the type of the order. The default is a Normal (limit) order. The possible legal values depends on what order types your order entry provider supports for the given symbol / feed.

The total list of possible order types are:

otNormal, otFillAndKill, otFillOrKill, otAllOrNothing, otCrossOrder, otBestPossible, otAtMarket, otMarket, otLimit, otMarketToLimit, tAtMarketAndKill, otRequestQuote, otFunari, otStopLimit, otStopLoss, otContingent, otFlex, otInterest, otAccept, otParent

### Portfolio

This is the name of the portfolio the order will be inserted into. If the order entry login has a single available

portfolio, that will be used as default. Otherwise the portfolio configured under **Tools | Order Entry** will be used as default. Note that the order entry login must have access to the portfolio given by this property.

### ValidDays

This field gives the valid until date for the order, specified in relative days. The default or 0 is today, 1 is until tomorrow, 2 is two days and so on. The import only supports relative dates. Using absolute dates would quickly make the dates invalid (as they would become in the past).

### Comment

This is a text field containing a comment for the order.

### ClientRef

This is a text field containing a client reference for the order.

## Custom order fields

A specific order entry provider may choose to define a number of custom order entry fields for each marketplace. These fields may be used to define odd-lot orders, special order handling, etc. The number, names and valid values for these fields are defined in the order entry server at the discretion of the order entry provider.

The Basket Trading window and the import function supports up to 6 such custom fields, named Custom 1, Custom2, Custom3, Custom4, Custom5 and Custom6. In general these fields accept strings of the form "r; Name=Value", where Name is the descriptive name of the custom field (identical to the label shown for the custom field in the order entry dialog) and Value is one of the drop-down values or a free-text input value or numeric value.

Note that the available custom fields are often different for different marketplaces. For instance, the available fields and valid values may be different for the Nordic and the American markets.

The easiest way to see the available custom fields and valid values is to:

- Add an order to the Basket Trading window
- Use the Edit Order command (or press Ctrl+Enter)
- Set the relevant custom fields
- Press OK
- Look in the Custom#1-Custom#6 fields for the correct values.

The Custom fields can be added as columns in the Basket Trading window by:

- Right-click the columns
- Select the Field Chooser menu item.
- Drag-and-drop the Custom fields to the grid

## Basket order specific fields

The following fields are not used when sending the order to the market, instead they are used as helper fields when defining the orders in the basket itself.

### Included

This is a Boolean value (True/False or 1/0) that indicates if the order will be included in the basket when the basket is executed or not.

### Weight

This is a numeric value defining the weight of the order. The value is used when manually distributing a total value to all the orders in the Basket Trading window.

### Error handling

If the file you try to import contains unknown property names (or the header is missing) or invalid values, you will be informed by a dialog box listing the errors. Even if an order has an invalid value for one property, the other values will be imported.

## Examples of import files

The following section will list some examples of valid import files.

### Example #1

This example shows the minimum set of three values that can be imported into valid orders:

- FeedID Ticker Price Volume
- OSS NHY 783.00 200
- SSE ERIC B 27.00 1200
- NSQ MSFT 27.00 800

### Example #2

This is an example that shows blank lines, comments and additional columns:

- # This is a comment
- # Blank lines are allowed
- # Here is the header followed by the orders, one order per line
- # The names and the values must be separated using tabs
- FeedID Ticker PriceSource PriceDelta Volume Position ValidDays
- OSS NHY psBid 0.20 200 pSell 0
- SSE ERIC B psLast 0.20 1200 pSell 1
- NSQ MSFT psAsk -0.20 800 pBuy 2

## 5.10 Supported Order Types

### Order types

The program supports most order types. The default order type is a "Normal order" where you define the price and the volume and send the order to the market place. The specific meaning of each order type is subject to provider and market rules. Different types of orders can be sent to the trading system and market place.

#### *Please note*

- The order types you have access to depends on the exchange and your broker

### Normal Order

An order where you define the price and the volume and send the order to the market place. Should the order not be completed in its entirety it shall remain in the market until it is filled or removed.

### Fill and Kill Order

An order to buy or sell that can be filled partially or cancelled. If the order cannot be filled in its entirety at the specified premium; as much as possible of the order is filled and the rest is killed.

### Fill or Kill Order

An order to buy or sell that must be filled in its entirety or cancelled.

### All or Nothing

If the order cannot be filled in its entirety, the order will stay in the market.

### Market Order

An order to buy or sell a stated number of contracts at the best price available in the market. An order submitted at any time within a trading session, executable immediately at the current market price.

### Limit Order

An order to buy or sell a stated number of contracts at a specified price or at a better price.

### Stop Limit Order

An order to buy or sell when the market for a particular contract reaches a specified price. A Stop Limit Order to buy becomes a Limit Order when the relevant contract trades or is bid at or above the stop limit price. A Stop Limit Order to sell becomes a Limit Order when the relevant contract trades or is offered at or

below the stop limit price.

### Stop Order

An order to buy or sell when the market for a particular contract reaches a specified price. A Stop Order to buy becomes a Market Order when the relevant contract trades or is bid at or above the stop limit price. A Stop Order to sell becomes a Market Order when the relevant contract trades or is offered at or below the stop price.

### Market To Limit

A Market to Limit order is submitted as a market order and executes at the current best market price. If the order is only partially filled, the remainder of the order is cancelled and re-submitted as a limit order with the limit price equal to the price at which the filled portion of the order executed

### Good 'Til Cancelled Order (GTC)

An order, that unless executed, remains in the Trading System until it is withdrawn by the Broker, Exchange or the person who placed it or the Expiration Date of the contract to which it relates, whichever occurs first

### Request Quote

An order where you request the price for the instrument and the broker replies with a price that normally only is valid for a certain time e.g 15 seconds.

### Iceberg Order

Iceberg (reserve) orders allow you to submit an order (generally a large volume order) while publicly disclosing only a portion of the submitted order.

### Conditional Order / Monitor Order

A Conditional order will not be activated to the market until one or more conditions are met that you have defined. Support for conditional orders is subjected to restrictions in the Trading Gateway. Example: Trigger order only if Last is less than X and Bid higher than Y...

### Calendar Spread

A strategy which entails buying one delivery month of a contract and simultaneously selling another delivery month of the same contract on the same exchange.

### Trailing Stop Limit

Trailing stop limit orders work just like trailing stop loss orders, except that the order becomes a limit order (instead of a market order) when the order is triggered. The limit price is the last stop price set before the order was triggered. The primary benefit of trailing stop orders is that when a customer establishes a trail amount on the security, the stop price adjusts with positive market activity. Trailing stop limit orders are available on Listed equities, OTC securities and single-leg options.

### Trailing Stop Loss

A trailing stop loss order is a stop loss order that adjusts in price with favourable market movement on the security. Trailing stop loss orders follow the same trading principles and mechanics commonly associated with stop loss orders. The primary benefit of trailing stop orders is that when a customer establishes a trail amount on the security, the stop price adjusts with positive market activity.

For a trailing stop loss order to sell, the stop price moves up as the price of the security moves up. For a trailing stop loss order to buy, the stop price moves down as the price of the security moves down. If the price of the security is moving against the customer's order, the stop price does not adjust.

### Cross Order

Order done internally at a broker desk to cross two orders.

## Validity

### Today

The order is valid the hole day until close

**Closing auction only**

The order is valid only during closing auction

**Opening auction only**

The order is only valid during opening auction

**Odd Lot**

Odd lot is the minimum accepted order in the market.

## 5.11 Connection Status

*Description*

A successful connection is indicated by a green icon in the lower right corner. If the connection to the trading system is lost, a popup will be displayed in the Communication Status window and you see a red icon in the lower right corner of the Order Status window.

**Lost connection - please note**

When the connection to the trading server is lost you cannot place any orders. If you need to cancel or modify any orders, click on "**How to contact**" in the upper right corner on the Order Status window to get in contact with the sales desk. The phone number should appear immediately.

As soon as the connection is up and running again, the green icon is displayed in the bottom right corner in the Order Status window.

**Secure Connection**

The connection between the application and the trading system are encrypted and secure. This is indicated by the yellow lock at the bottom right in your application window.

## 5.12 Export of Orders & Trades

*Description*

All Orders, Trades and Portfolio information from the Order Status Window can be exported to files by selecting **Edit | Save as**.

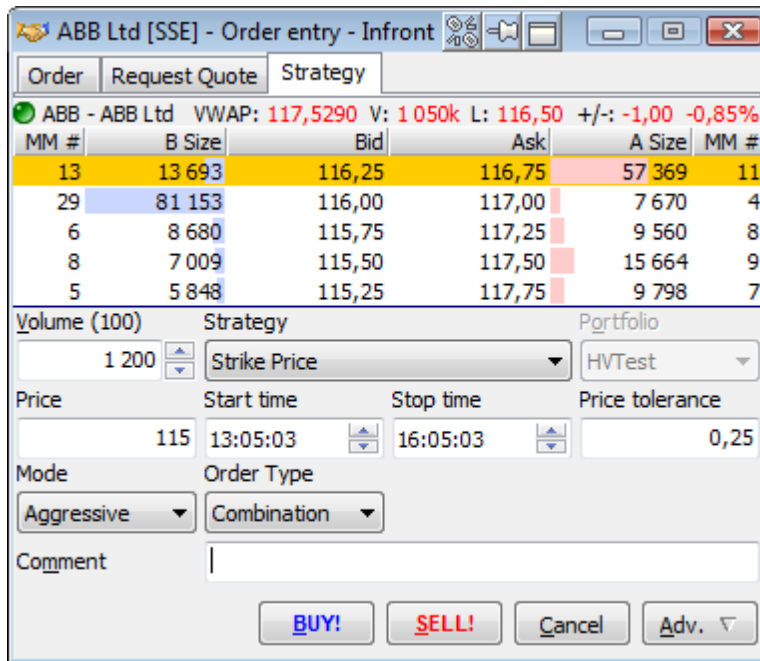
**Formats**

- MS Excel files (XLS)
- XML Files (XML)
- HTML files (HTM)
- Text files (TXT)

## 5.13 Algo Trading

*Description*

Algorithmic Trading (also known as Strategy Trading or Automated Trading) uses a dedicated 3rd party server to automatically enter orders given certain rules and parameters. This can be used by large market participants to effectively execute trading strategies with minimal manual effort.



Technically, the algorithmic engine runs on a server for a 3rd party vendor. The order entry provider programs this server by defining a number of named Strategies. For each Strategy a number of input parameters is defined. The list of available strategies and their parameters is sent to the end user during the login process. The user selects from the list of strategies, fills in the mandatory parameters and sends the order to the server. Then the algo server monitors conditions such as market prices, volumes, time etc and enters and cancels orders to try and fulfill the purpose of the strategy.

#### Access requirements

- Access to Order Entry server with Algo support
- Access to Algo Trading feature

#### How to access

- Select the Strategy page of the Order Entry window

## References

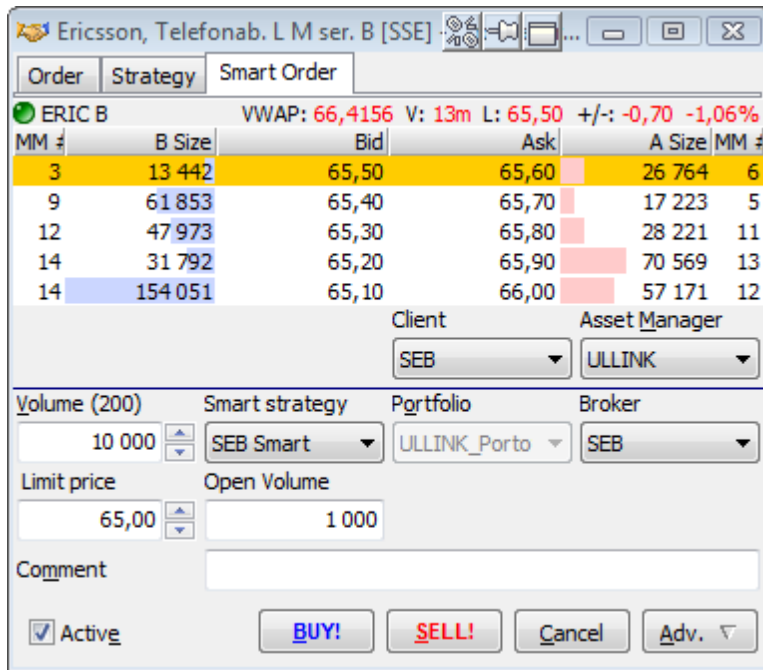
Wikipedia on Algo Trading

## 5.14 Smart Orders

### Description

Smart Orders is orders that can be executed on one or more exchanges that all have the same company listed. This is can be useful in automatically dividing a large order on multiple exchanges and getting a better average price than would be possible if the order was executed only on a single exchange.

For instance, the Swedish Ericsson company is listed on several exchanges, including the Stockholm Stocks Exchange and on MTF (Multilateral Trading Facility) feeds such as Turquoise, Chi-X, Nasdaq OMX Europe and Burgundy. When you send a Buy Smart Order on Ericsson to a server that supports these markets, your order may trade on all of these exchanges.



A Smart Order is a special case of the more general concept of Algo Trading. The details of how your Smart Order is executed on the different exchanges is delegated to a separate 3rd party Algo or Smart Order server.

Just as with Algo trading you can be presented with a list of named Smart Order algorithms and each order may take a number of input parameters.

The user selects from the list of Smart Order strategies, fills in the mandatory parameters and sends the order to the server. Then the server monitors conditions such as cross-market prices, volumes, time etc and enters and cancels orders to try and fulfill the purpose of the strategy.

