IT Development Division

Trading Systems Development Department

OASIS Importing – Exporting Member's Transactions

(Version 5.0.1)

Athens, October 2017

Revision List

Version	Date	Description
1.3	17-8-1999	For use by ATHEX's Members and Software Developers.
1.4	20-9-1999	Minor Modifications to the Version 1.3
2.01	27-11-2002	• Unification with "Additions to OASIS ETS Import – Export Activities V1-6" document, which now becomes obsolete (life orders, agreed price trades). • Member/Client flag (M/C flag) and Changed Member/Client Flag (or Changed M/C flag) are now globally referenced as "Client Flag" and "Changed Client Flag", respectively. New set of possible values for these fields, that reflects at many areas, e.g. Trade Confirmations, Member Transaction File, etc • Revision of the error codes, addition of four new error codes (91, 92, 93, 94). • Added description of the "EtsData.txt" file. • Added chapters for Importing User Quote Pages and for Exporting User/ASE Quote pages. The import/export format used in these operations has also been fully documented. • Added description of all cases of short sell/buy functionality. • Added description of the changes needed to cover the group of investors' functionality. These changes cover: o A new value for "Client Flag" and "Changed Client Flag", indicating that the account in the order or the trade belongs to a group of investors. o A new message "TH" is introduced in the member's transaction files. This is a very important change. o A new file, that is loadable from the OASIS ORAMA application and contains all the necessary data for a set of groups of investors is introduced and its format is documented. o The process needed to import this file into an ORAMA workstation is illustrated.
2.02	03-12-2004	• A new Pre-agreed trade type named Covered added. • New set of possible values for Member/Client flag (M/C flag) and Changed Member/Client Flag (or Changed M/C flag), that reflects the Covered Pre – agreed trades defined.
2.03	22-09-2005	• A clear definition of Quotes (special orders for Market Making) done in OASIS. For that a new set of possible values for Member/Client flag (M/C flag) and Changed Member/Client Flag (Changed M/C flag) defined. • The decimal in prices for Bonds are now four (4) while for other securities remain two (2).
2.04	04-05-2006	A new meaning for field "Member Order Number" changed in order to define the Pre-agreed trades' category. For that the last byte is therefore reserved for Pre-agreed trades category, while the first ten bytes for the Account ID of Customer 2. More information is in the 3.5.4.2.7 paragraph of current document
2.05	26-03-2008	• New Pre-agreed trade types list. • Stock Exchange approval removed from Pre-agreed trade types examples.

2.06	28-08-2008	• Various modifications in exported messages
		• New Message Fields descriptions and modifications in existing fields
		• Pre – agreed trade procedure is illustrated
2.06.1	10-10-2008	• Addition of Disclosed Volume field in TC message
2.06.2	02-02-2009	• Fixing size of "Internal Customer ID" in paragraph 2.1.1
2.06.3	19-07-2010	• Importing from or exporting to a file a list of Account per Clearing ID/Space relationships. See subsections 2.3 and 3.5 for more information.
2.06.4	3-08-2010	• Addition of the 'Grouping ID' field in the 'Order Import Format' table and the size reduction of the 'Filler' field from 10 to 6. See paragraph 2.1.1.for more information.
2.06.5	7-09-2010	• Modification of the "Default Values of Accounts per Clearing IDs" section of the "Default Values" tab, and of the accompanying text. See subsections 2.3 and 3.5 for more information
2.06.6	18-10-2010	• Modifications on the information conveyed by the Account per Clearing ID/Space relationships. See subsections 2.3 and 3.5 for more information.
2.06.7	30-05-2011	• Changing all price formats from 5.4(for bonds) and 7.2(for other securities) to 5.4 for all securities. See subsections 2.1.1, 3.1.2 for more information.
3.0.0	06-12-2013	• OASIS version 4.0 is used for trading for all instruments of Greek and Cyprus Stock, Fixed Income and Derivatives markets
		• Quote status report message added in Member's Transactions file
		• Pre-agreed price trades have been changed and also renamed to trade reports
		• Combination related changes (new fields, negative pricing e.t.c.)
		• Deletion of Trade status message from the Member's Transactions file
		• Minor changes in member transaction file messages.
		• Updated transaction-file field reference.
		• Changes in Orders Import format:
		1. Added field "Settlement type flag"
		2. Added field "Short flag"
		3. Added field "Group of Investors flag"
		4. Added field "Position Effect flag"
		• Removed field "Client flag"
3.0.1	27-01-2014	• Changes in Trade Confirmation format:
		1. Removed field "Client Flag"
		2. Added field "Group of Investors flag"
		3. Added field "Short flag"
		4. Increased "Symbol" size to 15 characters
		• Changes in EtsData.txt file:
		1. Removed section: SECURITY_TYPE
		2. Replaced "sSecTypeId" with "sPriceTickId" in TICK section
		3. Replaced "sSecTypeId" with "sPriceTickId" in SECURITY

		section
		4. Increased "sEngSymbol" and "sGrSymbol" size to 15 characters in SECURITY section
3.0.2	17-02-2014	• Changes in Orders Import format: Updated Possible values of "Settlement type flag" field
		• Added the OrigClientOrderID in TF Message
3.0.3	01-04-2014	• Removed document's section 3.6 ("Exporting Member's Transactions"). The specifications of the member's transaction file have been moved in OASIS Member Transactions File Specification.doc.
		• Changes in EtsData.txt file:
		1. Added section: SECURITY TYPE
		2. Added section: OPTION STYLE
		3. Added section: OPTION TYPE
		4. Added fields: "sBBGID", "sSecurityTypeId", "cOptionStyleId", "cOptionTypeId" in section SECURITY
3.04	05-2014	• Added field: "sVenueId" in section SECURITY of EtsData.txt file
5.00	10-2017	• Added MiFID 2 required fields in Order Import file
5.01	10-2017	• Group of Investors Flag has been removed from Order Import file
		• An offset column indicating the length of the fields has been added in Order Import file

Important Declaration

Athens Exchanges (ATHEX) believes that the information in this document is accurate on publication date. The document is subject to change without notice. ATHEX will not accept responsibility for damage, direct or indirect, caused by errors in this document.

Table of Contents

1.   Introduction

1.1.   Purpose & Scope

This document describes the Importing - Exporting capabilities of OASIS System .

1.2.   Overview of the Document

This document is divided into 4 chapters.

- **Chapter 1** is this chapter, which gives a brief overview of the document.

- **Chapter 2** describes the Importing capabilities of OASIS Equities Trading Workstation (also known as ETW or ORAMA). The first section of this chapter focuses into the orders importing facility that is offered by the ETW to the members. The whole importing process is illustrated and the format of the file that is used to is described in detail. The second section of this chapter focuses into the mechanism ETW offers for importing user quote pages from a disk file. The whole importing process is illustrated and the format of the file that is used is documented in detail. The third section of this chapter focuses into the ability of the ETW workstation to import investor groups' data from a disk file. The whole importing process is illustrated in detail and the file format used for this type of import is extensively documented.

- **Chapter 3** describes the Exporting capabilities of OASIS Equities Trading Workstation. In the first section of this chapter is presented the "Trade Confirmation" functionality that is provided by ETW.   In the second section of this chapter is presented the functionality that is provided by ETW for Exporting Information from various working areas of the ETW. In the third section of this chapter, a special facility offered by the ETW for exporting daily configuration items, is presented. In the fourth section of this chapter a mechanism offered by ETW for exporting both user quote pages and the stock exchange quote pages is explained and illustrated in detail. In the fifth section of this chapter, the format of Member's Transaction File (that can be downloaded from OASIS Server at the end of Trading Session) is presented and is extensively analyzed. Extra care has been placed to describe special cases such as Life Orders, Trade Reports, Short Selling and Groups of Investors.

- **Chapter 4** is the Glossary of terms.

2. Importing Information

2.1. Orders Import from Equities Trading Workstation (ETW)

This function allows importing many orders from a text file. Importing orders is like a batch order entry procedure that provides the user with the ability to send many orders with a, simple to use, wizard. The text file has to comply with a special format (see next section). Not valid orders are marked as invalid and the user is able to edit them in order to send them to the trading system. After the batch order entry a log file is created to show the orders that were actually entered into the system or discarded.

To Import Orders

1. **Select** Import Orders from the Tools drop list on the ETW Menu Bar. The ETW Import Orders window appears in the screen.
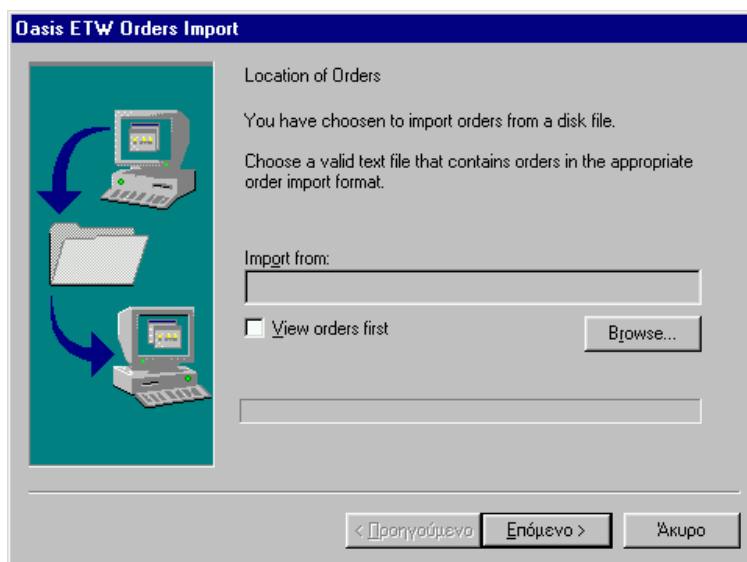
2. **Click** the Browse button in order to select the disk file that contains the orders in the appropriate order import format.

3. **Check** the "View orders first" checkbox **if** you want to view detailed information accompanying each order, as well as information about which are orders are valid and which are not.

4. **Click** the "Next >" button in order to send the orders or **click** the "Cancel" button if you want to abort the batch order entry. If you have checked the "View orders first" checkbox, the wizard displays information about orders as depicted in the following figure. Information displayed on the list involves the ID, Symbol, Side, Volume and Price of orders.
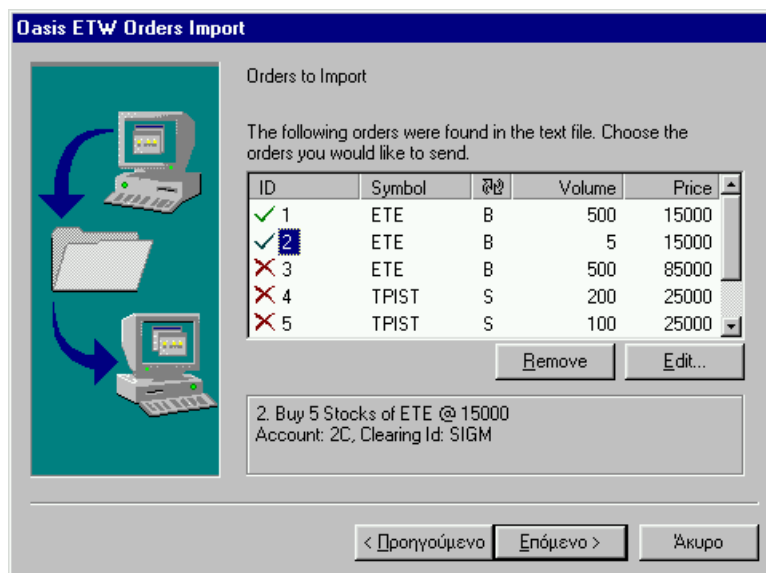
5. **Click** on the ID of each order to view more detailed information.

6. **Click** on the Order ID to **select** the order you want to remove. **Click** the "Remove" button to remove it from the list of orders to send. Repeat this action for all the orders you want to remove.

7. **Click** on the Order ID to **select** the invalid order you want to edit. **Click** the "Edit" button. The "Order Edit" window appears. Edit the fields in order to make this order valid. Repeat this action for all the orders you want to remove.

3. **Click** the "Next >" button in order to send the orders. A dialog box will appear in the window prompting the trader to confirm the orders' entry.

8. **Click** "Yes" if you want to send the orders to the system or **click** "No" if you want to abort.

9. If you click "Yes" and there are invalid orders in the list, a warning message appears to inform the trader about this fact and confirmation of orders' entry is required. Click "OK" to send the orders or click "Cancel" to cancel the procedure.

10. After importing the orders the "ETW Import Orders" window displays information about the orders that were entered successfully or rejected from the system.
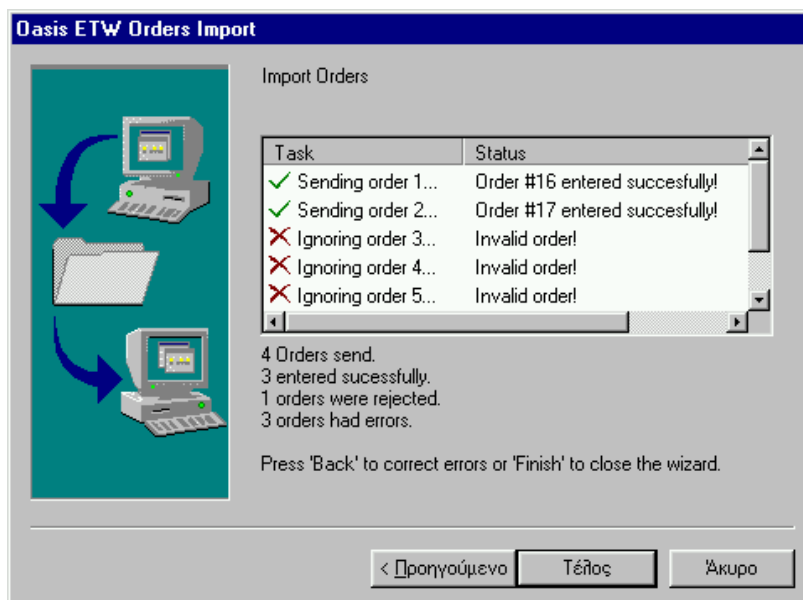
11. **Click** the "< Previous" button **if** you want to correct any errors to send the orders that had errors and were ignored.

12. Click "Finish" or "Cancel" button to close the wizard.

When the import of the orders is completed the original text file that contained the orders is renamed with the extension "ren". The "ren" file is actually the original text file, having the fields "Order Import Status", "Entry Date", "Entry Time" and "Order Number" (see table on next section) completed by the system.

2.1.1. Orders Import Format Description

The format is fixed length text; uses one record per line and the lines are separated by newline characters. For Greek characters, ELOT-928 (as in MS - Windows) character set is used. Padding with spaces must be used if needed in numeric fields. English or Greek names can be used for symbols (e.g. "AEGEK" or "ΑΕΓΕΚ") or field values (e.g. "MKT" or "ΕΛ") The attributes that participate in each line are very similar to the ones that are located in the OASIS Equities Trading Workstation's order placement form. The following table lists the format of a single line in the orders file.

No	Offs	Name	Type	Size	Alignment	Required	Possible Values	Notes
1	1	Order Import Status	Text	1	-	No, may be left blank.	" " "S" - Sent "R" - Reject "I" - Invalid	Upon import this flag should be left blank. It is filled by the client to indicate the status of the import for every individual order.
2	2	Active / Inactive Flag	Text	1	-	Yes	"A" "I"	Specifies whether the order shall be posted to the system as active or inactive.
3	3	Internal Customer ID	Text	No	-	No		This 16 characters alphanumeric field holds an internal (in the scope of the member firm) identification for the customer or order. It is ignored by the ETS server (i.e. takes part in no calculation, it is just

No	Offs	Name	Type	Size	Alignment	Required	Possible Values	Notes
								retransmitted intact among the other data). The contents of this field can be anything the member firm desires. It is also referred to as "Client Order ID" (also see that entry).
4	19	Member ID	Text	4	-	No		This field is ignored at the orders sending phase. It is filled by the client at the results return phase.
5	23	Trader ID	Text	5	-	No		This field is ignored at the orders sending phase. It is filled by the client at the results return phase.
6	28	Order Side	Text	1	-	Yes	"B" "S"	The side of the order, if it is a buy or a sell order.
7	29	Symbol	Text	15	Left	Yes		The symbol of the security that participates in the order.
8	44	Volume	Number	12	Left	Yes		No decimals or decimal point.
9	56	Disclosed Volume	Number	12	Left	Yes if the Active / Inactive Flag is set to A. No otherwise.		The disclosed volume of the order. No decimals allowed.
10	68	Order Price	Text	10	Left	Yes	Number 5.4 (*) for all securities "ATO" "ATC" "MKT"	For the correct numeric formats please refer to the "Order Price" entry.
11	78	Account	Text	12	Left	Yes		The client's account code.
12	90	Short flag	Text	1	-	Yes	"Y" "N"	Short Sell/Buy To Cover Flag. Possible values: N: Normal Y: Short Sell/Buy to Cover
13	91	Clearing Member ID	Text	4	Left	Yes		The Clearing Office member identification code.
14	95	Condition	Text	4	Left	No.	" " "AON"	A 4 characters, alphanumeric field which specifies condition of the

No	Offs	Name	Type	Size	Alignment	Required	Possible Values	Notes
							"FOK" "IOC" "MF" "MO" "STOP"	order to be imported. If a STOP condition is specified, then the "Condition Symbol" and the "Condition Value" fields have to be filled as well. If "MO" or "MF" are specified as condition, then the field "Condition Value" must be filled with the MO volume or the MF volume respectively (integers, no decimals).
15	99	Condition Symbol	Text	15	Left	Only if Condition is "STOP"		Holds a valid security symbol or Index name where the "Condition" field is "STOP".
16	114	Condition Value	Text	12	Left	Only if Condition is one of "STOP", "MF", "MO"		Holds the numeric value for the "STOP" condition or the volume for the "MO" condition or the volume for the "MF" condition. For the correct numeric formats please refer to the "Condition Value" entry.
17	126	Duration	Text	3	-	Yes	"DAY" "GTC" "GTD"	The duration of the order. If "GTD" is selected then the "Duration Date" field must be filled with a date greater than the present date.
18	129	Duration Date	Date in YYYYMMDD format.	8	-	Only if Duration is "GTD"		The date parameter required by the "GTD" duration.
19	137	Remarks	Text	25	-	No		An optional description of the order.
20	162	Entry Date	Date in YYYYMMDD format	8	-			The date of the order entry into the system.
21	170	Entry Time	Time in HHMMSS format	6	-			The time of the order entry into the system.
22	176	Order Number	Number	8	-			The order number assigned to this order by the system.
23	184	Grouping ID	Text	6	-	No		The ID of the Group of orders this order will be grouped together

No	Offs	Name	Type	Size	Alignment	Required	Possible Values	Notes
24	190	Position Effect Flag	Text	1	-	Yes	"O" "C"	For use in derivatives omnibus accounting. Indicates whether the resulting position after a trade should be an opening position or closing position. Possible values are: 'O': Open 'C': Close
25	191	Settlement Type Flag	Text	1	-	Yes	"1" "0"	Indicates order settlement period. Possible values: '1': Immediate '0': Regular (R)
26	192	Direct Electronic Access	Text	1	-	Yes	"0" - False "1" - True	
27	193	Client ID	Number	10	-	Yes		
28	203	Client ID Qualifier	Text	1	-	Yes	'A' - Algorithm 'L' - Firm or legal entity 'N' - Natural person " " - Not applied when field Client ID = 0 (NONE) or 1 (INTC) or 2 (PNAL)	
29	204	Investment Decision ID	Number	10	-	Yes		
30	214	Investment Decision ID Qualifier	Text	1	-	Yes	'A' - Algorithm 'L' - Firm or legal entity 'N' - Natural person " " - Not applied when field Investment Decision ID = 0 (NONE)	
31	215	Execution Within Firm ID	Number	10	-	Yes		
32	225	Execution Within Firm ID	Text	1	-	Yes	'A' - Algorithm 'L' - Firm or legal entity	

No	Offs	Name	Type	Size	Alignment	Required	Possible Values	Notes
		Qualifier					'N' - Natural person " " - Not applied when field Execution Within Firm ID = 0 (NONE) or 3 (NORE)	
33	226	Non Executing Broker ID	Number	10	-	Yes		
34	236	Trading Capacity	Text	1	-	Yes	"0" - Deal on own account "1" - Matched principal "2" - Any other capacity	
35	237	Liquidity Provision	Text	1	-	Yes	'0' False '1' True	
			Msg Size	237				*This is not a Field. It only indicates the total Message Size.*

The client can accept prices or index values (in the PRICE and STOP VALUE fields) having no decimal part. The standard format however requires 5 integer and 4 decimal digits.

2.1.1.1. Import Sequence and Verification of Import

The text file is imported into the Equities Trading Workstation client using the "Import Orders" selection from the "Tools" menu of the client. A window appears prompting the user to select the directory and the file name of the orders file (e.g. *orders.txt*) . There is an option for the user to browse through the orders file and inspect its contents. The user then sends the orders to the ETS server. The responses get back to the client, which renames the original file and gives it a new extension ".ren" (e.g. *orders.ren*). The results can be viewed by examining the "STATUS" field of each order, which has been revised by the client to one of the letters "S", "R", "I".

2.1.1.2. Differences Among The English And The Greek Version Of The ETW

The differences are minor; the only things that change are some possible values for some fields and the decimal digits delimiter. In detail, below there is the table of changes:

	Applies to field	From English Version	To Greek Version
1	Side	"B" (=Buy)	"Α" (=Αγορά)
2		"S" (=Sell)	"Π" (=Πώληση)
3	Order Price	"ATO" (=At The Open)	"ΣΑ" (=Στο Άνοιγμα)
4		"ATC" (=At The Close)	"ΣΚ" (=Στο Κλείσιμο)
5		"MKT" (=Market)	"ΕΛ" (=Ελεύθερη)

	Applies to field	From English Version	To Greek Version
6		Price Decimal Digits Delimiter (see below)	Price Decimal Digits Delimiter (see below)
7	Condition	"AON" (=All Or None)	"ΟΗΤ" (=Όλα Ή Τίποτα)
8		"FOK" (=Fill Or Kill)	"ΕΗΑ" (=Εκπλήρωση Ή Ακύρωση)
9		"ΙOC" (Immediate Or Cancel)	"ΑΗΑ" (=Άμεσα Ή Ακύρωση)
10		"MF" (=Minimum Fill)	"ΜΕΜ" (=Με Ελάχιστο Μέγεθος)
11		"MO" (=Multiples Of)	"ΣΠ" (=Σε Πολλαπλάσια)
12		"STOP" (=STOP)	"ΣΤΟΠ" (=ΣΤΟΠ)
13	Duration	"DAY" (=DAY Order)	"ΗΜΕ" (=Ημέρας)
14		"GTC" (=Good unTil Cancel)	"ΚΜΑ" (=Καλή Μέχρι Ακύρωσης)
15		"GTD" (=Good unTil Date)	"ΚΜΗ" (=Καλή Μέχρι Ημερομηνία)

Please note that English and Greek values for various fields within an order line are not mutually exclusive. Therefore, an order line can contain both English and Greek "possible values" for different fields. For consistency and readability reasons, however, this technique is not recommended.