#### Access requirements

- Access to Order Entry server with Algo support
- Access to Smart Order Trading feature

#### How to access

- Select the Smart Order page of the Order Entry window
- From the Consolidated Orderbook window, Smart order is the default order type

## 6 Market Data Windows

The program includes different type of market data windows in order to view quotes:

- Market Window - enables you to view all instruments for a given asset class for a specified exchange
- Composite Window - enables you to combine instruments from different markets
- Market Pages - pre-made pages that combines instruments from one or several markets
- Quote Overview - provides detailed information for the selected symbol
- The Orderbook displays buyers and sellers accumulated on price (market by price) or by orders (market by orders).
- Chains are predefined list from the Infront file server that gives you instant access to selected symbols.
- The Forex Cross Table shows all the main currencies and the crosses.

- The Trade Ticker provides all trades from a defined market / exchange / source.

## 6.1 Market Window

### Description

The Market Window is the main window for streaming quotes in addition to the Composite Window and Market Pages. The Market Window can display different types of symbols (such as equities/stocks, options, warrants, futures, forex and fixed income data). The symbols in the Market Window are either displayed as pre-defined lists (for small and medium markets) or as one and one based feeds for larger markets.

### Example

For the OMX Stockholm, Equities market; the Market Window displays all symbols (more than 450 symbols) in one list under All Quotes. Why; The pre-defined lists gives you faster access and the best overview of the selected market.

Symbol	N	L +/-	L +/--%	B Size	Bid	Ask	A Size	Last	L	High	Low	Volume	Time
ELUX A		--	--	500	118,25	121,00	200	--	--	--	--	--	--
ELUX B		2,50	2,17%	12 400	117,50	117,75	32 100	117,75	117,75	112,75	112,75	2 296k	12:46:36
EKTA B		-1,50	-1,28%	4 100	115,75	116,00	16 400	115,75	116,75	115,25	115,25	149k	12:39:11
ENRO		--	--	16 100	78,75	79,00	15 500	78,75	79,25	77,25	77,25	335k	12:48:26
ERIC A		-0,08						18,32	18,46	18,20	18,20	95 546	12:25:33
ERIC B		-0,18						18,14	18,42	18,10	18,10	38m	12:48:45
FABG		1,00						70,25	70,75	68,00	68,00	220k	12:48:40
GETI B		-1,00						170,00	174,00	169,00	169,00	194k	12:48:37
HAKN		2,00						117,00	117,00	115,00	115,00	7 370	12:46:02
HM B		1,50						406,50	410,00	400,00	400,00	1 326k	12:49:00
HEXA B		1,50						152,00	153,50	145,50	145,50	172k	12:46:28
HOLM A		--	--					--	--	--	--	--	--
HOLM B		3,00						231,50	235,00	225,00	225,00	187k	12:49:05
HUFV A		0,75						62,50	63,50	61,25	61,25	70 120	12:47:22
HUFV C		--	--					--	--	--	--	--	--
HUSQ A		--	--					72,00	72,50	70,25	70,25	16 848	12:46:13
HUSQ B		-0,25						72,00	72,75	70,75	70,75	310k	12:45:29
INDU A		-0,75						117,25	118,75	116,00	116,00	50 654	12:45:31
INDU C		-1,75						107,75	109,50	107,00	107,00	112k	12:43:59
INVE A		--	--					145,50	147,75	143,50	143,50	34 427	12:39:37
INVE B		0,25						148,00	150,00	145,50	145,50	1 027k	12:48:40
JM		-1,00						125,50	127,75	123,25	123,25	337k	12:49:04
KAUP SEK		--	--					101,00	103,00	100,25	100,25	367k	12:41:24
KINV A		--	--					--	--	--	--	--	--
KINV B		-3,50						144,75	147,75	144,75	144,75	426k	12:48:04
KLED		1,50						85,00	85,25	82,25	82,25	159k	12:45:34
LATO A		--	--					--	--	--	--	--	--
LATO B		-1,25						103,00	105,00	102,00	102,00	14 350	11:48:57

### How to open

- Select **File | New | Market**
- Selecting Ctrl+M on the keyboard

Depending on your account, different markets will be available. The list will display the data provider (vendor of the data) and whether the data is delivered in realtime, delayed or end-of-day.

## 6.2 Composite Window

### Description

The Composite window works in the same way as the Market Window. The main difference however is that the Composite Window makes it possible to define symbols from different markets you have access to. You can open unlimited number of Composite windows.

### How to open

- Select **File | New | Composite** on the main menu.

## Chains

The first tab gives you access to Chains which are pre-defined chains of symbols from the Infront servers. [Read more](#)

## List

The list tab enables you to add symbols from any market you have access to.

### Adding symbols

To add symbols type the name in the blank field and press enter. If you do not know the instrument code click on the **Add** button. To search for a symbol description just click on the **Add** button to open a search module.

### Deleting symbols

In addition to the **List | Delete Symbol** (Ctrl+Del) command, you can now also use **Edit | Delete** (Del) to delete a symbol from the list in a Composite window.

## Ranking

The Ranking tab gives you access to realtime intraday ranking for today's gainers, losers and most traded symbols.

## Columns

### Editing Columns

Each column can be edited directly. Right-click on the column header to open the menu or select **Properties | Edit Columns**.

There is a new column that can be useful to have in a Composite window. The new Access column will show what kind of feed - delayed or realtime - you have for each symbol in the list.

### Sorting

To sort on a column double-click on the column header. The sorting will be in realtime.

## Menu icons

### Composite Trade Ticker

The composite trade ticker will display a Trade Ticker with the instruments you have added in the Composite window.

### Export Symbol Data

Export symbol data enables you to export the list of instruments to a file in different formats.

### Upload to mTrader

If you have access to mTrader (mobile application) you can define and upload a list by clicking on the "Upload to mTrader" icon.

## Feed status

In the bottom right corner the status of the data and feeds will be displayed:

- Green connection: all symbols are updating
- Yellow connection: some feeds disconnected
- Red connection: none of the symbols are updating

### Strike through effect

If you loose connection to the internet the quotes will be marked with a strike through effect. See example below:

## 6.3 Market Pages

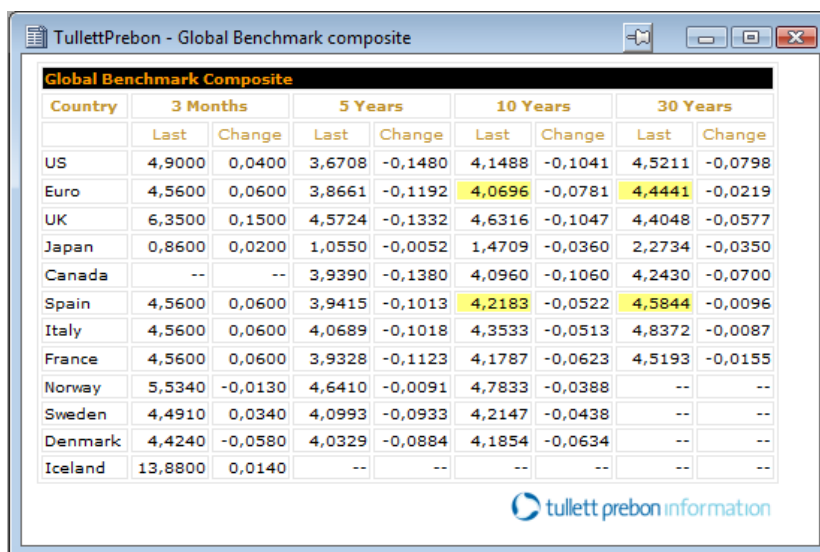
### Description

The program provides Market Pages windows for selected sources such as money market vendors.

### How to open

- Select **New | Market Pages** on the main menu. Then select the market page you would like to view.

### Example page



The screenshot shows a window titled 'TullettPrebon - Global Benchmark composite'. The window contains a table with the following data:

Country	3 Months		5 Years		10 Years		30 Years	
	Last	Change	Last	Change	Last	Change	Last	Change
US	4,9000	0,0400	3,6708	-0,1480	4,1488	-0,1041	4,5211	-0,0798
Euro	4,5600	0,0600	3,8661	-0,1192	4,0696	-0,0781	4,4441	-0,0219
UK	6,3500	0,1500	4,5724	-0,1332	4,6316	-0,1047	4,4048	-0,0577
Japan	0,8600	0,0200	1,0550	-0,0052	1,4709	-0,0360	2,2734	-0,0350
Canada	--	--	3,9390	-0,1380	4,0960	-0,1060	4,2430	-0,0700
Spain	4,5600	0,0600	3,9415	-0,1013	4,2183	-0,0522	4,5844	-0,0096
Italy	4,5600	0,0600	4,0689	-0,1018	4,3533	-0,0513	4,8372	-0,0087
France	4,5600	0,0600	3,9328	-0,1123	4,1787	-0,0623	4,5193	-0,0155
Norway	5,5340	-0,0130	4,6410	-0,0091	4,7833	-0,0388	--	--
Sweden	4,4910	0,0340	4,0993	-0,0933	4,2147	-0,0438	--	--
Denmark	4,4240	-0,0580	4,0329	-0,0884	4,1854	-0,0634	--	--
Iceland	13,8800	0,0140	--	--	--	--	--	--

The Tullett Prebon logo is visible at the bottom right of the window.

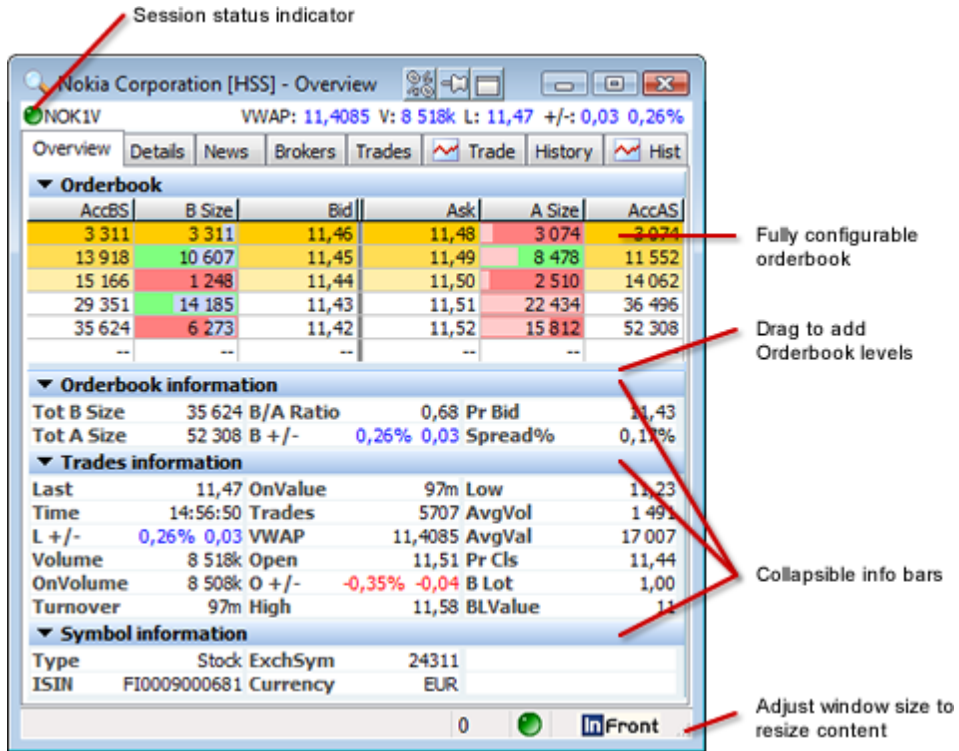
## 6.4 Quote Overview

### Description

The Quote Overview window will give you detailed information about the selected symbol.

### How to access

- Right-click on a symbol in the Market Window, Composite Window or a Market page and select Quote Overview.



TIP: If you want to view another instrument, type the ticker code on your keyboard

## 6.5 Orderbook

### Description

The Orderbook displays buyers and sellers accumulated on price (market by price) or by orders (market by orders). The order book can be configured to view Level 1, Level 2 or all levels depending on your subscription. The order book window can be linked together with order windows, see Linking of windows for more information. The default Orderbook displays 5 levels accumulated on prices. For selected markets the Orderbook can be displayed differently, e.g FX or Fixed Income data.

### Requirements

- Access to Level 2 or Level 2+ data from any exchange

### How to access

- The Orderbook can be opened by right-clicking on a symbol in the Market Window or Composite Window and selecting Orderbook.

### Example

ABB Ltd [SSE] - Accumulated Orderbook

ABB - ABB Ltd VWAP: 113,3775 V: 4 939k L: 112,75 +/-: -1,50 -1,31%

ISIN: CH0012221716 Feed: SSE Code: 3966 Status: TRADING High: 116,50 Low: 110,75

MM	AccBS	AvgBid	B Size	Bid	Ask	A Size	AvgAsk	AccAS	MM
11	35 982	112,50	35 982	112,50	112,75	17 672	112,75	17 672	2
10	85 415	112,36	49 433	112,25	113,00	63 138	112,95	80 810	8
17	119 865	112,25	34 450	112,00	113,25	65 075	113,08	145 885	9
4	137 788	112,19	17 923	111,75	113,50	37 129	113,17	183 014	13
4	140 388	112,18	2 600	111,50	113,75	13 501	113,21	196 515	9

## Columns

The columns displayed can be turned on/off by right-clicking in the Orderbook

- MM - Number of market makers at the given price
- AccBS - Accumulated Bid Size
- AvgBid - Average Bid Size
- B Size - Bid Size
- Bid - Bid Price
- Ask - Ask Price
- A Size - Ask Size
- Avg Ask - Average Ask Price for the specified level
- AccAS - Accumulated Ask Size
- MM - Number of market makers at the give price

## Summary lines

The Orderbook contains two summary lines. These can be turned on/off by right-clicking in the Orderbook:

- Summary line 1: Symbol ticker / Symbol description / VWAP / Volume / Last / Net change / Net Change %
- Summary line 2: ISIN / Feed code / Feed name / Symbol code / High / Low

## Suspensions

If an instrument (normally a stock) is suspended the Orderbook will automatically be displayed with a X mark. It is also possible to define another colour for a suspended quote under Edit Colours "Background if Status Set".

## Display of Market Makers

Depending on your account and permission the Market makers can be displayed on each level (only available for exchange members).