The decimal digits delimiter (for security prices/index values) can be set to either "." (default for English) or "," (default for Greek). The behavior of the client is controlled by the setting "Dates and Numbers" in the "View/Options" menu. This setting controls whether the Greek delimiter (",") should be used by default, or the windows default locale information (which depends upon the language selection when the user logged in) should be used.

2.2.   Importing User Quote Pages

ORAMA provides the user with the ability to import his/her own Quote Pages data from a file. This data contains the actual layout and contents of the each one of the user's quote pages, such as folder names, pages and contents of pages. The order of fields as well as which fields are presented and which fields are excluded on each page, are not covered by this format and must be reapplied manually.

It must finally be pointed out that when importing user quote pages to ORAMA, all previously defined user quote pages will be deleted. In case the user wants to keep his/her previous quote pages, he/she must first proceed to export them in a backup file, using the procedures described in section 3.4 below.

2.2.1.   Import Process
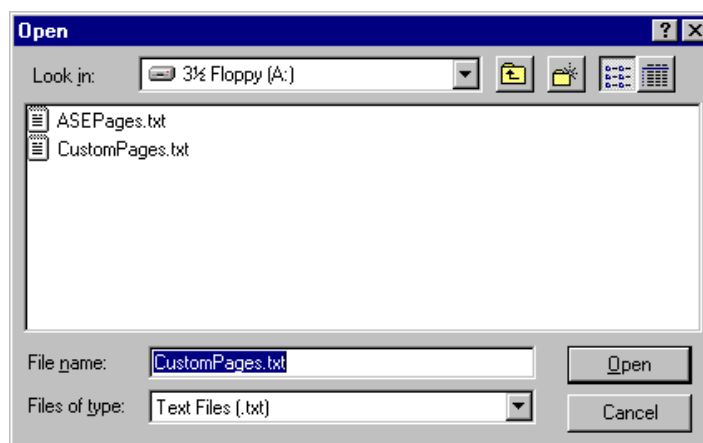
To import the User Quote Pages from a file:

- Right click **on "Quote Pages" on the "View List".**

- A control menu appears with the selections "Export to File" and "Import from File".

- Select "Import to File".

This can be illustrated in the following screenshot:
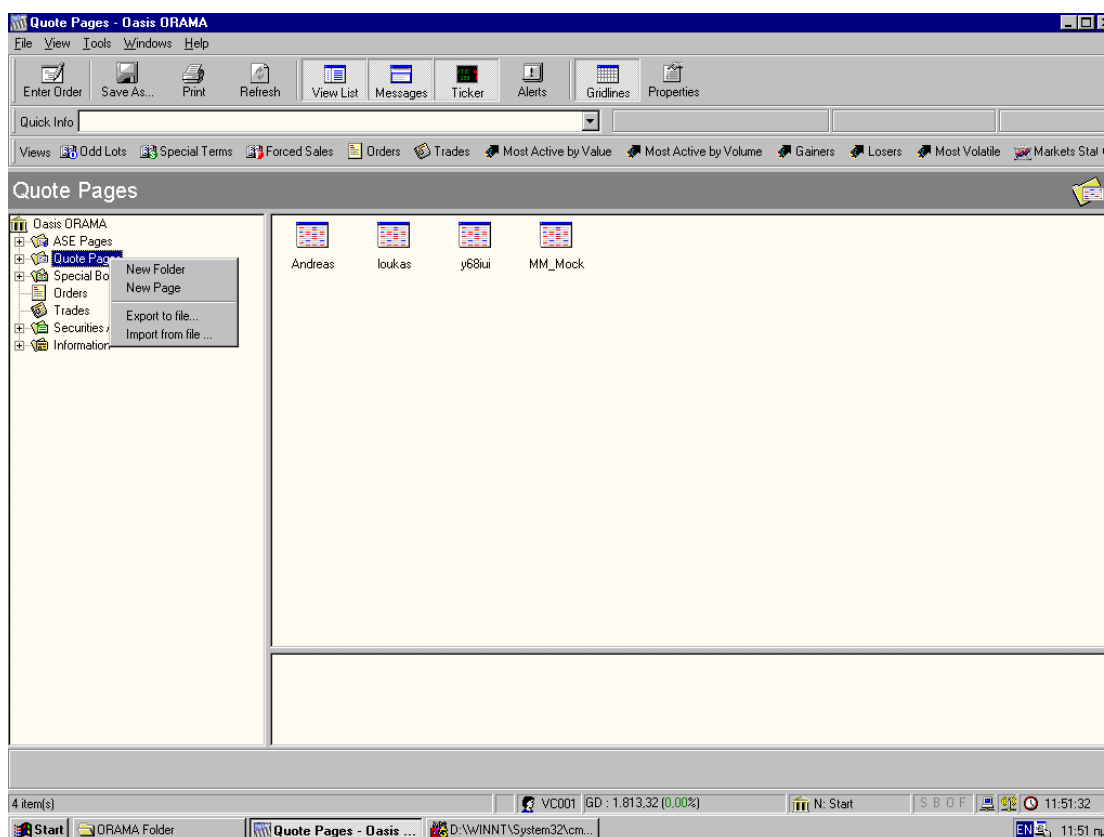
- Select **the location that contains the Quote Pages file.** (For example, lets suppose that we have selected a diskette).

- A message box appears in order to confirm the upload of the file. In this point, it must be noted that since the upload of the new Quote Pages overwrites the existing Quote Pages, the user has to clearly confirm the action by pressing the "OK" button.
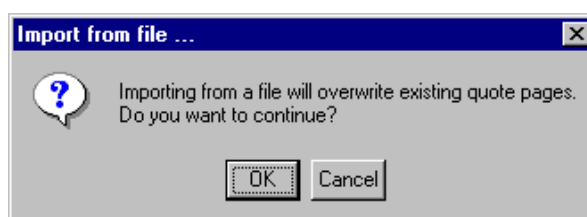
- At this point, the changes must be visible at ORAMA's main window and the importing process is complete.

2.2.2.   Quote Page Import/Export Format

This section describes the format for importing user quote pages from a file. This format is also used for exporting these pages as well as the ASE pages (see section 3.4 below). This information can be used by a user program, which can be used to create custom views in a fast and reliable way.

2.2.2.1.   Format Description

The format is text and line based. Each line describes one and only one entity. Each line starts with an initial word that defines the type of line (and entity declared there). An entity is not allowed to be broken among many lines. No blank lines are allowed. To separate the various fields in each line, space or TAB characters can be used. Each field is enclosed in double quotes (") except the first field that is the type of line. This field can take one of the following possible values (case sensitive):

Type of Line	Parameters	Description
#	None	This is a comment indicator and advises that the rest of the line must be ignored. When exporting such files, ORAMA appends a couple of comment lines, containing some information about the current node and login date/time. This information can be used for distinguishing files from different trading days.
VERSION	2	This indicates the version of the current file and the version of the ORAMA client that has produced it. Currently, when importing, the version of this file must be set to "1".
FOLDER	1	This entry indicates that a folder must be created inside the current folder. The new folder becomes the current folder and subsequent entries will be placed inside it. It is possible to create multiple folders that are contained one inside another, forming a more complex organization of the presented data.

Type of Line	Parameters	Description
		If the parameter contains a "|", then the part before the "|" is interpreted as the English title of the folder and the part after the "|" is interpreted as the Greek title of the folder. If there is no "|" character, then the whole parameter is considered as the folder name, regardless of the selected language in ORAMA. It is invalid to use a line of this type inside the scope of a page (see the PAGE keyword below)
PAGE	1	This indicates that a new page should be created and be placed in the current folder. If the parameter contains a "|", then the part before the "|" is interpreted as the English title of the page and the part after the "|" is interpreted as the Greek title of the page. If there is no "|" character, then the whole parameter is considered as the page name, regardless of the selected language in ORAMA. It is invalid to use a line of this type inside the scope of a page.
SECURITY	1	This indicates to the ORAMA that the security having Symbol equal to the parameter following the SECURITY token must be displayed in the current page. When performing a file import to ORAMA, this field can accept either the Hellenic or the English values of the security Symbol (ORAMA is smart enough to locate the security). When exporting pages from ORAMA, this field contains the security Symbol with respect to the language the ORAMA is using (English or Greek) The same security can be present multiple times within the same page. This is especially useful in conjunction with the SEPARATOR item, to split a page to multiple visual segments. It is invalid to use a line of this type outside the scope of a page (see the PAGE keyword)
INDEX	1	This adds an index to the current page. When performing a file import to ORAMA, the parameter can accept either the Hellenic or the English values of the index Symbol (ORAMA is smart enough to locate the index). When exporting pages from ORAMA, the parameter contains the index Symbol with respect to the language the ORAMA is using (English or Greek) The same index can be present multiple times within the same page. This is especially useful in conjunction with the SEPARATOR item, to split a page to multiple visual segments. It is invalid to use a line of this type outside the scope of a page (see the PAGE keyword)
SEPARATOR	1	This adds a separation line with the specified title inside the current page, right after the last entry described (with a SECURITY/INDEX or even SEPARATOR line). If the parameter contains a "|", then the part before the "|" is interpreted as the English title of the separator and the part after the "|" is interpreted as the Greek title of the separator. If there is no "|" character, then the whole parameter is considered the separator line title, regardless of the selected language in ORAMA. Multiple separators can be used inside the same page and

Type of Line	Parameters	Description
		effectively split it into multiple visual segments.
		It is invalid to use a line of this type outside the scope of a page (see the PAGE keyword)
PAGE_END	None	This denotes the end of the page described above and returns to its containing folder, where other folders, pages, securities, indices or separators can be defined.
		It is invalid to use a line of this type outside the scope of a page (see the PAGE keyword)
FOLDER_END	None	This denotes the end of the current folder and returns to its containing folder, where other folders, pages, securities, indices or separators can be defined. If the current folder was the root folder.
		It is invalid to use a line of this type inside the scope of a page (see the PAGE keyword)

The descriptions above refer to the "current folder" and to the "root folder". The root folder is the folder in ORAMA folders tree (which is displayed at the left of the main ORAMA window) where importing/exporting takes place. When importing the ASE Quote pages, for example, the root folder for the operation is the "ASE Pages". When importing/exporting the user's quote pages, the root folder for the operation is the "Quote Pages". It is, of course, not allowed for an import or export operation to violate the limits of the root folder (e.g. try to define folders at another part of the ORAMA's selection tree).

Regardless whether import or export takes place, a folder structure must be traversed (from a disk file or from the ORAMA's memory, respectively). This happens by inspecting one folder at a time and processing the contents of the folder (which may of course contain many pages and/or subfolders). The "current folder" concept was used above to refer to the folder that is currently being processed. The current folder will consequently start from the root folder and cycle throughout all its (possible) subfolders.

The table below presents the possible root folders, their capability for import/export and the default filenames the ORAMA uses when performing an export (or import if allowed) operation on each folder.

Root Folder (English)	Root Folder (Hellenic)	Importing Allowed	Exporting Allowed	Default Export Filename
ASE Pages	Σελίδες Τιμών ΧΑΑ	NO	YES	ASEPages.txt
Quote Pages	Σελίδες Τιμών	YES	YES	CustomPages.txt

In case of importing files of this type to an ORAMA workstation, due to the fairly complex format, special care must be taken in order not to violate the formatting rules. For example, it is not correct to start a new folder when currently defining a page. The ORAMA application is sensitive to such errors and will produce an error message, indicating the line where the error occurred.