**TIP 1:** To change to another quote simply type in the ticker code on your keyboard and press enter.

**TIP 2:** Increase the size of the window to add more levels.

## 6.6 Consolidated Orderbook

### *Description*

The Consolidated Orderbook window displays the depth of orders consolidated across multiple markets (feeds) in one single view. With the fragmentation of the equity markets (due to Mifid), it has become harder than ever to get the full market view. With the Consolidated Orderbook you will have one window instead of looking at different orderbooks individually for the same security. By right-clicking on any symbol you will have instant access (by searching on ISIN codes), where each order is displayed with the feed code, price, volume etc. The information displayed can easily be tailored according to your requirements.

### *Requirements*

- Access to Realtime Level 1, Level 2 or full order depth from any exchange
- Access to ISIN codes
- Access to Cross Market Indicators from Infront

### *How to access*

- The Consolidated Orderbook can be opened by right-clicking on a symbol in the Market Window or Composite Window and selecting Consolidated Orderbook.

### *Example*

Feed	Symbol	AccBS	B Size	Bid	Ask	A Size	AccAS	Symbol	Feed
CHX	ABBN.I	1 189	1 189	16,04	16,06	5 563	5 563	ABBN.I	CHX
CHX	ABBN.I	3 189	2 000	16,03	16,07	4 568	10 131	ABBN.I	CHX
FS	ABJ	3 389	200	16,03	16,08	94 600	104 731	ABB	SSE
SSE	ABB	68 279	64 890	16,03	16,08	4 200	108 931	ABB.I	CHX
CHX	ABBN.I	69 679	1 400	16,03	16,08	200	109 131	ABJ	FS
CHX	ABBN.I	72 580	2 901	16,02	16,09	2 878	112 009	ABBN.I	CHX
CHX	ABBN.I	85 580	13 000	16,01	16,09	11 000	123 009	ABB.I	CHX
CHX	ABBN.I	88 507	2 927	16,01	16,10	2 872	125 881	ABBN.I	CHX
CHX	ABBN.I	91 440	2 933	16,00	16,11	3 443	129 324	ABBN.I	CHX
SSE	ABB	175 240	83 800	15,97	16,13	40 800	170 124	ABB	SSE
SSE	ABB	216 040	40 800	15,92	16,18	44 600	214 724	ABB	SSE
SSE	ABB	263 840	47 800	15,87	16,24	10 800	225 524	ABB	SSE
SSE	ABB	321 490	57 650	15,81	16,29	2 800	228 324	ABB	SSE

Consolidated Trade Info			
VWAP:	15,98	Volume:	873 868
Turnover:	13 973 840		

Volume Distribution	
SSE	88%
CHX	

Trade Info							
Symbol	Volume	Last	+/-	Symbol	Volume	Last	+/-
ABB [SSE]	766k	16,03	-3,00	ABB.I [CHX]	200	15,91	-4,00
ABBN.I [CHX]	80 232	16,07	-0,52	FABJ [FS]	--	0,00	--
OHJF [IOB]	24 180	15,97	-0,64	ABJG.I [CHX]	--	0,00	--
ABJ [FS]	2 925	15,90	-0,39				

## Main features

- A search for symbols with the same ISIN as the main symbol is automatically initiated when the window opens
- All prices are converted to the same currency easily selectable by the user (uses Infront USD Forex feed)
- Calculated prices are displayed in italic font
- Trading can be initiated by double clicking in the grid
- Quick access to Compare study
- Manually symbol search available
- The displayed columns and the symbol list can be edited
- Symbol list can be manually edited by right-clicking
- Symbol lists can be saved and shared with Composite Windows

## Consolidated Trade Info bar

The Consolidated Trade Info bar displays the volume weighted average price (VWAP), Volume and Turnover across all selected symbols converted to the same currency. The bar can be turned on/off under Setup|Info Bars

## Volume Distribution bar

The Volume Distribution bar displays the volume in percent for each exchange. The bar can be turned on/off under Setup|Info Bars

## Trade Info bar

The Trade Info bar displays each symbol ranked by the most traded on top (by volume) converted to the same currency. By double-clicking on an instrument the Symbol Window will be displayed. The bar can be turned on/off under Setup|Info Bars

## Changing to another symbol

To change to another symbol just type in the symbol code on your keyboard and press enter. Based on the selected symbol, a search based on the same ISIN code as the selected symbol will be started. The symbols will automatically be displayed in the window. To edit the symbols displayed select Setup|Symbols.

## Trading from Consolidated Orderbook

In order to place an order double-click on the Price or Volume in the grid or right-click and select Buy or Sell on the symbol menu. You can customize the behaviour on the double-click action for Volume under Tools|

Order Entry|Order Entry when placing the order.

### Hide non-tradeable symbols

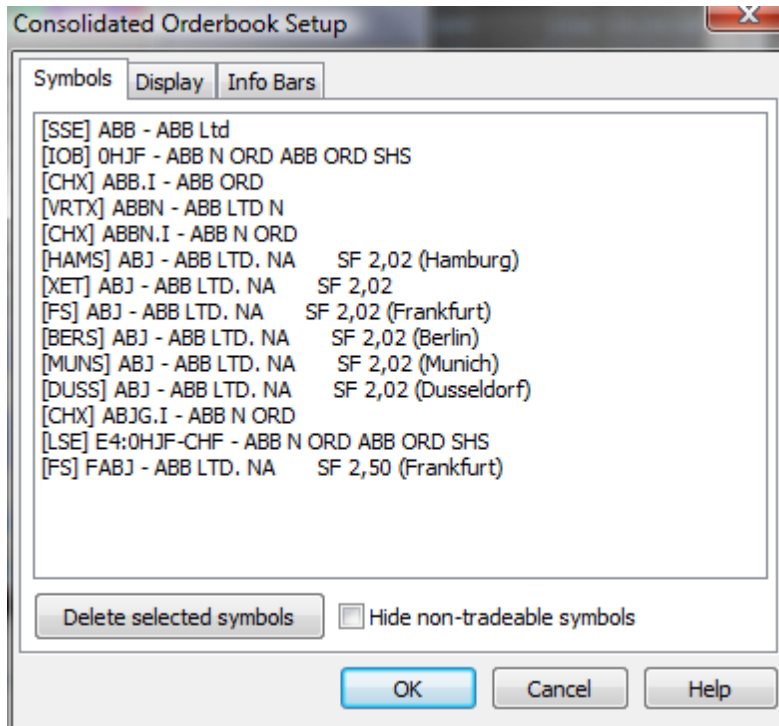
Symbols that is not tradeable can easily be removed by right-clicking and selecting "Hide non-tradeable symbols"

## Settings and customization

The Consolidated Orderbook setup enables you to customize and filter the information displayed.

### Setup

The setup menu can be found by right-clicking in the window.



The Symbol menu enables you to delete existing symbols and hide non-tradeable symbols.

Select non-tradeable symbols	Ctrl+N
Select all	Ctrl+A
Invert selection	Ctrl+I
Select zero volume symbols	Ctrl+Z

The Display tab enables you to customize Grid Columns displayed and the Visual preferences.

The Info Bars tab enables you to turn off and on the bars displayed.

### Symbol search

In order to search for new symbols and adding new the Search symbols menu will automatically search for symbols with same ISIN codes.

### Target currency and Calculated prices

The currency displayed in taken from the main symbol, however it is possible to easy change to another currency by right-clicking and selecting "Target Currency" and choosing your preferred currency. Please note that the currency are based in the Infront USD forex feed available in the Cross Market Indicators package.

Calculated prices will be displayed in italic font. This can be changed under Setup.

### Save screen space Remove Extra information

If you want to maximize the screen usage press F12 for turning caption on/off and F11 for extra information.

**TIP:** To change to another quote simply type in the ticker code on your keyboard and press enter.

**TIP:** Increase the size of the window to add more levels.

**TIP:** Press F11 to show / hide the Info bar headings

## 6.7 Chains & Index Constituents

### Description

Chains are predefined list from the Infront file server that gives you instant access to selected symbols.

When you first select a chain, the contents will be downloaded from Infronts file server and you will see streaming data for the symbols. The chain you selected will be stored as a part of the Workspace.

Symbols that support chains may also support Index Constituents - that is the list of symbols that contributes to the calculated index value. For instance, right-clicking on the OMXS30 index gives you access to the 30 symbols (stocks) that are included in the OMXS30 index.

### How to access

- Select the Chains tab under the Market Window or the Composite Window (not available for all markets)

### Examples of Chains

- Nasdaq 100 constituents
- FTSE 100 constituents
- Major commodities from NYMEX, COMEX, ICE, LME and GTIS

### Examples of Index constituents

- OMXS30
- OMXH25
- CAC40

## 6.8 Forex Cross Table

### Description

The Forex Cross Table shows all the main currencies and the crosses. The Forex Cross Table is located under **File | New - Forex Cross Table**.

### Requirements

- Subscription on Cross Market Indicators

### Edit Instruments

To move columns up or down right click in the table. Choose *Edit Crosses* from the right click menu to change visible currencies. The table opens with a conversion panel in the left corner. Print the amount you want the table to display and select currency. The conversion panel then shows the converted amount.

Move the cursor around the table to see the vertical listed currency converted to the currency in the

horizontal column.

The highlight indicates currencies that are being updated/changed.

To change background and highlight colours and fonts in the Forex Cross Table, use the right click menu or click on the icons in the top menu bar.

## Forex Cross Table

The default sorting of currencies in the Forex Cross Table window has been improved - now the most common currencies appear first. You can change the sorting to match your own preferences by dragging and dropping the columns. Alternatively you can move them by using the Move Up (Ctrl+Up) and Move Down (Ctrl+Down) right-click menu items. You can also reduce the number of currencies displayed by right-clicking and selecting **Properties | Edit crosses**.

The description of each currency has been updated.

## 6.9 Trade Ticker

### Description

The Trade Ticker provides all trades from a defined market / exchange / source either in realtime or delayed depending on your account.

### How to open

To open a trade ticker line select **File | New | Trade Ticker** from the main menu. The program supports both vertical and horizontal ticker lines. The trade ticker displays all trades (or other instruments such as indices) from one or more markets. Available columns are:

- Source Flag (country of origin)
- Quote Symbol (ticker code)
- Quote Description (instead of ticker code)
- Price (last trade)
- Arrows (indicates whether the last price is up or down compared to the previous trade)
- Volume (trade volume)
- B Id (Broker buyer ID. Only available for selected sources)
- S ID (Broker seller ID. Only available for selected sources)
- Bid (bid price at the time of the trade)
- Ask (ask price at the time of the trade)
- Time (time for the trade. Can be setup with seconds)
- Trades outside bid/ask price range are marked with a diverging colour. See colour setup

### Setup

Right-click in the ticker window and select **Setup**. Three tabs appear:

#### Markets and Symbol setup

Define your preferred markets and symbols (depending on user account). Click on the check boxes to include all markets and/or symbols or choose from the lists.

#### Display settings

Define the layout of the ticker by clicking on/off the check boxes:

- Flags: Displays a flag with country of origin for each trade.
- Full name: Displays quote description instead of quote symbol.
- Arrows: Displays an Arrow for each trade. An Arrow indicates whether the price is up or down compared to previous trade.
- Broker: Show broker ID for each trade
- Bid/Ask: Show Bid/Ask price for each trade
- Time stamp: Show time stamp for the trade. It is also possible to display Seconds.
- Reverse direction: Default direction is down for a Vertical tickerline or from right-to- left for Horizontal

tickerlines.

- Smooth scrolling: Default display is a "r;tick view" for each trade. "r;Smooth scrolling" will make the display of the ticker smoother.
- Colour changes: indicates whether each Trade is to be displayed in colours if the price is up or down compared to the previous trading day.

### Filter on Broker

You can filter trades on one or more brokers. Tick off your preferred broker(s) or tick off for "r;Include All Brokers".

### "List" Trade Ticker

It is possible to define a personalized List trade ticker with a selection of quotes. In the List window, right-click and select "r;List Ticker".

### Composite Trade Ticker

It is possible to define a "r;Composite" trade ticker with a selection of quotes. In the Composite Window right click and select "r;Composite trade ticker".

The vertical and horizontal Trade Ticker windows have been expanded to support symbol list filtering and linked window functionality.

You can use the Composite window to create and save any number of named symbol lists (saved as .sl files in your Ontrade\Setup folder). You can right-click a composite window and select Composite Trade Ticker to create a Trade Ticker window that is linked to and filtered by the symbols in the Composite window. If you close the Composite window the Trade Ticker window will also be closed.

Now this has been enhanced to allow a Trade Ticker window to explicitly be filtered by a specific saved symbol list. To do this, open a Trade Ticker window (**select File | New | Trade Ticker | Horizontal**), right-click the window and select Setup. In the first page, check [X] Use Symbol List and select the list from the available list.

Only new trades on symbols from the list will be displayed in the Trade Ticker window.

The Trade Ticker window can now also participate in the linked windows functionality. To link an existing Trade Ticker window, right-click it and select **Edit | Link this window**. Do the same with a market window (or use **Window | Link all windows** to link all windows on the same page). Then double click on the ticker name of a symbol in the market window. The Trade Ticker window will now be filtered to show only trades from the linked symbol. The Trade Ticker window also supports dragging-and-dropping a symbol on the window.

The caption of the Trade Ticker window now more clearly shows how it is configured and what type of filtering is in effect.

### Change column order

In the vertical ticker window, you can now change the order of the columns by dragging and dropping them using the mouse.

You can now filter on a specific set of broker codes no matter how many markets you include. You configure this on the Filter on Broker page of the ticker window setup dialog. Just enter the list of three-letter broker codes using comma as a separator.

## 6.10 Bonds Calculator

Main features:

- The Icelandic bonds calculator can be opened by right-clicking on a symbol in the Market window when Iceland bonds feed is viewed.
- The calculator will automatically calculate all values for the selected symbol when opened.
- If one or more edit fields are marked with a red dot, the input value is wrong. In that case it must be manually set.

- When all input values are correct, it will calculate:

**Yield to maturity (YTM)** in %

**Dirty price:** the value of a bond, exclusive of any commissions or fees

**Quote price** (if dirty price or yield are set as input value)

**Duration:** measures the sensitivity of the asset's price to interest rate movements, expressed as a number of years

**Accrued interest:** the interest that has accumulated since the principal investment, or since the previous interest payment if there has been one already

**Index adjustment:** current principle adjusted with current cpi or cti

**Principle with interest:** the sum of current principle, accrued interest and the Index adjustment

**Discount:** value issued for less than its par (or face) value

**Sales price**

**Base point value:** how much the value of the bond changes when the interest rate (yield) changes by one base point (0.01 percent).

- Changing an input value will automatically execute a recalculation

- The Reset button will set all input values back to feed snapshot values

- All input values should be received from server

The input values are as follows:

**Category:** what list the bond belongs to

**Issue date**

**Settlement date**

**Maturity date**

**Coupon rate**

**Coupons per year**

**Day count rule**

**Compounding:** yearly or flat interest

**Quantity**

**Indexation type:** if to index adjust values for the selected bond

*CPI:* Consumer Price Index

*CTI:* Credit Terms Index

*Other*

*None:* both input values will be set to 100, ie no adjustment

**Index:** the current indexation value

**Index at issue date**

**Amortization type:** the type of gradual payment

## 7 Alerts & Alert Monitor

### 7.1 Alert Monitor & Alerts

#### *Description*

The Alert Monitor gives you access to all alerts you have defined for symbols in the same window. You can set up as many alerts as you want. Please note that it does not include News alerts defined in the Mixed News window. The alerts functionality and the alerts list interface has been substantially improved and in this version there is a tool bar button and right-click menu to clear the Hit Count column for the selected alert.

#### *How to access*

- Select **View | Alert Monitor** in the main menu, or
- Right-click on a symbol in the Market Window or Composite Window to add an alert directly from the symbol

#### **Alerts**

The tab shows all registered alerts with the different conditions defined for each alert. The columns in the Alerts list are now sort able. You are no longer required to keep a market or composite window open with the symbols you have alerts on - they are subscribed to automatically. When an alert trigger you now also have the option to delete an alert and to have a notification window shown above the Windows task bar for a number of seconds.

#### **Add alert**

The Add button enables the New Alert dialog where you can specify the Symbol, Market and the condition for the alert. You can add a Comment and define the Alert Action.

After the alert has been triggered you can either:

- Focus the application (if you have other programs running on your PC the alert will be on top)
- Show this dialog
- Show the Alert log
- Disable the alert, or
- Delete the alert

You can define for how long the alert is going to be displayed under Show Notification Window for XX seconds

You can define a sound for the alert on your PC (in the ontrade folder there are some pre-installed alerts)

At the bottom left corner you can set the alert as Active or make it inactive

Note: By default, new alerts are now active. A bug was fixed - now alerts use the proper number of decimals for the symbol's price and trigger price.

#### **Edit Alert**

The Edit alert button enables you to edit an already defined alert.

#### **Clear Hit Count**

The clear hit count will set the counter to zero for the alerts defined.

#### **Delete Alert**

The delete alert button enables you to delete an already defined alert.

#### **Log**

All alerts are logged. The alert log window appears when an alert is released. . The first column shows the symbol to which the alert applies, then which market the symbol applies. The third column shows the conditions for alert release, and the next column shows the present price level. The last column shows whether the alert has been released since the program was started.

## 8 Broker Statistics

### *Description*

Broker statistics summarizes all activities for one market, one broker on one symbol either intraday or for a define historical period.

### *How to access*

- Select **File | New | Broker Statistic** and select the market (e.g. Stockholm SE, Stocks)
- Right-click on a symbol in the Market Window, Composite window and select Broker Statistics.

### *Available on the following markets*

- OMX Nordic Equities
- OMX Baltics Equities
- Oslo SE, Equities
- Toronto SE, Equities
- Madrid SE, Equities

### **Realtime and historical data**

The broker statistics module provides you both realtime (intraday) and historical data. To change time period, right click and select Interval. Historical data is available for up to three years.

### **All Brokers / Single Broker / Single Symbol**

You can select between the following views;

All Brokers - statistics for one market where all information about each broker is accumulated

Single Broker - statistics for one broker where all information about the selected broker is accumulated

Single Symbol - statistics for one symbol where all active brokers activity is accumulated

### 8.1 All Brokers

#### *Description*

This view shows accumulated data for all the brokers active on one specific market. By double clicking on one of the brokers, you are moved to the Single Broker folder for accumulated data for a specific brokerage.

#### *How to access*

- Select **New | Broker Statistics**, select the Market and go to the first tab "All Brokers"

#### **Table**

In the table view, each broker is represented with number of trades executed, turnover and more.

#### **Available columns**

- S (Checkbox for Timeline Selected)
- Full name (The brokers name)
- ID (The brokers ID)
- Time (time of last trade/update)
- #Buys (Number of Buy Trades)

- #Sells (Number of Sells Trades)
- #Int Trades (Number Internal Trades)
- #Trades (Total number of Trades)
- #Trades % (Trades shown in percent of total trades)
- NB Value (Net Buy Value)
- IValue (Internal Value)
- TValue (Turnover Value)
- TValue% (Turnover Value in percentage)

### Edit columns

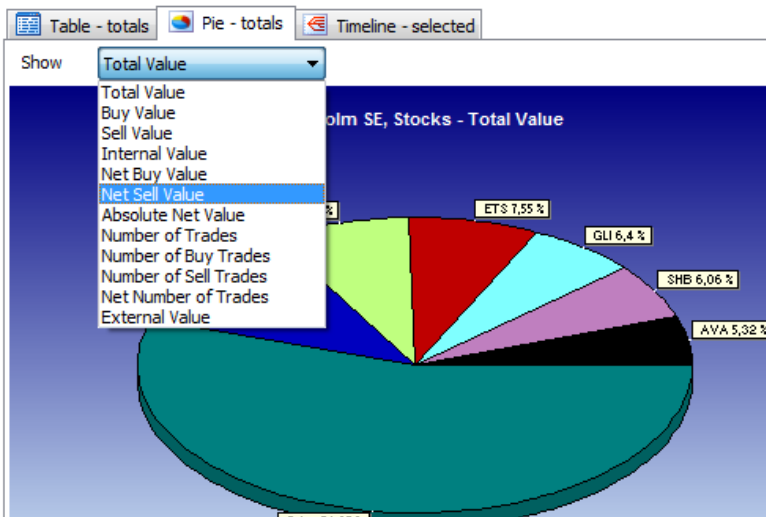
It is possible to edit columns by right click and choose **Properties | Edit columns**.

### Sorting

It is possible to sort on each column by double clicking on the column header.

### Pie - Totals

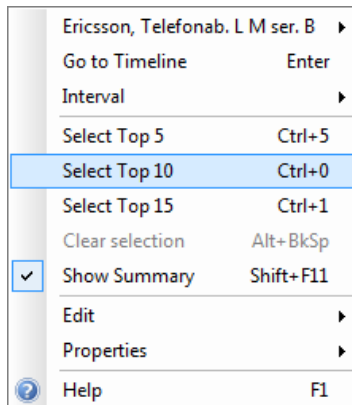
The pie chart provides data on the selected criteria graphically. Select different data input from the "Show" drop-down menu;



### Timeline - Selected

The Timeline view enables you to select different brokers from the Table tab and view more in details the information for the defined brokers.

Right click in the Table view to select e.g the Top 10 brokers by turnover;



## 8.2 Single Broker

### *Description*

Broker statistics for a Single Broker provides you with accumulated data for one selected broker for the selected period either intraday or historical. The information is displayed as columns, pie chart or line charts.

### *How to access*

- Select **New | Broker Statistics**, select the Market and go to the second tab "Single Broker".

### **Table - Totals**

The Table provides you with different information updated in realtime.

#### **Available columns**

- S (Checkbox for Timeline Selected)
- Full name (The brokers name)
- ID (The brokers ID)
- Time (time of last trade/update)
- #Buys (Number of Buy Trades)
- #Sells (Number of Sells Trades)
- #Int Trades (Number Internal Trades)
- #Trades (Total number of Trades)
- #Trades % (Trades shown in percent of total trades)
- NB Value (Net Buy Value)
- IValue (Internal Value)
- TValue (Turnover Value)
- TValue% (Turnover Value in percentage)

#### **Edit columns**

It is possible to edit columns by right click and choose **Properties | Edit columns**.

#### **Sorting**

It is possible to sort on each column by double clicking on the column header.

#### **Caption on/off**

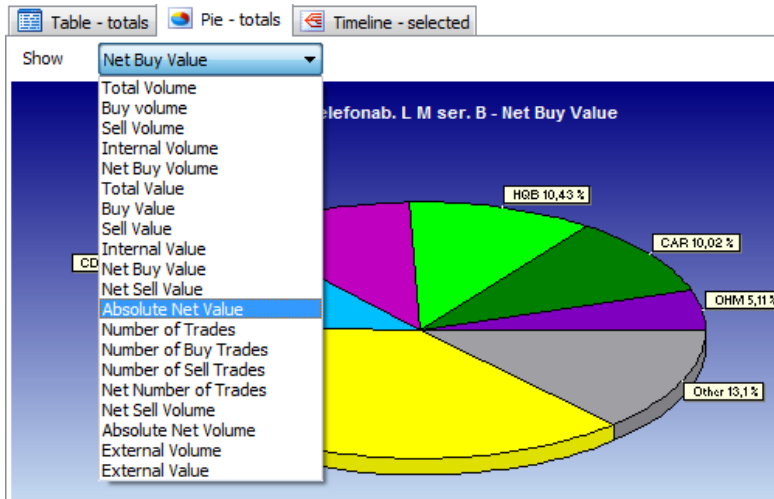
When you turn off **Properties | Show Extra Information** (F11) the tabs and optional controls are hidden, minimizing screen estate usage. In the Timeline chart, the available detail fields (Volume, Buy Volume etc) are now also available from the right-click menu, Timeline Field.

In the Broker Stats window, the broker name is now shown in a hint message when resting the mouse on timeline chart line (see above). You can now go directly between the Table - totals and the Timeline - selected pages by using the keyboard shortcuts Enter and Backspace.

The selected sorting column in each of the Broker Stats grids is also saved in the workspace.

#### **Pie - Totals**

The pie chart provides data on the selected criteria graphically. Select different data input from the "Show" drop-down menu;



### Timeline - Selected

The Timeline view enables you to select different brokers from the Table tab and view more in details the information for the defined brokers.

Ericsson, Telefonab. L M ser. B	▶
Go to Timeline	Enter
Interval	▶
Select Top 5	Ctrl+5
Select Top 10	Ctrl+0
Select Top 15	Ctrl+1
Clear selection	Alt+BkSp
<input checked="" type="checkbox"/> Show Summary	Shift+F11
Edit	▶
Properties	▶
Help	F1

## 8.3 Single Symbol

### Description

This view displays accumulated data on all brokers active for the selected symbol. This enables you to get fast access to the brokers that are the largest buyers, sellers, most active etc.

### How to access

- Select **File | New | Broker Statistic** and select the market (e.g. Stockholm SE, Stocks)
- Right-click on a symbol in the Market Window, Composite window and select Broker Statistics.

### Table

#### Available columns

- S (Checkbox for Timeline Selected)
- Full name (The brokers name)
- ID (The brokers ID)
- Time (time of last trade/update)
- #Buys (Number of Buy Trades)
- #Sells (Number of Sells Trades)
- #Int Trades (Number Internal Trades)
- #Trades (Total number of Trades)
- #Trades % (Trades shown in percent of total trades)

- NB Value (Net Buy Value)
- IValue (Internal Value)
- TValue (Turnover Value)
- TValue% (Turnover Value in percentage)

### Changing Symbol code

In the Symbols page you can switch to another symbol by just typing the ticker code on the keyboard. Linked windows are also supported. The type of selection you have made (i.e. Top 5) in the Table - totals page is now remembered and reselected when you switch to another symbol. This makes it possible to view the top 5 brokers in the Timeline - selected page as you change symbols. The current Top X selection is now shown in the caption and saved in the workspace. The charting field detail of the current page is now saved in the workspace.

### Edit columns

It is possible to edit columns by right click and choose **Properties | Edit columns**.

### Sorting

It is possible to sort on each column by double clicking on the column header.

### Caption on/off

When you turn off **Properties | Show Extra Information** (F11) the tabs and optional controls are hidden, minimizing screen estate usage. In the Timeline chart, the available detail fields (Volume, Buy Volume etc) are now also available from the right-click menu, Timeline Field.

In the Broker Stats window, the broker name is now shown in a hint message when resting the mouse on timeline chart line (see above). You can now go directly between the Table - totals and the Timeline - selected pages by using the keyboard shortcuts Enter and Backspace.

The selected sorting column in each of the Broker Stats grids is also saved in the workspace.

### Pie - Totals

The pie view renders a quick overview based on the selected criteria, while the chart view plots selected brokers in greater detail.

### Timeline - Selected

The tTimeline view enables you to select different brokers from the Table tab and view more in details the information for the defined brokers.

## 9 Browser

### 9.1 Browser

#### *Description*

You can include a web page from your installed browser (such as Internet Explorer) and store the window as part of your workspace.

#### *How to access*

- Select **File | New | Browser** and adding the URL (e.g. www.infront.no)

### Browser Settings

It is possible to define the appearance of the browser window from **Tools | User Interface | Browser** from the Main menu.

### External or internal browser

For internet news sources, the browser window can be set to External only (opens a new browser window

in addition to the program) or Internal only (opens the browser within the program).

### Pop-ups

It is possible to define the appearance for pop-ups by selecting: Yes, No or Ask me each time.

Tip: Note that it is possible to get a external browser by holding down the Ctrl key before clicking on the news story or clicking on the URL in the browser window.