2.2.2.2. Sample File

A Sample File is provided for demonstrative purposes. This file has been tested using an ORAMA client (for this file, a random pick of securities has been performed). The results, after the import of this file are also presented in the form of screenshots.

```
# Custom Quote Pages
```

```
# Node: ETS1   , Session: 20021107 10041627
VERSION "1" "1.642"
PAGE "My Page 1"
   SECURITY "ΑΒΑΞ"
   SECURITY "ΔΕΗ"
   SECURITY "ΕΥΔΑΠ"
PAGE_END
PAGE "Indices|Δείκτες"
   SEPARATOR "Master Indices|Κύριοι Δείκτες"
   INDEX "ΓΔ"
   INDEX "FTSE"
   INDEX "FTSEM"
   INDEX "FTSES"
   SEPARATOR "Other Indices|Λοιποί Δείκτες"
   INDEX "ΔΠΡ"
   INDEX "ΔΑΣ"
   INDEX "ΔΜΤ"
   INDEX "ΔΕΛ"
   INDEX "ΔΕΚ"
   INDEX "ΔΕΠ"
   INDEX "ΔΣΜ"
   INDEX "ΔΚΤ"
   INDEX "ΔΚΛ"
   INDEX "ΔΛΕ"
   INDEX "ΔΟΤ"
   INDEX "ΔΠΛ"
   INDEX "ΔΤΛ"
   INDEX "ΔΤΡ"
   INDEX "ΔΤΠ"
   INDEX "ΔΧΕ"
   INDEX "ΔΒΜ"
   INDEX "ΣΑΓΔ"
   INDEX "ΣΑΠΡ"
PAGE_END
FOLDER "Old Pages|Παλιές Σελίδες"
   PAGE "My Page 1|Σελίδα 1"
      SECURITY "ΑΑΑΠ"
      SECURITY "ΑΑΑΚ"
   PAGE_END
   PAGE "My Page 2|Σελίδα 2"
      SECURITY "ΕΛΑΣΚ"
      SECURITY "ΕΛΑΤ"
      SECURITY "ΕΛΒΑ"
   PAGE_END
FOLDER_END
```
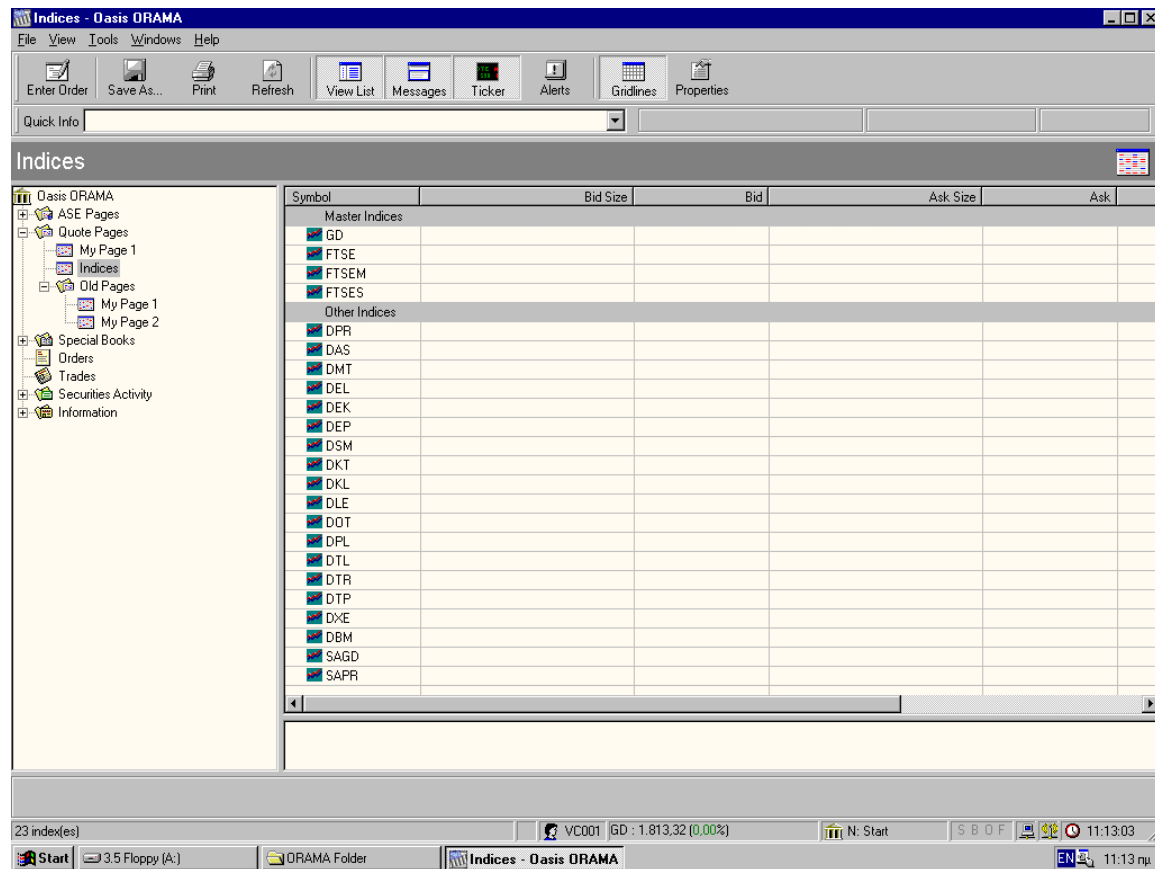
The screenshot, below indicates the results as they can be observed when the user logs in using the English language. A sample page has been selected in this view, and is the page containing the indices. Please note the two separators (lines in gray).

The screenshot, below indicates the results as they can be observed when the user logs in using the Hellenic language. A sample page has been selected in this view, and is the page containing the indices. Please note the two separators (lines in gray). Since no alternative Greek name was used in the definition of the "My Page 1" page, both English and Greek views display it with the same name.

2.3. *Importing Accounts per Clearing ID/Space (ETW)*

An ORAMA user can optionally import a text file containing Account to Clearing ID/Space relationships. Namely, the user can define and save such relationships to a text file and then import them into the ORAMA client application. The application will then automatically set, in its Order/Trade entry windows, the given Clearing ID and Space as the defaults whenever it encounters the respective Account ID. These Account IDs could represent normal Accounts or Accounts of special type (e.g. margin). The special Account types differentiate themselves from the normal ones based on an additional character called Special Type Character. The value of this character can be anything except sharp (i.e. #). This character is used ONLY as an extra key during the Account to Clearing ID/Space mappings; hence, it will not be sent to the trading server as part of the order's Account ID. To enter such special account in the order entry window, the user must enter his/her Account ID in the following format, <**the original Account ID**>/<**Special Type Character**> (e.g. *1234/1*). The '/' character is the delimiter differentiating normal accounts from those of special type ONLY during order entry.

2.3.1. Importing the File
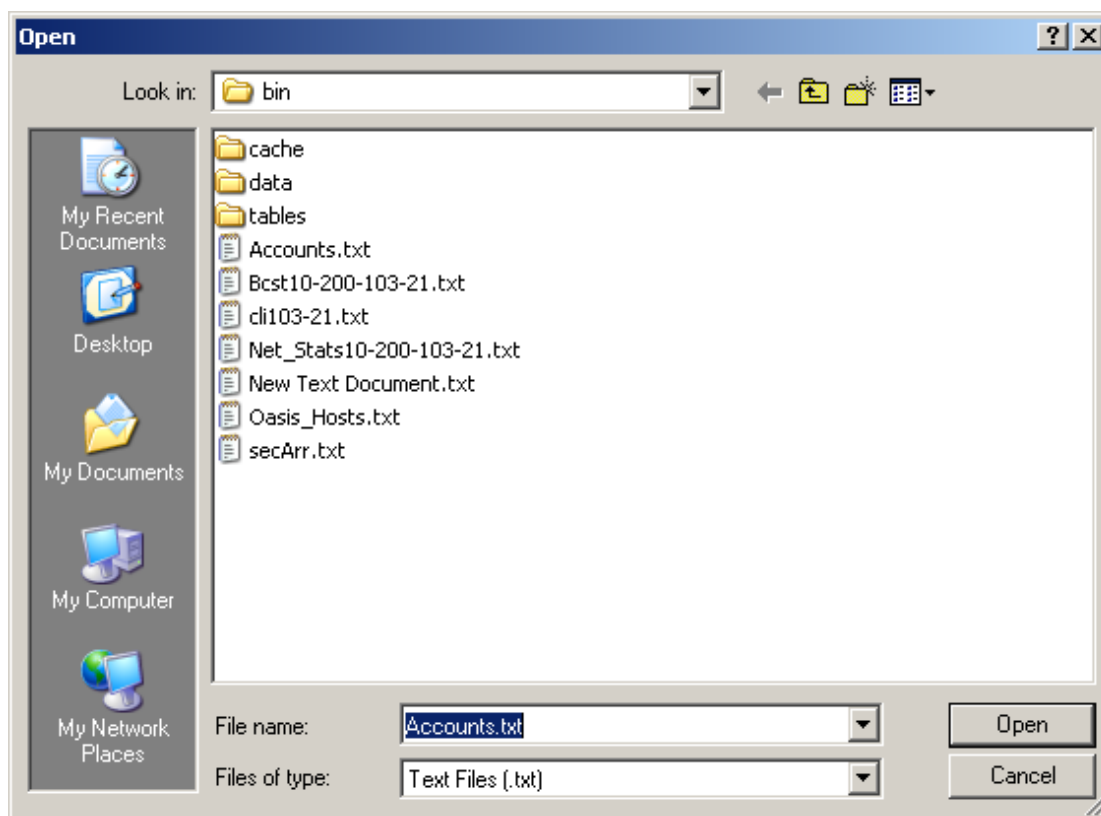
To import the Account per Clearing ID/Space relationships from a file:

Select the **View**->**Options…** menu to display the **Options** dialog box and then click on the **Default Values** tab.
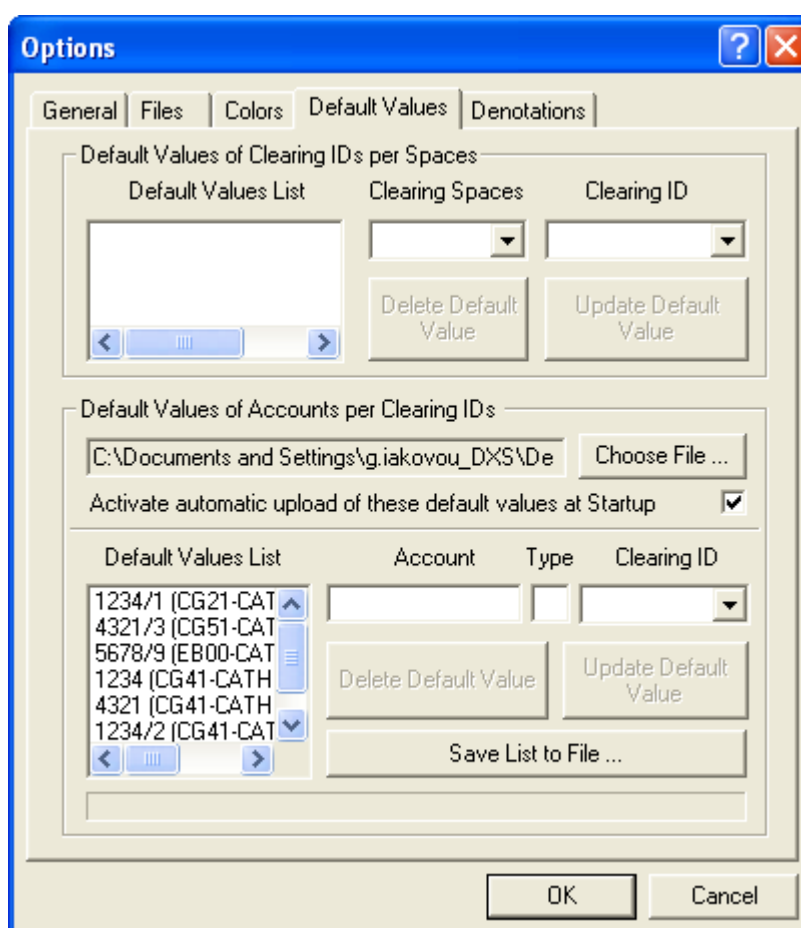
While in this tab, go to the section titled as "**Default Values of Accounts Per Clearing Ids**" and press the **Choose File …** button to display the file selection (i.e. **Open**) dialog box.