## 10 Charts

### 10.1 Intraday & Historical Charts

#### Description

The charting module is very comprehensive and includes the following features:

- Intraday charts with up to 30 days with data
- Historical charts with end-of-day data (number of years depends per source)
- More than 35 Technical analysis studies
- Compare Studies
- Customize time periods, layout, default settings and more
- Linking of charts

#### How to access

- Right-click on a symbol in a Market Window, Composite Window or a Market Page and select **Chart | Historical Chart** or **Chart | Intraday Chart**

#### Features

##### Chart tool bar

At the bottom of the chart window there is a tool bar you can use to change the chart view.

##### Scroll bars

The left scroll bar changes the time period (start- and end date displayed). The effect is to pan the contents of the chart to the left or right.

The right scroll bar changes the number of points shown (changes only the start date). The effect is to zoom in and out on the right part of the chart.

##### Resolution

The resolution drop-down determines the time period that each point in the chart represents. The selected resolution can vary from *Hour* to *Tick-by-tick* for intraday charts and from *Month* to *Day* for historical charts.

##### Time period

The time period drop-down determines the total range of chart data that is downloaded and made visible. It can vary from 1 day to All available for intraday charts and from 1 month to All available for historical charts.

##### Chart cursor

Click the chart cursor button to enable a cursor that will show the current values of any point in the chart. A large cross will follow the mouse cursor and show the following information 'Timeline' with the cross: Date, Time, Open, High, Low, Close, Volume and Axis. The Axis value is where the mouse cursor is. In addition the legend (in the top left corner) of all lines and studies in the chart will show the current value.

##### Zoom in and out

The two buttons with large minus and plus signs on them allow you to quickly zoom in and out of the chart. You can also zoom by clicking the chart with the left mouse button, keeping it down, and dragging the

mouse to the lower right. When the desired area is highlighted, release the button. To zoom out, draw the square from the lower right to the upper left.

## Chart Menu

The chart menu is available by right-clicking in the Chart and contains the following commands:

### Symbol Parameters

The symbol parameters command shows a dialogue with parameters specific for the selected symbol. You can choose a chronological axis for historical charts and configure an Update filter to remove extreme values.

### Chart Type

Set the type of the selected line to a:

- Line Chart
- Bar Chart
- Candle Stick

### Resolution

The resolution of the chart determines the time period that each point in the chart represents. The selected resolution can vary from Hour to Tick-by-tick for intraday charts and from Month to Day for historical charts.

### Period

The time period if the chart determines the total range of chart data that is downloaded and made visible. It can vary from *1 day* to *All available* for intraday charts and from *1 month* to *All available* for historical charts.

### Horizontal Axis

Options for the horizontal axis. This is also available by right-clicking directly on the horizontal axis in the chart window. You can toggle the settings for the grid lines and show first date/last time. There are also commands for *Go to date / time* and *Symbol parameters*.

### Vertical Axis

Options for the selected vertical axis. This is also available by right-clicking directly on the vertical axis in the chart window. You can toggle the settings for a logarithmic scale, show last marker, Price/Volume, show grid lines and show legend.

## Add Study

This menu presents a hierarchical menu structure with the available Technical Analysis studies. A dialog with the study parameters is presented before the line is added.

### Keyboard shortcut

You can also quickly add studies by pressing the [Insert] key on the keyboard and then type the short name of the study and [Enter].

## Edit Study

This menu lists the currently study lines in the chart and allows you the change their parameters.

## Deleting studies

You can delete a line on the chart by selecting it (by clicking on it) and then select **Edit | Delete** or press the Delete key. If the study line is not visible for some reason (there are not enough points in the chart to fill up the Period of the study, for instance), you can now delete it by using the new **Chart | Delete Study** menu

## Improvements

### Increased tick-by-tick chart limits

By default the client will download up to 4000 points of tick-by-tick data. The user can override this limit in the **Tools | User Interface** dialog. Still the maximum limit was 32 000. Note that tick-by-tick data normally is

only available for the last trading day from the servers.

### Increased intraday chart limits

In the previous version, the intraday period All Available was limited to 30 days of data. This limit has now been extended to up to 100 days of intraday data. Note that the actual number of days available from the servers will vary.

## 10.1.1 Technical Analysis Studies

### 10.1.1.1 Technical Analysis

In the Charting Window, there are more than 40 technical analysis studies to choose from. There are four ways to add a technical analysis study to an existing chart:

- Use the **Chart | Add Study** menu on the main menu
- Use the **Add Study** menu on the right-click menu
- Use the **Add Study** button on the toolbar
- Press the **[Insert]** key. This will open a dialog where you can type the short name of the study

The following types of studies are available:

#### Price studies

You can select between the following Chart types by right-clicking and Chart Types:

- Bar Chart
- Candle Stick
- Line Chart
  - The line chart can display several possible values:
    - **Last**
    - **Open**
    - **Low**
    - **High**
    - **Typical price** - calculated as:  $(High + Low + Last) / 3$
    - **Weighted close** - calculated as:  $(High + Low + Close * 2) / 4$
    - **Bid**
    - **Ask**
    - **Yield**

#### Volume studies

The program supports the following studies. Read more about Volume studies.

- Accumulation/Distribution
- Chaikin A/D Oscillator
- Chaikin Money Flow
- Ease of Movement
- Money Flow Index
- Moving Average Volume (\*)
- Negative Volume Index
- On Balance Volume
- Positive Volume Index
- Price Volume Trend
- Volume Bar
- Volume Oscillator
- Volume Rate Of Change

(\*) Note: To get a Moving Average Volume, select the new Moving Average and select the Volume field in its properties.

## Trend studies

The program supports the following studies. Read more about Trend studies.

- Bollinger Bands
- Exponential Moving Average
- Keltner Channel (ATR Bands)
- Moving Average
- Parabolic Stop and Reversal
- Price Channel
- Triangular Moving Average
- Weighted Moving Average

## Momentum studies

The program supports the following studies. Read more about Momentum studies.

- Average True Range
- Chande Momentum Oscillator
- Commodity Channel Index
- Directional Movement ADX
- Directional Movement ADXR
- Directional Movement DI+/DI-
- Directional Movement DX
- High/Low Oscillator
- Intraday Momentum Index
- Market Facilitation Index
- Moving Average Convergence Divergence (MACD)
- Price Oscillator
- QStick
- Rate of Change
- Relative Momentum Index
- Relative Strength Index
- Relative Volatility Index
- Standard Deviation
- Stochastic Oscillator
- Volatility
- Williams %R
- Williams Acc/Dist

## Compare studies

A compare studies adds another price line for another symbol to the chart. In the Compare page of the properties dialog, press the Symbol button to search for and select the symbol you want to compare with. Then select the type of compare study you want in the combo box below. Given two symbols A and B, the available options are:

- A indexed to B
- A rebased to B
- A relative to B
- B / A (B divided by A)
- A / B (A divided by B)
- B - A (the difference between B and A)
- A - B (the difference between A and B)
- A \* B (A multiplied by B)

## Price Volume

Select this to toggle the presence of Price Volume bars in the chart. It can also be selected from the right-click menu of a vertical axis.

### 10.1.1.1.1 Momentum Analysis

#### ☐ Average True Range (ATR)

Average True Range (ATR) - measures volatility. High ATR often occur at market bottoms following a panic sell-off. Low ATR value is often found during extended sideways periods, such as those found at tops and after consolidation periods.

#### ☐ Chande Momentum Oscillator (CMO)

Chande Momentum Oscillator (CMO) - is created by calculating the difference between the sum of all recent gains and the sum of all recent losses and then dividing the result by the sum of all price movement over the period. This oscillator is similar to other momentum indicators such as the Relative Strength Index and the Stochastic Oscillator because it is range bounded (+100 and -100).

The symbol is deemed to be overbought when the momentum oscillator is above +50 and oversold when it is below -50. Many technical traders add a nine-period moving average to this oscillator to act as a signal line. Bullish signals are generated when the oscillator crosses above the signal, and bearish signals are generated when the oscillator crosses down through the signal.

#### ☐ Commodity Channel Index (CCI)

Commodity Channel Index (CCI) - quantifies the relationship between the price, a moving average (MA) of the price, and normal deviations from that average. The index is scaled by a factor of 1/0.015 to provide more readable numbers. Therefore, it is essentially a MACD, normalized the deviation. The CCI can be adjusted to the timeframe of the market traded on by changing the averaging period.

#### ☐ Directional Movement DI+/DI- (DI)

Directional Movement DI+/DI- (DI) - helps determine if a security is "trending". The DMI trading system involves comparing the 14-day DI+ ("Directional Indicator Up") and the 14-day DI- ("Directional Indicator Down"). This can be done either by plotting the two indicators on top of each other or by subtracting the DI+ from the DI-. Wilder, who developed the system, suggests buying when the DI+ rises above the DI- and selling when the DI+ falls below the DI-.

#### ☐ Directional Movement ADX (ADX)

Directional Movement ADX (ADX) - The Average Directional Movement Index (ADX) is an averaged combination of DI+ and DI- which serves as an indicator of the trend strength. The ADX is an oscillator fluctuating between 0 and 100. Low readings (below 20), indicate a weak trend and high readings (above 40) indicate a strong trend.

#### ☐ Directional Movement ADXR (ADXR)

Directional Movement ADXR (ADXR) - The Average Directional Movement Rating quantifies momentum change in the ADX. It is calculated by adding two values of ADX (the current value and a value n periods back), then dividing by two. This additional smoothing makes the ADXR slightly less responsive than ADX. The interpretation is the same as the ADX; the higher the value, the stronger the trend.

#### ☐ Directional Movement DX (DX)

Directional Movement DX (DX) - The Directional Movement Index combines the two DI+ and DI- lines of the DI analyses into one line.

#### ☐ High/Low Oscillator (HLO)

High/Low Oscillator (HLO) - a simple model that use today and yesterday's price to determine an oversold/overbought situation. If the HLO curve is above zero it indicates an overbought situation. Similarly, if the HLO curve is below zero it indicates an oversold situation.

#### ☐ Intraday Momentum Index (IMI)

Intraday Momentum Index (IMI) - is an oscillator which is constructed by averaging  $n$  days worth of upward price changes (close is greater than open) to  $n$  days worth of downward price changes (close is less than open). Sell signals are issued when the index crosses above the overbought level of 70% and buy signals are issued when the index crosses below the oversold level of 30%.

#### Market Facilitation Index (FI)

Market Facilitation Index (FI) - analyzes the amount that the price is changing for each unit of volume. It does not include any information concerning the direction of price changes. Instead, it is used to determine the efficiency with which the price is changing. The value of this indicator is the difference between the high and low prices divided by the volume. Therefore, its value tends to be very small.

#### Moving Average Convergence Divergence (MACD)

Moving Average Convergence Divergence (MACD) - calculated by subtracting a 26 day moving average of a security's price from a 12 day moving average of its price. A 9-day exponential moving average called "signal" or "trigger" line is plotted on the top of the MACD to show buy/sell opportunities. The result is an indicator that oscillates above and below zero. When MACD is above zero, it means that the 12-day moving average is higher than the 26 day moving average. This is bullish; since it shows that recent expectations (i.e. the 12 day moving average) are more bullish than previous expectations (i.e. the 26 day moving average). This implies bullish (upward) shift in supply/demand lines. When MACD falls below zero, it implies that the 12-day moving average is below the 26-day moving average, implying a bearish (downward) shift in supply/demand lines.

#### Price Oscillator

Price Oscillator - almost identical to the MACD, except that it can use any two user-specified moving averages and can display the difference in either points or percentage (MACD displays only points)

#### QStick

QStick - provides a way to quantify the amount and size of black and white bars in a Candlestick chart. Black candlesticks represent a period when the price closed lower than it opened. Likewise, the white candlesticks represent a period when the price closed higher than it opened.

#### Rate of Change (RC)

Rate of Change (RC) - displays the difference between the current price and the price " $n$ " time periods ago. The RC displays the wavelike motion in an oscillator format by measuring the amount that prices have changed over a given time period. As prices increase, the RC rises - as prices fall the RC falls. The greater change in the price, the greater the change in RC.

#### Relative Momentum Index (RMI)

Relative Momentum Index (RMI) - a variation on the Relative Strength Index (RSI) that adds a momentum component. As an oscillator, the RMI exhibits the same strength and weakness of other overbought/oversold indicators. During strong trend markets, the RMI will remain at overbought or oversold levels for an extended period. During non-trending markets the RMI tends to oscillate predictably between an overbought level of 70 to 90, and oversold level of 10 to 30.

#### Relative Strength Index (RSI)

Relative Strength Index (RSI) - is a price following oscillator that ranges between 0 and 100. A method for analyzing RSI is to look for divergence in which the security is making a new high but the RSI is failing to surpass its previous high. This divergence is an indication of an impending reversal. When the RSI then turns down and falls below its most recent trough, it is a confirmation of the impending reversal.

#### Relative Volatility Index (RVI)

Relative Volatility Index (RVI) - measures the direction of volatility. The calculation is identical to the Relative Strength Index (RSI) except that the RVI measures a 10-day standard deviation of high and low prices instead of measuring period-to-period price changes. RVI rules of confirmation:

- Only act on buy signal when RVI >50
- Only act on sell signals when RVI <50
- If a buy signal was ignored, enter long when RVI>60
- If a sell signal was ignored, enter short when RVI<40
- Close a long position if RVI falls below 40
- Close a short position if RVI rises above 60

#### ☐ Standard Deviation (SD)

Standard Deviation (SD) - a statistical measure of volatility. Typically used as a component of other indicator. High standard deviation values occur when the data item being analyzed is changing dramatically. Low standard deviation values occur when prices are stable.

#### ☐ Stochastic Oscillator (SO)

Stochastic Oscillator (SO) - displays overbought and oversold levels. The SO consists of two lines where one is a 3-day average of the other. It should only be used in situations without a dominating trend.