While in this dialog, locate the file containing the relationships and press the **Open** button (by default the file's name is set as **Accounts.txt**). The full path of the file being imported will be displayed on the 'Read-Only' text box preceding the **Choose File …** button. If the import procedure terminates successfully then the list box titled as **Default Values List** will contain ONLY the newly imported relationships and a popup dialog box will inform the user of the total number of relationships loaded (e.g. *Import Completed. 100 lines were uploaded*).

Note that during the importing procedure the following errors could be reported back to the user:

1. **Wrong number of characters in Line <line #>. The line will be omitted.**

2. **Wrong Clearing ID and/or Space in Line <line #>. The line will be omitted.**

3. **Could not start uploading the file. Thread Start Error.**

4. **Wrong entry in Line <line #>. The line will be omitted.**

5. **Could not start inserting the Accounts in list. Thread Start Error.**

The first error denotes that the file contains a line whose length is less than twenty-characters long (i.e. for normal account relationships) or greater than twenty-one characters (i.e. for special account type relationships). The second error informs that the user wrote in the file a Clearing ID/Space combination that does NOT exist (e,g, while the valid Clearing ID and Space for a user is CL00 and CATH respectively, the user writes CL00 and CCYS in his/her file). The third error notifies the user that the application could not initiate the thread responsible for the uploading. The fourth error denotes that the given line contains ONLY spaces. The fifth error notifies the user that the application could not initiate the thread responsible for inserting the uploaded relationships into the **Default Values List** control.

REMINDER: The "**Activate automatic upload of these default values at Startup**" box should be checked only if the user wants the selected file to be uploaded automatically by the application during startup. Please note that if for any reason the file does not exist the application will simply skip this step.

2.3.2. Accounts per Clearing ID File Format

The file containing the Account to Clearing ID/Space relationships must have each one of these relationships defined in a different line. Furthermore, the size of each line MUST be twenty-characters long (for normal account relationships) or twenty-one characters long (for special account type relationships), not including the new line delimiter. All required fields must be padded on the right with spaces if their sizes are less than their maximum lengths. For example a relationship with the following characteristics,

- CL0 as Clearing ID

- CATH as Space

- 1234567 as Account ID

must be denoted in the file as "**CL0 CATH1234567   **"(i.e. padded with one and five spaces after the Clearing ID and Account ID respectively).

The following table outlines the format of one such line:

Field	Type	Length	Remark
Clearing ID	Alpha	4	(Required) - The Clearing ID (padded on the right with spaces if the ID's size is less than 4)
Space	Alpha	4	(Required) - The four-letter identification of the Space (padded on the right with spaces if the Space's size is less than 4)
Account ID	Alpha	12	(Required) - The trading Account the given Clearing ID and Space will relate to (padded on the right with spaces if the Account's size is less than 12). The Account ID MUST not contain the characters '/' and '#'
Special Account Type	Alpha	1	(Optional) - The type of this special Account. This character is optional (i.e. can be omitted from the line), but if present it can take any value except '#'

ATTENTION: Because of the special meaning given to the '/' character within an Account ID, we advise the user NOT to define relationships where the original Account IDs contain the '/' character.

3. Exporting Information

3.1. Trade Confirmation

3.1.1. Trade Confirmation Functionality

The user of ETW can receive trade confirmation data in the following cases:

1. If the user is the entry trader or the owner of one of the orders involved in a trade. In the case that both orders of the trade belong to the same user, two trade confirmations will arrive. This sort of trade confirmations are being received only when the entry trader or the owner is logged in and there is no chance of re-getting them at a future time (with the possible exception of case 3).

2. If the user is the rightful supervisor for an order of some other user (=the supervisor with the least user limit making him able to approve the order), when that order is involved in a trade, a trade confirmation message is being sent to the rightful supervisor. This also applies even if the order has been approved by a supervisor, different than its rightful one. This sort of trade confirmations are being received only when the supervisor is logged in and there is no chance of re-getting them at a future time (with the possible exception of case 3).

3. If the user's type is either "Managing Director - View All" or "Member View Only" and the "Retrieve member trades in the background" checkbox under the menu "View/Options/General" is checked, then the user receives trade confirmations for all the users in the firm. All other types of users except "Managing Director - View All" and "Member View Only" are unable to access the "Retrieve member trades in the background" checkbox.

If more than one of the above criteria apply, there will be no duplicate trade confirmation messages. In trades where one or more of the above some of the criteria apply for both the orders involved, two trade confirmation messages will appear, one for the buy order and one for the sell order.

The table below lists the occasions a user type can receive trade confirmations in combination with the contents of the Trade View window on each user's client.

User Type	Trade Confirmation	Trade View Window
Entry Only	Case1	Own Entry Orders
Junior Trader	Case1, Case2	Own + all below in the firm tree
Senior Trader	Case1, Case2	Own + all below in the firm tree
Managing Director – View Own	Case1, Case2	Own + all below in the firm tree
Managing Director – View All	Case1, Case2, Case3	Entire firm
Member View Only	Case 3	Entire firm

When a user receives trade confirmations using the above Case 3 all the confirmations shall appear having the field "Order Date" (see table of fields below) blank.

The confirmation data are being output as of text lines with each line containing a trade confirmation. The lines can then be sent either to a serial/parallel port on the trader's workstation or be accumulated into a file. The location of the file is $ETW_DIRECTORY$\Data\confirm.txt, where $ETW_DIRECTORY$ stands for the directory in the workstation's disk where the ETW is installed. There is no difference in the format, regardless of the destination (serial port, parallel port, file). The format of each line is described below. A special case are the Trade Report confirmations which will be excluded from the output.

3.1.2. Trade Confirmation Format Description

The format is fixed length text, uses one record per line and the lines are separated by newline characters. The following table lists the format of a single line in the Trade Confirmation file (the newline is included).

The [Side] and [Symbol] fields are dependent upon the language selected at login time. If that language is English then English values are used. If that language is Greek then Greek values are used.

|	Name	Type	Size	Justification	Description
1	Trade Time	Time	8	N/A	The time of trade in HHMMSSTH format.
2	Market Id	Char	1	N/A	The market the trade was related to.
3	Board Id	Char	1	N/A	The board in which the trade took place.
4	Space	Char	1	N/A	Separator.
5	Side	Char	1	N/A	Side (buy or sell)
6	Space	Char	1	N/A	Separator.
7	Symbol	Text	15	LEFT	The symbol of the security involved in the trade. If the English client is selected the English security symbol is displayed, in the other case the Greek security symbol is displayed.
8	Space	Char	1	N/A	Separator.
9	Volume	Number	12	LEFT	The trade volume.
10	Space	Char	1	N/A	Separator.
11	Price in Trade Confirm	Number	10	RIGHT	The price of the trade. If the price is integer up to 5 digits, no decimals are displayed. If the price has a decimal part, up to 4 decimals, and the decimal separator are displayed, thus making this field 10 chars long.
12	Space	Char	1	N/A	Separator.
13	Group of Investors flag	Char	1	N/A	Group of Investors Flag Possible values: N: No association to GOI Y: Association to GOI
14	Short flag	Char	1	N/A	Short Sell/Buy To Cover Flag. Possible values: N: Normal Y: Short Sell/Buy to Cover
15	Account	Text	12	LEFT	The Client's Account Code
16	Space	Char	1	N/A	Separator.
17	Trade Number	Number	6	RIGHT	The ID number of the trade.
18	Contra Member Id	Text	4	LEFT	The Contra member ID in the trade.
19	Order Date	Date	8	N/A	The Order Entry Date for the order this trade is related to in YYYYMMDD format.
20	Order Number	Number	8	RIGHT	The order ID the trade is related to. In case of combination trade, the order number of the source combination order is returned
21	Trade Status In Trade Confirm	Char	1	N/A	"X" (ASCII 88) for trade delete, "*" for trade undelete," " (ASCII 32) for normal trade.

	Name	Type	Size	Justification	Description
22	Trader ID	Text	5	LEFT	The current trader's identification code.
23	Member Order Number	Text	16	RIGHT	The content of the "Internal Customer ID" field of the order, the trade is related to.
24	Clearing Member ID	Text	4	LEFT	The Clearing Office member identification code.
25	Order Source	Char	1	N/A	A single character alphanumeric type indicating the source of the Order. Possible values : 'C' CTCI –ODL 'M' ORAMA-ETW 'R' EMRW (ATHEX supervision application).
26	Phase ID	Char	1	N/A	A single character alpha code that identifies the trading phase. Possible values are: " " Start of day (Before the Pre-opening) "P" Pre-opening Trading Phase "O" Opening Trading Phase "T" Continuous Trading Phase "A" At the Closing Price trading Phase "C" Closing Price Continuous Trading Phase "E" End Of Trading Phase "S" Stop phase (Use in auction market)
27	Trade Type	Text	2	LEFT	A 2-character alphanumeric field to identify the type of trade. Possible values: "MB" Main Board Trade "MO" Main Board Opening Trade "MC" Main Board Closing Trade "ST" Special Board Trade "OL" Odd-lot Board Trade "FS" Forced sale Board Trade
28	Newline	Text	2	N/A	Newline characters CR/LF (ASCII 13/10) to force next printing to begin at the beginning of the next line.
		Message Size	*126*		This is not a field. It only indicates the total Message Size.