#### ☐ Volatility (VOL)

Volatility (VOL) - indicator that compares the spread between a symbol's high and low prices. It assumes that market tops are generally accompanied by decreased volatility, and that the latter stages of a market bottom are generally accompanied by increased volatility.

#### ☐ Williams %R (WR)

Williams %R (WR) - measures overbought/oversold levels. Very similar to Stochastic Oscillator, except that Williams %R is plotted upside down and the Stochastic Oscillator has internal smoothing.

#### ☐ Williams Accumulation/Distribution (WAD)

Williams Accumulation/Distribution (WAD) - "Accumulation" is used to describe a market controlled by buyers, a market controlled by sellers defines "distribution". Williams recommend trading on divergences:

- Distribution of the security is indicated when it is making a new high and the Acc./Distr. Indicator is failing to make a new high - Sell.
- Accumulation of the security is indicated when it is making a new low and the Acc./Distr. Indicator is failing to make a new low - Buy.

### 10.1.1.1.2 Trend Analysis

#### ☐ Bollinger Bands (BB)

Bollinger Bands (BB) – basic interpretation is that prices tend to stay within the upper and lower bands. The characteristics of BB are that the spacing between the bands varies based on the volatility of the prices. During periods of extreme price changes (i.e. high volatility), the bands widen to become more forgiving. During periods of stagnant pricing (i.e. low volatility), the bands narrow to contain prices. BB are displayed as three lines. The middle band is a simple moving average. In the formula "n" is the number of time periods in the moving average.

#### ☐ Exponential Moving Average (EMA)

Exponential Moving Average (EMA) – is calculated by applying a percentage of today's closing price to a percentage of yesterday's moving average value. EMA place more weight on recent prices.

#### ☐ Keltner Channel (ATR Bands) (KCATR)

Keltner Channel (ATR Bands) (KCATR) – is a volatility based 'envelope' indicator that measures the movement of symbols in relation to an upper and lower moving-average band. The bands are defined by a number of ATRs (Average True Range) from a middle EMA line. If the closing price passes the upper band it indicates a sell signal. If the closing price passes the lower band it indicates a buy signal.

☐ Moving Average (MA)

Moving Average (MA) – shows the average value of a security's price over a period of time. When calculating MA, a mathematical analysis of the security's average value over a predetermined time period is made. As the security's price changes, its average price move up or down. If the price moves above its MA, a buy signal is generated. If the price moves below its MA a sell signal is generated.

☐ Parabolic Stop and Reversal (PSAR)

Parabolic Stop and Reversal (PSAR) – is used to set trailing price stops. It provides excellent exit points. Close long positions when the price falls below the PSAR and close short positions when the price rises above the PSAR.

☐ Price Channel (PC)

Price Channel (PC) – is, in essence, a set of dynamic support and resistance levels. It consists of two lines: an upper channel showing the highest high over the specified number of time periods, and a lower showing the low during the period. Help gauge the ebb and flow of optimism and pessimism. When prices are at or near the upper channel, extreme optimism is indicated – look for prices to meet resistance and to move down to more rational levels. Likewise, when prices are near or at the lower channel extreme pessimism is indicated – look for prices to find support and move up to more rational levels.

☐ Triangular Moving Average (TMA)

Triangular Moving Average (TMA) – place the majority of the weight on the middle portion of the price series. TMA are actually double smoothed simple moving averages.

☐ Weighted Moving Average (WMA)

Weighted Moving Average (WMA) – is designed to put more weight on recent data and less on past data. WMA is calculated by multiplying each of the previous day's data by a weighting factor, based on the number of days in the moving average.

#### 10.1.1.1.3 Volume Analysis

☐ Accumulation/Distribution (AD)

Accumulation/Distribution (AD) - is an indicator which tries to identify supply and demand by discovering if traders are generally "Accumulating" (buying) or "Distributing" (selling) a certain symbol by calculating the divergences between stock price and volume flow.

☐ Chaikin A/D Oscillator (CO)

Chaikin A/D Oscillator (CO) - is simply the Moving Average Convergence Divergence indicator (MACD) applied to the Accumulation/ Distribution line. The formula is the difference between the 3-day exponential moving average and the 10-day exponential moving average of the Accumulation/ Distribution line.

Just as the MACD-Histogram is an indicator to predict moving average crossovers in MACD, the Chaikin Oscillator is an indicator to predict changes in the Accumulation/ Distribution line.

☐ Chaikin Money Flow (CMF)

Chaikin Money Flow (CMF) - is an oscillator that helps signal if a stock is undergoing accumulation or distribution. It is calculated from the daily readings of the Accumulation Distribution line. The CMF is unlike a momentum oscillator in that it is not influenced by the daily price change. Instead, the indicator focuses on the location of the close relative to the range for the period (daily or weekly).

☐ Ease of Movement (EMV)

Ease of Movement (EMV) - shows the relationship between volume and price change. High EMV values occur when prices are moving upward on light volume. Low EMV values occur when prices are moving downward on light volume. If prices are not moving, or if heavy volume is required to move prices, the indicator will also be near zero. The EMV produces a buy signal when it crosses above zero; a sell signal is given when the indicator crosses below zero.

☐ Ease of Movement (EMV)

Ease of Movement (EMV) - shows the relationship between volume and price change. High EMV values occur when prices are moving upward on light volume. Low EMV values occur when prices are moving downward on light volume. If prices are not moving, or if heavy volume is required to move prices, the indicator will also be near zero. The EMV produces a buy signal when it crosses above zero; a sell signal is given when the indicator crosses below zero.

☐ Money Flow Index (MFI)

Money Flow Index (MFI) - a momentum indicator that measures the strength of money flowing in and out of a security. It is related to Relative Strength Index, but MFI also accounts for volume not only prices. Look for divergence between the indicator and prices. If the price trends higher and the MFI trend lower (or vice versa) reversal may be imminent. Look for market tops to occur when the MFI is above 80, and for market bottoms to occur when the MFI is below 20.

☐ Moving Average Volume (MA)

Moving Average Volume (MA) - incorporates a volume weighting into the moving average. It assigns the majority of weight to the days with the most volume.

(Note: To get a Moving Average Volume, select the new Moving Average and select the Volume field in its properties).

☐ Negative Volume Index (NVI)

Negative Volume Index (NVI) - assumes that on days when volume increases, the crowd-following "uninformed" investors are in the market. Conversely, on days with decreased volume, the "smart money" is quietly taking positions. The NVI displays what the "smart money" is doing.

☐ On Balance Volume (OBV)

On Balance Volume (OBV) - relates volume to price change. It shows if volume is flowing into or out of a security. When the security closes higher than the previous close, all of the day's volume is considered up volume and vice versa.

☐ Positive Volume Index (PVI)

Positive Volume Index (PVI) - focuses like the NVI on days when the volume increased from the previous, but the PVI displays what the "not-so-smart-money" is doing.

☐ Price Volume Trend (PVT)

Price Volume Trend (PVT) - cumulative total of volume that is adjusted depending on changes in closing prices. Multiplying the current period's volume by the percent that the security's price changed, and adding this value to a cumulative total calculate the PV.

☐ Volume Bar

Volume Bar - the number of securities or contracts traded in a specific time period (hour, day, month etc.) Volume Bar is a simple, but important part of technical analysis.

▣ Volume Oscillator

Volume Oscillator - displays the difference between two moving averages on a security's volume. It can be displayed in points or percent.

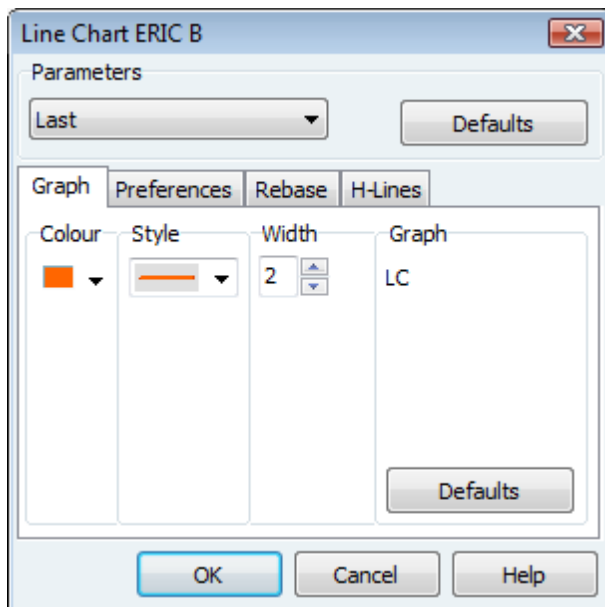
▣ Volume Rate of Change (VRC)

Volume Rate of Change (VRC) - is calculated identically as the Price ROC, except that it displays the ROC of the security's volume rather than of its closing price.

### 10.1.2 Line Propertiens

To change the parameters for a chart line you can right-click in the chart window and choose **Edit Study** and select the desired study from the context menu. This will open the line properties dialog.

This dialog allows you to modify relevant properties for the selected line.



**TIP:** You can double click a line to open the line properties dialog.

### 10.1.3 Chart Default Setup

To change the default chart settings you can right-click a chart window and choose **Properties | Chart Setup**. This will display a dialogue with the following pages and settings:

#### Startup Chart

This page defines how the price line in a new intraday or history chart will be drawn. The alternatives are *Line chart*, *Bar chart* and *Candlestick*. You can change these options in an existing chart by right-clicking and selecting **Chart Type**.

#### Time Period

This page defines the default time period and resolution for a new intraday or history chart window. To change this in an existing chart, use the *Resolution* and *Period* buttons on the chart toolbar.

## Axis

In this page you can set your preference for chronologic time-axis for new history charts. You can also indicate if the value axis should be rescaled to always show horizontal lines or not. To change these settings in an existing chart, right-click on the bottom axis and select *Symbol Parameters*.

## Grids

You can decide if new charts should have horizontal and vertical grid lines by default. To change these settings in an existing chart, right-click on the axis and select *Show grid lines*.

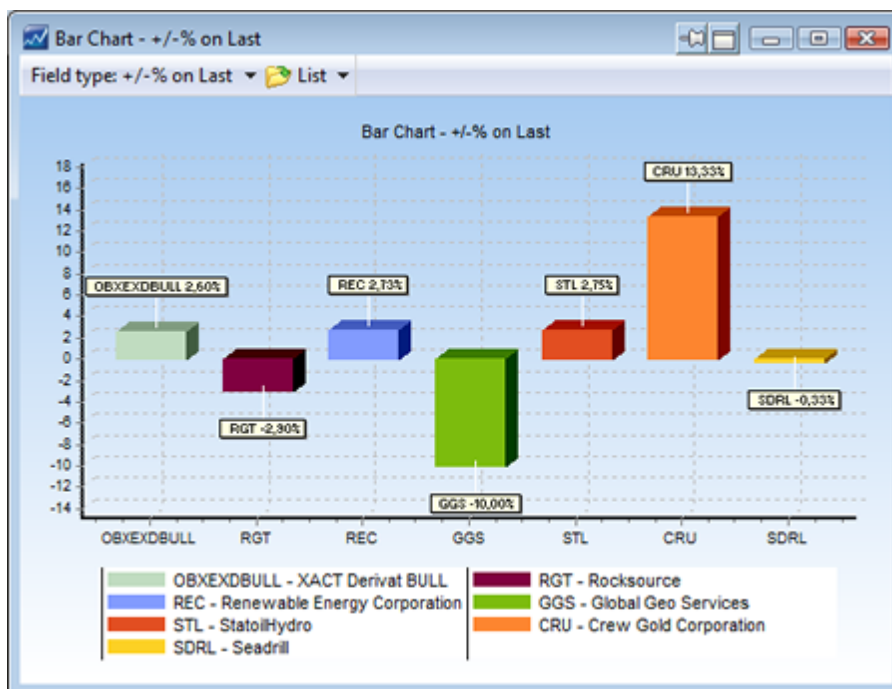
## 10.2 Bar Chart

### Description

The bar chart displays one or more instruments side-by-side in a bar chart. As a default it will display the selected instruments net change in percent. It can be configured to chart a number of historic values in order to quickly compare the instruments performance against each other.

### How to access

- Right-click on a symbol in a Market Window, Composite Window or a Market Page and select **Chart | Bar Chart**



## 10.3 Yield Line Chart

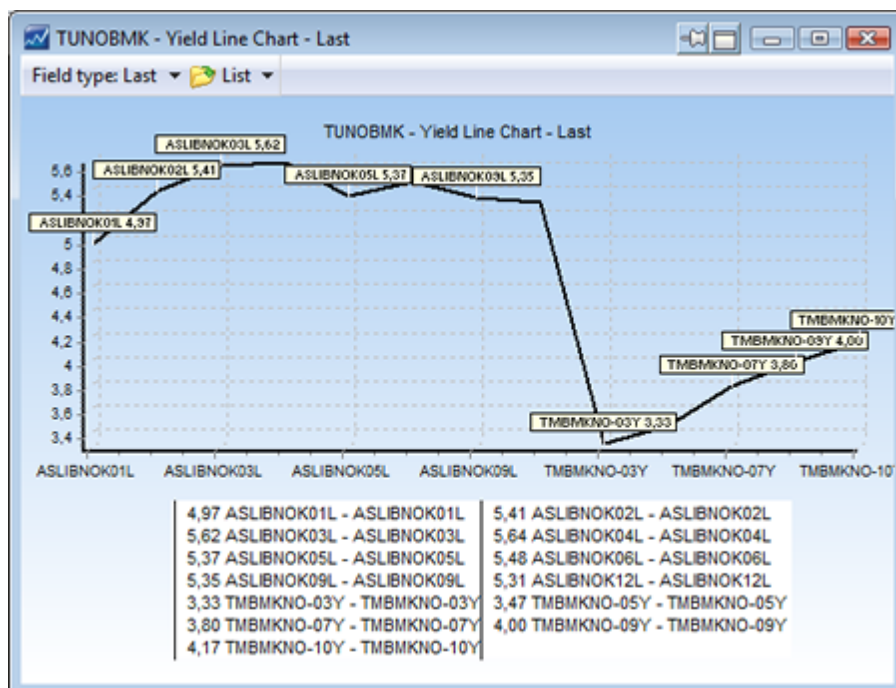
### Description

The yield line chart displays one or more instruments side-by-side in a bar chart. As a default it will display the selected instruments net change in percent. It can be configured to chart a number of historic values in

order to quickly compare the instruments performance against each other.

#### How to access

- Right-click on a symbol in a Market Window, Composite Window or a Market Page and select **Chart | Yield Line Chart**



## 10.4 Point & Figure

### Description

A point and figure chart is used for technical analysis. Unlike most other investment charts, point and figure charts do not present a linear representation of time. Instead, they show trends in price. The aim of point and figure charting is to filter out the "noise" (unimportant price movement) and focus on the main direction of the price trend.

There are two typical ways to plot point and figure charts - using closing prices, or with high/low prices

### How to access

- Right-click on a symbol in a Market Window, Composite Window or a Market Page and select **Chart | Intraday Point & Figure** or **Chart | Historical Point & Figure**

### Menu and Settings

To draw a line, change the box-size, add trend-lines etc, use the right click menu which presents the following options:

- Draw Lines
- Draw signals
- Box scale
- Percentage scale
- Graph font size
- Print
- Edit colours

- Configure PaF chart
- Parameters
- Hide buttons and extra information
- Help

## 11 Chat Groups

### 11.1 Chat Groups

#### *Description*

Chat groups enables you to chat and communicate with other users from chat rooms or other users of the program. Please note that Chat Groups availability depends on your account and accesses.

#### *How to access*

Chat groups are available by selecting **File | New | Chat** in the main menu. Select your preferred chat group where you can discuss the exchange markets with others that share your interest.

#### **Main Chat**

The main chat folders provides all users in the chat room and all messages sent out in the same page.

#### **Chat Alias**

The first time you enter a chat room you must enter a Alias (name used in the room). This name will be available on the right side. It is possible to change the Alias later by right-clicking in the main view and select "Change Alias"

#### **Ignore users**

It is possible to ignore messages by right-clicking on a user and select "Ignore all messages from <name>"

#### **Private messages**

You can chat with each participant privately or ignore messages sent to you by selected participants. Right click on the chosen name (nick) in the right hand pane.

#### **Chat alerts**

Alerts can be added to notify you of specific text written in the chat-room, or text written by/to a person. Right click in the chat window for more options.

## 12 Derivatives

### 12.1 Derivatives

#### *Description*

The program includes a window for derivatives that structures and presents the data in a certain view.

#### *How to open*

Select **File | New | Derivatives window**.

#### Requirements

- Orc Software Derivatives feeds (e.g Eurex, EuroNext Liffe, OMX)
- Access to Advanced Derivatives functionality package

### Description

The derivatives window consists of the following tabs:

- Outrights
- Strategies
- Spread Matrix
- Packs

### Outrights

The Outright tab show all the options and the combo symbols for the selected underlying instrument. There is a list of default columns, but this is configurable by the user. The user can sort on any column and right-click to get to the symbol commands for a single symbol, including Overview, Orderbook, Chart, Buy, Sell etc."

### Spread Matrix

The Spread Matrix is used to compare the futures and forwards of and underlying, and get information about any combination contracts that are made up of these futures or forwards. You can also trade from the Spread Matrix. The prices and volumes of calendar spreads (the "roll") are set out in a graph. All futures and forwards are represented both with a column and a row. The futures/forwards are sorted according to their expiry date. Early expiry dates are found to the left along the x-axis and near the top along the y-axis. If there is a combination of two futures/forwards, then you can find the combination in the intersection of the contracts. Each cell in the Spread Matrix provides information about the bid (Bid), ask (Ask), and last (Last) price of the contract, the volumes on the bid (b#) and ask (a#) side, and the volume in the last trade (Last #). There are two types of spreads displayed in the Spread Matrix, front month over and back month over.

#### Front month over

The leg with the later expiry date is bought and the leg with the earlier expiry date is sold.

#### Back month over

The leg with the later is expiry date is sold and the leg with the earlier expiry date is bought.

Which spread type is shown is determined automatically by the Spread Matrix and cannot be changed by the user. You cannot display two different spread types at the same time.

#### Example

In the preceding screen shot, you can see that there exist two combination contracts, the OMX3DC and the OMX CS K03-M03 contracts. When you buy an OMX3DC combination, you buy a OMX May Forward contract, and sell an OMX Apr Forward. Hence, this Spread Matrix only show front month over spreads.

### Calculate implied values for combo derivatives

Mostly used in the new Derivatives window, we now dynamically calculate the implied values for combination symbols. Each combination symbol has a number of leg symbols and volumes associated with it. The program now calculates implied Bid, Ask, BidSize and AskSize from the streaming quotes of the legs. In addition there are Best Bid/Ask/BidSize/AskSize columns that show the "best" of the actual combo instrument prices and the implied prices from the legs.

## 12.2 Option Calculator

### 12.2.1 Put / Call - Option Calculations

#### Description

The program has an integrated realtime module for calculations of implied volatility and Greek values such as Vega, Theta, Gamma and Delta. The calculation methods are *Black Scholes*, *Black Scholes 76* and *Binominal method*.

#### How to open

- Select **File | New | Market** and the preferred option market (e.g. Stockholm SE, Options). Make sure that the stock market is open at the same time. The Market Window will display a Put / Call Folder when all options are received.

#### Put/Call folder

A drop-down menu appears on to the left. Choose an underlying instrument, and all options connected to the instrument will be displayed. Calls is on the left side and Puts on the right. **Forwards** or **futures** are displayed to the left. Every expiry change is marked with a different background colour (can be changed using **Properties | Edit Colours**)

Notice that the columns you choose are duplicated and shown on both sides, both for call and put. Some columns are removed because they take up too much space, and do not show any useful information (ISIN, Symbol, Description, Subtype). Some columns have equal values for both Call and Put; these are shown in the centre (Shortsynth, Longsynth, Strike, Expire Years, Expire Month, Expire Date, Expire Days). Some columns will have the same order on both sides, as close to the middle as possible (Bid, Bid Impvol, Bid Yield, Bid Arrow, Bid Size, Ask, Ask Impvol, Ask Yield, Ask Arrow, Ask Size). All other columns are seen in reverse on both sides.

#### Filtering

You can filter which options are shown in a series by ticking off the checkbox on the top:

**Bid/Ask** - include only lines with Bid or Ask (on the put or call side) **Last** - include only lines with Last (on the put or call side)

**Options** - include only options (**forwards** and **futures** are removed)

**Strike** - keeps only 5 options above and below underlying last

#### Update Filter

- click on this if you have a filter, then increasing activity will include further options. The filter is not dynamic. If there is a Bid price on an option, this will not be visible until you click on Update Filter (or turn the Bid/Ask filter on and off). You can sort all columns. To go back to ordinary Expire/Strike sort, choose Expire Month.

#### Calculating Theoretical Values

Choose Option Calculator Setup or right-click on an option or stock and choose **Properties | Option Properties**. Select the Volatility page, choose the feed for the underlying symbols (e.g. Stockholm Stocks) and set the risk-free rate for that market (e.g. 4%). You can also set up volatility for the underlying symbol manually, or fill in the number of days you want and ask the server to calculate a historical volatility

**Example:** Press [Select All] - then [Set Days] - write: 30 [Enter] - press [Calc Volatility]. A request is sent to the server to calculate historic volatility over 30 days for all stocks on "r;Stockholm Stocks (this may take a while to save the first time). You can also fill in future dividends for each stock.

The values in the Quote Windows are now being calculated.

## 12.2.2 Option Calculation Setup

#### Description

This dialog is used to configure the initial conditions controlling the option calculations.

#### How to open

- Select **Tools | Option Calculator**

## General

The General page contains instructions on the requirements of running the option calculations. You can check out the "**Enable Option Calculations**" checkbox if you don't want to have these calculations executed.

## Volatility

Volatility measures how much the underlying instrument is expected to change over time. This value is needed by the option calculations and must be set manually in this dialog.

### Define Feed and symbols

Select the feed and the underlying instrument. The list of feeds will only include the active underlying feeds of the currently loaded option feeds.

### Define Interest rate

Determines the basic risk-free rate for the market as a whole. This default value is 5%.

### Set Volatility

Select symbol(s) in the list and press the **Set Volatility** button to change the volatility value. This requires that you have determined a preferred volatility value for each underlying symbol.

You can alternatively have the server calculate a historical volatility. The server calculates the actual volatility of the underlying instrument for the last number of days. 20 days is used as default, but you can override this by selecting the symbol(s) and pressing the **Set Days** button. When you are ready, select the symbol(s) and press the **Calc Volatility** button.

The **Select All** button easily lets you select all the underlying symbols in the list.

**Note:** Calculating the historical volatilities may take some time. You may close the Option Calculation Setup dialog, and the volatilities will still be calculated and updated correctly as they are received from the server. You will get a notification about this, but this message can be suppressed in the future by checking the "**Don't show this message again**" checkbox.

### Dividends

If the company of the underlying instrument are planning to pay dividends in the future (but before the option expires), this will influence the option price. To ensure that the calculations are adjusted accordingly, enter the dividend date and amount here. Each underlying instrument may have any number of future dividends registered. Only dividends inside the expire period will be considered during the calculations.

Use the **Add** button to add new dividends. Use the **Delete** button to remove a dividend.

## Calculation Methods

The option calculation engine supports three different option models. Each method is used for different kinds of options as indicated by the default values in the dialog.

### Black & Scholes

This is option-pricing model was first introduced by Fischer Black and Myron Scholes in 1973. It is used for European options (such as the OBX options on Oslo Options). European options cannot be exercised before the expire date.

### Binomial

John Cox, Stephen Ross and Mark Rubinstein introduced the Binomial Option-pricing Model in 1979. It is used for American options (such as the NHY options on Oslo Options). American options can be exercised any time up to and including the expire date.

### Black & Scholes-76

This option-pricing model is a variation of the standard Black & Scholes model, and was presented by Fischer Black in 1976. This model is used when the underlying instrument is a future contract.

### Limits

The option calculation engine will produce results of a specific accuracy. The minimum acceptable accuracy can be specified here. Also, the engine relies of iterating through a number of calculations, increasingly finding a more accurate answer. The maximum number of iterations can also be set here.

## 13 Export of Data

### 13.1 RTD links

#### *Description*

Realtime symbol data may be accessed from other applications (such as Excel) via **Real Time Data** (RTD) or Dynamic Data Exchange (DDE).

Both these mechanisms provide access to the same information, but RTD is a newer protocol that offers several advantages over DDE, including more flexibility and better performance and reliability.

#### *Requirements*

- Using RTD requires Excel 2002 or later. For older versions of Excel, use DDE links instead.

#### *Please note*

- The RTD Links is only available for symbol quote data – not for trades, history, news or other information
- Please note that the program must be running in order to provide RTD links
- Make sure that the application has been started and completely logged in before opening any spreadsheets containing RTD links

### Creating RTD links from windows

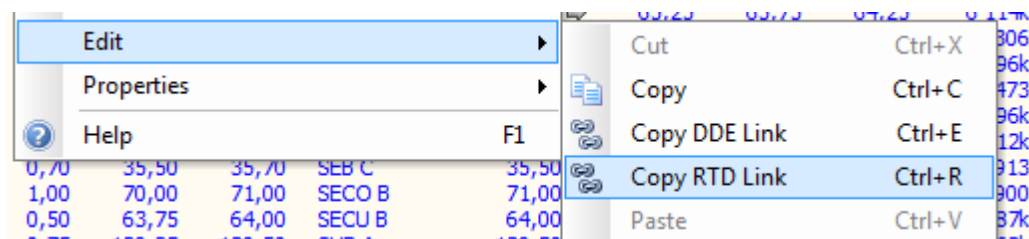
#### Step 1

Highlight the areas you would like to have updated in Excel from the Market window, Composite window or Orderbook.

Symbol	Last	L	Open
HEXA B	74,00	↔	69,50
HM B	370,50	↔	366,50
HOLM A	201,00		192,00
HOLM B	195,00	↔	191,50
HUFV A	47,20	↔	47,00
HUFV C	96,00		96,00
HUSQ A	42,20	↔	41,50
HUSQ B	45,50	↕	44,50
INDU A	74,50	↔	72,50

#### Step 2

Right-click in the window and select **Edit | Copy RTD Links** from the popup menu, or just select CTRL+R after you have selected the area.



#### Step 3

Select **Edit | Paste** in Excel. Now you have a link to live data in Excel.

## Embedding RTD formulas in Excel

The RTD formula takes five parameters:

```
=RTD (ProgID; Server; Feed; Symbol; Field; Level)
```

<b>ProgID</b>	Always set to "ontrade.quotes"
<b>Server</b>	Leave blank ""
<b>Feed</b>	The feed code (e.g. "SSE")
<b>Symbol</b>	The symbol ticker code (e.g. "ERIC B")
<b>Field</b>	The field to be displayed (e.g. "last")
<b>Level</b>	Optional numeric parameter (used for orderbook levels)

The parameters may contain cell references allowing more flexible and maintainable spreadsheets.

### Sample RTD formulas

```
=RTD("ontrade.quotes";"";"HSS";"NES1V";"bid")
=RTD("ontrade.quotes";"";"CHX";"STEV.I";"ask";"2")
=RTD("ontrade.quotes";"";"HSS";$A7;B$3)
=RTD("ontrade.quotes";"";$B$1;$A8;B$3)
```

### Referencing cells in RTD formulas

For increased flexibility, you can adjust the RTD links that have been passed into Excel, by referencing one or more cells in the RTD formula.