3.2. Exporting Information from Equities Trading Workstation (ETW)

3.2.1. ETW Working Areas

The Environment of the ETW consists of the following working areas.
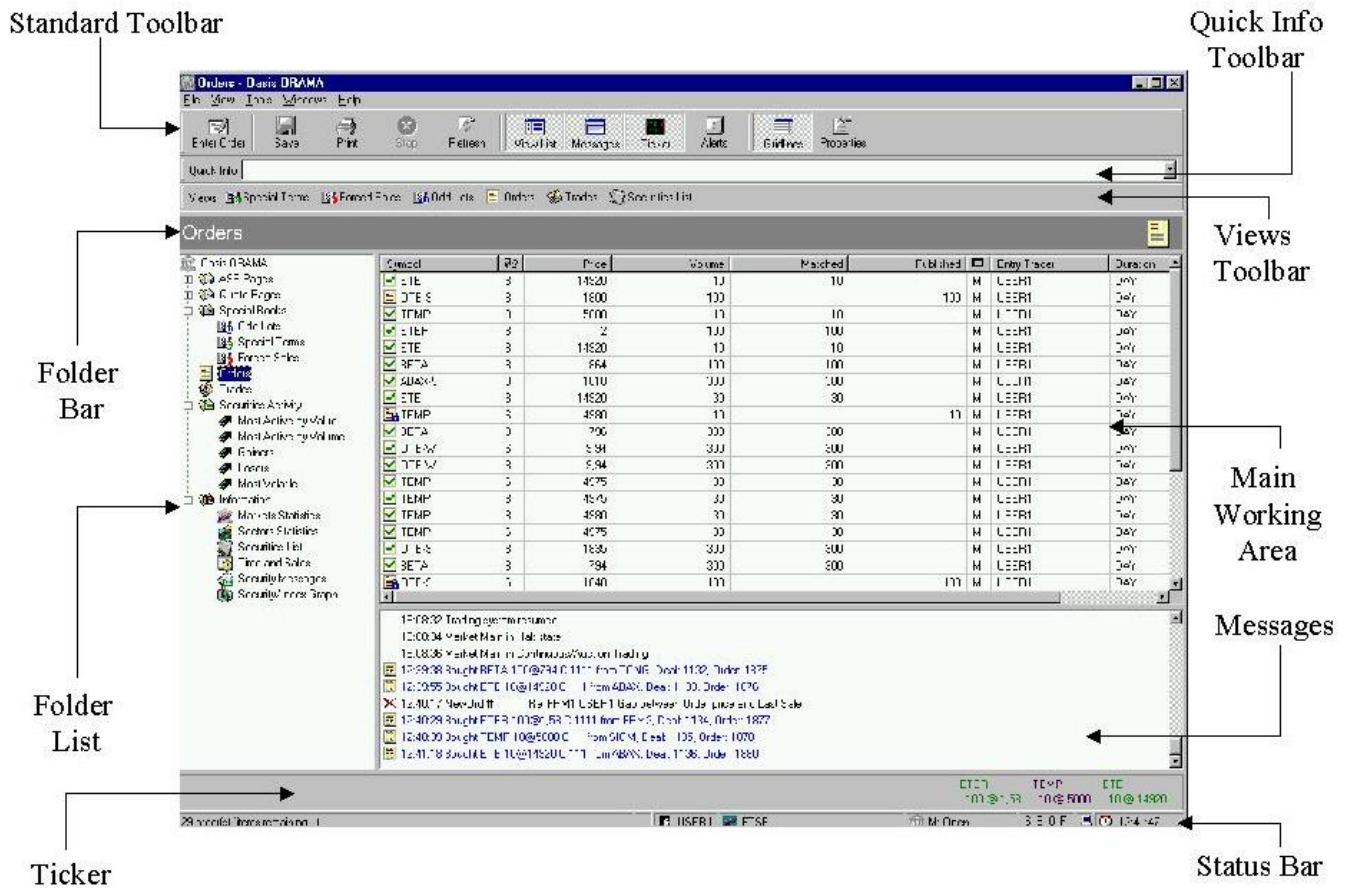
The Main Working Area can display a different window each time, such as Quote Pages, Orders, Trades, Securities Activity and Market Information. Each window display detailed information depending on user selection on the Folder List. Each window is fully customised as regards the exact information that will be displayed and the size of the window.

The customisation can be done by the following interface:
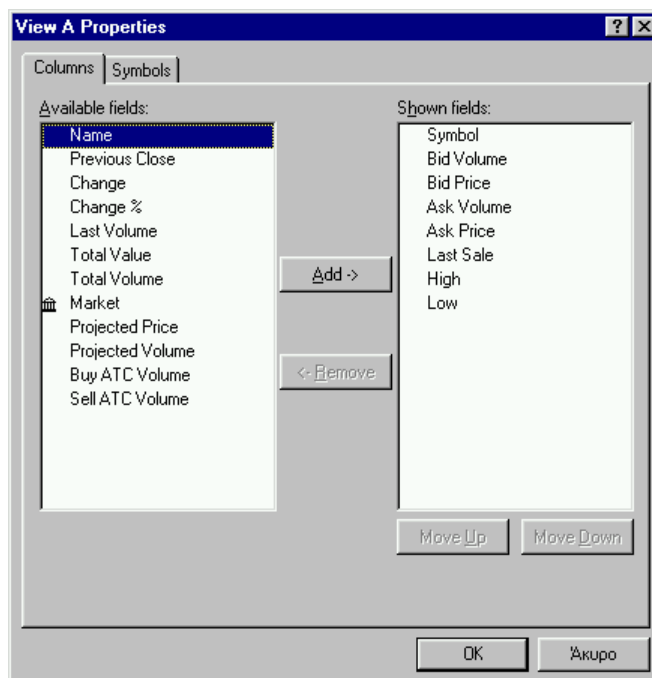
3.2.2. Save

To Save the contents of the Main Working Area in a Text File

- **Click** on **"Save".** The "Save As" dialog box will be displayed.

- **Type** the full path name of the text file in the "File Name" Text Box.

- **Click** on "Save As Type" textbox or **press** TAB to highlight it and **specify** the format of the text file. Supported types are text files and delimited text files.

- **Click** the "OK" button to save.
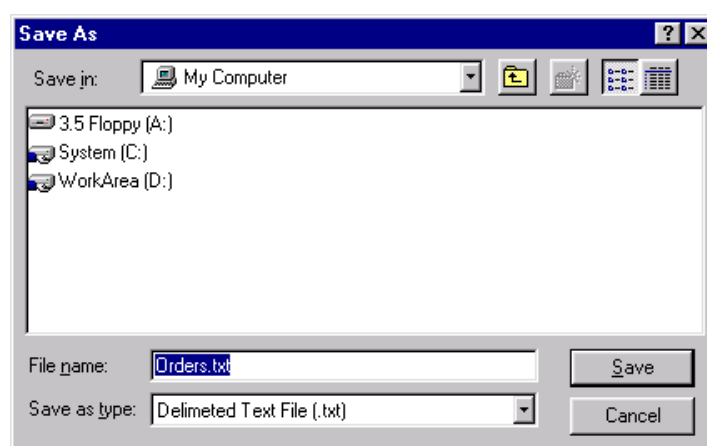
3.2.3. Save As

To save the contents of the Main Working Area in a New Text File

- **Click** on **"Save".** The "Save As" dialog box will be displayed.

- **Type** the full path name of the text file in the "File Name" Text Box.

- **Click** on "Save As Type" textbox or **press** TAB to highlight it and **specify** the format of the text file.

- **Click** the "OK" button to save.

3.3. *Exporting System Configuration Items*

3.3.1. The EtsData.txt file

Each time an ETW workstation logs into the system, it requests an amount of system configuration information that is required for its operation. This information varies from day to day (and within the same trading day) and includes details for critical trading entities such as Indices, Sectors, Securities, Currencies, Price Tick configuration, etc.

Upon each ETW log in, all these information elements are written down into a single file that can be used by an external application. The file is always created upon each new log in, regardless if it previously existed or not. The location of this file is *$(ETWdir)\DATA\EtsData.txt*, where $(ETWDIR) is the directory the ETW application is installed.

3.3.2. File Format

The format of EtsData.txt file is text and line based. Each line carries at most one information entity. When many entities of the same kind are being written in EtsData.txt, each entity is written in its own line, with a format common to all entities of the same kind. This format specifies the fields that are being written for each entities.

The EtsData.txt file is organized into sections. Each section starts by a section label, followed by a line of tab-delimited section field descriptors in the next line. Then, all entities that belong to the section are being written, each one in its own line, following the format of the line of section field descriptors. After the last entity of its kind, a blank line is appended, to denote the end of the section. The primary entities are (case sensitive, in the order they appear in the file):

- DATAFILE
- SECTOR
- CURRENCY
- TICK
- SECURITY TYPE
- OPTION STYLE
- OPTION TYPE
- SECURITY

We will describe the format of each section in detail. Values can have one out of the following types:

- Numeric
- Numeric/Date
- Numeric/Time
- Text
- Quoted Text

All sizes are the maximum allowed. Numeric and Text fields, depending on the case, can take less space than the indicated. Therefore, the maximum possible length is given at the "Size" column of each table. Since all values are tab delimited, there can be no alignment for any of the fields.

Field Name (Section DATAFILE)	Type	Size	Remarks
NVersion	Numeric	2	Version of data file. Current version is "2".

Field Name (Section DATAFILE)	Type	Size	Remarks
sClientVersion	Numeric	1.3 max	Something like "1.694", same number as seen in ETW's information screen.
sETSStartDate	Numeric/Date	8	Server Start Date
sETSStartTime	Numeric/Time	8	Server Start Time
sETSNodeName	Text	8	Node name that serves trading. Typical value will be "ETS1"

Field Name (Section SECTOR)	Type	Size	Remarks
SId	Numeric	6	The Sector ID
sParentId	Numeric	6	Parent Sector ID
qEngSymbol	Quoted Text	12 max +2	English Description of the Sector
qGrSymbol	Quoted Text	12 max +2	Greek Description of the Sector

Field Name (Section CURRENCY)	Type	Size	Remarks
sID	Numeric	2	The currency ID
sSymbol	Text	3	The symbol of the currency
dExchRate	Numeric	9.8 max	The exchange rate regarding the base currency of the system

Field Name (Section TICK)	Type	Size	Remarks
sCurrencyId	Numeric	2	Currency ID (same as in the table of currencies above)
sPriceTickId	Numeric	4	Price tick ID
pLowBoundary	Numeric	5.4 for all securities (*)	Lower Boundary (see below)
pHighBoundary	Numeric	5.4 for all securities (*)	Higher Boundary (see below)
pTickSize	Numeric	5.4 for all securities	Tick size that applies in the price space from from Lower Boundary to Higher Boundary for the particular security type/subtype and Currency ID pair.

Field Name (Section SECURITY TYPE)	Type	Size	Remarks
sID	Text	10 max	The Security Type ID
qSymbol	Text	50 max	The description of the Security Type

Field Name (Section OPTION STYLE)	Type	Size	Remarks
sID	Text	1	The Option Style ID
sSymbol	Text	10 max	The description of the Option Style

Field Name (Section OPTION TYPE)	Type	Size	Remarks
sID	Text	1	The Option Type ID
sSymbol	Text	10 max	The description of the Option Type

Field Name (Section SECURITY)	Type	Size	Remarks
sEngSymbol	Text	15 max	The English symbol of the security being described
sBBGID	Text	12 max	The BBGID code of the security being described
sISIN	Text	12 max	The ISIN code of the security being described
sGrSymbol	Text	15 max	The Greek symbol of the security being described
sVenueId	Text	4	The Venue ID that current security participates into
sMarketId	Text	1	The market ID that current security participates into
sSecurityTypeId	Text	10 max	The Security type ID, as defined in the Security Type table
sCurrencyId	Numeric	2	The currency of the current security, as defined in the Currencies table
sSectorId	Numeric	6	The sector ID, as defined in the Sector table
sPriceTickID	Numeric	4	The PriceTickID, as defined in the price

			ticks table
nLotSize	Numeric	9 max	The lot size of the current security
pStartPrice	Numeric	5.4 for all securities (*)	Start of day price of security
pFloor	Numeric	5.4 for all securities (*)	Floor price of security
PCeil	Numeric	5.4 for all securities (*)	Ceiling price of security
pClosingPrice	Numeric	5.4 for all securities	Closing price of security (0.00 if security has not yet closed)
cShortSellBuy	Text	1	Determines whether short buy/sell methods are allowed for the current security. Possible Values: " " = no short buy/sell is allowed "B" = Short Buy only allowed "S" = Short Sell only allowed "M" = Both Short Buy/Sell are allowed
cOptionStyleId	Numeric	1	The Option Style ID, as defined in the Option Style table (empty for all instruments other than Options)
cOptionTypeId	Numeric	1	The Option Type ID, as defined in the Option Type table (empty for all instruments other than Options)

No difference in the produced file occurs whether the user logs in using the English language, or the Greek language. This makes it easier to standardize the file format (which by itself contains both English and Greek forms for every field in the file that be expressed in English or Greek form respectively).

3.4. Exporting User/ASE Quote Pages

ORAMA provides the user with the ability to export Quote Pages data to a file. The user can export either the ASE Pages or his/her own Quote Pages. The export file is defined following a standard protocol (that has already been presented in section 2.2.2.1 above).

The location of the file may be any Windows valid location such as (a diskette, a local hard drive or a network hard drive) and can be selected during the export process.

3.4.1. Exporting User Quote Pages

 To export the User Quote Pages in a file:

1. Right click **on "Quote Pages" on the "View List".**

2. A control menu appears with the selections "Export to File" and "Import from File".

3. Select "Export to File".

This can be illustrated in the following screenshot:
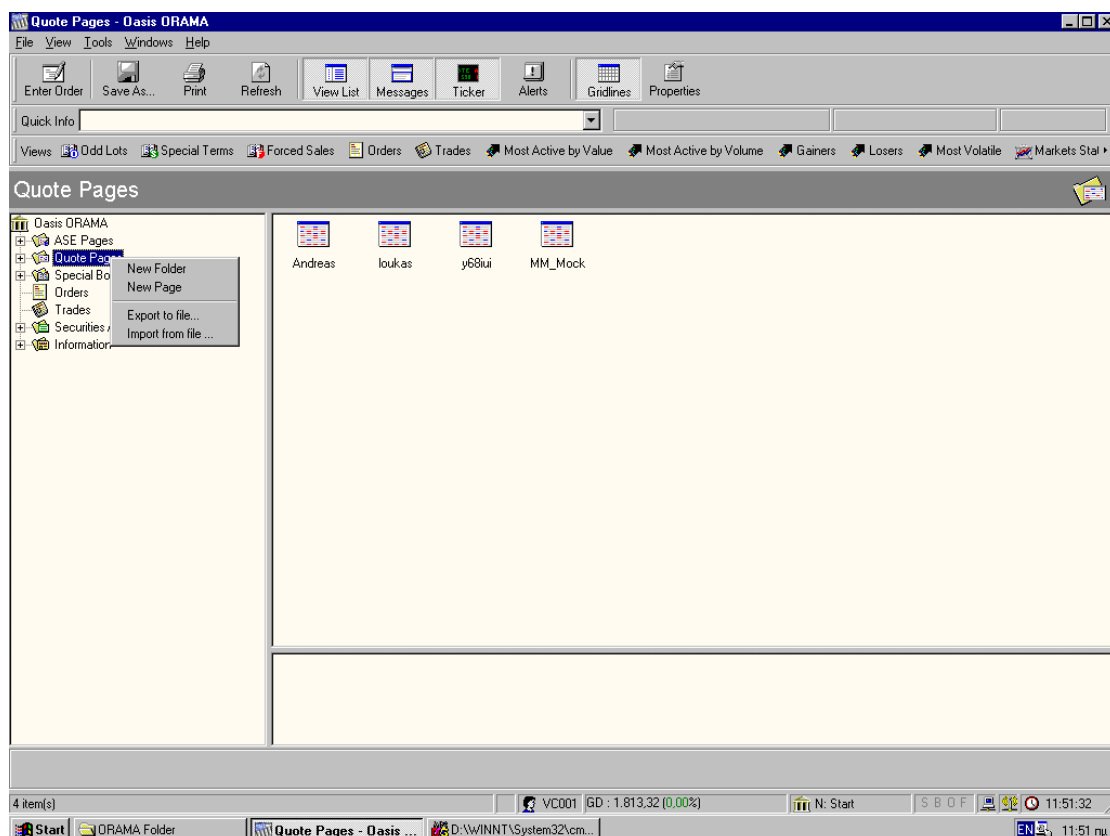
3.4.2. Exporting ASE Pages

The ASE pages are predefined quote pages that display categorized information of general interest. Only authorized ATHEX internal users are responsible for defining and editing these pages. The rest of the users are allowed only to view the information. All functions involving navigating through ASE Pages and viewing the information are the same as in the user's Quote Pages.
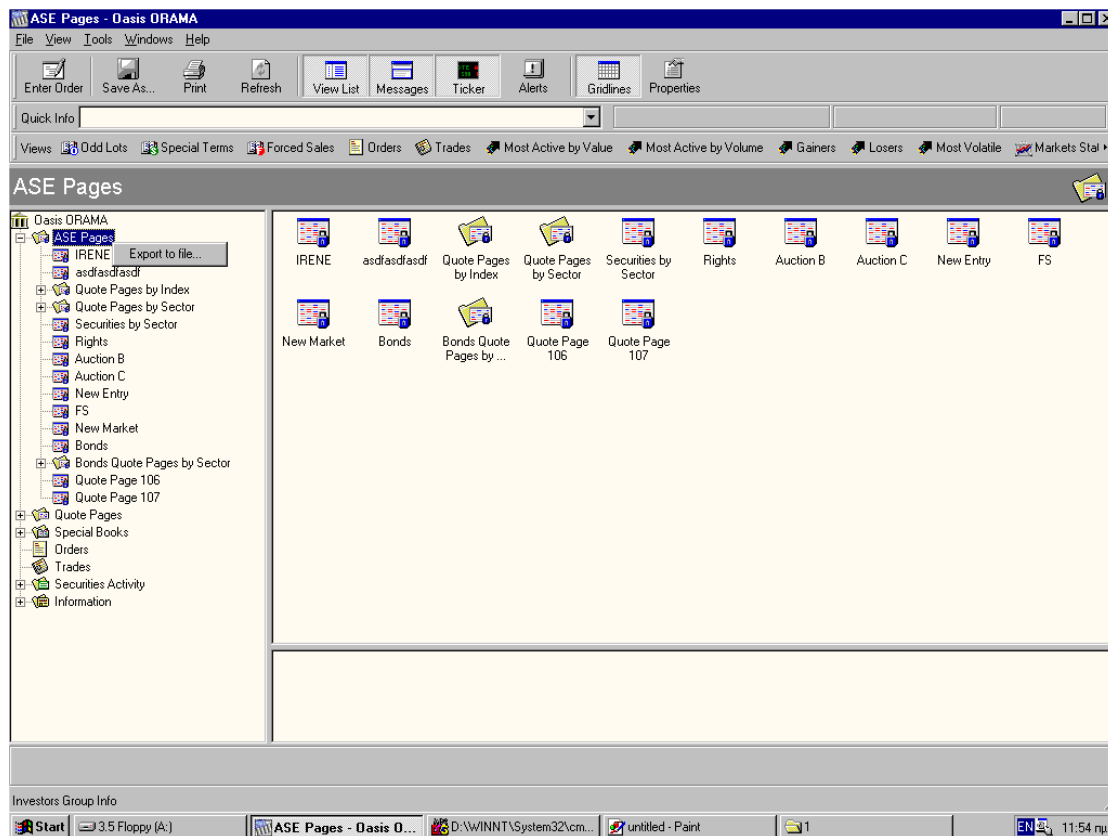
To export the ASE Pages in a file:

1. Right click **on "ASE Pages" on the "View List".**

2. A control menu appears with the selection "Export to File".

3. Select "Export to File".

This can be illustrated in the following screenshot:

3.5. *Exporting Accounts per Clearing ID/Space (ETW)*

An ORAMA user can also export/save to a text file the Account to Clearing ID/Space relationships already stored inside the application's memory.

3.5.1. **Exporting to a File**

To export the Account per Clearing ID/Space relationships to a file:

Select the **View**->**Options…** menu to display the **Options** dialog box and then click on the **Default Values** tab.
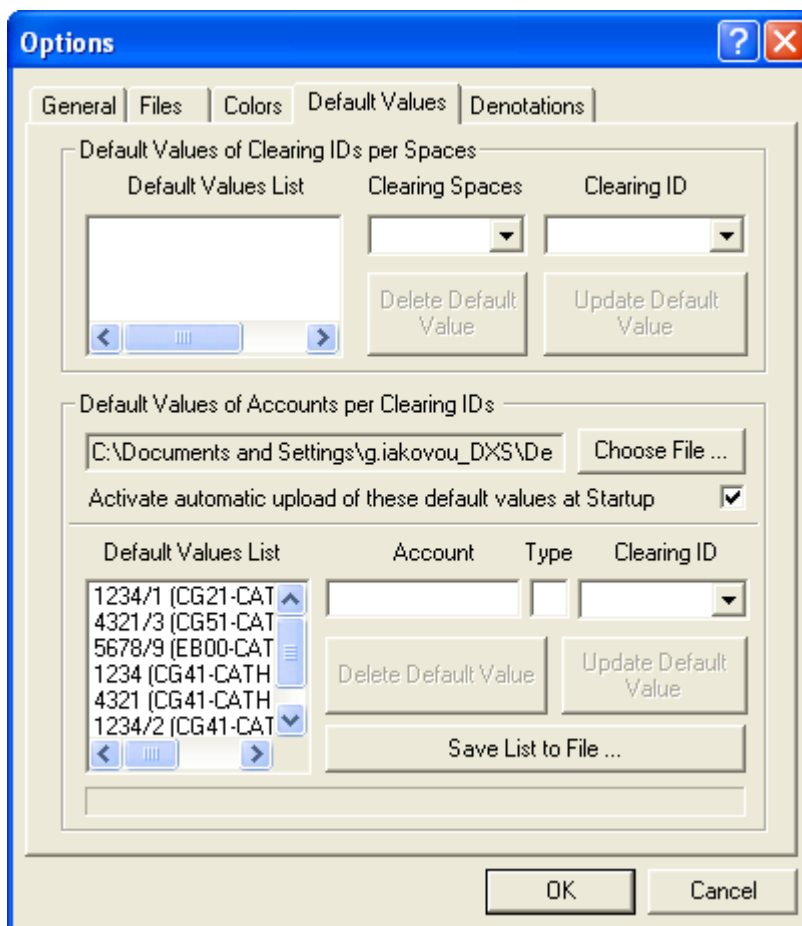
While in this tab, go to the section titled as "**Default Values of Accounts Per Clearing Ids**" and press the **Save List to File …** button to display the file selection (i.e. **Save As**) dialog box.
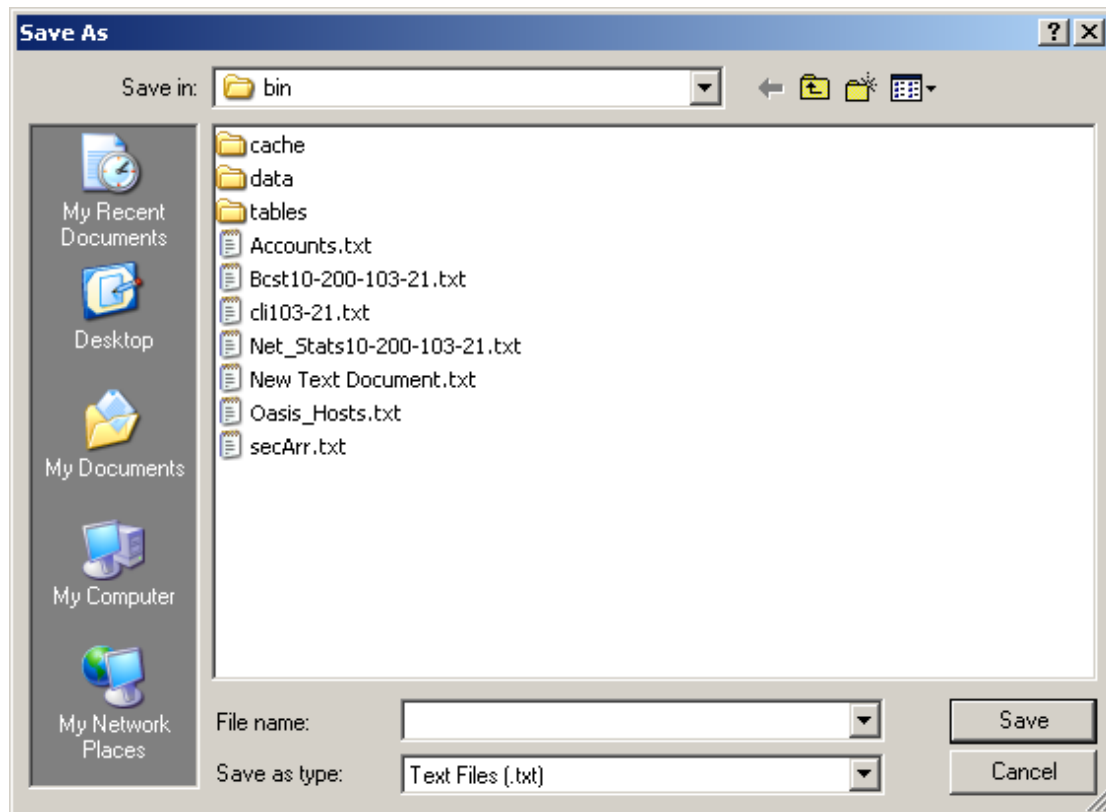
While in this dialog, name or locate the file that will store these relationships and press the **Save** button (by default the file's name is set as **Accounts.txt**). Upon completion the given file will contain the relationships in the same format as the one outlined in paragraph 2.3.2 (Accounts per Clearing ID File Format).