For instance, we first paste in a single RTD link (showing formulas only):

	C
1	
2	=RTD("ontrade.quotes";"";"SSE";"ABB";"last")

Then we can edit it and reference the Symbol ticker code cell in the formula, like this:

	B	C
1		
2	ABB	=RTD("ontrade.quotes";"";"SSE";B2;"last")

Now we can copy this row and just change the symbol ticker code in cell B3:

	B	C
1		
2	ABB	=RTD("ontrade.quotes";"";"SSE";B2;"last")
3	ERIC B	=RTD("ontrade.quotes";"";"SSE";B3;"last")

Now if we turn of the formula display, we can see the correct Last values for the two stocks, updating in realtime:

	B	C
1		
2	ABB	129,00
3	ERIC B	73,30

We can extend this to use cell references to get the feed and field codes as well:

	A	B	C	D	E	F
1			Last	ChangePct		
2	SSE	ABB	128,75	218,25 %		
3	SSE	ERIC B	73,60	222,22 %		
4	OSS	NHY	39,35	410,05 %		
5	HSS	NOK1V	=RTD("ontrade.quotes";""; \$A5; \$B5; C\$1)			

By using the RTD links this way, it is very easy to extend or change the symbols and fields you are getting data for.

TIP: By default Excel only updates RTD links every 2 seconds. This limit can be reconfigured, see Microsoft's FAQ (search for "RTD Throttle Interval").

#### References

- For more background information on RTD links, see Microsoft's FAQ.

## 13.2 DDE links

#### Description

Realtime symbol data may be accessed from other applications (such as Excel) via **Dynamic Data Exchange** (DDE) or Real Time Data (RTD).

Both these mechanisms provide access to the same information, but RTD is a newer protocol that offers several advantages over DDE, including more flexibility and better performance and reliability.

#### Please note

- The DDE Links is only available for symbol quote data – not for trades, history, news or other information
- Please note that the program must be running in order to provide DDE links
- Make sure that the application has been started and completely logged in before opening any spreadsheets containing DDE links.

### Creating DDE links from windows

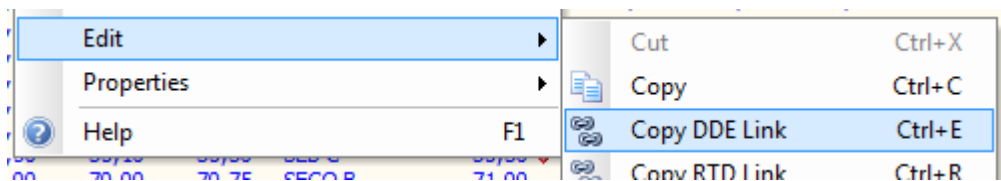
#### Step 1

Highlight the areas you would like to have updated in Excel from the Market window, Composite window or Orderbook.

Symbol	Last	L	Open
HEXA B	74,00	↔	69,50
HM B	370,50	↔	366,50
HOLM A	201,00	↔	192,00
HOLM B	195,00	↔	191,50
HUFV A	47,20	↔	47,00
HUFV C	96,00	↔	96,00
HUSQ A	42,20	↔	41,50
HUSQ B	45,50	↔	44,50
INDU A	74,50	↔	72,50

### Step 2

Right-click in the window and select **Edit | Copy DDE Links** from the popup menu, or just select CTRL+E after you have selected the area.



### Step 3

Select **Edit | Paste** in Excel. Now you have a link to live data in Excel.

### Embedding DDE formulas in Excel

The DDE formula has the following format in Excel:

```
=ontrade|quote!'Symbol&Feed.Field[Level]'
```

<b>Application Topic</b>	Always set to "ontrade.quote"
<b>Feed</b>	The feed code (e.g. SSE)
<b>Symbol</b>	The symbol ticker code (e.g. ERIC B)
<b>Field</b>	The field to be displayed (e.g. "last")
<b>[Level]</b>	Optional numeric parameter (used for orderbook levels)

Note that in a DDE formula, the parameters may *not* contain cell references. For more flexible formulas that does allow cell formulas, use RTD links instead.

#### Sample DDE formulas

```
=ontrade|quote!'ERIC B&SSE.last'  
=ontrade|quote!'NHY&OSS.change_pct'  
=ontrade|quote!'NOK1V&HSS.turnover'
```

Note: DDE is supported in all Excel versions. If you have Excel 2002 or later, consider using RTD links instead.

## 13.3 Export Symbol Data

### Description

The Export Symbol Data module is used to export intraday and historical data into text files for usage in external applications such as Microsoft Excel, Tradestation or MetaStock. This feature supports intraday export in the resolutions from 1 second, 1 minute, 5 minutes, 15 minutes and 1 hour. In addition the history

export now supports the resolutions 1 day, 1 week and 1 month (previously only 1 day was supported).

## Formats

It is possible to export data to Text/ascii files;

- Comma separated
- Tab separated
- XML files

## Step by step guide

1. Define a symbol list in the Composite Window. Save the list with a name (e.g. "MyTest")
2. Click on the "Export Symbol Data" Icon or select List|Export Symbol data on the right-click menu.
3. Select destination folder (e.g. C:\). Tick off "All in one file" if necessary, if not it will create one file per symbol.
4. Select type of dataset; Intraday, Historical or Tick by Tick
5. Select data range. It is possible to Include "header" and "ticker"
6. Select file format (Comma, Tab or XML)
7. Select date format (thus depending on your computer settings under Control Panel | Regional Settings | Regional Options | Customize | Date)
8. Click the start button
9. In a few seconds the files will be created in the destination folder above
10. Import the same files to the other program

## 14 Fundamental data

### 14.1 Infinancials

#### *Description*

Infinancials provides fundamental data on more than 50.000 companies world wide. Data Content per company:

- Business Summary, Key Financial Data, Key Ratios
- Income Statements, Balance Sheets with 5 Years of history
- Factset Consensus Estimates for the next 3 periods, Factset historic revisions
- Comparative tables with Trading multiples and Fundamental Ratios

#### *Requirements*

- Subscription to an Infinancials package

#### *How to access*

- Right-click in the Market Window or Composite Window and select Infinancials. The information is only available for equities markets (cash instruments)

## Introduction

For an introduction view the demonstration video.

## Example page

INFINANCIALS - Fueling the art of business valuation

**Corporatefocus** trader inFront By in financials

Home My Lists Help Center Logout

**Ericsson** Country: Sweden ISIN: SE0000108656 Ticker: ERIC-B Sector ICB: Telecommunications Equipment Print

Snapshot Fundamentals Markets Estimates Revisions Peer Tracker Multiples Ratios Stock Performance Comp Charts

**Business Summary**

The Company is a provider of telecommunications equipment and related services to mobile and fixed network operators globally. Over equipment and 40 percent of all mobile calls are made through their systems.

**Key Financial Data**

Item	2006	2005	Var in %

**Key Ratios**

## 15 Top Investors

### 15.1 Top Investors

#### *Description*

Top Investors provides information about the largest stockholders on selected exchanges. Top Investors combines the number of stocks with the current market price and calculates the market value on each investors portfolio. It also calculates the share percentage each investor holds in the company, and presents this information in a diagram. In a case where one investor is among the largest shareholders in several companies listed on the Exchange, each market value is presented in a diagram with a percentage of the investors total portfolio.

#### *Availability and Requirements*

- Professional user on Oslo Stock Exchange (Top 20 Investors)

#### **Investor and Symbol**

The Top Investors includes two tabs; Investor and Symbol.

- The Investor page shows all the companies (stocks, symbols) where an investor is among the largest shareholder.
- The Symbol page displays the largest share holders in the selected company.

You can change the sorting of the tables by clicking on the column headings. At the bottom of the table, a footer shows statistics about some of the columns, such as the total market value and the average Shares % in the Investor page (to show the "r;typical" size of their ownership).

You can copy, print and save the contents of the table and the chart.

#### **Data updates**

Information about when the data was last updated is shown in the status line.

## 16 News

### 16.1 News

#### *Description*

The program includes a news window where you can select and display news from several sources and filter the news in different ways. The news sources available varies from country to country. For more information about sources please contact your vendor. Each news source is continuously updated and can be presented in text-, html or other standard formats.

#### *How to open*

- To open the main news window select **File | New - News**. A list of countries with available sources appear. To pick from the list of sources, click on the + to open the list. Click on the sources you want displayed, then press OK. If you want to select all sources, click on the country node.

#### Select News Services

The News Window will display the latest news story on top. To read a news story, double-click on the news headline and a new window will appear.

News in HTML format can be displayed in a browser within the program or in an external browser (i.e Internet Explorer). For more information about browser set up select Tools|User Interface and **Browser**.

The top panel in the news window displays a drop-down list with chosen sources. To select one source only, mark the source in the list. To edit the list, click the **Edit News Services** button or right-click in the News Window and select "*Edit News Services*". Click on the sources you want displayed/removed and press OK.

#### Filter News

How to filter news stories: Click the button "**Filter News...**" or right click and choose "**Filter News...**". Set conditions to filter the stories so that only stories that satisfied the conditions you have set, are included in the list.

- **Text in headline** - type a text string that must appear as part of the news headline
- **Symbol ticker** - type a symbol ticker that the news item must be linked to
- **Flash news** - include flash news, non-flash news or all news
- **Web-stories** - include web news, non-web news or all news

When the filter is active, details about it is included in the News window caption.

#### News alerts

There are four different possible conditions for a news alert:

- **Text in headline**: Type a text string that must appear as part of the news headline
- **Symbol ticker**: Type a symbol ticker that the news item must be linked to
- **Flash news**: Apply to flash news, non-flash news or all news
- **Web-stories**: Apply to web news, non-web news or all news

When the alert triggers, you can define the alert action:

- **Open story window**: Automatically open a window containing the news item that triggered the alert. Be careful not to use this on alerts that trigger too often.
- **Play a sound**: Play a sound (a .WAV file) when the alert triggers

Note that the alerts apply to the news feeds configured for a specific window and will be saved with the workspace

#### News alerts on specific sources

The news alerts functionality has been extended and now allows triggering an alert when there is a news item on a specific source.

## Historical News

The News window has now been extended and lets you view news items from yesterday or any other day in the past.

In addition to the news source drop down, there is now a new date drop down where you select what date it should show news for. The default Today shows all today's news and update with new news items in real time. The other options let you see yesterday's news or any other date in the last week. You can select a specific date in the past with the Select date option. Note that historical news is not available from all news services.

In the news list window there are new available columns for Category, Country, Industry, Language and Topic. These columns are used in news feeds such as AFX and Dow Jones.

In addition there is a new FeedSymbols column that shows the explicit feed and symbol reference of each news item. It is mostly useful when tracking down issues with the news to symbol links.

The Time column has been extended to show seconds in addition to hours and minutes. This will give you more accurate timestamp information for the news (note that not all news feeds carry second resolution timestamps). The width of the time column in existing workspaces will be converted (widened) when loaded into the new version.

A headline in the news list that is longer than the width of the column now has an ellipsis (...) at the end of the line. If you hover the mouse over the text, a hint pops up with the complete headline.

When you read an integrated (not web-based) news article, the date and time of the news item will now be included with the name of the news vendor at the top of the news story window.

For some news feeds (such as Dow Jones and AFX), a (red) flash news item might have a body, and a normal (black) news item might only have a headline. The client now supports these states.

## Flash News

Flash news are coloured red in the Composite window, the Symbol window and in the My List page of the Market window.

## News filter

The filter functionality in the News window has now been expanded to support filtering on the new columns Category, Industry, Topic and Country. Note that not all news feeds supports these columns yet. Feeds that support them include the Dow Jones and the AFX news feeds.

## Available columns

### Edit columns

To edit columns displayed right-click and select "Edit Columns".

For other options right click in the News Window.

TIP: You can "filter" and set conditions for the news stories you want to display in the program. See the "Related Topics" for more information.

TIP: You will be informed about any new news sources that become available in the program. To add new sources to the existing news window, select Edit News Services as described under Main News Window.

TIP: News on a quote can be displayed in the Trade Chart (today's news) and History Chart (historical news) in the Quote Overview Window. Right-click and select "Show News in Chart".

TIP: To add a news alert on a quote right click in the Quote Window and select "r;Add Alert" then "r;Alert me if" and then "r;News" .

## 17 Portfolio Module

### 17.1 Portfolio Module

#### *Description*

The Portfolio Module enables you to view your assets in realtime.

#### *How to open*

- To open select **File | New | Portfolio**.

When you first start up a setup dialog appears. Enter your portfolio name, commission and other information as shown. The portfolio can be password protected.

#### **Trades, Open Positions and Closed Positions**

On the top bar three tabs/folders appear:

- Trades" displays all your trades
- Open Positions" displays all your open positions (assets)
- Closed Positions" provides a complete overview of your closed trades

#### **Add Assets Manually**

Add all your trades to the portfolio to watch your investments in real time. To add assets manually, right-click and select: **Asset | New Asset**.

#### **Capture Trades from Order Entry**

If you trade using the Order Entry module in the program, you can set up your portfolio to automatically transfer all trades into your portfolio. This is described in Order Entry Window.

#### **Calculations**

The following figures are calculated from:

- Today Gain/Loss:  $\text{Change (+/-)} * \text{Volume}$ . If shares are bought today,  $\text{Market Value} - \text{Entry cost}$
- Unrealized Gain/Loss:  $\text{Entry Cost} - \text{Market Value} - \text{Commission}$
- Realized Gain/Loss:  $\text{Total entry cost} - \text{Total Exit}$
- Portfolio %: Percent of portfolio value, both in market value
- Unrealized %:  $\text{Unrealized Gain/Loss}$  in percent of Total Entry Cost

#### **Graph**

Your portfolio can be displayed graphically. Right click and select chart and the preferred display; Realized gain/loss, Today's gain/loss, Asset allocation market / entry price.

#### **Set Date Limits for Portfolio Graphics**

In order to limit the information for portfolio graphics, you can right click a chart and select "Set date limits". For example, you can select this year's transactions only, or transactions sold during the past two years. First, select whether to use entry date or exit date. For charts containing only open positions, an exit date cannot be set. Then set first and last permissible date. The program automatically suggests use of the oldest portfolio date and today's date.

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