4. Glossary

Term	Definition
Account (client-investor)	The account that a client keeps with a member/firm, through its registered representatives, for placing orders.
Agreed Price Trades	See Pre-agreed Trading
All or None, All or Nothing (AON)	Buy or sell order marked to signify that no partial matching is to be executed. The order will not be automatically cancelled, however if a complete match is not executed; to accomplish that, the order entry must be marked FOK, meaning Fill or Kill.
At the Close (ATC) order	A market order that is to be executed at the closing price on the exchange of the stock named in the order. If it is not executed, the order is cancelled.
At the Open (ATO) order	An order that is to be executed at the Opening Price.
Average price	The average price per share of all trades resulting from a single order. This is a general definition and it depends on the case whether the term "Average" means Volume Weighted or something else.
BBO	See "Best bid and offer."
Best bid and offer	"BBO" The highest price a buyer is willing to pay, and the lowest price a seller is willing to offer, with the quantity they're willing to trade.
Better, or	An order qualifier that is generally assumed to mean "limit price or better." An order will execute at a price no worse than the specified limit price, and may execute at a better price (higher selling price for a sell order or a lower buying price for a buy order).
Block Trades (or Big Packages)	A Block trade is defined as a bilateral trade in excess of a pre-defined value for the product. This trade is done by participants that have select one another by themselves.
Board	A logical trading area within a market wherein a specific trading procedure is utilized. In the OASIS-ETS the following are included: • Main Board • Odd Lot Board • Special Terms (Hit & Take) Board • Agreed Price Board (Pre-Agreed and Cross Trade) • Forced Sales
Broadcasts	Broadcasts are items of public information generated centrally at the Exchange that are transmitted to the market participants in real-time (for example order book changes).
Broker (or Trader)	An ATHEX authorized individual who belongs to a Member and buys and sells financial instruments for the member's own account or on behalf of a Client.
Call Auction	The time when an Auction Price is calculated and orders entered during a Call Auction Phase are executed.
Call Auction Method (CAM)	In call auction method, the system will initially accept all valid order types and execute the orders that can be executed at the calculated "auction" price, after having calculated the "call" or "open" price for

Term	Definition
	each security.
Ceiling	The maximum price a security can trade at during the day.
Closing Price	The price of the last transaction concluded.
Computer To Computer Interface (CTCI)	Stands for "Computer To Computer Interface", which is a complex mechanism consisting of computer systems and proprietary communication protocols that are used to reliably carry all information that is being delivered among the trading system and the ODL endpoints of each member firm that is making use of the ODL services.
Continues Automatic Matching Method (CAMM)	In continuous trading, trades are continuously and automatically being concluded by the system, by executing in real time orders given by the members.
Contra	Contra broker, order, side. The counterpart or counterparty to a trade. The buying broker enters a buy order. The contra side is the contra broker (seller) who entered the contra order (sell order) to which the buy order is matched.
CTCI	See Computer To Computer Interface.
Day order	An order term which specifies that an order's unexecuted quantity should be automatically cancelled by the system at the end of the trading day.
Depth	See "market depth."
Disclosed volume	Or "published volume" This is the quantity of an order that is included in a quote and publicly disseminated.
Duration (Order)	An order term specifying how long unexecuted portions of an order are to stay in the order book before being cancelled. A "day" order has an order lifetime of the trading day it was entered and any unexecuted quantities will be cancelled at the end of the trading day. Other terms include Good unTil Cancelled (GTC) and Good Till Date (GTD).
Equity	Ownership interest possessed by shareholders. (Stock or Fixed Income)
ETS	The Equities Trading Server.
ETS-CDB	The Equities Central Database is the physical database where all files for OASIS-ETS are stored.
ETS-RTDB	The Equities Real Time Database is the database kept in memory of the trading server (ETS) where all data for the daily trading are stored.
ETW	The Equities Trading Workstation is the member's application needed to access the OASIS-ETS.
Fill or kill (FOK) order	An order condition specifying that the order must be cancelled if its entire volume cannot be immediately matched (the order may match against one or more contras).
Floor	The minimum price a security can trade at during the day.
Forced Sales	Type of trading facilitated by the ATHEX to meet the need of selling securities upon judicial or statutory request at irregular time periods in the ATHEX.

Term	Definition
Good until Cancel (GTC order)	A good until cancel order remains in effect until it is matched or cancelled. Unmatched and un-cancelled GTC orders remain in the system for as long as their price is within the ceiling/floor limits for a security. The system will automatically cancel any GTC orders during the start-up period with limit prices outside of the ceiling floor/ limits for a security. For as long as the order is within the ceiling/floor limits it will remain in force there is no expiration of GTC orders.
Good until Date (GTD order)	A good until date order allows the trader to enter a specific date when the order will expire. Unmatched and un-cancelled GTD orders remain in the system for as long as their price is within the ceiling/floor limits for a security. The system will automatically cancel any GTD orders during the start-up period with limit prices outside of the ceiling floor/ limits for a security.
Good until Phase, (GTP order)	A GTP order is good only for the phase (state) in which it is entered.
Hit and Take trading method	By applying this method, the member has two choices; either to enter its order, or to choose to trade with an order already recorded in the system.
Immediate or cancel (IOC)	An order condition which requires immediate execution at the specified price. Any part of the order that cannot be matched immediately is automatically cancelled.
Index	See "market index."
Lifetime, Life	See Duration (Order).
Limit down/up	Maximum price movement up and down for a security or instrument.
Limit order, (LMT)	An order with a specified maximum price or "priced order." An order which specifies the maximum price which a buyer will pay or the minimum price a seller will accept.
Limit price	The maximum price at which an order may be executed. For example, a sell limit order can only be executed at the limit price or higher. Similarly, a buy limit order can be executed only at the limit price or lower.
Lot	The standard unit of trade (e.g. 10). It constitutes a regular unit of trade for a particular security.
Lot – Odd Lot	Securities trade made for less then the Round Lot.
Lot – Round Lot	Unit of trading on a securities exchange.
Market	The valid combination of groups of securities to be traded in a regulated manner by participating Members.
Market control	A term which refers to administrative functions such as opening the market, suspending trading, closing the market, etc.
Market depth	The display of all the available prices in the market, along with the aggregated number of shares available to these prices.
Market index	A market index is a statistical measure, often a weighted average, where individual securities are weighted by their market capitalization or percentage of the overall marketplace.
Market open	The starting time when orders can be entered.

Term	Definition
Match (matching)	Also "execute" or "fill." A "match" occurs when a buy order and a sell order agree on the matching criteria and are combined to create a deal or trade.
Member	An ATHEX regulated firm company that engages in brokerage activities.
Minimum Fill, (MF order)	A Minimum Fill order required that a minimum quantity is required for execution of this order. An order with a minimum fill condition is executed only if the minimum volume (value for Fixed Income securities) can be satisfied.
OASIS	The Integrated Automatic Trading System of Athens Exchange.
Odd lot	An order or trade for less than one round lot.
ODL	See Order Data Link.
Opening price	The price of the first trade of the trading day (whenever happens) in a security, or the price calculated by the trading system at the opening phase (pre-opening phase).
Opening volume	The number of shares of the first trade in a security during the opening process. If no orders are matched during the opening process, this field is left blank throughout the trading day.
ORAMA	The ETW application.
Order	A commitment to buy or sell a specified quantity of a security at an indicated price, subject to any attached terms or conditions. When two orders match, a trade is created.
Order Data Link (ODL)	Stands for Orders Data Link, a service that is optionally offered to the member firms, which allows them to send new orders, order cancellations and order modifications to the Trading System and receive notifications regarding their trading activity and status information. ODL is programmatically materialized through an Application Programming Interface, which can be utilized by developers and integrated in their own applications (see also (CTCI).
Order driven	A term describing a market where price is directly determined by participant orders matching without intermediation, as opposed to a "price" or "quote" driven market where participant orders are matched against market maker quotes.
Order match	The process of comparing orders in the order book to create trades.
Order Types	The individual types and attributes of an order defined by the ATHEX and entered by Members into OASIS, in order to trade in a regulated manner
Partial	Or "partial fill." Partial execution of an order which leaves an unfilled quantity on the order.
Position limit	Maximum amount of securities (position) that can be acquired by an individual holder or group of holders..
Pre – Agreed Trading	This method supports report only trading between the members.

Term	Definition
Pre – Open Period	The period which precedes the Call Auction. During the Pre-Call period orders are allowed to be entered into the system and quotes will be sent to members, but no matching (trading) will take place. Applicable only to Order Driven Trading
Right	Privilege granted to existing shareholders of a corporation. When a company proceeds to a share capital increase, one or more separate securities are created called "right (-s)". The right or the rights of each share are traded separately in the market, for a period of at least one-month. The commencement and the duration of this period is externally defined by the company and is determined by the supervisory authorities of the ATHEX along with the opening price of the right.
Round lot	An order whose size is composed of one or more even round lots as defined by the rules of the ATHEX.
Rules and Regulations	The official document that describes the operational framework of the Derivatives market in Greece.
Share	Unit of equity ownership in a corporation. This ownership is represented by a stock certificate, which names the company and the shareholder. There are many different type of shares such as: common, preferred, bearer, registered.
Stock	Ownership of a Corporation represented by Shares That are claim on the corporation's earnings and assets.
Surveillance	The process of monitoring trading activity and investigating activity to ensure that the rules are being followed.
Tick	Smallest possible price movement of a security.
Tick size	The legal price increment for a given price range, i.e. the price spread increment.
Trade	An agreement to deliver securities/contracts in order to receive money & Vice versa.
Trade number	A unique number assigned to each trade done on the system.
Trading halt	A situation where trading is temporarily stopped in one or more securities with the expectation the security will resume trading at some time during the same trading day.
Trading Method	The method by which financial instruments are traded by Members. The OASIS Trading Methods are: Continuous Automatic Order Matching (CAMM), Call Auction (CAM), Hit & Take, Pre-Agreed, Cross, Forced Sales, Quote Driven with Market Makers.
Trading Phases (or Trading Periods)	A timeframe period wherein a specific activity is allowed to be conducted on a market. For example: Start-up, pre-open phase, continuous trading, closing price trading, and market runoff.
Trading Procedures	The logical grouping of Trading Methods that has common characteristics. The OASIS Trading Procedures are: Order Driven, Agreed Price, Special Auctions, Hit & Take and Quote Driven.